COST EFFECTIVENESS OF GOVERNMENT POLICY ON CONTRACTING OUT MIDWIVES AT HEALTH CENTERS: A CASE STUDY OF DONGGALA DISTRICT IN INDONESIA



Mr. BAMBANG WIDODO

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Science in Health Economics

Department of Economics

Graduate School

Chulalongkorn University

Academic Year 1998

ISBN: 974-332-592-1

Thesis Title

: COST EFFECTIVENESS OF GOVERNMENT POLICY

ON CONTRACTING OUT MIDWIVES AT HEALTH CENTERS: A CASE STUDY OF DONGGALA DISTRICT IN INDONESIA

Ву

: Bambang Widodo

Program

: Health Economics

Thesis Advisor

: Assoc. Prof. Isra Sarntisart, Ph.D.

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

.....Dean of Graduate School

(Prof. Supawat Chutivongse, M.D.)

Thesis Committee:

Marijan Rumbulang Chairman

(Assoc. Prof. Manisri Puntularp)

Advisor

(Assoc. Prof. Isra Sarntisart, Ph.D.)

Co-Advisor

(Prof. Pirom Kamolratanakul, M.D.)

P. Jenadachalr Member

(Phitsanes Jessadachatr, Ph.D.)

#59 556 29 : MAJORHEALTH ECONOMICS
KEY WORD COST EFFECTIVENESS / CONTRACTING OUT / MIDWIVES / HEALTH CENTERS /

BAMBANG WIDODO : COST EFFECTIVENESS OF GOVERNMENT POLICY ON CONTRACTING OUT MIDWIVES AT HEALTH CENTERS: A CASE STUDY OF DONGGALA DISTRICT IN INDONESIA.

THESIS ADVISOR: ASSOC: PROF. ISRA SARNTISART, Ph.D. THESIS CO-ADVISOR: PROF. PIROM KAMOLRATANAKUL, M.D.

84 pp. ISBN 974-332-592-1.

The objective of this study is to analyze the effectiveness of Government Policy on Contracting out Midwives at Health Centers in District of Donggala, Central Sulawesi-Indonesia.

The study applied the direct distribution method for cost allocation. It was obtained from the total provider (government) cost such as labor costs, utility costs and operating costs from the budget of Maternal and Child Health Care Project (Proyek Peningkatan Pelayanan Kesehatan Masyarakat). The cost was the true cost of delivery services to patients or target population with regard to Maternal and Child Health care program.

This study employs a purposive (non-probability) sampling by choosing 11 subdistricts of 17 subdistricts in the District of Donggala. Two villages were chosen from each of the 11 subdistricts. One has a Contracted Midwife and another has a Civil Servant Midwife to represent its subdistrict.

This study found that Contracted Midwives consumed the higher proportion of cost compared with the Civil Servant Midwives during their training until they work. The percentage of difference in the effectiveness of the Contracted Midwives performance compared with the Civil Servant Midwives was considerably small but the percentage of difference on the costs consumed between the Contracted Midwives and the Civil Servant Midwives was considerably high. Each Contracted Midwife acquired the higher fringe benefits and salary than that of each Civil Servant Midwife but the performance among them was not so much different.

It is recommended that the policy of contracting midwives should be reformed due to this policy can not produce the expected outcomes. Also the government should reconsider the policy on providing the higher proportion of fringe benefits and salary that the Contracted Midwives acquired. For example, the higher proportion of fringe benefits could be related to the utilization rate of services they performed. The higher utilization rate can significantly reduce the average cost of activity and will increase the effectiveness ratio as well.

This study could be of some practical use as it can introduce ideas and information to policy makers of Ministry of Health, managers of Maternal and Child Health care program and managers of Human Resources Development Division of Ministry of Health. It would be vital to refer and operate more studies in order to apply the results of this research into their works.

ภาควิชา	ECOHOMICS
สาขาวิชา	HEALTH ECONOMICS
ปีการศึกษา	1998

ลายมือชื่อนิสิต / / / / ผู้ ลายมือชื่ออาจารย์ที่ปรึกษา / ผู้

ลายมือชื่ออาจารย์ที่ปรึกษาร่วม คใใหม่

ACKNOWLEDGMENT

First of all, I would like to offer my thankfulness to the mercy of almighty *Allah* Subhanahu wa ta'ala, by the grace of Him I could finish all course with the thesis work.

