Maternal and Neonatal Health in Indonesia: Baseline Findings from a Community Survey 1996

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TABLES

TERMS AND ABBREVIATIONS

BPS	Bureau Pusat Statistics (Central Bureau of Statistics)
Becak	Small motor taxi
Bidan	Midwife in a clinic or hospital
Bidan di desa	Village midwife with training, but less training than a *bidan*
DHS	Demographic Health Survey
Dukun	Traditional birth attendant
EOC	Essential Obstetric Care
H S S	Hulu Sungai Selatan
IDHS	Indonesian Demographic Health Survey
IFA	Iron-folate
Jamu	A traditional herbal medicine
Kecamatan	Sub-district
Kurang darah	"Low Blood" - a synonym for anemia
PSU	Primary Sampling Unit
Posyandu	Village clinic
Puskemas	Health center
Segmen	Census segment
TBA	Traditional birth attendant
Wilcah	Census enumeration district

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SUMMARY OF FINDINGS

The Maternal and Neonatal Health Community Survey was carried out in the middle of 1996 in the Indonesian province of South Kalimantan The survey was designed to provide community-based quantitative information as a baseline for the MotherCare program The topics covered were

(1) The use of maternity health services by women who had given birth in the previous three years, with a focus on payments, perceived symptoms of complications, and information about the immediate post-partum period,

(2) Knowledge among women of reproductive age and husbands concerning complications of pregnancy and birth, local hospitals, post-partum contraception, anemia, and iron tablets,

(3) Hemoglobin and iron tablet use among currently pregnant women

The survey was carried out in the three districts of the MotherCare program, Banjar, Barito Kuala (BK), and Hulu Sungai Selatan (HSS) It used a clustered design that included samples of women with a birth in the last three years, other women of reproductive age, husbands, and currently pregnant women in the same sampled census areas as respondents The area was largely rural, though the urban concentration of Banjar Baru and Martapura was identified as a separate urban stratum The survey was "fielded" by the provincial office of the Central Bureau of Statistics (Bureau Pusat Statistics/BPS), with data entry and analysis carried out by MotherCare Numerical results presented in the report are weighted to reflect the population under study

The distribution by age and gender of the overall population in the sampled households was close to the national distribution, with lower numbers in the youngest age groups reflecting recent falls in fertility Banjar was the principal language in 85 percent of the households surveyed Radio and TV ownership was reasonable, at 69 percent and 55 percent of households Respondents were generally literate, with only 15 percent of females unable to read and more than half with completed primary schooling Almost half the female respondents worked for pay outside the home, though this tended to be concentrated in the relatively small urban section of the population

Women with a birth in the previous three years were asked about use of ante-natal care (ANC), and about experiences in delivery and after the birth relating to health service use and health problems Of these women, 65 percent reported at least one ANC contact with a professional, leaving a sizeable number with no such contact Thirty-six percent reported four or more contacts (not the same measure as the official indicator K4) ANC use was more common in the urban population, and among those with more education and those pregnant with their first child ANC was most commonly given by midwives

Birth in a health facility (hospital, private clinic or midwife's home) was not common, being reported

for only 11 5 percent of all women and 7 4 percent outside the urban area (the figure was 41 1 percent in the urban area) Hospital use was more common among the more educated and, in the rural area, those having their first birth ANC use and health facility delivery were associated in the urban area but not the rural area Rural home deliveries were most frequently attended by a traditional birth attendant (TBA), in 52 percent of rural home births, but some were attended by midwives or doctors (18 percent and 9 percent of rural home births, respectively) Fifty percent of the urban home births were attended by a midwife and 7 percent by a doctor More than one attendant at home delivery was seldom reported In all, 32 percent of rural births and 74 percent of urban births were either in a health facility or attended by a professional Caesarean section was performed in 1 8 percent of births (1 5 percent of rural and 4 0 percent of urban births)

Among those delivering in a health facility, the most common reasons given for that location were "delivery problem" or "safety," delivery problem being the most common for rural hospital births (at 46 percent) and safety for urban births in hospital births (54 percent) Preference (personal or family) was not frequently quoted for rural hospital births, at 24 percent The decision for a hospital delivery was usually reported as taken by the woman herself or by her husband

Symptoms of complications during pregnancy or delivery were reported by some of the respondents The validation study did not suggest a definitive list of symptoms linked to specific medically-defined complications In this report, fairly conservatively chosen symptoms, based mainly on unprompted replies, were selected for tabulation Fourteen percent of respondents reported one or more of them (but never linked to more than two medically-defined complications) Health facility delivery was more common among those reporting these symptoms (of those reporting symptoms suggestive of a complication apart from sepsis, 22 percent delivered in a facility) And among these health facility deliveries, "delivery problem" was more frequently given as the reason for facility care, indicating an association between perceived symptoms and perceived need for this care, this effect was pronounced in the rural area However, the majority of those reporting these symptoms still delivered at home There was no indication of a similar correlation of perceived symptoms and delivery with a professional at home

Relatively few deliveries in a health facility were without any charges being reported, and reported payments for hospital delivery varied from 5,000 rupiah (just $US2 00 at approximately 2,300 rupiah to the dollar) to more than three million rupiah The hospital deliveries with caesarean section tended to be notably more expensive to the patient than other deliveries, with the average payments for a caesarean being in excess of 100,000 rupiah, and often much more The average dollar equivalent for a caesarean deliver was more than $US500, compared with an average of $US160 for other hospital deliveries

Among 1,311 singleton births reported by women with a birth in the previous three years, the perinatal mortality rate was 20 6 per thousand The rate was slightly higher among 1,100 rural singleton births, at 22 7 per thousand However, there are some grounds to suspect under-estimation in these figures and among births reported within a year before the survey, as the rate for perinatal mortality in the rural area was 32 7 per thousand

Only 3 percent of the last-born babies were not breastfed at all, but immediate initiation of breastfeeding was uncommon, with almost 50 percent of mothers starting after, a day or later Sixteen percent of mothers reported a health problem for themselves or the baby in the seclusion period (approximately six weeks) Thirty-six percent were visited by a midwife in this period (timing of the visit not specified), and 76 percent were visited by a TBA

Questions regarding knowledge of danger signs in pregnancy were asked of samples of women of reproductive age (not only those with a recent birth) and of a sample of husbands No individual "danger sign" was quoted very frequently without prompt, and the most commonly quoted were bleeding (among women, by 26 percent for post-partum bleeding, 19 percent for bleeding during delivery, and 7 percent for vaginal bleeding during pregnancy), followed by waters breaking early, placenta retained, and anemia in pregnancy Husbands tended to focus on the same signs, but each sign was quoted (without prompt) by marginally less husbands Twenty-one percent of women and 33 percent of men were unable quote unprompted any genuine signs of danger for the mother It is unclear how far these figures denote real ignorance or how far they are increased by unfamiliarity with the interviewing process Signs were quoted less frequently by those with no previous births, but there was no sign of more knowledge among the more educated

Sixty-eight percent of female respondents correctly named a hospital when asked to do so This percentage was higher in the urban area, at 84 percent Those who correctly named a hospital indicated it was almost always within two hours travel time (98 percent of respondents doing so) The average quoted cost of getting there was 5,000 thousand rupiah, just over two dollars The respondents tended mainly to grade hospitals "good" (on the second point on a four-point scale) for pregnancy and delivery care Few gave grades of "excellent" and between a quarter and a third gave only "fair" or "poor " Given the likelihood of a tendency to overstate approval, these figures may indicate moderate but by no means complete satisfaction with hospital care as perceived by these respondents Knowledge of hospitals and positive grading were more common among the more educated

The need for contraception post-partum was generally recognized, by 92 percent of women and 90 percent of men Only about 3 percent were unable to name any modern method of contraception, though rather less named any long-term methods Relatively few (19 percent of women who showed awareness of one or more modern methods) considered it advisable to commence quickly after birth (within a day), but one third (34 percent) indicated that contraception should start at the end of the six week seclusion period There was less awareness of any need for contraception post-abortion (after "losing a pregnancy")

Of the 414 pregnant women surveyed for the maternal anemia study, 45 2 percent were found to be anemic, with the following breakdown of severity 1 2 percent of pregnant women had severe anemia (Hb<7 g/dl), 17 1 percent had moderate anemia (Hb 7 0 to 8 9 g/dl), and 26 8 percent had mild anemia (Hb 9 to <11 g/dl)

Two biological factors—having more than three live births, and a mid-upper arm circumference less than 23 5 cm—were significantly associated with anemia Two other factors, previous stillbirth and maternal education, were not significantly associated with anemia About 77 percent of pregnant women had heard of *kurang darah*, a local term for low blood which is characterized by the symptoms of anemia, and 60 percent thought that *kurang darah* was a serious illness However, there was no significant association between awareness of anemia, or perception of anemia, as a serious illness with having anemia

While 66 percent of women were receiving at least some iron-folate pills, only 8 percent of women received more than 60 pills during their pregnancy, often due to supply and access problems An important approach to decreasing anemia is therefore to address the problems of iron tablet supply and access to maternal health services Health workers also need to be trained on the importance of giving IFA pills to all pregnant women and in proper counseling methods and messages to ensure compliance The intervention to decrease maternal anemia will involve investigating new ways to improve both the supply and demand for IFA pills

CHAPTER 1

GENERAL DESCRIPTION OF SURVEY

1 1 Objectives and Information Sought

The baseline survey was carried in mid-1996 with the overall objective to provide information pertinent to evaluation of the MotherCare program in South Kalimantan, Indonesia The specific objectives were to obtain community-based quantitative information on the following topics

Pregnancy, Delivery and Post-partum

Information sought among women reporting their most recent birth, within three years prior to the survey

A The profile of health services use during pregnancy and delivery

B The incidence of complications based on recalled symptoms and patterns of health service use among women with complications

C Perinatal and neonatal mortality (all births in previous three years) and other child outcomes

D Health service use in the post-partum period

E Costs of (charges for) health service use

Information from married women of reproductive age and husbands

A Knowledge of danger signs for complications and appropriate actions

B Knowledge of local hospital

C Knowledge of sources of information concerning health problems in pregnancy and during birth

Anemia in Pregnancy

Information from currently pregnant women and from women reporting a birth in the previous three years

A Hemoglobin values and the prevalence of anemia for currently pregnant women

B Supply and consumption of iron tablets during pregnancy

C Knowledge of and sources of information about anemia

Post-partum Contraception

Information from women reporting a birth in the previous three years, and from married women of reproductive age and from husbands

A Use and knowledge of post-partum and post-abortion contraception

1 2 Respondent Groups

Four distinct groups of respondents were identified

1 Women with a birth in the last three years They were asked for information relating to experiences during the pregnancy and delivery for that birth Of the 1,206 women surveyed, 1,203 had complete data on all aspects of these topics, there being some questionnaire modules that were not always completed A sub-sample (430) of these women were also asked questions relating to knowledge and sources of information

2 Other women of reproductive age These women were asked questions relating to knowledge and sources of information (288 women)

3 Husbands Husbands were asked questions relating to knowledge and sources of information (359 men)

4 Currently pregnant women They were asked for hemoglobin and information relating to iron tablet supplies and consumption (455 women, 414 with hemoglobin measurement)

The number of respondents indicated represents the actual number of people interviewed

1 3 Outline of Design

For sampling, the area was divided into four strata the three MotherCare districts (as "rural" areas), and the urban area of Banjar Baru and Martapura in Banjar district taken as an additional stratum The urban nature of small parts of the three "rural" strata was ignored in this classification, since they are small The sampled households were selected at random in three stages by sub-district (*kecamatan*), census enumeration district (*wilcah*), and census segment (*segmen*), using household numbers provided by the provincial office of the Central Bureau of Statistics (BPS)

The fieldwork, including selection and training of interviewers, field organization and the interviewing, was carried out by the BPS with the active involvement of local MotherCare staff Interviewing was carried out by interviewers of the same sex as the respondents, working in teams of four or five spending approximately a week in each sampled *wilcah* Training was over a period of two weeks Data entry and checking were carried out by MotherCare, and field co-coordinators from MotherCare were present in the field during data collection Response rates were reasonably high estimates range from 90 9 percent to 97 percent for the various types of respondent However, they are slightly lower than those of the 1994 Indonesia DHS survey Data handing and analysis were carried out using the computer packages FoxBASE, SPSS, and Stata

Further details of the sampling, response rates and analytic methods are given in Appendix A The questionnaire is attached as Appendix B

The fieldwork was carried out from May to July 1996 Specific results were reported as they became available and a preliminary report and tables covering principal findings was prepared in June 1997

1 4 Background to this Report

This report presents the overall findings of the survey in the following chapters

Chapter 2	General Household and Personal Characteristics, for all the households in the sampled *wilcah* and all individuals selected for interview
Chapter 3	Use of health services and experiences for the most recent birth
Chapter 4	Perinatal mortality and use of health services and experiences after the most recent birth
Chapter 5	Knowledge and opinions relating to danger signs, local hospital and sources of information relating to maternal health
Chapter 6	Knowledge and use of post-partum contraception
Chapter 7	The findings relating to anemia in currently pregnant women

The intention of the report is to give a reasonably comprehensive overview of the findings of the survey There is detail in the questionnaire that is not fully covered, though the report contains material on all topics addressed in the questionnaire Inter-relationships between outcomes in different topic areas are shown to limited degree

The percentages, means, and other statistical results in this report, except where specifically indicated, are weighted to take account of the different proportions of the population sampled in the different

strata and among the different types of respondent They therefore reflect, and are valid estimates of, the corresponding percentages in the population The number of respondents given in the tables, however, are the actual number interviewed and are not weighted They are the real denominators, available for a visual check and for caution in inference when numbers are low, but they do not reflect the relative numbers in the population The tables do not include standard errors or other statistical measures Confidence intervals and the results of statistical tests are presented in the text for the more important results and comparisons, and where they support a particular line of argument

CHAPTER 2

SAMPLED HOUSEHOLDS AND PERSONS

2 1 Age and Sex Breakdown of All Residents in the Sampled Census Segments

The age and sex structure in the houses in the sampled segments is shown in Table 2 1 The results in this table refer to all reported residents of all households visited in the course of taking the initial lists of residents in these segments The age structure is very similar to that given by the Indonesia Demographic and Health Survey (IDHS) for 1994

There is noticeable sampling variability in the urban figures on account of the smaller numbers sampled In the rural and total figures, the lower numbers in the age groups below 10 years old reflect recent decreases in fertility This is masked by sampling variation in the urban figures but is apparent in urban areas for the country as a whole in the IDHS results Women of reproductive age (15-49 years) made up 57 percent of the female residents, and 29 percent of all reported residents

Table 2 1 Composition of Sample

Distribution by age and sex of residents in surveyed households Percentages in this table are unweighted The results refer to all reported residents of all households visited in the course of taking the initial lists of residents in these segments Indonesia 1996

	Rural			Urban			Total		
	Males	Females	Both	Males	Females	Both	Males	Females	Both
Number	9547	9891	19438	2038	1992	4030	11585	11883	23468
Age (yrs)									
0-4	10 5%	9 8%	10 1%	10 6%	9 5%	10 1%	10 6%	9 7%	10 1%
5-9	11 7%	10 0%	10 8%	9 9%	8 7%	9 3%	11 4%	9 8%	10 5%
10-14	11 1%	10 9%	11 0%	10 2%	10 2%	10 2%	11 0%	10 8%	10 9%
15-19	10 3%	10 6%	10 4%	11 3%	11 7%	11 5%	10 5%	10 8%	10 6%
20-24	9 6%	10 7%	10 2%	13 2%	12 2%	12 7%	10 3%	11 0%	10 6%
25-29	9 1%	9 3%	9 2%	9 1%	10 6%	9 9%	9 1%	9 5%	9 3%
30-34	7 6%	8 8%	8 2%	7 9%	9 3%	8 6%	7 6%	8 9%	8 3%
35-39	7 9%	7 8%	7 8%	7 0%	7 8%	7 4%	7 8%	7 8%	7 8%
40-44	6 4%	5 2%	5 8%	5 8%	5 6%	5 7%	6 3%	5 3%	5 8%
45-49	3 7%	3 8%	3 8%	4 1%	4 3%	4 2%	3 8%	3 9%	3 8%
50-54	3 8%	4 3%	4 0%	4 8%	3 4%	4 1%	4 0%	4 1%	4 0%
55-59	2 4%	2 2%	2 3%	2 3%	1 9%	2 1%	2 4%	2 2%	2 3%
60-64	2 2%	2 7%	2 5%	1 4%	1 8%	1 6%	2 1%	2 5%	2 3%
65-69	1 3%	1 6%	1 4%	0 7%	1 2%	9%	1 2%	1 5%	1 4%
70-74	1 4%	1 3%	1 4%	1 1%	0 9%	1 0%	1 4%	1 2%	1 3%
75-79	0 5%	0 6%	5%	0 2%	0 5%	3%	0 4%	0 6%	0 5%
80+	0 4%	0 6%	5%	0 3%	0 4%	4%	0 4%	0 5%	0 5%

2 2 Principal Household Characteristics

The remaining tables in this and later chapters give results for the households from which persons were sampled for the later, substantive sections of the questionnaire, and for these persons themselves Percentages are weighted according to the type of sampled person, as described in Chapter 1 and Appendix A

Table 2 2 shows the breakdown by principal language spoken, classified by district

Table 2 2 Principal Household Language

Breakdown by principal language spoken classified by district Indonesia 1996

	Number	Household language			
		Banjar	Bakunpai	Javanese	Indonesian
Barito Kuala	538	60 6%	17 2%	17 5%	7 5%
H S S	537	99 8%	0 0%	0 0%	0 2%
Banjar rural	548	93 2%	0 1%	3 5%	6 9%
Banjar urban	326	84 6%	0 0%	6 6%	9 5%
All	1949	85 0%	4 5%	6 8%	5 9%

The clear majority language is Banjar, which is the main language of the household for 85 percent of the respondents It was less commonly reported in Barito Kuala at 60 6 percent, where Bakunpai and Javanese were more noticeable Indonesian was not found to be the main language in many of the households (5 9 percent of households overall, not at all in Hulu Sungai Selatan, and in only 3 5 percent of households in rural Banjar), though no questions were asked about individuals' proficiency in this language

Table 2 3 shows household ownership of radio, TV, and other means of receiving broadcast or recorded information

Table 2 3 Household Possession of Radio, TV etc

Breakdown by possession of radio TV audio tape player and VCR by urban and rural area Indonesia 1996

	Number	Possession of (percent)			
		Radio	TV	Tape	VCR
Rural	1623	68 5%	51 6%	32 7%	2 5%
Urban	326	75 3%	79 6%	60 1%	8 9%
Both	1949	69 3%	54 9%	36 0%	3 3%

A clear majority of the households have a radio (69 3 percent) and rather more than half (54 9 percent) television, though ownership of audio tape machines and VCRs was less common at 36 percent and 3 3 percent Not surprisingly, these possessions were more common in the smaller urban population

Table 2 4 shows possession of certain "key" items and of privately-owned means of transport, which were more common in the urban area as well The exception was boat ownership, which was in any case low at 8 2 percent rural, and 0 2 percent urban As many as one fifth of the households (19 3 percent) did not have any of these key possessions

Table 2.4 Other Possessions In Household

Possession of certain key items and of privately-owned means of transport classified by (a) numbers of key possessions and (b) by possession of stated means of transport Indonesia 1996

	Number	Percent with number of listed possessions					Percent with		
		0	1	2	3	4+	motor cycle	car	boat
Rural	1623	19 7%	55 1%	17 3%	6 2%	1 7%	19 4%	3 1%	8 2%
Urban	326	16 2%	32 8%	23 4%	16 6%	11 2%	40 6%	12 9%	0 4%
Both	1949	19 3%	52 4%	18 1%	7 4%	2 9%	21 9%	7 2%	4 3%

The possessions are sewing machine refrigerator bicycle motor bicycle car boat

Flooring material of the home was asked as an indicator of economic status with results shown in Table 2 5

Table 2 5 Principal Flooring Material

Type of flooring material is considered an indicator of economic status Indonesia 1996

	Number	Flooring material								
		Carpet	Tile	Vinyl	Cement	Wood		Bamboo	Earth/ sand	Other
						Ulin	other			
Rural	1623	2 1%	0 2%	7 4%	5 1%	7 0%	76 9%	0 4%	0 8%	0 4%
Urban	326	2 2%	6 3%	27 6%	27 6%	8 0%	35 4%	0 0%	1 4%	0 0%
Both	1949	2 2%	0 9%	7 8%	7 8%	7 1%	72 0%	0 3%	0 9%	0 4%

These results indicate both higher status and more variability between type of flooring in the urban area Very few households (0 9 percent overall) had earth or sand floors

2 3 Personal Characteristics

Selected personal characteristics of all the respondents are presented in Table 2 6, which shows area of residence, age, number of live births, education, and literacy In this table, results for husbands are for the separate sample of husbands, not the husbands of the women respondents The results for women are combined for the three groups those with a birth in the last three years, those currently pregnant and others of reproductive age, and currently married

Table 2 6 Age, Number of Live Births, Literacy and Education, Occupation

The results for husbands are for the separate sample of husbands not the husbands of the women respondents Indonesia, 1996

	Women (n=1949)	Men (n=359)
Residence		
Rural	88 0%	88 1%
Urban	12 0%	11 9%
Age		
15-19	3 9%	0 4%
20-24	17 2%	7 0%
25-29	18 6%	13 3%
30-34	17 6%	14 0%
35-39	17 3%	18 4%
40-44	16 0%	19 8%
45-59	8 3%	11 2%
50+	0 6%	15 9%
not stated	0 4%	none
Mean age	32 3 yrs	38 3 yrs
Live births		
0	12 8%	7 0%
1	22 1%	21 7%
2-3	35 2%	37 3%
4+	29 9%	34 0%
Unable to read	14 6%	[2]
Education		
None / some primary	47 2%	37 0%
Primary complete	31 3%	29 1%
Secondary+	21 5%	33 9%

[1] Separately sampled
[2] Not asked

The age distributions of these respondents is different from the overall age distribution owing to the sampling being targeted at those with a recent birth and those of reproductive age (or, in the case of husbands, those whose wife was of reproductive age) These separately-sampled husbands tended to be older than the women respondents, with a mean age of 38 3 years compared with 32 2 among the women This may reflect the sampling of men whose wives were not included in the women's samples, which selected younger women The mean age among the women with a recent birth was

28 3 years, among the currently pregnant 26 4 years, and that among the other women of reproductive age 35 4 years (not shown in table) The mean ages of rural and urban women were less different, being 32 1 and 33 5 years respectively (also not in table) About four-fifths of the sampled people were from the rural areas

The husbands tended to be older, but literacy and education profiles were higher among the men Reasonable proportions of both women and men completed primary schools (52 8 percent of women, 63 0 percent of men)

An appreciable number of women (43 6 percent) worked for pay outside the home The corresponding figures for the rural and urban areas were 45 5 percent and 29 2 percent, showing a large excess for the former The predominant occupation of the women's husbands in the rural area was agriculture at 53 3 percent by the wife's report (the question was not asked for the separately-sampled husbands) The most common urban occupation was laborer, at 28 5 percent, followed by civil servant at 19 3 percent Of the women, 10 2 percent reported that their husbands stayed away from home because of work There was little difference in this percentage between rural and urban areas (10 2 percent and 9 8 percent)

CHAPTER 3

USE OF HEALTH SERVICES AND RELATED EXPERIENCES FOR MOST RECENT BIRTH

This and the following chapters present results gathered from interviewing women who had had a birth in the three years previous to the survey Questions were asked about the most recent birth This chapter deals with the use of ante-natal care (ANC), use of health services during delivery, and the occurrence of symptoms suggestive of complications (both for their incidence and in relation to health service use) Results concerning perceived costs of hospital birth are also included The next chapter presents results concerning the period after the birth

3 1 Use of Ante-natal care (ANC)

Table 3 1 shows percentages of respondents classified according to the reported number of ante-natal care attendances with a professional This was classified as "one or more" and "four or more" attendances No attention is given in these results to the timing of the attendances "One or more" attendances is equivalent to the "K1" measure, but "four or more" is not equivalent to the "K4" measure, which will have lower values but cannot be calculated from the survey data

Table 3 1 Use of Ante-natal Care by District

Percentages of women reporting any attendance or four or more attendances with a professional[1] before birth Indonesia, 1996

	Number of respondents	Number of contacts reported	
		One or more	Four or more
Barito Kuala	335	64 5%	42 7%
H S S	328	70 7%	39 6%
Banjar rural	338	67 4%	24 0%
All rural	1001	63 6%	33 3%
Urban	202	79 2%	55 5%
Whole area	1203	64 7%	36 0%

[1] Includes responses given as other' except where these clearly indicate TBA These responses were chiefly replies such as paramedic sister

The percentages may be slightly over-estimated Enquiry about pregnancy care started with questions concerning use of traditional birth attendant (TBA) services and then asked about attendance with other providers However, a small number of respondents still quoted TBA attendance under the second heading (revealed under the "other" category when the person consulted at the first visit was asked)

The number of responses involved is small, and adjustments were made for this in the data

