



A guide and tools for
maternal mortality programme assessment

MODULE 4, Tool 7

Household Costs Survey

Version 2.0

Household Costs

Household Costs

Household Costs

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Module 4: Evaluation tools

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List of Acronyms

KVIP	Kumasi Improved Ventilated Pit
SPSS	Statistical Package for the Social Sciences
Stata	data analysis and statistical software
TBA	traditional birth attendant

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INTRODUCTION

The economic evaluation of a health care intervention can be pursued from a number of perspectives. Typically, the viewpoint of the health service will be important, not least because it is the primary focus of policy-makers. However, economists argue that ideally economic evaluation should adopt a so-called 'societal perspective' (Drummond et al, 1997). The principle is that a cost is a cost, regardless of who bears that cost, and a benefit is a benefit, regardless of who enjoys that benefit. Accordingly, if we are to capture all the costs involved in health care, the costs to households of accessing care should be included in addition to the costs incurred by the health service.

Another major rationale for devoting effort to identifying and measuring the household costs of health care is that it enables the financial barriers to accessing care to be quantified (Borghesi et al, 2003; Wagstaff and van Doorslaer, 2003). Many interventions have foundered because they have ignored or underestimated the financial barriers confronting households.

4(7).1 What is the Household Costs tool?

The Household Costs tool is a survey instrument for collecting data that can be used to estimate the costs borne by women and their families in accessing maternal care.

Three different versions of the tool have been produced and utilized by Impact in Burkina Faso, Ghana and Indonesia, each addressing different issues. The version included here is the survey instrument tested in Ghana that supported the evaluation of the effects of the fee exemption policy for maternal delivery care (Armar-Klemesu et al, 2006).

The primary data collection instrument used for the Household Costs study was a questionnaire that was administered to households falling into our sampling frame.

The questionnaire had twelve modules, as detailed in table 1, although not every module was administered to all women.

While the Household Costs tool is a freestanding survey, it could also be conducted alongside the Productivity Costs Survey tool (see Tool 6 in this module). If this is the case, certain sections of the two surveys could be combined: the household roster; housing and asset ownership; and household expenditure.

Table 4(7).1: Description of questionnaire modules

<i>Module number</i>	<i>Module name</i>	<i>Level of data collection</i>	<i>Data</i>
1	Background coding details	Household	Household location information.
2	Household roster	Individual	Demographic and socio-economic data
3	Delivery information	Individual	Information on when and where woman delivered
4	Travel for delivery	Individual	Asked of women who delivered at a facility
5	Travel for delivery	Individual	Asked of women who delivered away from home/TBA compound
6	Delivery costs	Household/ individual	Medical and travel costs
7	Financing delivery care	Household/ individual	Where money was obtained to pay for delivery care
8	Delivery time costs	Individual	Time taken and lost income
9	Costs to other household members	Household/ individual	Travel and time costs of other household members (asked of women who did not deliver at home)
10	Outcomes after last pregnancy	Individual	Economic consequences of outcomes after last pregnancy
11	Housing and asset ownership	Household	Household property and productive assets
12	Household expenditure	Household	Food and non-food expenditures

4(7).2 Why use the Household Costs tool?

The Household Costs tool could be used in a variety of circumstances. If a societal perspective on the costs of health care is desired, it is necessary to include the costs borne by households as well as those incurred by the health system.

The tool can be used to estimate the financial barriers to care which confront households. Equally importantly, it can be used to quantify the extent to which the household costs of accessing care vary according to a wide range of factors, including place of delivery, wealth or socio-economic status, area of the country, etc. Specifically, the tool enables any catastrophic health payments – ones which are so high that they adversely affect a household's consumption and investment – to be identified. This in turn has implications for the impact of health care financing systems, such as pre-payment and insurance policies.

One example of when it might be appropriate to use the Household Costs tool is to estimate household expenditure (in terms of out-of-pocket payments) for delivery care. This was how the tool was used in Ghana to test the hypothesis that household out-of-pocket payments decreased after the delivery care fee exemption policy was introduced.

4(7).3 Limitations of the Household Costs tool

Depending on who the respondent is and how long ago a woman delivered, which in turn reflects the chosen sampling frame, it may be difficult to get accurate information about household costs. The woman concerned may not have made the key decisions about the commitment of household resources and may therefore not know, indeed never have known, what some or all of the costs involved were.

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Particular difficulties may arise in asking questions about household expenditure in module 12 of the [questionnaire](#) (see section 4(7).6). The rationale for seeking an estimate of household expenditure is that it serves as a proxy for income, which in turn may provide a more sensitive measure of economic inequality than the more common measures based on asset ownership and housing characteristics. However, providing detailed information on household expenditures is difficult and time-consuming for respondents.

There is also a problem of recall. With the passage of time, the respondent is likely to forget some of the costs, especially the minor ones, and not recall other costs accurately. This is likely to be particularly true of normal deliveries. Costs are likely to be remembered more easily if there was a complication during delivery and thus costs were very high and/or resulted in the household incurring debt.

In addition, a number of problems of bias may result from how the sampling frame is constructed. Several examples are given in the next section.

