

Working Paper on the Community Diagnosis MotherCare Safe Motherhood Project

South Kalimantan, 1996

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**WORKING PAPER ON THE
COMMUNITY DIAGNOSIS
MOTHERCARE SAFEMOTHERHOOD PROJECT
SOUTH KALIMANTAN
1996**

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APPENDIX A Qualitative Description of the F G D Sites

LIST OF SUPPORTING DOCUMENTS/BIBLIOGRAPHY

(Not appended due to sheer volume)

- 1 Trip Report I Reynaldo Pareja
- 2 Research Instruments
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- 4 Photographic Report of The F G D Fieldwork
- 5 Trip Report II Reynaldo Pareja & Raye Galloway
- 6 Computer Tabulations

* GLOSSARY

Glossary of Bahasa Indonesia and local dialect/words and terms in relation with pregnancy, birth and complications (Not in alphabetical order)

GENERAL

Bayi	baby
BALITA/Anak Balita	Bawah Lima Tahun/Children under five years old
hamil	pregnant
sehat	healthy
PUS	Pasangan usia subur, couples of reproductive age
WUS	Wanita usia subur, women of reproductive age

HEALTH INFRA STRUCTURE AND HEALTH SERVICE PROVIDERS

Rumah Sakit	Hospital
Rumah Sakit Bersalin	Maternity Hospital
Puskesmas	Pusat Kesehatan Masyarakat, Primary Health Center
Pustu	Pusat Kesehatan Masyarakat Pembantu, Primary Health Sub-center (smaller, with more limited services than puskesmas)
Posyandu	Pos Pelayanan Terpadu, Integrated Health Post, held once a month, run by volunteers in the community
Polindes	Pondok Bersalin Desa, Birthing huts run by village midwives
Kader	Community Volunteers who help organize Posyandu activities
Bidan	Midwife (facility-based)
Bidan Puskesmas	Midwife posted (based) at Puskesmas
Bidan di Desa	Village Midwife
Bidan kampung	Literally "village midwife", local community's term for traditional birth attendant (TBA)
Dukun bayi	Another term for traditional birth attendant
Jurim	Juru immunisasi, person trained for administering injections
PKK	Pembinaan Kesejahteraan Keluarga - Literally "Family Welfare Organization" - members are the wives of government officials who mobilize community around family welfare issues

DURING PREGNANCY

pantang	taboo, stay away
nyidam	period of morning sickness, craving for strange things
mual	nausea, nauseated
pusing-pusing	light-headedness, dizzy
lemah	weak
gancang	good appetite
gagah	healthy, fit, stout, handsome
kelalah	light-headedness, no appetite, sensitive to smells

sakit perut
LABOR AND BIRTH

stomach ache/stomach pain

sakit or garing
mahwat

pain, referring to contraction pains
specific word or term to describe the pain or sign of labor or for contractions

keluar ciri

"the *sign* (indicator) comes out"- a dark red stain on the crotch of the underwear, commonly known in the West as "the plug"

kelahiran ganjil

1st, 3rd, 5th births etc , odd numbered birth, deemed to entail more risk to the mother's health and survival

halinan

prolonged labor

menejan

pushing/contracting

masa nifas

period of 40 days after delivery a period of rest, the baby is not allowed to be taken out of the house, no sexual relations, limited diet for mother

kaki bengkak

swollen legs (feet)

muka bengkak

swollen face

tangan bengkak

swollen hands

sakit pinggang

pain at the waist

sakit punggung

back pain

COMPLICATIONS AND ANATOMY

kesulitan

difficulty, there is no equivalent Indonesian word for complication except for the Indonesianized term *komplikasi*

keguguran

miscarriage/spontaneous abortion

panggul sempit

narrow pelvis

masalah

problem

tak sadar/pingsan

unconscious/fainted

bedah sesar

Cesarean operation

susah lahir

difficult birth, prolonged labor

hamil diluar kandungan

literally *pregnant outside the womb* or ectopic pregnancy

ketuban, air ketuban

amniotic sac, amniotic fluid

ketuban pecah

amniotic sac broke/water breaks

tembuni, uri

placenta

ketinggalan tembuni

retained placenta

ketinggalan uri

retained placenta

paparutan keluar

prolapse of colon out of rectum

meruyan batu

postpartum bleeding, dark blood, blood clots

sungsang

breached (bottom first)

letak lintang

horizontal position of fetus - transverse lie

letak tapaling

malpositioned baby

perdarahan

serious bleeding, hemorrhaging

darah mengucur

blood spills out/severe bleeding

kain tapis

piece of cloth/sarong used to line the bed or birthing surface to soak up blood The amount of blood lost is measured by the

karungkup/kehalinan	number of pieces of <i>tapis</i> cloth used
kejang-kejang	convulsions, eclampsia
keram	another term for seizure, convulsions
kesemutan	cramps
bayi biru	pins-and-needles
bayi diisap buyu	blue baby
bahearan	small/low birth weigh/baby's strength sucked out by spirits
bayi kuning	baby has diarrhea
bayi lemas	yellow baby, high Billirubin count/jaundiced
bayi lahir mati	listless, weak baby
bayi tidak menangis	stillbirth
bayi rahi	baby not crying
	baby refuses to suckle, weak, feverish

RTI AND FAMILY PLANNING

KB/keluarga berencana	FP/family planning
pil KB	FP pill
suntik KB	injectibles
susuk KB	implant/Norplant
pantang	abstain
keputihan	whitish vaginal discharge, usually associated with itchiness and odor
penyakit kelamin	venereal disease

COMMUNITY AND TRADITION

gotong royong	mutual help, literally "together help lift a heavy burden"
Alim Ulama	respected religious leader
koperasi	a cooperative
banyu mantra	holy water, water that has been blessed to cure many different ailments
warung	stall selling household sundries or food stall
warung obat	drug stall
kiosk	small stall
pasar	market
toko obat	drug store
apotik	dispensary/chemist shop
POD	Pos Obat Desa, Village Drug Post- sells over-the-counter drugs
ditiwas, tiwas-meniwas	being blamed (" I told you so "), blaming each other (if someone goes ahead against advise and something goes wrong)
ketulahan	bad karma if go against authority or elders
tapung/batapung tawar	blessing/thanks giving
berpulas Bidan	midwife performs blessing/thanks giving,

TRANSPORTATION

taksi	public mini buses
jukung	canoe/row-boat
klotok	motorized wooden boat or canoe main vehicle for water transportation
bis air	water bus/large passenger motorized boat
becak	trishaw (2-passenger 3-wheeled rickshaw)
ojek	motor-bike taxis

ANEMIA AND IRON TABLET

darah	blood
kurang darah	not enough blood, can be used for anemia or low blood pressure
darah kĳangan	slight bleeding
anemi	anaemia
(tekanan) darah rendah	low blood (pressure), usually the term is abbreviated and the word pressure is left out, lending itself to confusion with "kurang darah"
(tekanan) darah tinggi	high blood (pressure)
tinggi darah/darah tinggi	literally "blood high", grammatically incorrect, also confused with the opposite of "kurang darah"
tensi darah	blood pressure, measuring blood pressure
lemas, lesu, lelah, letih, lalai	"the Five-Ls", The Ministry of Health's official descriptive syndrome for anemia weak, listless, fatigued, no energy, forgetful/unable to concentrate
obat/pil/tablet tambah darah	medicine/pill/tablet for "adding blood", i.e. iron pill
tablet zat besi	iron element tablet
tablet besi	iron tablet
hanyir	unpleasant, fishy taste of iron tablet
uyuh	tired, weak
keuyuhan	tiredness
meriap dingin	fever

EXECUTIVE SUMMARY

This report presents the findings of a Community Diagnosis from the districts of Banjar, Hulu Sungai Selatan and Barito Kuala during the months of March through April, 1996. It was conducted as a collaborative effort between the MotherCare Project PATH, Depkes UI and Akademi Gizi.

Objectives

The Community Diagnosis attempts to identify the obstacles or barriers the community faces in recognizing complications during pregnancy, labor and delivery and in seeking appropriate health care/facility. The Community Diagnosis gathers information on factors influencing a woman and her newborn's "pathway to survival" from the perspective of community beliefs, knowledge, practices and infra-structure, the quality of health facilities and services provided and the knowledge, attitudes and skills of health providers. (Refer to Figure 1 Comprehensive Pathway to Survival on facing page, and Figure 2 Pathway to Survival - Selected Segments Focused in the MotherCare Project). Specific areas of concentration are:

- community's knowledge, perception and behavior in regard to anemia (awareness, compliance in iron tablets consumption),
- specific areas of family planning and reproductive tract infections
- media habits and possible IEC strategies

Methodology

- 24 focus group discussions were conducted, 12 among mothers of under fives (some of whom were pregnant), 6 among husbands of pregnant women and 6 among key informant groups (3 women, 3 men)
- 180 in-depth interviews using semi-structured questionnaires were conducted among mothers of under fives and pregnant women
- 29 interviews among midwives
- Observations of the infrastructure of the community were conducted in 24 communities
- Observations of health facilities and services were conducted in 16 facilities (2 Posyandu, 6 Pustu, 5 Puskesmas, 3 Hospitals)

Four research sites were selected to represent different conditions/criteria based on distance and level of attendance at the nearest primary health center. They were categorized as:

- far away from the primary health center -- but had high attendance (Pakapuran Kacil),
- near to the primary health center -- with high attendance (Tanipah),
- far from the primary health center -- with low attendance (Bahandang) and
- near to the primary health center -- with low attendance (Jawa Laut)

Key Findings

* Community Description

- Of the 24 communities observed, the majority had electricity only a few had access to a public telephone and all villages have postal service although it is unreliable in some villages
- Access to and from the communities to the nearest urban area varies greatly Some are urban/semi-urban and are easily accessible by land and water public transport Some villages are only accessible by water and transportation can be unreliable and/or scarce

* Community Perceptions Regarding Public Health Facilities and Services

- Access to the nearest health facility (primary health sub-center/primary health center/hospital) varies greatly, for some communities it is only a five minute walking distance or a short ride on a *becak* (trikshaw) and for some communities the nearest health facility involves a long commute from 1 to 4 hours by a combination of different forms of transportation
- The cost of transport ranges from Rp 500,- to Rp 40,000,- The latter refers to night or emergency transport Reported cost of service at a health facility usually ranges from Rp 100 to Rp 5000 and cost of medication usually falls in the same range, however three people reported paying between Rp 8000 to 50,000 for medical service

* Community Perceptions Regarding Pregnancy and Childbirth

- The average family size or parity among the respondents is between 3 - 4 children, with the largest number being 11 children
- Results from the focus groups and in-depth interviews showed that both women and men regard pregnancy as a natural ordinary phenomenon (*biasa-biasa saja*) However, a majority of women in depth interviews (61%) said pregnancy requires additional attention Responses included that a pregnant woman needs to eat more food, eat more nutritious food, take vitamins, medicine and/or iron tablets
- Women are expected to their usual workload during pregnancy until the eighth or ninth month, when it is allowable for their husbands to help them with household tasks (i.e. lifting heavy loads)

None of the respondents mentioned the need of antenatal care (ANC) as a priority

- The complications perceived to be the most commonly experienced were 1) prolonged labor (*susah lahir*), 2) retained placenta (*ketinggalan tembuni/ketinggalan uri*) and 3) hemorrhaging (*perdarahan*) as a result of retained placenta. Retained placenta and the resulting hemorrhage were seen as the most dangerous.
- There were few mentions of complications with the newborn. Lack of awareness about neonatal complications may be due to the fact that the woman is still in pain and exhausted after birth and the birth attendant (whether health professional or TBAs) do not seem to always keep the mother informed when a complication arises.
- There are strong traditional beliefs concerning the causes of complications including miscarriages caused by spirits, a jaundiced baby caused by tumeric in the mother's diet, retained placenta being "hooked on a rib", stillbirths being the "will of Allah".
- While in-depth interviews showed the majority of women were aware of many complications and that they perceived them to be life-threatening, this does not mean that the women are capable of recognizing these complications if/when they encounter them themselves. In cases where there is an attendant present, such as during delivery, women rely heavily on the provider (usually a TBA) to inform them of a complication/emergency.

* **Decision Making Process**

- The majority of respondents delivered their last baby at home (almost 9 out of 10 - usually with a TBA) and most of them presently intend to have their next delivery at home (8 out of 10 respondents). This decision seems to be based on past experience/habit, practicality and (perception of) affordability.
- As few responses were listed in terms of advantages of delivery locations, women may not be aware of which services are offered at each facility due to lack of prior experience with them.
- In situations which do not entail high cost the rank of decision makers in seeking care during delivery (in terms of order of importance) is 1) the woman herself, 2) her husband, 3) her mother and 4) her mother-in-law. The bigger the financial consequences of the decision/action to be taken, the more authority the husband has, with the mother/mother-in-law also playing a role.
- While the above mentioned individuals may make a decision in terms of when to call for a TBA or village midwife, the process of referring a woman to a hospital usually entails a more lengthy discussion involving family members, neighbors etc. which is called "musyawarah". The musyawarah involves the husband, close family (mother,

mother-in-law) neighbors, birth attendant (village midwife and/or TBA) in a discussion about how to pay for transportation and hospital costs how to get money (if loans are needed who the husband can borrow money from and how he can repay them), how to locate transportation etc

* **Community's Perception Regarding Anemia, Family Planning and Reproductive Tract Infections**

- The term most commonly used to describe anemia was "kurang darah", however 'darah rendah' (low blood pressure) was also mentioned. The similarity between the signs and symptoms used by the women to describe both terms suggests there is a high level of confusion among women concerning these two conditions
- Most of the respondents did not know what are the signs/symptoms of anemia. Less than 10% of respondents mentioned one or more of the following: dizziness, headaches, weakness, lack of energy and paleness
- There is a high level of awareness (97%) and consumption (90%) of iron tablets (*tablet tambah darah*). Eighty-one percent of respondents reported taking iron tablets during the last pregnancy and two-thirds said they finished their tablets. However, only one-fifth of women were given the recommended dosage of iron pills
- The main reasons for non-compliance were reported as nausea, fear that the baby will grow too big, forgetting to take iron tablets
- Almost all respondents (92%) said that they would be willing to buy iron tablets
- More than two-thirds of the non-pregnant women claimed they were using some form of contraceptive, almost half of those were using the pill
- Slightly over half of the women believed a woman can get pregnant while she is exclusively breast-feeding her baby
- Over half of the respondents were not aware of RTIs (described as infection of the vagina/woman's sex organ and vaginal discharge). One third of the respondents said that they had heard of infections and more than two-thirds (70%) said that they were aware of vaginal discharge (*keputihan*)
- About two-thirds of the respondents said that they would need to go for treatment if symptoms occurred, and the majority (78%) would notify their husbands to come for a check-up if they were diagnosed with an RTI

* **Midwives's Perception of the Quality of Health Services and of the Community**

- Twenty-nine midwives from different health facilities (hospital, sub-district health center, monthly health post, village based midwives) were interviewed on their perception of the health facilities and services where they work. The midwives were also asked to describe their impressions on the community's perception of the quality of service given by health providers, and women's knowledge and practices regarding anemia, RTI's and partner notification and family planning
- The shortcomings or difficulties faced by the midwives generally fell in two categories, i.e. shortcomings from the perspective of 1) the infra-structure, facilities/health service provision, and 2) the community's attitudes/predispositions. Only four of the midwives felt they didn't face any difficulties
- The infra-structure difficulties mentioned included logistical problems - shortage of medical supplies and equipment, difficult access to/from the communities served and lack of facilities (no running water/toilet)
- The difficulties related to the community include strong traditional beliefs and habits that are viewed as being detrimental to the health of the woman/newborn by the midwives

* **Observation of Health Facilities**

- A total of 16 health facilities/service points in the three Districts were observed - in terms of their physical condition and service provision
- All the facilities are open six days a week (Mondays to Saturdays) during the (official) hours 08 00 - 14 00. In practice, the opening hours are often shorter. Only 4 of the observed facilities have 24-hour service

* **Observation of Health Service Provision**

- 43 clients were observed receiving antenatal care at one of the above mentioned facilities
- Most of the women (29) came to the ANC alone, four were accompanied by their husband, 10 were accompanied by someone else (unspecified)
- All the women received friendly greetings. Twenty-nine women were asked their gestation age, their own age and parity. Thirty-six women were weighed. Thirty-two women were asked whether they have had their TT injection. All women were examined for fetal position, movement and heartbeat. None of the women were given a pelvic exam. Thirty-four of the women were given iron tablets

Conclusions Barriers found in "The Pathway to Survival"

<p>Failure to recognise problem</p> <p>Pregnancy viewed as a natural, non-special phenomenon – low recognition of need for special attention (i.e. prenatal examinations) Low or lack of knowledge/education concerning maternal/neonatal health problems Traditional Beliefs, myths and rumours - i.e. still-births are seen to be caused by fate (fatalistic) and is God's will Perception of health <i>not sick</i> means healthy</p>
<p>Recognition of problem</p> <p>No preparation or expectation of problems Not aware of danger signs of complications (especially during postpartum period and with new-born) Reliance on provider (usually TBA) to recognise problems</p>
<p>Decision making process regarding care seeking</p> <p>The factors influencing the decision on whether or not to seek care Perception of seriousness of problem Who assists in delivery Who is present at delivery Traditional beliefs Financial/affordability (of both transportation and hospital costs) Accessibility availability of transport, distance Preference to deliver at home with TBA Lack of confidence/comfort with health facilities Resignation about neonatal death</p>
<p>Accessibility and timeliness of arrival</p> <p>The factors influencing timeliness of arrival are Length of decision making process (stage of complication) Time of day - difficulty obtaining transport</p>
<p>Adequacy of care</p> <p>Upon timely arrival, factors that will influence the chances of survival are Waiting time for appropriate attention Availability of qualified/specially trained staff Availability of necessary equipment and supplies</p>
<p>Barriers related to recognition and treatment of Anemia</p> <p>Lack of knowledge about anemia Confusion among terms used to refer to anemia and low blood pressure Lack of knowledge about iron tablets Lack of compliance in taking iron tablets</p>

* **The IEC strategy**

- A multi-media approach targeting individuals (the pregnant woman/new mother her husband and family members), and the community are needed to increase knowledge and correct false perceptions. Both the health providers (village and facility based midwives, TBAs) and the community need to be included as targets.
- In terms of an IEC strategy, there is a need for simple, factual information on the recognition of complications and persuasive approaches for quick decision making and timely referral. Materials should address both the community and TBA.
- For iron tablets promotion/compliance, there is a need for more counseling on the effects of anemia and the benefits and harmless possible side-effects to be expected when taking iron tablets.

* **ACKNOWLEDGEMENTS**

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COMMUNITY DIAGNOSIS

1 INTRODUCTION

The maternal mortality ratio (MMR) in Indonesia at the time the community diagnosis was conducted (March-April 1996) was still relatively high at 420 /100,000 live births. The Ministry of Health is attempting to reduce the national MMR to 225 per 100,000 live births by the year 2000. Since an estimated 70% of births still occur at home and 60% were delivered by traditional birth attendants (TBAs), the MOH has tried to increase the number of births attended by trained health care providers, for both home and hospital delivery.

In the province of South Kalimantan, the selected project area, the maternal mortality ratio is higher than the national average, at 543/100,000 live births. Many factors contribute to this situation, including cultural and traditional practices and beliefs, socio-economic conditions and access to professional health care and facilities.

MotherCare is a global project funded by USAID to address maternal and neonatal health problems. In Indonesia MotherCare is working with MOH in the three districts of Banjar, Barito Kuala and Hulu Sungai Selatan, South Kalimantan Province. MotherCare Indonesia takes an integrated approach, through 1) improving knowledge and skills of facility and community level midwives (Bidan and Bidan di Desa) 2) upgrading the capacity of the health providers and facilities to respond to cases of complications 3) improving the recognition and response of the community (women, families, community health workers, traditional birth attendants) to danger signs and complications of pregnancy and delivery and postpartum and 4) improving access to and appropriate and timely use of maternal health services.

The project works with both the Ministry of Health (MOH) and the Indonesian National Midwives Association (IBI/Ikatan Bidan Indonesia). In partnership with the MOH at the central and the provincial level, the project aims to design a program in South Kalimantan that strengthens and expands upon the existing maternal/neonatal health system for delivering preventive and curative (case management) health services to pregnant women, parturient and postpartum women and their newborns. The project also works with IBI to strengthen its institutional capacity, primarily at the national level, but also in the province of South Kalimantan, so that it can better respond to the needs of its members to provide safe and competent care to women and children.

From the Memorandum of Understanding for the MotherCare Project one of the six major objectives is to improve use of appropriate services. Two components of this are

- 1) *To improve the referral system for women with obstetrical complications through increasing the coverage of "high risk" women and newborns (high risk is defined as women with complications such as hemorrhage, puerperal sepsis, prolonged/ obstructed labor, severe pre eclampsia/eclampsia, and for newborns -- asphyxia, birth trauma or low birth weight) to reduce maternal/neonatal deaths.*

In order to “ensure accessibility of complicated obstetrical and newborn cases to the appropriate facilities” the following activities were planned and conducted

- Conduct a Community Diagnosis to determine barriers of access to care (e g transport, weather conditions, cost, attitudes of providers) in each of the project's three districts
 - From the results, prioritize the barriers and feasibility of addressing these barriers
 - Implement means of reducing these barriers (which may include Information, Education and Communication campaigns to raise awareness of danger signs and need for referral)
- 2) *To increase the involvement of other sectors and the community in recognizing high risk cases and appropriate referral of these cases*

This was to be achieved through the following intervention

Improve communication with community members via available channels and networks regarding danger signs, appropriate referral sites and transportation to reach referral sites

The specific activities necessary being

- To carry out community-based qualitative research to determine knowledge/perceptions, attitudes and practices in regard to complications and treatment sites, and the best avenues to reach women and families (e g non-governmental organizations, social mobilization, village midwives)
- To design and implement an IEC campaign (via direct education to families through village midwives, and by indirect means including radio spots, print materials and special events
- To evaluate the IEC campaign

2 OBJECTIVES

This report presents the findings of the Community Diagnosis conducted for the MotherCare Safemotherhood Project in three districts of South Kalimantan - Banjar, Hulu Sungai Selatan and Barito Kuala. The Community Diagnosis was conducted during the months of March through April, 1996.

The Community Diagnosis is a comprehensive formative research technique aimed at providing data which can be used to identify and prioritize appropriate interventions (training, service delivery, supervision, management, policy, IEC etc). The information gathered was used to design the IEC strategy and to enhance the culture and technical appropriateness of training and other program components. The Community Diagnosis ensures that a broad range of factors are considered so that the client, provider and community perspectives are represented in the MotherCare II program design.

