



## CHAPTER 4

### EMPIRICAL RESULTS AND DISCUSSION

#### 4.1 MIDWIFE TRAINING

It was found that the maximum cost component of Midwife Training costs was the material cost, followed in order by the labor cost and capital cost.

The percentage of costs shared by material, labor and capital costs was 63.07 %, 21.71 % and 15.22 % respectively (Table 4.1).

57.98 % of the total cost or Rp. 185,126,600 were allocated to train the Contracted Midwife Students, while 42.04 % or Rp. 134,368,314 were allocated to the Civil Servant Midwife students. It implies that the cost to train the Contracted Midwife Students is higher than that of the Civil Servant Midwife students. That difference was due to the Contracted Midwife Students acquired a scholarship amounts to 13.5 % of the total cost during their study period at the Midwife Training School. It was also found that the average cost of training per one Contracted Midwife Student was Rp.4,629,542 or 1.45 % of the total cost. It was higher than compared with that of training per one Civil Servant Midwife student (1.08 % of the total cost or Rp. 3,443,929).

Table 4.1 Total and Average Cost in Training the Midwives at the Midwife Training School  
in Academic Year 1994/1995

(in units of Rupiah)

Cost Items	CM Student Cost per year	CM Cost/ student (Average cost)	% of TC/ Stud.	CSM Student Cost per year	CSM Cost/ student (Average cost)	% of total cost/ student	Total cost/ Year	% of total cost/ year
1	2	3	4	5	6	7	8	9
Capital costs	24,779,908	619,498	13.38	23,252,136	611,593	17.76	48,532,044	15.22
Labour costs	35,738,571	893,464	19.30	33,529,773	862,302	25.04	69,368,344	21.71
Material Costs	59,225,131	1,480,628	31.98	55,730,481	1,423,987	41.49	114,955,612	35.98
Utilities costs	7,949,744	198,744	4.29	7,480,660	191,812	5.57	15,430,404	4.83
Travel Costs	10,254,152	256,354	5.54	9,649,093	247,413	7.18	19,903,245	6.23
Other costs	47,234,158	1,180,854	25.51	3,971,107	101,823	2.96	51,205,265	15.03
<b>Total</b>	<b>185,181,664</b>	<b>4,629,542</b>	<b>100</b>	<b>134,313,250</b>	<b>3,443,929</b>	<b>100</b>	<b>319,494,914</b>	<b>100</b>

Notes:

- Total number of CM Students = 40 students
- Total number of CSM Students = 39 students
- Column 3 = Column 2/40
- Column 4 = (Column 3/4,629,542)\*100
- Column 6 = Column 5/39
- Column 7 = (Column 6/3,443,929)\*100
- Column 8 = Column 2 + Column 5
- Column 9 = (Column 8/319,494,914)\*100 .

However the Civil Servant Midwife students consumed more material costs than that of the Contracted Midwife Students.

The percentage of total unit cost shared by material, labor and capital costs was 31.98 %, 19.30 % and 13.38 % respectively, of the total unit cost for the Contracted Midwife Students. While the material, labor and capital costs for the Civil Servant Midwife students had the shares of 41.49 %, 25.04 % and 17.76 % respectively, of the total unit cost.

By comparison, the capital cost for the Contracted Midwife Students was 1.04 times that of the Civil Servant Midwife students. The higher capital costs here were caused by the greater number of students trained and the volume of the capital items used. Annual cost of labor, material, utilities and travel cost for the Contracted Midwife Students were 1.06 times of the Civil Servant Midwife students. While the annual other costs for the Contracted Midwife Students were 12 times of the Civil Servant Midwife students. It was caused by the Contracted Midwife Students acquired a scholarship. Finally, the total cost of training (capital plus recurrent cost) for the Contracted Midwife Students was 1.38 times of the Civil Servant Midwife students.

It should be noted that the above discussion is the cost of all students. Since the number of Contracted Midwife and Civil Servant Midwife students are different, what is now to be concerned is the average cost. It was found that the average overall cost of training of the Contracted Midwife Students was 34.42 % higher than that of the Civil Servant Midwife students.