4(7).4 Using the Household Costs tool

Step 1: Design your study

There are several important definitional issues that will affect the study design, notably:

- **Defining 'household'.** The concept of a 'household' may not be homogenous. It is therefore necessary to define what a household is and how it is organized in the region of study. This is relevant because, while maternal ill health most directly affects women, most women's activities are organized at household level, and thus the basic sampling unit should be the household. However, as there are cases when economic behaviour, even in low income countries, makes it difficult to treat households as units, the individual members of households will be the smallest units for which some of the data will be collected.
- **Identifying the main respondent(s).** The main income earner will often be a male head of household and most health decisions that are made reflects the importance of this individual. In the case of maternal ill health, other household members will have to be consulted for information on household costs that have been incurred, especially where intra-household transfers or extended households are common. However, the best respondent as far as costs are concerned will usually be the head of household.

The target population for the Household Costs tool consists of households with women who have delivered recently, preferably within the last 12 months. The Household Costs questionnaire has 12 modules, as summarized in table 4(7).1. Some modules are best answered by individual women who have given birth. However, other modules, specifically those relating to costs, might best be answered by the head of the household or individuals who actually made the financial payments for delivery care.

In most developing countries, maternal deliveries are not notifiable events. Therefore, it is not possible to obtain a complete listing of women in the sampling frame and hence we are not able to use standard sampling methods to identify women to include in the survey.

In order to identify women in the sampling frame, one possibility is to use routine immunization systems in health facilities, child welfare clinics and outreach immunization programmes that target children in the community. This method was used by Impact in Ghana. Immunizations, which target women who have delivered recently, provide an efficient way to identify women falling into our sampling frame. However, because immunizations often do not achieve 100% coverage, there may be concerns about potential biases, if there are systematic differences between those who attend immunizations and those who do not. It may be the poorest women who choose not to attend immunizations while, in addition, this method of data collection will by definition miss neonatal deaths. However, this problem is likely not to be significant where immunization rates are high, for example 90–95%, as is the case in Ghana.

Sample size calculations will depend on the purpose of the evaluation. In Ghana, where the concern was to measure the effects of the introduction of a fee exemption policy for deliveries, the sample size was calculated so as to be able to test the hypothesis that households' out-of-pocket payments fell as a result of the introduction of the fee exemption policy. More information on cultural adaptation and translation of survey instruments is contained in Technical Annex A of Module 5.

Cultural awareness and sensitivity helps in the study design phase in providing information as to how questions should be phrased, who to ask and sensitive issues within cultures. This reduces the number of non-responses. More information on cultural adaptation and translation of survey instruments is contained in Technical Annex C of Module 5.

Step 2: Obtain permissions

Seek permissions from the ethics committees of collaborating institutions, from the regional health administrations in-country, and from the participating hospitals and health centres.

Step 3: Data collection

It would be preferential to use occasions such as immunization visits to select women falling into the sampling frame and, having identified where they live, to administer the questionnaire at their homes. By interviewing women at home, the survey can draw on other household members for information that women are not able to provide. Moreover, the length of the questionnaire may make it difficult to conduct the survey during immunization clinics.

The [survey questionnaire](#) is contained in section 4(7).6 below.

Step 4: Data analysis

Data analysis should establish mean household costs, by type of expenditure and in aggregate. Differences in household costs according to the variables of interest can then be identified.

Any differences according to wealth or income will be of particular importance. For example, calculation of the shares of out-of-pocket payments for delivery care in households' total income, proxied by household aggregate expenditure, across wealth quintiles enables the magnitude of financial barriers to care for rich and poor to be measured.

Our data analysis was conducted using Stata but this is not essential. Most other statistical packages, such as SPSS, could have been used instead.

Step 5: Disseminate findings and recommendations

The main audience for results from this study consists of analysts seeking to compile a comprehensive measure of the costs of safe motherhood strategies, but policy-makers should also be familiarized with the findings. Intervention costs borne by the health service are a central concern of policy-makers. The health care and non-health care costs borne by women and their families are less visible but may be equally important. Inclusion of household costs illustrates the value of the economist's 'societal perspective' which seeks to capture all the benefits and costs of an intervention regardless of who enjoys the benefits or bears the costs.

4(7).5 Budget implications of using the Household Costs tool

Table 4(7).2 shows the estimated recurrent costs which would be incurred in use of the Household Costs tool. No capital costs are included. The table shows the resources required for a survey of around 2250 women.

| Household Costs |
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Table 4(7).2: Household Costs resource implications

	<i>Quantity</i>	<i>Time</i>
Supplies	Requisite copies of the questionnaire	Not applicable
	Sufficient copies of the interviewer's manual for one per interviewer/supervisor	
Personnel	Team of interviewers (possibly 12)	3 days training (including 1 day pre-testing)
		12 weeks interview time
	Supervisors (2)	12 weeks interview time
	Data entry staff (possibly 3)	8 weeks
	Drivers	Depends on organization of survey
Travel and communication	Vehicle to make preliminary visits to set up the survey	1–2 weeks
	Vehicle to travel to interview sites	12 weeks
	Travel and subsistence costs for survey staff, supervisors and drivers	
	Phone calls	
Building operation and maintenance	Date entry facility	Not applicable

4(7).6 Household Costs data collection instruments

This section contains the following instruments:

1. Informed consent form;
2. Household costs questionnaire;
3. Household costs interviewer's manual.

2. Household Costs and Outcomes after Pregnancy Questionnaire (example from Ghana)

Note: A manual with guidance on the use of this questionnaire is contained in this section.