The overall objective of the Community Diagnosis is to gain comprehensive insight into the workings of the community, their knowledge, attitudes and practices in regard to pregnancy, ante-natal care, delivery, postpartum care and in this case, anemia and Reproductive Tract Infections (RTIs).

The study was designed to identify the obstacles or barriers the community faces in recognizing complications during pregnancy, labor and delivery and in seeking appropriate health care, using as a foundation the *"Pathway to Maternal and Perinatal Survival"* (fig 1). In the Pathway to Survival, the three main areas of concern which contribute to death or failure to reach appropriate health care are: 1) community pre-dispositions - including lack of knowledge, existing attitudes, traditional beliefs and practices, 2) accessibility to health care - a function of distance, geographical isolation, transportation - including cost and availability and communication systems, 3) infra-structure of health facilities - including facility conditions, supplies/logistics, medical equipment, healthcare provider skills and policy/program priorities.

The community diagnosis attempts to identify both barriers and facilitators along this Pathway from the perspective of

- 1) the community, including traditional beliefs and practices, knowledge of complications, perception of health providers and facilities,
- 2) the health providers, including attitudes, knowledge and practices of the village and facility based midwives,
- 3) the infrastructure of the community and the health facilities

3 METHODOLOGY

3.1 Target Audiences

The primary target audiences were defined as the following

Pregnant women or mothers of children under five years old. Some of the women had been identified and recruited specifically because they had had a complication (s) during pregnancy, delivery or post partum.

Midwives posted at the Puskesmas (primary health center) or village level.

The secondary target audiences were defined as follows

Husbands - who have at least one child, but who were in most cases unrelated to the women in the FGDs and in-depth interviews

Key informant groups - identified as community members and leaders who have extensive knowledge of the community. They are village heads, the wives of village heads, members of the social mobilization village-level committees PKK (Program for Village Welfare), health volunteers, religious leaders and traditional birth attendants (TBAs)

3.2 Sampling

Communities selected as sample sites were selected on the basis of the distance to and level of attendance at the nearest sub-district health center. These factors were used as control variables to identify whether or not there are other factors influencing level of usage or attendance, and to ensure that communities with different characteristics were represented.

Far/low	the community selected is relatively far from the health center, and the community members use of the health center for Maternal Child Health Services (MCH) is low
Near/high	the community selected is relatively near the health center, and the community members use of the health center (for MCH) is high
Far/ high	the community selected is relatively far from the health center, and the community members use of the health center (for MCH) is high
Near / low	the community selected is relatively near the health center, and the community members use of the health center (for MCH) is low

The criteria for determining high/low attendance was left to the discretion of the MotherCare South Kalimantan office with the collaboration of the health centers selected as sample sites. Communities selected as "near" to a health center were defined as those within easy distance (walking distance or by public transport). Communities "far" from a health center were those

approximately 1 - 2 hours from a health center by public transport The furthest community in that area may have been only 2 kms from the health center, but transportation to the health center may be infrequent or inaccessible

Other differences were found between the four different site criteria, but note that these differences were qualitative in nature (from FGD findings) and cannot be projected to the overall study population of South Kalimantan The table below shows the summary of differences

	FAR	NEAR
H I G H	<p>(Pakapuran Kacil village)</p> <ul style="list-style-type: none"> - relatively far but with easy access to the health facility land and water transportation available at affordable cost - personable, friendly Puskesmas staff - The Puskesmas is well managed - more well-off community, some private cars ect 	<p>(Tanipah village)</p> <ul style="list-style-type: none"> - very easy access to Puskesmas, within walking distance, entails no cost for transport - personable, friendly doctor (known to be obliging and does not mind being called any time, even at night) - (one complaint is that the current midwife is a little abrupt or rude in her manner)
L O W	<p>(Bahadang village)</p> <ul style="list-style-type: none"> - most isolated community - very far in physical distance and very difficult access - the only access is by water, one hour by motorized canoe to Puskesmas - cost of transport is expensive - unreliable and few public transport vehicles available - community members have faith in the local TBAs - comparatively poorer community 	<p>(Jawa Laut village)</p> <ul style="list-style-type: none"> - very active, highly attended monthly integrated health post - the village midwives are easily available to the community - the midwives are well-liked/popular - the community prefers to attend the integrated health post rather than go to the primary health center - which eliminates the need to go to the primary health center - urban, relatively well off community - a hospital is near and accessible in case of emergencies

3 3 RESEARCH INSTRUMENTS

In order to collect data on the various aspects of the community, several qualitative instruments were utilized including

- A total of 24 focus group discussions (FGDs) were conducted among mothers of under fives (some of whom were pregnant), among husbands of pregnant women and among key informant groups
- A total of 180 in-depth interviews using semi-structured questionnaires were conducted among mothers of under fives and pregnant women, and a total of 29 interviews were with midwives
- Observations of the infrastructure of the community were conducted in 24 communities and observations of health facilities and services were conducted in 16 facilities (2 monthly integrated health posts, 6 primary health sub-center, 5 primary health centers, 3 hospitals)

The overall methodology of the community diagnosis (i.e. the use of a combination of approaches -- focus groups, in-depth interviews, observations in the community and at the health facilities) was adapted from the community diagnosis done by the MotherCare Project in communities around La Paz, Bolivia and in Guatemala. The FGD guides and in-depth interview guides were divided by the topics of safe motherhood, anemia and reproductive tract infections (RTIs) and in the case of midwives included questions concerning both areas as well as questions on available health services and community perceptions and use of those services. All instruments for use in South Kalimantan were developed by the qualitative team, local and international MotherCare Staff. A training and briefing of data collectors, note-takers and supervisors was conducted to ensure that all individuals understood the purpose of the community diagnosis and that all interviews were conducted using the same interviewing/notetaking standards and procedures.

The FGD guides, in-depth interview guides and observation checklists were then pretested in communities and revisions were made based on feed-back from these sessions. All questionnaires were adapted to take between 50-65 minutes to implement, except for the description of infrastructure and community form --which took considerably longer.

After thorough review of the instruments by MotherCare staff, the Community Diagnosis team and consultants, FGD sessions were held. As the majority of inhabitants in the selected communities speak Banjarese, a local dialect of Indonesian, each focus group or in-depth interview was conducted in bilingual sessions with the assistance of translators and notetakers. Prior to all FGDs and interviews, the participants were given an introduction and explanation of the objectives, statement of confidentiality and permission to record the sessions was requested.

Transcripts were compiled by each FGD facilitator, and results from the in-depth interviews and facility observations were tabulated and analysed using the SPSS statistical package.

3 4 Focus Group Discussions (FGD)

The table below displays the number and type of FGDs held in each community In the FGDs with women and their husbands, there were 6-10 participants in each group In those with key informants, there were 4-6 participants

Type of FGD/ Village ->	Barito Kuala District		Hulu Sungai Selatan Dis	Banjar District	Total
	Bahadang	Tanipah	Pakapuran Kacil	Jawa Laut	
Safe Motherhood (mothers)	1	1	2	2	6
Anemia/RTIs/FP (mothers)	1	1	2	2	6
Husbands	1	1	2	2	6
Key Informants (women)	1	-	1	1	3
Key Informants (men)	-	1	1	1	3
Total	4	4	8	8	24

The focus group guide on SafeMotherhood focused on the following issues

- recognition and awareness of complications during pregnancy, delivery, postpartum and with the newborn
- previous experience with complications in any (all) phases during past pregnancies
- decisionmaking process (who makes the decision to seek care and who is sought out) in the case of a complication
- accessibility of health facility (including cost, reliability of transport)
- evaluation of health facility --quality of service, skill of health provider
- cost of health facility
- preferred place of delivery

As anemia and its consequences are a major problem among pregnant women throughout Indonesia, the community diagnosis also included in-depth research on knowledge, attitudes and practices related to nutrition and taking iron pills The RTI/FP questions were included to explore other issues related to maternal morbidity -- including the level of knowledge and awareness about the significance of RTIs during pregnancy and the desire to use a contraceptive method immediately following delivery

The Anemia/RTI/FP focus group guide concentrated on the following issues

- ▶ Awareness/knowledge of the effects, causes, symptoms of anemia -- in general and as related to pregnancy

- ▶ Awareness/knowledge of iron tablets, side effects and where to obtain them
- ▶ Advice/information given by health providers about anemia and iron tablets
- ▶ Predisposition to and past experience in obtaining and consuming iron tablets
- ▶ Preferred forms of media for health information
- ▶ Knowledge and practices related to family planning methods
- ▶ Predisposition to using a family planning method directly after delivery
- ▶ Awareness/knowledge and practices related to RTIs

The husband FGD guide explored the following issues

- ▶ norms during pregnancy/ the role of husbands during pregnancy
- ▶ recognition and awareness of complications during pregnancy, delivery, post-partum and with the newborn
- previous experience with complications in any (all) phases during past pregnancies
- decisionmaking process (who makes the decision to seek care and who is sought out) in the case of a complication
- accessibility of health facility (including cost, reliability of transportation)
- evaluation of health facility --quality of service, skills of health providers
- preferred place of delivery
- predisposition/use of contraception

The key informant FGD guide focused on similar issues (norms during pregnancy, recognition and awareness of complications in all phases of pregnancy, evaluation of health facility, preferred place of delivery, ect)

3 5 IN-DEPTH INTERVIEWS

The topics and number of in-depth interviews are listed in the table below These were implemented by using a semi-structured list of discussion topics and specific questions included in the list of research instruments

Respondent definition	Topics	Total
Women mothers of under fives*	Safemotherhood	90
Women mothers of under fives*	Anemia/Reproductive Track Infection/ Family Planning	90
Midwives	Safemotherhood, Anemia, RTIs and FP	30

(*) Some of the women were pregnant

3 6 OBSERVATION OF FACILITIES

The different villages selected for observations of infrastructure were chosen according to the same criteria as the FGD, i.e according to relative distance to and level of attendance at the nearest health center. Below is a table of observation criteria.

Observation criteria	Facilities/location observed	Total
Community Infrastructure available transportation, communication infra-structure, climate, community groups, demographic composition etc	Villages/communities	24 villages
Health facilities Physical condition, equipment, IEC materials displayed, etc	Hospital Puskesmas (primary health center) Pustu (primary health sub-center) Posyandu (integrated health post)	3 5 6 3 (Total =16)
MCH/ANC Service Waiting time, quality of service, Inter-personal Communication/ Counseling (IPC/C) skills of health providers	Hospital Primary Health Center Primary Health sub-Center Integrated Health Post	14 12 13 4 (Total= 43*)

(*) The total refers to the # of patients observed in the 4 different types of facilities

Disclaimer It should be kept in mind that the methodology and research instruments selected for the CD are qualitative in nature, the sampling is purposely skewed towards certain criteria (age range, women with children under five years old, etc) And the number of respondents in each cell (type of respondent) is under 100. Therefore, the numbers presented in this report are mostly not in percentages rather in actual numbers or proportions, as they are not meant to be representative or projectable to the general population. When percentages are reported the base number is shown for caution.

4 FINDINGS

4.1 COMMUNITY DESCRIPTION

The communities studied in the community diagnosis were selected to represent the diversity found in South Kalimantan including urban, sub-urban and remote, rural communities. The following description is a summary of the results of observing 24 selected communities using a structured observation guideline. (A more qualitative description of four distinctly different locations can be found in Appendix A, excerpted from the Focus Group Discussion Report. Also available under a separate cover is the Photographic Report of the FGD fieldwork). The observation guideline was used to collect data from a variety of sources.

Community leaders and provincial, district and local (town level) government and health officials were interviewed. Infrastructure, sanitation and other forms of descriptive data was collected through observation. Statistics from local government and health offices were collected including census data and household health survey information from the Bureau of Statistics/Public Works Office (sub-district level) and the town books of statistics, health statistics from the Department of Health (sub-district and district levels) and climate and geographical data from the local weather offices.

Although some communities were better off than others, their overall socio-economic status was relatively low. In urban and suburban communities, there are greater opportunities for earning income, easier access to transportation, services and facilities. These communities in general seem to enjoy better health compared to isolated communities where job opportunities are scarce and transportation is virtually non-existent, unreliable and expensive.

Electricity

Of the 24 villages or communities observed, most of the houses in 19 villages had electricity, a small proportion of houses in 3 villages had electricity, and none of the houses in 2 villages had electricity. Twenty of these villages are located near a main road with electricity, while in 4 villages the main road had no electricity.

Telephones

Eight of the villages had access to a public telephone, while in nine villages some of the houses had private telephones. Facsimile machines can be found in 12 villages. However, only three villages' primary health centers had a telephone. Two of the villages' primary health centers had a CB radio for communication.

Postal service

All villages are accessible by post though it is reportedly unreliable in some villages.

Roads, transportation and access

Almost half of the communities are located less than 5 KM from the nearest road to a major urban center. Three quarters of the villages are located near a major market (under 5 KM).

Most of the villages are accessible by road but a few are only accessible by waterways using canoes (*jukung*) and motorized boats (*klotoks*) In 19 villages the roads are in reasonable condition although not all are paved In 5 villages, the roads are in bad condition The road leading to the primary health center are in reasonably good condition, but are not always paved and often barely servicable During the height of the monsoon season, some areas are very prone to flooding The communities most prone to flooding are those located on or near the river banks

The communities that can only be reached by boats or *klotoks* are located in marshy, swampy areas and some are more than an hour away from the nearest primary health center providing that a *klotok* is available From the nearest primary health center it may be another one or two hours to the nearest hospital equipped for obstetric emergencies The *klotoks* are narrow, low boats, with planks of wood across the bottom serving as seats The average size of *klotoks* can accommodate up to ten persons including the driver and his helper Some larger *klotoks* with 20 to 50 passenger capacity ply the busier routes and have proper benches The larger *klotoks* are also referred to as water buses

Apart from *klotoks*, there are only two other modes of public transport available i e mini-buses (locally called *taksi*) and motorcycle taxis (*ojeg*)

Only a very small number of private motorized vehicles are found in the more affluent communities In communities on the river banks, most households would have their own canoe Only a few households have a *klotok*, and these are usually used for trade

The cost for mini-buses range from Rp 300 - 500, for motorcycle taxis from Rp 500 - 1500, and for *klotoks* from Rp 200 to 2000 (US\$1 = Rp 2300 - at the time of the CD) In cases of emergencies, however, when the whole vehicle is chartered the cost can be as high as Rp 5000, to 20,000, depending on the distance On top of that, land transportation cost may still have to be added

In the more well-off communities, neighbours who own transportation may lend the vehicle for free in cases of emergencies, in accordance with the mutual help (*gotong-royong*) philosophy practiced in South Kalimantan

Climate and topography

The temperature ranges from 27 - 33 Celsius all year with an average of 28 Celcius during the rainy season, and between 31-33 Celsius in the dry season The rainy season falls during the months of October through May, with the heaviest rainfall during January to March

From January to March, 1996, much of the low lying areas, particularly those on the river banks were flooded with waters rising to one meter above the ground Because the inundation lasted for so long, daily activities were hindered To overcome this, some of the better off communities, erected make-shift board walks in the main roads, through *gotong royong*

Geographical location

Fourteen of the selected villages are located on/near a river Ten of the villages are located on flat land The further inland, the more marshy the land is

Description of soil

About half of the villages are located on land where the soil is comprised of brown clay, while the other half is located on marshy, muddy land. Although there is abundant water for irrigation, the local people complain that the water (brackish, salty) is not suitable for most types of vegetables. While from the distance the land looks lush and green, the only plants which can grow in the soil are tall weeds.

Water for general purposes

Most villages get their water from the river. The water quality of the river is poor, contaminated with garbage and human waste. The majority of households use the same water for bathing, washing clothes and dishes, food preparation and defecation. Residents noted that the water is not even good for washing clothes because of the high level of brown silt, which stains the clothes yellowish and breaks down the material after a lot of washing.

Drinking water

Twelve of the 24 villages have access to municipal drinking water. However, this does not mean that every house in those communities has access to this water. Some communities pump water from under-ground reservoirs, some from wells and some from the river. Some of these wells do not have protective rims so that contaminated run-off water can seep into the wells.

Availability of water

Water is available throughout the year for most of the communities. Only three communities experience difficulties getting water during the dry season. Rain water is not collected for drinking water.

Sanitation

For the communities located on or near the river banks, the river serves as the toilet. Floating toilets are constructed at the river edge or on piers only a few feet away from where people bathe, and wash clothes and dishes. Most communities further inland have private toilets.

Population and reported number of births

About half of the communities have a population of up to 1000 persons, and the other half have a population between 1000 to 2000.

In the last 12 months the number of births reported are

- 0 - 10 in 8 communities,
- 10 - 20 in 8 communities,
- 21 - 30 in 3 communities and
- more than 30 in 5 communities

Reported neonatal/infant mortality

Fifteen of the 24 villages claimed that they had no neonatal or infant mortality. However, findings from the FGDs and in-depth interviews indicated that neonatal/infant mortality may be more than was indicated during community observations.

Quality of housing

In 16 of the 24 communities observed, most of the houses have bamboo walls and thatched roofs, in two communities most houses have wooden walls and tiled roofs. Four of the communities have houses made of different materials while two of the communities have houses built on stilts, on the rivers' edges or on marshy land.

Age of the community

Almost all of the communities observed have been established for over 20 years although in general, the basic infra-structure (paved roads, drainage/sewage, electricity, telephones and other facilities) are restricted to the larger communities near major urban areas.

Public health facilities and services

From the 24 communities observed, only six have access to a primary health center, 11 have access to a primary health sub-center, and six have access to a hospital within or very near their communities. Twenty-three of the 24 communities have integrated health posts.

All of the health center/facilities offer health services for children either under the MCH program or as part of the "Under-Fives program" for children. All except one facility (an integrated health post) offer maternal child health care/check-ups. All of the hospitals observed have facilities and services for delivery, while only 2 integrated health posts and 1 primary health sub-centers have them.

The following table summarizes health facilities accessible to the 24 villages/communities.

TABLE 4 1 Accessible Health Facilities - by Facility

Services/Facilities -->	Pustu	Puskesmas	Hospital	Posyandu
Number of facilities	11	6	6	23
General Practice	3	6	6	15
Maternal Child Health/FP	11	6	6	22
Dental Clinic	4	5	6	-
Partus/Delivery	2	1	6	-
Emergency Obstetric	-	2	6	-
Children check-up	*	*	*	23
Child Immunization	*	*	*	22
TT inoculation	*	*	*	18
Nutrition for under-fives	-	-	-	20

(*) Included in MCH

Cost of services

The cost of services at these facilities are the registration cost (Rp 500) plus medicines. At the primary health sub-center the highest cost is Rp 4500, at the primary health center it is

Rp 1500 and at the integrated health post all services are free Hospital costs depend on the treatment provided

Partus/delivery facilities

Almost all of the communities have access to a birthing facility within a distance of 4 KM (17 communities within 2 KM and 3 within 4 KM) However, the type or quality of the facilities were not specified, so these may include polindes (birthing posts - attended by community level midwives), midwives' private practice, primary health centers Only one of the communities is more than 10 KM from a birthing facility

Cost of delivery services

The average cost of delivery services ranges from as low as Rp 10,000 to as high as Rp 50,000 depending on the average socio-economic level of the community and where/by whom the service is provided Most women have to pay between Rp 10,000 to Rp 30,000 (14 communities), and 6 communities pay between Rp 31,000 to Rp 50,000 In four communities the cost is more than Rp 50,000 In some cases, payment may be augmented in-kind, with products such as rice There is a traditional payment package for delivery services containing rice, coconut and other items

Transportation to Facility

In 12 of the communities observed, most of the women need a motor vehicle (usually public mini-buses) to get to a health facility In three communities, the facility is within walking distance In six communities, it is accessible by rickshaw or bicycle In three communities it is only accessible by boat

From the community observation data, most are within 30 minutes of the delivery facilities However, these facilities do not necessarily have emergency standby staff and equipment

From observation, public transport is frequent and easy to obtain in 13 communities In 7, the frequency is sufficient, and in four communities public transportation is unreliable or very rare While it may be true that public transportation is reliable in most communities during daily hours, if emergencies occur after sundown, FGD results suggest that it becomes difficult to find adequate transportation (ex many klotoks do not have lights)

Medicine/drug outlets

Two communities have stores that sell drugs (drug store or *toko obat*), 6 communities have access to a drug store within a short distance from the village Only three communities have access to a dispensary (*apotik*)

Traditional Birth Attendants(TBA)

In each of the community there is at least one traditional birth attendant There are trained¹ TBAs in 17 communities and untrained TBAs in 7 communities Of the communities with trained TBAs, 12 communities have 1 - 2 TBAs, 3 communities have 3 - 4 trained TBAs and two communities have more than 4 trained TBAs In the 7 other communities, 5 have 1 - 2 untrained TBAs and 3 have 2 untrained TBAs

Immunization campaigns in the last 12 months

All communities have recieved polio immunization campaigns This was a major effort conducted in 1995 and was deemed very successful In many parts of Indonesia various celebrities were recruited to make the campaign a success In Kalimantan, a popular religious leader, **Haji Zaini Gani (Guru Ijai)** appeared in posters administering the vaccine

Other immunization campaigns were for children under-five (17 communities), a Tetanus Toxoid (15) and a Hepatitis (1) campaign

¹Depkes at one time provided training for TBAs on improved hygiene and safe delivery methods This program has since been discontinued

4 2 COMMUNITY PERCEPTIONS REGARDING HEALTH FACILITIES AND SERVICES

Background/description of respondents for Safe Motherhood FGDs and In-depth Interviews

For both the FGDs and in-depth interviews, respondents were required to be of reproductive age (15 - 49 years) The actual ages of the women were between 20 - 48 years in the FGDs (most were under 30), and 19 - 45 years among the in-depth interview sample Although the youngest age claimed by respondents in the FGDs was 20, there were a few who looked as young as 16 - 18 years old However, since the government's recommended marrying age is 20 years for women, (and 25 years for men), women under 20 years old may have been reluctant to admit their true ages

In both the in-depth interviews and FGDs, the majority of the respondents (61 of 90 interviewees) had only elementary schooling or less Only a few (16) had completed senior high school

In the in-depth interview sample, about two-thirds of the respondents had 1-2 children and one third had three or more children In the FGD sample the number of children ranged from 1 to 11, the average was 3 to 4 children Those with 1, 2 or 3 children indicated that they would like to have more children About one-fifth of the respondents in both samples were currently pregnant

In each focus group there was at least one woman who had one or more still-births or infants who died soon after birth There was one woman who had 4 consecutive still-births and all four deliveries were assisted by the same TBA It was only during the fifth pregnancy that the family sought to have the delivery attended by a midwife After this birth, both mother and baby were well Among the in-depth interview sample there were 16 women who had one still-birth, 10 women who had two still-births, and one woman who had four still-births

While the incidence of still-births and neonate mortality seem to be high among both samples, it should be noted that the sampling was biased towards women who have had some complications during pregnancy or delivery

Perceptions of health facilities and services

FGDs were held with women, husbands and key informants, and in-depth interviews were held with women to elicit their perceptions of health facilities and services available

Accessibility

Distance to nearest health facility The nearest health facility is the *Pustu* (primary health sub-center) for about half of the sample It is usually 5-15 minutes away which is within walking distance for one-third of the respondents

One-third of the sample said the nearest health facility was the primary health center, which can be reached within 15 minutes for half of the sample but can be as far as 3 hours away It is within walking distance for a quarter of the respondents, while another quarter said they needed a motorized vehicle to reach it

Half the respondents live within 15 minutes of the nearest hospital, another quarter live about 40 minutes away. The remainder live between 1- 4 hours away. Half of the respondents perceived the hospital as the health facility furthest away, and a third of these said they needed a motorized vehicle to get there.

