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Self-Employed Women's Association (SEWA) wage insurance experiment

Submission date 04/02/2020	**Recruitment status** No longer recruiting	[X] Prospectively registered [_] Protocol [_] Statistical analysis plan [_] Results [_] Individual participant data [_] Record updated in last year
Registration date 06/02/2020	**Overall study status** Completed	
Last Edited 18/07/2022	**Condition category** Other	

Plain English summary of protocol

Background and study aims

Medical expenses are not the only financial costs people face due to treatment for sickness. An additional cost is lost income due to treatment. In theory, the loss of income following illness may be attributable to an inability to work due to sickness and/or the need to miss work for medical treatment. This project studies the latter component.

Loss of income due to the inability to work during treatment may impact the value of health insurance and the amount of health care utilization. The full cost of medical care has at least four components: the medical bill from providers, the cost of transportation to the provider, the cost of financing medical bills and transportation, and the loss of income during treatment and recovery. Health insurance typically only assists with the first three items at the time of medical care. Thus, like deductibles and co-pays, the lost wages during treatment are a form of coinsurance that increases the price of care at the margin, and thereby deter. These type of losses can reduce the value of health insurance if demand for insurance is decreasing in level of coinsurance. They can also reduce care at the margin relative to having no wage loss during treatment.

This study therefore analyses two "hospi-cash" policies offered by VimoSEWA, an insurance company under the umbrella of the larger SEWA cooperative, that provide fixed indemnity payments for each day a beneficiary is hospitalized, up to some annual maximum. This experiment makes three major contributions. First, the study aims to estimate the demand for and value of a hospi-cash policy, which will help VimoSEWA decide whether to continue offering these products to its 1.4 million members in Gujarat, India. This experiment also has national relevance. Given that the details of the current national public health insurance plan, Pradhan Mantri Jan Arogya Yojana (PMJAY), are still being worked out, the experiment can help inform the National Health Agency, which administers PMJAY, whether PMJAY should include a hospicash component. Second, this study also aims to determine whether, in low-income countries like India, medical treatment has important costs that aren't covered by health insurance. Third, this study contributes to the econometric literature on demand estimation and experimental design, as we estimate bounds on a non-parametric demand function using a novel technique rather than producing point estimates of a parametric demand function.

Who can participate?
Women aged 18 – 54 who currently are not holders of an existing VimoSEWA hospi-cash product.

What does the study involve?
The study involves three pilots—one to determine the coverage and indemnity rates for the two hospi-cash policies we want to offer and two to determine how we price these hospi-cash policies. After these pilots, we randomize SEWA Union members, at the village-level, to one of four distinct price combinations for these products. Based on the fraction of SEWA Union members that purchase each of these products, we estimate bounds on a non-parametric demand function for these products. Using the randomized prices as instruments for uptake of wage insurance, we causally identify the impact of hospi-cash on health insurance uptake, hospital usage, number of days of work, daily wages, asset portfolios, etc. We also estimate adverse selection into and moral hazard from hospi-cash.

What are the possible benefits and risks of participating?
The main benefit to participants is compensation for missing work to seek medical care, and all of the benefits that accrue from seeking medical care. There are no foreseeable risks.

Where is the study run from?
The University of Chicago (USA).

When is the study starting and how long is it expected to run for?
June 2019 to April 2024

Who is funding the study?
Tata Centre for Development (TCD) at the University of Chicago Weiss Fund for Research in Development Economics (USA).

Who is the main contact?
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Additional identifiers

Clinical Trials Information System (CTIS)
Nil known

ClinicalTrials.gov (NCT)
Nil known

Protocol serial number
AEARCTR-0004240

Study information

Scientific Title
Self-Employed Women’s Association Wage Insurance Experiment

Acronym
SWIE

Study objectives
The take-up of a hospi-cash insurance policy, which compensates policyholders for a set amount of money on days they skip work to seek qualified medical treatment, positively impacts the uptake of health insurance and hospital use.

Ethics approval required
Old ethics approval format

Ethics approval(s)
1. Approved 18/06/2019, The University of Chicago Social and Behavioral Sciences Institutional Review Board (1155 E. 60th Street, Room 418, Chicago, IL 60637, USA; +1 (773) 702-2915; sbs-irb@uchicago.edu), ref: IRB19-0219
2. Approved 10/06/2019, Institute for Financial Management and Research Human Subjects Committee (196, Parthasarathy Gardens, TT Krishnamachari Road, Alwarpet, Chennai, Tamil Nadu 600018, India; +91 044 2827 9208; sundar@ifma.ac.in), ref: IRB00007107

Study design
Interventional randomized controlled trial with four treatment arms

Primary study design
Interventional

Study type(s)
Other

Health condition(s) or problem(s) studied
Uptake and use of hospi-cash insurance policy, and its effects on health insurance and hospital use

Interventions
Current interventions as of 18/07/2022:

Randomized controlled trial:
- Products: The researchers offer households the opportunity to purchase one of two hospi-cash policies. These policies provide a fixed indemnity payment for each day a beneficiary is hospitalized, up to some annual maximum. These policies have a coverage cap of 15 days per year and cover a certain number of adults and a certain number of children in each household. The two plans offered cover two adults and three children with a daily indemnity equal to INR 600 (2+3/600) or one adult only with a daily indemnity equal to INR 500 (1+0/500). Respondents pay for these policies on an annual basis.