1. BACKGROUND										
1.1	Region (RR) Coding manual									
1.2	District (DD) Coding manual									
1.3	Community (CC) Coding manual									
1.4	Interviewer's code (SS) Coding manual									
1.5	Household ID (RRDDCCSS---)									
1.6	Date of interview (ddmmyyyy)									
1.7	Time of start of interview								am	pm

2. HOUSEHOLD ROSTER							
<i>We would like you to list names of all members of your household who usually sleep and eat with you.</i>							
2.1 ID	Name	2.2 Age at last birthday (yrs)	2.3 Relationship with respondent (woman who delivered) (Code a)	2.4 Sex 1=male 2=female	2.5 Main economic activity (Over 15yrs) (Code b)	2.6 Level of educational attainment (Over 5yrs) (Code c)	2.7 Marital status (Over 15yrs) (Code d)
01							
02							
03							
04							
05							
06							
07							
08							
09							
10							
11							
12							

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<table border="1"> <thead> <tr> <th>Code a: Relationship with respondent</th> <th>Code b: Main activity or type of employment</th> <th>Code c: Educational attainment</th> <th>Code d: Marital status</th> </tr> </thead> <tbody> <tr> <td>Self</td> <td>01 Skilled wage employment</td> <td>01 None</td> <td>01 Never married</td> </tr> <tr> <td>Spouse (husband)</td> <td>02 Unskilled wage employment</td> <td>02 Primary</td> <td>02 Married/co-habiting</td> </tr> <tr> <td>Own child</td> <td>03 Skilled self-employment</td> <td>03 Middle/JSS</td> <td>03 Widow/widower</td> </tr> <tr> <td>Parent</td> <td>04 Unskilled self-employment</td> <td>04 Secondary</td> <td>04 Divorced/Separated</td> </tr> <tr> <td>Grandparent</td> <td>05 Student</td> <td>05 Post-secondary</td> <td>05 Other</td> </tr> <tr> <td>Sister/brother</td> <td>06 Unemployed</td> <td>06 Tertiary</td> <td>06</td> </tr> <tr> <td>Co-wife</td> <td>07 Other</td> <td>96 Other</td> <td>96</td> </tr> <tr> <td>Other relative</td> <td>08</td> <td></td> <td></td> </tr> <tr> <td>Servant/worker</td> <td>09</td> <td></td> <td></td> </tr> <tr> <td>Other</td> <td>96</td> <td></td> <td></td> </tr> </tbody> </table>								Code a: Relationship with respondent	Code b: Main activity or type of employment	Code c: Educational attainment	Code d: Marital status	Self	01 Skilled wage employment	01 None	01 Never married	Spouse (husband)	02 Unskilled wage employment	02 Primary	02 Married/co-habiting	Own child	03 Skilled self-employment	03 Middle/JSS	03 Widow/widower	Parent	04 Unskilled self-employment	04 Secondary	04 Divorced/Separated	Grandparent	05 Student	05 Post-secondary	05 Other	Sister/brother	06 Unemployed	06 Tertiary	06	Co-wife	07 Other	96 Other	96	Other relative	08			Servant/worker	09			Other	96		
Code a: Relationship with respondent	Code b: Main activity or type of employment	Code c: Educational attainment	Code d: Marital status																																																
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Other relative	08																																																		
Servant/worker	09																																																		
Other	96																																																		
2.8	Does the head of the household reside with you? 1=yes (→2.9); 2=no (→3.1)						<input type="text"/>	<input type="text"/>																																											
2.9	If yes to 2.8, who is the head of the household? [ENTER ID FROM 2.1] (→3.1)						<input type="text"/>	<input type="text"/>																																											
3. DELIVERY INFORMATION																																																			
3.1	When did you deliver? (→3.2)			Day	<input type="text"/>	<input type="text"/>	Month	<input type="text"/>	<input type="text"/>	Year	<input type="text"/>	<input type="text"/>																																							
3.2	At what type of health facility did you deliver? 1=public hospital (→3.3); 2=mission hospital (→3.3); 3=private hospital (→3.3); 4=health centre (→3.3); 5=health post/clinic (→3.3); 6=maternity home (→3.3); 7=at home (→3.4); 8=TBA's compound/home (→3.4); 96=other (specify)						<input type="text"/>	<input type="text"/>																																											
3.3	If you delivered at a health facility, please name it. [Coding Manual (→3.5)]						<input type="text"/>	<input type="text"/>																																											

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3.4	If you did not deliver at a health facility, please give the main reason why. 1=no money; 2=health facility too far; 3=no one to escort me; 4=no one to leave with child(ren); 5=bad weather; 6=husband decided; 7=did not see the need; 8=poor quality of facility service; 9=it was at night; 96=other (specify)(→3.5)		
3.5	Is this where you first sought delivery care after you went into labour? 1=yes; 2=no (was referred) (→3.6)		
3.6	Who attended to you during your last delivery? 1=medical doctor; 2=facility midwife/nurse; 3=private midwife; 4=health assistant; 5=TBA; 6=mother-in-law/mother; 7=village health worker; 8=friend/neighbour; 96=other (specify) (→3.7)		
3.7	How did you deliver your baby? 1=unassisted; 2=assisted by hand; 3=assisted with equipment; 4=operatively (Caesarean sections); 96=other (specify) (→3.8)		
3.8	How long after the baby was born, did the placenta (afterbirth) come out? 1=less than 30 min; 2=30 min – 1 hr; 3=more than 1 hr (→3.9)		
3.9	After you delivered, did you experience any vaginal bleeding for which you needed treatment? 1=yes; 2=no (→3.10)		
3.10	On your last delivery, how long did it take you between arriving at the place where you delivered and getting discharged to return home? (→4.1)	Months	Weeks
4. TRAVEL FOR DELIVERY [ASK WOMEN WHO DELIVERED AT HEALTH FACILITY]			
4.1	After you went into labour, what main mode of transport did you use to travel from where you resided to where you first sought delivery care? 1=walked; 2=bicycle; 3=bus; 4=taxi; 5=private car; 6=ambulance; 96=other (specify)..... (→4.2)		
4.2	If at the first place you sought delivery care you were referred elsewhere, how did you travel to the place where you eventually delivered? 1=walked; 2=bicycle; 3=bus; 4=taxi; 5=private car; 6=ambulance; 96=other (specify)..... (→4.3)		
4.3	Approximately what distance did you travel from where you resided at the time you went into labour to where you eventually delivered? (→4.4)	km	m
4.4	Approximately how much time did it take you to travel from where you resided when you went into labour to where you eventually delivered? (→5.1)	days	hrs
		min	