Table 4.2

A Comparison between Average Cost of Training for CM Students and CSM Students  
in Academic Year 1994/1995

Students Group	Average Cost of Training per student	% of cost difference
Contracted Midwives	Rp. 4,629,542	34.42 % higher than CSM
Civil Servant Midwives	Rp. 3,443,929	34.42 % lower than CM

As summary, the average cost of training per student of the Contracted Midwife Students in Midwife Training School was higher than that of the Civil Servant Midwife students. This was caused by the difference of fringe benefits the Contracted Midwife Students acquired through a scholarship policy.

## 4.2 PERFORMANCE OF MIDWIVES

### 4.2.1 Contracted Midwives

In the analysis of the cost of services with regard to Maternal and Child Health program performed by the Contracted Midwives it was found that the maximum cost component was the operating cost, followed in order by labor cost and utility cost in Financial Year 1996/1997. The percentage of cost shared by the operating cost, labor cost and utility cost in Financial Year 1996/1997 was 59.1 %, 24.6 % and 16.4 % respectively.

Table 4.3 Total and Average Cost of each Activity performing by Contracted Midwives  
In Financial Year 1996/1997

Cost Items	Annual Cost of each activity			Average cost			% cost share by item			Total cost/year	% of Total Cost/Year
	PW	DA	PC	PW	DA	PC	PW	DA	PC		
1	2	3	4	5	6	7	8	9	10	11	12
Labour	469,149	2,952,766	301,596	957	11,489	957	7.5	48.1	10.8	3,723,511	24.6
Operating	4,620,455	2,580,340	1,744,458	9,430	10,040	5,538	74.1	42.1	62.7	8,945,253	59.1
Utility	1,143,496	599,752	735,104	2,334	2,334	2,334	18.3	9.8	26.4	2,478,352	16.4
<b>Total Cost</b>	<b>6,233,100</b>	<b>6,132,858</b>	<b>2,781,158</b>	<b>12,721</b>	<b>23,863</b>	<b>8,829</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>15,147,116</b>	<b>100</b>

Notes:

PW = Pregnant Women Services

DA = Delivery Aid Services

PC = Postnatal Care Services

Column 5,6,7 = Column 2,3,4 divided by its output (Detail data are on Appendix)

Column 8 = (Column 5/12,721)\*100

Column 9 = (Column 6/23,863)\*100

Column 10 = (Column 7/8,829)\*100

Column 11 = Column 2 + Column 3 + Column 4

Column 12 = (Column 11/15,147,116)\*100

However, the operating cost and utility cost play a lesser role in Delivery Aid services than in Pregnant Women services and Postnatal Care services. In Financial Year 1996/1997 at Delivery Aid services, the operating cost and utility cost had the shares of 42.1 % and 9.8 % respectively of the total unit cost or of the average cost of output. In Pregnant Women services, the operating cost and utility cost had the shares of 74.1 % and 18.3 % respectively of the total unit cost or of the average cost of output. And in Postnatal Care services was 62.7 % and 26.4 % of the average cost of output.

On the other hand the labor cost plays a higher role in Delivery Aid services than in Pregnant Women services and Postnatal Care services. In Financial Year 1996/1997 at Delivery Aid services, the labor cost had the shares of 48.1 % of the average cost of output. While in Postnatal Care services, the labor cost was 7.5 % of the average cost of output and 10.8 % in Pregnant Women services.

It was found that the average cost of activity performed by Contracted Midwives in 1996/1997 was as follows:

- a. Rp. 12,721 for Pregnant Women services
- b. Rp. 23,863 for Delivery Aid services
- c. Rp. 8,829 for Postnatal Care services

See on Table 4.3 mentioned above.

By comparison, in Financial Year 1996/1997 the total cost of Pregnant Women services performed by Contracted Midwives was 1.02 times of Delivery Aid service cost and 2.24 times of Postnatal Care service costs. It implies that the cost of Pregnant Women service is higher than other activities.