Cost of transportation to the nearest health facility

The cost to reach the nearest health facility was reported to be as low as Rp 200 or Rp 500 on a public minibus or a 5-minute ride on a *becak*/ trishaw respectively. In emergency situations, or when a combination of vehicles is used the cost was reported to be as high as Rp 40,000. One quarter of respondents mentioned the transportation cost to the hospital as between Rp 1000 to 5000. One third said it costs between Rp 200 to 500.

The cost to reach the nearest *Pustu* was reported to be between Rp 450 - 1000. The cost to the nearest primary health center ranged between Rp 200 to Rp 3000, with half paying between Rp 200 - 850.

The cost of health services

About a third of the respondents said that they did not have to pay anything (apart from the registration fee). One quarter said they paid between Rp 100 - 500, (probably for registration - while all services and medicines were free of charge). Over a quarter said they paid Rp 750 - Rp 1500. Less than one in ten said they paid Rp 1,750 to Rp 5,000. Three persons said that they had to pay Rp 8,000 to Rp 50,000, however, the latter is not a typical payment.

The cost of drugs/medicine

Almost half said that they did not pay for medication. Almost a quarter said they paid Rp 500 to Rp 1500 and less than one in ten paid between Rp 2500 to Rp 5000. Two respondents claimed they had to pay between Rp 15,000 to Rp 25,000, however the specifics of these costs were not discussed.

In conclusion - accessibility

In conclusion, the factors determining accessibility to the nearest health center appear to be a combination of cost, distance and time of day.

Transportation cost to get routine ANC services at the integrated health post, primary health sub-center, primary health center or hospital for most communities (20 out of 24) is not in itself a barrier to access, as the nearest service point is reachable during the usual day-time "office hours". For example, in Jawa Laut, a sub-urban community the hospital is accessible by *becak* at the cost Rp 50. The problem with cost of transportation and access (whether there are roads or water transport) is during emergencies at night when regular public transport is shut down or when one or a combination of vehicles, be they motorized canoes or rickshaws, must be chartered.

In rural, isolated communities (such as Bahandang) one can reportedly wait all day for a public motorized canoe (*klotok*) and in the case of an emergency one must take a 1 hour private *klotok* at the cost of Rp 10,000 - 15,000, provided one can be found in the first place.

"It is hard to find transportation at night because there are no public boats, so you have to borrow the neighbor's klotok" (Tanipah)

"To rent a klotok can cost up to Rp 20,000, the rent is Rp 15,000, oil is Rp 5000 and that is before food and drink The rent is expensive I do not have that kind of money The important thing is that it is difficult to get a lot of money " (Bahandang)

Costs for regular ANC service and/or medication do not seem to be a major barrier to access for most communities, however, when combined with the cost of transportation from isolated communities, cost becomes a barrier in some communities

While the nearest health facility (usually primary health center) may be accessible and relatively inexpensive to get to, it may not be equipped to deal with an emergency situations², and the hospital that is equipped may be much further away and/or more expensive to reach

"If you go to the primary health center, it is close, you can walk But to Banjarmasin (where there is a hospital) you must go by boat for two hours, then on a public bus to the hospital " (Pakapuran Kecil)

While reported information on cost -- in terms of transportation, cost of service at hospitals and/or primary health center, and treatment cost do not indicate cost should be a barrier to accessing appropriate services future research should concentrate on distinguishing between emergency and everyday care situations, concerning cost, transport and the nearest or preferred facility for emergency care The questions in neither the FGD nor the in-depth interviews differentiated between the two contexts, but anecdotal evidence indicated that in dealing with emergency situations, community members (women and husbands) are concerned about the cost of accessing services This is also supported by FGD data that in some emergency situations, money must be borrowed from family or neighbors, who may not have sufficient funds to lend at the time of emergency In other cases, the borrower is worried about paying back the money lent to the family

² Only four of 16 facilities observed in the CD had 24 hr emergency services (see section on health facility observations)

4 3 COMMUNITY PERCEPTIONS REGARDING PREGNANCY AND CHILDBIRTH

Knowledge/perception, attitudes and practices regarding pregnancy and childbirth were explored through in-depth interviews and FGDs among pregnant women and mothers of under-fives and through FGDs with husbands

Perceptions of pregnancy and childbirth

Results from the focus groups and in-depth interviews showed that both women and men (husbands) regard pregnancy as a natural ordinary phenomenon (*biasa-biasa saja*) When women were asked to describe what they considered a normal pregnancy they mentioned feeling nauseated, having pain, working as usual, and being healthy (as opposed to sick)

A majority of women in the in-depth interviews, (61%), said pregnancy requires additional attention, one third said that a pregnant woman needs to eat more food, and a third said she needs to eat more nutritious food, one quarter said she needs to take vitamins or medicine, under one fifth said she needs TT injections and one fifth said she needs to take iron tablets None mentioned the need for antenatal care/visits at the health center/hospital

Table 4.4 1 According to you, is pregnancy regarded as a condition that requires additional (special) attention or is it an ordinary condition?

Base Total sample (N) = 90	n	%
Needs additional attention	55	61
Ordinary condition/not special	35	39

If women responded that pregnancy needs additional attention they were asked When pregnant, what has to be done, and what should be avoided? What about foods and drinks?

Table 4 4 2 What needs to be done during pregnancy

Base Only those who said something special need to be done = 55 respondents	n (55)	% of base	% of total N
Eat more food (quantity)	16	31	17
Eat more nutritious food (quality)	16	31	17
Take vitamins/vitamin A/medicine/jamu	12	24	13
TT injection	9	16	10
Take iron tablets	7	15	8
Eat fruits	1	2	1

The things that should be avoided, as mentioned by the women were lifting heavy objects or heavy/hard work (6 respondents), iced water (3 respondents), salted fish (3 respondents), hot (temperature wise) foods and too much salt (one respondent each)

According to both women and husbands, pregnant women are expected to do their usual workload until the eighth or ninth month when they should not lift heavy loads (e.g. carry water) At this time it is acceptable if husbands help with heavier household tasks However in the FGDs, women said they feel embarrassed if their husbands do too many of the household tasks

When husbands of pregnant women were asked if they did anything differently when their wives became pregnant, most indicated they did not change their behavior towards their wives until the end of the pregnancy (in the eighth to ninth month) Both men and women also mentioned that they believe hard work makes the birth go faster/easier

"A pregnant woman does the same amount of work as before, until the ninth month when the husband helps wash clothes and carry water If a woman does a lot of work through her pregnancy, the birth will go easier " (Husband, Tanipah)

"My workload is the same as always When my wife is already late (advanced) in her pregnancy, then I begin to help cook Work is the same as usual, when my wife is pregnant she works too " (Husband, Bahandang)

When asked what a normal birth is like, FGD responses among women included that there is no hemorrhaging, the placenta comes out quickly, the baby is born head-first, there is no pain, they feel nauseous much of the time Key informant group responses concurred with this description, but also included when the birth is not more than 6 hours

Awareness of and experience with complications

Findings from the FGDs showed that the following complications (*masalah*) were perceived to be most commonly experienced 1) prolonged labor (*susah lahir*), 2) retained placenta (*ketinggalan tembuni/ketinggalan uri*) and 3) hemorrhaging (*perdarahan*) as a result of retained placenta Retained placenta and the resulting hemorrhage were perceived to be the most dangerous

"When my wife started to give birth it was 6 o'clock in the evening, and then it (lasted through) the whole of the next day It was actually more than 2 days and 2 nights That's dangerous, they say (women) can die " (Husband, Jawa Laut)

"I had the placenta left behind (ketinggalan tembuni-retained placenta The midwife couldn't get it out The midwife recommended I go to the hospital When I got to the hospital, they left me for 2 hours to see if it would come out by itself There was no bleeding At the end a midwife reached in and pulled it out They say it is dangerous if the placenta doesn't come out, it can cause death " (Woman, Jawa Laut)

"The danger sign is that there is a lot of blood continuously coming out In one day you need to change the cloth (kain tapis) 3 - 4 times If it is normal, you only need 1 piece of kain tapis This needs quick medical intervention, because you can run out of blood and die in a short time " (Woman, Jawa Laut)

Other problems/complications mentioned in the groups were breached baby (*tepalang*), convulsions, swollen feet, difficulties in breathing and premature water breakage

In the in-depth interviews, women were asked whether they have had any experience themselves with problems during pregnancy, delivery, after delivery (postpartum) and/or with the newborn They were asked to mention up to five problems or complications If they personally did not have any experience, they were asked if they were aware of any other women who have had complications They were then asked to mention the complications they have experienced or the complications they have heard/knew about These women were then asked a prompted question where a list of complications were presented to them (read

out one by one) and they were asked to rate them as to whether each complication is very dangerous, dangerous or not so dangerous

Experience and awareness of complications is summarized as follows

Table 4 4 3 Experience and awareness of complications

Sample size = 90*	Pregnancy		Delivery		Newborn		After delivery	
	N	(%)	N	(%)	N	(%)	N	(%)
Experienced complications	28	(31)	28	(31)	21	(23)	28	(31)
Not experienced but aware of complications	24	(26)	51	(57)	28	(31)	27	(30)
Total aware (Exp + aware)	52	(58)	79	(88)	49	(54)	56	(61)

*)Caution small sample size Percentages are based on number who responded

The following pages list the first and second most frequently mentioned complications (spontaneous, unprompted answers) during pregnancy, delivery, with the newborn and after delivery, followed by a prompted list of reponses

Complications during pregnancy

From the in-depth interviews, the complications women reported spontaneously (unprompted) having experienced and/or were aware of during pregnancy, which they rated as dangerous/very dangerous by the 90 respondents were described as

- hemorrhage (*perdarahan*) - (7 respondents)
- swollen leg/feet, swollen face (*kaki bengkak*) - (4 respondents)
- miscarriage (*keguguran*) - (3 respondents)
- baby in horizontal position (*bayi sungsang/bayi lintang*) - (2 respondents)

The following complications as read out by the interviewers (prompted), were perceived to be dangerous or very dangerous, by the majority of respondents (almost three quarters of the sample)

- having had a Cesarean birth previously (*Bedah Sesar*)
- anemia, (*kurang darah = literally lack of blood*)
- baby in a bad position (*bayi sungsang/bayi lintang*)
- convulsions (*kejang-kejang*)
- hemorrhage (*perdarahan*)
- premature water breakage (*ketuban pecah*)

The following were also perceived to be dangerous/very dangerous by more than half of respondents (prompted)

- weak, fatigued, yellow eyes (*lemah, lelah mata kuning*)
- premature labor/early labor from expected date (*prematuur/belum cukup bulan*)

About a third of the respondents perceived the following as dangerous/very dangerous (prompted)

- swelling of leg/feet (*khaki bengkak*)
- swelling of hands and face (*muka dan tangan bengkak*)

During the FGDs women also mentioned that if waters break prematurely, it is dangerous because the baby can drown

Complications during delivery

From the In-depth Interviews the complications that they reported having experienced and/or were aware of (unprompted answers) during delivery which women rated as dangerous/very dangerous were described as³

- the placenta is late coming out/the placenta is left behind (*ari-ari terlambat/tembuni tertinggal/tembuni berikat/tembuni lengket*) -- this complication was by far the most commonly experienced and identified as a dangerous complication
- prolonged labor (*susah lahir/haliman*)
- hemorrhage (*perdarahan*)
- baby in bad position (*bayi sungsang/lintang*)

A few (3) women also mentioned "baby too big", Caesarean operation and high blood pressure "Disturbed by spirits" was mentioned as a complication by two women, which indicates that the community still believes in superstitions (See also below in complications of newborn *di isap buyu* - resulting in low birth weight babies)

The following complications as read out by the interviewers, were perceived to be dangerous or very dangerous, by the majority (more than 3/4) of respondents

- hemorrhage during delivery (*perdarahan*)
- labor more than 12 hours (*melahirkan lama, lebih 12 jam*)
- convulsions (*kejang-kejang*)
- baby in bad position (*bayi sungsang/lintang*)

The following were perceived to be dangerous/very dangerous by about half of the respondents

- high fever (*badan panas*)
- umbilical cord wrapped around the neck (*leher terlilit tali pusat*)

The following were perceived by less than a fourth of the respondents as dangerous/very dangerous

- having twins (*anak kembar*)
- pushing every two minutes
- very thirsty (*haus sekali*)
- mother sweating too much (*banyak berkeringat*)

³Each of the following responses was reported by between one and three women each

When asked why specific complications were dangerous women in the FGDs mentioned that if no blood comes out after birth it is dangerous because it can make you thin, you can get sick, and that the left over blood can make you pregnant again quickly

Complications with the new born

From both the FGDs and in-depth interviews, there was fewer mention of neonatal complications compared to pregnancy, delivery, post-partum complications. Women appear to be less aware of and had less understanding of them. This may be due to the fact that the mother may still be in pain and exhausted after the birth so relies heavily on the birth attendant to identify and explain any problems with the baby. If the baby seems generally fine, the birth attendant will not mention any minor problems.

"I know that the baby is alright (when) the dukun (TBA) gives the baby to me " (Woman, Pakapuran Kacil)

"If there is an abnormality, the midwife will let me know, or I will see it myself " (Woman, Pakapuran Kacil)

"The dukun will decide if there is something wrong with the baby and then tell me. If there is nothing wrong, if the baby is alright, she will not say anything " (Pakapuran Kacil)

From the in-depth interviews, the complications that women have experienced and/or are aware of which are rated as dangerous/very dangerous were described as

- blue baby (*bayi biru*) due to prolonged labor, weakness, small size and "bad air" (*masuk angin= bad wind entering, general unwell-being*)
- fever, convulsions (*kerungkup/kejang*)
- infected umbilical cord/bleeding from cord
- baby not breathing
- premature/small baby (*bayi kecil*)
- diarrhea, vomiting
- baby takes in amniotic fluid and becomes, blue, swollen and weak
- disturbed by spirits (*pukasit*), the body becomes hot, jaundiced

One interesting concept emerged, describing small, low birth weight babies (weighing about 2 - 2 ½ kg), that appeared "dried up", as having the life/strength sucked out by spirits (*di isap buyu*). The effects of this are perceived to include the baby becomes blue, weak, is not breathing, won't grow, has dry skin, is skinny and has hollowed eyes.

The following complications as read out by the interviewers, were perceived to be dangerous or very dangerous by the majority of respondents

- baby appears blue, not red (*bayi biru*)
- infected cord (*pusarnya terinfeksi*)
- baby does not move (*bayi tidak bergerak*)
- neo-natal conjunctivitis/eyes covered with puss (*belekan/mata bernanah*)

The following were perceived to be dangerous/very dangerous by about half of the respondents

- baby feel cold (*bayi kedinginan*)
- baby does not cry (*bayi tidak menangis*)

Low birth weight or *small baby* was perceived to be dangerous by only a third of the respondents

From the FGD results, the most commonly known and experienced complication with newborns as reported by women were stillbirth due to prolonged/obstructed labor. The next most common problem mentioned was that the baby is born weak, listless and doesn't cry.

Some women had more than one baby that was stillborn. There was even one woman with five consecutive stillbirths. Both men and women in the FGDs who have had a stillborn baby did not seem to be overwhelmingly saddened by the loss. It seems to them that it is fate. Furthermore, they are comforted by the traditional beliefs that 1) a baby is pure and innocent at birth so that when they die they go straight to heaven, 2) when the time comes for his/her mother to die, the baby will help "pull her to heaven", and 3) they can try for a replacement (*penggantinya*) soon after. The following verbatim quotes from the FGDs illustrate this attitude clearly.

"Well, I was very sad and cried for a few days and nights (when my baby died) But now I have his replacement, so I am not sad anymore" (Woman with 7 children, 2 of which had died, Pakapuran Kacil)

"I was sad for a while when I lost a baby at birth but it did not last long. I was sadder when I lost my seven year old" (Woman, Jawa Laut)

"It is sad, but we don't dwell on it. Besides when it's time for his mother (referring to his wife) to go, he will help her get to heaven" (Man, Tanipah Village)

The attitude towards stillbirths as illustrated above imply that women may not be overwhelmingly bereaved by the loss of their infant(s). Also because it is seen as a blessing in disguise, i.e. that the mother is guaranteed a place in heaven, it is also possible that women are "resigned" to one of their infants dying at birth (if there are problems). The implications of this situation are two-fold.

- If during or soon after delivery a new-born is experiencing difficulties that are life-threatening the people involved may be resigned to the belief that it is fate and so their efforts are futile,
- the woman, after experiencing this loss, would "immediately" try for a replacement without giving time for her womb/body to recover fully from the last delivery. Most likely, she would not use contraceptives to delay fertility and would get pregnant within a few months. In such cases, during the next pregnancy and childbirth, it is the mother who would be at increased risk of life-threatening complications.

Complications after delivery⁴

The complications that women experienced and/or were aware of which they rated as dangerous/very dangerous were described as

- hemorrhage (*perdarahan*)
- light-headedness/lack of blood (*mauk, pusing, kelalah/kurang darah*)
- convulsions (*kejang/naik kehaninan*)
- high fever (*panas/demam*)
- retained placenta (*uri tembuni*)
- engorged breasts (*payudara bengkak*)
- bleeding - dark clots (*meruyan batu*)
- intermittent bleeding (*darah kiyangan*)

The following complications as read out by the interviewers, were perceived to be dangerous or very dangerous, by the majority (more than 75%) of respondents

- hemorrhage (perceived dangerous by almost all respondents)
- pain in abdomen, and feeling very fatigued (perceived as dangerous by half)
- foul/bad smelling/vaginal discharge (perceived as dangerous by a third)

Postpartum complications that were perceived as not dangerous/not very dangerous

Just as important to note are the problems/complications women perceived to be not so dangerous, as these will give us insight as to which danger signs still need to be brought to the attention of the women/community

Although over 75% of respondents rated the following complications as dangerous/very dangerous there are still some respondents who rated these complications as not so dangerous (for all phases from pregnancy to post-partum)

- hemorrhaging
- bleeding/spotting (*meruyan batu*)
- delayed expulsion of placenta/retained placenta
- prolonged labor/birth takes long time
- tangled umbilical cord
- baby appears blue
- anemia (*kurang darah*)

The above findings where hemorrhaging, bleeding, retained placenta/delayed expulsion of the placenta and prolonged labor, are perceived to be not so dangerous by some respondents, suggests that the issue of recognizing life-threatening situations still need to be addressed. The woman and those attending the delivery should be made aware of these (possible) life-threatening situations and to the importance of making the decision to go to the health center/hospital without further delay

⁴ Although in the in-depth interviews women were asked about their experience with complications after delivery in the FGDs it was found that respondents do not seem to differentiate between delivery and after delivery stages. The stage identified as after delivery is perceived by the women as being a continuous part of the process of delivery. In general after delivery (*setelah melahirkan*) entails a longer time period such as days or weeks after the event

Causes of Complications

Both women and men mentioned traditional beliefs in recounting the causes of complications experienced during pregnancy, birth, postpartum and with the newborn. While the anecdotes below demonstrate the existence of belief systems outside the medical system, they should be viewed as anecdotal evidence only. No further questioning was done to determine how common these beliefs are, nor on the extent to which they affect care-seeking behaviors.

One man from Tanipah village, attributed his wife's miscarriage to spirits.

"My wife had a miscarriage when she was three months pregnant. Before this, my wife had a stomach ache constantly. When she went to the dukun⁵, the dukun said she was bothered by evil spirits (setan), there was bad blood and a gecko (lizard) in her stomach and it needed to come out to make the sickness go away."

In a focus group in Jawa Laut, women discussed their beliefs about the post-partum period.

"Here there are beliefs that after birth, the blood that has clotted inside must come out because it is dirty and bad for you. The way to get it out is to drink "Jamu" (traditional herbal mixture) or boiled water that is still hot. The way to boil the water is to put the water in a pan, then put a stone in it and cook it until it is boiling. You drink the hot water because the blood inside is frozen. Here it is called "meruyan batu"-- blood that has clotted and must come out after birth." (Jawa Laut)

There were several explanations for the birth of a jaundiced baby. A TBA from Tanipah said:

"The baby is born yellow because a bad spirit has sucked out some of its blood. The remedy is to fill a white bottle with water and cover it with a red pepper, then put the bottle at the foot of the bed or near the head of the baby. The baby must be washed and blessed and put to bed, then later the water in the bottle gets sucked out instead of the baby's blood."

Another woman spoke of a connection between retained placenta and a baby being jaundiced at birth.

"There is a retained placenta because the woman drank too much tumeric, the baby is yellow because the tumeric goes through the umbilical cord and usually the placenta becomes sticky and stays in the womb." (Jawa Laut)

Retained placenta was also attributed to being caught on the ribcage.

"A danger sign is a retained placenta, that won't come out. The TBA said the placenta is hooked on a rib because it won't come out at all or only partially comes out."

⁵In addition to dukun bayi (traditional birth attendant), dukun is a word used to describe a variety of healers in Indonesia, and is most synonymous with "witch doctor". There are dukun especially assigned to massage, to diagnose illness, to help with childbirth, to exorcise evil spirits, etc.

Both men and women FGD respondents have heard the rumors that there is an increase in the incidence of complications of retained placentas and that it is attributed to the use of oral contraceptives. FGD respondents, especially the husbands' groups, said that this speculation originated from the local TBAs. Respondents hinted that the TBAs may have started the rumors to shift the blame of mishandling of complications to the use of contraceptive pills.