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5. TRAVEL FOR DELIVERY [ASK WOMEN WHO DELIVERED AWAY FROM HOME/TBA COMPOUND]										
5.1	If you had travelled to the health facility at the time you went into labour, which one would you have gone to? [Coding Manual (→5.2)]									
5.2	Approximately what distance would you have travelled to get to the health facility you mention above? (→5.2)						km			m
5.3	Approximately how much time do you think it would have taken you to get to the health facility (→6.1)				days			Hrs		mi n
6. DELIVERY COSTS										
6.1	Approximately how much in total did you pay your delivery service provider for your last delivery care? (for admission fee, drugs/supplies, operating theatre, food, tests and in-patient stay) (→6.2)						¢			,000
6.2	How much did you pay for each of the following:									
1.	Card						¢			,000
2.	Laboratory tests/X-rays						¢			,000
3.	Medicines/supplies received from delivery service provider						¢			,000
4.	Delivery fee						¢			,000
5.	Use of operating theatre						¢			,000
6.	In-patient stay (accommodation) and food (→6.3)						¢			,000
6.3	Approximately how much did you pay for other items purchased for you outside the facility (medicines, bedding, food and other necessary items for the delivery)? (→6.4)						¢			,000
6.4	Approximately how much did you pay for <u>transport from your home to where you delivered</u> (for self) (→6.5)						¢			,000
6.5	Approximately how much did you pay for <u>transport to return home from where you delivered</u> (for self) (→6.6)						¢			,000
6.6	Approximately how much did you spend on gifts to the person who assisted you with your delivery? (→6.7)						¢			,000
6.7	Approximately how much did you spend on other items not listed above (specify)(→6.8)						¢			,000
6.8	In addition to what you paid for services you received during your delivery is there any amount that you still have to pay? (Do not include debts owed because of the above payments.) 1=yes (→6.9); 2=no (→7.1)									
6.9	If yes to 5.2, how much is still outstanding? (→7.1)						¢			,000

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7. FINANCING DELIVERY CARE													
7.1 Where did you obtain money to pay for your delivery care? Was it from? [Go through each item] 1=yes (→7.2) 2=no	7.2 How much money came from this source? (→7.3)				7.3 Do you have to pay this money back? 1=yes 2=no (→7.4)	7.4 When is final payment due? (→7.5)		7.5 How much do you have to pay in interest? (→8.1)					
						Month	Year						
1. Household members	¢				,000				¢				,000
2. Neighbours/friends	¢				,000				¢				,000
3. Relatives	¢				,000				¢				,000
4. Money lender	¢				,000				¢				,000
5. Bank	¢				,000				¢				,000
6. Personal savings	¢				,000				¢				,000
7. Sold assets	¢				,000				¢				,000
8. Pawned assets	¢				,000				¢				,000
96.1 Other (specify)	¢				,000				¢				,000
96.2 Other (specify)	¢				,000				¢				,000
8. DELIVERY TIME COSTS													
8.1	How long did it take you between arriving at the place where you first sought delivery care and getting discharged to return home after you delivered? (→8.2)					Weeks			Days			Hrs	
8.2	What would you normally have been doing during the time you were away receiving delivery care? 1=household chores; 2=working on the household farm; 3=petty trading; 4=employed as skilled labourer; 5=employed as unskilled labourer; 6=clerical/professional work; 96=other (specify) (→8.3)								a				
									b				
									c				
									d				
									e				

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8.3	If you are in employment or participate in other income generating activities (e.g. selling vegetables, working in the fields), how much time did you take away from your work during the time you delivered? If on maternity leave or unemployed, enter 00. (→8.4)	Weeks				Days		
8.4	How much would you have earned from your employment or income generating activities during the time you were away from work to give birth? If on maternity leave or unemployed, enter 00. (→8.5)	Daily	¢					,000
		Weekly	¢					,000
		Monthly	¢					,000

8.5 In order of importance, list from 8.2 the 3 activities you normally would have been doing while you were away to receive delivery care. (→8.6) (Activity Code)	8.6 Who took over this activity? (→8.7) (Person Code)	8.7 Did the person who took over this activity receive any payment in cash or kind? 1=yes(→8.8) 2=no 9998=don't know	8.8 If yes to 8.7, how much payment did they receive [if payment is in cash, ask for approximate value] ¢ 9998=don't know
---	--	--	--

1.			¢					,000
2.			¢					,000
3.			¢					,000

Activity Code		Person Code					
Household chores	01	Unskilled labour	04	No one	01	Friend(s)/neighbour(s)	04
Petty trading	02	Professional work	05	H/hold member(s)	02	Hired person(s)	05
Skilled labour	03	Other	96	Relative(s)	03	Other	96

9. COSTS TO OTHER HOUSEHOLD MEMBERS (Women who did not deliver at home)

We would like you to tell us about members of your household who travelled with you to the place where you delivered.