Table 4.4 Comparison of Cost Components of Activity performing by Contracted Midwives  
In Financial Year 1996/1997

Cost Items	Annual Cost of each activity			Comparison
	PW	DA	PC	
1	2	3	4	5
Labour	469,149	2,952,766	301,596	PW Cost 0.16 times of DA cost & 1.56 times of PC cost
Operating	4,620,455	2,580,340	1,744,455	PW Cost 1.79 times of DA cost & 2.65 times of PC cost
Utility	1,143,496	599,752	735,104	PW Cost 1.91 times of DA cost & 1.56 times of PC cost
<b>Total Cost</b>	<b>6,233,100</b>	<b>6,132,858</b>	<b>2,781,155</b>	<b>PW Cost 1.02 times of DA cost &amp; 2.24 times of PC cost</b>

Notes:

PW = Pregnant Women Services

DA = Delivery Aid Services

PC = Postnatal Care Services

In term of the effectiveness of the activity, the most effective of the activity performed by Contracted Midwives in Financial Year 1996/1997 was the Pregnant Women services, followed by the Postnatal Care services. Those effectiveness were 90.24 % of the total coverage target for Pregnant Women services and 63.89 % for the Postnatal Care services.

Table 4.5

The effectiveness of Maternal and Child Health care program performed  
by Contracted Midwives in Financial Year 1996/1997

Activity	Output	Target	Effectiveness
1	2	3	4
Pregnant Women services	490	543	90.24%
Delivery Aid services	257	516	49.81%
Postnatal Care services	315	493	63.89%

Note: Column 4 = Column 2/Column 3\*100

In Financial Year 1997/1998, there were changes in the percentage of cost shared by each item. The share of operating cost decreased from 59.1 % in Financial Year 1996/1997 to 58.7 %, that of utility costs decreased from 16.4 % to 13.4 %. On the other hand, there was an increase in the share of labor costs from 24.6 % in Financial Year 1996/1997 to 27.9 % in Financial Year 1997/1998.

Table 4.6 Total and Average Cost of each Activity performing by Contracted Midwives  
In Financial Year 1997/1998

Cost Items	Annual Cost of each activity			Average cost			% cost share by item			Total cost/year	% of Total Cost/Year
	PW	DA	PC	PW	DA	PC	PW	DA	PC		
1	2	3	4	5	6	7	8	9	10	11	12
Labour	524,681	3,722,553	362,872	957	11,489	957	8.1	55.4	10.9	4,610,107	27.9
Operating	4,972,702	2,431,104	2,286,998	9,074	7,503	6,034	76.9	36.2	68.9	9,690,804	58.7
Utility	965,863	571,058	667,997	1,763	1,763	1,763	14.9	8.5	20.1	2,204,918	13.4
<b>Total Cost</b>	<b>6,463,246</b>	<b>6,724,715</b>	<b>3,317,867</b>	<b>11,794</b>	<b>20,755</b>	<b>8,754</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>16,505,829</b>	<b>100</b>

Notes:

PW = Pregnant Women Services

DA = Delivery Aid Services

PC = Postnatal Care Services

Column 5,6,7 = Column 2,3,4 divided by its output (Detail data are on Appendix)

Column 8 = (Column 5/11,794)\*100

Column 9 = (Column 6/20,755)\*100

Column 10 = (Column 7/8,754)\*100

Column 11 = Column 2 + Column 3 + Column 4

Column 12 = (Column 11/16,505,829)\*100

It was also found that there was an increase in the total cost of services performed by Contracted Midwives from Rp. 15,147,116 to Rp. 16,505,829 or there was an increase amounts to 8.97 % of that of the previous year.

The operating cost and utility cost in Financial Year 1997/1998 plays a lesser role in Delivery Aids services than in Pregnant Women services and Postnatal Care services. They had the shares of 36.2 % of the total unit cost for the operating costs and 8.5 % of that for the utility costs.