"Around here there are a lot of incidences of retained placenta. They say it is connected with the use of oral contraceptives." (Husband, Tanipah)

Danger Signs for Complications

There was not an expressed concept of high-risk pregnancy in the community. While there is a high awareness of the existence of complications, when women were asked how they recognize complications and to list the danger signs, most responses focused on the actual condition rather than indicative symptoms.

"A danger sign is a breech baby, because the vagina can break. Another danger sign is a stomach ache that lasts three days, the TBA helps all day and night then you call the midwife. The TBA tells you there is a problem." (Woman, Jawa Laut)

"A common danger sign among women here are convulsions. It is dangerous because you can die." (Key informant, Tanipah)

Implications of "Safe Motherhood FGD" findings on IEC campaign strategies

The fact that women in the in-depth interviews and FGDs did not mention antenatal care as a form of "special attention" pregnant women need indicates that women may not be aware of the importance or of the availability of prenatal care services. An explanation of the prenatal care services available, and the importance of prenatal checkups to the health of a pregnant woman should be included in the IEC campaign.

The in-depth interview results regarding knowledge of complications indicate that the majority of respondents were aware of many problems/complications and that they perceived them to be dangerous to the point of being life-threatening. However, it should be noted that this does not mean that the respondents are capable of recognizing these individual complications as life-threatening if/when they encounter or experience them themselves. Therefore an explanation of specific danger signs (i.e. loss of blood over a certain amount, labor over 6 hours) in addition to the fact that women who experience them need immediate care should be emphasized.

As women rely heavily on the care provider who attends the birth (usually TBAs) to inform them of complications and many TBAs may not have had training on the recognition of danger signs and/or treatment of complications, this reliance may inhibit women from seeking care in a timely fashion. Therefore the development of a clinical guide for TBAs to recognizing danger signs and appropriate referral/treatment for maternal complications.

Since traditional beliefs explaining stillbirths as fate and relying on the "Will of Allah" to protect the health of mother and newborn do not encourage women to consider or plan for emergencies in advance, extra emphasis must be placed on the importance of planning through IEC messages.

4 4 DECISION MAKING PROCESS

Preference of Delivery Attendant - Confidence in village/facility-based midwife

Most of the respondents have sufficient or high level of confidence in the skills/experience of the village/facility-based midwives. A few perceived the skills to be about the same as TBAs.

In the safemotherhood in-depth interviews, respondents were specifically asked about their level of confidence in the village midwife as compared to the TBA. (For comparison with the midwives' perception, see section 4.6)

Eighty-one of the 90 respondents claimed that they had sufficient to high confidence in the village midwife. The reasons for their confidence are shown in the table below.

Table 4.4.1 Confidence in Bidan di Desa (village midwife)

n = 81	n	%
Bidan di Desa are experienced	26	29
Friendly/attentive/patient/easy to communicate with	22	20
Safe/skilled/capable	22	24
Gives confidence/make feel at ease	9	10
Diligent/careful	8	9
Have equipment/medicine/injection	6	7

"I have confidence in the village midwife because she has special injections that can help quick delivery and quick recovery. The cut dries fast." (Possibly referring to oxytocin/ antibiotics) (Woman, Jawa Laut)

"If it (women's condition) is already serious, and the midwife doesn't have any equipment, she does not want to take any risks. She refers (the woman) to a hospital." (Husband, Bahandang)

"I prefer the midwife, even though they are young, they have received proper medical training." (Woman, Jawa Laut)

"Dukun (TBA) and Bidan are the same. The difference is that Bidans have drugs, can give injections and have more solid education." (Woman, Tanipah)

"I use the dukun, but actually I prefer the Bidan, but the cost is too high." (Woman, Tanipah)

It is interesting to note that although the majority of respondents claimed that they have sufficient/high confidence in the facility-based/village midwives, they still have their deliveries at home with TBAs⁶. This indicates that skills and experience are not the only factors that play a role in the selection and use of TBAs versus midwives. One of the major factors reported is the higher cost of the village midwife in comparison with the TBA. The communication style and rapport of the village midwife with women in the community also

⁶This is based on FGD data and estimates available from primary health center on the number of women who give birth at home with a TBA.

seemed to be a weakness according to FGD respondents. Women in the FGDs said that within the community, there are many stories of midwives "talking too much" or criticizing women for behaviors such as not coming as often as recommended for ANC visits and getting pregnant again too soon after giving birth.

"I believe more in the TBA, because the village midwife are still young, still shy (not confident) and talk too much" (Woman, Jawa Laut)

"Midwives always blame the mothers (in the case of a complication). They say 'Serves you right, because you never come to integrated health post, so now there is an abnormality.' While actually every month we come to health post." (Woman, Pakapuran Kacil)

"The TBA talks easily with people in the community, while the village midwife is reluctant to talk, even more so if she is new" (Key informant, Tanipah)

"The midwife likes to give orders and scolds often whereas the TBA never gets angry" (Woman, Pakapuran Kacil)

"I prefer the TBA but will refer to a midwife when a complication arises" (Woman, Bahandang)

Another reason women may prefer to use a TBA rather than a village midwife for home delivery is that some women feel ashamed/embarrassed when the midwife examines them. According to a village midwife:

"Some women consider it like a 'porno' -- the way the midwife examines them during birth. The TBA doesn't make the woman lift up her clothes -- she tells when the woman is giving birth by looking at her forehead, by how much she sweats. The midwife examines the woman, feels her stomach and watches to make sure the birth is going well. Usually the house is crowded with relatives and neighbors during a birth. The women say they have no privacy -- they feel like they are in a 'porno' and feel ashamed." (Village midwife, Banjar district)

Among the reasons for using the TBA rather than the *bidan di desa*, cost, additional services offered, accessibility and communication style of the TBA were mentioned most often by women in the focus groups. The TBA also often provides what is referred to as "full service", which may include taking care of the children, cooking, housecleaning etc.

"I prefer the dukun because she is cheaper. She has no 'target' (fixed price)." (Woman Tanipah)

"The TBA is more experienced, older and has helped deliver many babies. And TBAs also have received up-graded training." (Woman Pakapuran Kacil)

"At home, one is helped by the TBA with full service. She massages and washes the soiled clothing." (Woman, Pakapuran Kacil)*

"Compared to the Bidan, it is easier to get the Dukun to come because she is always in her house, whereas the Bidan goes to her house in the city when she has days off." (Key informant, Tanipah)

Preference of delivery location

The majority of the respondents delivered at home (almost 9 out of 10), and most of them presently still intend to have their next delivery at home (8 out of 10)

The decision to have the delivery at home seems to be a preference, based on past experience/habit (*kebiasaan*), practicality and affordability According to respondents of the focus groups and local key informants, about 70-80% of women deliver at home Most deliveries at home are assisted by a TBA, the rest by a Bidan di Desa This is also supported by the findings of the in-depth interviews, in which 78 of the 87 respondents (89%) who had given birth, had delivered their babies at home (see Table 4 4 2)

Table 4 4 2 Location of delivery

Location of delivery	E2a Where did you deliver your last baby?	E2b Where will you deliver your next baby?
Total (N = 90)		
At home	78	71
Primary health center	-	1
At maternity hospital	2	2
At general hospital	4	2
Midwife- Private Practice	3	4
Never had a baby	3	-
Don't want any more/sterilized	-	2
No answer	-	8

Advantages and disadvantages of alternative place of delivery

Respondents were asked to think about the various alternative facilities used for delivery and the advantages and disadvantages of each one (home, primary health center, maternity hospital, general hospital midwife private practice, private clinic)

Delivery at own home is most often mentioned as having no disadvantage (50 respondents) and has the highest mention of advantages, particularly low cost (40 respondents) Home delivery was also mentioned as allowing for family to be present, being comfortable and feeling safe

"Delivery is most practical at home We don't need a baby sitter for the older siblings, there is no cost (for transport/hospital stay) No need to pack clothes "(Woman, Pakapuran Kacil)

On the other hand, from the in-depth interviews, the advantage mentioned most often for delivery at health facilities (primary health center, clinic/hospital) is the security/safety in case there is a complication

The following table on the next two pages compares the advantages and disadvantages of each facility as mentioned when women were asked to compare different birthing options during the In-depth Interviews

Table 4 4 3 Advantages and disadvantages of various birthing venues/facilities

(Ref E3 Safemotherhood questionnaire)

Advantages		Disadvantages	
(Base N = 90 repondents n = actual numbers)			
Delivery at home			
	n		n
Low cost (<i>murah</i>)	40	No disadvantage	50
Have family/surrounded by family	27	Don't know	6
Comfortable (<i>nyaman</i>)	20	Risky/if have complications	
Feel safe, calm (<i>aman, tenang</i>)	9	medical help is far/no doctor	
No need for sitter for older siblings	7	worried if lacking blood	15
No need to travel	4	Expenses for ceremonies/ food/drinks for visitors	5
		Noisy neighbors/not quiet	2
Delivery at Primary Health Center			
No advantage	6	No disadvantage	18
Don't know	28	Don't know	25
Other answers near/access to emergency facility, drugs and injections available if needed, safe/guaranteed		Other answers high cost, isolated/ neighbors cannot visit, no one to look after children, equipment still not complete	
Delivery at Maternity Hospital			
No advantage	3	No disadvantage	12
Don't know (no experience)	44	Don't know	36
Other answers* safe for mother and infant complete facilities, doctor available, privacy, clean		Other answers cost/expensive, distance/access , being alone/no family	
Delivery at General Hospital			
No advantage	5	No disadvantage	13
Don't know	31	Don't know	30
Doctors and midwives available	15	High cost/expensive	24
Timely response to complications	5	Far from home	3
Less expensive if have access to ASKES/health insurance	5	Away from children/family	3
Fast service	3	Poor service/not get attention	3
Other answers can decide when to go home, sterile/clean, not too many people , given food and drink		Transport expensive	2
		Other answers having episiotomy/stitched, not having freedom, labor induced if the labor is too long	

Advantages		Disadvantages	
(Base N = 90 repondents n = actual numbers)			
Delivery at Midwife Private Practice			
No advantage	5	No disadvantage	9
Don't know	39	Don't know	41
Other answers* safe for mother and infant, given advice, husband/family can stay, can get injection if haemorrhage		Other aswers more cost, children left at home, getting cut and stiches	
Delivery at Private Clinic/Hospital			
No advantage	5	No disadvantage	5
Don't know	56	Don't know	52
Other answers safe for mother and infant/ complete service/ medicine/equipment, healthy nutritious food, close monitoring of health/condition, clean, friendly		Other answers high cost of services, high cost of drugs, sometimes unfriendly service , not good service/trainee nurses	

*) Other answers fewer mentions than lowest tabulated number of responses

It is interesting to note the high number of "don't know" responses for the advantages of all delivery locations except the primary health center This may indicate that women are not aware of which services are offered at each facility and what most of these are like, and/or have had no prior experience with these facilities

The main disadvantage of home birth mentioned by women in the in-depth interviews, is the risk of not getting help in time in case of a complication (15 respondents) The main disadvantages associated with hospital birth include cost, difficulty of obtaining transport and quality of service

Hospital cost is high - Rp 110,000 - expensive compared to dukun kampung (TBA - who charges) only Rp 10,000 plus in-kind sugar, rice The village midwife costs Rp 30 - 50,000 "(Woman, Tanipah)

"The road to the primary health center is far, 17 KM, follows a cliff, cannot use four-wheels, the roads bends If someone is sick, you cannot go by that road, it takes too long You need to go by klotok "(Husband, Bahadang)

"It is difficult to go to hospital It is far, there is no transport from here No klotok nor land transportation There is no road "(Tanipah village, isolated only access by klotok, very seldom)"

"The doctor is not there (Puskesmas), especially on Fridays He'd have gone to the

city for the weekend ”

“The service at the hospital is very slow Apparently they have trainee nurses Their skills are not very good yet ”

“I knew someone with complications They took her to hospital, and she died there When my wife is pregnant, that is the thing I am scared most of ”

In cases of emergencies

In a home emergency situation, the woman and husband rely heavily on the TBA or midwife to alert them of any problems and (usually follow) the TBA's or midwife's recommendations for referral However, from the FGDs and informal talks with midwives, women and key informants, there is a perception among the community and trained midwives that many TBAs are reluctant to refer their clients to a midwife or a health facility for fear of losing face from the admission that they can not handle the emergency

In case of a complication where there is no TBA/midwife present -- the woman herself usually decides she feels unwell enough to call a health provider Based on anecdotal evidence from midwives, it can take a long time and the woman's condition can be severe before she will call for help Even then she may not follow an appropriate course of action -- (calling several TBAs before she calls a midwife etc), which can result in care that is given too late or inappropriate care If family members (mother, mother-in-law etc) are nearby, the woman will seek their advice if she feels unwell -- then call a provider

“A woman delivered with a TBA Three days after her body was still hot and feverish She called the same TBA, who gave her jamu (a herbal mixture) to drink She then felt feverish and fainted Only then did she call a midwife ” (Midwife, Banjar district)

Decision to seek care

The following table presents the responses from in-depth interviews on the various decision makers for all phases

Table 4 4 5 Who makes the decision to seek care in

Decision makers (Actual numbers)	Pregnancy N = 90	Delivery N = 90	Post-partum N = 90	New-born N = 90
Self (woman)	55	48	49	47
Husband	14	19	17	19
Mother	6	7	7	6
Mother-in-law	1	-	-	-
Self & husband	6	7	7	6
Self & mother	3	3	4	3
Self & m-in-law	1	-	1	-
Self, husband, mother	3	2	3	6
Husband, mother, gr m	1	1	1	2
No answer	-	1	1	1

⁷References in next three quotes omitted for political reasons

In situations which do not entail high cost -- such as asking for the help of the Dukun/Bidan - the rank of decision makers follows the table above (the woman herself husband, mother, mother-in-law) From the FGD findings, the bigger the financial consequences of the decision/action to be taken, the more authority the husband has, with the mother/mother-in-law also playing a role This is the case because it is the husband, the bread winner, who can decide whether they can afford the financial consequences including the ability to pay back any loans acquired

In addition, while the above mentioned individuals may make a decision in terms of when to call for a TBA or midwife, the process of referring a woman to a hospital usually entails a more lengthy discussion involving family members, neighbors etc which is called "*musyawarah*" The *musyawarah* involves the husband, close family (mother, mother-in-law), neighbors, birth attendant (midwife and/or TBA) in a discussion about how to pay for transportation and hospital costs, how to get money (if loans are needed who the husband can borrow money from and how he can repay them), how to locate transportation etc The length and number of persons involved in the *musyawarah* differs by case, and can vary according to financial status, relationship with neighbors, presence of key persons (i e who happens to be nearby at the time), availability of transportation, amount of money needed on loan (i e women mentioned that in some communities people who have been to the Haj⁸ --or Mecca are seen as being wealthier so are sought out to lend money in emergency situations)

In situations where the husband has been advised by the midwife and others to take his wife to the hospital but refuses to do so, the village head is sometimes called in to mediate In these cases the reason for refusal (according to midwives), is nearly always financial -- because the husband does not want to borrow money or does not feel he will be able to repay it

While it is usually the husband who makes the final decision on whether to refer the woman to the hospital, neighbors also play a major role as a source of advise and financial and physical support especially in cases where the husband or other key family members are not present when a complication arises

"The one who finally decides to take (the woman) to the hospital is the husband after talking with the midwife and family "(Woman, Jawa Laut)

"The one who decided was my mother-in-law after talking with the midwife and my parent (mother) The neighbor also participated in the discussion At that time my husband was far away at work at a wood mill "(Woman, Pakapuran Kacil)

Care seeking for complications

In case of a complication during pregnancy, about half of the in-depth interview sample said that they would call the (facility-based) midwife, a quarter said they would call the village midwife, a tenth would call a doctor and the same proportion would call the TBA These responses however, do not differentiate whether or not at that point there was already a provider (TBA or village midwife) in attendance For example, if a TBA was already attending the woman and a complication arose, then a midwife would be called These

⁸The Haj is the religious pilgrimage to Mecca undertaken by Muslims

responses seem to reflect who the nearest accessible health provider is in case of an emergency Only a small number of respondents mentioned going to the hospital for complications

The 90 women interviewed were asked about their care seeking behavior in case of a problem or complication during the four different phases The following results and tables summarize the responses to the questions 1) who is the first person you would ask help from for problems or complications during pregnancy, childbirth, postpartum and with the new-born, and 2) where do you go in case of problems or complications during pregnancy, childbirth post-partum and with your new-born

Where women usually go in case of problems/complications during pregnancy, delivery, postpartum and for their new-born

When asked “who would you seek help from for problems during pregnancy”, more than half of the women would go to a Bidan/Bidan di Desa, one in thirty would go to the TBA and a few would go to the Puskesmas, as shown by the table below None indicated they would go to a hospital

Table 4 4 6 Who is sought for problems/complications during (open-ended question)

Care/help provider sought (Actual numbers)	Pregnancy N = 90	Delivery N = 90	Postpartum N = 90	Newborn N = 90
Midwife (unspecified)	41	38	42	39
Village midwife	19	21	19	20
Facility-based midwife	3	3	6	4
Doctor	9	6	3	6
TBA	3	8	6	11
Husband	6	1	-	-
Nurse	2	1	3	3
Others (2 or less each) midwife & TBA, para-medic, Ulama (religious leader), masseur, mother				

Table 4 4 7 Where women usually go to in case of problems/complications during . (prompted question)

Place care/help is sought (Actual numbers)	Pregnancy N = 90	Delivery N = 90	Postpartum N = 90	Newborn N = 90
Midwife (unspecified)	39	40	39	36
Village midwife	20	20	22	20
Primary health center	5	3	6	4
Primary health sub-center	2	2	2	2
Doctor	10	7	6	12
TBA	9	13	5	6
Hospital	-	-	-	1
Private clinic	-	-	-	1
No answer	-	1	8	6

Child minders -- when going to the health service point (Pustu/Puskesmas/hospital)

When women go to a health service point for a routine check-up or for a complaint, half of the women take their child/children with them. This is probably because it is convenient for them to have their children checked as well in the MCH clinic. One third of the sample left their children with a relative (most frequently with the oldest child or with the woman's mother or with her husband). Less than one tenth left them on their own.

The majority of the women (about 7 in 10) go to the Puskesmas unaccompanied (except with their children), a tenth go with their husbands and a tenth are accompanied by a neighbor. While this information was gathered to determine if children were a hindrance to use of health services it is difficult to determine whether women decided not to seek health services because of lack of available child care.

Table 4 4 8 Child-minder or companion when going to a health service point

Child-minder/companion	Child-minder N = 90	Adult escort N = 90
Alone/unaccompanied	-	59
Take child/baby along	40	-
Oldest child	9	1
Mother of respondent	8	1
Husband	5	11
Grandmother of respondent	2	-
Mother-in-law	1	-
Neighbor	-	8
Don't have any children	8	-
No answer	10	8

(C6 and C7 Safemotherhood questionnaire)

Implications of "Decision making process" findings on IEC campaign strategies

The fact that most women use a TBA for birth and women's criticisms from FGDs included that village midwives were too critical, talked too much and were too young and inexperienced, indicates that

- 1) Village midwives may need additional training in communication/counseling skills to improve rapport with women
- 2) IEC/outreach should be used to acquaint the community of services offered by the village midwives and of the importance of these services to the health of women and newborns

The IEC/outreach should also include information regarding services offered at primary health center and hospitals, as indicated by the low number of people who would arrive at a primary health center or hospital in an emergency, and the high number of women who didn't know, or found no advantage to delivery at all locations other than at home.

The large number of individuals and factors which play a role in the decision to seek care for a woman with a complication indicates that all (i.e. women, husbands, mother-in-laws, community leaders ect.) must be targeted in terms of planning for emergencies.

4 5 COMMUNITY PERCEPTIONS REGARDING ANEMIA, REPRODUCTIVE TRACT INFECTIONS AND FAMILY PLANNING

Background/Description of respondents

Ninety women (mothers of under-fives, some pregnant at the time) aged between 15 - 49 years were interviewed regarding anemia, family planning and RTIs. Most of the women interviewed were between 20 - 30 years, about one-tenth were under 20 years old and about one-fifth were over 30 years old. The average age was 27 years old. Almost half of the women had at least some primary school education, almost one fifth had completed junior high and about one eighth had completed high school.

The main language spoken at home is Bahasa Banjar (about 9 in 10). About two-thirds understand Bahasa Indonesia and about one-third can speak Bahasa Indonesia fluently.

About 7 in 10 of the women are housewives and about 1 in ten work in agriculture (small land plots). Their husbands mainly worked in the fields/land plots (*petani*), small-scale traders, government employees and some were fishermen.

More than half of the respondents have one or two live children, while about 4 in ten had 3 or more children. About one in three of the respondents had at least one child die during birth or not long after. This confirmed the findings of the focus group discussions where at least one or two women in each group delivered a still-born or the infant died soon after birth.

One-third of the respondents were at various stages of pregnancy at the time of the interview. One-third of the pregnant women were in their ninth month. Those not pregnant at the time of the interview had at least one child within the last five years.

Health During Pregnancy

Eating habits during pregnancy

Women claimed that they eat a variety of different foods during pregnancy, although this study was not designed to ascertain the quantity or frequency. The foods that were mentioned were rice (78%), vegetables (85%), fruits (68%), fish (65%), milk (49%), tea (25%) and about 35% claimed to eat high protein foods like chicken, meat, eggs, tofu and tempe. Only 3% mentioned eating noodles.

It can be noted here that in general people are aware of what foods are considered nutritious (*bergizi*). They probably would not be able to name the different types of food (protein, carbohydrates etc), yet they do strive to have a variety of foods on the menu. However, there are constraints of availability and cost. In some more isolated communities (for example Bahandang, accessible in one hour only by *klotok*), there is no local market and no vegetables available because of the brackish water in the soil.

The habit of drinking tea is quite entrenched in community life. Tea, rather than plain water, is usually served at meals and to guests. The tea is usually weak and heavily sugared. Clean, potable water is not easily acquired in the study area. It is common practice, especially among road-side food vendors that tea is served as "proof" that the water is boiled and thus allegedly safe to drink.