9.1 Which members of your household travelled with you when you went to deliver? (→9.2) (ID from HH Roster)	9.2 How much did [...] incur in transport costs to travel with you to the place where you delivered? (→9.3)	9.3 How much time did [...] give up while accompanying you to the place where you delivered? (→4.4) (Travel and waiting time)		9.4 If [...] had to stay overnight, how much did they pay for their accommodation? (→9.5)
		Days	Hours	
	¢			¢
	¢			¢
	¢			¢

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11. HOUSING AND ASSET OWNERSHIP					
11.1	Does your household own the dwelling that you are staying in? 1=yes; 2=no (→ 11.2)				
11.2	How many sleeping rooms does the dwelling you stay in have (exclude bathroom or kitchen) (→ 11.3)				
11.3	What is the main source of drinking water for members of your household? 1=piped water; 2=open well; 3=covered well/borehole; 4=surface water; 5=rainwater; 6=tanker truck; 7=bottled water; 96=other (specify) (→ 11.4)				
11.4	What type of fuel does your household mainly use for cooking? 1=electricity; 2=LPG/natural gas; 3=biogas; 4=kerosene; 5=coal/lignite; 6=charcoal; 7=firewood/straw; 8=dung; 96=other (specify) (→ 11.5)				
11.5	What type of toilet does your household use? 1=flush toilet; 2=pit latrine/toilet; 3=pan/bucket; 4=KVIP; 5=no toilet (bush/beach); 96=other (specify) (→ 11.6)				
11.6	What material is used to build the walls of your house? 1=wood/bamboo; 2=mud bricks; 3=concrete bricks; 4=stone; 5=stone tiles; 6=galvanized iron sheet; 96=other (specify) (→ 11.7)				
11.7	What material is used to construct the roof of your house? 1=wood/bamboo; 2=mud bricks; 3=concrete bricks; 4=stone; 5=stone tiles; 6=galvanized iron sheet; 7=thatch; 8=plastic sheet; 9=asbestos sheets (slate); 96=other (specify) (→ 11.8)				
11.8	What is the main material used for the floor of your house? 1=earth/sand/mud; 2=mud & dung; 3=wood planks; 4=palm/bamboo; 5=polished wood; 6=ceramic tile; 7=cement; 8=carpet; 96=other (specify) (→ 11.9)				
11.9	Does your household have the following: 1=yes; 2=no (→ Section 8)	a.	Electricity		
		b.	Radio		
		c.	Television		
		d.	Video deck		
		e.	Telephone		
		f.	Refrigerator		
		g.	Bicycle		
		h.	Motorcycle		
		i.	Motor vehicle		

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12. HOUSEHOLD EXPENDITURE							
We would like you to tell us how much you normally spend each month on the following:							
12.1	Food expenditure – actual	¢					,000
12.2	Food expenditure – imputed consumption of own produce	¢					,000
12.3	Expenditure on housing (actual and imputed)	¢					,000
12.4	Non-food expenditure	¢					,000
1	Education	¢					,000
2	Water	¢					,000
3	Lighting & cooking fuel	¢					,000
4	Garbage/refuse collection	¢					,000
5	Toilet facility	¢					,000
6	Transport (not linked to recent delivery)	¢					,000
7	Health costs (not linked to recent delivery)	¢					,000
8	Funeral donations/gifts	¢					,000
9	Remittances to other household(s)	¢					,000
96	Other non-food expenditure – payments (as wages, etc)	¢					,000
96	Other non-food expenditure (specify) 1.....	¢					,000
96	Other non-food expenditure (specify) 2.....	¢					,000
12.5	Total	¢					,000

THANK YOU!!!

Time interview ended									am	pm

Interviewers' name

Supervisor's name

3. Interviewer's Manual for the Household Costs Questionnaire (example from Ghana)

FILLING OUT THE QUESTIONNAIRE

Most questions in this module have numeric responses (e.g. amount paid for delivery costs, distance travelled to health facilities, time spent away from home etc.). Questions that do not ask for numeric responses have been pre-coded.

QUESTIONS WITH NUMERIC RESPONSES

You must write all answers to questions with numeric responses in figures (that is numerals not words), and only in the spaces provided in the questionnaire.

Example 1: You ask a respondent how much she paid for card, laboratory tests/X-rays, etc. If they paid ₵5, 000 for the card, nothing for laboratory tests and ₵20, 000 for drugs/supplies received from service provider; you must write in the questionnaire as follows:

6.2	How much did you pay for each of the following:						
1.	Card	₵				5	,000
2.	Laboratory tests/X-rays	₵				0	,000
3.	Medicine/supplies received from delivery service provider	₵			2	0	,000
4.	Delivery fee	₵				0	,000
5.	Use of operating theatre	₵				0	,000
6.	In-patient stay (accommodation) and food (→6.3)	₵				0	,000

You must write all monetary responses in thousands. If ₵20, 000 was paid for medicine/supplies received from service provider you must enter **2 0** as indicated in question 5.1.3.

Example 2: You ask a respondent how much time they took to travel from their home to the place where they received delivery care. If the answer is 3 and 1/2 hours (three and a half hours), you must fill in the questionnaire as follows:

4.4	How much time did it take you to travel from where you resided when you went into labour to where you eventually delivered? (→5.1)	days			hrs	0	3	min	3	0
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You must write half an hour as 30 minutes. In the same way, if the question asks for distance travelled to the health facility and the respondent answers 2 and 1/2 kilometres, you must write this as follows:

QUESTIONS WITH PRE-CODED RESPONSES

There are two types of questions with pre-coded answers: those with single (one) responses and those with multiple (more than one) responses.