In FC 1997/1998 the average cost of Pregnant Women services decreased from Rp. 12,721 in Financial Year 1996/1997 to Rp. 11,794 or decreased 7.28 %. And also there was a decrease in the average cost of Postnatal Care services amounts to 0.85 % from Rp. 8,829 to Rp. 8,754 in Financial Year 1997/1998. And also the average cost of Delivery Aid services decreased 13.02 % from Rp. 23,863 in FC 1996/1997 to Rp. 20,755 in FC 1997/1998. This might be caused by an increase in the coverage of each activity. However, the increase in the Delivery Aids coverage was much more than the increase in the coverage of Pregnant Women services and Postnatal Care services.

Table 4.7 Cost Effectiveness of MCH Program performing by Contracted Midwives in Financial Year 1996/1997 - 1997/1998

(In units of Rupiah)

Cost Items	1996/1997			1997/1998		
	PW	DA	PC	PW	DA	PC
Total Cost	6,233,100	6,132,858	2,781,158	6,463,246	6,724,715	3,317,867
Average Cost	12,721	23,863	8,829	11,794	20,755	8,754
Effectiveness	90.24%	49.81%	63.89%	94.81%	59.34%	73.45%
Cost Effectiveness	5,907,292	12,313,443	4,352,733	6,817,073	11,332,390	4,517,202

Notes:

PW = Pregnant Women Services

DA = Delivery Aid Services

PC = Postnatal Care Services



The increase in the Delivery Aids coverage amounts to 26.1 %, from 257 coverage in FC 1996/1997 to 324 coverage in FC 1997/1998. While the increase in the Postnatal Care services was 20.3 %, from 315 coverage in FC 1996/97 to 379 coverage in FC 1997/1998. Pregnant Women services increased by 11.8 %, from 490 coverage in FC 1996/1997 to 548 coverage in 1997/1998.

The change in that cost structure was due to the change in utilization rate of each activity. It implies that a higher utilization rate can significantly reduce the average cost of activity.

By comparison, in FC 1997/1998 the total cost of Pregnant Women services performed by Contracted Midwives was 0.96 times of Delivery Aids cost and 1.95 times of Postnatal Care services.

Table 4.8 Comparison of Cost Components of each Activity performing by Contracted Midwives  
In Financial Year 1997/1998

Cost Items	Annual Cost per activity			Comparison
	PW	DA	PC	
1	2	3	4	5
Labour	524,681	3,722,653	362,872	PW Cost 0.14 times of DA cost & 1.45 times of PC cost
Operating	4,972,702	2,431,104	2,286,998	PW Cost 2.05 times of DA cost & 2.17 times of PC cost
Utility	965,863	571,058	667,997	PW Cost 1.69 times of DA cost & 1.45 times of PC cost
<b>Total Cost</b>	<b>6,463,246</b>	<b>6,724,715</b>	<b>3,317,867</b>	<b>PW Cost 0.96 times of DA cost &amp; 1.95 times of PC cost</b>

Notes:

- PW = Pregnant Women Services
- DA = Delivery Aid Services
- PC = Postnatal Care Services

#### 4.2.2 Civil Servant Midwives

In the analysis of the cost of activities with regard to Maternal and Child Health program performed by the Civil Servant Midwives in Financial Year 1996/1997, it was found that the maximum cost component was the operating cost, followed in order by utility cost and labor costs. The percentage of cost shared by the operating cost, utility cost and labor cost in Financial Year 1996/1997 was 69.8 %, 19.0 % and 11.2 % of the total costs, respectively. This implies that the operating cost plays a higher role in performing the Maternal and Child Health program.