The "one or more" result of 64 7 percent (with 95 percent confidence interval 57 9 percent to 71 5 percent) is less than that for South Kalimantan as a whole in the IDHS survey of 1994, which was 74 7 percent, though only slightly when the confidence interval is taken into account The converse of 64 7 percent (or 74 7 percent from the IDHS) attendance is that as many as between a third (35 3 percent) or a quarter of the women appear to have made no attendance at all Only about a third, 36 percent (confidence interval 30 2 percent to 41 8 percent), reported four or more attendances The percentage attending once or more (attended at all) varied by area less than did the percentages attending four or more times, suggesting that area differences may be more pronounced for the continuation of ANC use The rural/urban difference is statistically significant for one or more visits and four or more visits ($p=0\ 02$ and $p<0\ 001$) respectively The percentage attending four or more times was lowest in Banjar district (rural), at 24 percent, although the variation between the rural areas in respect to four or more attendances was not quite statistically significant ($p=0\ 06$)

A large percentage attending just once (as opposed to once or more) may indicate a tendency for some women to attend only once to verify their pregnancy However, this percentage was only 7 0 percent (for the whole area) and does not suggest this behavior was at all frequent

Table 3 2 shows percentages attending ANC by age, education and number of live births, for the whole area

Table 3 2 Use of Ante-natal Care By Age, Number of Live Births and Education Level of Respondent

Percentages of women reporting any attendance or four or more attendances with a professional before birth Indonesia, 1996

	Number of respondents	Number of contacts reported	
		one or more	four or more
All	1203	64 7%	36 0%
Age			
15-19	49	61 8%	34 5%
20-24	320	67 8%	35 6%
25-29	331	65 0%	38 0%
30-34	258	64 2%	39 4%
35-39	168	63 9%	33 4%
40-44	63	58 5%	24 9%
45+	14	39 4%	28 1%
Live births[1]			
1	408	70 7%	42 9%
2-3	489	62 6%	35 3%
4+	294	60 0%	27 9%
Education			
None/some primary	462	59 0%	27 9%
Primary complete	384	62 2%	31 4%
Secondary+	357	76 0%	53 4%

[1] Includes index pregnancy (i e pregnancy under enquiry)

ANC was sought more by women with more education, and more by those of lower parity The comparison between secondary education and primary or none was statistically significant (p=0 009 for one or more attendances, p<0 001 for one or more) as was the trend with live births for four or more attendances (p=0 002) Overall comparisons between age groups were not statistically significant

Table 3 3 shows the percentages seeing different types of providers at their first attendance for ANC The percentages are based on a denominator of all respondents, including those who did not use ANC with a professional at all

Table 3 3 Type of Provider Seen at First ANC Contact

Percent of women seeing different types of provider at their first attendance for ANC Indonesia 1996

	Percentage of respondents[1] (n = 1203)
Provider seen	
bidan di desa[2]	15 5%
bidan	36 9%
private *bidan*	1 9%
doctor	2 8%
private doctor	1 4%
other	3 2%
not known[3]	4 2%
No ANC with professional	35 3%

[1] Some respondents saw more than one provider
[2] Not adjusted for time *bidan di desa* in village
[3] Includes replies lost in adjustment

A small number reported more than one provider, for example, five women saw both a *bidan* (midwife in a clinic or hospital) and a doctor The 15 5 percent of women seeing a *bidan di desa* (village midwife with training, but less training than a *bidan*) are likely to underestimate the involvement of *bidan di desa* in ANC This is because *bidan di desa* were not present in all the villages covered by the survey for all three years of the recall period Preliminary results from the *bidan di desa* survey show that there was a *bidan di desa* in these villages on average for about half this time The rate of usage in this table may be doubled, to approximately 30 percent, to give a better impression of the impact of *bidan di desa*, (note that this is only a rough adjustment that does not appropriately reduce the level of other providers) Also, it is possible that not all respondents may have made the full distinction between a *bidan* (from a *puskesmas*, or health center) and a *bidan di desa*, particularly if they went to a *bidan di desa* not in their own village The figures in Table 3 3 are comparable for the results for the whole province in the 1994 IDHS, in which 5 2 percent gave doctor as the attendant, and 60 5 percent gave nurse/midwife The IDHS figures are for all the ANC received by the respondent, classifying by the most qualified type of attendant seen

The timing of the first and last attendance for ANC is shown in Table 3 4 These percentages indicate the extent to which contact with a health professional is made early in the pregnancy and also towards the end in the last trimester

Table 3 4 Timing of First and Last Contacts for ANC with a Professional

These percentages indicate the extent to which contact with a health professional is made early in the pregnancy and also towards the end in the last trimester Indonesia, 1996

	Contact[1]	
	first (n=1203)	last (n=1203)
Contact in		
1st trimester	33 3%	1 8%
2nd trimester	17 8%	3 5%
3rd trimester	5 9%	49 1%
Timing not stated	7 6%	10 2%
No professional contact	35 3%	35 3%

[1] for respondents reporting one contact this contact is classified in both columns

Only a third (34 3 percent) of all women did make early contact, and only about one half (48 9 percent) made contact in the last part of their pregnancies

Two or more injections against tetanus were reported by 29 8 percent The 95 percent confidence interval is 25 6 percent to 34 0 percent This figure and the upper confidence limit are lower than the figures reported in the IDHS (1994) for South Kalimantan (44 3 percent) or nationally (48 8 percent) It is of interest to note, although it does not resolve this discrepancy, that two or more doses were reported by those referring to a birth up to a year before the interview more frequently than among those referring to a birth longer ago (36 8 percent compared with 25 1 percent, statistically significant, p=0 001) It is not possible to say from these data if this is a recall effect or due to a genuine increase in vaccination, however, the magnitude of the difference suggests the former

For the first and last ANC visits, respondents were asked if they made this visit for a health problem or a routine check, and in the former case what problems were recalled (this recall of problems was distinct from problems reported in the separate modules concerning complications) Results are reported here for the first visit Twelve percent of ANC attenders (100 women) reported going for a problem and the more frequently mentioned were headache and/or dizziness by 19, tiredness by 12, baby in wrong position by 10, stomach ache, nausea, and/or vomiting by nine, anemia by eight, vaginal bleeding by six and swollen limbs by five (The last two were mentioned more frequently for the last visit) Fits or convulsions were mentioned only by one and fainting by none Eight gave late period as the reason, and there were a string of other responses given once or twice each Overall no one problem was mentioned very frequently

Respondents were also asked how long it took to reach the place of ANC For 92 percent this was 30 minutes or less, and for 97 4 percent, an hour or less The longer journeys were generally to a *puskesmas*

Respondents were also asked if, at any ANC visit, they were told where to go in the event of a serious problem in pregnancy, labor or delivery Of all the respondents 34 3 percent, and 55 8 percent of those who attended ANC, replied they had been told

Of the respondents attending ANC with a professional, 39 3 percent said they did not pay at the first visit Among those who did pay, the total payment ranged from 200 rupiah (about $US0 08 at the time of the survey, with the exchange rate at approximately 2,400 rupiah to the dollar) to 750,000 rupiah (about $US330) This large payment was reported by a woman who saw a doctor at a hospital in the first trimester and reported the visit was for stomach pain (*sakit perut*) The next largest payment was 35,000 rupiah (about $US15), and the first respondent's account of the highest figure may be questioned since it is exceptionally large The mean payment excluding this figure was 2,815 rupiah (just over a dollar) and median 1,000 rupiah When visits not involving a doctor are excluded, the mean falls to 2,241 rupiah and the median is the same

Over four-fifths (82 2 percent) of the respondents saw a TBA (*dukun*) at least once during pregnancy, with only a small rural/urban difference (83 5 percent and 72 3 percent respectively, difference not statistically significant) The mean number of visits was 6 6 (maximum 20) and the average payment (asked as "what was usually paid," in cash or in kind) was 1,220 rupiah This is about half a US dollar at the rate of exchange at the time of the survey There was no association (neither inverse nor positive) between use of the *dukun* and use of ANC with a professional

In summary, uptake of ANC with a professional appears moderately low, with most having had little or no contact (35 5 percent none, and 57 3 percent less than four contacts) Attendance was more common among the more educated and those of lower parity ANC seems reasonably accessible in terms of the time taken to get to the point of provision, which was seldom more than an hour Payments for ANC, at the first contact at least, were variable and even if one reportedly very high payment is excluded, could still be substantial The utilization of ANC services offered by *bidan di desa*, bearing in mind that *bidan di desa* were present in the survey villages for only part of the three year recall and therefore will appear in these data at less than their potential utilization, was broadly comparable to the use of services offered by other *bidan*, and shows promise for increase in the uptake of ANC by *bidan di desa*

3 2 Place of Delivery and Use of Health Services During Delivery

Table 3 5 shows the reported place of birth for the pregnancies covered by the three year recall, by rural and urban areas and overall

Table 3 5 Place of Delivery, Overall and by Rural or Urban Area

Reported place of birth for the pregnancies covered by the three year recall by rural and urban areas and overall Indonesia 1996

Place of birth	All areas (n=1203)	Rural (n=1001)	Urban (n=202)
Hospital or *puskesmas*	7 9%	5 5%	24 8%
Private clinic	2 4%	0 7%	14 8%
Bidan s home	1 2%	1 2%	1 5%
Own home	82 1%	85 5%	57 8%
Relative s home	5 3%	5 9%	1 0%
Other	1 0%	1 2%	0 0%

Birth in a hospital or *puskesmas* (health center) delivery was not common at 7 9 percent (confidence interval 3 9 percent to 11 9 percent) The IDHS the figure for South Kalimantan is 7 7 percent, and the national rate 12 7 percent (including private hospitals, separately classified *Puskesmas* feature more in the IDHS national figures than in South Kalimantan) Hospital or *puskesmas* delivery was particularly low in the rural area at about one birth in twenty (5 5 percent) and much higher in the urban area at about a quarter of deliveries (24 8 percent, the rural/urban difference is statistically significant, p=0 02) This is also reflected in national figures in the IDHS There was an appreciable percentage of urban births in private clinics, but this type of provision made a negligible contribution in the rural area Although births in *puskesmas* are included in the first line of the table, they numbered two only in Hulu Sungai Selatan, presumably in the *puskesmas* with beds at Negara The name of the hospital or other place of birth was not asked There was a small percentage of births in a relative's home (5 9 percent) in the rural areas, and these may include some for which a closer proximity to a hospital than the woman's own home was sought Numbers of non-home deliveries were not sufficient for comparison between the three districts in the rural strata to be useful, and there is no statistical significance between them

Table 3 6 shows percentages of hospital delivery by age, number of live births and educational level

Table 3 6 Delivery in Hospital or *Puskesmas*, by Age, Live Births and Education

Comparisons between the groups in this table should be made with caution on account of low numbers of hospital/*puskesmas* deliveries particularly within the rural/urban breakdown Indonesia 1996

	Percent delivering in hospital or *puskesmas*					
	Both areas		Rural area		Urban area	
	Number	Percent	Number	Percent	Number	Percent
Age[1]						
15-19	49	3 0%	44	3 2%	5	0 0%
20-24	320	3 4%	277	2 8%	43	9 3%
25-29	331	9 8%	269	7 2%	62	25 8%
30-34	258	13 3%	201	9 0%	57	33 3%
35-39	168	6 5%	143	3 3%	25	32 2%
40-44	63	8 7%	54	7 3%	9	22 2%
45+	10	6 7%	9	0 0%	1	100 0%
Live births[2]						
1	408	11 1%	334	8 9%	748939	25 7%
2-3	489	8 6%	400	5 4%		29 2%
4+	294	2 3%	255	1 1%		13 1%
Education						
None/some primary	462	3 4%	421	2 6%	4e+06	16 9%
Primary complete	384	3 7%	334	1 8%		21 8%
Secondary or more	357	19 0%	246	15 7%		28 9%

[1] Excludes four with age not recorded

[2] Includes current pregnancy Excludes 12 reporting zero live births

Comparisons between the groups in this table should be made with caution on account of low numbers of hospital/*puskesmas* deliveries, particularly within the rural/urban breakdown In the results for both areas, the falling trend with number of live births was statistically significant (p=0 004) as was the higher rate among those with secondary education (p<0 001) The rates of hospital/*puskesmas* use among the less well educated in the rural areas were very low indeed and the effect of secondary education appeared to be stronger in the rural area The 15 7 percent among those with secondary education in the rural area delivering in a hospital or *puskesmas*, is sharply more than 2 6 percent and 1 8 percent among those with less than secondary education This difference is larger than the difference between 28 9 percent among those with secondary education and 16 9 percent and 21 8 percent with less than secondary education in the urban area This "difference of differences" is statistically significant

(p=0 001), confirming that the secondary education effect appears to be much stronger in the rural area Finally, there is a suggestion that the use of hospital or *puskesmas* was higher for those in the middle of the age range, (the statistical significance of this is confirmed by logistic regression with a quadratic trend, p=0 02)

Table 3 7 (below) shows percentages delivering in institutions or at home in relation to ante-natal care by a professional, by area

Table 3 7 Percentages Delivering in Health Facilities or at Home, and Use of ANC

By professional and by area Indonesia 1996

	Number of respondents	Place of delivery			
		Hospital or *puskesmas*	Private clinic or *bidan s* home	Own or relative s home	Other
Rural area					
ANC attendances					
None	359	6 1%	2 9%	89 8%	1 2%
1 to 3	288	4 2%	1 2%	93 8%	0 9%
4 or more	354	6 1%	1 3%	91 1%	1 5%
Urban area					
ANC attendances					
None	42	19 0%	16 7%	64 3%	0 0%
1 to 3	48	14 6%	12 5%	72 9%	0 0%
4 or more	112	31 3%	17 9%	50 9%	0 9%
Both areas					
ANC attendances					
None	401	7 1%	3 9%	87 9%	1 1%
1 to 3	336	5 3%	2 4%	91 7%	0 6%
4 or more	466	10 8%	4 4%	83 5%	1 2%

There was no tendency in the rural area for those attending ANC more often to deliver in a health facility But in the urban area there was such a tendency for more hospital delivery, with 31 3 percent of those with four or more attendances doing so compared with 16 7 percent (19 0 percent and 14 6 percent combined) of those with none or less than four attendances (this difference is statistically significant, p=0 02)

Table 3 8 shows the types of person involved in the delivery, with place of delivery classified as hospital or *puskesmas* private clinic or *bidan s* home (these two categories are hereafter referred to as "health facilities"), and own or relative's home

This table is compiled from two questions one asking all the persons present at the time of birth, and the other asking who actually carried out the delivery The replies are combined and the percentage

of births for which a given type of person is shown as "present" covers births where she or he was mentioned as present but not as delivering For deliveries in the woman's own home or a relative's home, results are classified by rural and urban This classification is not made for institutional deliveries because of low numbers

Table 3 8 Persons Present at Delivery and Carrying Out Delivery, by Place of Birth

Percentage of births for which a given type of person is shown as present covers births where she or he was mentioned as present but not as delivering Indonesia 1996

		Place of birth			
		Hospital or *puskesmas*	Private clinic or *bidan s* home	Own or relative s home	
Person	Role	(n=108)	(n=53)	Rural (n=910)	Urban (n=119)
Doctor	delivering	38 6%	20 1%	8 6%	6 6%
	present	17 0%	6 4%		
Bidan	delivering	44 0%	60 8%	10 1%	34 5%
	present	44 7%	32 7%		
Bidan di desa	delivering	2 3%	0 0%	7 7%	15 1%
	present	4 7%	0 0%		
TBA	delivering	0 0%	0 0%	52 4%	26 9%
	present	11 1%	1 5%	0 1%	
Friend or relative	delivering	0 0%	0 0%	5 0%	4 2%
	present	14 4%	5 5%	1 2%	

For 1 3 percent of rural home births and 1 7 percent of urban home births, the delivery was carried out by the woman herself (not shown in the table) As with ANC attendance, the percentages for *bidan di desa* in the table may approximately be doubled to give an impression of the level of activity of the *bidan di desa* that allows for the fact that there was not a *bidan di desa* in all villages over the three years recall

For births in a health facility, the respondents more frequently indicated more persons were present Delivery was most frequently reported to be by a *bidan* (44 0 percent in hospitals and *puskesmas*, 60 8 percent in private facilities), and doctors were quite frequently reported as present but not delivering (17 percent in hospitals and *puskesmas*, less, at 6 4 percent, in private facilities) All of this is as one may expect in a system with a degree of midwife responsibility in facility birth The *bidan di desa* seems to have had a presence in a small number (7 percent) of the hospital births One may speculate if they were involved in referral for at least some of these births, but these data cannot confirm this, this could also be the case for TBAs present at hospital births A *Bidan di desa* was stated to be the person delivering for 2 3 percent of hospital/*puskesmas* births

For home births, it was uncommon for the woman to report that another person was present in addition to the person delivering This happened for one birth with a *dukun* (TBA) delivering, and for three births with a friend or relative delivering It is possible and likely that respondents did not generally report friends or relatives present at a home birth unless they were actually involved in the delivery A noticeable number of home births were assisted by a doctor (8 6 percent rural and 6 6 percent urban) *Bidan di desa* and *bidan* together were also significant "players" in home delivery in both areas But in the rural area home births were dominated by TBAs

There is no evidence in these data of any significant sharing of the assistance for home deliveries, which is to be noted since a possible mode of entry of *bidan di desa* to home delivery is through working with TBAs However, as Table 3 8 indicates in terms of the actual place of birth, any role of a *bidan* or *bidan di desa* in a home to hospital transfer has been lost

In the next table, Table 3 9, delivery in a health facility and delivery elsewhere by a professional (doctor, *bidan*, *bidan di desa*) are combined to make a composite variable that indicates delivery under professional care

Table 3 9 Deliveries with Professional Care

Deliveries in a health facility, or elsewhere with a professional delivering, are combined to make a composite variable that indicates delivery under professional care Indonesia 1996

	Rural				Urban	Whole area (n=1203)
	Barito Kuala (n=335)	H S S (n=328)	Banjar rural (n=338)	All rural (n=1001)	Banjar urban (n=202)	
Delivery with professional care	40 9%	31 4%	26 6%	32 1%	74 3%	37 3%

The rural-urban difference is very marked, at 32 1 percent versus 74 3 percent, and is statistically significant ($p<0$ 001) The differences between the three rural areas are smaller and are not statistically significant ($p=0$ 6) so there is no evidence in these results of women in any one district having had more or less professional attendance than the others

Finally, an important aspect of hospital delivery is the number of caesarean sections carried out The proportion of all deliveries and of hospital deliveries by caesarean is shown in Table 3 10

Table 3 10 Caesarean Sections by Area

Percentages indicate the proportion of all deliveries and of hospital deliveries by caesarean Indonesia 1996

	Whole Area		Rural Area		Urban Area	
	All deliveries (n=1203)	Hospital deliveries (n=106)	All deliveries (n=1001)	Hospital deliveries (n=56)	All deliveries (n=202)	Hospital deliveries ((n=50)
Percentage of births by caesarean section	1 8%	21 2%	1 5%	27 2%	4 0%	12 0%

The overall rate is 1 8 percent (confidence interval, 1 1 percent to 2 4 percent) The area difference in the overall rate is statistically significant, p=0 001 The rate among hospital births was lower in the urban than the rural area (12 percent versus 27 2 percent) This is not statistically significant, p=0 095, but is consistent with a tendency for more elective hospital births, not accompanied by complications, in the urban area The IDHS gives the rate for the whole of South Kalimantan as 1 9 percent, and 2 5 percent nationally It shows a similar rural/urban difference in the national figures

In summary, the amount of delivery in a health facility was low in this community, particularly outside the urban area of Martapura and Banja Baru, where it was 7 4 percent Use of a hospital for birth was much more common among the more educated and those in their first pregnancy, but there was no association found between ANC use except in the urban area Doctors and midwives were involved in some home deliveries, but the principal assistants in the rural area were still TBAs, for just over half the births Multiple assistance at home births appeared to have been rare About one third (32 1 percent of rural births) took place with a professional, either in a health facility or elsewhere with a professional delivering This was much more common the urban area, at approximately three quarters (74 3 percent) Caesarean section rates were low, but not below 1 percent

3 3 Women Delivering in a Health Facility

3 3 1 Reasons Given for Facility Birth and Place of Onset of Labor

Women who had delivered in a health facility were asked questions aimed at finding out how many had moved from home after the onset of labor, and for what reason they had delivered there Their answers were intended to indicate whether transfer from home during labor was common, and how often this appeared to be linked to perceptions of need on account of complications There was also an intention to connect these results to the incidence of complications, with questions concerning symptoms based on the validation study This part of the analysis is pursued in the next section

The numbers of births reported in a hospital or other health facility was not large and the results shown in this section are based on small numbers Selected statistical significance levels are reported, but care should be taken not to over-interpret the results generally

The reasons given by respondents who had a health facility birth, for this place of birth are shown in Table 3 11

Table 3 11 Reasons Given for Delivery in a Health Facility

Delivery problem was the most frequent reason given for hospital birth in the rural areas It was less common for hospital births for the urban residents Indonesia, 1996

Reason	Place of birth			
	Hospital or *puskesmas*			Private clinic or *bidan s* home (n=53)
	all areas (n=108)	rural (n=58)	urban (n=50)	
Delivery problem	36 1%	46 1%	20%	6 6%
Safety	36 9%	26 1%	54%	62 1%
Expected complications	7 2%	7 9%	6%	3 3%
Looked after well	12 3%	12 4%	12%	33 6%
Personal or family preference	23 5%	18 3%	32%	34 6%

Note percentages add to more than 100% since several replies by same person allowed

Delivery problem was the most frequent reason given for hospital birth in the rural areas (46 1 percent) It was less common for hospital births for the urban residents (20 0 percent) though this difference is not statistically significant (p=0 08) It was unimportant for birth in a private clinic or *bidan's* home, and the difference between 6 6 percent in this group and 36 1 percent for delivery problems among hospital/*puskesmas* births in both areas was statistically significant (p=0 001) For the latter, safety was the predominant consideration, mentioned by 62 1 percent Safety was also important for urban hospital births (54 0 percent) and the similarity of these percentages for safety may perhaps reflect broadly similar groups of service users Safety also featured as a reason for about a quarter (26 1 percent) of the rural hospital births It must be remembered that "safety" could be seen either as a reason in the context of a complication needing attention, or as expressing a general precautionary attitude These aspects of safety are discussed further in Section 3 4

An expressed sense of being well-looked-after was noticeably infrequent among hospital/*puskesmas* users, being mentioned only by about one in eight Also, preference was not often given as a reason for a birth away from home

Those who had delivered away from home were also asked if they had been at another place at the onset of labor Table 3 12 shows the percentages of those delivering in a health facility who said their labor started at home

Table 3 12 Women Who Delivered in a Health Facility, and Who Were at Home at the Onset of Labor

Respondents who delivered in a health facility only Indonesia 1996

	Place of birth			
	Hospital or *puskesmas*			Private clinic or *bidan s* home (n=53)
	all areas (n=108)	rural (n=58)	urban (n=50)	
At home at start of labor	39 2%	28 7%	56 0%	43 0%

Just over a third (44 respondents, or 39 2 percent) of those delivering in a hospital said they started their labor at home Some of these would, of course, have gone to a hospital electively, without complications Furthermore, these percentages depend on the women's recall and the understanding and response to this question being accurate The percentage is higher for urban births

These two sets of results are combined in Table 3 13, which shows the percentages who gave "delivery problem" and "safety" as the reason for the facility delivery These respondents delivered in a health facility and also said their labor started at home

Table 3 13 Selected Reasons for Place of Birth

Respondents who delivered in a health facility who stated they were at home at the start of labor Indonesia 1996

	Place of birth			
	Hospital or *puskesmas*			Private clinic or *bidan s* home (n=23)
	Both areas (n=44)	Rural (n=16)	Urban (n=28)	
Delivery problem	41%	74%	14%	4%
Delivery problem &/or safety	76%	78%	75%	58%

The numbers in this table are particularly low However, it appears that the majority of these respondents (who number about three quarters of those with the birth in a facility), mentioned one or other of these reasons "Delivery problem" as a response was largely confined to the rural area, being quoted by 74 percent compared with 14 percent urban, this difference is statistically significant,

p=0 003 In the rural area, "safety" was given by only two respondents, and only one mentioned safety without "delivery problems "

3 3 2 Decision for a Facility Birth

Who decided on an institutional delivery is indicated in Table 3 14

Table 3 14 Person Making Decision for Birth in a Health Facility

Respondents delivering in a health facility The woman herself and her husband were the principal persons given as making the decision Indonesia, 1996

Person	Place of birth			
	Hospital			Private clinic or *bidan s* home (n=53)
	all areas (n=106)	rural (n=56)	urban (n=50)	
Husband	45 5%	42 7%	50%	52 1%
Woman herself	36 0%	32 2%	42%	39 1%
Bidan	6 9%	9 9%	0%	6 9%
Bidan di desa	2 3%	3 8%	0%	2 3%
Doctor	0 8%	0 0%	2%	0 0%
Mother-in-law	1 5%	2 5%	0%	0 0%
Other	6 9%	10 2%	4%	1 7%

Note Multiple replies not allowed

The woman herself and her husband were the principal persons given as making the decision, though the extent to which they may have made it on advice, and from whom the advice came is not known The *bidan* and *bidan di desa* were the most common deciders otherwise, but mainly in the rural areas As before, the figures for the *bidan di desa* (in the rural area, at least) may approximately be doubled to give a fairer indication of their role In this role, they were confined to the rural area