For questions with a single response, you must write down the code of the response given by the respondent in the place provided.

Example 3: You ask a respondent the place where they had their last delivery. If they respond by saying they delivered at a 'mission hospital', you must complete the questionnaire as follows:

3.2	At what type of health facility did you deliver? 1=public hospital (→3.3); 2=mission hospital (→3.3); 3=private hospital (→3.3); 4=health centre (→3.3); 5=health post/clinic (→3.3); 6=maternity home (→3.3); 7=at home (→3.4); 8=TBA's compound/home (→3.4); 96=other (specify)	0	2
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You must enter **02** in the place provided.

For questions with multiple responses, you must write the corresponding answers in the spaces provided.

Example 4: You ask a respondent what they would have normally been doing during the time they were away receiving delivery care. If the response is that they normally would have been doing household chores, working on the household farm and employed as a skilled labourer; you must write the responses as follows:

8.2	What would you normally have been doing during the time you were away receiving delivery care? 1=household chores; 2=working on the household farm; 3=petty trading; 4=employed as skilled labourer; 5=employed as unskilled labourer; 6=clerical/professional work; 96=other (specify) (→8.3)	a.	0	1
		b.	0	2
		c.	0	4
		d.		
		e.		

Enter the responses in the order that they appear in the code list.

2. HOUSEHOLD ROSTER

PURPOSE

The costs incurred by households when they seek delivery services are a result of multitudes of behavioural responses that are determined by households' socio-economic characteristics. The Household Roster therefore collects demographic (age, sex and marital status) and socio-economic (economic activities and educational attainment) data for all household members, which will be used to explain some of the observed variation in costs.

RESPONDENTS

The preferred respondents to the questions in the questionnaire are the women who delivered together with the heads of their households. If the head of the household is absent, you must try and identify the person who is acting as the head of the household. If other members of the household are present, you may also ask them to help by adding details for questions concerning them.

DEFINITIONS

HOUSEHOLD

Household Costs				
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This study uses one of the standard operational definitions of a household, that is, a group of people who have usually slept at the same dwelling and taken their meals together for at least 9 of the 12 months preceding the interview. This may include a man, his wife, children and other relatives (father/mother, nephew/niece, uncle/aunt, etc.).

Persons who have been away for more than three months in the period leading to the survey should not be included as members of the household except if they are newly born children and students living at school/college.

HOUSEHOLD HEAD

The 'household head' is the main person providing for the household and is its key decision-maker. He/she should be the person named when you ask who the household head is.

TENANTS

Please note that tenants or other persons staying on the same homestead as the women who delivered but who do not eat together with the woman and his family must not be included as household members.

COMPLETING THE HOUSEHOLD ROSTER

- In the Name column, enter the name of the woman who delivered followed by names of all members of her household (enter first name only).
- When you finish listing the names of all household members, ask questions 2.2 through to 2.7 for each of the household members and write down the responses in the spaces provided. The codes for all pre-coded questions are at the bottom of the Household Roster.

NB: Only ask questions 2.5 to 2.7 for those members of the household that are above 15 years of age.

Question 2.1: The codes are already on the Household Roster; you do not need to do anything, only write the name of the respondent in the column labelled 'Name'.

Question 2.2: For each of the household members, ask for age at last birthday.

Question 2.3: Ask how each of the household members is related to the woman who delivered.

Question 2.4: Ask whether each of the household members is male or female.

Question 2.5: Ask for the main economic activity for each of the household members above the age of 15. The main economic activity is the most important source of income or livelihood strategy for each of the household members.

Question 2.6: Ask for the highest level of educational attained by each member of the household above 15 years of age. You must classify the different levels of education as follows:

None	NONE, pre-school, kindergarten
Primary	P1, P2, P3, P4, P5, P6
Middle/JSS	M1, M2, M3, M4
Secondary	S1, S2, S3, S4, S5
Post secondary	PS1, PS2, PS3, A1, A2
Tertiary	Polytechnic, teacher training, university education

Question 2.7: Ask for each of the household members' marital status if above 15 years of age.

Question 2.8: Ask if the key decision-maker in the household resides with the woman respondent.

Question 2.9: If from 2.8 the key decision-maker in the household resides with the woman respondent, ask for their name. From the Household Roster (Question 2.1), identify his/her ID number and write it in the space provided.

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3. DELIVERY INFORMATION

- Question 3.1:** Ask for the day, month and year when the woman delivered. Write the date in the space provided in 8-digit format – starting with day and ending with year.
- Question 3.2:** Ask for the type of facility where the woman delivered. Enter regional or district hospitals as public hospitals.
- Question 3.3:** Ask for the name of the facility where the woman delivered. From the coding manual find the 4-digit code for the health facility and enter it in the space provided.
- Question 3.4:** If the woman did not deliver at a health facility (e.g. if she delivered at home or at TBA's compound), ask for the **main** reason why she did not go to the health facility.
- Question 3.5:** If the woman delivered at the health facility, ask if this is where she first sought delivery care when she went into labour.
- Question 3.6:** Ask the woman who attended to her while she gave birth. If they mention more than one person, choose the highest trained.
- Question 3.7:** Ask the woman how her baby was delivered. The question aims to identify whether the woman had a normal delivery, assisted delivery or Caesarean section. You must interpret the responses as follows:
Unassisted – woman did not need any assistance to push the baby out.
Assisted manually – woman received assistance from someone using their hands.
Assisted with equipment – equipment was used to enable or complete delivery.
Operatively – woman had to be operated (Caesarean section) to deliver the baby.
- Question 3.8:** Ask the woman how long after the baby had been born did the placenta come out. The question seeks to identify woman who may have needed treatment for retained placenta.
- Question 3.9:** Ask the woman if after delivery she experienced any vaginal bleeding for which she needed treatment.
- Question 3.10:** Ask the woman how long it took her between arriving at the place where she delivered and getting discharged to return home.