Special attention during pregnancy

While pregnancy is viewed as nothing out of the ordinary, when asked whether pregnancy is something common/usual or something that needs special attention, two-thirds of the respondents said that pregnant woman do need special attention

When asked what special attention they needed, one-fifth of the women interviewed (in-depth interviews) said that they need to eat more, a further one-fifth said eat more nutritious foods about one in ten said need to do various of the following get TT shots, take medicines/iron tablets, take vitamins and take *jamu*

Those who said that pregnancy is just an ordinary condition, were further asked whether they received any advice for or during their pregnancy and what should be avoided Twenty-four of the 35 respondents said they did not receive any advice (from anyone) Of those who received advice, a total of 11 respondents together said that the advice was to eat more food and more nutritious foods, two respondents each were given advice to take iron tablets and to take vitamins Advice on what should be avoided included heavy work (12 respondents), salted fish (6 respondents), iced drinks (8 respondents)

Knowledge of Anemia and complaints during pregnancy

Awareness of, recognition of and terms used to refer to anemia

In order to get insight into what women know/understand about anemia, women were first asked to mention and describe various symptoms and complaints that are usually suffered by pregnant women

The most commonly mentioned complaint (mentioned by one-fifth) was nausea or vomiting (limited to the first trimester), headaches and dizziness (*pusing*) and fatigue Women also mentioned weakness, lack of energy and stomach ache/pains

Respondents were then asked to give a name to the syndrome described as tired, weak, no energy (anemia) The term most commonly used to refer to this combination of symptoms (anemia) was *kurang darah- literally "too little blood"* (28%) There were also a few mentions of *keuyuhan* (5%), *meriap dingin* (4%), and *darah rendah* (2%) About a third of the respondents did not know what term or ailment was described by these symptoms

Most of the respondents did not know what the signs/symptoms are for anemia Only a few (less than 9%) mentioned one or more of the following dizziness, headaches, weakness, lack of energy, and paleness

Term used for anemia

Respondents were asked to elaborate on what each of the above terms meant to get an idea of the degree of similarity between the term *kurang darah* compared to *anemi* (the technical terms for anemia) and to check whether or not there was confusion amongst the women between *kurang darah* (term used for anemia) and *darah rendah* (low blood pressure) Respondents were asked whether the terms are different and what the differences are between the three ailments described

Women were asked about the symptoms of each and the responses were compared to see if there are similarities and possible confusion between the terms

The signs/symptoms mentioned for *kurang darah* and *darah rendah* were similar in number of times they were mentioned i.e. dizziness and headaches having the highest mentions (36% and 27%), followed by feeling weak, no energy (20% and 16%), paleness (14% and 11%) and easily fatigued (11% each)

The similarity between the signs and symptoms of *kurang darah* and *darah rendah* suggests that there may be confusion between the two terms or that the two terms may be used interchangeably to refer to anemia

It should also be noted here that the confusion is not restricted to the community at large but may also be present among the health providers. This was suggested during in-depth interviews and informal talks with village midwives and health workers/staff. Some said that they were the same since they share many similar physiological manifestations

Anemi was the least known term. 74% could not mention its associated signs/symptoms, while only 30% were unaware of the symptoms of *darah rendah* and 11% were unaware of those associated with *kurang darah*

Prompted responses to the terms "*kurang darah*", "*anemi*" and "*darah rendah*", respectively translated as lack of blood, anemia and low blood (which refers more to low blood pressure). The following table shows the level of awareness for the three terms

Table 4 5 1

N = 90 women	Awareness (%)
<i>Kurang darah</i>	90
<i>Anemi</i>	29
<i>Darah rendah</i>	73

Causes of anemia⁹

Over half of the respondents didn't know what causes anemia. Those who claimed to know the causes mentioned: not eating enough nutritious foods, not eating green vegetables and having to do hard work (each mentioned by less than one-fifth)

Anemia and Pregnancy

One third of the respondents recognized the symptoms of anemia to be more evident during pregnancy. Over half of the respondents were not aware of any specific or direct effects upon pregnancy or delivery, and one-fifth said that there was no effect.

Treatment and prevention of anemia

Over half of the respondents didn't know how to prevent anemia. One-third said that a good/improved diet can prevent anemia, though meat was not specifically mentioned. Almost one-fifth said that it can be prevented by taking iron tablets. Over half of the respondents didn't know how to treat anemia, over one-third said by improving the quality of the diet, and about

⁹ For the following questions, the interviewer used the same term used by the respondent to refer to anemia

one-tenth said by taking iron tablets

It is interesting to note that there was a slightly higher mention of taking iron tablets as a preventive measure than as treatment, however, the sample is too small to be significant. Even so, it should be noted that there is already some awareness of prevention (though again not necessarily practiced)

Iron tablet awareness, usage and attitudes

The following summarizes the women's awareness of and usage of iron tablets (*obat tablet tambah darah* or *tablet tambah darah*)

Table 4 5 2 Awareness and usage of iron tablets

Base N = 90 women	%
Ever heard of <i>obat tambah darah</i> (otd)	97
Ever seen <i>obat tambah darah</i>	93
Ever received/gotten <i>obat tambah darah</i>	90
Ever consumed <i>obat tambah darah</i>	90
Received <i>otd</i> during this/last pregnancy	81

The awareness and consumption (# women who have ever consumed iron tablets) levels are high, because one third of these women were pregnant, and many of them have probably been pregnant in the recent past. However, compliance levels were lower (about 64%) and will be discussed later.

Source of iron tablets

Most of the women obtained iron tablets at no cost¹⁰ from the midwives/nurse at the primary health center (58%), at integrated health post (14%), or primary health sub-center (11%). While 2% said they bought iron tablets from the village drug stall, they were probably referring to iron multi-vitamins as iron tablets were not available for sale at the time of the CD. Only a small number of women from the sample obtained their supply of iron tablets from the hospital or from a private practice.

¹⁰ The government provides 90 tablets (the MOH recommended dose), free of charge to pregnant women

The number of iron tablets received

The following chart summarizes the number of tablets received

Base N = 90 women	%
10 tablets/less	12
11 - 29 tablets	12
30 tablets	16
31 - 59	8
60 tablets	3
61 - 89	3
90 tablets	6¹¹
91/more	16
Don't know/forgot	14

About half of the respondents claimed that they received less than 60 tablets during their last pregnancy. About one-fifth received 90+ tablets. Less than one-fifth received only 30 tablets, however, this may have been because the women came for ANC late in the pregnancy, or did not return for additional tablets when they finished their supply. The chart above also shows that some women were receiving less than 30 tablets, which indicates that some of the iron tablets distributed may not come in the 30-tablet sachets but from a bulk-bottle (according to informal talks with midwives).

Compliance (taking the recommended dose of iron tablets)

Almost two-thirds (64%) of the respondents claimed that they finished all the iron tablets given to them, while a quarter of the respondents said that they stopped taking the tablets before they were finished. Although two-thirds said they finished the course, it doesn't mean that they had taken the total recommended dose of 90 tablets during pregnancy, as only one-fifth received 90+ tablets.

Reasons for non-compliance

The most commonly mentioned reason for non-compliance/discontinuation is that women felt nauseous (21%), feared the baby would be too big¹² and be difficult to deliver (16%), were already feeling better/healthy/recovered (16%), had forgotten to take the tablets (11%) and were bored of taking them (11%).

One aspect that must be taken into account is the concept of health (*sehat*) as defined by the community - i.e. that being healthy means not being ill. This concept of health may be the major barrier to compliance. Even though they may be malnourished or anemic, unless women are actually sick in bed, too ill to get up, they regard themselves as healthy (*sehat*).

¹¹ 30 tablets is the MOH minimum recommended dose for post-partum women, 90 tablets is the MOH minimum recommended dose for pregnant women, 60 tablets would be the optimal dose for a woman who came to get iron tablets during her 7th month of pregnancy.

Another important factor contributing to non compliance is specific community beliefs concerning iron tablets. Many women have heard or believe that the baby will grow too large if too much iron is taken by the mother, which is closely connected with the mother's perception of her own health. If the mother feels healthy, than the baby may become too big if she continues to take the recommended course of iron tablets.

Explanation of iron tablets

In order to find out whether women were counseled about possible side-effects, how/when to take the tablets to minimize side-effects, and the benefits, the women were asked whether they were given information when they received the iron tablets. Almost three-quarters said that they were given one or more of the following pieces of information:

- to take iron pills daily (60%),
- when/what time of day to take them (16%),
- to take them after meals (16%),
- benefit - will add blood (14%),
- benefit - prevent *kurang darah* (6%),
- benefit - give energy (*tenaga*) (2%)

Perceived benefits of iron tablets

Those who said they have taken iron tablets, were asked how they felt after taking a course of iron tablets. Over half of the respondents said that they noticed a difference in their well-being, they felt healthier, stronger, good (*enak*) and comfortable (*nyaman*). About one-fifth said that iron tablets alleviated dizziness, one-tenth said that they improved their appetites, and others mention they eliminated headaches (less than one-tenth).

Complaints/dislikes of iron tablets

When asked, unprompted, about one-fifth of the respondents said that they have specific complaints/dislikes in regard to taking iron tablets (see table below). Respondents were then asked whether they themselves have experienced the most commonly reported side-effects (side-effects were read out by interviewer).

Table 4 5 3 Complaints about iron tablets

Base N = 90 women Complaints/dislikes	Dislikes (Unprompted) %	Experienced (Prompted) %
- light-headedness	12	-*
- sleepy, feverish/hot, black stool (6% each)	6	-*
- boring to take over a long time	6	-*
- nausea/vomitting	29	21
- constipation	0	7
- smells bad/bad taste	18	24

* = not included in the list of prompted complaints

It is interesting to note that although nausea/vomiting was the most spontaneously mentioned side-effect or dislike, it rated lower as a side-effect that they experienced. More women mentioned "constipation" and "smell bad/taste bad" than nausea when asked what they

themselves had experienced

Post-partum consumption of iron tablets

Respondents were asked whether or not they would be willing (likely) to take iron tablets for 40 days post-partum. About 87% of the respondents said that they would. Those who would not take them, said that the main reasons were they don't have any complaints/don't feel bad or unhealthy/ have no need to take them and said the tablets smells bad/taste bad. Other reasons mentioned were fear of getting too much blood (*darah tinggi - high blood pressure*), fear it may affect breastmilk, already taking *jamu* (traditional herbal medicine), already having a good appetite, that iron pills are boring to take, and that women were still recovering from delivery.

Social marketing of iron tablets

The respondents were given a hypothetical situation where iron tablets would no longer be available free, but could be purchased from the private sector, and asked whether or not they would be willing to buy iron tablets during/for pregnancy. It was also explained that a pregnant woman should buy 90 tablets for the duration of the pregnancy but that they would not have to be purchased all at one time.

Almost all (92%) said that they would be willing to buy iron tablets, a few were unsure and a few said they would not buy them.

During the FGDs, respondents were presented with two different product concepts (product positioning)

Introduction to both positionings

Kurang darah makes pregnant women weak, listless, tired, have no energy, inattentive, and be more likely to have complications during delivery

- 1) Iron tablets will cure and prevent *kurang darah* and reduce the chance of complications
- 2) Iron tablets will cure and prevent *kurang darah* and make the pregnant woman more healthy, fresh/fit and bright

Most of the respondents preferred the second positioning, but at the same time they said that both messages are necessary.

Preferred package size

Respondents were given a choice of different package sizes (60,30,10 and 7 tablets). Almost half said they preferred packets of 60 tablets, one-fifth prefer the packets of 30 tablets, and about a third preferred 10 or 7 tablets (combined).

Implications of "Anemia" findings on IEC campaign strategies

The low number of women who reported receiving advise concerning special care needed during pregnancy (9 of 35) and on taking iron tablets during pregnancy (2 of 35) indicates a need for appropriate prenatal counseling

The overall confusion in the community (and among health providers) concerning the causes, symptoms, effects and treatment of anemia and the benefits, side effects and recommended dose of iron tablets indicates that further education is needed regarding both anemia and iron tablets. As there is evidence of past campaigns (97% of women have heard of iron tablets and 90% have received them) -- both providers and the community need clear explanations of the above mentioned aspects of anemia and iron tablets

Although the obvious improvement of well-being as perceived by the women should be seen as a positive benefit, it is also one of the main reasons for drop-outs and should be addressed in the IEC intervention. As the iron tablets begin to take effect, these women feel better in fact probably never felt as good before, so they don't feel the need to continue taking the tablets. One of the IEC messages should point out that although they feel better after taking some iron tablets, they should continue to finish the course for health maintenance and prevention of *kurang darah (anemia)*

The side-effect of nausea was only explained (recalled) by one or two women, and there was no mention of black stools as a side-effect. These findings combined with the reasons for drop-outs suggests that more should be done to inform women of side-effects of iron tablets and to explain that these side-effects are harmless and are only temporary

Most of the drop-outs can be prevented with (more) counseling and other IEC approaches focusing on what to expect in terms of side-effects, stressing the benefits and countering the rumors associated with taking iron tablets (example the baby will not grow to be healthy, not too big). Another aspect that may be a barrier to compliance is that the number of iron tablets recommended (90 tablets). In the IEC intervention it should be stressed that this is the minimum rather than the maximum (to counter the fear of "over-dosage")

Family planning¹³

Awareness of contraceptive methods

Over one third of the respondents were able to mention five different contraceptive methods. One third were aware of four methods, more than one-fifth were aware of 2 or 3 methods. Only a few could name only one method.

Contraceptive use

More than two-thirds of the non-pregnant respondents claimed that they were using some form of contraceptive. Almost half were using the pill, one-fifth were using injectibles. A few were using Norplant and *jamu* (traditional herbal mixture)

¹³ The questions regarding family planning and RTIs were included to explore general knowledge, attitudes and practices of the community, but were not to be included in an IEC campaign

Contraceptive use immediately after delivery

Respondents were asked whether women need to use some form of contraceptive immediately after delivery to prevent or postpone the next pregnancy (while they are breastfeeding) The majority of women (90%) said "Yes" Those who said "No" believed that they are not yet fertile during that period, and some said that their husbands don't want them to use contraceptives (during the post partum period)

Among those who said that contraceptives are needed, they were asked which method is appropriate for a woman who just delivered a baby Almost half of the respondents said the pill would be appropriate, followed by injectibles (a third) A few mentioned the IUD, condoms and Norplant/injectibles

From the FGDs "soon or immediately after delivery" means at least 40 days¹⁴ Therefore when answering this question, women probably meant the period starting after the first 40 days postpartum

Exclusive breast-feeding and fertility

The women were asked, if a woman breast-feeds her baby exclusively from birth to four months, whether or not she can become pregnant during that period

Slightly over half of the respondents believed *Yes*, she can get pregnant, and nearly half said *No* Women believe they can get pregnant in this period because they were already fertile from the "left over baby" (a belief that there is still the makings of a baby left behind to be fully formed) which does not entail new conception It is also possible that they were embarrassed to admit that they had resumed sexual activity earlier than the traditionally recommended period, i e before the 40 days of rest or *nifas*

Of those who said no, one-third didn't know the reason, and one-third said breast-feeding prevents them from getting pregnant even if they resume sexual activity Only a few of the women understood that breast-feeding must be done exclusively to prevent or lower fertility

Reproductive Tract Infection (RTI) and Partner Notification

Awareness

Over half of the respondents were not aware of RTIs, described as infection of the vagina/woman's sex organ, and appearance of vaginal discharge, one-third said that they had heard of RTIs, while over two thirds (70%) said that they were aware of vaginal discharge

Most of the respondents were not able to describe specific symptoms The most commonly mentioned symptoms were white discharge (*keputihan*), unpleasant smelling discharge and various mentions of spotting/staining and pain during urination

¹⁴In Indonesia, it is commonly believed that during the first 40 days postpartum both mother and newborn should remain at home to rest and the women should not have sexual intercourse

Treatment of RTIs

Women were asked whether or not they need to go for treatment if these symptoms appear. About two-thirds of the respondents said that they would need to go for treatment, a third said they don't know, and only one woman said treatment was not necessary.

Among those who said that treatment is necessary, a quarter said they would seek help at a primary health center and a fifth said at a hospital. While only one tenth said they would self treat, in the opinion of village midwives interviewed in in-depth interviews, most women would attempt to self-treat before going to a health provider or facility. One-third said they would make their own decision regarding treatment, and one-third said they would ask someone else. One-third would go alone to seek help and one-fifth said they would be accompanied by their husband.

Partner notification

Women were asked a hypothetical question as follows: "If you were diagnosed with an RTI/STD, we would need to ask your husband to come for an examination. Would you like us to notify your husband, or would you notify your husband, yourself?" The majority (78%) said that they themselves would notify their husbands to come for a check-up and treatment. The reason women prefer to tell their partners themselves may be attributable to several factors, including: some women may not understand the nature and implication of RTIs, i.e. that they were infected by their husbands and that their husband got infected through sexual relations outside the marriage; or women know their husbands have had sexual contacts outside of a marriage -- but want to talk with him themselves or not at all.

Communications media

Source of information regarding pregnancy, delivery and newborn

About 40% of the respondents get information from facility-based/village midwives. The women said they would go to them to get information because they are confident with the midwives' knowledge and they are accessible.

Information dissemination

While half of the respondents said that they had received some health information in the last 12 months, only a third said they had attended a health talk or counseling session (*penyuluhan*). Other sources of health information mentioned were integrated health posts and cadres (community volunteers- who usually have a higher level of education than the average level of the community). The counseling they received were mainly on the topics of nutrition, immunization, family planning, RTIs and breast-feeding.

Radio and TV

Fifteen respondents said that they had heard some health information from the radio, and 23 respondents said they had seen a health program.

Preferred media for information on pregnancy, delivery and newborn

The preferences were as follows:

Base	N= 90	(%)
TV		43
Radio		22
Group counseling		63

The credible/preferred presenters of health information are the facility-based/village midwife (50%), doctor (2%).

Printed materials preferred

The most preferred form of printed materials are posters (36%), calendars (23%), leaflets/brochures (13%) and reminder cards (10%). The most often mentioned places for distribution points and display of printed materials are the primary health center, integrated health post, community health sub-center and individual houses. According to midwives, villagers have very few decorations for their walls that they would willingly display good quality posters in their own homes.

Media habits

Radio - About 70% of the respondents listened at least sometimes to the radio, while 10% said they didn't own a radio. The average listening time is variable.

TV watching - 86% of respondents said they sometimes watched TV.

Newspaper readership - Only 3% of the sample read newspapers everyday and 2% read the paper every other day. Ninety-five percent seldom or never read newspapers.

4 6 MIDWIVES' PERCEPTIONS OF THE QUALITY OF HEALTH SERVICES AND OF THE COMMUNITY

Background/Description of respondents

Twenty-nine midwives from different health facilities (hospital, primary health center, primary health sub-center) were interviewed on their perception of the health facilities and services where they work. The midwives were also asked to describe their impressions of the community's perceptions of the quality of service, and concerning anemia, RTI partner notification and family planning. The age of the midwives ranged from 21 to 50 years old with the average age being 30 years, but most are under 28 years old.

Short-comings/difficulties faced

Midwives were asked to list the shortcomings or difficulties they faced in providing services. The shortcomings or difficulties faced by the midwives generally fall in two categories, i.e. shortcomings due to 1) the infra-structure, facilities/health service provision, and 2) the community's attitudes/predispositions. Only four of the midwives felt they didn't face any difficulties.

The community's attitudes/predispositions (according to 15 of 25 midwives who responded) are

- strong traditional beliefs and habits
- reliance on traditional medicine/traditional healers and TBAs
- women only seek health providers when they are already seriously ill
- low education level/community does not understand the value of health maintenance/check-ups
- community cannot afford the money/time needed to go to health facility
- some prefer the midwife to do home visits
- many pregnant women only come for ANC after the second trimester
- many pregnant women do not come back for the second TT injection

The shortcomings in the infra-structure/facilities (according to 17 midwives)

- logistical/medical supplies not sufficient
- far from certain communities/difficult transportation/bad roads
- no toilet facilities
- no running water supply
- shortage/incomplete medical equipment
- shortage of staff/no specialists (ObGyn)
- lack of/inadequate venue (Posyandu/Pustu)
- poor condition of the building leaky roofs, not enough room for examination and consultation

An important finding was that this open-ended questioning method showed that the midwives were just as concerned about the community attitudes and conditions being a barrier as about the physical infrastructure of health facilities. This suggests that there is a need for the development of strategies to support the midwives in approaching the community to inform them about services.