Table 4.9 Total and Average Cost of each Activity performing by Civil Servant Midwives  
In Financial Year 1996/1997

Cost Items	Annual Cost of each activity			Average cost			% cost share by item			Total cost/year	% of Total Cost/Year
	PW	DA	PC	PW	DA	PC	PW	DA	PC		
1	2	3	4	5	6	7	8	9	10	11	12
Labour	179,404	1,167,575	116,106	362	4,340	362	3.0	26.4	4.5	1,463,085	11.2
Operating	4,710,987	2,646,268	1,757,860	9,498	9,837	5,476	78.2	59.8	67.4	9,115,115	69.8
Utility	1,131,918	513,383	732,552	2,292	2,282	2,282	18.8	13.9	28.1	2,478,353	19.0
<b>Total Cost</b>	<b>6,022,309</b>	<b>4,427,726</b>	<b>2,606,518</b>	<b>12,142</b>	<b>16,460</b>	<b>8,120</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>13,056,553</b>	<b>100</b>

Notes:

PW = Pregnant Women Services

DA = Delivery Aid Services

PC = Postnatal Care Services

Column 5,6,7 = Column 2,3,4 divided by its output (Detail data are on Appendix)

Column 8 = (Column 5/12,142)\*100

Column 9 = (Column 6/16,460)\*100

Column 10 = (Column 7/8,120)\*100

Column 11 = Column 2 + Column 3 + Column 4

Column 12 = (Column 11/13,056,553)\*100

It was also found that the average cost of activity performed by Civil Servant Midwives in 1996/1997 was as follows:

- a. Rp. 12,142 for Pregnant Women services
- b. Rp. 16,460 for Delivery Aid services
- c. Rp. 8,120 for Postnatal Care services

By comparison, in Financial Year 1996/1997 the total cost of Pregnant Women services performed by Civil Servant Midwives was 1.36 times of Delivery Aid service cost and 2.31 times of Postnatal Care services cost.

Table 4.10 Comparison of Cost Components of each Activity performing by Civil Servant Midwives  
In Financial Year 1996/1997

Cost Items	Annual Cost of each activity			Comparison
	PW	DA	PC	
1	2	3	4	5
Labour	179,404	1,167,575	116,106	PW Cost 0.15 times of DA cost & 1.55 times of PC cost
Operating	4,710,987	2,646,268	1,757,360	PW Cost 1.78 times of DA cost & 2.68 times of PC cost
Utility	1,131,918	613,883	732,552	PW Cost 1.84 times of DA cost & 1.55 times of PC cost
<b>Total Cost</b>	<b>6,022,309</b>	<b>4,427,726</b>	<b>2,606,518</b>	<b>PW Cost 1.36 times of DA cost &amp; 2.31 times of PC cost</b>

Notes:

PW = Pregnant Women Services

DA = Delivery Aid Services

PC = Postnatal Care Services

In Financial Year 1997/1998, there was an increase in the percentage of cost share. That share of operating cost increased from 69.8 % in Financial Year 1996/1997 to 70.3 % and that of labor costs increased from 11.2 % to 14.0 %. On

the other hand there was a decrease in the share of utility costs from 19.0 % in Financial Year 1996/1997 to 15.7 % in Financial Year 1997/1998.

It was found that there was an increase in the total cost of services performed by Civil Servant Midwives from Rp. 13,056,552 to Rp.14,022,227 or increased 7.4 % in Financial Year 1997/1998. At the same time, the average cost of Pregnant Women services decreased from Rp. 12,142 in Financial Year 1996/1997 to Rp. 11,139 in FC 1997/1998 or decreased 8.26 %. There was a decrease in the average cost of Delivery Aid services amounts to 14.6 % from Rp. 16,460 to Rp. 14,057 in Financial Year 1997/1998. The average cost of Postnatal Care services decreased 1.86 % from Rp. 8,120 in FC 1996/1997 to Rp. 7,969 in FC 1997/1998.

Table 4.11 Total and Average Cost of each Activity performing by Civil Servant Midwives  
In Financial Year 1997/1998

Cost Items	Annual Cost of each activity			Average cost			% cost share by item			Total cost/year	% of Total Cost/Year
	PW	DA	PC	PW	DA	PC	PW	DA	PC		
1	2	3	4	5	6	7	8	9	10	11	12
Labour	222,809	1,580,349	156,364	398	4,774	398	3.6	34.0	5.0	1,959,522	14.0
Operating	5,053,258	2,503,976	2,300,555	9,024	7,565	5,854	81.0	53.8	73.5	9,857,787	70.3
Utility	961,646	568,402	674,870	1,717	1,717	1,717	15.4	12.2	21.5	2,204,916	15.7
<b>Total Cost</b>	<b>6,237,711</b>	<b>4,652,727</b>	<b>3,131,789</b>	<b>11,139</b>	<b>14,057</b>	<b>7,969</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>14,022,227</b>	<b>100</b>