4. TRAVEL FOR DELIVERY [ASK WOMEN WHO DELIVERED AT HEALTH FACILITY]

- Question 4.1:** Ask the woman the main mode of transport that she used for travelling from where she resided when she went into labour to the first place where she sought delivery care. If the woman gives more than one mode of transport, ask for the one which she used to travel the longest distance.
- Question 4.2:** If at the first place where she sought delivery care the woman was referred to another service provider, where she eventually delivered, ask how she travelled between the two places.
- Question 4.3:** Ask the woman approximately what distance she travelled from where she resided before she went into labour to where she eventually delivered.
- Question 4.4:** Ask the woman approximately how long (time) it took her to travel from where she resided before she went into labour to where she eventually delivered. If the woman was referred to another facility, the time between referral must be included. The question aims to identify how long it takes women to receive the appropriate delivery care from the time they go into labour.

5. TRAVEL FOR DELIVERY [WOMEN WHO DELIVERED AT HOME/TBA COMPOUND]

- Question 5.1:** Ask the woman which health facility would she have gone to, if she had chosen to deliver at a health facility. Look up the health facility in the coding manual and enter it in the space provided.
- Question 5.2:** Ask the woman approximately what distance she would have travelled from where she resided when she went into labour to the nearest health facility offering delivery care.
- Question 5.3:** Ask the woman approximately how much time it would have taken her to travel to the nearest health facility offering delivery care after she went into labour.

6. DELIVERY COSTS

- Question 6.1:** Ask the woman approximately how much in total she or her household paid the person or facility that provided her with her last delivery care.
- Question 6.2:** Ask the woman how much she paid for each of the items listed (card, laboratory tests/X-rays, medicines/supplies from service provider, delivery fee, uses of operating theatre and in-patient stay).
- Question 6.3:** Ask the woman approximately how much she or her household paid for items purchased for her delivery outside the health facility. Mention that by other items you mean medicines, bedding, food, etc).
- Question 6.4:** Ask the woman approximately how much in total she paid for transport to travel from her home to where she eventually delivered.
- Question 6.5:** Ask the woman approximately how much in total she paid for transport to return home from where she delivered.
- Question 6.6:** Ask the woman how much she spent in total for gifts given to persons who assisted her with her delivery.
- Question 6.7:** Ask the woman how much she spent on other items not mentioned so far.
- Question 6.8:** Ask the respondent if she has some payments that are still outstanding for the care that she received for her last delivery.
- Question 6.9:** If the woman still has payments that are still outstanding, ask her how much she has to pay.

7. FINANCING DELIVERY CARE

Start by asking Question 7.1, entering a 1 against each of the sources of finance that the woman lists. Once you complete question 7.1, proceed to ask questions 7.2 through to 7.5 where relevant (i.e. for each of the sources of finance the woman chooses).

- Question 7.1:** Ask for where the money used to pay for the woman's delivery costs came from.
- Question 7.2:** Ask how much of the money used to pay for the woman's delivery costs came from each of the sources mentioned.
- Question 7.3:** If the money did not come from the woman's own savings (e.g. from other household members, neighbours, etc), ask if the woman needs to pay it back.
- Question 7.4:** If the woman answered yes to Question 7.3, ask for the month and the year when the final payment is due.
- Question 7.5:** If the woman answered yes to Question 7.3, ask how much she has to pay back in interest for the money that she borrowed. If she does not have to pay any interest, enter 000.

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8. DELIVERY TIME COSTS

The questions in this section aim to measure the amount of time that the woman spent while she was away receiving delivery care.

- Question 8.1:** Ask the woman how much time it took her between arriving at the place where she first sought delivery care and getting discharged to return home after her delivery.
- Question 8.2:** Ask the woman what she normally would have been doing during the time she was away receiving delivery care. Write the responses in the spaces provided, following the order that they appear on the coding manual.
- Question 8.3:** If the woman is in employment or if she participates in other income generating activities (that is, activities that are not household chores), ask her how much time she took away from these economic activities during the time that she delivered. If the woman indicates she was on maternity leave, enter 00 00 in the spaces provided.
- Question 8.4:** Ask the woman how much she could have earned from her employment or income generating activities during the time when she was away. Enter amount earned daily, weekly or monthly.
- Question 8.5:** Ask the woman to rank in order of importance, the three main activities that she would have been doing during the time that she was away receiving delivery care. Enter the codes in the spaces provided (codes are at the bottom).
- Question 8.6:** For each of the main activities identified in Question 8.5, ask the woman the main person who took over the activity while she was away.
- Question 8.7:** If someone took over the woman's activity while she was away, ask if the person received payment for the work that they did.
- Question 8.8:** If yes to Question 8.7, ask the woman how much was paid. If the payment was in kind, ask for the value of the item(s) mentioned.

