A STUDY ON POSSIBLE FEATURES OF POTENTIAL HEALTH INSURANCE SCHEMES FOR THE URBAN INFORMAL SECTOR IN DELHI



K. SREEKANTAN NAIR

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Science in Health Economics Faculty of Economics Graduate School Chulalongkorn University Academic Year 1997 ISBN : 974-639-204-2

Copyright of Chulalongkorn University

Thesis Title	A STUDY ON POSSIBLE FEATURES OF POTENTIAL HEALTH
	INSURANCE SCHEMES FOR THE URBAN INFORMAL SECTOR IN
	DELHI
Ву	: Mr. K. Sreekantan Nair
Programme	: Health Economics
Thesis Advisor	: Asst. Prof. Dr. Siripen Supakankunti, Ph.D.

Accepted by the Graduate School, Chulalongkom University in Partial Fulfillment of the Requirements for Master of Science Degree in Health Economics

Chuliz Dean of Graduate School

Thesis Committee :

Wattama S. Taufu Cenairman

(Assoc. Prof. Dr. Wattana S. Janjaroen)

Lingun Thesis Advisor

(Asst. Prof. Dr. Siripen Supakankunti)

Manson hutelp Member

(Assoc.Prof. Manisri Puntularp)

_hurath NC with the Member

(Asst. Prof. Chanetwallop N.Khumthong)

401285

⁽Prof. Supawat Chutivongse, M.D.)

5712329 : MAJOR HEALTH ECONOMICS KEY WORD: HEALTH INSURANCE / URBAN / INFORMAL SECTOR / DELHI

K. SREEKANTAN NAIR : A STUDY ON POSSIBLE FEATURES OF POTENTIAL HEALTH INSURANCE SCHEMES FOR THE URBAN INFORMAL SECTOR IN DELHI. THESIS ADVISOR : ASST. PROF. DR. SIRIPEN SUPAKANKUNTI, Ph.D. 123 pp. ISBN 974-639-204-2

This study used descriptive and methodological approaches to explore the possibilities of introducing a health insurance scheme for the urban informal sector in Delhi. The data for the study was collected from manual workers engaged in informal sector in Khanpur area of Delhi. The analysis consists of three parts. In the first part, health insurance schemes for informal sector in few countries are reviewed. In the second part, ability to pay (ATP) and willingness to pay (WTP) models are developed to understand the factors that can influence the ATP and WTP of the sample households. In the third part, various possibilities of introducing a health insurance scheme for informal sector in Delhi is examined partly on the basis of the study findings and partly on other available information.

The study showed that on an average the sample households spend 5.57 percent of their monthly income on health care. The per capita health expenditure per year is estimated as Rs. 255.06 (US \$ 7.08). The wage loss due to illness in the households is found to be substantial. The logit regression analysis of ATP and WTP showed household income, percent of income spent on health care and savings are statistically significant factors influencing household ATP for health care. Whereas, education of head of households, family size, number of earning members, ownership of property and households priority on health care are statistically significant factors influencing WTP.

Two alternative health insurance schemes viz; one voluntary and the other employer contributory scheme are designed. The study concludes that the feasibility of introducing an employer contributory scheme in Delhi is limited at the outset. The right path may be a voluntary health insurance scheme covering one region or certain occupational categories. Once the scheme became popular and relevant elements are found feasible, a moderate beginning may be made for employer contributory scheme, while the scope of voluntary insurance may be extended to self-employed.

ภาควิชา Economics สาขาวิชา Heallt Economics ปีการศึกษา 1997

ลายมือชื่อนิสิต
ลายมือชื่ออาจารย์ที่ปรึกษา
ลายมือชื่ออาจารย์ที่ปรึกษาร่วม

ACKNOWLEDGEMENTS

I am deeply indebted to my thesis advisor, Asst. Prof. Dr. Siripen Supakankunti for her enormous help and invaluable guidance helped bring my thesis to completion in time.

I would like to express my gratitude to Assc. Prof. Dr. Wattana S. Janjaroen, chairman of the thesis committee and Assoc. Prof. Manisri Puntularp and Asst. Prof. Chanetwallop N. Khumthong as members for their invaluable suggestions and comments.

My sincere thanks to other faculty members of the Center for Health Economics, and without their help and encouragement the study could not have been completed. Also I would like to extend my sincere thanks to all officials with whom I had the chance to discuss about the issues related to my work particularly, the officials of the Ministry of Public health, Thailand and international organizations.

My study in Thailand would not have been possible without a research and training grant from the British Council (ODA), who kindly provided all financial assistance during my stay in Thailand. I am indebted to Dr.(Ms) H. Helen, Director, National Institute of Health and Family Welfare, New Delhi and all my well wishers for their support and encouragement.

Finally, 1 am forever, indebted to my family members for heartful encouragement, love and pray for my success.

K. Sreekantan Nair

May 1998.