- Randomization: The researchers offer both products in each village. For both products, there are four distinct village-level price combinations. The researchers randomly assign one of these four price combinations to each village. The researchers ensure these four combinations are represented in equal proportion across our sample. The sample consists of 200 villages and 10,000 households. Our universe is defined by members of the Self-Employed Women's Association, a trade union comprised of low-income, independently employed female workers. The researchers create three blocks within each village based on the age distribution in that village. For villages with household-level income information, the researchers create additional blocks on income within each age block. The researchers then randomly select households within each age block or age x income block to market products to.

- Treatment group: Those who take up one of the two products (2+3/600 or 1+0/500) are in the treatment group. Households elect whether to take up these products.

- Control group: Those who do not take up one of the two products are in the control group. Households in the control group do not receive anything.

-Study overview:
This study will include three pilot surveys, a baseline survey, and an endline survey approximately 18 months after the end of the baseline.

The village and household samples for this study were assembled in two steps. First, we selected 214 villages in Ahmedabad and Gandhinagar districts in Gujarat state. Of these 214 villages, 5 were assigned to a pilot 1 that we used to determine which two hospi-cash policies we would study, 9 were assigned to the pilots 2 and 3 that we used to determine the price conditions for the experiment in the main study. The remaining 200 villages were used for the main study.

Our inclusion criteria for households in the 3 pilot studies and the main study was that households have at least one SEWA member currently living there. (For example, the adult

children of a SEWA member who no longer lives with them were ineligible to participate in the study.) While this criteria affects external validity, it provides a cohesive sample that already trusted SEWA and its financial services arm, VimoSEWA, and is thus likely to be cooperative with our study.

There were no exclusion criteria for pilot 1. For pilots 2 and 3 and the main study, however, we excluded members that were subscribed to VimoSEWA's existing hospi-cash policy. We excluded these members because a member who already has a hospi-cash policy is unlikely to purchase a second policy. Moreover, we are interested in demand for hospi-cash amongst those who do not already have it. We also excluded members below the age of 18 and above the age of 54 from pilots 2 and 3 and the main study, as the hospi-cash policy is not available to individuals outside this age band.

After the pilots, each of the 200 villages in the main study were randomly assigned villages to one of the four possible price-pairs for the two products offered. SEWA will also continue to offer it's standard suite of non-hospi-cash policies to SEWA households.

In advance of the start of marketing, we will conduct a baseline survey of sample households. After marketing, we will gather data from SEWA on which households purchased a hospi-cash policy and which one they purchased. We will also obtain SEWA claims data for all sample households that enroll in a hospi-cash plan. Approximately 18 months after the end of the baseline, we will conduct an endline.

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Previous interventions:

Randomized controlled trial:
- Products: The researchers offer households the opportunity to purchase one of two hospi-cash policies. These policies provide a fixed indemnity payment for each day a beneficiary is hospitalized, up to some annual maximum. These policies have a coverage cap of 15 days per year and cover a certain number of adults and a certain number of children in each household. The two plans offered cover two adults and three children with a daily indemnity equal to INR 600 (2+3/600) or one adult only with a daily indemnity equal to INR 500 (1+0/500). Respondents pay for these policies on an annual basis.
- Randomization: The researchers offer both products in each village. For both products, there are four distinct price combinations. The researchers randomly assign one of these four price combinations to each village. The researchers ensure these four combinations are represented in equal proportion across our sample. The sample consists of 204 villages, ~51 households per village, meaning our full sample consists of 10,450 households. Our universe is defined by members of the Self-Employed Women’s Association, a trade union comprised of low-income, independently employed female workers. The researchers create three blocks within each village based on the age distribution in that village. For villages with household-level income information, the researchers create additional blocks on income within each age block. The researchers then randomly select households within each age block or age x income block to market products to.
- Treatment group: Those who take up one of the two products (2+3/600 or 1+0/500) are in the treatment group. Households elect whether to take up these products.
- Control group: Those who do not take up one of the two products are in the control group. Households in the control group do not receive anything.

Study overview:
This study will include two pilot surveys, a baseline survey, and an end-line survey approximately one year after the end of the baseline. The researchers will be running this experiment in 214 villages in Ahmedabad and Gandhinagar, two districts in the Indian state of Gujarat, which have 30,898 current and former SEWA members.