9. COST TO OTHER HOUSEHOLD MEMBERS

- Question 9.1:** Ask the woman which member(s) of her household travelled with her when she went to deliver. From the Household Roster, enter ID code(s) for each member(s) and then proceed to ask questions 8.2 to 8.4.
- Question 9.2:** Ask approximately how much each of the household members who travelled with the woman incurred in transport costs.
- Question 9.3:** Ask approximately how much time each of the household members took away from their normal activities to escort her to where she delivered.
- Question 9.4:** Ask approximately how much each of the household members who travelled with the woman paid for accommodation if they needed overnight stay.
- Question 9.5:** Ask the woman which member(s) of her household visited her (who came to see her) while she was at the place where she delivered. From the Household Roster, enter ID code(s) for each member(s) and then proceed to ask questions 9.6 to 9.8.
- Question 9.6:** Ask the woman approximately how much each of the members of her household who visited her incurred in transport costs.
- Question 9.7:** Ask the woman approximately how much time each of the household members who visited the woman took away from their normal activities in order to visit her.

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Question 9.8: Ask approximately how much each of the household members who visited the woman paid for accommodation if they needed overnight stay.

10. OUTCOMES AFTER LAST PREGNANCY

- Question 10.1** Ask the woman if her marital status has changed since the time her pregnancy ended.
- Question 10.2** If the woman answered 'yes' to 10.1 ask if the change in marital status is a result of events related to her delivery.
- Question 10.3** If the woman answered 'yes', ask her what changes occurred.
- Question 10.4** Compared to the situation before her most recent delivery, how has the quality of the relationship with her partner changed?
- Question 10.5** Ask the woman if she has sought care from a health facility since she delivered.
- Question 10.6** If the woman responded 'yes' to 10.5 ask where she sought health care after she delivered.
- Question 10.7** If the woman responded 'no' to 10.5 ask for the reasons why she has not sought care from a health professional.
- Question 10.8** Ask the woman if she has resumed the income generating activities she participated in before she fell pregnant.
- Question 10.9** If the woman responded 'no' to 10.8 ask her to give the main reason why she has not resumed her income generating activities.
- Question 10.10** If the woman responded 'yes' to 10.8 ask her earnings have changed since the time she delivered.
- Question 10.11** If the woman responded 'yes' to 10.8 ask her if she feels she resumed the income generating activities before she wanted to.
- Question 10.12** Ask the woman if her household had enough food in the last month.
- Question 10.13** Ask the woman approximately how much money she now receives for her daily allowances.
- Question 10.14** Ask the woman if this is the same amount of money she received before her delivery. If it is not, ask her how it has changed.
- Question 10.15** Ask the woman if she felt isolated or marginalized by people close to her after she had delivered.
- Question 10.16** Ask the woman if she felt that her last pregnancy made her feel that she owes someone favours because of the help that they offered her.

11. HOUSING AND ASSET OWNERSHIP

- Question 11.1** Ask the woman if her household owns the dwelling that they stay (sleep) in.
- Question 11.2** Ask the woman how many sleeping rooms the dwelling they stay in has.
- Question 11.3** Ask the woman the main source of drinking water for members of her household.
- Question 11.4** Ask the woman the main source of fuels used by her household for cooking.
- Question 11.5** Ask the woman the type of toilet facility used by her household.
- Question 11.6** Ask the woman the type of material that is used to build the walls of the house used by her household.
- Question 11.7** Ask the woman the type of material that is used to construct the roof of the house used by her household.
- Question 11.8** Ask the woman for the type of material used for the surface of the floor of the house used by her household.

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Question 11.9 Ask the respondent if her household has any of the services or assets listed (i.e., electricity, radio, television, video deck, telephone, refrigerator, bicycle, motorcycle and motor vehicle).

12. HOUSEHOLD EXPENDITURE

- Question 12.1** Ask the woman approximately how much on average her household spends on purchased food items every month.
- Question 12.2** Ask the woman the average value of food items that her household consumes each month from its own production. That is, if the household had sold the food that it retains from its own production for consumption each month, how much would it receive?
- Question 12.3** Ask the woman how much her household spends each month on housing (rented accommodation or maintenance of households' dwellings). If the household owns the house/dwellings, ask how much they would have received if they rented them out.
- Question 12.4** Ask the woman how much her household spends each month on each non-food items listed (education, water, lighting and cooking fuel, garbage collection, toilet facility, transport, health costs and funeral donations).
- Question 12.5** Ask the woman how much in total her household spends each month on grocery and other household maintenance costs.

REFERENCES

- Armar-Klemesu M, Graham W, Arhinful D, Hussein J, Asante F, Witter S, Deganus S, Aikins M, Bosu W, Tornui J, Kusi A, Penfold S and Zakariah S (2006) *An Evaluation of Ghana's Policy of Universal Fee Exemption for Delivery Care: Preliminary Findings*, Impact, University of Ghana and University of Aberdeen.
- Borghi J, Hanson KH, Acquah CA, Ekanmian G, Filippie V, Ronsmans C, Brugha R, Browne E and Alihonou E (2003) Costs of near-miss obstetric complications for women and their families in Benin and Ghana, *Health Policy and Planning*, 18 (4).
- Drummond MF, Stoddard GL and Torrance GW (1997) *Methods for the Economic Evaluation of Health Care Programmes*, Oxford: Oxford University Press.
- Wagstaff A and van Doorslaer E (2003) Catastrophe and impoverishment in paying for health care: with applications to Vietnam 1993–98, *Health Economics*, 12.