Notes:

PW = Pregnant Women Services

DA = Delivery Aid Services

PC = Postnatal Care Services

Column 5,6,7 = Column 2,3,4 divided by its output (Detail data are on Appendix)

Column 8 = (Column 5/11,139)\*100

Column 9 = (Column 6/14,057)\*100

Column 10 = (Column 7/7,969)\*100

Column 11 = Column 2 + Column 3 + Column 4

Column 12 = (Column 11/14,022,227)\*100

By comparing in FC 1997/1998 the total cost of Pregnant Women services performed by Civil Servant Midwives was 1.34 times of Delivery Aids cost and 1.99 times of Postnatal Care services. It means that the cost of Pregnant Women services was higher than the other service costs.

Table 4.12 Comparison of Cost Components of Activity performing by Civil Servant Midwives  
In Financial Year 1997/1998

Cost Items	Annual Cost of each activity			Comparison
	PW	DA	PC	
1	2	3	4	5
Labour	222,809	1,580,349	156,364	PW Cost 0.14 times of DA cost & 1.42 times of PC cost
Operating	5,053,256	2,503,976	2,300,555	PW Cost 2.02 times of DA cost & 2.19 times of PC cost
Utility	961,646	568,402	674,870	PW Cost 1.69 times of DA cost & 1.42 times of PC cost
<b>Total Cost</b>	<b>6,237,711</b>	<b>4,652,727</b>	<b>3,131,789</b>	<b>PW Cost 1.34 times of DA cost &amp; 1.99 times of PC cost</b>

Notes:

- PW = Pregnant Women Services
- DA = Delivery Aid Services
- PC = Postnatal Care Services

#### 4.2.3 COMPARISON

By comparing the average cost per activity performed by Contracted Midwives and Civil Servant Midwives, it was found that the recurrent cost of Pregnant Women services per coverage performed by Contracted Midwives in Financial Year 1996/1997 was 4.77 % higher than that of Civil Servant Midwives. Cost per Delivery Aids coverage performed by Contracted Midwives was 44.98 %

higher than that of Civil Servant Midwives. Also, the recurrent cost of Pregnant Women Services coverage performed by Contracted Midwives was 8.73 % higher than that of Civil Servant Midwives. It implies that the average cost of each activity performed by Contracted Midwives was higher than that of Civil Servant Midwives.

Table 4.13

A Comparison between The Average Cost of MCH Program  
In Financial Year 1996/1997

Average cost of each activity	Contracted Midwives	Civil Servant Midwives	% of cost difference
P.W.S cost	Rp. 12,721	Rp. 12,142	4.77%
D.A.S cost	Rp. 23,863	Rp. 16,460	44.98%
P.C.S cost	Rp. 8,829	Rp. 8,120	8.73%

Notes :

P.W.S = Pregnant Women Services

D.A.S = Delivery Aid Services

P.C.S = Postnatal Care Services

In term of the effectiveness of activity (program), it was found that the most effective activity performed by the Contracted Midwives was the activity of Pregnant Women services which was 2.24 % more effective than that of Civil Servant Midwives, followed by the activity of Postnatal Care Services which was 0.92 % more effective than that of Civil Servant Midwives.

On the other hand, the Contracted Midwives was less effective to perform the activity of Delivery Aid Services, i.e. 1.48 % less effective than that performed by the Civil Servant Midwives.

The comparison of the effectiveness of Maternal and Child Health program performed by midwives is shown in the following Table 4.14.

Table 4.14

A Comparison of The Effectiveness of MCH Program performed by Midwives

In Financial Year 1996/1997

Activity	Contracted Midwives	Civil Servant Midwives	% of effectiveness difference
Pregnant Women services	90.24%	88.26%	2.24%
Delivery Aid Services	49.81%	50.56%	(-) 1.48%
Postnatal Care services	63.89%	63.31%	0.92%

Source: Table 4.5.