In both pilots, the researchers conduct surveys in three representative villages in Ahmedabad and two representative villages in Gandhinagar. Within each village, the researchers select 50 representative households, yielding a total of 250 households in the first pilot and 250 households in the second pilot. Villages selected for the pilots are excluded from the main study.

During the first pilot, the researchers implement a willingness-to-pay exercise in five villages in Ahmedabad and Gandhinagar to determine which two products yield the most consumer surplus. The researchers vary the products along two dimensions: indemnity rates (i.e., amount of money paid out when a claim is made) and coverage (i.e., number of people in a household covered). Within each village, the researchers randomly assign 25 households to the insurance product that varies along the indemnity rate dimension, but is fixed along the coverage dimension, and 25 to the insurance product that varies along the coverage dimension, but is fixed along the indemnity rate dimension. The researchers then choose the two products with the greatest consumer surplus.

Approximately two the researcherseks after the first pilot ends, the second pilot will begin. During the second pilot, the researchers conduct another willingness-to-pay exercise focused on the two products selected in the first pilot. This pilot is conducted on survey respondents in a different set of five villages in Ahmedabad and Gandhinagar to determine optimal prices for the two products the researchers've selected after the first pilot.

After the pilots, the researchers randomly assign the remaining 204 villages to one of the four possible price combinations for the two products offered. Again, within each village, the researchers select ~51 representative households, yielding a total of 10,450 households. SEWA representatives will offer the two hospi-cash policies selected in pilot 1 to households in each village at the prices assigned to that village. SEWA will also continue to offer its standard suite of non-hospi-cash policies to SEWA households. This hospi-cash marketing push will last 6 to 9 months.

At the beginning of the marketing push, the researchers will conduct a baseline survey of sample households. After the marketing push, the researchers will gather data from SEWA on which households purchased a hospi-cash policy and which one they purchased. The researchers will also obtain from SEWA claims data for one year for all sample households that enrol in a hospi-cash plan. Approximately one year after the end of the baseline, the researchers will conduct an end line.

Intervention Type
Other

Primary outcome(s)
Current primary outcome measure as of 18/07/2022:

Starting after baseline, we measure 4 primary outcomes measured at the household level for each household in the sample using administrative records:
1. Uptake of each of the 2 selected hospi-cash products
2. Uptake of health insurance products

3. Days of hospitalization, by each adult member and by any minor members of the household
4. Days of hospital treatment reimbursed under the hospi-cash policies.

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Previous primary outcome measure:

Collected during baseline and one year after baseline using a novel questionnaire:
1. Uptake of each of the 2 selected hospi-cash products
2. Uptake of SEWA's health insurance product and savings product
3. Days of hospitalization, by each adult member and by any minor members of the household. In addition, the number of days reimbursed by health insurance.

Key secondary outcome(s))
Current secondary outcome measures as of 18/07/2022:

Collected during baseline, using administrative records, and during endline:
1. Uptake of other insurance and/or financial products
2. Number of days of work in last month and average daily wage on days worked
3. Monthly income
4. Asset index
5. Savings
6. Monthly consumption expenditure (net of medical expenses)
7. Measures of within village consumption inequality (e.g. variance of log consumption for households in a village)
8. Monthly medical expenditures
9. Battery of health and wellness measures

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Previous secondary outcome measures:

Collected during baseline and one year after baseline using a novel questionnaire:
1. Number of days of work in last month and average daily wage on days worked
2. Asset index
3. Savings
4. Monthly consumption budget (net of medical expenses)

Completion date
30/04/2024

Eligibility

Key inclusion criteria
1. Women
2. Ages 18-54 years
3. Currently are not holders of an existing VimoSEWA hospi-cash product

Participant type(s)
Other

Healthy volunteers allowed
No

Age group
Adult

Lower age limit
18 years

Upper age limit
54 years

Sex
Female

Key exclusion criteria
Does not meet inclusion criteria

Date of first enrolment
01/03/2022

Date of final enrolment
30/09/2022

Locations

Countries of recruitment
India

United States of America

Study participating centre
The University of Chicago
Edward H. Levi Hall
5801 South Ellis Avenue
Chicago, IL
United States of America
60637

Study participating centre
Villages in Ahmedabad and Gandhinagar
Gujarat
India
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Sponsor information

Organisation
University of Chicago

ROR
https://ror.org/024mw5h28

Funder(s)

Funder type
University/education

Funder Name
University of Chicago

Alternative Name(s)
UChicago, Chicago, U of C, UChi, The University of Chicago, Universitas Chicaginiensis

Funding Body Type
Private sector organisation

Funding Body Subtype
Universities (academic only)

Location
United States of America

Results and Publications

Individual participant data (IPD) sharing plan
Data generated or analyzed during this study will not be made available for public release.

IPD sharing plan summary
Not expected to be made available

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Other files	Pre analysis plan	15/07/2022	18/07/2022	No	No
Participant information sheet	Participant information sheet	11/11/2025	11/11/2025	No	Yes