In summary, the most common reasons given for birth in a health facility were "delivery problem" and "safety " Safety was predominant for births in a private clinic or *bidan's* home, with delivery problem more frequent for rural hospital and health center births The decision for a facility birth was most commonly made by the woman herself, but the husband was also frequently quoted as decision maker All these results are based on low numbers

3 4 Respondents' Reports of Complications

One of the principal objectives of the survey was to identify the women reporting births when the birth was accompanied by specific complications This was to be carried out by using the questions from the validation study relating to symptoms perceived and recalled by the woman, and the algorithm that study would produce for "mapping" from symptoms to actual complications

The validation study did not show sufficiently good sensitivity and specificity for reliable identification of respondents who had medically defined complications Nevertheless, selected results in terms of symptoms that were promising in the validation study are presented here, on the assumption that they represent perceptions by the women concerned that they did have problems, and that they still give a partial reflection of the burden of true complications Table 3 15 shows the reported rates of the principal symptoms that indicate complications Some post-partum symptoms are included, although other post-partum events are covered in the next chapter As has been said, these signs should be taken as statements of the women's perceptions of problems, rather than of the complications *per se*

Table 3 15 Reports of Symptoms Associated With Complications

Data represent perceptions by the women concerned that they did have problems and give a partial reflection of the burden of true complications Indonesia, 1996

Symptom	percentages reporting symptoms (n=1205[1])
Symptoms suggestive of dystocia	
Spontaneous report difficulty pushing, narrow pelvis, big baby breech delivery transverse lie	3 3%
Labor more than 24 hours	4 2%
Labor more than 12 hours	12 9%
Symptoms suggestive of eclampsia	
Convulsions when pregnant in labor or delivery[2]	1 1%
Fainting or convulsions when pregnant	4 7%
Symptoms suggestive of pre-eclampsia	
Spontaneous report Pre-eclampsia, high blood pressure vomiting nausea, headache unconsciousness	3 4%
Swelling of face	2 3%
Swelling of face or arms	3 5%
Symptoms suggestive of hemorrhage	
Spontaneous report, bleeding, retained placenta, placenta in front	3 7%
Abnormal bleeding[3]	7 4%
Delayed placenta[4]	14 2%
Symptoms suggestive of sepsis	
Spontaneous report fever foul smelling vaginal discharge severe abdominal pain after delivery	3 6%

There were 2 more respondents here than in earlier tables in this chapter This is because these questions were earlier in the interview and the respondents in question did not complete the whole interview

[1] For some responses apart from notes below n=1204

[2] One also reported convulsions when not pregnant She is included as +ve

[3] 30 respondents gave no reply to this question

[4] 32 respondents gave no reply to this question

Labor was recalled as lasting more than 12 hours quite frequently, at 12 9 percent Delay in delivering the placenta was also frequently recalled, by 14 2 percent, though how long a time is meant by "a delay" was not specified The spontaneous report was positive 3 percent to 4 percent for each complication

In the remaining discussion, one symptom only is taken for each of the other complications, as follows

For dystocia	spontaneous report
For pre-eclampsia	spontaneous report
For eclampsia	convulsions
For hemorrhage	spontaneous report
For sepsis	spontaneous report

Table 3 16 shows the numbers and percentages reporting one or more of these symptoms

Table 3 16 Reports of Symptoms Suggesting the Five Complications

Complications are dystocia, pre-eclampsia, eclampsia, hemorrhage and sepsis Indonesia, 1996

Number of suggested complications	percent reporting (n=1203)
none	86 3%
1	12 6%
2	1 2%

Table 3 15 features more than one symptom for all the complications except sepsis In the validation study there were no true positives for sepsis, so the sensitivity could not be estimated Sepsis is also less likely to be a prior reason for hospital delivery, and questions about admission to a hospital post-partum were not asked

Table 3 17 (below) shows the percentages delivering in a health facility or at home in relation to the number of symptoms In this table, sepsis is dropped from the list of complications with its accompanying symptom (spontaneous report) for the reasons given above

Table 3 17 Reports of Symptoms, Excluding Those Suggestive of Sepsis, with Delivery in a Facility or at Home

Percentages delivering in a health facility or at home in relation to the number of symptoms Indonesia 1996

Number of suggested complications	Number of respondents	Percentage reporting reported delivery in		
		hospital or *puskesmas*	private clinic or *bidan s* home	own or relative s home
none	1074	6 7%	3 6%	88 7%
1	117	16 4%	3 8%	78 4%
2	12	35 0%	8 6%	56 4%

Delivery in a health facility was reported by 10 3 percent (6 7 percent plus 3 6 percent) of those without any of these symptoms, by 20 2 percent of those reporting symptoms suggesting one complication, and by 43 6 percent of those reporting symptoms suggestive of two This trend is statistically significant (p=0 006) The overall percentage of the 129 women reporting the symptoms who delivered in a facility was 22 3 percent (confidence interval 14 7 percent to 30 0 percent)

In interpreting Table 3 17, it must be remembered that those who delivered in a facility or in the care of a professional may have been more aware of complications because they may have been told about them, with the converse that others may have been less aware and therefore less likely to report any symptoms Apart from this consideration, if the symptoms were reliable indicators of complications that required health facility delivery, the figure of 22 3 percent is a possible indicator of the extent to which those with complications receive appropriate care

The above results relate to both areas In the rural area alone, there were 100 reporting one or more of the symptoms suggestive of these four complications and 15 6 percent of these delivered in a health facility In the urban area, the corresponding figures are 29 and 55 2 percent These show a much higher rate of institutional birth for those with these symptoms in the urban area, which is to be expected The difference between these percentages is statistically significant (p<0 001)

All these results are discussed more fully in Section 3 5

The reporting of these symptoms is also associated with the respondents' report of the reason for a facility birth Table 3 18 shows the percentages of those with a facility birth who reported this was because of a delivery problem or for reasons of safety, by whether or not they reported symptoms from the list of four

Table 3 18 Respondents Giving Delivery Problem or Safety as Reason for Facility Birth, in Relation to Symptoms Suggestive of Complications Other than Sepsis

Respondents with facility births only Indonesia, 1996

	Both areas		Rural		Urban	
	One of more symptoms		One of more symptoms		One of more symptoms	
	without (n=128)	with (n=33)	without (n=128)	with (n=33)	without (n=128)	with (n=33)
Delivery problem	19 0%	57 4%	23 4%	76 1%	13 4%	31 3%
Safety	51 5%	18 3%	46 3%	4 6%	58 2%	37 5%
Either or both	67 0%	67 9%	66 9%	76 2%	67 2%	56 3%

The numbers again are low However, the differences in the percentages between those not reporting symptoms and those reporting symptoms are statistically significant for "delivery problem" in each area (p=0 01 and p=0 03 respectively), and for "safety" for the rural area (p=0 02) There is a definite and positive association between symptoms and delivery problem as a reason In the rural area, safety was given as a reason less frequently for those quoting symptoms, in contrast to delivery problem This would be consistent with (a) the majority of those with symptoms and delivering in a facility being there because of complications, and (b) the majority those who were in a facility without symptoms being elective patients to whom safety was a matter of concern It confirms that respondents generally saw "safety" as an issue of precaution, rather than of attention to an actual complication

The symptoms were also associated with caesarean section Table 3 19 gives the caesarean section rates by the reporting of symptoms, and shows the rate as 6 1 percent among those who did report symptoms

Table 3 19 Reports of Symptoms, Excluding Those Suggestive of Sepsis, with Caesarean Section

Caesarean section rates by the reporting of symptoms
Indonesia, 1996

One or more symptoms	Number of respondents	Percentage delivering by caesarean section
no	1074	1 2%
yes	119	6 1%

The difference in caesarean rates in Table 3 19 is statistically significant, (p=0 04) A similar effect is seen for the rural area only, the caesarean section rates being 0 9 percent and 6 9 percent (among those without and with symptoms respectively) with the same level of significance In the urban area, there is no suggestion of an effect It should be born in mind that women who had an operative delivery may be more likely to recall prior complications

Finally, the relationship between symptoms of complications and professional assistance at home births is shown in Table 3 20, which is based on non-facility births, chiefly in the woman's own home, and shows the percentage delivered by a professional (doctor, *bidan* or *bidan di desa*)

Table 3 20 Non-facility Births, Delivery by a Professional and Reporting Symptoms Excluding Those Suggestive of Sepsis

The relationship between symptoms of complications and professional assistance at home births Indonesia 1996

Number of suggested complications	Both areas		Rural		Urban	
	Number of respon-dents	Professional delivering	Number of respondents	Professional delivering	Number of respondents	Professional delivering
0	946	28 5%	840	26 2%	106	54 7%
1 or 2	96[1]	34 7%	83	30 9%	13	67 4%

[1] There were six respondents reporting symptoms suggestive of two complications

The difference in the percentage between those reporting symptoms and those not reporting them was not statistically significant, even when the six reporting symptoms suggestive of two complications are taken as an extra group There is no evidence that professional assistance at delivery was associated with reported symptoms

In summary, results based on respondents' reporting of symptoms suggestive of complications must be seen against a background of limited validity of symptoms as indicating real complications Nevertheless, delivery in a health facility was more common among those reporting symptoms, at 22 4 percent for the symptoms suggestive of complications other than sepsis Caesarean section was also more common in this group Among those delivering in health facilities, delivery problems were most commonly quoted as the reason for birth in the facility and this was associated with the reporting of symptoms Among home births, there was no evidence that delivery with a professional was associated with symptoms

3 5 Birth in a Health Facility or With a Professional, in Relation to Complications

In this section, an attempt is made to estimate the proportion of women with complications needing institutional care, who delivered in a health facility or who delivered with a health professional This is called "coverage" of complications The estimates are speculative due to the difficulties in identifying who had complications

There are two ways of arriving at the number of women who, at the time of delivery, develop a complication requiring professional attention These are

(A) To assume a certain percentage of all pregnancies will result in a complication of this type This will give a notional number of deliveries with complications, but will not identify which individual women are involved For complications in pregnancy, during the birth or post partum, this percentage is often assumed to be 15 percent

(B) To use the results from questions in the survey to classify women by reports of symptoms

In principle, (B) is preferred, using the results presented in Section 3 3 One calculates the percentage of those reporting symptoms of complications who delivered in a health facility, or the percentage who delivered at home with appropriate professional assistance However, there is the important issue of the validity of these questions as indicating complications and the true meaning of the responses to them, as has been mentioned in Section 3 4 and has as turned out to be limited There is more discussion of this later in this section

Approach (A) may therefore be better, for facility births at least, and particularly if the reason for this place of birth can also be included in the analysis In the results that follow, the percentages of all births that occurred in a facility, and of births that occurred in a facility with the respondent also mentioning a delivery problem, are shown "All facility births" gives an upper limit (a maximum) which must overstate the extent to which women with complications deliver in a facility, since it also includes elective facility births without complications The restriction to births where the stated reasons for facility birth included delivery problem would give an accurate result if all women with deliveries with complications perceived and reported "delivery problem" as a reason for the choice of a facility As this cannot completely be the case, it will understate coverage As an indication of the extent to which a birth in health facilities covers the complications that do occur, these percentages must be compared with the assumed incidence rate of complications, which we take as 15 percent

The estimates under both (A) and (B) are shown in Table 3 21

Table 3 21 Estimates of the Coverage of Complications

Estimate based on all facility births overstates the extent to which women with complications deliver in a facility since it also includes elective facility births without complications

		Rural	Urban	Both areas
Based on all facility births				
	Number of births	1002	201	1203
A1	Facility births	7 4%	41 1%	11 8%
A2	Facility births with delivery problem as reason	2 6%	6 9%	3 1%
Based on those reporting symptoms suggestive of complications[1]				
	Number reporting symptoms (denominator)	100	29	129
B1	Facility births	15 8%	55 2%	22 3%
B2	All facility births and non-facility births assisted by a professional[2]	41 7%	86 2%	49 2%

[1] According to the definitions of section 3 4
[2] Doctor *bidan* or *bidan di desa*

In all these results, there is a clear rural/urban divide The rural figures are of greater interest because they cover the larger part of the population and the one with less health facility use

For the estimates under (A), the rural area estimates are of greater interest and are less "clouded" by elective birth in facilities Thus, for A1, the "maximum" figure for urban births, 41 1 percent, is considerably more than 15 percent, and there will have been a sizeable proportion of elective births without complications The idea of a maximum has potential only for the rural area, where the proportion delivering in a facility is 7 4 percent As a possibly more realistic, though rather extreme, maximum, one should take the upper end of the confidence interval for the 7 4 percent, which is 12 9 percent For facility deliveries where "delivery problem" was stated as the reason, the estimate for the rural area is 2 7 percent, with 95 percent confidence interval 1 5 percent to 3 3 percent As has been suggested, this result understates births with complications to the extent that women with a complication did not perceive "delivery problem" as the reason for birth in a facility, as mentioned above

For the estimates under (B), the "target" percentages would be 100 percent if the symptoms accurately indicated complications In the validation study, sensitivity of these symptoms were estimated to be

on the low side, between 50 percent and 70 percent but specificity was higher, typically 95 percent or 96 percent The validation study results are based on a moderate sample size, and the confidence intervals have not been presented The lack of sensitivity is likely to matter less in the calculation of coverage of complications by professional care and it will not matter at all if the women with complications who reported symptoms were representative of all the women with complications The lack of specificity will lead to coverage being underestimated, since the group reporting symptoms will include some women who did not have complications (or in whom the complications were less severe than described by the clinical definitions used in the validation study), and one may assume coverage is less among these

A problem with the specificity estimates from the validation study is that they predict that 4 percent to 5 percent of respondents without complications are reporting symptoms This in turn means that the reporting rate of the symptoms in the survey should be more than this, as this rate of "random" reporting will be a minimum given by this false-positive rate, augmented by those with real complications The actual rates were typically between 3 percent and 4 percent A reasonable explanation of this discrepancy is that the "study populations" of the validation study control group and of this survey were not the same and have systematic differences in perceptions of symptoms But one should also note that the total amount of reporting of symptoms was less in the survey than in the validation study controls Thus the validation study may have underestimated specificity as it would apply in a survey

It is not possible to make further progress more than speculatively, but if one assumes that, say, one half of those reporting symptoms did not actually have complications that "qualify" as needing coverage, then the estimate of the percentage met need under B1 can be adjusted upwards as follows One assumes that the half without complications will use health facilities for birth in the same percentage as those without symptoms Then half of the group on whom the estimate of met need is based will be at this lower percentage, and the other half, those with relevant complications, will be at a higher percentage In the rural area, the percentage of those not reporting symptoms delivering in a facility was 6 5 percent This suggests increasing the estimate for coverage under B1 from 15 8 percent to approximately 25 percent

The estimates under B2 are based on a different definition of coverage need, one where professional assistance at home is deemed to meet any needs for care that may arise (there is an underlying assumption that transfer to a facility when necessary will be carried out and be reasonably efficient) They are likely to be underestimates, for the same reasons as apply to the estimates B1, and the extent of this is again difficult to gauge

In summary, estimating coverage of complications from this survey is not possible with any certainty or precision However, some rough indications are possible, based on the two approaches (A) of assuming that 15 percent of births are accompanied by complications requiring facility care, and (B) of assuming that the reports of symptoms are adequate indicators of these complications in individual respondents There are problems with both approaches but a range of possible values are produced These are likely to have greater validity for the rural area A correction to figures based in the second approach suggests adding about 10 percent to the rural-area estimate of 15 percent

3 6 Payment for Delivery

Respondents were asked about payments for delivery in a health facility, under the headings of services, drugs, and blood This section gives results for the totals of these three headings

Table 3 22 shows how average, lowest and highest cost varies between the various places of delivery At the time of the survey, one US dollar was approximately 2,400 rupiah, so the mean hospital cost was approximately $US160 However the highest was about $US1500 Although an average may reasonably well reflect perception of the balance of cost between a less expensive routine delivery and an expensive one with complications, this average is dominated by a small number of very expensive deliveries Indeed, the average for hospitals is higher than for private clinics and *bidan's* homes The lowest payments were modest and there were a few who received institutional delivery at no cost Home delivery payments to the TBA (payments in kind were given a monetary value by the interviewer) or the *bidan,* doctor, or other person, were considerably less than institutional charges

Table 3 22 Average, Lowest and Highest Payments for Facility Deliveries

Although an average generally reflects the balance of cost between a less expensive routine delivery and an expensive one with complications this average is dominated by a small number of very expensive deliveries Indonesia, 1996

Place of birth	Payment for	Percent with no payment	payments made (1000 rupiah)		
			minimum	mean [1]	maximum
Hospital	services etc[2]	7 3%	5 0	392	3570
	transport	42 8%	0 3	9 5	60
Private clinic	services etc[2]	2 5%	6 0	237	1500
	transport	63 7%	0 3	1 6	10
Bidan s home	services etc	6 5%	6 8	124	210
	transport	41 1%	0 3	2 3	5
Own/relative s home	services	2 9%	0 015	24 9	200

[1] Mean among those who paid
[2] Includes payments for medicines blood and other supplies

Overall average payments in thousand rupiah (including the zeros of those who did not pay) were 384 for hospital, 231 for private clinics, and 116 for *bidan's* home

Hospital costs are charged in part on the basis of procedures carried out and may vary strongly if a caesarean section was performed or not Table 3 23 shows the breakdown of hospital costs in more detail for all hospital deliveries and for caesarean and vaginal deliveries

Table 3 23 Costs of Hospital Delivery, by Type of Delivery

Breakdown of hospital costs for all hospital deliveries and for caesarean and vaginal deliveries Indonesia, 1996

	Type of delivery		
	All (n=106)	Caesarean (n=21)	Vaginal (n=85)
Cost (thousand rupiah)			
zero	7 3%	0 0%	9 2%
to less than 10	1 0%	0 0%	1 3%
10 to less than 50	15 1%	0 0%	19 1%
50 to less than 100	21 0%	0 0%	26 7%
100 to less than 000	21 3%	3 7%	26 1%
200 to less than 1000	23 0%	46 3%	16 6%
1000 or more	11 3%	50 0%	0 9%
Mean (thousand rupiah)[1]	363	1250	125

[1] mean among all including those who did not pay anything

The separate results for the rural and urban areas are very similar

Caesarean deliveries were always accompanied by high cost, always in excess of 100,000 rupiah (approaching $US50) and often much more, with the average dollar equivalent being more than $US500 The maximum payment shown in Table 3 19 was for a caesarean delivery Mean costs for all deliveries in hospital were more than for private clinics (see last page), but for vaginal deliveries in hospital they were less There were two caesareans reported in private clinics, the mean cost of private clinic deliveries without them was 177,000 rupiah

CHAPTER 4

POST-DELIVERY OUTCOMES FOR THE MOST RECENT BIRTH

This chapter presents the remainder of the findings from questions asked of women who had had a birth in the previous three years With regard to that birth, the results cover perinatal mortality, breastfeeding of the child, health problems for the mother and the child, and visiting at home by the TBA and the *bidan di desa* Use of post-partum contraception is reported in Chapter 6

4 1 Perinatal Mortality

Although most questions in this chapter and the preceding chapter relate to the respondent's last delivery, the questions relevant to this section, concerning miscarriage, stillbirth, and early neonatal mortality, were asked in relation to all pregnancies and births over the previous three years This was to increase the sample size of reported pregnancies and births

Table 4 1 shows rates of stillbirth (defined from the gestational age of 28 weeks), early neonatal death, and perinatal death Results are shown for all pregnancies except those with a reported miscarriage before 28 weeks, for both areas, then they are shown excluding the urban area and then excluding twin births There was only one perinatal death reported in the urban area, out of 213 qualifying pregnancies Nine twin births were reported (seven rural and two urban), and for one of these, in the rural area, stillbirth was reported In Table 4 1, under "all births," twins are counted as one birth in the denominator, with this stillbirth as one death

Table 4 1 Perinatal Mortality

Rates of stillbirth early neonatal death, and perinatal death for all pregnancies except those with a reported miscarriage before 28 weeks Indonesia 1996

Mortality	Whole Area		Rural Area	
	Number of Births	Rate per 1000	Number of Births	Rate per 1000
All Births				
Stillbirth	1320	11 7	1107	12 6
Early Neonatal	1306	10 0	1094	11 4
Perinatal	1320	21 6	1107	23 8
Excluding Twins				
Stillbirth	1311	10 6	1100	11 4
Early Neonatal	1298	10 1	1088	11 4
Perinatal	1311	20 6	1100	22 7

The rates in the rural area, excluding twins, are probably the most relevant, although there is little difference between the different classifications There were 12 stillbirths and 13 neonatal deaths reported in this group, so these two types of death occurred in approximately equal numbers The confidence intervals on the perinatal death rates for all cases (21 6) and for the rural group without twins (22 7), are 11 9 to 31 2 and 10 5 to 35 0 per thousand respectively

The rates are low, even if the upper confidence limits are considered It is possible that there was under-reporting, which may have resulted if respondents chose not to mention a pregnancy ending in a death at all Such under-reporting cannot be definitively checked from these data, but there is a suggestion that it may have occurred for longer periods of recall Classifying the respondents into those reporting their most recent birth within the previous year, in the year before, or in the year before that, gives perinatal mortality rates for the rural group, omitting twins, of 32 7, 26 1, and 7 5 per thousand respectively This trend is just statistically significant (p=0 05) It seems likely that the figures in Table 4 1 are underestimates, probably by about 10 deaths per thousand, but this cannot be certain

The rate of 22 7 per thousand for rural deaths without twins has confidence interval 15 0 to 50 4 This rate is for women reporting a birth in the last one year, but including all births to these women within three years The confidence interval is wider because there were fewer reported pregnancies

4 2 Reported Birth Weights

The remaining results in this chapter refer only to the most recent birth in the three year period of recall The respondents were asked if the baby was weighed and what the weight was if they knew it Sixty-one percent did report a birth weight, as shown in Table 4 2 Recall was more common in the urban area

Table 4 2 Respondents with Recall of Birth Weight

Results refer to the most recent birth in the three year period of recall Indonesia 1996

Number of respondents	1204
Reporting birth weight	61 0%

Table 4 3 shows the results for the reported birth weights

Table 4 3 Reported Birth Weight

Only for respondents who reported birth weight Indonesia 1996

Number of respondents	734
Percent of birth weights	
less than 2000 grams	1 1%
less than 2500 grams	8 4%
Mean birth weight (grams)	3162

The mean is just in excess of 3 kg, and 8 4 percent were of low birth weight (less than 2500 gm) The results were similar in the rural and urban areas

4 3 Breastfeeding

Respondents were asked if they breastfed their child and if so when they initiated breastfeeding Table 4 4 shows the breakdown of these replies

Table 4 4 Breastfeeding and Time of Starting

Respondents were asked if they breastfed their child and if so when they initiated breastfeeding Indonesia, 1996

Number of respondents	1204
Did not breastfeed	2 9%
Did breastfeed, and starting	
within one hour	21 7%
one hour or more within a day	30 8%
in second day	20 3%
in two days or more	24 3%
No recall	0 9%

Few women did not breastfeed at all However, it was not very common to start breastfeeding immediately after the birth, and only just over a half (21 7 percent plus 30 8 percent, 52 5 percent) did so in the first day There were no noticeable differences in these percentages between rural and urban women The IDHS for the whole province shows a similar percentage not breastfeeding at all (3 2 percent), and a similar percentage within a day (57 3 percent) However, the IDHS percentage for initiating within an hour is only 0 6 percent The IDHS asked about the actual number of hours until putting the baby to the breast, whereas in this survey, the question was about breastfeeding as such with "less than one hour" and "within 24 hours" were distinct coded responses Whether these technical differences can explain the discrepancy is far from clear Of those breastfeeding, 12 4 percent reported a perception of insufficiency of breast milk at some time in the first four months

4 4 Reports of Health Problems

Information was sought on one specific health problem for the baby, and for health problems in general, for mother and baby Table 4 5 shows reports of "swollen or oozy eyes" in the newborn This was asked in order to gain a preliminary impression of whether gonococcal ophthalmia neonatorum may be a problem

Table 4 5 Reports of Newborn with Swollen Eyes

Eyes described as swollen and oozy with watery/pussy discharge (prompted) Excluding twins Indonesia 1996

	Both areas	Rural	Urban
Number of respondents	1173[1]	978	195
Reporting baby with swollen eyes	7 0%	7 3%	4 1%

[1] 22 respondents did not answer this question

The condition was moderately prevalent, at 7 0 percent The rural/urban difference, between 7 3 percent and 4 1 percent, was just statistically significantly different, p=0 05

The percentage of respondents reporting health problems for mother or baby "during seclusion" (about 40 days from the birth) are shown in Table 4 6

Table 4 6 Reports of Health Problems for Mother or Newborn

The percentage of respondents reporting health problems for mother or baby during seclusion (about 40 days from the birth) Indonesia 1996

	Both areas	Rural	Urban
Number of respondents	1200[1]	998	202
Reporting health problem for mother or baby			
One problem only	11 6%	12 1%	7 4%
More than one problem	4 6%	5 0%	2 0%

[1] Four respondents did not answer this question

About one sixth, 16 2 percent (11 6 percent plus 4 6 percent), reported problems This was more common in the rural area, although the difference is not statistically significant Further questions about the problems were answered only by some, because of interpretational difficulties from the questionnaire Of the 56 respondents who gave details, 15 reported fever as the problem, five reported headache, and others reported a variety of other conditions