Positive situation/conditions that support health service provision

Of the 29 respondents, 11 mentioned the following positive conditions

- community beginning to understand/appreciate the importance of health
- high level of community participation and support
- good personal approach by midwives/good relationship with the community

Other positive factors mentioned were

- other health providers help with community relations (eg health volunteers),
- located near/within community/strategic location (eg near a market or accessible by transport),
- health provider staff have good working relationship/good team work,
- sufficient number of staff/ fast service,
- cheap price/no fixed price,
- already have specialist (ObGyn),
- immunizations can be administered at integrated health post, no need to go to primary health center,
- sufficient supplies and equipment,
- services always available because the midwife lives at the site,
- friendly, familiar/like family (*kekeluargaan*)

Midwives' evaluation of the quality of service provided in general

Overall, 23 of the 29 midwives interviewed rated the service as very good (2), and sufficiently good (21) Four midwives rated the service as "just okay" (*biasa*) and two rated the service as poor (not good enough)

Most of the midwives perceived that they have good team-work amongst the facility staff and that they have given their best personal service

The midwives were then asked to rate whether they are satisfied or not with the different aspects of their facility as listed in the chart below

Table 4 6 1 Midwives' evaluation of quality of facilities and service

Aspects evaluated Base 29 midwives	No of midwives dissatisfied
1 Physical condition of the health facility	21
2 Standard equipment (medical and non-medical)	17
3 Supply of consumables (medical and non-medical)	16
4 Staff medical, para-medical and administrative	16
5 Timeliness of receipt of operational funds, including staff salary	11
6 The way health provider/ staff here handle and face (treat) patients (interpersonal approach/skill)	1

Three most urgent/priority needs

The midwives were asked to mention the three top priority areas of improvement for each of the above mentioned needs of a health facility (prompted with a list of 6 areas)

- **Physical condition of the health facility** The majority (21) of the midwives were not satisfied with the physical condition of the facilities. All 29 midwives mentioned one or more suggestions for improvements vis-a-vis the condition of the physical facilities, these included: fix leaking ceiling/roof, walls, need to replace wood floors with cement, the building/rooms too small, not enough rooms (eg for waiting, examination, delivery, obgyn surgery, postpartum), the need to improve ventilation, some integrated health post facilities are inadequate, no toilet, no clean water, no electricity, no running water and prone to flooding
- **Standard equipment (medical and non-medical) needed** Sixteen midwives were not satisfied with the availability/condition of the standard equipment. Twenty-five midwives mentioned problems including: shortage of birth kits/equipment, examination bed/gynecological exam bed, IUD kit/FP kits, weighing scale for adults, sterilization equipment, BP meter (tensio-meter), spot light
- **Supply of consumables (medical and non-medical) needed** Sixteen midwives were not satisfied with the amount/quality of medical supplies. Nineteen midwives mentioned the following items as being required to provide better services: surgical gloves, injection needles/disposable syringes, medicines, intravenous fluids, gauze, cotton balls, contraceptives, stationery/forms
- **Staff: medical, para-medical and administrative needs** Sixteen midwives were not satisfied with the staffing situation. Improvements mentioned by 17 of the midwives included: a nutritionist, more medical staff, nurse/paramedic, administrative staff, training for administrative staff and training for Bidan
- **Timeliness of receipt of operational funds, including staff salary** Eleven of the 29 midwives were not satisfied with the timeliness of the receipt of funds. In general, salaries are received on time, however 17 midwives complained that operational funds are often late
- **The way health provider/ staff here handle and treat patients (interpersonal approach/skill)** Only one midwife stated that one of the village midwives was not skilled in communication (*kurang trampil*), because she was still young. Another midwife said that there are not enough staff and one said that 4 cadres (volunteer clinics) are not active

The midwives' perception of the community's confidence in the village midwife (Bidan di Desa), compared to the TBAs

It is interesting to note that the midwives' own perception of how much confidence the community have in them is reasonably in line with that of the community. In fact some of the midwives are more open in admitting that some communities have little or no confidence in the locally assigned village midwife. The main reasons for the lack of confidence according to the midwives are that the village midwives are young and inexperienced and also because of fear that it may be expensive and because of some general preference for TBAs

The following table shows the midwives' perception of the level of confidence in the village midwife compared with the responses of the women in the community

Table 4.6 2 Confidence in Village Midwife (Bidan di Desa)

Level of confidence in Bidan di Desa	Midwives' perception Base 29 Midwives		Mothers' admission Base 90 mothers	
	n	(%)	n	(%)
Lots of confidence	3	(10)	30	(33)
Sufficient confidence	20	(70)	51	(57)
Both about the same	1	(3)	6	(7)
Little confidence	4	(14)	2	(2)
No confidence	1	(3)	-	-

It is interesting to note that the level of confidence that the women have is generally higher than what the midwives perceived. However, it should also be considered that the women may be biased towards giving higher rating to avoid embarrassment to the interviewer. On the other hand the data shows that there is a reasonable degree of acceptance by the community of the village midwife.

Priority health issues in the community

Midwives were asked to name the top three priority health issues for the community. The most commonly reported (includes first second and third priority issues) were

Table 4 6 3 The top three health issues according to midwives

Base 29 midwives	n	(%)
Anemia/lack of blood	17	(60)
Poor nutritional status	13	(41)
High blood pressure	12	(40)
Having more than 3 children	6	(20)

Other health issues mentioned (by 1-2 midwives each) were early or late pregnancy (below 20, and over 45 years old), pre-eclampsia/eclampsia, not coming for ANC, short spacing between pregnancies and diabetes.

ANC/MCH services

All 29 midwives provide ANC/MCH services. Half rated their service as good, and the other half rated their service as average (just so-so, adequate).

The most urgent needs for MCH services are

- basic equipment/tools: tensiometer,
- adult weighing scale,
- private examining/counseling room,
- urine test,
- blood test/Sahli test
- models and visual aids for counseling

Most of the midwives estimated that the proportion of women who come for ANC/MCH are reasonably high/very high, while only a few (6 midwives) thought that the proportion is low (among their respective communities) The reasons mentioned for high attendance are accessibility (proximity to services), high level of community awareness due to active community education by the midwives and the supplementary foods program at integrated health posts The reasons for low attendance mentioned are, the low awareness of the community, low number of pregnant women and lack of proper facilities (examination room)

Midwives were also asked what would motivate more women to come for ANC/MCH
Responses included

- a more personal approach/reminders from service providers,
- home visits,
- more educational counseling (*penyuluhan*) on the importance of ANC/MCH,
- a more friendly attitude of midwives,
- good service,
- supplementary food program for children under five,
- provision of TT immunization

What factors influence low attendance, according to midwives

- distance/accessibility/transport difficult,
- easier to go to the village midwife, rather than primary health center,
- the hospital is closer (to some communities),

When asked what would better motivate women to use the services of the health providers for delivery/post-partum, 19 of the 21 midwives said that more community out-reach health information sessions (*penyuluhan*) were needed to convince the mothers of the importance of ANC and safe-delivery The personal approach of the midwife towards the community (including pregnant women, TBA's and community leaders) was also seen as a motivating factor Other responses included

- a more personal relationship with midwives,
- faith in the sanitation and safety,
- referral for a difficult childbirth,
- think it's less expensive than the hospital/not too expensive,
- have been referred during pregnancy

Capability to handle pregnancy/obstetric complications

The following table shows each midwife's evaluation of the capability of the facility where she works in providing emergency services during pregnancy, delivery and post-partum

Table 4 6 4 Capability in handling complications

Base N=29 midwives	Pregnancy n	Delivery n	Post-Partum n
Capable/ready	16	12	18
Not so capable	9	7	3
Not at all capable	4	4	3
No answer	6	6	5

The midwives who cited "not so capable" or "not at all capable" are mainly those posted at the village/ integrated health post/primary health sub-center and one poorly well-equipped primary health center. The lack of capability is attributed to the lack of proper facilities and equipment, with one mention of the lack of a specialist (ObGyn). There were no mentions of lack of skills/training.

Delivery services

Twenty-three midwives work at facilities that provide delivery services. About half of the midwives rated delivery services as good, 7 midwives rated them as average and 1 midwife rated them as poor.

When asked what delivery services are lacking/needed, midwives mentioned gynecology table, equipment, specialist, additional medical supplies and consumables.

When asked about how many women come for delivery services, about half of the midwives said that there are many women, but that there were still a large proportion who prefer the services of TBA's.

To increase the demand for delivery services by midwives, suggestions included more educational/information sessions (*penyuluhan*), personal approaches/home visits, adjustment of the service fees according to the community's capability to pay, not demanding immediate payment for services, improved awareness in the community about the importance of ANC.

Midwives versus TBA for normal deliveries

Midwives were asked whether or not they agree with normal deliveries being attended by untrained TBAs and by trained TBAs.

Table 4 6 5 Birth attendants allowed

Base 29 midwives	Untrained TBAs	Trained TBAs
Agree	0	24
Disagree	29	5

All midwives do not agree (reluctant) that untrained TBAs should assist even normal deliveries because the midwives think that it is important to know the medical/technical

knowledge to identify danger signs Midwives also said TBAs sometimes provide unsafe traditional practices and do not provide clean, sterile services Midwives have more confidence in trained TBAs because they have been trained on proper, safe, clean procedures, and when these trained TBAs encounter problems they are more likely to refer to midwives in time However, there were still a number of midwives who do not agree because they were told that the government target is to have all deliveries attended by trained health providers (midwives)

Midwives were asked whether or not the TBAs capability/practice helps (is good) or hinders (is detrimental to) the process of providing care during pregnancy, delivery and attending the newborn

Table 4 6 6 TBA's capability in handling complicatons

Base 29 midwives	Untrained TBAs	Trained TBAs
	(n)	(n)
Good/helpful	1	11
Somewhat helpful	6	15
Somewhat dangerous	18	2
Very dangerous	3	0
No answer	1	1

As mentioned above, midwives have more confidence in trained TBAs The main damage (harm) that midwives perceive that could result from TBA's advice/care are the practice of advising to avoid certain foods that are actually nutritious such as green vegetables, fruit, and fats/oils and the practice of applying unsterile traditional herbal mixtures on the umbilical cord There is also a concern that TBAs are reluctant to call the midwife in cases of complication

Traditional beliefs and practices in normal circumstances

Less than half (13) of the midwives claimed to know some/ a lot about traditional beliefs and practices in regard to pregnancy, delivery and with the new born One third (11) claimed they know a little, and the remainder (5) gave no response

The midwives were asked to list one or more traditional practices they knew of The traditional practices mentioned were as follows

Traditional practices and beliefs in regard to pregnancy:

Twenty-six midwives gave one or more responses The two most frequently mentioned traditional practices known were that women are not allowed to eat vegetables, ice, pineapple, banana and coconut milk (16 responses), and are massaged by TBA (7 responses)

Also mentioned were

- women not being allowed to eat fish,
- do not overeat for fear the baby will be too large,
- seventh month blessing ceremony,
- herbal drinks (*jamu*) for good health
- not allowed to touch cats to avoid transverse position (*sungsang*),

While it is not a traditional practice, a few midwives mentioned that mothers are wary of taking medicine or getting immunizations during pregnancy for fear the baby will be too

large

Traditional practices and beliefs in regard to delivery

Twenty midwives gave one or more responses. The most frequent mentioned traditional practice was that the mother is given blessed water (*air tawar*) and prayers if there are complications during delivery (8). Other responses were

- the mother is given *jamu*, rice, water/blessed water and salt (mentioned by 4 midwives)
- the umbilical cord cut with sharpened sliver of bamboo
- the house (doors/windows) have to be closed,
- women do not want episiotomy/stitches due to their fear of the pain,
- herbs are applied on the vaginal opening,
- the abdomen is pushed down by TBA even though not ready (not fully dilated),
- women give birth on the floor
- women suck on end of their hair to help expel the placenta,
- women given coffee and egg to give strength,
- a coconut is broken over the woman's stomach during long deliveries
- the mother not allowed to eat vegetables and fresh fish only allowed dried, salted fish
- legs and stomach marked with lime chalk (*kapur*),
- the mother fasts, only drink water (*mutih* - from the word *putih* meaning white)
- the mother immediately goes down to the river (probably to wash)

Postpartum

Twenty-two midwives gave one or more responses concerning traditional practices during the postpartum period. The most frequent response was food restrictions (10) for the mother, such as not being allowed to eat vegetables and fresh fish and fatty foods and only allowed dried, salted fish. Others were

- (mother and baby) not allowed to leave the house for 40 days,
- mother sits on warm ash covered with cloth,
- the woman is seated up-right soon after delivery,
- drink special herbs after delivery (*jamu persalinan*),
- given blessed water to drink,
- midwife performs a blessing ceremony (*berpulas bidan*),
- applies herbs on the vaginal opening
- mother must rest, not move for two days

Traditional practices and beliefs in regard to newborns

Twenty-six midwives gave or more responses. The most often mentioned (18) was the practice of the TBA applying tumeric (other herbs) salt and powder/ash to the umbilical cord. Also mentioned were

- blessing/thanks-giving ceremony,
- baby cannot leave the house for 40 days,
- baby given mashed banana,
- baby is not given anything until the breast milk comes

Respecting and adopting traditional practices

Half of the midwives think that most or some of these traditional practices do not need to be respected, ten midwives think that some need to be respected, and only 4 midwives think that they all/most should be respected

The traditions that midwives consider as not needing to be respected are those considered to be possibly detrimental to the well-being of the mother and baby, while those that should be respected are those that, though may not have any benefits, do not have any detrimental consequences

The following are some of the traditional practices the midwives were asked whether or not they are willing to practice or respect

Table 4 6 7 Respecting traditional practices

Base N = 29 midwives	Very willing	Willing	Not willing
a) cut cord with razor blade	0	4	25
b) give placenta to woman	25	3	1
c) allow woman to drink <i>jamu</i> to prepare for delivery	0	9	20
d) allow woman to be accompanied by TBA during delivery *	12	14	2
e) allow delivery to be witnessed by husband/family*	11	15	2
f) allow woman to be (partially) clothed	16	11	2
g) reduce number of vaginal/pelvic exams *	19	9	0

* 1 non-response

Traditional beliefs and practices in complications

About half of the midwives claimed that they don't know about traditional practices regarding complications in pregnancy, delivery and newborns. Only four midwives claimed they know a lot, and 8 midwives claimed they know something.

Midwives were asked to list one or more practice of which they are aware. Of 14 responses, the most commonly mentioned traditional practice during pregnancy (N=5) is the massaging of the fetus in the womb to correct its position and massaging in the case of hemorrhage (which midwives regard as damaging as it may exacerbate the problem). Another traditional practice is to ask for blessed water from a traditional healer (*dukun/orang pintar*). Massaging the mother if she is weak and advising her to sleep less if experiencing edema were also mentioned as traditional beliefs.

There were 13 responses listed concerning practices to handle complications during delivery. Some complications are remedied with a chant (*mantra*) by the TBA, such as during hemorrhage, long labor, and seizure (*kejang*). Complications are also remedied with blessed water. Massage (done by the TBA) by pushing on the abdomen if the labor is long, and lifting up the bed to speed up delivery were also listed.

After delivery, the mother is given blessed water (*air tawar*) if the placenta is retained, and given special drinks or mixtures applied to the head if the mother is dizzy or having a seizure (*kejang*). During hemorrhage, the mother is made to sit up and drink sweet coffee to slow down the bleeding.

To remedy complications with the newborn, a special ritual is conducted by a *dukun* (different from *dukun bayi* or TBA) to exorcize evil spirits, premature babies are given hot-water bottle, asphyxia is treated by applying bamboo on the baby's fontanelle, and certain topical mixtures are applied for fever or cough. Newborns who don't cry are stimulated with cold water and massage.

Midwives rated these practices in general as more harmful than helpful, citing that the manipulation of the position of the fetus by massage may cause the umbilical cord to wrap around the baby's neck, or may cause hemorrhaging during delivery. But three midwives thought traditional practices were helpful due to having a calming psychological effect such as drinking blessed water, applying warmth to an infant (warm bottle), and making a compress of herbs.

Anemia and iron tablets

Provision of iron tablets

Almost all of the midwives provide 30 iron tablets to pregnant women on one visit (one prenatal visit). Most are given starting at month three (according to 14 midwives) and at month one (according to 7 midwives). Most midwives give a total of 90 tablets per pregnancy, although four midwives gave 100 tablets and 3 midwives gave 120 tablets.

Explanation given

All midwives claim to counsel women about taking iron tablets and the possible side-effects. Each midwife reported giving at least three different pieces of information during counseling. All midwives claimed they explained that one tablet is to be taken daily, and that there may be side-effects (unspecified). Other counseling information most often given are

- when to take the tablet,
- it may cause nausea and dizziness/light-headedness)
- the benefit: it adds blood,
- the benefit: it prevents lack of blood,

Complaints about iron tablets

Most of the complaints reported to the midwives were nausea, dizziness, dark stools, and that women become bored with taking the tablet everyday.

Where iron tablets can be obtained

All midwives said that iron tablet can be obtained from the Bidan di Desa, and some mentioned they can be found at the dispensary (*apotik*) and village volunteer/cadres (*kader*)

Problems in distribution

Most midwives said they see no problem in distribution, though sometimes the supplies at the Puskesmas runs out They added that the problem is not distribution, but compliance

When a hypothetical situation is posed to the midwives where women are willing to obtain iron tablets themselves, the midwives do not foresee any barriers in obtaining iron tablets except maybe the cost The most effective distribution points according to the midwives are through the village midwives and health volunteers

Willingness to purchase

If iron tablets are not available for free anymore, 24 midwives guessed that women would be willing to buy them, while 5 midwives guessed that women would not

Where should iron tablets be sold

All midwives said that iron tablets should be made available in many different outlets including the village drug store/village drug post

Family Planning

All except one midwife provide family planning services (the one midwife is still preparing her data for family planning) Most midwives provide family planning counseling and services all four of the following phases ANC, immediately postpartum, before being released from hospital/primary health center and during postpartum visit

Sixteen of the midwives don't agree with the concept of recommending IUD insertion postpartum Most of the midwives (23) judge that in general women will be unwilling to have an IUD inserted postpartum

Reproductive Tract Infections (RTIs)

Eleven of the midwives received complaints from some pregnant women that they suffer from RTI (vaginal infection) Most of the complaints are described as *keputihan* or white mucus discharge and itchiness

Partner notification and examination

Most of the midwives said they would ask the woman to ask her husband to come for a check-up and treatment Some midwives said that they themselves would go and see the husbands

Most appropriate media (for health information in general)

Midwives do not have one particular media that they think would be most appropriate/effective, they suggest that a multi-media approach is best with posters as the main media Further for their own use they would like to have anatomy models (e g pelvic/uterus model)

Implications of findings from FGDs with midwives on IEC campaign

The majority of the midwives are not satisfied with the physical condition of the health facilities. Most of these referred to integrated health post, primary health sub-center facilities and some primary health centers. All except one midwife rated the interpersonal skills (the way patients are treated) as satisfactory. The midwives did not feel that there were problems in the relationship/communication between clients-midwife. However, it is interesting to note that the midwives perception of community confidence in them was lower than the confidence level reported by the women themselves.

On the other hand, while women in the FGDs generally felt confident in the skill level of the midwives, many mentioned that midwives' had made them feel uncomfortable, criticized them and talked too much. Some of the women also said that while village midwives had received medical training they are inexperienced, don't explain enough and lack self-confidence. These complaints are all related to the communication skills and/or style of the midwives.

4 7 OBSERVATION OF HEALTH FACILITIES

Number and type of facility observed

A total of 16 health facilities/service points in the three districts were observed and rated as to the physical condition and quality of services provided. For the service provision 43 clients were observed at these same service points while they were receiving their ANC services.

Type of facility	No. Observed
Total	N = 16
Posyandu (integrated health post)	2
Pustu (primary care sub-center)	6
Puskesmas (primary care center)	5
Hospital	3

Schedule of opening hours

Most of the facilities are officially open Mondays to Fridays starting from 8 00 to 14 00. Some open as early as 07 30, but most start at 08 30. Most close between 12 00 and 14 00, but some close as early as 11 00. On Fridays, prayer day, services start to close for the day between 10 30 and 11 00. Only 5 facilities provide services on Saturdays.

Emergency 24-hour stand-by, telephone and ambulance

Only 4 of the facilities have 24-hour service (hospital), and 8 have any emergency service. Only 3 of the facilities have a telephone and 7 have an ambulance.

The waiting area/facilities

The following is a check list of the condition of the waiting area, facilities and what IEC materials are found in the waiting area. The numbers shown in the second column refers to the number of facilities that fit the description in column 1 ("Yes").

A	Condition/description of waiting area	Base N = 16	Yes
1	There is a waiting area/room		15
2	If not Whether need a waiting area/room		1
3	The waiting room/area is sufficiently large for the number of women waiting		13
4	There is a sufficient number of chairs/seats for women waiting		12
5	The chairs/seats are in good condition		15
6	The waiting room has sufficient/enough light		16
7	The waiting area is roofed/shaded, protected from sun/rain		16
8	The waiting room is hot/humid/clammy		3
9	The waiting room is cold/damp		-

A	Condition/description of waiting area	Base N = 16	Yes
10	The waiting area is sufficiently clean		12
11	The waiting room is sufficiently ventilated		16
12	The waiting room has a lot of disruption (cleaning etc)		4
13	There are IEC materials in/around the waiting room		15
13a	Brochures/leaflets available		2
13b	Posters		15
13c	Flipcharts		1
13d	Articles/written materials		15
13e	Notice board/Information board		8
	IEC materials on various topics		
14a	Nutrition		3
14b	FP/FP methods/small family concept/2 children enough		9
14c	High risk pregnancy		2
14d	HIV/AIDS		6
14e	Breast milk (ASI)/Breast-feeding/exclusive breast-feeding		12
14f	Baby feeding schedule		4
14g	Other IEC materials		14
15	Clear signs/arrows showing where relevant services are, labels on doors		9
16	Signs to services using symbols/drawings		7
17	Toilet/W C for clients		10
17a	The toilet is clean/not smelly		1
17b	The toilet floor is wet/inundated with dirty water		4
17c	Running water/tap water available		2
17d	A bucket of water is provided		8
17e	A water scooper/ladle is provided		9

The waiting area/room

Most facilities have adequate waiting areas in terms of space and seats. Most of the seats observed are benches made of wood with straight backs. Individual chairs are seldom found. The waiting areas are all under a protective roof to shade from sun and rain. However, from interviews with midwives, most complain that the roofs/ceilings at the primary health

center/sub-center leak during the rainy season and their repair is considered one of the improvement priorities

The waiting areas are generally well-lighted, and well ventilated, only three facilities were observed to be hot/stuffy

Information Education & Communication materials

All facilities except one had IEC materials available/displayed in the waiting room All except one facility have some sort of flipchart (not specified), some form of article/written material, displayed and some have a breast-feeding poster Below is the list of IEC materials observed at the facilities The numbers in brackets refers to the number of facilities that displayed the respective materials

Other IEC materials (brochures, posters, pamphlets ect) found in the waiting area (literal translations)

- 1 Vitamin A capsule (4) - info
- 2 Why Leper sufferers get deformed (3)
- 3 Immunization is needed (important) for all babies/Under fives (4)
- 4 If a child is coughing, beware of pneumonia (4)
- 5 Get TT injections at Posyandu or Puskesmas (2)
- 6 Sugar-salt solution for diarrhea
- 7 Avoid cancer as early as possible
- 8 Polio immunization (4)
- 9 Generic drugs
- 10 Immunization/Immunization is important (3)
- 11 Immunization, pregnancy check-ups
- 12 Malaria
- 13 Medicine to add blood for pregnant women/iron pills (5)
- 14 Beware of hemorrhagic fever
- 15 Give measles immunization
- 16 Diarrhea can be prevented by clean living
- 17 Come everyone, get TT for pregnant women
- 18 Cervical Cancer
- 19 Goiter/Iodine deficiency disorders
- 20 Keep the environment clean
- 21 Prevention of Tetanus in babies
- 22 Beware of the classic triad (*trias klasik*) of pregnancy

Toilets

Only 10 of the 16 facilities have public toilets Those that do not, are most probably the integrated health posts and primary health sub-centers Among those with toilets, the condition of the toilets are generally dirty and/or smelly (only one is observed to be clean and not smelly) Four of the toilets have wet, dirty floors, and only two have running water Eight of the toilets have a bucket of water for flushing and washing hands, and a water scooper

Condition of the ANC examination room

The following table shows the observation results of the condition of the ANC examination rooms. Fifteen of the sixteen facilities provide ANC services.

