

Willingness to Pay for Health Insurance: An Analysis of the Potential Market for Health Insurance in Namibia

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Why Private Health Insurance?



Why Private Health Insurance?

- Impoverishment, ill health and death can be result of inadequate resources to cover health care
 - Evidence shows that 150 million people globally suffer financial catastrophe due to out-of-pocket expenditures
 - Budgets for health in developing countries are constrained and often public expenditures crowd-out private resources
- **Provision of low-cost private voluntary health insurance is one innovative method that is being offered as an alternative to existing situation**

Low-cost Health Insurance Programs

- Dutch NGO Pharmaccess with Health Insurance Fund currently developing low-income health insurance products for a variety of low-income workers in Africa - in about thirty African countries to date
- Grant from the Dutch government –premium subsidized for the first few years to entice even low income households to participate. Steady income flow from these pre-paid schemes allows providers to invest in improvements of health care infrastructure
- Began in 2004 with workplace programs in large int'l companies, providing comprehensive health insurance for the workers, including HIV/AIDS counseling and treatment and treatment of TB and malaria.
- Contracts between insurers and providers guarantee easily accessible and high quality care and an easy mechanism for donor support to subsidize the insurance premiums
- Group insurances are being developed for farmer co-ops, participants of micro-finance schemes, market women, fishermen co-ops, small ICT enterprises, organized coffee growers, and other target groups

Success Depends on Demand

- Determining the demand for the schemes is crucial to ascertain their feasibility, establish prices, and set potential subsidy levels
- Baseline and follow-up surveys in the PharmAccess program-countries gather data on willingness-to-pay for health insurance
- Based on the literature for willingness-to-pay for health insurance we conduct a contingent valuation study using these data from Namibia

WTP for Health Insurance Literature

Authors	Country	WTP Findings
Dror et al. (2007)	India	150- 230 INR (US\$4 -US\$6)per capita/per annum 1.35% of median annual household income
Barnighausen et al. (2007)	China	Informal workers are willing to pay 30 RMB (about US\$4) per member per month -a WTP higher than estimated cost of CBHIS based on past health expenditures
Asfaw, von Braun (2005)	Ethiopia	5 Birr (US\$0.60) per month per member
Asgary et al. (2004)	Iran	US\$2.77 per month
Dong et al. (2004)	Burkina Faso	Mean WTP for themselves (US\$4.80) was twice their mean WTP for the household as a whole
Asenso-Okyere et al. (1997)	Ghana	64% of respondents were willing to pay about Cedi 5000 or US\$3.00/month for a HH of five for a NHI scheme aimed at the informal sector

Namibia: The Hypothetical Insurance Package

The Insurance Card: Benefits of the Potential Health Insurance Scheme

- Unlimited access to private nurse
- Six annual visits to private doctor
- Basic medicines
- HIV Treatment
- Limited private hospitalization, i.e. the doctor only refers to the hospital for urgent medical treatment
- Maternity benefits

The Model

The WTP that equates the two indirect utility functions with and without health insurance can be written as:

$$v[(q^1, y - WTP, X, \pi); \varepsilon_1] = v[(q^0, y, X, \pi); \varepsilon_0]$$

$$WTP = \varphi(q^1, q^0, y, X, \pi, \varepsilon)$$

is the maximum value individuals are willing to forgo to avoid medical expenses associated with illness.

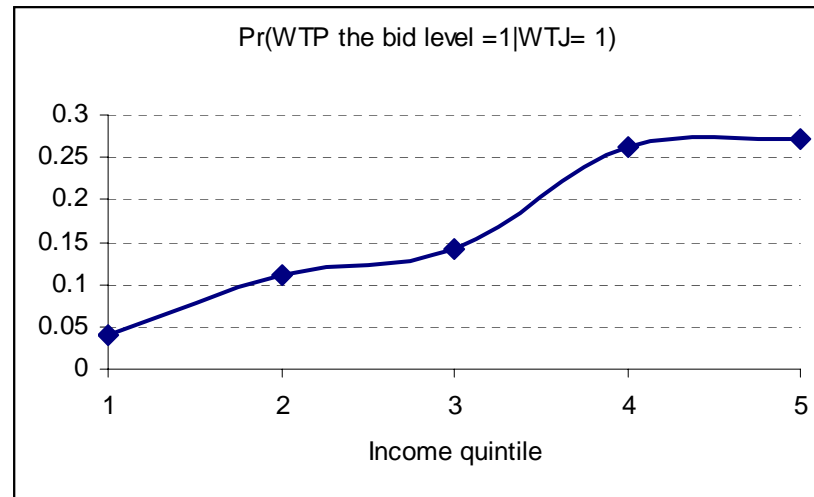
Maximizing the equation results in individuals buying the health insurance policy if:

$$v[(q^1, y - WTP, X, \pi); \varepsilon_1] \geq v[(q^0, y, X, \pi); \varepsilon_0]$$

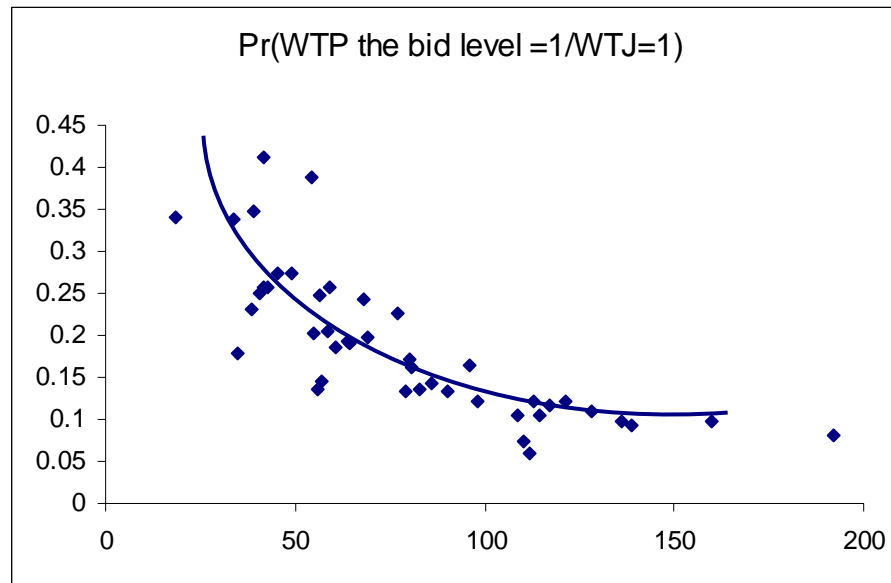
If a discrete yes/no referendum question is asked, and if P represents the bid (premium) level, then

$$\begin{aligned} \Pr(\text{yes} = 1) &= \Pr[v(q^1, y - P, X, \pi); \varepsilon_1] \geq \Pr[v(q^0, y, X, \pi); \varepsilon_0] \\ &\equiv \Phi[\Delta v(\cdot)] \\ &= 1 - \psi(\cdot) \end{aligned}$$

Findings: Probability of WTP Bid Level



Findings: Aggregate Demand for Health Insurance



Findings: Mean WTP for Health Insurance Premia and Expected Health Expenditures

	Expected Health Expenditures per capita/year	Mean WTP/per capita/year	WTP as percentage of mean per capita consumption/year
	N\$	N\$	%
Quintile 1	130	132	4.97
Quintile 2	162	180	3.07
Quintile 3	215	204	1.96
Quintile 4	324	264	1.31
Quintile 5	902	312	0.47
Total	283	252	1.20

Source: Calculations and Estimations based on Republic of Namibia Okambilimbili Survey (2006).

Note: At time of study exchange rate equaled NAD 7.20 to US\$1.00.

Namibia: Summary WTP for Health Insurance

- Almost 87 percent of the uninsured respondents are willing to join the proposed health insurance scheme
- Respondents are willing to insure 3.5 individuals (around 66 percent of the average family size)
- Willing to pay NDR 252 (US\$35) per capita per capita/year
- Those in the poorest income quintile are willing to pay up to 5% of their income, which is almost exactly equal to their current expected out-of-pocket expenditures

Conclusions

- Resources scarce and large proportion are private
- Private health insurance may mitigate risk of catastrophic expenditures and may leverage private resources
- However, success of such programs depends on
 1. Demand for health insurance
 2. Appropriate design of contracts with providers