4 6 Visiting by *Bidan Di Desa* and TBAs After the Birth

A *bidan di desa* visited 36 1 percent of the respondents after the birth, and 75 8 percent were visited by a TBA *Bidan di desa* visiting was reported to be more common in the urban area, and TBA visiting more in the rural area, but neither difference was statistically significant Only 12 4 percent received a visit from neither, and 24 5 percent were visited by both As before, it must be remembered that a *bidan di desa* was located in the respondents' villages on average for only one half of the recall period A health problem (for mother or baby) was found during *bidan di desa* visits for 18 1 percent of mothers reporting such visits, and during 14 8 percent of TBA visits

Payments reported for these visits are shown in Table 4 7

Table 4 7 Payments for Visit by *Bidan Di Desa* and TBA

Payments reported for these visits Indonesia 1996

Visit by	Visits Reported	Percent with No Payment	Payment Thousand Rupiah	
			Mean[1]	Maximum
Bidan di desa	436	61 1%	0 9	100
TBA	910	27 9%	1 6	85

[1] Including those who did not pay

The payments can include a monetary value for "goods in kind " It appears that payments were generally quite low and that *bidan di desa* did not usually charge anything at all

In summary, perinatal mortality as reported was low, at about 22 per thousand, though the upper end of the confidence interval was as much as 35 per thousand However, there is some evidence that recall of perinatal deaths was less complete among women whose last birth was longer ago, and the rate among those with their most recent birth in the last year, it was 32 7 per thousand (with an upper confidence limit of 50 4) in the rural area excluding twins Birth weights were quoted by approximately one third of the women, with a mean of just over 3 kg and 8 4 percent of low birth weight (below 2 5 kg) Of the babies in the rural area, 7 3 percent were reported to have had swollen or oozy eyes Reports of other morbidity were incomplete, but fever (for the woman) was the most frequently mentioned Visiting by *bidan di desa* after the birth was moderately common, reported for just over a third of the births Payments for post-partum visiting were low on average and about two-thirds of *bidan di desa* visits were free

CHAPTER 5

RESPONDENTS' KNOWLEDGE AND OPINION REGARDING DANGER SIGNS, LOCAL EOC FACILITIES, AND SOURCES OF INFORMATION CONCERNING HEALTH WHEN PREGNANT AND DURING BIRTH

This chapter gives results from the replies to questions relating to

A Respondents' knowledge of danger signs in pregnancy, during labor and delivery, and in the post-partum period

B Respondents' knowledge of a local hospital as the local center for essential obstetric care (EOC), covering also the accessibility of the hospital in terms of time and cost to get there, and how they graded the service it provides

C Respondents' recollection of messages received concerning maternal health during pregnancy and birth

These questions were asked of samples of all women, those with a birth in the last three years, currently pregnant, and other women of reproductive age They were also asked of a smaller sample of husbands The groups of women are combined in the results that follow, (with appropriate weights to represent each group in accordance with population numbers)

5 1 Knowledge and Recognition of Danger Signs in Pregnancy and During and After the Birth

Respondents were asked about problems that could occur to a woman during pregnancy, during labor and delivery, and in the period after the birth For each of these three periods, they were asked to name problems spontaneously (unprompted) and then asked if they recognized specific problems read out by the interviewer (prompted) Results are given for signs taken as important, following a separate small expert review of these signs, other conditions and signs are not listed A reasonable degree of flexibility was taken in assigning some of the unprompted replies to specific signs Table 5 1 shows results for signs in pregnancy

Table 5 1 Signs in Pregnancy

Percentages of respondents naming specific danger signs unprompted or recognizing signs when prompted women and husbands Indonesia, 1996

	Number of respondents	Sign and percent recognizing					
		vaginal bleeding	fainting, fits, convulsions	high fever	anemia	baby position	high BP[1]
Unprompted							
Women	1173	7 8%	1 6%	7 6%	21 1%	6 0%	1 1%
Men	359	6 1%	1 0%	4 5%	16 6%	5 6%	0 5%
Prompted							
Women	1173	56 0%	48 3%	45 7%	59 5%	64 3%	[1]
Men	359	47 1%	50 1%	43 2%	57 0%	59 2%	[1]

Multiple replies possible

[1] High blood pressure responses were not prompted

In inspecting these results, and others that follow, it should be remembered that some respondents may have found this kind of questioning difficult to follow, and may not have indicated knowledge when in fact they did have it Nevertheless, the most frequently quoted unprompted sign was anemia This may reflect health publicity messages on this subject but, even so, it was quoted by barely more than one in five women (21 1 percent) and less by men (16 6 percent) Other signs had very low rates of unprompted recognition, never more than one in ten The percentage for fainting, fits or convulsions was particularly low, only 1 6 percent among women, suggesting a very low rate of awareness indeed The percentages recognizing signs when prompted were much higher and less differentiated between the signs, which suggests that prompted responses were less reliable indicators of how far a sign is genuinely recognized Women tended to recognize signs more readily than men, although the differences were not generally large High blood pressure was not prompted

These results are consistent with a view that pregnancy is not generally perceived as a time of risk to health in this population, at least as far as awareness of specific risks is concerned This is further born out by the fact that 62 7 percent for women and 70 0 percent for men did not quote any pregnancy sign, without being prompted (not shown in the table) On the other hand, the higher frequencies for anemia suggest that the population is amenable to the delivery of information on these matters

Table 5 2 shows the percentages with which danger signs in labor and delivery were quoted, or were recognized when prompted

Table 5 2 Signs During Labor and Delivery

Percentages of respondents naming specific danger signs unprompted or recognizing signs when prompted women and husbands Indonesia 1996

	Number of respondents	Sign and percent recognizing						
		heavy bleeding	fits or convul-sions	waters break early	labor too long	fever	placenta retained	dead baby
Unprompted								
Women	1173	19 4%	3 4%	25 7%	17 3%	5 6%	23 0%	9 6%
Men	359	14 7%	2 7%	18 9%	13 1%	4 7%	14 4%	7 6%
Prompted								
Women	1173	56 0%	38 8%	53 7%	65 0%	46 8%	57 2%	64 7%
Men	359	55 7%	34 5%	53 0%	63 7%	41 8%	57 6%	64 9%

Multiple replies possible

There appears to be more perception of risk during labor and delivery, compared with pregnancy, in that the unprompted percentages are generally higher Fits and convulsions again rate very low, as does fever (which may correlate with the low incidence of sepsis in this community) However, although the unprompted percentages are higher, none reaches 50 percent The extent to which larger percentages of women compared with men quoted the signs was slightly more pronounced

Table 5 3 shows results for signs relating to problems for the mother after the birth

Table 5 3 Signs After the Baby Is Born, Relating to Mother's Health

Percentage of respondents naming specific danger signs unprompted or recognizing signs when prompted women and husbands Indonesia 1996

	Number of respondents	Sign and percent recognizing		
		heavy bleeding	fits or convulsions	smelly discharge
Unprompted				
Women	1173	26 0%	3 0%	18 5%
Men	359	21 0%	2 4%	8 2%
Prompted				
Women	1173	49 7%	35 9%	40 0%
Men	359	50 6%	36 7%	28 3%

Multiple replies possible

There are only three signs in this group Hemorrhage was recognized most frequently, bleeding was also among the more frequently quoted signs during delivery (see Table 5 2, above) Smelly discharge was known to women noticeably more frequently than to men

Respondents were also asked about problems that could occur to the baby in the period after the birth Results are shown in Table 5 4

Table 5 4 Signs after the Baby Is Born, Relating to Baby's Health

Percentages of respondents naming specific danger signs unprompted or recognizing signs when prompted women and husbands Indonesia 1996

	Number of respondents	Sign and percent recognizing				
		fits or convulsions	too small	not sucking	not breathing well	eye discharge
Unprompted						
Women	1173	18 9%	15 7%	18 8%	10 3%	6 1%
Men	359	17 8%	10 9%	18 3%	7 2%	2 7%
Prompted						
Women	1173	42 6%	64 0%	64 1%	53 1%	47 3%
Men	359	41 9%	67 4%	59 5%	53 0%	44 5%

Multiple replies possible

Awareness of this period as one of risk for the newborn seems broadly comparable to awareness of delivery and the post-partum period as a time of risk for the mother, among women at least Fits and convulsions and not sucking were the most commonly quoted signs, by a little less than one in five women and men For these two signs, there was hardly any difference between women and men respondents

A summary measure of a respondent's degree of awareness of specific problems for a woman during pregnancy, birth, and after the birth is provided by adding the number of signs under these three headings which the respondent quoted unprompted Table 5 5 shows the percentage breakdown of the respondents by the number of signs each quoted

Table 5 5 Number of Signs Relating to Mother's Health, Given Unprompted

Percentage breakdown of the respondents by the number of signs relating to pregnancy labor and delivery and the post-partum period Indonesia 1996

	Number of respondents	Number of signs				
		0	1	2	3	4+
Women	1173	21 2%	23 2%	24 1%	14 6%	16 8%
Men	359	33 0%	26 8%	20 9%	10 0%	9 3%

Among women respondents, 21 2 percent (confidence interval 13 4 percent to 28 1 percent) and 33 0 percent (confidence interval 23 7 percent to 42 3 percent) of men did not quote any of these signs The difference between the percentages for women and men is statistically significant ($p<0$ 001) It is of interest to note that the percentages unable to give any of the signs relating to the baby's health was 18 9 percent among women (not shown in a table), and very similar among men at 17 8 percent These are similar to the percentage of 21 2 percent for women in Table 5 5, but less than the 33 0 percent for men, also in Table 5 5 Relatively speaking, the men appear to be more aware of problems relating to a baby's health than of problems for a woman's health

Table 5 6 shows the same index, for women respondents only, by area, age, number of live births, and education In some sections of this table, the numbers are low, so the variation in the percentages due to small numbers should be acknowledged

Table 5 6 Number of Signs Relating to Mother's Health Given Unprompted, by Rural or Urban, Age, Live Births and Education

Women respondents only Indonesia, 1996

	Number of respondents	No of signs				
		0	1	2	3	4+
Area						
Rural	979	21 5%	23 4%	23 6%	14 8%	16 8%
Urban	194	19 9%	22 3%	27 9%	13 1%	16 9%
Age						
15-19	76	33 8%	27 2%	14 5%	11 7%	12 9%
20-24	284	23 6%	24 1%	23 1%	14 7%	14 5%
25-29	266	17 6%	27 4%	26 9%	13 6%	14 5%
30-34	221	18 1%	20 0%	26 2%	16 8%	18 8%
35-39	165	18 1%	21 2%	18 2%	20 7%	21 7%
40-44	102	19 9%	18 3%	32 6%	11 7%	17 5%
45+	59	32 8%	30 1%	16 4%	7 6%	12 9%
Live births						
0	209	33 9%	25 1%	16 2%	8 9%	15 8%
1	316	23 1%	21 7%	23 9%	14 1%	17 2%
2-3	394	16 5%	24 7%	26 6%	17 9%	14 3%
4+	254	20 2%	21 8%	24 7%	13 6%	19 7%
Education						
None/some primary	458	21 2%	21 2%	26 5%	13 2%	17 4%
Primary complete	372	20 9%	25 6%	21 4%	15 5%	18 6%
Secondary or more	343	21 7%	22 4%	24 0%	17 6%	14 4%

There is no appreciable rural/urban difference or change with level of education There is a suggestion that both younger and older women were less knowledgeable, though this is not supported by statistical significance tests There is also a suggestion that women who had no live births (mainly currently pregnant women) were less knowledgeable, a contrast that is statistically significant (p=0 01) The "lack of any education" effect is somewhat surprising, given the strong role of education in other aspects of behavior and knowledge

The extent of association of the questions related to knowledge, and the motivation and ability of the respondent to respond to signs that actually arise is debatable A further question was asked about the appropriate action to take, for the first two unprompted signs volunteered by the respondent under each of the previous four headings The responses to this question were themselves unprompted and multiple replies were allowed For all signs except anemia, this presentation of results focuses on a reply that indicates seeking care from a health professional as the appropriate response Results are shown in Table 5 7

Table 5 7 Knowledge of Appropriate Action

For all signs except anemia this presentation of results focuses on a reply that indicates seeking care from a health professional as the appropriate response Women respondents quoting signs unprompted only Indonesia, 1996

Sign	Number quoting sign as first or second unprompted reply	percent quoting relevant action[1]
Pregnancy		
vaginal bleeding	70	83 4%
fits or convulsions	33	62 0%
high fever	68	56 4%
anemia	213	69 7%
baby position	53	51 6%
Labor and delivery		
heavy bleeding	188	79 1%
fits or convulsions	31	76 2%
waters break early	289	51 8%
labor too long	200	60 4%
fever	44	58 1%
placenta retained	203	90 9%
dead baby	67	71 1%
Post-partum (mother)		
heavy bleeding	302	73 3%
fits or convulsions	27	48 0%
smelly discharge	193	7 4%
Post-partum (baby)		
seizures	184	42 3%
too small	167	39 2%
not sucking	200	32 2%
not breathing well	93	68 3%
eye discharge	60	40 9%

[1] 'Relevant action is taken to be seeking help from a health professional or at a facility (*bidan di desa* private *bidan pustu, puskesmas* hospital or private doctor) except in the case of anemia For anemia, relevant action is taken to be getting iron pills or seeking help from *bidan di desa pustu puskesmas* or private *bidan* with seeking help from a higher level of health professional or facility excluded)

These results must be interpreted in parallel with those of Tables 5 1 to 5 4 because the denominators in this table have already been noted to vary considerably between the signs There is little tendency for a higher percentage to quote an appropriate action for the more commonly quoted signs, although the sign for which appropriate action was most frequently quoted was retained placenta, which was also identified more often, by 23 percent (Table 5 2) Other signs for which appropriate action was

recognized were bleeding, and fits and convulsions before or during the birth Smelly discharge post-partum was the sign least recognized as a reason to seek help The overall picture is a reasonable degree of recognition of the need for help, but this is demonstrated only among the restricted groups who identified the signs originally

In summary, the ability to recognize and quote specific signs appears not to be common, at least on a sign-specific basis, in this community However, it must be remembered that when there are many possible signs to quote, respondents may limit the number of signs they do quote Also, it is not possible to say whether low unprompted percentages are due to a genuine low level of awareness, or to unfamiliarity with the interview process Despite these reservations, however, there does seem to be a severe "deficit of knowledge" and this is reflected in the sizeable percentage of respondents not quoting any signs relating to the woman's health at all 21 2 percent of women and 33 0 percent of men (see Table 5 5) The prompted percentages are less variable between the signs, and this is consistent with the prompted replies being less likely to indicate substantial opinion or knowledge Women without previous live births appeared to have less knowledge than others, but surprisingly, this did not vary with level of education

More than 50 percent of the women who quoted signs unprompted indicated that the appropriate action is to seek appropriate help The major exception to this is smelly discharge, and this result may be another aspect of the low levels and low perception of sepsis in this community

5 2 Knowledge and Expressed Opinion Concerning Local Hospital

Respondents were asked to name the nearest government hospital A variety of hospitals were named including some private hospitals, and those named were not always the closest For instance, the provincial hospital in the provincial capital Banjamasin, Ulin Hospital, was quoted by respondents from a range of distances away The replies have simply been classified into naming a hospital A few named a *puskesmas* (health center) instead of a hospital The percentages naming these two types of health facility are shown overall and by area in Table 5 8

Table 5 8 Naming a Hospital

Women respondents were asked to name the nearest government hospital A variety of hospitals were named including some private hospitals and those named were not always the closest Indonesia 1996

Area	Number of respondents	Percent naming a facility		
		hospital	*puskesmas*	no reply / don t know
Whole area	1172	68 0%	2 1%	29 9%
Barito Kuala	323	58 8%	0 1%	41 1%
H S S	328	51 3%	0 1%	48 6%
Banjar rural	327	78 5%	4 7%	16 9%
Banjar urban	194	83 8%	1 6%	14 5%

The low percentages naming a *puskesmas* does not reflect any general lack of knowledge of these facilities, since the context of the question was hospitals For the area as a whole, almost a third (29 9 percent) did not name either type of health facility This percentage was noticeably higher in Barito Kuala and Hulu Sungai Selatan, in the latter approaching half of the respondents at 48 6 percent The difference between the rural area for this percentage was statistically significant (p=0 02) and the differences between the three rural areas approached statistical significance (p=0 06) Hospitals were much more frequently known in Banjar district

Table 5 8 shows percentages for women respondents The figures for husbands were similar

Respondents were also asked what means of transport they would use to reach the named hospital, how long it takes to get there, and the cost of the journey (Replies relating to *puskesmas* were dropped at this stage) Results are shown in Table 5 9, classified by rural or urban area and overall The percentages in this table are based on those who correctly named a hospital, so the denominators are smaller than the whole sample and the percentages are larger than if they had been related to all respondents The cost of hospital use was not asked in this part of the questionnaire, it was asked of women who had actually given birth in a hospital and to ask it as a hypothetical amount to those who had not necessarily used the hospital was not considered reliable

Table 5 9 Travel to a Hospital

Time, means of transport and cost were asked of only of those women respondents who named a hospital Indonesia 1996

	Rural	Urban	All
No of respondents	610	162	772
Means of transport			
car	29 4%	6 0%	26 0%
bus	34 7%	18 7%	32 4%
boat	18 0%	0 0%	15 3%
walk	1 2%	24 0%	4 6%
other[1]	12 5%	48 7%	17 8%
Giving travel time as			
30 minutes or less	47 0%	99 8%	54 8%
More than 30 minutes up to 1 hour	33 5%	0 0%	28 5%
More than 1 hour, up to 2 hours	16 3%	0 2%	14 0%
More than 2 hours	3 2%	0 0%	2 8%
Cost			
Percent with no cost	5 8%	39 4%	10 7%
Mean cost among those paying (1000 rp)	5 0	0 5	4 5

[1] Chiefly small motor taxi (*becak*)

Getting to the hospital was usually by road transport, including *becak* (small motor taxi) Not surprisingly, walking was more frequently quoted in the urban area, at 24 percent Travel times were generally reasonably short, with only 2 8 percent of the population appearing to live more than two hours journey from the hospital and 83 3 percent within an hour (3 2 percent and 80 5 percent respectively for the rural area alone) Journey time as a component of access time would not as a rule appear to be a potentially large problem for emergency transfers to hospital The average cost of getting there was also reasonable, at the equivalent of about $US2 00 in the rural area and only a few cents in the urban area The husbands' perceptions of time and cost were very similar

Opinions of the service and care offered by the named hospital were asked in two ways The first was to ask a simple grading, (excellent, good, fair or poor), for the service provided The second was to ask women respondents if they would use the hospital, and men if they would choose or recommend it for their wives Table 5 10 shows the respondents' grading for use of the hospital for complications in pregnancy of childbirth, and for a woman "needing to have her baby in a hospital " As before, the percentages are based on those who named a hospital, not on all respondents

Table 5 10 Opinion of Named Hospital for Specific Uses

Respondents grading of named hospital for use in specified circumstances Based only on respondents who named a hospital women and men Indonesia 1996

	Reason for Use			
	for complications in pregnancy or delivery		if needs to have a baby in hospital	
	women	men	women	men
Number of respondents	773	254	773	254
Grading				
excellent	0 7%	2 5%	1 2%	0 6%
good	64 3%	54 9%	66 4%	56 1%
fair	24 5%	30 5%	21 7%	32 2%
poor	1 7%	3 2%	1 2%	2 3%
no view	8 9%	8 0%	9 5%	7 8%

The majority gave approval to the hospital, in that the percentages grading good or excellent range from 57 percent, for the men's rating on service on both counts, to 65-68 percent for the women's ratings However, between a quarter and a third gave rating of only fair or poor, and as a tendency to over-rate is to be expected with this type of question, this quite possibly represents an appreciable extent of wariness in respect to the service offered Men tended to be slightly less favorable than women

These categories of use are likely to overlap in respondents' perceptions and there will be a tendency to give a hospital the same rating for both categories of use However, this was not absolute as the correlation coefficient between the replies (Kendall's τ) was only 0 72

Table 5 11 shows the stated willingness to use the hospital for complications in pregnancy (complications during birth were not asked about)

Table 5 11 Stated Willingness to Use Named Hospital for Complications in Pregnancy

Women respondents willingness to use Men respondents would recommend for their wife to use
Based only on respondents who named a hospital
Indonesia, 1996

	women	men
Number of respondents	773	254
Stated preparedness		
would use	75 0%	83 1%
would not use	25 0%	16 1%
No view	0 0%	0 9%

Between a quarter of the women and about one sixth of the husbands indicated they were not prepared to use the hospital in this circumstance One may conjecture that reluctance to use the hospital may actually be more widespread as questions of this nature may tend to be answered on the favorable side

Table 5 12 shows the percentages of women respondents who both quoted a hospital and gave it a rating of good or excellent for dealing with complications, and the percentages who quoted it and said they would use it in these circumstances, by area The percentages are now based on all respondents, and are estimates of how many in this population are both able to name a hospital and who either grade it well, or are prepared to use it This is intended to indicate overall perception of hospital service, but does not distinguish between awareness of the hospital and judging it as of good quality or judging it as an option for use

Table 5 12 Respondents' Grading and Willingness to Use in Case of Complications, by Area

Respondents grading for complications in pregnancy or delivery and willingness to use for complications in pregnancy All women respondents Indonesia 1996

		Percent	
	Number of respondents	grading good or excellent	would use
Whole area	1172	45 9%	53 0%
Barito Kuala	323	43 5%	48 7%
H S S	328	33 9%	49 3%
Banjar rural	327	51 3%	53 4%
Banjar urban	194	55 2%	67 8%

The overall perception in favor of the hospital appears to be somewhat higher in the urban area This is due almost entirely to the fact that the urban respondents were able to name a hospital more frequently

Table 5 13 shows the same two percentages by age of the respondent, number of live births and education level

Table 5 13 Respondents' Grading and Willingness to Use in Case of Complications, by Age, Live Births and Education

Respondents grading for complications in pregnancy or delivery and willingness to use for complications in pregnancy All women respondents Indonesia, 1996

	Number of respondents	Percent: grading good or excellent	Percent: would use
All	1172	45 9%	53 0%
Age			
15-19	76	45 0%	50 4%
20-24	283	43 8%	53 1%
25-29	266	50 3%	57 6%
30-34	221	45 2%	55 8%
35-39	165	43 9%	53 1%
40-44	102	48 4%	48 0%
45+	59	42 7%	48 7%
Live births			
0	208	36 6%	44 6%
1	316	51 2%	65 6%
2-3	394	50 8%	54 0%
4+	254	40 4%	46 0%
Education			
None/some primary	457	38 7%	43 1%
Primary complete	372	54 0%	61 0%
Secondary or more	343	50 1%	62 9%

Neither percentage varies noticeably with age Women with no live births appear to know about and/or rate hospitals less well, with the contrast between these and women with one previous live birth being statistically significant (p=0 008 for knowing about and grading well, and p=0 02 for knowing about and preparedness for use) There is a suggestion that those with larger families know about and/or rate hospitals less well, and the trend of declining knowledge of the hospital and preparedness to use it among those with one or more live births is also significant (p=0 008) Those with little or no education also know about and/or rate hospitals less well, and the contrast between this group and those with primary or more education is statistically significant (p=0 03 for grading and p<0 001 for "would use")

In summary, a sizeable proportion of the respondents did not name a hospital This was true for as many as a third (32 0%) of the women asked Those who did name a hospital indicated that the hospital was not usually far away, in terms of journey time, and generally was not expensive to reach They tended to grade the hospital favorably, but large enough proportions (around a quarter to a third) rated it only fair or poor, which may indicate a more critical attitude given a common tendency to over-rate when asked this type of question Knowing of a hospital and also grading it well or being prepared to use it, for complications, was more common among those with primary education or more, and less common among those without a previous live birth

5 3 Respondents' Reports of Receiving Messages Concerning Maternal Health

The respondents were asked about sources of information from which they had heard messages concerning women's health and health problems in pregnancy and during birth They were asked in connection with the most common sources of information in general, that is, in terms of "where do you get most of your information," and in connection with messages received in the previous three months The percentages naming different sources in both contexts are shown in Table 5 14

Table 5 14 Sources of Information

Respondents were asked about sources of information about health and health problems when pregnant or having a baby Indonesia 1996

Source of information	Percent reporting receiving information and messages			
	Women (n=1172)		Men (n=359)	
	Most common	Heard in last three months	Most common	Heard in last three months
relative/friend	31 1%	14 3%	30 2%	11 6%
dukun (TBA)	3 4%	0 3%	2 3%	0 2%
bidan di desa	11 5%	1 4%	8 5%	0 0%
other *bidan* (midwife)	21 2%	3 4%	16 8%	2 4%
puskesmas	45 3%	5 3%	39 5%	4 3%
posyandu	31 7%	3 6%	25 9%	2 3%
doctor	9 9%	0 5%	7 7%	0 2%
printed material	3 9%	0 8%	10 2%	0 6%
radio	9 8%	1 1%	14 9%	2 3%
television	20 2%	2 8%	31 1%	4 2%
other	10 5%	0 9%	14 0%	3 1%
none of above	1 8%	75 2%	1 5%	79 9%
any one of above	37 8%	17 5%	34 8%	12 6%
any two or more of above	60 4%	7 3%	63 8%	7 5%