B	Condition/description of ANC examination room	Yes
Base	N = 15 facilities that provide ANC services	
1	There is a room for ANC examination	15
2	The room separate, with a door that can be closed (private)	13
3	The ANC examination room is shared with another examination room, separated by curtain	9
4	The conversation between client and health provider can be overheard by other people	2
5	The room is sufficiently lit	16
6	There is an examination bed	15
6a	The bed is covered with a clean sheet	7
6b	The bed is covered with a rubber sheet	11
7	There is a window	16
7a	The window size is large (at least 50 cm X 1 m)	15
7b	The window is open to allow air/ventilation	15
7c	Covered by a curtain to ensure privacy	13
8a	The walls are dirty/grimy/stained	6
8b	The floor is dirty/grimy/stained	5
8	The bed is dirty/worn/stained	8
9	The room is hot/stuffy/no air/no ventilation	1
10	ANC equipment/supplies	
a	Weighing scale for women	15
b	Tensiometer & Stethoscope	15
c	Tape measure for height measurement	7
d	Fundoscope	16
e	TT injection	16
f	Iron tablets stock/supplies	16

Privacy

Thirteen facilities have a private room for ANC examinations, 9 facilities have a curtain/screen in the room to provide privacy. Only two of the facilities observed do not give complete privacy, where the conversation between client and health provider can be overheard.

Lighting and ventilation

All of the facilities, except one, have sufficient lighting and ventilation with large windows
Examination table/bed

Fifteen of the facilities have an examination table/bed but only 7 have clean sheets/covers and only 11 have rubber sheets Eight of the examination beds/covers are observed as dirty/stained

Cleanliness of walls and floors

About half of the facilities have dirty floors and/or walls

ANC equipment

Midwives reported that all facilities have all the necessary equipment/tools for ANC, except for a tape measure Only 7 facilities have a tape measure to measure the height of pregnant women All the facilities have a fundus scope, TT injections and iron tablets All except one facility have a tensio-meter and stethoscope

4 8 OBSERVATION OF HEALTH SERVICE PROVISION

Number and type of facilities observed for quality of service

A total of 16 facilities were observed and at each facility a set number of clients were observed receiving their ANC examination/counseling. The number of clients observed at each facility is as follows, cross-tabulated by whether they came alone or accompanied.

Table 4 8 1 Number and type of facility

Type of facility ->	Total	Integrated Health Post	Primary Health Sub-center	Primary Health Centr	Hospital
Total no observed at each facility	43	4	13	12	14
Came alone	29	3	9	7	10
Accompanied husband	4	-	-	4	-
Accompanied by other	10	1	4	1	4

Table 4 8 2 Approximate gestation age of the client at the time of the observed visit

Age of gestation (months)	Total N=43	Integrated Health Post n=4	Primary Health Sub-center n=13	Primary Health Center n=12	Hospital n=14
1	1	-	-	-	1
2	2	-	1	1	-
3	0	-	-	-	-
4	5	-	1	2	2
5	4	-	1	1	2
6	8	1	1	4	2
7	13	2	4	1	6
8	5	-	1	3	1
9	5	1	4	-	-

Half of the visits observed were the fourth or more visit to the facility for ANC, and half were the third or under.

Table 4 8 3 ANC examination and counseling

A Observed behavior/service Number of clients observed --->	Total 43	Posy 4	Pustu 13	Puskes 12	Hosp 14
1 Wash hands before giving examination	2	1	-	-	1
2 Greets client warmly, not frowning	43	4	13	12	14
3 Asks gestation age	29	4	9	8	8
4 Asks a) age	13	2	4	2	5
b) number of children	13	1	4	2	6
5 Asks client if she has any problem of	5	1	1	1	2
a) tiredness/exhaustion/weakness					
b) loss of/no appetite	9	1	4	3	1
c) blurred vision/black spots	9	1	3	2	3
d) any headaches/dizziness	-	-	-	-	-
e) nausea/continuous vomiting	9	-	3	2	4
f) sore/pain when urinating	-	-	-	-	-
g) irritation/itchiness around vagina	-	-	-	-	-
h) bleeding from the vagina	1	-	-	1	-
i) pain abdominal, back, legs/feet	13	-	8	3	2
6 Whether asked about previous pregnancy/s					
a) miscarriages/spontaneous abort	2	-	1	-	1
b) induced abortion	1	-	-	-	1
c) excessive bleeding	1	-	1	-	-
d) problem with placenta	-	-	-	-	-
e) ever had a Caesarian birth	-	-	-	-	-
f) whether had still-birth	2	-	2	-	-
g) whether ever have TT shots	32	4	10	10	1
h) whether now taking iron tabs	26	2	10	9	5
I) whether ever had any problem with her pregnancy	3	-	2	-	1
7 Weighs the woman	36	-	9	10	14
8 Takes BP measurement	42	3	13	12	14
9 Examines finger nails	-	-	-	-	-

A Observed behavior/service Number of clients observed --->	Total 43	Posy 4	Pustu 13	Puskes 12	Hosp 14
10 Feels/palpitate to feel any swelling of					
a) face	10	-	5	5	-
b) hands	10	-	5	5	-
c) ankles	21	-	5	11	5
11 Examines and measures the size of the abdomen/fundus and gives comments on					
a) the growth of the fetus	20	3	5	3	9
b) the position of the fetus	41	4	13	10	14
c) the fetal movements	42	4	13	11	14
d) the fetal heartbeat	39	4	12	11	12
e) comparing results of previous visits	2	3	9	3	7
12 Gives explanation while doing exam Make conclusion on counseling	27	3	9	4	11
13 Gynecological examination	(None observed)				
a) uses new gloves	n a	n a	n a	n a	n a
b) examines vulva	n a	n a	n a	n a	n a
c) explains to woman what is examined, what is being done, and what the woman will feel	n a	n a	n a	n a	n a
14 Explains to the woman, the overall results of the examination	19	1	3	3	12
15 Gives clear/comprehensive counseling of prevention of complications	9	1	2	2	4
16a Asks if the woman has any questions	17	2	5	4	6
16b Answers the woman in simple language	28	3	5	10	10
16c Ensures that the woman understands, asks the woman to repeat	3	-	-	2	1
17 ONLY IF WOMAN IS WEAK/HAVE COMPLICATIONS	17	-	6	4	7
17a Explains in a simple way what the complication is and how it can effect the mother/ baby	13	-	2	4	7
17b Gives medicine or prescription for that problem	13	-	5	2	6

A Observed behavior/service Number of clients observed --->	Total 43	Posy 4	Pustu 13	Puskes 12	Hosp 14
17c Asks if there is a problem in family	1	-	-	-	1
17d1 Explains what needs to be done to overcome the problem	14	-	3	4	7
17d2 Repeats the explanation to ensure the woman understands	1	-	-	-	1
17e Refers woman to lab	4	1	-	-	4
18 Mentions/suggests FP	1	-	-	-	1
18a Mentions contraceptive choices	1	-	-	-	1
18b Mentions IUD specifically	-	-	-	-	-
18c Mentions RTIs/STDs	-	-	-	-	-
18d Give supporting IEC materials/leaflets	1	-	-	1	-
19 Gives iron tabs/prescription	34	4	11	10	9
19a Asks woman if she takes the iron tablets daily	27	2	9	9	7
19b Explains the benefits of iron tablets and its side-effects	1	-	1	-	-
19c Explains how to overcome the side-effects	-	-	-	-	-
19d Explains clearly the daily dosage and for how many days	10	3	10	9	5
19e Explains where to obtain more iron tablets	7	4	7	8	2
20 Gives out supporting IEC materials on iron tablets	-	-	-	-	-
20a Explains to woman how to use the IEC material	-	-	-	-	-
20b Explains the contents of the materials	-	-	-	-	-

Hand washing and use of surgical gloves

Only in two of the 43 service deliveries was hand-washing observed. There was no opportunity to observe the use of surgical gloves as there was no gynecological/pelvic exam observed among the 43 ANC services provided during the observation period.

Greetings/interpersonal approach

All service providers were observed to greet their clients in a friendly, polite way. (Note the fact that these services were being observed may have biased the inter-personal behavior demonstrated.)

Thorough examination and checking for anemia

Only a few health providers asked specific questions on various symptoms that may indicate any risk of complications and anemia Previous history of pregnancies and complications were not asked, except for 2 women who were asked if they had a miscarriage and/or stillbirths

Almost all health providers/service provision observed, the pregnant women were asked if they had their TT shots, and most pregnant women were asked if they are currently taking iron tablets

Fetal examination

Almost all had examined the fetal position, fetal movement and the fetal heartbeat But only half examined the fetal growth and compared their notes of previous examinations

Gynecological/pelvic examination

None of the 43 observed services provided gynecological/pelvic examination

Counseling

Less than half provide counseling/explanation of the examination results, and a few provide explanation of possible complications and how to prevent them Only one provide FP counseling and mentioned FP methods

Iron tablets

Thirty-four of the ANC service providers had given out iron tablets, while 27 had asked whether the pregnant woman was taking the iron tablets daily Only one explained its benefits and side-effects No one explained how to overcome the side-effects None provided any additional IEC materials

Interpersonal /Communication skills

The following table summarizes the observed inter-personal communication skills observed

Table 4 8 4 Interpersonal /Communication skills

B	Interpersonal Communications skills	Total	Posy	Pustu	Puskes	Hosp
1	Commands/orders around	-	-	-	-	-
2	Avoids/cannot be bothered to answer	-	-	-	-	-
3	Threatens/shouts/shows anger	1	-	-	-	1
4	Criticizes, judgmental	1	-	-	-	1
5	Persuasive, tolerant, patient	42	4	13	12	13
6	Joking, relaxed, light-hearted	42	4	13	12	13
7	Open, warm, friendly	42	4	13	12	13
8	Polite, respects, shows attention	43	4	13	12	14

All facilities/services were observed to provide patient, friendly, relaxed and respectful service (In this part of the observation the behavior of the service provider is likely to be

influenced because of the observation Therefore these findings should be viewed with caution)

Reception Counter

The following observation was based on the number of facilities, not number of clients

Table 4 8 5 Reception Counter

C	Condition/description of Reception Counter	Base N = 16	Yes
1	No separation between client and staff/open, allowing for eye-contact and dialog		6
2	There is a partitioning made of glass with a small hole to pass registration card/money		5
3	There is a partitioning made of opaque glass/board with a small hole		1
4	Clients have to lean/bow down to the level of the opening in order to be able to talk to the registration staff		5
5	The partitioning is made of chicken wire (see through)		2

How the receptionist greets/treats clients

As with almost all service provision facilities, the first barrier encountered is the reception desk/counter In Indonesia, it is commonly found that a physical barrier (glass with holes to speak through, wooden planks, chicken wire) is constructed between the client and the server, which makes it difficult to communicate freely In most cases clients have to either stand on tip toes or bend at the waist and then turn his/her to the side in order to make eye-contact with and hear/be heard by the person on the other side of the counter

Table 4.8 6 Receptionists' treatment of clients

Behavior (n = 16)	Yes
1 Greet the women	12
2 Smiles, gives friendly smile when greeting	13
3 Gives positive reinforcement for her visit	16
4 Uses local dialect	15
5 Explains patiently the costs of the service(s)	10
6 Gives clear directions to the client where to go	6
7 Tells the clients the approximate time they will have to wait	16

Most of the receptionists were observed to provide a friendly greeting, but do not give directions on where to go (probably because most of the clients already know)

Waiting time

The lapse of time was noted between

- 1 When the woman first until she registered,
- 2 When the woman was first called,
- 3 When she was called into the ANC examination room, and
- 4 How long the ANC examination/counseling lasted
- 5 The total length of time spent for ANC services

Table 4 8 7 Waiting Time (n = 16)

Number of minutes	Time between registration and first called	Time between first called and entering ANC room	Time in ANC room/ counseling	Total time spent for ANC services
0	1	15	-	-
2-5	9	-	1	-
7-8	-	-	1	-
10	3	1	1	-
14-18	2	-	1	6
20-23	1	-	-	1
30	-	-	1	1
40	1	-	-	-
50	-	-	-	1
not recorded	-	-	11*	11

*) Note This data was not available in the tabulations

Most of the women had to wait only 10 minutes or less before being called. All except one of the women were only called once after registering to go directly to the ANC examination room.

Implications of findings from "Service Provision Observations" on IEC campaign

As 21 of the 43 women observed were observed during their first visit to the facility, and all but 3 were in their second trimester, this indicates the need to emphasize the importance of asking about past pregnancies and/or medical histories of women in ANC provider training.

5 BARRIERS IN THE PATHWAY TO SURVIVAL

The following are the **factors** that have been identified (on an international scale) as possible barriers in the Pathway to Survival, they were presumed to be present at the **critical points** that contribute towards the *detours* made from the pathway to survival (Refer to the facing page for Figure 1, and the following facing page for Figure 2 PATHWAY TO SURVIVAL comprehensive pathway and MotherCare focus) These critical points/detour signs are

- 1 Failure to recognize problem
- 2 Decision made not to seek care
- 3 Decision made to seek care - but inappropriate care
- 4 Decision made to seek care - but fail to reach care
- 5 Decision made to seek care - but fail to reach care - in time (too late)
- 6 Timely arrival - but inadequate care

These barriers were confirmed in the community diagnosis to exist The first barrier encountered is at the point of (lack of) recognition of danger signs The second crucial detour is during the decision making process, when a large number of women or families decide not to seek appropriate care for a women, or decide to seek care too late This is often caused by real or perceived cost of the process of seeking care -- and includes the cost of obtaining transport, hospital care and medications etc

The process or journey in which a mother/newborn may remain on the pathway to survival or ending-up taking a detour is a complex one and involves the following factors and deliberations along the way Factors identified through the use of all tools in the community diagnosis, are summarized in the boxes, followed by a more detailed description where applicable This list includes only those factors identified or confirmed by the Community Diagnosis

<p>Failure to recognize problem</p> <p>Pregnancy viewed as a natural, non-special phenomenon – low recognition of need for special attention (i e prenatal examinations)</p> <p>Low or lack of knowledge/education concerning maternal/neonatal health problems</p> <p>Traditional Beliefs, myths and rumors - i e still-births are seen to be caused by fate (fatalistic) and is God's will</p> <p>Perception of health <i>not sick</i> means healthy</p>
<p>Lack of preparation for problems</p> <p>No preparation or expectation of problems</p> <p>Not aware of danger signs of complications (especially during postpartum period and with newborn)</p> <p>Reliance on provider (usually TBA) to recognize problems</p>

<p>Decision making process regarding care seeking</p> <p>The factors influencing the decision on whether or not to seek care Perception of seriousness of problem Who assists in delivery Who is present at delivery Traditional beliefs Financial/affordability (of both transportation and hospital costs) Accessibility availability of transport, distance Preference to deliver at home with TBA Lack of confidence/comfort with health facilities Resignation about neonatal death</p>
<p>Accessibility and timeliness of arrival</p> <p>The factors influencing timeliness of arrival are Length of decision making process (stage of complication) Time of day - difficulty obtaining transport</p>
<p>Adequacy of care</p> <p>Upon timely arrival, factors that will influence the chances of survival are Waiting time for appropriate attention Availability of qualified/specially trained staff Availability of necessary equipment and supplies</p>
<p>Barriers related to recognition and treatment of Anemia</p> <p>Lack of knowledge about anemia Confusion among terms used to refer to anemia and low blood pressure Lack of knowledge about iron tablets Lack of compliance in taking iron tablets</p>

The above mentioned influencing factors described in more detail

Failure to Recognize Problem

Pregnancy is a natural, non-special phenomenon
The new bride/mother receives little special preparation for or during pregnancy -- it is regarded as a natural, common phenomenon for which no special attention is necessary

Low/Lack of Knowledge/education
Low education level and thus, low literacy level results in lower level of awareness and knowledge regarding health in general and pregnancy and childbirth specifically

Traditional beliefs, myths and rumors
There are a number of beliefs and rumors that are counter-productive to health practices and maternal or neo-natal survival such as taboos during pregnancies that discourage protein intake

There is also a prevalent belief that life is already destined which contributes to a fatalistic attitude that whatever happens is the will of Allah (*Insyah Allah*) In accordance with this belief, stillbirths can be seen as a blessing in disguise as the pure, innocent baby will help its mother in her after life, and the sorrow of loss is soon replaced with happiness with the birth of a *replacement*

Perception of health *not sick* means healthy

Men and women in South Kalimantan define being healthy as not being sick or healthy means the absence of illness So an under-nourished, or physically overworked woman may think of herself as being healthy because she is not actually in bed with an illness

Lack of preparation for problems

No preparation or expectation of problems

Women were conditioned to think that pregnancy and delivery is a natural, common phenomena and that nature will take its course without any help Therefore, women do not anticipate, nor prepare for health problems -- whatever happens is the will of Allah

Not recognizing there is a problem

Although women (and their husband/family) seem to have sufficiently high awareness of various complications, particularly during delivery (see Section 4.3), they are not knowledgeable enough to recognize these complications nor to determine their severity

Reliance on provider (usually TBA to recognize problems as they occur

In the case where a TBA is present during a birth, the woman relies on her to determine if there is a complication Since many TBAs do not have medical training, they may not recognize there is a problem until it is already severe

Decision making process regarding care seeking

The following factors influencing the decision on whether or not to seek care vary in degree of influence and number depending on the situation

Perception of seriousness of problem

Although there is a fairly high level of awareness and (in some cases) experience with complications, the recognition and perception of severity of problems remain a barrier in hastening making the right decision (to refer)

Who assists in delivery

In some cases, when a TBA is attending a delivery, there seems to be hesitancy to refer at the first sign of a problem The TBA tends to try to handle the situation until it is clear (to everyone present) that it is beyond her capability to help By that time it may also be too late for referral

Who is present during delivery

Decision-making power of each person present (including the woman) during a birth -- or situation requiring referral of a woman to a hospital depends on both who is present and how expensive care will be. In many situations the husband and woman and to some extent the mother-in-law play a large role in the decision, but in cases where other family members, neighbors etc are present, the decision is often made by consensus -- through a discussion process which can be lengthy and cause a significant delay in care-seeking.

Traditional beliefs

As elaborated above, traditional beliefs plays a large role. The fatalistic attitude hampers decision making because it helps defer blame in the case of a negative outcome.

Financial/affordability (of both transportation and hospital costs) and Accessibility/ availability of transport, distance

These two factors play hand in hand and are probably the main causes for reluctance to refer to hospitals. The further away, the more inaccessible the facility, the more expensive and oftentimes when the family cannot afford it, the need to borrow money.

Preference to deliver at home with TBA

The majority of respondents (9 out of 10) in the community diagnosis still prefer to deliver at home, most with the TBA. As described above this presents difficulties in timely decision-making to seek care.

Lack of confidence/comfort with health facilities

During the in-depth interviews, women mentioned the high cost of hospital delivery, feelings of being isolated with no one to look after the children, and belief that many facilities had incomplete equipment to handle emergencies.

Resignation about neonatal death

As described above, in cases where the neonate is in danger, there is a belief that death is the will of Allah, so there may be a lack of urgency to seek care.

Accessibility and timeliness of arrival

The factors influencing timeliness of arrival are

Length of decision making process (stage of complication)

The complex decision making process can make a critical difference in the chance of survival.

Time of day

The time of day will determine what transportation is available. Most commercial/public transport run from early morning to early/late evening. Except for a few communities which have some private vehicles, transportation is difficult to find in the middle of the night.

Adequacy of care

Upon timely arrival, the factors that will influence the chances of survival are

Waiting time for appropriate attention

Upon arrival at the facility, the woman and family may need to wait for the doctor or midwife to be called

Availability of qualified/specially trained staff, and

Availability of necessary equipment and supplies

In some facilities there are no qualified staff or supporting equipment and supplies to handle emergencies

Barriers related to recognition and treatment of anemia

Lack of knowledge about anemia and

Confusion among terms used to refer to anemia and low blood pressure

Most respondents in In-depth Interviews did not know what the signs/symptoms of anemia are, the causes of anemia, nor the effects on pregnancy. Many women used the same term and described the same symptoms for anemia and low blood pressure and this confusion was also found to exist among health providers

Lack of knowledge about iron tablets and

Lack of compliance in taking iron tablets

While most women said they had heard of, or had been given iron tablets, the number of tablets the women reported being given were variable, and compliance levels were low. As almost all women did not know the effects of anemia on pregnancy, they did not know the benefits of continuing to take iron tablets, and many stopped when they felt more energetic. Women also discontinued taking iron tablets because they thought their baby would become too big and cause a difficult delivery

IEC INTERVENTION STRATEGY

A detailed description of the process in arriving at the IEC strategy, the feasible behaviors, barriers and facilitating factors, and message contents are appended to the trip report to Indonesia, May 27 - June 19, 1996, by Reynaldo Pareja and Ray Galloway. The IEC strategy and the listed IEC materials proposed in the trip report are what was deemed comprehensive and ideal, numbering up to 22 different IEC materials including audio tapes, posters and leaflets. However, during subsequent discussions within MotherCare Indonesia, with IEC consultant and consultation with the staff at MotherCare South Kalimantan, considering the limitation of the time and restricted resources, it was found necessary to reduce the number of IEC materials by identifying the most essential ones without sacrificing the overall effectiveness of the proposed IEC intervention/campaign.

Regarding the IEC strategy or focus, it was also realized subsequent to the Field Trip Report that the community's capability to recognize complications were not as high as originally inferred. The data summarized in the trip report incorrectly referred to the level of awareness as the capability to recognize complications. Therefore more focus should be placed on the description of complications/symptoms to improve the communities' capability to recognize life-threatening complications. Failure to recognize the severity of the problem is the first major detour to in the pathway to survival.

The charts on the following pages summarize the IEC intervention strategy as of August 1996.