In Financial Year 1997/1998, it was found that the recurrent cost of Pregnant Women services per coverage performed by the Contracted Midwives was 5.88 % higher than that of Civil Servant Midwives. This difference is also higher compared with the costs in Financial Year 1996/1997. In case of the cost/Delivery Aid coverage, that performed by the Contracted Midwives was 47.65 % higher than that performed by the Civil Servant Midwives. It implies that the cost difference decreased compared that Financial Year 1996/1997, which was 44.98 % higher than of Civil Servant Midwives performed.

Table 4.15

A Comparison between The Average Cost of MCH Program

In Financial Year 1997/1998

Average cost of each activity	Contracted Midwives	Civil Servant Midwives	% of cost difference
P.W.S cost per coverage	Rp. 11,794	Rp. 11,139	5.88%
D.A.S cost per coverage	Rp. 20,755	Rp. 14,057	47.65%
P.C.S cost per coverage	Rp. 8,754	Rp. 7,969	9.85%

Notes :

P.W.S = Pregnant Women Services

D.A.S = Delivery Aid Services

P.C.S = Postnatal Care Services

The effectiveness of Pregnant Women services performed by Contracted Midwives was the most effective than that of other activities. The percentage of

effectiveness difference was 1.24 % more effective than that of the Civil Servant Midwives performed. While in performing the Delivery Aid services it was 0.94 % more effective the Contracted Midwives performed than that of Civil Servant Midwives. But in case of performing the Postnatal Care services activity, the Contracted Midwives was 0.2 % less effective than that of the Civil Servant Midwives, as was shown in the following Table 4.16.

The comparison of the effectiveness of the activities performed by midwives is shown in Table 4.16 below

Table 4.16

A Comparison of The Effectiveness of MCH Program performed by Midwives  
In Financial Year 1997/1998

Activity	Contracted Midwives	Civil Servant Midwives	% of effectiveness difference
Pregnant Women servic	94.81%	93.65%	1.24%
Delivery Aid Services	59.34%	58.79%	0.94%
Postnatal Care services	73.45%	73.60%	(-)0.20%

Source: Table 4.5.

As a summary, the average cost of all activity performed by Contracted Midwives was higher than that of Civil Servant Midwives in both Financial Year 1996/1997 and 1997/1998. And in term of the effectiveness of the performance amongst the midwives, the most effective activity performed by the Contracted Midwives was only the activity of Pregnant Women services in both Financial Year 1996/1997 and 1997/1998, while another activities varied on its effectiveness. In Financial Year 1996/1997 the Contracted Midwives was less effective to perform the Delivery Aid Services than that of the Civil Servant Midwives. In Financial Year 1997/1998 the Contracted Midwives was also less effective to perform the Postnatal Care services than that of the Civil Servant



Midwives. Total and Average Costs of MCH Program performing by Civil Servant Midwives in Financial Year 1996/1997 - 1997/1998 is shown in Table 4.17 below

Table 4.17 Total and Average Costs of MCH Program performing by Civil Servant Midwives in Financial Year 1996/1997 - 1997/1998

(In units of Rupiah)

Cost Items	1996/1997			1997/1998		
	PW	DA	PC	PW	DA	PC
Total Cost	6,022,309	4,427,725	2,606,518	6,237,711	4,652,727	3,131,789
Average Cost	12,142	16,460	8,120	11,139	14,057	7,969
Effectiveness	88.26%	50.56%	63.31%	93.65%	58.79%	73.60%
Cost Effectiveness	5,823,665	8,756,690	4,116,837	6,660,984	7,913,853	4,255,408

Notes :

P.W.S = Pregnant Women Services

D.A.S = Delivery Aid Services

P.C.S = Postnatal Care Services

In the analysis of total cost of midwives in which the training costs and service costs added together, it was found that the labor costs of contracted midwives was 2.5 times higher that of the labor costs of civil servant midwives. It might be caused by the salary of Contracted Midwives is higher than of Civil Servant Midwives. But the operating costs of contracted midwives were 1.02 times lower than of civil servant midwives (Table 4.18).