For specific sources multiple replies possible

The most common sources quoted were health centers and village-level clinics (*puskesmas* and *posyandu*, quoted as most common source by 45 3 percent and 31 7 percent of women), followed by relatives and friends (31 1 percent), and television (20 2 percent) As just over half the household had a television (Table 2 2), the potential of this medium is clear *Bidan* and *bidan di desa* were the next most commonly mentioned sources of information (each by 21 2 percent and 11 5 percent of women) The relatively high percentages for relatives and friends suggests a fair degree of receiving second-hand information, and a need for clarity in the content of primary messages The frequency of recall of messages having been received in the last three months was quite high, and was greater for information related to the woman's health compared with the baby's health (not shown in table) There were no great differences between women and men in recall of messages

The topics of the messages received in the last three months were also asked No one topic was recalled frequently, but the most commonly quoted by all women respondents (whether they indicated hearing any messages of not) were swollen limbs when pregnant, by 5 2 percent, bleeding when pregnant (3 6 percent) or after the delivery (4 7 percent,), loss of appetite when pregnant (6 6 percent), and labor being too long (4 5 percent) Other specific topics were quoted by fewer, usually by only one or two percent For messages relating to the health of the baby, the principal topics were not breastfeeding well (5 0 percent), being too small (3 7 percent), infected cord (3 6 percent), and diarrhea (3 0 percent)

Finally, respondents were asked which of several sources of information they found most convincing for messages concerning a woman's health problems in pregnancy or when a baby is born Table 5 15 shows the frequency with which various sources are mentioned

Table 5 15 Most Convincing Sources of Information

Concerning health problems for women when pregnant, and when a baby is born Indonesia 1996

Source of information	Percentage naming each source	
	Women (n=1172)	Men (n=359|)
Radio	4 7%	6 4%
Television	12 3%	17 5%
Health service personnel	73 5%	76 3%
Relatives	5 9%	4 5%
Friends and neighbors	15 0%	15 0%

Multiple replies allowed

Women and husbands quoted the various sources with similar frequencies The most commonly quoted by far was health service personnel, with friends, neighbors, and relatives moderately frequently quoted Television was quoted more frequently than radio

In summary, messages were most frequently heard from health service personnel, and considered most reliable from that source, but about a third indicated they received information from friends and relatives Health service personnel were also said to give the most convincing information The range of topics that respondents remembered hearing about was quite wide, with no one topic being predominant

CHAPTER 6

KNOWLEDGE OF POST-PARTUM AND POST-ABORTION CONTRACEPTION, USE OF POST-PARTUM CONTRACEPTION

6 1 Knowledge of Post-partum Contraception

Respondents to this part of the questionnaire were

A Women with a birth reported in the previous three years

B Other women of reproductive age and a sample of husbands

Table 6 1 shows the percentages stating the necessity to use "a method" to avoid or delay a further child after a birth The question asked whether using "a method" is necessary when a woman wishes to delay or not to have another child

Table 6 1 Awareness of Necessity for Post-partum Contraception

Percentages stating the necessity to use a method to avoid or delay a further child after a birth Indonesia 1996

	Women	Men
Number of respondents	1172	359
Showing awareness	92 4%	90 7%

Respondents replying do not know classified as not showing awareness

These percentages are high, 92 4 percent and 90 7 percent, (confidence intervals 89 7 percent to 95 1 percent and 85 8 percent to 95 6 percent) for women and men respectively The rural/urban difference is small and is not statistically significant

Respondents were then asked to name specific contraceptive methods (with probing when "birth control" was only mentioned) Results are summarized in Table 6 2, in terms of the number of modern methods and the number of long-term modern methods recalled The percentages in this table are based on those saying "yes" to the need to use a method (Table 6 1), as denominators

Table 6 2 Numbers of Contraceptive Methods Recalled

In the context of post-partum contraception Indonesia 1996

Number of methods recalled	Modern methods		Long-term modern methods	
	Women (n=1096)	Men (n=326)	Women (n=1096)	Men (n=326)
none	2 8%	3 7%	51 9%	61 7%
1	37 2%	44 6%	28 4%	23 5%
2	19 2%	19 8%	17 7%	13 4%
3	18 5%	15 7%	2 1%	1 4%
4	18 5%	9 8%		
5,6	9 2%	6 5%		

Modern methods IUD, pill injectable, Norplant condom, sterilization
Long-term methods IUD, Norplant, sterilization

Very few recalled no modern methods at all (2 8 percent and 3 7 percent for women and men) Permanent methods were less often recalled, and this remains so allowing for the fact that there were less methods to recall (three permanent methods, among six modern methods)

The percentages of all respondents who both showed awareness of necessity and recalled at least one modern method were 89 8 percent of women and 87 4 percent of men (confidence intervals of 86 9 percent to 92 7 percent and 80 9 percent to 93 9 percent respectively) Rural women showed greater knowledge on this measure, at 91 5 percent compared with 77 3 percent among urban women, this difference is statistically significant (p=0 002)

The final component of knowledge of use of contraceptive methods in the questionnaire was when to begin use after a birth A common reply that was given unprompted and was not part of the coded replies was "after a period of 40-45 days " While this may not correspond to "best advice" for avoidance of pregnancy, it is more likely to be consistent with local behavioral norms Of the women respondents who mentioned one or more modern methods, 19 5 percent said one should commence use immediately or "within several days," while a further 14 1 percent stated an interval in the uncoded responses that was generally between 40 and 45 days, plus one who said 49 days before one need commence These two percentages may be added, to 33 6 percent, to indicate perception of an appropriate time to start use, in terms of what appear to be local norms at least

Respondents were also asked whether breastfeeding can "help a woman stop getting pregnant " "Yes" was the response for 23 5 percent of all women and 27 6 percent of all men (The 95 percent confidence intervals for women is 18 1 percent to 30 0 percent) Among the women stating that breastfeeding can help, 60 9 percent said this is true as long as breast-feeding continues, with a further 18 9 percent saying it is true as long as exclusive breastfeeding continues Also, among those stating that breastfeeding can give protection, 80 8 percent said it can last over a year The percentages among men were similar

6.2 Knowledge of Post-abortion Contraception

The respondents were also asked about use of contraception after "losing a pregnancy for any reason " Table 6 3 shows the percentages showing awareness of the necessity in terms of it being all right for the woman's health and well being in the event of pregnancy soon after the loss

Table 6 3 Awareness of Necessity for Post-abortion Contraception

Percentages showing awareness of the necessity of post-abortion contraception in terms of it being all right for the woman's health and well-being in the event of pregnancy soon after the loss Indonesia, 1996

	Women	Men
Number of respondents	1172	359
Showing awareness	66 7%	68 3%

Respondents replying do not know' classified as not showing awareness

These percentages are lower than for post-partum contraception, which is not surprising As with post-partum contraception, the respondents were then asked to name specific contraceptive methods, with probing when "birth control" was mentioned only in general terms Results are summarized in Tables 6 4, in the same way as in Table 6 2

Table 6 4 Numbers of Contraceptive Methods Recalled

In the context of post-abortion contraception Indonesia 1996

Number of methods recalled	Modern methods		Long-term modern methods	
	Women (n=810)	Men (n=246)	Women (n=810)	Men (n=246)
none	5 0%	9 2%	64 8%	75 2%
1	48 5%	56 6%	21 3%	15 9%
2	17 2%	13 7%	12 1%	8 0%
3	13 9%	10 8%	1 8%	1 0%
4	9 8%	6 3%		
5 6	5 6%	3 5%		

Modern methods IUD pill injectable Norplant, condom, sterilization
Long-term methods IUD Norplant, sterilization

These results relate only to those who stated a necessity to use contraception Among these, modern and long-term methods were recalled with noticeably less frequency than in the context of post-partum contraception (Table 6 2)

Awareness of necessity and also recollection of one or more modern methods was shown by 63 3 percent of all women respondents and 62 0 percent of all the men in this context However, these figures fell strongly when timing is brought in Taking "immediately" or "in several days" as indicating correct timing, 17 1 percent of all the women and 14 2 percent of all the men showed awareness on all three counts (of need, of recalling one or more modern methods, and of starting within several days)

6 3 Use of Post-partum Contraceptives

Respondents to this part of the questionnaire were women who reported a birth in the previous three years They were asked about use of contraceptives after the most recent birth

Overall, 70 7 percent of women reported using contraception since the birth However, this percentage was only 29 percent among those reporting about a birth two months or less before the interview, while among those with the birth two months or more previously, 73 4 percent reported use of contraception This difference is statistically significant ($p<0$ 001), and there was no further trend with a longer post-birth interval The last figure (73 4 percent) is taken as a more reliable indicator of the uptake of post-partum contraception, and subsequent results are only for births two or more months before the interview The confidence interval on 73 4 percent is 69 2 percent to 77 6 percent

Table 6 5 shows the distribution of time (asked as the age of the child when use started) until starting contraception after birth, overall and by rural and urban area The timing of up to six weeks (up to 41 days) covers the period of seclusion A fair number of respondents said they started in the seventh week (42-48 days), which can be taken as starting at the end of seclusion

Table 6 5 Timing of the Start of Contraception after the Birth

Women reporting a birth two or more months previous to the interview Indonesia 1996

Time after the birth	Percentage using		
	Rural (n=940)	Urban (n=189)	Both (n=1129)
Started use			
Same day	3 1%	3 2%	3 1%
1 day up to 1 week	0 1%	1 1%	0 2%
2-6 weeks	17 8%	34 8%	19 8%
7 weeks	11 3%	8 6%	11 0%
8 weeks or more	39 9%	35 3%	39 3%
Had not used by time Of interview	27 8%	17 1%	26 6%

Early commencement was not common The percentage of all respondents who had started within six weeks was less than a quarter (23 1 percent) and this is only about a third of those who commenced at all Usage was more common in the urban area (the difference in "had not used" is statistically significant p=0 002), more common with increased education, and less common for those with more previous births (both trends in "had used" were statistically significant, p<0 001) The difference in used "within six weeks" is just significant between the areas, p=0 05

The most commonly used method was reported as the pill, by 43 2 percent of women (confidence interval 38 7 percent to 47 7 percent) and 58 8 percent of all users Next most common was injection, by 20 3 percent of all women and 27 6 percent of all users

Users were asked what they had paid for contraceptive supplies, although how much supply they had obtained or the duration of use was not specified Of the pill users, 82 3 percent had not paid at all, with a mean payment of 817 rupiah and a maximum of 50,000 rupiah among those who had paid Of injection users 96 6 percent had not paid, with a mean payment of 3,527 rupiah paid and a maximum of 20,000 rupiah among those who had paid

CHAPTER 7

DETERMINING THE PREVALENCE AND RISK FACTORS OF MATERNAL ANEMIA

Prior to the baseline survey, qualitative research was conducted on anemia and the results were used to form the questions for the survey instrument For example, qualitative research showed that women identified the signs and symptoms of anemia but did not know the medical term, "anemia" However, since women identify a local Bahasa Indonesian term, *kurang darah* ("low blood") with the signs and symptoms of anemia, "*kurang darah*" was used in place of the word "anemia" on the questionnaire

A total of 414 currently pregnant women were asked for information by trained enumerators with regard to their knowledge about *kurang darah* and its symptoms, iron tablet consumption including reasons for non-compliance, and socio-economic-demographic variables Most women were in their third trimester of pregnancy Estimates of the timing of pregnancy were made by midwives who asked the date of last menstruation, and reconfirmed by measuring the fundus

The enumerators were personnel from the subdistrict Statistics Office who had collected information from the community for several surveys in the past They were trained for this study for a week Maternal hemoglobin was measured by trained midwives using the HemoCue® instrument and cyanmethemoglobin test and mid-upper arm circumference was collected with measurement tapes produced by Ross Laboratory Midwives were trained for two days on the use of the HemoCue® and the other tests for anemia, including the correct procedure for capillary sampling Conjuctiva was observed for the physical appearances of anemia, such as pallor, and women were asked about tiredness and weakness To determine the sensitivity and specificity of clinical screening, these results were later compared with the hemoglobin values obtained with the HemoCue® All women participating in the survey were given a can of dried milk and one packet of cookies, and women with anemia were given iron-folate supplements and counseled on how to take them and where to return to obtain more

The data collection was conducted May 5 to June 30, 1996 Women were interviewed and had their blood tested in a *posyandu* (integrated service post), a village office, or their home

7 1 Anemia Prevalence

The survey showed that 45 2 percent of pregnant women were suffering from anemia 1 2 percent were severely anemic (Hb< 7g/dl), 17 1 percent were moderately anemic (Hb 7 0-8 9g/dl) and 26 8 percent were mildly anemic (Hb 9 0-10 9g/dl) based on the results obtained with the HemoCue® There is a slight difference in the prevalence using the cyanmethemoglobin and HemoCue® methods and this study's HemoCue® results are lower than the anemia prevalence levels (56 5 percent) found in South Kalimantan in the

national household survey (Survei Kesehatan Rumah Tangga, 1995) using the cyanmet method

Examining anemia prevalence by gestation showed increased anemia with increasing gestational age 20 5% (n=8) anemic (Hb <11 g/dl) in the first trimester, 44 8% (n=74) anemic in the second trimester, and 50% (n=105) anemic in the third trimester This reflects a combination of the normal hematological changes due to plasma volume expansion during pregnancy as well as increased iron requirements in the later stages of pregnancy

Even in iron sufficient women, hemoglobin levels fall during the early part of pregnancy reaching a low point in the second trimester, and generally returning to prepregnant levels by term Among the sample of Indonesian women, regression analysis showed the expected U-shaped relationship between hemoglobin level and gestational age, with hemoglobin values recovering from a nadir at 25 weeks However at term, hemoglobin values remained 1 g/dl lower than at the beginning of pregnancy, suggesting that maternal iron stores and dietary iron intakes are inadequate to meet their requirements

7 2 Maternal Characteristics and Anemia Status

The socio-demographic characteristics including maternal education, age, and possession of goods of anemic and non-anemic pregnant women are shown in Table 7 1 These women's responses are also included in Chapter 2, which describes the sample households of the 1949 persons interviewed for the community survey The mean age of pregnant women surveyed was 26 5 $\pm$ 5 7 years and there is no difference in age between anemic and non-anemic women The mean gestational age was 25 0 $\pm$ 7 6 weeks The prevalence of overall anemia in the study population was not differentiated by maternal age, maternal education, husband's education and occupation, or possession of goods Women with anemia had a higher gestational age (26 1 $\pm$ 6 7 weeks) compared to non-anemic women (24 1 $\pm$ 8 3 weeks) but the difference was not significant Among pregnant women living in this population, socioeconomic and demographic variables are not sensitive indicators of an anemia problem

Table 7 1 Maternal Characteristics and Anemia Status

Maternal Characteristic	Anemic (n=187) S D	Non-anemic (n=227) S D	Total (n=414) S D
Maternal Age (years) (n=414)	26 5(±5 5)	26 5(±5 9)	26 5(±5 7)
Gestational Age (weeks)(n=414)	26 1(±6 7)	24 1(±8 3)	25 0(±7 6)
	Percent	Percent Anemic[1]	
Maternal Education (n=414)			
No schooling/some primary	32 4% (n=134)	43 4% (n=58)	
Completed primary school	32 1% (n=133)	43 6% (n=58)	
Completed junior high school+	35 5% (n=147)	48 3% (n=71)	
Husband Education (n=414)			
No schooling/some primary	23 7% (n=98)	41 8% (n=41)	
Completed primary school	30 4% (n=126)	44 4% (n=56)	
Completed junior high school+	45 9% (n=190)	47 4% (n=90)	
Husband Occupation (n=414)			
Agriculture	41 3% (n=171)	39 8% (n=68)	
Labor (blue collar)	24 4% (n=101)	43 6% (n=44)	
Services (white collar)	34 3% (n=142)	52 8% (n=75)	
Possession of goods (n=414)			
Radio			
Yes	70 3% (n=291)	44 3% (n=129)	
No	29 7% (n=123)	47 2% (n=58)	
Television			
Yes	53 6% (n=222)	49 1% (n=109)	
No	46 4% (n=192)	40 6% (n=78)	
Tape Recorder			
Yes	39 6% (n=164)	42 7% (n=70)	
No	60 4% (n=250)	46 8% (n=117)	
Bicycle			
Yes	66 9% (n=277)	44 0% (n=122)	
No	33 1% (n=137)	47 4% (n=65)	

About one-third of women had no schooling or some primary school education, one-third had completed primary school, and one-third had completed junior high school The prevalence of anemia in women with these three levels of education was relatively similar In contrast to women, almost 50 percent of husbands had completed junior high school or higher There was a gradual increase in the prevalence of anemia in pregnant women by their husband's educational level but differences were not significant The survey showed that the highest percentage of husbands were employed in agriculture, however there were similar percentages employed in both white and blue-collar service sectors While the differences were not significant, there was a change in the prevalence of anemia in pregnant women depending on the occupation of their husbands

[1] For all variables percent anemic refers only to the pregnant women assessed for hemoglobin level

Interestingly, anemia prevalence in pregnant women was lowest when their husbands were working in agriculture and highest when their husbands were white collar workers

Approximately 70 percent of households owned a radio and about half had a television A common means of transportation is the bicycle, and more than two-thirds of the households owned at least one bicycle The differences in the prevalence of anemia in this segment of the population with respect to the possession of goods were insignificant

7 3 Maternal Knowledge of Anemia and Iron Tablet Consumption

When asked about the types of health problems a woman can have during pregnancy, women listed the following tiredness (75 8 percent), *kurang darah* (75 1 percent), difficulty in working (71 5 percent), and night-blindness (39 4 percent) Most of the pregnant women (77 7 percent) had heard about the symptoms of anemia (Table 7 2) The most common sources of information about anemia were the health center (*puskesmas)*, midwives, and Integrated Post Services (*posyandu*) Women listed the following symptoms as indicative of anemia dizziness (49 3 percent), paleness (28 0 percent), physical weakness (8 6 percent), tiredness and fatigue (5 9 percent) and heart beating fast (0 7 percent) Of those who had heard of anemia, 60 7 percent thought of anemia as a serious problem and one-third thought they were currently suffering from anemia However, there was no significant association between having heard of and actually suffering from anemia or *kurang darah* While there was more anemia in women who thought anemia was a serious problem and those who thought they were currently suffering from anemia, the differences were not significant

Table 7 2 Maternal Knowledge of Anemia

Percentage of women aware of the symptoms of anemia and options for treating them Indonesia, 1996

Knowledge of Anemia		Percent Anemic
Ever heard of anemia(n = 413)		
Yes	77 7% (n=321)	44 9% (n=144)
No	22 3% (n=92)	46 7% (n=43)
Reported currently suffering anemia (n= 321)		
Yes	31 1% (n=100)	51% (n=51)
No	68 8% (n=221)	43 9% (n=97)
Thought anemia a serious problem(n=321)		
Yes	60 7% (n=195)	48 3% (n=94)
No	39 3% (n=126)	42 9% (n=54)
What to do about anemia		
Go to a health provider or facility	40 2% (n=129)	
Rest more	5 9% (n=19)	
Get iron pills	1 9% (n=6)	
Get *jamu*	0 6% (n=2)	
No answer	51 4% (n=165)	

If women listed the symptoms of anemia as a problem during pregnancy they were asked what they should do about the symptoms 40 2 percent said they should go to a health provider or facility, 5 9 percent said they should rest more, 1 9 percent said they should get iron pills, and 0 6 percent said they should get *jamu* (a traditional herbal medicine) Eating more was not mentioned by any of the pregnant women

Table 7 3 provides information on behavior related to consumption of iron tablets Approximately two-thirds of the pregnant women had received at least one iron-folate tablet during their pregnancies and the other one-third received none Women obtained iron tablets mainly from the *puskesmas* (health center) or *posyandu* (health post) at no cost Women received on average 29 5 (± 18 3) iron-folate (IFA) tablets during their pregnancy About twelve percent received at least 60 IFA tablets during their pregnancy and no women reported receiving the recommended number of 90 IFA tablets/pregnancy After receiving the IFA supplements, 89 3 percent of women reported consuming one/day on a consistent basis The main reasons women did not take IFA tablets were forgot (18 5 percent), tablets unpleasant (18 5 percent), gastro-intestinal side effects (14 8 percent), not enough tablets (11 1 percent), fear of having too large a baby (7 4 percent), or didn't feel the tablets were needed anymore (3 7 percent) When women were questioned about whether they experienced positive effects from IFA, 54 4 percent said yes The types of positive effects were feel stronger (92 7 percent), less tired (4 4 percent), and more able to work (2 9 percent)

Table 7 3 Iron Tablet Consumption		
Ever-received iron tablets (n=413)	Percent of Women	Percent Anemic
Yes	66 6% (n=275)	46 5% (n=128)
No	33 3% (n=138)	42 0% (n=58)
Received iron tablets mainly from (n=275)		
Puskesmas	48 4% (n=133)	
Midwives[2]	29 8% (n=82)	
Posyandu	20 0% (n=55)	
Others[3]	1 8% (n=5)	
Number of iron tablets received (n=253)		
less than 60	87 4% (n=221)	48 0% (n=106)
60 or more	12 6% (n=32)	40 6% (n=13)
Average number of tablets received for one pregnancy		
29 5 ± 18 3		
Number consumed (n=252)		
less than 60	91 7% (n=231)	46 8% (n=108)
60 or more	8 3% (n=21)	42 8% (n=9)
Consumed everyday (n=252)		
Yes	89 3% (n=225)	47 1% (n=106)
No	10 8% (n=27)	48 1% (n=13)
Main reasons for not taking IFA tablets (n=27)		
Forgot	18 5% (n=5)	
Pills unpleasant	18 5% (n=5)	
GI effects	14 8% (n=4)	
Not enough tablets	11 1% (n=3)	
Fear of big baby	7 4% (n=2)	
Didn t feel needed	3 7% (n=1)	
Other	15 9% (n=7)	
Women experiencing positive side effects	54 4% (n=137)	
Type of positive side effects		
Stronger	92 7% (n=127)	
Less tired	4 4% (n=6)	
More able to work	2 9% (n=4)	

7 4 Risk Factors For Anemia MUAC and Number of Live Births

Low hemoglobin level in pregnant women was significantly associated with the number of live births and her mid-upper-arm circumference (MUAC) The mean hemoglobin for pregnant women with three or more live births was 10 74 ± 1 62 g/dl which was significantly ($p<0$ 05) lower than the mean hemoglobin for pregnant women with two or fewer live births (11 09 ±1 12 g/dl) The mean hemoglobin for pregnant women with a MUAC less than 23 5 cm was 10 6 ± 1 4 g/dl and 11 28 ± 1 08 g/dl for women with a

[2] Midwives include public sector village-midwives midwives, and midwives in private clinics
[3] Others include drug stores, dispensaries, doctors, and private clinics

MUAC greater than or equal to 23 5 cm The mean MUAC in anemic pregnant women (21 7 $\pm$ 2 3 cm) was significantly ($p<0$ 05) lower compared to that of non-anemic pregnant women (25 9 $\pm$ 3 1 cm)

While all pregnant women need to take iron tablets, it is important to identify anemic women in need of special attention Two measures, number of live births and MUAC, did correlate with hemoglobin levels and might be useful in identifying women for special follow-up Women with fewer live births have better hemoglobin levels Pregnant women in this population with lower mid-upper arm circumference have significantly poorer hemoglobin levels This suggests that protein energy malnutrition can be used as a proxy for iron status during the course of pregnancy, although health workers would have to be trained to accurately use this method in the field setting Women with many, closely-spaced pregnancies and low MUAC should be given special counseling to ensure they increase their food intake and take IFA supplements during pregnancy After delivery, women need to be counseled to use the lactational amenorrhea method (LAM) of family planning or other forms of contraception compatible with exclusive breastfeeding for the first six months and to continue use of birth control in order to space subsequent pregnancies as desired

7 5 Why Women Do Not Take IFA Supplements

While many studies/experts report that side effects are the main reason women are not taking IFA supplements, qualitative research conducted prior to this study found that the majority of pregnant women interviewed did not experience side effects And for the small number of women who did experience side effects, they were able to continue taking IFA tablets The baseline survey is important because it confirms that the majority of women who received IFA tablets reported taking them and that side effects were noted by a minority of women Self-reported consumption of supplements is not always a reliable measure of compliance However, in an unpublished study in Indonesia, it was found that self-reported IFA tablet consumption was reliably reported by 80 percent of women Analysis of stool iron content verified women's reports

The qualitative research mirrors the baseline results Apart from minor physical side effects, women identified forgetfulness as a major reason for not taking IFA supplements Other reasons included fears of hypertension, too much blood (resulting in too much bleeding at delivery), and too big a baby (resulting in a more difficult delivery) All of these symptoms are related to taking what they perceived as too many IFA pills The finding on hypertension was interesting and not found elsewhere Women, and even health workers, thought the opposite of low blood was high blood pressure, which they had been told was dangerous Taking fewer IFA pills was seen as a way to limit high blood pressure

APPENDIX A

A 1 Sample Size

The survey included different samples of different types of respondent for different sections of the questionnaire, all with different sample sizes However, the principal determinant of the number of households to be visited was to ensure that a sufficient number of women reporting a birth in the last three years would be included, to meet the objective of (a) investigating care seeking and the use of essential obstetric care (EOC) among women giving birth, and (b) contrasting those who reported symptoms that indicated complications with those who did not