Also I would like to express my gratitude to Assoc. Prof. Isra Samtisart, Ph.D., my thesis advisor, and Prof. Pirom Kamolratanakul, M.D., my thesis co-advisor for their guidance, support and valuable advice and treasuble time devoted to the improvement of this thesis.

I am deeply grateful to Assoc. Prof. Manisri Puntularp, the chairman of thesis committee and Phitsanes Jessadachatr, Ph.D., a member of thesis committee for their comments, technical guidelines and advice given to me for the completion of my thesis work.

I am very much thankful to Assoc. Prof. Waranya Patarasuk, the Programme Director and all the staff of the Center for Health Economics including all lecturers from which my knowledge and future career would benefit.

Special thanks must go to the ICDC-ADB (Asian Development Bank) Project, which support me the one-year fellowship to study and live in Bangkok.

Finally, I would like to express my deepest gratitude to my parents for their praying and also to my director and other colleagues in District Health Office of Donggala, Central Sulawesi-Indonesia, who provide me the opportunity to attend the course.

Bambang Widodo

May, 1999



CONTENTS

	Page
Abstract	iii
Acknowledgements	iv
Contents	V
List of Tables	vii
List of Figures	χi
Chapter 1 Introduction	1
1.1 Background	1
1.2 The Problem of Statement	4
1.3 Objectives of the Study	6
1.4 Possible Benefit of the Study	6
Chapter 2 Literature Review	7 7
2.2 Interventions of Maternal Health Care	9
Chapter 3 Research Methodology 3.1 Study Design	
3.2 Data/Information Calculation	17
3.2.1 Midwife Training	17
3.2.2 Midwife Performances	18
3.3 Conceptual Framework	19
3.4 Data Analysis	22
3.4.1 Cost Classification	22
3.4.2 Calculation of Capital Costs	22
3.4.3 Calculation of Recurrent Costs	26
3.4.4 Allocation Basis for Calculating the Annual Costs	33
3 4 5 Incremental Analysis	39

1

Chapter 4 Empirical Results and Discussion 4.1 Midwife Training	41 41
4.2 Performance of Midwives	44
4.2.1 Contracted Midwives	44
4.2.2 Civil Servant Midwives	50
4.2.3 Comparison	53
4.3 Incremental Analysis	58
Chapter 5 Conclusions and Recommendations 5.1 Conclusions 5.2 Recommendations 5.3 Limitations of the Study	
References	64
Appendices	
Biography	

LIST OF TABLES

Table		Page
1.1	Ten Leading Causes of Morbidity in District Of Donggala in 1996	2
3.1	Average Annual Cost of Capital Cost Items at Midwife Training School in 1999 price	24
3.2	Summary of Capital Cost at Midwife Training School in Academic Year 1994/1995 (in 1999 price)	26
3.3	Summary of Recurrent Costs at Midwife Training School in Academic Year 1994/1995 (in 1999 price)	28
3.4	Allocation of Salary Cost of Contracted Midwives and Civil Servant Midwives to the Activities in Maternal and Child Health Program in Financial Year 1996/1997 – 1997/1998	30
3.5	Allocation of Operating Cost of Maternal and Child Health Program to Contracted Midwives and Civil Servant Midwives in Financial Year 1996/1997 – 1997/1998	31
3.6	Allocation of Utility Cost of Maternal and Child Health Program to Contracted Midwives and Civil Servant Midwives in Financial Year 1996/1997 – 1997/1998	32
3.7	Summary of Recurrent Cost at Maternal and Child Health Program in Financial Year 1996/199 and 1997/1998	33
3.8	The Annual Costs of each Activity of Contracted Midwives and Civil Servant Midwives in Financial Year 1996/1997 – 1997/1998	38
3.9	The Allocation of Midwife Training Cost to the Activity of Maternal and Child Health Program	39
4.1	Total and Average Cost in training the midwives at the Midwife Training School in Academic Year 1994/1995	42
4.2	A Comparison between Average Cost of Training for Contracted Midwife Students and Civil Servant Students in Academic Year 1994/1995	43
4.3	Total and Average Cost of each Activity performing by Contracted Midwives in Financial Year 1996/1997	44
4.4	Comparison of Cost Components of Activity performing by Contracted Midwives in Financial Year 1996/1997	46