CONTENTS

Abstract Acknowledgement Contents List of Tables List of figures & Diagrams Abbreviations	iv v viii viii
Chapter 1 : Introduction	1
1. Background and Problems	1
1.1 Health and Demographic Scenario in India	2
1.2 Public Financing of Health Sector in India -	
Role of States	4
2. The Problem	6
3. Socio- economic Background of Delhi	7
4. Research Questions	9
5. Research Objectives	
6. Benefits of the Study	10
7. Limitations of the Study	11
Chapter 2 : Literature Review	12
2.1 Informal Sector - An over view	12
2.2 Household Health Expenditure in India	13
2.3 Ability and Willingness to Pay for Health Care	15
2.4 Health Insurance for Informal Sector	
An over view	18
2.4.1 National Health Insurance, Korea	18
2.4.2 Voluntary Health Insurance, Vietnam	20
2.4.3 Community Health Insurance, Philippines	21
2.4.4 Health Card Scheme, Thailand	
2.4.5 National Health Insurance, Japan	23
2.4.6 Co-operative Medical Scheme, China	24
2.4.7 Experiences in Other Countries	25
2.4.8 Role of Non- Government Sector in India	26

2.4.9 A Summary of Review 28
Chapter 3: Research Methodology 33
3.1 The Concept of Health Insurance
3.2 Conceptual Framework 35
3.3 Type of Study 36
3.4 Steps Involved in the Study 36
3.5 First Stage of the Study 37
3.6 Second Stage of the Study 51
Chapter 4 : Data Analysis and Discussion 53
4.1 Household Health Expenditures of Manual Workers 53
4.1.1 Demographic and Socio- economic
Characteristics 53
4.1.2 Illness Profile of the Households
4.1.3 Period of Illness and Restricted Activity
4.1.4 Visits to Health Facility 55
4.1.5 Facility Utilized for Treatment 56
4.1.6 Household Health Expenditure
4.1.7 Direct Health Expenditure
4.1.8 Indirect Health Expenditure
4.1.9 Share of Health Expenditure
4.1.10 Hospitalization Expenditure 60
4.2 Analysis of Ability and Willingness to Pay
for Health Care61
4.2.1 Measurement of Ability to Pay for Health Care 61
4.2.2 Measurement of Willingness to Pay for
Health Care 65
4.3 Sources of Health Care Provision and
Utilization in Delhi 69

Chapter 5 : Health Insurance Schemes for Informal		
Se	ector in Delhi	
5.1	An Evaluation of Existing Health Insurance Schemes 74	
5.2	Requirements for a Health Insurance Scheme 80	
5.3	Major Elements in the Design of a Health	
	Insurance Scheme	
5.4	Design of Health Insurance Schemes	
	for Informal Sector	
Chapter 6 : Conclusion 111		
6.1	Conclusion of the Study111	
6.2 Prospects for Policy Initiatives		
6.3	Guidelines for Scheme Design114	
6.4	Recommendations for Future Research	
References		
Curriculum Vita	ae 123	

vii

LIST OF TABLES

Table Page
1.1 Demographic and Socio-economic Profile of India
1.2 Per Capita Public Expenditure on Health in India (1974-90) 5
1.3 Trends in Basic Demographic Indicators, Delhi,1971-91
1.4 A Comparison of Health Indicators of Delhi and India
2.1 Results of Selected Studies on Household Health Expenditure14
4.1 Demographic and Socio-economic Characteristics of Households 54
4.2 Illness Profile and Treatment Details of Households
4.3 Distribution of Household Health Expenditure By Type of Costs
4.4 A Summary on Share of Health Expenditure
4.5 Average amount of Payment made to Hospital in Major
States and Delhi
4.6 ATP Measurement for Variables
4.7 Logit Model - Ability to Pay vs. No Ability to Pay
4.8 WTP Measurement for Variables67
4.9 Logit Model - Willing vs. Not willing to Pay
4.10 Number of Hospitals and Beds According to Rural/Urban and
by Ownership
4.11 Physician Providers in Major States and Delhi,1991
5.1 Morbidity and Prevalence Rate of the Sample Population
5.2 A Comparison of proposed Health Insurance Schemes
for Informal Sector110

LIST OF FIGURES AND DIAGRAMS

Figure 1	Direct and Indirect Insurance	4
Figure 2	Conceptual Framework 3	5
Figure 3	A Model of Provider Network10	3
Figure 4	A Model of Voluntary Health Insurance Scheme For	
	Informal Sector)4

ABBREVIATIONS

ATP	:	Ability To Pay
CGHS	:	Central Government Health Scheme
CSO	:	Central Statistical Organization
ESIS	:	Employees State Insurance Scheme
FRCH	:	Foundation for Research in Community Health
GICI	:	General Insurance Corporation of India
HCF	:	Health Card Fund
IIM	•	Indian Institute of Management
ILO	:	International Labour Organization
MH&FW	:	Ministry of Health & Family Welfare
MOPH	:	Ministry of Public Health
NCAER	•	National Council for Applied Economic Research
NGO	:	Non Governmental Organization
NIHFW	:	National Institute of Health and Family Welfare
NSSO	:	National Sample Survey Organization
RMP	:	Registered Medical Practitioner
Rs.	:	Rupees (Indian Rupee)
VHS	•	Voluntary Health Services
WHO	•	World Health Organization
WTP	:	Willingness To Pay