It was also found that the cost of contracted midwives was 1.19 times of the cost of civil servant midwives in Financial Year 1996/1997. And in Financial Year 1997/1998, the costs of contracted midwives increased to be 1.21 times of the cost of civil servant midwives.

The percentage of cost difference between the contracted midwives' costs and civil servant midwives' costs was 19.8 % in Financial Year 1996/1997 and increased to be 21 % in Financial Year 1997/1998.

The detail on the annual total cost of midwives is shown in the following Table 4.18.

Table 4.18 The Annual Total Costs of Contracted Midwives and Civil Servant Midwives in Financial Year 1996/1997 - 1997/1998

Cost Items	Financial Year	Contracted Midwives			Civil Servant Midwives			Total cost shared	
		Pregnant	Delivery	Postnatal	Pregnant	Delivery	Postnatal	CM	CSM
1	2	3	4	5	6	7	8	9	10
Training Costs	1996/1997	2,136,041	1,120,332	1,373,169	1,572,918	853,054	1,017,957	4,629,542	3,443,929
	1997/1998	2,027,969	1,199,018	1,402,555	1,502,025	887,804	1,054,100	4,629,542	3,443,929
Labour Costs	1996/1997	469,149	2,952,766	301,536	179,404	1,167,574	116,106	3,723,511	1,463,084
	1997/1998	524,681	3,722,553	362,572	222,809	1,580,349	156,364	4,610,106	1,959,522
Operating Cost	1996/1997	4,620,455	2,580,340	1,744,458	4,710,987	2,646,268	1,757,860	8,945,253	3,115,115
	1997/1998	4,972,702	2,431,104	2,296,998	5,053,256	2,503,976	2,300,555	9,690,304	3,857,737
Utility Costs	1996/1997	1,143,496	599,752	735,104	1,131,918	613,883	732,552	2,478,352	2,478,353
	1997/1998	965,863	571,058	667,397	961,546	568,402	674,870	2,204,918	2,204,918
Total Cost	1996/1997	3,369,141	7,253,190	4,154,327	7,595,227	5,280,779	3,524,475	19,776,658	15,500,481
	1997/1998	3,491,215	7,923,733	4,720,422	7,739,736	5,540,531	4,185,389	21,135,370	17,466,158

### 4.3 Incremental Analysis

It was found that the additional cost imposed by use of pregnant women services performed by Contracted Midwives over by Civil Servant Midwives was Rp.128,986 per 1 additional pregnant women covered in Financial Year 1996/1997 and was Rp. 62,623 in Financial Year 1997/1998.

The additional cost imposed by use of delivery aid services was Rp.164,368 per 1 additional delivery assisted in FC 1996/1997 and was Rp.340,457 in 1997/1998. And for the additional cost imposed by use postnatal care services was Rp. 88,309 per 1 additional postnatal care served in 1996/1997 and was Rp. 38,181 in 1997/1998.

Table 4.19 Incremental Cost of Maternal and Child Health program  
in Financial Year 1996/1997 - 1997/1998

Financial Year	The Change in Cost			The Change in Output			Incremental Cost		
	PW	DA	PS	PW	DA	PS	PW	DA	PS
1	2	3	4	5	6	7	8	9	10
1996/1997	773,914	1,972,411	529,852	6	12	6	128,986	164,368	88,309
1997/1998	751,479	2,383,202	534,533	12	7	14	62,623	340,457	38,181

Note:

Column 2,3 and 4 = from Table 4.18 (Total Cost in Column 3,4 and 5 - Total Cost in Column 6,7 and 8)

Column 5,6 and 7 = The difference in total output of midwives (detail on Table 4.5 and on Appendix)

Column 8 = Column 2/Column 5

Column 9 = Column 3/Column 6

Column 10 = Column 4/Column 7