For objective (a), a criterion was set to reach an absolute minimum of 100 women among whom these complications were indicated in order to allow results of their care-seeking behavior to have reasonable precision The incidence of relevant complications was taken as 10 percent of all pregnancies (as a conservative figure) Allowing for random variation, approximately 1,200 women reporting births would need to be interviewed to be reasonably sure to achieve this Estimates of fertility from recent DHS reports and average household size from BPS were used to estimate that approximately 5,000 houses would need to be visited and censused to yield this number of qualifying women

The objective of measuring levels of hemoglobin and anemia in currently pregnant women was met with a sample size planned at 400 currently pregnant women This would enable the prevalence of anemia, taken as approximately 50 percent for planning purposes, to be estimated to a precision of ±10 percent (i e , the upper or lower half of the confidence interval to be 10 percent), with a design effect (deft) arbitrarily taken as two This sample size is also adequate to detect an improvement in anemia of 10 percent, 15 percent, or 20 percent between this and a subsequent survey, with 80 percent power and for design effects (deft) 1, 1 5, or 2 respectively Finally, rather more pregnant women were sampled, but after refusals and other reasons, approximately 400 gave a blood specimen for hemoglobin

The knowledge questions were asked of all the currently pregnant women approximately 430 sub-sampled from the women with a birth in the last three years, and 300 other married women of reproductive age sampled from the same registered households The latter were included to ensure that the knowledge was represented among the whole female population of reproductive age This overall sample size was adequate to achieve good precision for a knowledge-based indicator with a percentage in the region of 50 percent, of up to ±5 percent, with a design effect (deft) of approximately 2

The knowledge questions were also asked of a smaller sample of approximately 360 husbands (not husbands of the sampled women) This was adequate to achieve precision for a knowledge-based indicator with a percentage in the region of 50 percent, of up to ±10 percent, with a design effect (deft) also of approximately 2

A 2 Sampling

Households were randomly sampled in the four strata, in three stages by sub-district (*kecamatan*, the primary sampling units (PSU)), census enumeration district (*wilcah*), and census segment (*segmen*) There were 18 PSUs and 72 enumeration districts with one segment (with exceptions, see below) sampled in each enumeration district The PSUs were sampled with replacement, with probability proportional to size, using household numbers as a proxy for number of persons provided by the provincial office of the Central Bureau of Statistics (BPS) (see Chapter 1) The enumeration districts were sampled without replacement, also with probability proportional to size The sampled enumeration districts were in 64 villages (some enumeration districts being by chance in the same village) In each sampled enumeration district, one segment was selected at random In the original plan, segments were expected to be of approximately the same size, 70 households, and the intent was to select all women with a birth in the last three years, all currently pregnant women, and samples of other respondents Actually, there was considerable variation in segment size and when a small segment was selected, a neighboring one was included as well on a random basis to arrive at a cluster size closer to 70 houses All households in the selected segments were visited and the household members listed All the women with a birth in the previous three years were normally selected, but for some larger segment-clusters, a random selection was made (the distortion due to this in the probabilities of selection was accepted) In the case of currently pregnant women, not quite enough were found in the sampled segments, and further sampling on a house-to-house basis (but without full household enumeration) was carried out in neighboring segments

Sampling probabilities were approximately calculated on the basis of the numbers actually interviewed, using the population household numbers provided by BPS They were different for each class of respondents and in each stratum Analytical weights were calculated from these probabilities (Distortions introduced by greater than expected variation in segment size were not factored into the calculation of weights Although this means the weights do not fully reflect local variations in selection probabilities, they do adequately reflect differences across the larger aggregates of the sample and of the population)

A 3 Response Rates

Response rates for each of the groups of respondents

	Respondents	Rates
1	Women with a birth in the last three years	97 0 percent
	Sub-sample for knowledge questions	92 6 percent
2	Other women of reproductive age	96 6 percent
3	Husbands	95 1 percent

4	Currently pregnant women	Not available for those interviewed
	Currently pregnant women interviewed who gave a specimen for hemoglobin determination	90 8 percent

A 4 Data Handling

Data were entered using FoxBASE, with range and consistency checks applied Each module of the questionnaire was entered into a separate data file The files were combined as necessary in the statistical analysis

A 5 Data Analysis

This was carried out initially in SPSS, then in Stata (using the specialized survey analysis commands in Stata 5) All analyzes are weighted for population representativeness Statistically based results, confidence intervals, and statistical tests were carried out using Stata These results require the specification of strata, weights and PSUs Statistical tests comparing two percentages or means were carried out by direct comparisons, tests of difference among a group of several percentages were carried out by goodness-of-fit of the grouping factor in logistic regression for survey data Tests of comparisons carried out by these methods allow for the greater precision (smaller design effects) of comparisons that are between groups within strata and within PSUs, and are therefore more powerful

A 6 Percentages and Means, Confidence Intervals and Design Effects

Mean values or percentages, with 95 percent confidence intervals with design effects, are shown in Table A1 1 for selected variables in Chapters 3, 4 and 6, relating to pregnancies, births and the use of post-partum contraception

In Table A1 1, design effects are shown for

the full three year recall

for only those recalling a birth in the previous one year

for the comparison in the mean values or percentage between women reporting a birth in the previous one year and women reporting a birth earlier

The purpose of the last comparison is to give information pertinent to the design of a follow-up survey, should such a survey be undertaken, and should it be conducted in the same clusters In a follow-up survey, only one year recall is likely to be sought in order to capture the consequences of recent change Changes in outcomes between the baseline and the follow-up surveys will be sought and should have adequate power

Table A1 1 Values, 95 Percent Confidence Intervals and Design Effects for Principal Variables and Outcomes in Chapters 3 and 4

Variable or outcome	Overall mean or percent	95% confidence interval	Design effect (deft)		
			Overall value		Time comparison[1]
			whole recall	1 year recall	
Ante-natal care					
One or more visits	64 7%	57 9% - 71 4%	2 29	1 74	0 95
Four or more visits	36 0%	30 2% - 41 8%	1 95	1 77	1 17
Visit in last trimester	49 1%	42 4% - 55 8%	2 16	1 57	1 09
Two or more tetanus injections	39 8%	25 4% - 34 2%	1 56	1 36	0 98
Symptoms of complications[2]					
Suggesting dystocia	3 2%	1 9% - 4 5%	1 16	1 06	0 90
Suggesting eclampsia	1 1%	0 5% - 1 7%	0 95	1 12	1 13
Suggesting pre-eclampsia	3 4%	1 8% - 5 0%	1 42	1 47	1 50
Suggesting hemorrhage	3 6%	2 7% - 4 6%	0 84	0 96	1 19
Suggesting sepsis	3 6%	1 3% - 5 8%	1 95	2 09	1 79
Any of first four[3]	10 4%	7 6% - 13 3%	1 49	1 09	1 29
Delivery					
In hospital or *puskesmas*	7 9%	3 9% - 11 9%	2 42	1 28	0 94
In health facility	11 6%	6 0% - 17 2%	2 83	2 73	1 23
In health facility (those with symptoms)[3]	22 3%	14 7% - 30 0%	0 96	0 87	0 73
By doctor (home deliveries)	8 5%	5 0% - 12 0%	1 90	1 54	1 32
By professional (home deliveries)	28 9%	18 0% - 39 7%	3 61	2 54	0 85
By professional or in facility	37 3%	26 9% - 47 7%	3 47	2 36	1 07
Delivery by caesarean	1 8%	1 1% - 2 4%	0 81	0 94	1 11
Delivery by caesarean (hospital deliveries)	21 2%	11 9% - 31 2%	1 10	0 89	1 23
Average payments for hospital birth (1000 rp)					
All hospital deliveries	363	206 - 520	1 10	1 01	0 85
Caesarean sections	1249	677 - 1821	1 29	0 93	0 84
Vaginal deliveries	125	88 161	0 92	1 03	0 91
Child outcomes	2 27%	1 07% - 3 48%	1 28	-	-
Perinatal mortality (rural not twins)	97 1%	95 8% - 98 5%	1 33	1 18	1 18
Breast feeding (any)	52 5%	45 6% - 59 3%	2 20	1 83	1 09
Breast feeding within a day	36 2%	27 8% - 44 6%	2 83	1 81	0 89
Visit post-partum by *bidan di desa*					
Post-partum contraception (births two or more months previous)					
Contraception used since birth	73 4%	69 2% - 77 6%	1 49	1 34	1 11
Used and started within 6 weeks	23 1%	13 9% - 32 4%	3 45	2 45	0 88
Pill used - all respondents	43 2%	38 7% - 47 7%	1 43	0 84	0 61
Pill used - contraceptive users only	58 8%	51 9% - 65 8%	1 89	1 34	0 59

[1] For comparison in percentage or mean between those reporting a birth in the last year and those reporting a birth earlier

[2] Symptoms as selected in chapter 3

[3] Any symptoms from the first four as listed

The design effects in Table A1 1 are variable, and some are larger than anticipated (in general terms, this will apply to values more than two) The variability is to be expected Values in excess of two tend to be in outcomes relating to health service use, in particular facility birth and professional involvement in delivery, and to a lesser degree use of ante-natal care The others are related to breast-feeding and use of contraception before the end of the seclusion period Larger design effects are due to more clustering of the outcomes in question and are in part due to the cluster design with sub-districts as PSUs They lead to reduced precision, but the denominators are large because the overall sample size was deliberately set large in order to include enough women with complications (see above) Thus, reasonable precision is achieved Analysis using census segment as PSU (an incorrect analysis carried out for this illustrative purpose only) reduces the larger design effects Both the two largest, for "professional assistance at home delivery" and "at home or in a facility," are reduced from 3 61 and 3 47 to 2 1, which is still on the high side In retrospect, smaller population groupings could have been chosen as PSUs

The greater clustering of these outcomes is itself of interest The fact that they tend to be related to health service use is suggestive of considerable local variation in use of health services It is also to be noted that the larger design effects are generally reduced when only women reporting a birth in the previous year are considered, which is theoretically to be expected with smaller numbers in each cluster Also, the design effects for longitudinal comparisons are generally close to one Both these results are relevant from the point of view of time-based comparisons with any follow-up survey that may be carried out

APPENDIX B

original English version for comparison

BASELINE SURVEY QUESTIONNAIRE (FINAL VERSION)
MOTHERCARE, INDONESIA, SOUTH KALIMANTAN

MODULES AND RESPONDENTS

THE RESPONDENTS

1 1st responsible adult contacted in house
2 Woman with child born (alive or dead) in last three years (the index birth)
3 Other married women of reproductive age (sample)
4 Husbands of 2 and 3 (sample)
5 Currently pregnant women (5 will overlap, partially with 2 and partially with 3)

THE MODULES

The questions in each module are prefixed with a letter This is used here to index the modules

Module I	Household composition / identification of household
Module H	Information about the household (socio-economic)
Module D	Personal information
Module K	Knowledge of danger signs, of anaemia, of receipt of messages, of contraception
Modules L and P	Questions from validation questionnaire, relating to last birth
Module S	Service use during pregnancy and delivery for last birth
Module B	Survival of this and previous babies This baby's health and service use in post-partum period
Module A	Questions relating specifically to iron tablet use and knowledge of anaemia with blood specimen taken for Hb determination (biological)

WHICH MODULES FOR WHICH RESPONDENTS

Respondent group	Question modules						
	I	H	D	K	L,P,S	B	A
1 1st responsible adult contacted in house	✓						
2 Women with child born in last three years		✓	✓	✓	✓	✓	
3 Other married women of reproductive age (sample)		✓@	✓	✓			
4 Husbands of 2 and 3 (sample)				✓			
5 Currently pregnant women		✓@	✓@	✓			✓

@ where not already asked in current household, or where this is first approach to woman in question

RESPONDENT ID

I1	I2	I3	I4	I5	I6	I7

MODULE - I IDENTIFICATION OF HOUSE AND LIST OF HOUSEHOLD MEMBERS
BASELINE SURVEY QUESTIONNAIRE (FINAL VERSION)
MOTHERCARE, INDONESIA, SOUTH KALIMANTAN

FIRST PART TO BE FILLED BY INTERVIEWER BEFORE APPROACHING THE HOUSE

IDENTIFICATION		NAME
I1	DISTRICT	
I2	SUB-DISTRICT	
I3	VILLAGE	
I4	WILCAH	
I5	SEGMENT	
I6	RUMAH	
I7	RESPONDENT	
I8	INTERVIEWER	
I9	DATE	

SECOND PART INTERVIEW OF RESPONSIBLE ADULT AVAILABLE AT TIME OF CONTACT

Good morning (etc) We are a team from _____ who are involved in improving the health services for women and babies in this district We want to find out some of the ways people in the district use health services To start, I would like some information about the people who usually live in this household All information you provide will remain confidential The information will be presented as an agregate and will not be presented by any individual's name

To be phrased for local "image" of Mothercare programme and local appropriateness

RESIDENT ID

11	12	13	14	15	16	17

NO	USUAL RESIDENTS **(LOCALLY DECIDE IF NAME SHOULD BE RECORDED)**	RELATION SHIP TO HEAD OF HOUSE HOLD 1=Spouse 2=Child 3=In-law 4=Sibling 5=Parent 6=Other	SEX F=1 M=2	MARITAL STATUS YES=1 NO=2	YEAR OF BIRTH	CHECK ON AGE		WOMEN ONLY		MARK IN THIS COLUMN IF ELIGIBLE W1 MARRIED WOMAN 15-50 W2 WOMAN WITH CHILD<3Y P=PREGNANT WOMAN H=HUSBAND OF W1
						BEFORE 1945	AFTER 1981	BIRTH IN LAST 3 YEARS YES=1 NO=2	PREGNANT NOW YES=1 NO=2	
	Please give me the names of those who live here starting with the head of the household	How is_____ related to the head of the household?	Is ____ male or female?	Has ____ ever been married?	What year was he/she born?	Is he/she over 50? YES=1 NO=2	Is he/she under 15? YES=1 NO=2	Has she had a child born to her in the last 3 years, alive or dead?	Is she expecting a baby now?	
1101	---------- --------	1102	1103	1104	1105	1106	1107	1108	1109	1110
01										
02										
03										
04										
05										
06										
07										
08										
09										
10										
11										
12										
13										
RECORD THE TIME WHEN INTERVIEW BEGAN									Hour ___	Minute___ ___

RESIDENT ID

H1	H2	H3	H4	H5	H6	H7

MODULE - H INFORMATION ABOUT HOUSEHOLD
BASELINE SURVEY QUESTIONNAIRE (FINAL VERSION)
MOTHERCARE, INDONESIA, SOUTH KALIMANTAN

ENTER THE IDENTITY INFORMATION BEFORE START OF INTERVIEW FOR THIS SECTION CHECK DETAILS

IDENTIFICATION		NAME
H1	DISTRICT	
H2	SUB-DISTRICT	
H3	VILLAGE	
H4	WILCAH	
H5	SEGMENT	
H6	RUMAH	
H7	RESPONDENT	
H8	INTERVIEWER	
H9	DATE	

INTERVIEW VISIT RECORD				
Item	**1**	**2**	**3**	**Final**
Date				Day ___ ___ Month ___ ___ Year ___ ___
Interviewer s name				Name
Result				Result
Next visit date				Total Number of visits_____
RESULT CODE 1 Completed 2 Not at home 3 Postponed, 4 Refused, 5 Partially competed 6 Not found 7 Others____				

RESIDENT ID

H1	H2	H3	H4	H5	H6	H7

THEN CONTINUE

H100	**RECORD THE TIME WHEN INTERVIEW BEGAN**		Hour __ __ Minute __ __
I would like to ask some questions about this home, please			
H101	What is the main language spoken in your home?		Banjar 1 Bakunpai 2 Javanese 3 Balinese 4 Bahasa Indonesia 5 Other 8 Specify _____
H102	Does your household have a working radio?		Yes 1 No 2
IF NO TO H102, SKIP TO H104			
H103	Did you listen to the radio in the past week?		Yes 1 No 2
H104	Does your household have a working television?		Yes 1 No 2
IF NO TO H104 SKIP TO H106			
H105	IF YES - Did you watch television in the past week?		Yes 1 No 2
H106	Does your household have a working tape recorder?		Yes 1 No 2
H107	Does your household have a working video-cassette player?		Yes 1 No 2
H108	Does your household have a refrigerator?		Yes 1 No 2
H109	OBSERVE AND CHECK WHAT IS THE MAIN MATERIAL OF THE FLOOR IF NEEDED, ASK RESPONDENT What is the main material on the floor?	Earth/sand 1 Wood plank 2 Palm/bamboo 3 Polished wood 4 Vinyl/asphalt 5	Ceramic tiles 6 Cement 7 Carpet 8 Other 9 Specify _____
H110	Does any member of your household own a bicycle?		Yes 1 No 2
H111	Does any member of your household own a motorcycle?		Yes 1 No 2
H112	Does any member of your household own a car?		Yes 1 No 2
H113	Does any member of your household own a boat?		Yes 1 No 2
H114	Does any member of your household own a sewing machine?		Yes 1 No 2
H115	**RECORD THE TIME WHEN INTERVIEW ENDED**		Hour ____ Minute ____

RESPONDENT ID

D1	D2	D3	D4	D5	D6	D7

MODULE - D PERSONAL INFORMATION
BASELINE SURVEY QUESTIONNAIRE (FINAL VERSION)
MOTHERCARE, INDONESIA, SOUTH KALIMANTAN

ENTER THE IDENTITY INFORMATION BEFORE START OF INTERVIEW FOR THIS SECTION CHECK DETAILS

IDENTIFICATION		NAME
D1	DISTRICT	
D2	SUB-DISTRICT	
D3	VILLAGE	
D4	WILCAH	
D5	SEGMENT	
D6	RUMAH	
D7	RESPONDENT	
D8	INTERVIEWER	
D9	DATE	

RECORD WHO IS PRESENT, OTHER THAN YOU AND THE RESPONDENT

D10	Husband	Yes 1 No 2
D11	Other persons	Number _____
D12	**RECORD THE TIME WHEN INTERVIEW BEGAN**	Hour __ __ Minute __ __

THEN CONTINUE

I would like to start, please, with a few questions about yourself, just to check I have got things right		
D21	Your name is _____	
D22	In what year were you born?	19____ Don't know 98

RESPONDENT ID

D1	D2	D3	D4	D5	D6	D7

D23	How old are you? COMPARE AND CORRECT IF INCONSISTENT	Age in years ____ Don't know 98
D24	Have you ever been married?	Yes 1 No 2
D25	Have you ever become pregnant?	Yes 1 No 2
D26	To date how many times have you been pregnant?	Number ____
D27	To how many children have you given birth?	Live births___ Stillbirths___

D105	Can you read and write?	Read 1 None 4 Write 2 Both 3
D106	Did you go to school?	Yes 1 No 2
IF DID NOT GO TO SCHOOL SKIP TO D109		
D107	For how many years did you go to school?	Years ____
D108	What is the highest level of school you have completed primary, secondary, or higher?	Primary incomplete 1 Primary 2 Junior Secondary 3 Full Secondary 4 Higher 5
D109	As well as your work in the house and looking after your family are you currently doing some other type of work?	Yes 1 No 2
IF NO TO QUESTION D109, SKIP TO D112		
D110	Do you earn any money for that work?	Yes 1 No 2
D111	Where do you do this work?	At home 1 Outside home 2 Both 3
I would like now to ask some questions about your husband please		
D112	Can he read and write?	Read 1 None 4 Write 2 Both 3
D113	Did he go to school?	Yes 1 No 2
IF DID NOT GO TO SCHOOL SKIP TO D116		
D114	For how many years did he go to school?	Years ____

RESPONDENT ID

D1	D2	D3	D4	D5	D6	D7

D115	What is the highest level of school he has completed primary, secondary, or higher?	Primary incomplete 1 Primary 2 Junior Secondary 3 Full Secondary 4 Higher 5
D116	What is his occupation?	Agricultural 1 Timber/transport 2 Labourer 3 Civil servant/ office worker 4 None 5 Other 8 Specify _____
D117	Does your husband stay away from the village/town because of work?	Yes 1 No 2
D118	Is he away now?	Yes 1 No 2
D119	How long has he been away?	Months__ __
D120	**RECORD THE TIME WHEN INTERVIEW ENDED**	Hour___ Minute___

RESPONDENT ID

K1	K2	K3	K4	K5	K6	K7

MODULE - K KNOWLEDGE OF DANGER SIGNS AND OF HEALTH SERVICES, INCLUDING ANEMIA AND CONTRACEPTION
(VERSION FOR WOMEN)
BASELINE SURVEY QUESTIONNAIRE (FIINAL VERSION)
MOTHERCARE, INDONESIA, SOUTH KALIMANTAN

ENTER THE IDENTITY INFORMATION BEFORE START OF INTERVIEW FOR THIS SECTION
CHECK DETAILS

IDENTIFICATION		NAME
K1	DISTRICT	
K2	SUB-DISTRICT	
K3	VILLAGE	
K4	WILCAH	
K5	SEGMENT	
K6	RUMAH	
K7	RESPONDENT	
K8	INTERVIEWER	
K9	DATE	

RECORD WHO IS PRESENT, OTHER THAN YOU AND THE RESPONDENT

K10	Husband	Yes 1 No 2
K11	Other persons	Number _____
K12	**RECORD THE TIME WHEN INTERVIEW BEGAN**	Hour__ __ Minute__ __

RESPONDENT ID

K1	K2	K3	K4	K5	K6	K7

THEN CONTINUE

In this part of the interview, I would like to ask you some questions about what you and other people here know I want to start with questions about what tells you that a mother who is having a baby has health problems and about what one should do about them Then I want to ask how you get to hear about these health problems and about how to cope with them I want to finish this part of the interview with some questions about family planning

I would now like to start with some questions about what happens when a mother is expecting a baby Usually things go well and the mother and baby are fine Sometimes, however, problems can happen to the mother or the baby I am asking about any baby or any mother who lives around here

K101	Thinking about the time when a woman is pregnant, what kind of health problems can she have when she is pregnant? AFTER MARKING UNPROMPTED RESPONSES, ASK Have you also heard of these things happening? AND PROMPT FOR REMAINING RESPONSES	**Use UNP column for unprompted responses, entering 1,2, 3 in order of mention Use PRM column to mark prompted responses (1 = YES, 2= NO)** **UNP** **PRM** 1 Previous Caesarean section ___ ___ 2 Miscarriage ___ ___ 3 Abortion ___ ___ 4 Expecting twins ___ ___ 5 Baby in wrong position ___ ___ 6 Vaginal bleeding ___ ___ 7 Swollen limbs ___ ___ 8 Faints ___ ___ 9 Fits or convulsions ___ ___ 10 High fever ___ ___ 11 Breathlessness ___ ___ 12 Tiredness ___ ___ 13 Difficulty in working ___ ___ 14 Night blindness ___ ___ 15 Kurung darah ___ ___ 16 Other ___ ___ Specify_____

IF NO SIGNS MENTIONED FOR K101, SKIP TO INTRODUCTION BEFORE QUESTION K104, (MARKED A)

WRITE HERE THE FIRST TWO RESPONSES THAT WERE GIVEN TO K101 IF ONLY ONE RESPONSE GIVEN WRITE THIS

_____ _____

ASK NEXT TWO QUESTIONS FOR THESE SIGNS

RESPONDENT ID

K1	K2	K3	K4	K5	K6	K7

K102	ASK ABOUT THE FIRST SIGN FROM K101 What should she and the family to do if _____	ENTER 1,2,3, IN ORDER OF MENTION 1 Nothing ___ 2 She should rest ___ 3 She should eat more ___ 4 She should get "jamu" ___ 5 She should get iron pills ___ 6 She should get massage ___ 7 Use traditional medicine ___ 8 Tell Dukun ___ 9 Go to pharmacy ___ 10 Tell bidan di desa ___ 11 Go to pustu ___ 12 Go to puskesmas ___ 13 Go to hospital (now) ___ 14 Deliver in hospital ___ 15 Go to private bidan 16 Go to private doctor ___ 17 Other ___ Specify _____
K103	ASK ABOUT THE SECOND SIGN FROM K101 What should she and the family to do if _____	ENTER 1,2,3, IN ORDER OF MENTION 1 Nothing ___ 2 She should rest ___ 3 She should eat more ___ 4 She should get "jamu" ___ 5 She should get iron pills ___ 6 She should get massage ___ 7 Use traditional medicine ___ 8 Tell Dukun ___ 9 Go to pharmacy ___ 10 Tell bidan di desa ___ 12 Go to pustu ___ 13 Go to puskesmas ___ 14 Go to hospital ___ 15 Go to private bidan ___ 16 Go to private doctor ___ 17 Other ___ Specify _____

RESPONDENT ID

K1	K2	K3	K4	K5	K6	K7

[A]
Now I would like to ask vou about the time when the baby is being born, from the time she knows it is on the wav until the after-birth has come out Once again this is for any woman who lives around here