4.5	The Effectiveness of Maternal and Child Health program performed by Contracting Midwives in Financial Year 1996/1997	46
4.6	Total and Average Cost of each activity performed by Contracted Midwives in Financial Year 1997/1998	47
4.7	Cost Effectiveness of Contracted Midwives of Maternai and Child Health program performed by Contracted Midwives in Financial Year 1997/1998	48
4.8	Comparison of Cost Components of each Activity performing by Contracted Midwives in Financial Year 1997/1998	49
4.9	Total and Average Cost of each Activity performing by Civil Servant Midwives in Financial Year 1996/1997	50
4.10	Comparison of Cost Components of each Activity performing by Civil Servant Midwives in Financial Year 1996/1997	51
4.11	Total and Average Cost of each Activity performing by Civil Servant Midwives in Financial Year 1997/1998	52
4.12	Comparison of Cost Components per Activity performing by Civil Servant Midwives in Financial Year 1997/1998	53
4.13	Comparison between the Average Cost of Maternai and Child Health program in Financial Year 1996/1997	54
4.14	Comparison of the Effectiveness of Maternal and Child Health program in performing by midwives in Financial Year 1996/1997	55
4.15	Comparison between the Average Cost of Maternal and Child Health program in Financial Year 1997/1998	55
4.16	Comparison of the Effectiveness of Maternal and Child Health program performed by midwives in Financial Year 1996/1997	56
4.17	Total and Average Cost of MCH Program performing by Civil Servant Midwives in Financial Year 1996/1997 – 1997/1998	57
4.18	The Annual Total Cost of Contracted Midwives and Civil Servant Midwives in Financial Year 1996/1997 – 1997/1998	58
4.19	Incremental Cost of Maternal and Child Health program performed by midwives in Financial Year 1996/1997	59

A.1	Average Annual Cost of Capital Cost Items at Midwife Training School in 1999	66
A.2	Allocation of Annual Cost of Capital Cost Items at Midwife Training School in Academic Year 1994/1995 (in 1999 price)	67
A.3.	Annual Recurrent Cost of Salary at Midwife Training School in 1999	68
A.4.	Allocation of Recurrent Cost at Midwife Training School in Academic Year 1994/1995	69
A.5	Total and Average Cost in Training the Midwives at Midwife Training School in Academic Year 1994/1995	70
A.6	Allocation of Salary Cost of Contracted Midwives and Civil Servant Midwives to the Activities in Maternal and Child Health Program in Financial Year 1996/1997 – 1997/1998	71
A.7	Allocation of Operating Cost of Maternal and Child Health Program to Contracted Midwives and Civil Servant Midwives in Financial Year 1996/1997 – 1997/1998	72
A.8	Allocation of Utility Cost of Maternal and Child Health Program to Contracted Midwives and Civil Servant Midwives in Financial Year 1996/1997 – 1997/1998	73
A .9	The Annual Costs per Activity of Contracted Midwives and Civil Servant Midwives in Financial Year 1996/1997 – 1997/1998	74
A.10	The Comparison of the Performance amongs midwives related to the Effectiveness of Maternal and Child Health Program in Financial Year 1996/1997 – 1997/1998	75
A.11	Detail Costs of the Pregnant Women Services in Maternal and Child Health Program performed by Contracted Midwives and Civil Servant Midwives in Financial Year 1996/1997 – 1997/1998	77
A.12	Detail Costs of the Delivery Aids in Maternal and Child Health Program performed by Contracted Midwives and Civil Servant Midwives in Financial Year 1996/1997 – 1997/1998	78
A.13	Detail Costs of the Postnatal Services in Maternal and Child Health Program performed by Contracted Midwives and Civil Servant Midwives in Financial Year 1996/1997 – 1997/1998	79
A.14	Detail Costs of Utility in Maternal and Child Health Program performed by Contracted Midwives and Civil Servant Midwives in Financial Year 1996/1997 – 1997/1998	79

A.15	Total Target and the Coverage of Pregnant Women Services performed by Contracted Midwives and Civil Servant Midwives in Financial Year 1996/1997 to 1997/1998	81
A.16	Total Target and the Coverage of Birth Attendants Services performed by Contracted Midwives and Civil Servant Midwives in Financial Year 1996/1997 to 1997/1998	82
A.17	Total Target and the Coverage of Postnatal Care Services performed by Contracted Midwives and Civil Servant Midwives in Financial Year 1996/1997 to 1997/1998	83

LIST OF FIGURE

	Page .
Conceptual Framework	20