The following chart summarizes the revised IEC strategy (reduced number of IEC materials) , in terms of identification of the target audiences, media selection and message contents - for both the safe-motherhood Component and the Anemia component

A Safe-motherhood IEC Component

Target Audience	Behavior to promote/ objective	Media	Message (general)
1 Bidan/Bidan di Desa (As target audience and user of the IEC materials)	1 Inter-personal Communications and Counseling Skills (IPCCS) * Improve Inter-personal Communications and Counseling Skills, * Improve the Bidan di Desa's understanding (rapport) with the community	1 Training-workshops	1 To be adapted from the Bolivia IPCC module, with the following additions a Decision making process regarding going to the hospital b Feedback Observed short-comings in health service c Perception from the family's perspective of costs involved in gaining access to hospital in cases of complications d Perception of quality of service as perceived by mothers e Bidan/Bidan di Desa's perception of their quality of service versus that of the mothers' perception
2 Community/PKK	2 Introductory launching of Bidan di Desa 2 1 To introduce/inform the community of new (up-grading) advanced training that the Bidan di Desa's have received, in caring for mothers before, during and after delivery and in the care of newborns 2 2 To encourage community to invite BdD to attend or witness deliveries 2 3 Request support from PKK/ community to invite BdD to visit all mothers immediately after delivery	2 1 Letter/key note message to be read out at opening of workshop and introductory launch 2 2 Letter from Ibu Gubenuur	2 1 The Governor's messages - The role and responsibility of the Government is to care about the health and welfare of every member of the community - As part of that role and responsibility the Government have provided training and is placing Bidan di Desa in every village in the country - BdD is in the village as part of your community and is there to work to help you (BdD need to earn their own living) 2 2 Ibu Gubenuur (The Governor's wife) endorsing the newly trained midwives, and inviting the local PKK members and community to support (work together with) the Bidan di Desa

Target Audience	Behavior to promote/ objective	Media	Message (general)
<p>2 Community/PKK (Continuation)</p>	<p>2 Introductory launching of Bidan di Desa (Continuation)</p> <p>2.4 Encourage mothers to take advantage of the special program where the Bd will visit her 4 times during the first 40days (masa nifas)</p> <p>2.5 To inform community that all trained BdD will give mothers iron tablets to take 40 days after delivery</p>	<p>2.3 Poster with audio-tape</p> <p>2.4 Radio spots</p> <p>2.5 Poster</p>	<p>2.3 Review training content received by Bidan di Desa (new skills & services)</p> <ul style="list-style-type: none"> a The BdD will make 4 post-partum home visits b The importance of these post-partum visits c What she will do during the visits <ul style="list-style-type: none"> * check baby umbilical cord status, breathing, heart rate, weight, * check mother any bleeding , any tear in epistom, any infection, anemia, hygiene, eating/appetite, healing process, * check breast-feeding encourage exclusive breast-feeding, check nipple state, baby's sucking ability/problems * verify and remind mother to take iron tablets * FP counseling <p>2.4 One or more radio-spots will be developed to convey the following messages</p> <ul style="list-style-type: none"> a The BdDs are trained to deal with pregnancies and deliveries including problems (complications) b She is trained and knows what needs to be done c She is in your community to help d She is there to work together with the TBAs <p>2.5 Image building of BdD in providing ANC and Post-partum services the illustrations shows two panels</p> <ul style="list-style-type: none"> a (At Posyandu or Puskesmas) BdD with pregnant woman, giving iron tablets c Home-visit same BdD with same pregnant woman with her newborn, BdD gives more iron tablets <p>Text Bidan/BdD provides services for pregnancy check-up, delivery and post-partum check-ups and provides iron tablets</p>

Target Audience	Behavior to promote/ objective	Media	Message (general)
Community and Bidan di Desa	<p>3 The community-based emergency medical evacuation plan</p> <p>* To help prepare the community in setting up an emergency evacuation plan/ transportation for any medical/obstetrics emergency - <i>well in advance</i></p>	<p>3 Poster and work-sheet</p>	<p>3 The Emergency Evacuation Plan would include the following factors to consider</p> <ul style="list-style-type: none"> a Explanation of the concept b Who are the key players/what roles? c How is the community organized? d What are the available resources in regard to transportation? e How would the system work in this particular community? f Evaluation of costs versus benefits
4 Bidan di Desa (To use in preparation for emergencies)	<p>4 To help BdD in discussing preparation for emergency plans with the pregnant women and her family, and in getting the woman and her family to recognize and acknowledge complications and the need for referral</p>	<p>4 BdD Handbook (reproduced on cards or laminated page)</p>	<p>4 The page/cards will describe the danger signs to look for in the three different phases plus a message to prepare for emergencies</p> <p>4 1 During pregnancy</p> <ul style="list-style-type: none"> a Hemorrhage, b Swelling of face and hands, c Persistent headache, visual spots (<i>Berkunang-kunang</i>), d Pain under right ribs <p>4 2 During delivery</p> <ul style="list-style-type: none"> a Hemorrhage, b Baby breached/horizontal position, c Prolonged labor more than 16-20 hours, d Mother has fever and chills, <p>4 3 Post partum</p> <ul style="list-style-type: none"> a Hemorrhage, b Discharge with foul smell, c Abdominal pains,

Target Audience	Behavior to promote/ objective	Media	Message (general)
			<p>d Fever and chills</p> <p>4 4 (Continued on next page)</p>
<p>4 Bidan di Desa (To use in preparation for emergencies)</p>	<p>4 To help BdD in discussing preparation for emergency plans with the pregnant women and her family, and in getting the woman and her family to recognize and acknowledge complications and the need for referral</p>	<p>4 BdD Handbook (reproduced on cards or laminated page)</p>	<p>4 4 To prepare for an emergency the family is counseled on</p> <ul style="list-style-type: none"> a Saving money for the birth and transportation , b Identifying the transportation available for use in case of emergency and ascertaining costs, c (Still to be discussed whether to include) Anticipation of hospital costs
<p>5 TBAs and Bidan di Desa's</p>	<p>5 Improve co-operation and rapport between Bidan di Desa's and TBAs, and to increase the ratio of births attended by BdD's (together with TBAs)</p>	<p>5 Certificate of Cooperation (Contest among teams of BdD's with TBAs)</p>	<p>5 Certificates of Cooperation will be awarded to both the BdD and the TBA teams who achieved the highest proportion of births with the BdD in attendance, in each Kecamatan/Kabupaten</p> <p>The Certificate will commend the team-effort of the TBA and BdD</p>

Target Audience	Behavior to promote/ objective	Media	Message (general)
<p>6 Pregnant women and Post-partum mothers</p>	<p>6 To prepare the mothers in proper care and breast-feeding of the newborn, and the mothers' diet, hygiene and FP</p>	<p>6 Bound-counseling cards (or flipchart)</p> <p>to be used by BdD in ANC and post-partum counseling</p>	<p>6 The counseling cards or flipcharts will be bound in two parts</p> <p>6 1 Delivery and Breast-feeding</p> <p>a The baby is cleaned (dried) , weighed and measured right after birth</p> <p>b For the first hour do not bathe baby, cover baby to keep warm</p> <p>c Start first breast-feed within 30 minutes of birth</p> <p>d Importance of immediate breast-feeding</p> <ul style="list-style-type: none"> - stimulates production of milk, - stimulates uterus to contract and expel placenta, - reduces bleeding, - baby learns faster how to suck, - baby feels safe and closer to mother <p>e Give baby colostrum, don't throw away colostrum</p> <p>f Colostrum good for baby gives immunity, helps first excretion, gives nourishment before first milk comes</p> <p>g Make sure mother is comfortable and her arms are supported /resting on pillows</p> <p>h BdD helps to make sure that most of the areola is in baby's mouth</p> <p>I Baby should sleep next to mother in same bed/mattress</p> <p>j Feed baby on demand</p> <p>k Feed baby only breastmilk until at least 4 months Breastmilk is enough, other foods can make baby ill, reduces breastmilk production</p> <p>l How to breast-feed properly and how to overcome problems</p> <ul style="list-style-type: none"> - how should the mother care for herself to ensure the mother's well-being and good milk production (food and liquid intake, importance of getting enough rest/sleep when baby sleeps)

Target Audience	Behavior to promote/ objective	Media	Message (general)
			<ul style="list-style-type: none"> - alternating breasts (emptying breast) - how to treat mastitis, - making sure baby sucks correctly, - how to remedy low milk production, - how to prevent and treat sore cracked nipples
<p>7 Family nucleus Husband, wife, mothers/ mothers in law and TBAs</p>	<p>7 Convince the bride, the groom and the family that pregnancy needs special care and attention, to prepare them to recognize danger signs/complications, and to stress importance of husband's role</p>	<p>7 Leaflet/flyer (Illustrated comic style) Distribution channels For husbands given at marriage ceremony For rest of family given to pregnant women at ANC visit (Note originally planned 2 leaflets)</p>	<p>7 For husbands/pregnant women/mothers/mothers-in-law a Pregnancy is a special time for the wife She needs special care and attention She needs to do less heavy/hard work b Although most pregnancies and delivery do not present problems, there are some that can develop problems c It is important to recognize signs of these problems to get help in time The danger signs are (same as 4 1, 4 2 and 4 3) 7 1 During pregnancy a Hemorrhage, b Swelling of face and hands, c Persistent headache, visual spots (<i>Berkunang-kunang</i>), d Pain under right ribs 7 2 During delivery a Hemorrhage, b Baby breached/horizontal position, c Prolonged labor more than 16-20 hours, d Mother has fever and chills, 7 3 Post partum a Hemorrhage, b Discharge with foul smell, c Abdominal pains, d Fever and chills d As soon as you see any of the above danger signs, take your wife to</p>

Target Audience	Behavior to promote/ objective	Media	Message (general)
8 Family nucleus	<p>8 Convince family the urgency for reference</p> <p>The main message being DO NOT DELAY</p> <p>Note Bear in mind that the real reason for the reluctance for referral is basically the fear of the high cost (transport, hospital services), and this is a practical problem that need to be addressed both logically and emotionally</p>		<p>the hospital (Puskesmas)</p> <p>e Husband, mother/mother-in-law, TBA all have important role</p> <p>f The role is to not delay action/decision</p> <p>g Insya Allah, with your full effort, the wife and baby will be safe and healthy</p> <p>h Also to include message 4 4</p>
		<p>8 Package (list) of counter arguments,</p> <p>Radio drama (radio spots)</p>	<p>8 The following are samples of possible arguments and counter-arguments between the family member (F) and the Bidan (B) when the Bidan suggested referral to a hospital</p> <p>F Let's wait till we have tried what the TBA/mother/mother-in-law can do to handle the situation</p> <p>B The longer you wait the worse the situation will get, and it will be too late for the woman/baby</p> <p>F The cost to go to the hospital is too much (The hospital costs too much)</p> <p>B It will cost more if your wife dies, and your children will have no mother (It will cost more for the funeral and to find a new wife)</p> <p>F Lots of women die at the hospital</p> <p>B They die because they go too late If they didn't delay or went earlier than there is more chance of saving the woman/baby</p> <p>F We have no transport</p> <p>B Let's now look/ask around for transport</p> <p>F The hospital is too far, we will probably be too late</p>

Target Audience	Behavior to promote/ objective	Media	Message (general)
<p>9 Religious Info-card (Special prayer and relevant verses from the Qur'an)</p>	<p>9 To convince husbands of the urgency for timely referral and to make all efforts to take wife to hospital</p>		<p>B If we don't delay, and go as soon as we see a sign of complication, we may get there in time</p> <p>F I've never been to a hospital</p> <p>B I will be there to help you arrange everything</p> <p>F Who will look after my kids?</p> <p>B Ask your neighbor/mother/mother-in-law</p>
		<p>9 Religious sermons and radio spots</p>	<p>9 The message will be in the form of a special prayer with a quotation from the Qur'an "Insha Allah, with your (husband's) full effort in getting medical help, your wife and baby will be safe and healthy "</p>

B Anemia IEC Component

Target Audience	Behavior to promote	Media	Message (general)
<p>1 Bidan/Bidan di Desa to be used with pregnant women</p>	<p>1 Provide reference materials to be used in counseling pregnant during ANC regarding the benefits and side-effects of iron tablets</p> <p>The messages are geared to promote compliance by explaining the benefits and to prepare women to avoid/ anticipate any possible side-effects</p>	<p>1 Bound-counseling cards</p>	<p>1 The counseling cards will have the following prime messages</p> <p>SYMPTOMS AND CONSEQUENCES OF KURANG DARAH</p> <p>a No energy, easily tired, listless, exhausted and weak (<i>Kurang tenaga cepat lelah, lesu letih dan lemah</i>)</p> <p>b Dizziness and black spots in sight</p> <p>BENEFIT OF IRON TABLETS</p> <p>a Makes the woman healthy and strong because it replaces the blood needed for baby's growth</p> <p>b Makes baby grow healthy and strong</p> <p>HOW TO TAKE IRON TABLETS</p> <p>a Take one tablet a day</p> <p>b During pregnancy you need to take at least 90 tablets</p> <p>c Take iron tablets in the evening before going to bed to reduce nausea</p> <p>d Take iron tablets with plain water or fruit</p> <p>e Don't take iron tablets with tea or coffee because tea and coffee will reduce their effectiveness</p> <p>IRON TABLETS WILL NOT CAUSE</p> <p>a High blood pressure,</p> <p>b Baby to grow too big</p> <p>(Continued next page)</p>

Target Audience	Behavior to promote	Media	Message (general)
1 Bidan/Bidan di Desa to be used with pregnant women (continuation from previous page)	1 Provide reference materials to be used in counseling pregnant during ANC regarding the benefits and side-effects of iron tablets The messages are geared to promote compliance by explaining the benefits and to prepare women to avoid/ anticipate any possible side-effects	1 Bound counseling cards	SIDE-EFFECTS OF IRON TABLETS a Nausea b Constipation c Black stools d Upset stomach No need to worry, this is common and not dangerous WHERE YOU CAN GET IRON TABLETS a Puskesmas, Pustu, Posyandu, b Bidan di Desa, c You can buy them at the <i>warung, toko obat</i> with a special identifying sticker
2 Pregnant women	2 To remind pregnant women to take one iron tablet a day for 90 days ante-natal, and 40 tablets post-partum	2 Reminder calendar with pocket for iron tablets sachet and pencil/ball-point pen	2 The calendar has 90 squares for ante-natal and 40 squares for post-partum Each day after taking one tablet, the woman will mark a cross on a square The calendar features a woman taking a tablet and the question as a heading Have you taken your <i>tablet tambah darah</i> today?
3 Post-partum women	3 Provide reference materials to be used in counseling mothers, post-partum regarding the benefits and side-effects of iron tablets The messages are geared to promote consumption post-partum and compliance by explaining the benefits and to prepare women to avoid/ anticipate any possible	3 Bound counseling cards	3 The counseling cards will have the following prime messages WHY WOMEN WHO HAVE JUST GIVEN BIRTH NEED TO TAKE IRON TABLETS a Sometimes, <i>kurang darah</i> doesn't show any symptoms b During delivery you lose a lot of blood c Iron tablets are needed to replace the blood

Target Audience	Behavior to promote	Media	Message (general)
	side-effects		<p>lost during delivery</p> <p>d Iron tablets do not casue high blood pressure or too much blood</p> <p>HOW TO TAKE IRON TABLETS</p> <p>a Take one tablet a day</p> <p>b During pregnancy you need to take at least 90 tablets</p> <p>c Take iron tablets in the evening before going to bed to reduce nausea</p> <p>d Take iron tablets with plain water or fruit</p> <p>e Don't take iron tablets with tea or coffee beasue tea and coffee will reduce their effectiveness</p> <p>SIDE-EFECTS OF IRON TABLETS</p> <p>a Nausea</p> <p>b Constipation</p> <p>c Black stools</p> <p>d Upset stomach</p> <p>No need to worry, this is common and not dangerous</p> <p>WHERE YOU CAN GET IRON TABLETS</p> <p>a Puskesmas, Pustu, Posyandu,</p> <p>b Bidan di Desa,</p> <p>c You can buy them at the <i>warung toko obat</i> with a special identifying sticker</p>
4 Retailers of iron tablets	4 To provide information to retailers so that they will be able to promote iron tablets and provide information to customers (pregnant women) regarding the befenits and side-effects of iron tablets	4 Leaflet 6 panels (pages), possibly also in a poster form to be displayed at the outlet	4 The leaflet/poster will have the following prime messages that the retailers can pass on to customers Panel 1)

Target Audience	Behavior to promote	Media	Message (general)
			<p>Pregnant mothers need <i>Tablet Tambah Darah</i> Iron tablets make mothers healthy and strong Panel 2) Iron tablets make the baby grow healthy and strong Panel 3) Iron tablets doesn't cause high blood pressure, too much blood, baby to grow too big Panel 4) Iron tablets will replenish blood lost during delivery Panel 5) Iron tablets can cause nausea, constipation upset stomach No need to worry, this is common and not at all dangerous Panel 6) Take one iron tablet a day before going to bed Take at least 90 tablets during pregnancy Take at least 40 tablets during <i>nifas</i> period (40 days post-partum)</p>
5 Point-of-sale promotional materials	5 To alert community/create awareness that iron tablets are available at the outlets	5 Stickers	5 Alternative stickers 1) Iron tablets are available here 2) We stock iron tablets 3) This shop stock iron tablets 4) You can buy iron tablets here Illustration Pregnant woman with healthy, bright/happy face, holding a sachet of <i>Tablet Tambah Darah</i>

8 APPENDICES

8 1 APPENDIX A

Excerpted from the Focus Group Discussion Report Description of the four communities selected for the sites of the FGDs

3 DESCRIPTION OF THE COMMUNITIES

The four villages selected were aptly chosen as they were each different in many ways, apart from the specified criteria of proximity to a Puskesmas and level of attendance. The other differences were distance and access from a city or urban area, ease of transportation and communication, population density and type of dwelling and neighborhood.

3 1 Bahadang, Barito Kuala Far from Puskesmas, low attendance

Getting there and back Bahadang is an isolated village located on one side of the river bank. The river bank is flat/flush with the river water level. It is about one hour from Banjarmasin by private car to the Puskesmas nearest Bahadang. The last few kilometers the road is a single-lane dirt road. The Puskesmas (Sei Puntik) is situated on a river bank, near a wide wooden bridge. Then from there another hour on a small single-engined boat (*klotok*) belonging to the Puskesmas (capacity 8 passengers), going up-stream away from the Puskesmas. The actual distance is about 7 to 8 kilometers. The cost of chartering a *klotok* to the Puskesmas can be as much as Rp 20,000,- which is felt to be very high.

There is no public transport by road. There are a few *ojeg* (motorcycle taxis) serving the last stretch of road, but not always available. The Puskesmas ambulance is on stand by at the Puskesmas. The resident doctor lives in a house behind the Puskesmas.

Downstream from the Puskesmas is the direction towards Banjarmasin which is about two to three hours by *klotok*. There were many *klotoks* (passenger capacity 15 to 35) plying the Banjarmasin-Sei Puntik route and the traffic were very busy especially on market days (Mondays). The market and the *klotok* terminal are located on the opposite bank of the Puskesmas.

On route to Bahadang, proceeding slowly in the noisy two-stroke diesel engine, the traffic was very thin. During the 60 minutes there were only three *klotoks* going the opposite direction, and one over-taking our *klotok*. Along the banks on the left and right are village houses built on stilts, and the houses were sparsely located. Women and children can be seen on the jetty in front of the house, some were bathing, brushing their teeth, some washing clothes, washing dishes and some preparing the food for cooking. The water used for all of the activities mentioned is taken straight from the river. There were children playing in a *prahu* (canoe/row boat) and some swimming. They seem to be adept in and on the water.

Bahadang village is located on a marshy, swamp land and there is no overland road to/from the Puskesmas. There is no electricity. The community seems to be poorer than the other three villages selected for the FGDs. There are two *Bidan di Desa* who live about five to ten minutes away but on the other side of the river and only accessible by boat. These two *Bidans* serve in two nearby villages, Jejangkit Timur

and Sampurna

Bahadang had suffered a two-month long flooding early in 1996 when excessive rainfall cause the river water to rise. Water levels above ground were up to 50 cm high. This has caused what little crop they have to spoil.

3.2 Tanipah, Barito Kuala Near from Puskesmas, high attendance

Getting there and back. Tanipah village is located one hour away by private car from Banjarmasin. It is on the opposite river bank, across the bridge where Puskesmas Sei Puntik is. (Puskesmas Sei Puntik serves among others, Tanipah and Bahadang). The Puskesmas is accessible on foot or motor-cycle by a wide rickety wooden bridge about 100 meters from the Puskesmas. At the center of the village is a large open area with roofed stalls built for the market. At one side of this market is a boat terminal as described above.

The land in this area is more solid and dry. The houses are built raised on low stilts. Tanipah also suffered from the same flooding.

Tanipah villagers seem to be more well-off economically than those in Bahadang. The village has electricity and few of the houses have television. Tanipah is busier and more accessible to Banjarmasin than Bahadang and gets regular supplies of fresh foods.

3 3 Pakapuran Kacil, Hulu Sungai Selatan Far from Puskesmas, high attendance

Getting there and back Pakapuran Kacil is a village surrounded by water, and is about two and a half hours to three hours' drive in a private car from Banjarmasin via Kandangan (capital city of the district) and the small market town of Negara. Kandangan is about two and a half hours from Banjarmasin. From Kandangan the part of the road leading to Negara is a narrow raised paved road towards swampy, marshy land and sparsely populated area. And then the road becomes a raised single dirt track cutting through the marsh. There are a few houses along the sides of the road, on stilts either on marshy grounds or on water.

Two new bridges to/from Negara were under construction and the temporary bridges to Negara is made of wooden planks reinforced with trunks of palm trees. The market town of Negara was very busy on Monday being a market day and the only road through Negara was congested with vendors and their produce and wares spread out onto the road. For a small fee, someone can clear the way for cars passing through. There were also many cargo trucks (small and large) parked along the road. On Fridays, which is a bigger market day, the road is virtually impassable.

But the road is not the only way in and out of Negara. There are many *klotoks*, small and large that serve the route of Banjarmasin- Kandangan-Negara for a mere Rp 2000,- but it takes 12 - 14 hours. This is mainly used by traders to transport bulky produce and wares to sell. Negara is also accessible by a ferry bus (*bis air*) from Banjarmasin.

The Puskesmas serving Pakapuran Kacil is located in Negara, which is about 1 KM away and is accessible by *taksi* (mini buses) and by *klotok* at a cost of Rp 500,- or can be chartered for Rp 5000,- which was thought to be reasonably affordable. There are a few houses which have private cars in their meager front yards. The neighborhood seems to be better off than Bahadang and Tanipah. Many residents are traders in commodities and forest products.

3 4 Jawa Laut, Banjar. Near Puskesmas, low attendance

The village of Jawa Laut is located within the municipality of Martapura and is typically a built-up urban area. It is within easy access to all urban facilities and services. Martapura is about 1 ½ hours' drive in a private car from Banjarmasin. Jawa Laut is only a Rp 500,- *becak* (rickshaw) drive from a hospital.

The community is relatively more affluent compared to the other communities visited. The houses are better constructed (plastered brick walls, tiled roofs). The community members proudly claim that their Posyandu is highly attended.

There is a very well-known popular religious leader, Haj Mohammad Zaini Gani who lives in Martapura area. It is not surprising that this area is a very devout Moslem area. Every Saturday the Haj would hold audience with his many thousand followers. The audience is segregated by giving the sermons on alternate Saturdays for men and women respectively.