K104	Can you tell me what kind of problems can happen to a woman during labour and during the birth? AFTER MARKING UNPROMPTED RESPONSES, ASK Have you also heard of these things happening? AND PROMPT FOR REMAINING RESPONSES	**Use UNP column for unprompted responses, entering 1,2, 3 in order of mention Use PRM column to mark prompted responses (1 = YES, 2= NO)** **UNP** **PRM** 1 Waters break too early ___ ___ 2 She bleeds a lot during birth after baby born ___ ___ 3 She has a fever ___ ___ 4 It takes too long before she can push the babv out ___ ___ 5 It takes too long to push the baby out ___ ___ 6 She faints ___ ___ 7 She has fits or convulsions ___ ___ 8 The afterbirth (placenta) does not come out ___ ___ 9 Baby dies before coming out ___ ___ 10 Other ___ ___ Specify _____

IF NO SIGNS MENTIONED FOR K104, SKIP TO INTRODUCTION BEFORE QUESTION K107, (MARKED B)

WRITE HERE THE FIRST TWO RESPONSES THAT WERE GIVEN TO K104 IF ONLY ONE RESPONSE GIVEN WRITE THIS

_____ _____

ASK NEXT TWO QUESTIONS FOR THESE SIGNS

RESPONDENT ID

K1	K2	K3	K4	K5	K6	K7

K105	ASK ABOUT THE FIRST SIGN FROM K104 What should she and the family to do if _____	ENTER 1,2,3, IN ORDER OF MENTION 1 Nothing ___ 2 She should rest ___ 3 She should get "jamu' ___ 4 Press on abdomen ___ 5 Use traditional medicine ___ 6 Get dukun ___ 7 Go to pharmacy ___ 8 Get bidan di desa ___ 9 Take her to pustu ___ 10 Take her to puskesmas ___ 11 Take her to hospital ___ 12 Take her to private bidan ___ 13 Take her to private doctor ___ 14 Other ___ Specify _____
K106	ASK ABOUT THE SECOND SIGN FROM K104 What should she and the family to do if _____	ENTER 1,2,3, IN ORDER OF MENTION 1 Nothing ___ 2 She should rest ___ 3 She should get "jamu' ___ 4 Press on abdomen ___ 5 Use traditional medicine ___ 6 Get dukun ___ 7 Go to pharmacy ___ 8 Get bidan di desa. ___ 9 Take her to pustu ___ 10 Take her to puskesmas ___ 11 Take her to hospital ___ 12 Take her to private bidan ___ 13 Take her to private doctor ___ 14 Other ___ Specify _____

RESPONDENT ID

K1	K2	K3	K4	K5	K6	K7

[B]
After the baby has been born and the afterbirth (placenta) has come out other problems can also happen This is about any baby or any mother too

K107	First of all, can you tell me what kind of problems can happen to the mother during the time after the birth during seclusion? AFTER MARKING UNPROMPTED RESPONSES, ASK Have you also heard of these things happening? AND PROMPT FOR REMAINING RESPONSES	**Use UNP column for unprompted responses, entering 1,2, 3 in order of mention Use PRM column to mark prompted responses (1 = YES, 2= NO)** UNP PRM 1 Excess bleeding ___ ___ 2 Fainting ___ ___ 3 Fits ___ ___ 4 Fever ___ ___ 5 Smelly discharge ___ ___ 6 Illness because of sore breasts ___ ___ 7 Other ___ ___ Specify _____

IF NO SIGNS MENTIONED FOR K107, SKIP TO QUESTION K110,

WRITE HERE THE FIRST TWO RESPONSES THAT WERE GIVEN TO K107 IF ONLY ONE RESPONSE GIVEN WRITE THIS

_____ _____

ASK NEXT TWO QUESTIONS FOR THESE SIGNS

K108	ASK ABOUT THE FIRST SIGN FROM K107 What should she and the family to do if _____	ENTER 1,2,3, IN ORDER OF MENTION 1 Nothing ___ 2 She should rest ___ 3 She should get "jamu" ___ 4 Press on abdomen ___ 5 Use traditional medicine ___ 6 Get dukun ___ 7 Go to pharmacy ___ 8 Get bidan di desa ___ 9 Take her to pustu ___ 10 Take her to puskesmas ___ 11 Take her to hospital ___ 12 Take her to private bidan ___ 13 Take her to private doctor ___ 14 Other ___ Specify _____

RESPONDENT ID

K1	K2	K3	K4	K5	K6	K7

K109	ASK ABOUT THE SECOND SIGN FROM K107 What should she and the family to do if _____	ENTER 1,2,3, IN ORDER OF MENTION 1 Nothing ___ 2 She should rest ___ 3 She should get "jamu' ___ 4 Press on abdomen ___ 5 Use traditional medicine ___ 6 Get dukun ___ 7 Go to pharmacy ___ 8 Get bidan di desa ___ 9 Take her to pustu ___ 10 Take her to puskesmas ___ 11 Take her to hospital ___ 12 Take her to private bidan ___ 13 Take her to private doctor ___ 14 Other ___ Specify _____
K110	Next, can you tell me some of these sorts of problems that can happen to the baby during the time after the birth? AFTER MARKING UNPROMPTED RESPONSES, ASK Have you also heard of these things happening? AND PROMPT FOR REMAINING RESPONSES	**Use UNP column for unprompted responses, entering 1,2, 3 in order of mention Use PRM column to mark prompted responses (1 = YES, 2= NO)** UNP PRM 1 Baby too small ___ ___ 2 Baby not sucking ___ ___ 3 Baby eye discharge ___ ___ 4 Baby too cold ___ ___ 5 Baby not breathing well ___ ___ 6 Cord infection ___ ___ 7 Seizures ___ ___ 8 Other ___ ___ Specify _____

IF NO SIGNS MENTIONED FOR K110, SKIP TO INSTRUCTION BEFORE QUESTION K113, (MARKED C)

WRITE HERE THE FIRST TWO RESPONSES THAT WERE GIVEN TO K110 IF ONLY ONE RESPONSE GIVEN WRITE THIS

_____ _____

ASK NEXT TWO QUESTIONS FOR THESE SIGNS

RESPONDENT ID

K1	K2	K3	K4	K5	K6	K7

K111	ASK ABOUT THE FIRST SIGN FROM K110 What should she and the family to do if _____	ENTER 1 2 3 IN ORDER OF MENTION 1 Nothing ___ 2 She should rest ___ 3 She should get "jamu" ___ 4 Press on abdomen ___ 5 Use traditional medicine ___ 6 Get dukun ___ 7 Go to pharmacy ___ 8 Get bidan di desa ___ 9 Take her to pustu ___ 10 Take her to puskesmas ___ 11 Take her to hospital ___ 12 Take her to private bidan ___ 13 Take her to private doctor ___ 14 Other ___ Specify _____
K112	ASK ABOUT THE SECOND SIGN FROM K110 What should she and the family to do if _____	ENTER 1,2,3, FOR THE RESPONSES MENTIONED 1 Nothing ___ 2 She should rest ___ 3 She should get "jamu" ___ 4 Press on abdomen ___ 5 Use traditional medicine ___ 6 Get dukun ___ 7 Go to pharmacy ___ 8 Get bidan di desa ___ 9 Take her to pustu ___ 10 Take her to puskesmas ___ 11 Take her to hospital ___ 12 Take her to private bidan ___ 13 Take her to private doctor ___ 14 Other ___ Specify _____

RESPONDENT ID

K1	K2	K3	K4	K5	K6	K7

[C]
CHECK BACK TO QUESTION K101
MARK HERE WHETHER KURANG DARAH WAS MENTIONED ___ YES ___ NO
IF YES, SKIP TO QUESTION K114
IF NO CONTINUE

K113	Have you ever heard of Kurang Darah?	Yes 1 No 2
K114	IF YES (OR IF MENTIONED IN K101) What are the signs that tell you that a woman has kurang darah?	ENTER 1,2,3 IN ORDER OF MENTION 1 Tiredness and fatigue ___ 2 Physical weakness ___ 3 Difficulty working ___ 4 Paleness ___ 5 Heart beating fast ___ 6 Dizziness ___ 7 Other ___ Specify _____
I would now like to ask about the hospital for this area		
K115	Where is the nearest government hospital to here? NAME _____	CORRECT NAME GIVEN (CHECK THE LIST OF HOSPITALS) Yes 1 No 2 Private hospital named 3 Don't know 9
K116	Do you think kurang darah is a serious illness?	Yes 1 No 2 Don't know 9
K117	Do you think you have kurang darah/anemia right now?	Yes 1 No 2 Don't know 9
IF NO HOSPITAL NAMED, SKIP TO INTRODUCTION BEFORE QUESTION K124, MARKED D IF ANY HOSPITAL NAMED, DO NOT SKIP		
K118	What transport would you use to get there?	Car 1 Bus 2 Boat 3 Walking 4 Other 5 Specify_____
K119	How much does it cost to travel there by the transport you mentioned (one-way)?	Rupiah____
K120	How much time would it take to get to the hospital from here?	Minutes __ __ Hours __ __

RESPONDENT ID

K1	K2	K3	K4	K5	K6	K7

K121	Sometimes a woman might have to go to this hospital <u>because of health problems</u> when she is pregnant Do you think this hospital gives an excellent, good, fair or poor service to these women?	Excellent 1 Good 2 Fair 3 Poor 4 No opinion 8
K122	Sometimes a woman might have to go to this hospital <u>because she needs to have her baby in hospital</u> Do you think this hospital gives an excellent, good, fair or poor service to these women?	Excellent 1 Good 2 Fair 3 Poor 4 No opinion 8
K123	If you had a health problem when you are pregnant, would you go to this hospital?	1 Yes 2 No 8 No opinion

[D]

Next, I would like to ask now where you and other people here find out about a woman's health when she is expecting a baby

K124	Where or from who do you get most of your information about your own health, especially when you are pregnant or having a baby? DO NOT PROMPT	MARK ALL REPLIES Relative/friend 1 Dukun 2 Bidan do desa. 3 Bidan 4 Puskesmas 5 Posyandu 6 Doctor 7 Printed material 8 Radio 9 Television 10 Other 11 Specify _____
K125	Have you heard anything in the last 3 months about women's health problems during pregnancy, while having the baby, or just after delivery?	Yes 1 No 2

RESPONDENT ID

K1	K2	K3	K4	K5	K6	K7

K126	IF YES - Where did you hear it or who did you hear it from? DO NOT PROMPT	MARK ALL REPLIES Relative/friend 1 Dukun 2 Bidan do desa 3 Bidan 4 Puskesmas 5 Posyandu 6 Doctor 7 Printed material 8 Radio 9 Television 10 Other 11 Specify _____
K127	What problems during pregnacy, labor, and delivery did you hear about? DO NOT PROMPT	MARK ALL REPLIES <u>For Mother</u> Bleeding, when pregnant 1 Bleeding, after delivery 2 Fever 3 Swollen limbs 4 Fits and convulsions 5 Fainting 6 Loss of appetite when pregnant 7 Labour too long 8 Night blindness 9 Other 10 Specify _____ <u>For baby</u> Baby's swollen eyes 11 Infected cord 12 Not breastfeeding 13 Not breathing well 14 Abnormal cry 15 Baby too cold 16 Baby not sucking 17 Baby too small 18 Baby with diarrhea 19 Other 20 Specify _____
K128	Have you heard anything in the last 3 months about iron tablets for women to take when they are pregnant?	Yes 1 No 2

RESPONDENT ID

K1	K2	K3	K4	K5	K6	K7

K129	IF YES - Where did you hear it or who did you hear it from? DO NOT PROMPT	MARK ALL REPLIES Relative/friend 1 Dukun 2 Bidan di desa 3 Bidan 4 Puskesmas 5 Posyandu 6 Doctor 7 Printed material 8 Radio 9 Television 10 Other 11 Specify _____

RESPONDENT ID

K1	K2	K3	K4	K5	K6	K7

K130	I have asked you about health problems when a woman is pregnant and when a baby is born, and how you can hear about these from different people and in different ways Which of these people or ways give the information that is most convincing for you? DO NOT PROMPT FOR REPLIES, BUT EXPLAIN IF NECESSARY	MARK ALL RESPONSES Radio 1 Television 2 Health service personnel 3 Relatives 4 Friends and neighbours 5 Other 6 Specify _____
K131	I have also asked you about iron tablets for pregnant women, and how you can hear about these from different people and in different ways Which of these people or ways give the information that is most convincing for you? DO NOT PROMPT FOR REPLIES, BUT EXPLAIN IF NECESSARY	MARK ALL RESPONSES Radio 1 Television 2 Health service personnel 3 Relatives 4 Friends and neighbours 5 Other 6 Specify _____
And now I would like to ask you some questions about family planning after the baby is born		
K132	Many women want to wait before they have another child, or they want this child to be the last one Does she need to use some method to stop getting pregnant after the child is born?	Yes 1 No 2 Don't know 9
IF NO OR DON'T KNOW, SKIP TO K135		
K133	What can she do? IF BIRTH CONTROL IS MENTIONED IN ONLY GENERAL TERMS, PROBE FOR METHOD What method is best to use?	MARK ALL REPLIES Nothing 1 Trust God 2 Breastfeed 3 Abstain 4 Withdrawal 5 IUD 6 Injectable 7 Norplant 8 Pill 9 Condom 10 Sterilization 11 Other 12 Specify _____

RESPONDENT ID

K1	K2	K3	K4	K5	K6	K7

K134	When do you think is the best time, after the baby is born, for her to use a method to avoid getting pregnant?	Immediately 1 Days after _____ 2 Months after ____ 3 On return of menses 4 When she stops breastfeeding 5 Other 8 Specify _____ Don't know 9
I have been talking about things that prevent pregnancies Now I would like to talk about when a woman becomes pregnant but she does not deliver a living child		
K135	If a woman has lost a pregnancy for any reason while she was pregnant, is it alright for her health and well-being, for her to get pregnant again soon?	Yes 1 No 2 Don't know 9
IF YES TO LAST QUESTION, SKIP TO INSTRUCTIONS BEFORE K138 IF NO TO LAST QUESTION, CONTINUE		
K136	How can she avoid getting pregnant?	TICK ALL REPLIES Nothing 1 Trust God 2 Abstain 3 Withdrawal 4 IUD 5 Injectable 6 Norplant 7 Pill 8 Condom 9 Sterilisation 10 Other 11 Specify _____
K137	When is the best time for her to start using the method?	Immediately 1 Days after _____ 2 Months after ____ 3 On return of menses 4 When she stops breastfeeding 5 Other 8 Specify _____ Don't know 9

RESPONDENT ID

K1	K2	K3	K4	K5	K6	K7

I would now like to ask about when it is the best time for a woman to have a baby		
CHECK RESPONSES TO QUESTION K133 BREASTFEEDING MENTIONED YES 1 NO 2 IF YES, SKIP TO QUESTION K139 IF NO, CONTINUE		
K138	IF BREASTFEEDING NOT MENTIONED IN QUESTION K133 Can breastfeeding help a woman stop getting pregnant after having a baby?	Yes 1 No 2 Don't know 9
IF NO OR DON'T KNOW, SKIP TO K141		
K139	IF YES, OR IF BREASTFEEDING PREVIOUSLY MENTIONED IN QUESTION K133 How long can breastfeeding keep a woman from getting pregnant?	Weeks _____ 1 Months _____ 2 As long as breastfeeding continues 3 As long as exclusive breastfeeding continues 4 Until menses return 5 Don't know 9
K140	IF BREASTFEEDING WAS MENTIONED IN K133 To stop getting pregnant, what is the best way to breastfeed? (IF EXCLUSIVE IS MENTIONED, PROBE TO FIND IF SOUPS, LIQUIDS OR SOFT FOODS ARE INCLUDED IN THAT DEFINITION)	Exclusive_____months 1 Breast milk + teas, soups, liquids 2 Breast milk + soft foods of any kind during first 4 months 3 On demand 4 Others 5 Specify _____
K141	Do you think the hospital nearest to you gives pregnant women that have complications during pregnancy or delivery an excellent, good, fair or poor service?	Excellent 1 Good 2 Fair 3 Poor 4 No opinion 5
K142	If you have a complication during a pregnancy, would you go this hospital or would you rather not go?	Yes, would go 1 No, rather not go 2
K143	**RECORD THE TIME WHEN INTERVIEW ENDED**	Hour__ __ Minute__ __

RESPONDENT ID

P1	P2	P3	P4	P5	P6	P7

MODULE - P COMPLICATIONS DURING PREGNANCY
BASELINE SURVEY QUESTIONNAIRE (FINAL VERSION)
MOTHERCARE, INDONESIA, SOUTH KALIMANTAN

ENTER THE IDENTITY INFORMATION BEFORE START OF INTERVIEW FOR THIS SECTION
CHECK DETAILS

IDENTIFICATION		NAME
P1	DISTRICT	
P2	SUB-DISTRICT	
P3	VILLAGE	
P4	WILCAH	
P5	SEGMENT	
P6	RUMAH	
P7	RESPONDENT	
P8	INTERVIEWER	
P9	DATE	

I would now like to ask you some questions about your health when you last gave birth I will start with a few general questions about your pregnancy

P100	**RECORD THE TIME WHEN INTERVIEW BEGAN**	Hour ___ Minute ___
P101	Did you have any health problems during your pregnancy, labor, or delivery?	Yes 1 No 2 Don't know 9
P102	If yes, what do you think was the problem?	Specify _____ _____
P103	During your pregnancy, did you have any problems with swelling of the feet?	Yes 1 No 2 Don t Know 9
P104	During your pregnancy, did you have any problems with swelling of the arms?	Yes 1 No 2 Don't Know 9
P105	During your pregnancy, did you have any problems of swelling of the face?	Yes 1 No 2 Don't Know 9

RESPONDENT ID

P1	P2	P3	P4	P5	P6	P7

P106	In the final stages of your pregnancy, did you have a severe headache?	Yes 1 No 2 Don't Know 9
P107	In the final stages of your pregnancy, did you have problems with your eye sight?	Yes 1 No 2 Don't Know 9
P108	In the final stages of your pregnancy, did you have severe pain in your stomach?	Yes 1 No 2 Don't Know 9
P109	At any time during your pregnancy, labour or delivery, did you ever faint?	Yes 1 No 2 Don't Know 9
P110	At any time during your pregnancy, labor or delivery, did you ever have a fever?	Yes 1 No 2 Don't Know 9
P111	IF SHE HAD A FEVER When did you have this fever in the fist trimester of your pregnancy, in the second trimester, in the third trimester, during the labour, or after the delivery? (More than one answer possible)	First trimester 1 Second trimester 2 Third trimester 3 During labour 4 After delivery 5 Don't know 9
P112	At any time during your pregnancy, labour or deliver, did you have an abnormal bleeding?	Yes 1 No 2 Don't Know 9
P113	IF SHE HAD BLEEDING When did you have this bleeding in the fist trimester of your pregnancy, in the second trimester, in the third trimester, during the labour, or after the delivery? (More than one answer possible)	First trimester 1 Second trimester 2 Third trimester 3 During labour 4 After delivery 5 Don't know 9
P114	At any time during your pregnancy, labour or delivery, did you have convulsions?	Yes 1 No 2 Don't Know 9
P115	IF SHE HAD CONVULSIONS When did you have these convulsions in the fist trimester of your pregnancy, in the second trimester, in the third trimester, during the labour, or after the delivery? (More than one answer possible)	First trimester 1 Second trimester 2 Third trimester 3 During labour 4 After delivery 5 Don't know 9
P116	Have you ever had a convulsion when you were <u>not</u> pregnant?	Yes 1 No 2 Don t Know 9
P117	**RECORD THE TIME WHEN INTERVIEW ENDED**	Hour__ __ Minute __ __

RESPONDENT ID

L1	L2	L3	L4	L5	L6	L7

MODULE - L COMPLICATIONS DURING LABOR AND DELIVERY
BASELINE SURVEY QUESTIONNAIRE (FINAL VERSION)
MOTHERCARE, INDONESIA, SOUTH KALIMANTAN

ENTER THE IDENTITY INFORMATION BEFORE START OF INTERVIEW FOR THIS SECTION
CHECK DETAILS

IDENTIFICATION		NAME
L1	DISTRICT	
L2	SUB-DISTRICT	
L3	VILLAGE	
L4	WILCAH	
L5	SEGMENT	
L6	RUMAH	
L7	RESPONDENT	
L8	INTERVIEWER	
L9	DATE	

I would now like to ask vou more specific questions about your labor and delivery

L100	**RECORD THE TIME WHEN INTERVIEW BEGAN**	Hour __ __ Minute __ __
L101	Did you have any problems during your labour or delivery?	Yes 1 No 2 Don't Know 9
L102	If ves, what do you think was the problem?	Specify _____ _____
L103	Did thev use any instruments to get the baby out?	Yes, suction 1 Yes, forceps 2 No 3 Don t know 9
L104	Did you need an abdominal operation to get the baby out?	Yes 1 No 2
IF NO TO QUESTION L104, SKIP TO QUESTION L109 IF YES TO QUESTION L 104, CONTINUE		
L105	Were vou told the reason for this operation?	Yes 1 No 2

RESPONDENT ID

L1	L2	L3	L4	L5	L6	L7

L106	Do you know why you needed an abdominal operation?	Pelvis too small 1 Baby transverse 2 Breech 3 Previous c-section 4 Mother sick 5 Baby sick 6 Baby overdue 7 No progress of labour 8 Don't know 9 Other 10 Specify _____
L107	Did you have any problems with the wound after the operation?	Yes 1 No 2 Don't Know 9
L108	Did your incision produce a yellow-green pus?	Yes 1 No 2 Don't Know 9
L109	Were you sutured at the place where the baby normally comes out?	Yes 1 No 2 Don't Know 9
L110	Was your skin cut intentionally at the place where the baby normally comes out?	Yes 1 No 2 Don't Know 9
L111	Was your skin torn at the place where the baby normally comes out?	Yes 1 No 2 Don't Know 9
L112	IF SHE HAD A SUTURE OR A TEAR OR A CUT IN THE PERINEUM Did the area of the skin where you were torn or cut produce a yellow-green discharge?	Yes 1 No 2 Don't Know 9
L113	Do you know what part of the baby came out first?	Head 1 Buttocks 2 Feet 3 Arms 4 Other 5 Specify _____ Don't know 9
L114	How many hours passed between the start of the pain and delivery or the cesarean section?	Hours ___ ___ (98 if unknown)
L115	Did your pain last for more than one day and one night?	Yes 1 No 2 Don't Know 9

RESPONDENT ID

L1	L2	L3	L4	L5	L6	L7

L116	Did your pain last for less than 12 hours, between 12 and 24 hours or more than 24 hours?	Less than 12 hours 1 12-24 hours 2 More than 24 hours 3 Don't know 9
L117	What day did your pain start?	Monday 1 Tuesday 2 Wednesday 3 Thursday 4 Friday 5 Saturday 6 Sunday 7 Don't know 9
L118	Did your pain start in the morning, afternoon, evening, or in the middle of the night?	Early morning (subuh) 1 Morning (pagi) 2 Midday (siang) 3 Afternoon (sore) 4 Evening (malam) 5 Middle night (tengah malam) 6 Don't know 9
L119	Do you know the time of day at which the pain started?	Time (hours) __ __ (98 if not known)
L120	What day did you deliver? (This includes c-section)	Monday 1 Tuesday 2 Wednesday 3 Thursday 4 Friday 5 Saturday 6 Sunday 7 Don't know 9
L121	Did you deliver in the morning, afternoon, evening, or in the middle of the night?	Early morning (subuh) 1 Morning (pagi) 2 Midday (siang) 3 Afternoon (sore) 4 Evening (malam) 5 Middle night (tengah malam) 6 Don't know 9
L122	Do you know the time of day at which you delivered	Time (hours) __ __ (98 if not known)

RESPONDENT ID

L1	L2	L3	L4	L5	L6	L7

L123	When the time came for you to push the baby out, how long did you have to push before the baby came out?	Hours __ __ (98 if delivered with c-section))
L124	Did you have to push for more than one hour to try to deliver the baby?	Yes 1 No 2 C-section 3 Don't know 9
L125	Did the placenta come out quickly after the baby was born or was it delayed?	Quickly 1 Delayed 2 Don't know 9
L126	How long did it take for the placenta to come out after the delivery of the baby?	Minutes __ __ (98 if not known)
L127	Did the doctor or the midwife have to put their hand up through your vagina into your womb to remove the placenta?	Yes 1 No 2 Don't Know 9
L128	Did you lose excessive blood around the time of labour and delivery?	Yes 1 No 2 Don't Know 9
L129	IF EXCESSIVE BLOOD LOSS When did the bleeding START before labour, during labour, immediately after delivery or a few hours after delivery?	Before labour 1 During labour 2 Immediately after delivery 3 A few hours after delivery 4 Don't know 9
L130	IF BLOOD LOSS Did you use a sarong or pads to protect yourself from bleeding?	Sarong 1 Pad 2 Other 3 Specify _____
L131	IF BLOOD LOSS How many times a day did you have to change the sarung (pads, other)?	Times per day __ __ (98 if unknown)
L132	IF BLOOD LOSS In your opinion, was the amount of blood you lost normal or excessive?	Normal 1 Excessive 2 Don't know 9
L133	IF EXCESSIVE BLOOD LOSS Why do you think it was excessive?	Specify _____ _____
L134	IF BLOOD LOSS Did anyone else tell you the bleeding was excessive?	Yes 1 No 2 Don t Know 9
L135	IF BLOOD LOSS Did you bleed so much that you were afraid you would loose your life?	Yes 1 No 2 Don t Know 9

RESPONDENT ID

L1	L2	L3	L4	L5	L6	L7

L136	IF BLOOD LOSS Did you feel like your heart was racing too fast during or after the bleeding?	Yes 1 No 2 Don't Know 9
L137	Did you receive a blood transfusion?	Yes 1 No 2 Don t Know 9
L138	In the final stage of your pregnancy, or around the time of labour, did you ever faint?	Yes 1 No 2 Don't Know 9
L139	AFTER delivery, did you ever have a fever?	Yes 1 No 2 Don't Know 9
L140	IF FEVER AFTER DELIVERY Was the fever very high?	Yes, very high 1 No, not very high 2 Don't Know 9
L141	IF FEVER AFTER DELIVERY Was the fever so high that you thought you were going to die?	Yes 1 No 2 Don t Know 9
L142	After delivery, did you have a foul smelling vaginal discharge?	Yes 1 No 2 Don't Know 9
L143	After deliverY, did you have severe abdominal pain?	Yes 1 No 2 Don't Know 9
L144	**RECORD THE TIME WHEN INTERVIEW ENDED**	Hour__ __ Minute__ __

RESPONDENT ID

S1	S2	S3	S4	S5	S6	S7

MODULE - S PREGNANCY, DELIVERY, AND SERVICE USE
BASELINE SURVEY QUESTIONNAIRE (FINAL VERSION)
MOTHERCARE, INDONESIA, SOUTH KALIMANTAN

ENTER THE IDENTITY INFORMATION BEFORE START OF INTERVIEW FOR THIS SECTION
CHECK DETAILS

IDENTIFICATION		NAME
S1	DISTRICT	
S2	SUB-DISTRICT	
S3	VILLAGE	
S4	WILCAH	
S5	SEGMENT	
S6	RUMAH	
S7	RESPONDENT	
S8	INTERVIEWER	
S9	DATE	

RECORD WHO IS PRESENT, OTHER THAN YOU AND THE RESPONDENT

S10	Husband	Yes 1 No 2
S11	Other persons	Number _____

THEN CONTINUE

S100	**RECORD THE TIME WHEN INTERVIEW BEGAN**	Hour __ __ Minute __ __

We have talked about your health and about health problems that you experienced while you were pregnant and while the baby was being born

I would like to ask now about who helped you during pregnancy and birth, and if you ever had to go to get help Remembering the period when you were pregnant, I would like to start with some questions about check-ups and other help you went for at that time

RESPONDENT ID

S1	S2	S3	S4	S5	S6	S7

S101	Did you ever go to a dukun during the pregnancy, or did a dukun come to your home to help you?	Yes 1 No 2
IF NO TO QUESTION S101 SKIP TO QUESTION S104		
S102	How many times did you see the dukun?	Number _____
S103	How much did she usually charge for seeing you once?	Rupiah _____ In Kind _____
S104	Did you have any check-ups with anyone else?	Yes 1 No 2
IF NO TO S104 SKIP TO INTRODUCTION BEFORE QUESTION S154		
S105	How many times did you have these check-ups with someone else?	Number _____
S106	The first time, who did you see for this check-up?	MARK ALL REPLIES Bidan di desa 1 Bidan 2 Private bidan 3 Doctor 4 Private doctor 5 Other 6 Specify_____ Don't know 9
S107	Where was this (first) check up?	Own home 1 Provider's home 2 Private clinic 3 Posyandu 4 Polindes 5 Puskesmas 6 Other 8 Specify_____ Don't know 9
CHECK REPLY TO S107, FOR "OWN HOME" IF AT "OWN HOME" CHECK NUMBER OF CHECK-UPS IN S105 ____ IF MORE THAN ONE SKIP TO QUESTION S118 IF ONE SKIP TO COMMENTS BEFORE QUESTION S130 IF REPLY TO S107 OTHER THAN "OWN HOME" CONTINUE		
S108	How long did it take you to get there?	minutes __ __ hours __ __

RESPONDENT ID

S1	S2	S3	S4	S5	S6	S7

S109	Did you have to pay for transport?	Yes 1 No 2 Cannot recall 8
S110	IF YES How much did you have to pay?	Rupiah _____ Cannot recall 8
S111	After you got there, how long did you have to wait to be seen by the person you told me about?	minutes __ __ hours __ __
S112	Did you have to pay for the check up or for anything else?	Check up 1 Medicines 2 Other 3 Specify _____
S113	IF YES - How much for Services Medication Other services ENTER REPLY AS "BOTH" IF RESPONDENT CANNOT DIFFERENTIATE	1 Services Rupiah _____ 2 Medication Rp _____ 3 Other _____ 4 Both _____
S114	Do you remember how many months you were pregnant when you had this first check-up?	Yes 1 No 2
S115	IF YES - How many months?	Months _____
S116	Was this check-up because you knew you had a health problem, or was it for a routine check?	Problem 1 Check 2 Both 3
S117	IF PROBLEM, what was the problem?	MARK ALL REPLIES Previous Csection 1 Expecting twins 2 Baby in wrong position 3 Vaginal bleeding 4 Swollen limbs 5 Faints 6 Fits or convulsions 7 Breathlessness 8 Tiredness 9 Other 10 Specify_____

CHECK NUMBER OF VISITS IN S105 _____
IF ONE VISIT SKIP TO COMMENTS BEFORE QUESTION S130

RESPONDENT ID

S1	S2	S3	S4	S5	S6	S7

S118	The last time you had a check-up with a health provider who was not a duken, who did you see?	MARK ALL REPLIES Bidan di desa 1 Bidan 2 Private bidan 3 Doctor 4 Private doctor 5 Other 6 Specify_____ Don't know 9
S119	This same last time where did you go?	Own home 1 Provider's home 2 Private clinic 3 Posyandu 4 Polindes 5 Puskesmas 6 Other 8 Specify_____ Don't know 9
CHECK S119 FOR "OWN HOME" IF "OWN HOME" SKIP TO COMMENTS BEFORE QUESTION S129		
S120	How long did it take you to get there?	minutes __ __ hours __ __
S121	Did you have to pay for transport?	Yes 1 No 2 Cannot recall 8
S122	IF YES - How much did you have to pay?	Rupiah _____ Cannot recall 8
S123	After you got there, how long did you have to wait to be seen by the person you told me about?	minutes __ __ hours __ __
S124	Did you have to pay for the check up or for anything else?	Yes 1 No 2
S125	IF YES - How much for Services Medication ENTER REPLY AS "BOTH" IF RESPONDENT CANNOT DIFFERENTIATE	1 Services, Rupiah _____ 2 Medication Rp _____ 3 Other _____ 4 Both/All _____
S126	Do you remember how many months you were pregnant when you had this last check-up?	Yes 1 No 2
S127	IF YES - How many months?	Months _____

RESPONDENT ID

S1	S2	S3	S4	S5	S6	S7

S128	Was this check-up because you knew you had a health problem or was it for a routine check?	Problem 1 Check 2 Both 3
S129	IF PROBLEM what was the problem?	MARK ALL REPLIES Previous Csection 1 Expecting twins 2 Baby in wrong position 3 Vaginal bleeding 4 Swollen limbs 5 Faints 6 Fits or convulsions 7 Breathlessness 8 Tiredness 9 Other 10 Specify_____
CHECK BACK TO QUESTION P101 WAS ANY HEALTH PROBLEM IN PREGNANCY MENTIONED? Yes 1 No 2 IF NO PROBLEM MENTIONED SKIP TO QUESTION S133		
When I was asking about health problems earlier you said you did have some health problems when you were pregnant and before the labour and delivery		
S130	Who did you see for this problem?	Dukun 1 Bidan di desa 2 Bidan 3 Private Bidan 4 Doctors 5 Others 6 None 7
S131	How many times did you get help for this problem?	Number____
S132	Where did you go for this problem(s)?	Own home 1 Private clinic 2 Polindes 3 Posydandu 4 Puskesmas 5 Others 6 Specify _____
S133	Did you have to pay for the treatment services and for medicines?	Yes 1 No 2
IF NO SKIP TO S135		

RESPONDENT ID

S1	S2	S3	S4	S5	S6	S7

S134	IF YES - How much for services and medicines?	1 Services_____(Rp) 2 Medicine_____(Rp) 3 Other _____(Rp)

I would like to ask some questions about any iron tablets you were given during your check-ups These are quite apart from any health problems that you had

	FOR QUESTIONS S135 TO S146 USE THE ANSWER COLUMN APPROPRIATE TO THE WOMAN'S PREGNANCY STATUS	WOMAN WITH BIRTH IN THE LAST 3 YEARS	CURRENTLY PREGNANT WOMAN
S135	At any of these check-ups, were you given iron tablets? These are the tablets to stop you getting kurung darah The tablets they give out nowadays look like this SHOW A PACKET AND SOME IRON TABLETS	Yes No 2 Don't recall 8 Don't know 9	Yes No 2 Don t recall 8 Don t know 9
IF NO DON'T RECALL OR DON'T KNOW SKIP TO QUESTION S147			
S136	Where did you get the tablets?	MARK ALL REPLIES Bidan di desa 1 Bidan 2 Private bidan 3 Doctor 4 Store 5 Private clinic 6 Posyandu 7 Polindes 8 Puskesmas 9 Other 10 Specify_____ Don't recall 88	MARK ALL REPLIES Bidan di desa 1 Bidan 2 Private bidan 3 Doctor 4 Store 5 Private clinic 6 Posyandu 7 Polindes 8 Puskesmas 9 Other 10 Specify_____ Don't recall 88
S137	How many tablets were you given?	Number _____ Don't know 9	Number _____ Don't know 9
S138	How many days during this pregnancy did you take the tablets?	Days _____ Don't know 9	Days _____ Don't know 9
S139	Did you take them with anything?	Yes 1 No 2 Don't recall 8	Yes 1 No 2 Don't recall 8

RESPONDENT ID

S1	S2	S3	S4	S5	S6	S7

		WOMAN WITH BIRTH IN THE LAST 3 YEARS	CURRENTLY PREGNANT WOMAN
S140	IF YES - What did you usually take them with?		
S141	From when you were first given the tablets, until the end of the pregnancy, did you take them every day? IF YES, SKIP TO S143	Yes 1 No 2 Don't recall 8	Yes 1 No 2 Don't recall 8
S142	IF NO - Why did you not take them every day?	MARK ALL REPLIES Forgot 1 Side effects 2 Gave them away 3 Tablets unpleasant 4 No need 5 Baby too big 6 Not enough pills 7 Other 8 Specify _____ No reason given 9	MARK ALL REPLIES Forgot 1 Side effects 2 Gave them away 3 Tablets unpleasant 4 No need 5 Baby too big 6 Not enough pills 7 Other 8 Specify _____ No reason given 9
S143	Did you experience any good effects from taking these tablets? IF NO, GO TO S145	Yes 1 No 2 Don't recall 8	Yes 1 No 2 Don't recall 8
S144	IF YES - What good effects?	MARK ALL REPLIES Stronger 1 Less tired 2 More able to work 3 Other 4 Specify _____	TICK ALL REPLIES Stronger 1 Less tired 2 More able to work 3 Other 4 Specify _____
S145	Did you pay for the tablets? IF NO GO TO 147	Yes 1 No 2	Yes 1 No 2
S146	IF YES - How much did you pay?	Rp_____ Don't know 98	Rp _____ Don t know 98

RESPONDENT ID

S1	S2	S3	S4	S5	S6	S7

S147	At any of these check-ups, were you given any injections against tetanus *that is whatever local description*?	Yes 1 No 2 Don t know 9
S148	IF YES - How many times were you given an injection?	Number _____
The last thing I would like to ask you about your pregnancy, is whether you were given any advice by a bidan di desa, bidan or doctor or other health provider at that time		
S149	Were you ever told during a visit or check-up where to go if you had a serious problem during pregnancy, labour or delivery?	Yes 1 No 2 Don't know 9
S150	Has any message you or your husband heard, about health problems in pregnancy and delivery, helped you to do something which you and your husband were not doing before?	Yes 1 No 2 Don't know 9
S151	IF YES - What? DO NOT PROMPT	MARK ALL REPLIES Go to antenatal care regularly 1 Use of family planning after delivery 2 Go to health facility 3 Others 4
S152	Were you ever told during a visit or check-up about family planning for you after delivery?	Yes 1 No 2 Don't know 9
S153	IF YES - Which methods were mentioned?	MARK ALL REPLIES IUD 1 Norplant 2 Pills 3 Sterilization 4 Breastfeeding 5 Other 6 Specify _____

RESPONDENT ID

S1	S2	S3	S4	S5	S6	S7

I would now like to ask you more specific questions about your labor and delivery		
S154	Where did the birth happen? I mean, where was the baby actually born?	Hospital 1 Puskesmas 2 Private clinic 3 TBA's home 4 Own home 5 Relative's home 6 Other 8 Specify_____
S155	CHECK PLACE OF BIRTH IN S154 IF NOT IN HER OWN AND NOT IN A RELATIVE S HOME, You said the baby was born at _____ Were you in the same place at the start of labour?	Yes 1 No 2
S156	IF NO - Where were you to start with?	Hospital 1 Puskesmas 2 Private clinic 3 TBA's home 4 Own home 5 Relative's home 6 Other 8 Specify_____
S157	Who helped you for the labour and the birth? I mean, all the people involved?	PROBE AND ENTER 1,2,3 IN ORDER OF MENTION 1 Doctor ___ 2 Bidan ___ 3 Bidan di desa ___ 4 TBA ___ 5 Friend/relative ___ 6 Self ___ 7 Other ___ Specify_____
S158	IF MORE THAN ONE PERSON INVOLVED (SEE LAST QUESTION), Who delivered you?	Doctor 1 Bidan 2 Bidan di desa 3 TBA 4 Friend/relative 5 Self 6 Other 8 Specify_____

RESPONDENT ID

S1	S2	S3	S4	S5	S6	S7

CHECK ANSWER TO S154 IF THE BIRTH WAS AT HER OWN OR A RELATIVE S HOME, SKIP TO S167		
CHECK PLACE OF BIRTH FROM QUESTION S154 WRITE HERE _____		
S159	Why was it decided you should go to _____ and have the baby there?	Delivery problem 1 Expected complicated delivery 2 Safety 3 Well looked after 4 Family or personal preference 5 Other 8 Specify _____ Don't know 9
S160	Who made the decision?	Husband 1 Self 2 Mother-in-law 3 Other 4 Specify _____
S161	Did you and your family pay for transport to _____?	Yes 1 No 2 Was in walking distance 3 Don t know 9
S162	IF YES - How much?	Rp _____
S163	Did you and your family pay for services?	Yes 1 No 2 Don t know 9
S164	IF YES - How much?	Rp _____
S165	Did you and your family pay for drugs, medicine, blood, and other supplies?	Yes 1 No 2 Don't know 9
S166	IF YES - How much? SKIP TO QUESTION S168	Medicines_____(Rp) Blood_____(Rp) Others_____(Rp) In Kind _____(Rp)
S167	FOR BIRTHS AT HER OWN OR A RELATIVE'S HOME ONLY How much did you pay for help with the birth?	RP _____
S168	**RECORD THE TIME WHEN INTERVIEW ENDED**	Hour__ __ Minute__ __

RESPONDENT ID

B1	B2	B3	B4	B5	B6	B7

MODULE - B BABY AND MOTHER'S HEALTH IN POST-PARTUM PERIOD AND PERINATAL MORTALITY
BASELINE SURVEY QUESTIONNAIRE (FINAL VERSION)
MOTHERCARE, INDONESIA, SOUTH KALIMANTAN

ENTER THE IDENTITY INFORMATION BEFORE START OF THE INTERVIEW IN THIS SECTION CHECK DETAILS

IDENTIFICATION		NAME
B1	DISTRICT	
B2	SUB-DISTRICT	
B3	VILLAGE	
B4	WILCAH	
B5	SEGMENT	
B6	RUMAH	
B7	RESPONDENT	
B8	INTERVIEWER	
B9	DATE	

RECORD WHO IS PRESENT, OTHER THAN YOU AND THE RESPONDENT

B10	Husband	Yes 1 No 2
B11	Other persons	number _____

THEN CONTINUE

B100	**RECORD THE TIME WHEN INTERVIEW BEGAN**	Hour__ __ Minute__ __
Now I would like to talk to you about your pregnancies in the last <u>three</u> years whether the baby was born alive or dead or the pregnnacy was lost before full-term, that is as a miscarriage or an abortion (*use locally acceptable term*)		

RESPONDENT ID

B1	B2	B3	B4	B5	B6	B7

B101	How many times were you pregnant during the last 3 years?	None=0 One time=1 Two times=2 Three times=3 Fourt times=4

Questions		Last Pregnancy	Next-to-last Pregnancy	2nd-to-last pregnancy	3rd -to-last pregnancy
B102	How many months' pregnant were you when ____pregnancy ended?				
B103	Was there one child, or were there twins?	One child 1 Twins 2	One child 1 Twins 2	One child 1 Twins 2	One child 1 Twins 2
IF TWIN SKIP TO B123					
B104	Was the baby born alive or dead?	Alive 1 Dead 2	Alive 1 Dead 2	Alive 1 Dead 2	Alive 1 Dead 2
B105	IF BORN ALIVE, Is the child alive now?	Yes 1 No 2	Yes 1 No 2	Yes 1 No 2	Yes 1 No 2
B106	Was/Is it a boy or a girl?	Boy 1 Girl 2	Boy 1 Girl 2	Boy 1 Girl 2	Boy 1 Girl 2
B107	CHECK B104 AND B105, IF DEAD NOW BUT BORN ALIVE, How old was the child when he/she died?	Days ___ or Weeks__ or Mon___ or Years ___	Days ___ or Weeks__ or Mon___ or Years ___	Days ___ or Weeks__ or Mon___ or Years ___	Days ___ or Weeks__ or Mon___ or Years ___
B108	Did you feel your baby moving until the start of the contractions?	Yes 1 No 2 Don't know 9	Yes 1 No 2 Don't know 9	Yes 1 No 2 Don't know 9	Yes 1 No 2 Don't know 9
B109	Did you see your baby after it was born?	Yes 1 No 2 DK 9	Yes 1 No 2 DK 9	Yes 1 No 2 DK 9	Yes 1 No 2 DK 9
B110	Did you know the baby had died before you gave birth?	Yes 1 No 2 DK 9	Yes 1 No 2 DK 9	Yes 1 No 2 DK 9	Yes 1 No 2 DK 9

RESPONDENT ID

B1	B2	B3	B4	B5	B6	B7

B111	Immediately after birth did you hear the baby cry?	Yes 1 No 2 DK 9	Yes 1 No 2 DK 9	Yes 1 No 2 DK 9	Yes 1 No 2 DK 9
B112	Did it seem to you that your baby was breathing normally immediately following birth?	Yes 1 No 2 DK 9	Yes 1 No 2 DK 9	Yes 1 No 2 DK 9	Yes 1 No 2 DK 9

I would like to ask you the following questions about your most recent birth (in the last three years), whether alive or dead

Questions		**Last birth**
B113	What was the baby's breathing ?	Very slow 1 With difficulty 2 Very rapid 3 Normal 4 Other 5 Specify _____ Did not see anything 6 Don't know 9
B114	What colour was the baby's skin immediately after birth?	Healthy pink colour 1 Blue 2 Pale 3 Other 4 Specify _____ Did not see anything 5 Don't know 9
B115	How soon did you start your new born baby breastfeeding after it was born?	Within the hour 1 Within 24 hours 2 After one day 3 More than 2 days 4 Did not breastfeed 5 Don't recall 8

CHECK FOR ANY BEASTFEEDING FROM LAST QUESTION, B115

YES ____ NO ____

IF NO SKIP TO B119

B116	Could it suck?	Yes 1 No 2 Don't know 9

RESPONDENT ID

B1	B2	B3	B4	B5	B6	B7

B117	Did you ever feel your breast milk was insufficient during the first 4 months of your baby's life?	Yes, insufficient 1 No, sufficient 2
B118	IF YES (INSUFFICIENT) what did you do?	Introduced other milks 1 Introduced soups, juices 2 Introduced soft food 3 Breastfed more often 4 Other 8 Specify _____
I would like now to ask some questions about how big the baby was when he/she was born		
B119	Do you think your baby had a normal size?	Yes 1 No 2 Don't know 9
B120	IF NO - Was he/she,	Very large 1 Large 2 Small 3 Very small 4 Don't know 9
B121	Was the baby weighed?	Yes 1 No 2 Don't know 9
B122	IF YES How much did the baby weigh at birth?	Grams ____ (9999 if unknown)
And also just two questions to ask if things happened at the right time, and a few more questions about the baby's health		
B123	When you saw your baby, did you think it was born too early, around the right time, or too late?	Too early 1 On time 2 Too late 3 Did not see the baby 4 Don't know 9
B124	Did your labour begin too early, around the expected time, or too late?	Too early 1 On time 2 Too late 3 Don't know 9
B125	When the baby was born did it have a sickness in his/her eyes?	Yes 1 No 2 Don't know 9
B126	Were the eyes swollen and oozy, with a watery/pussy discharge?	Yes 1 No 2 Don't know 9

RESPONDENT ID

B1	B2	B3	B4	B5	B6	B7

I would now like to ask some questions about the time period after the baby was born To start with, I would like ask about whether you had any check-ups, and whether you had to get help because you or the baby were sick during six weeks after the birth, during the period of seclusion		
B127	After the birth, did the dukun come to visit you and the baby?	Yes 1 No 2
IF NO TO B127, SKIP TO B132		
B128	Did she find any health problem with you?	Yes 1 No 2 Don't know 9
B129	Did she find any health problem with the baby?	Yes 1 No 2 Don't know 9
B130	Did you pay for her visit/service?	Yes 1 No 2 Don't know 9
B131	IF YES How much?	_____Rp In Kind _____
B132	After the birth, did a bidan di desa come to visit you and the baby?	Yes 1 No 2
IF NO TO B132 SKIP TO B137		
B133	Did she (Bidan di desa) find any health problem with you?	Yes 1 No 2 Don't know 9
B134	Did she (Bidan di desa) find any health problem with the baby?	Yes 1 No 2 Don't know 9
B135	Did you pay for this visit/service?	Yes 1 No 2 Don't know 9
B136	IF YES How much?	_____Rp In Kind _____
IF "NO" TO B128, B129, B133, AND B134, ASK B137, OTHERWISE, SKIP TO COMMENTS BEFORE B147		
B137	Did you or the baby have any health problems, during your seclusion?	Yes 1 No 2 Don't know 9
IF NO TO B137 SKIP TO B145		
B138	Did this happen once or more often?	Once 1 More often 2
IF MORE THAN ONCE I would like to talk about the first health problem		

RESPONDENT ID

B1	B2	B3	B4	B5	B6	B7

B139	What was the problem?	
B140	Did you get treatment from someone outside your family?	Yes 1 No 2
IF NO B140, SKIP TO B145		
B141	Who did you get treatment from?	Dukun 1 Traditional 2 Pharmacy 3 Bidan di desa 4 Bidan 5 Private bidan/doctor 6 Other 8 Specify _____
B142	Did you pay for this treatment?	Yes 1 No 2 Don't know 9
B143	IF YES How much?	_____Rp IN KIND _____
B144	Did you go to hospital, puskesmas or a private clinic because of the sickness?	Hospital 1 Puskesmas 2 Private clinic 3 None 4
B145	Did you pay for this treatment?	Yes 1 No 2 Don't know 9
B146	IF YES How much?	_____Rp
Now, I would like to ask some questions about the time since the baby was born until now		
B147	Have you used any method to stop getting pregnant since the birth?	Yes 1 No 2
IF NO TO B147, SKIP TO QUESTION B153		
B148	Which method have you used?	MARK ALL REPLIES Breastfeed __ Abstain __ Withdrawal __ IUD __ Pill __ Condom __ Sterilisation __ Other __ Specify _____

RESPONDENT ID

B1	B2	B3	B4	B5	B6	B7

B149	How long have you used it without a break?	Since child born Weeks _____ Months _____
B150	How old was the child when you started using a method to stop getting pregnant?	Months _____ or Weeks _____
B151	Did you pay for any contraceptives?	Yes 1 No 2 Don't know 9
B152	IF YES How much?	_____Rp In Kind _____
B153	**RECORD TIME WHEN INTERVIEW ENDED**	Hour __ __ Minute __ __

RESPONDENT ID

A1	A2	A3	A4	A5	A6	A7

MODULE - A ANEMIA (BIOLOGICAL)
BASELINE SURVEY QUESTIONNAIRE (FINAL VERSION)
MOTHERCARE, INDONESIA, SOUTH KALIMANTAN

ENTER THE IDENTITY INFORMATION BEFORE START OF INTERVIEW IN THIS SECTION
CHECK DETAILS

IDENTIFICATION		NAME
A1	DISTRICT	
A2	SUB-DISTRICT	
A3	VILLAGE	
A4	WILCAH	
A5	SEGMENT	
A6	RUMAH	
A7	RESPONDENT	
A8	INTERVIEWER	
A9	DATE	

1 Pre-pregnancy weight _____kg (if recorded on card)

2 Actual anthropometry _____cm (MUAC)

3 Conjunctival pallor _____ yes _____ no

4 Shortness of breath _____ yes _____ no

5 Hemoglobin _____ gm/dl (immediate use of HemoCue)

6 Drop of blood for filter paper _____ (check to confirm)

Hb _____ gm/dl (filled in after the analysis result returns)