

HUNGER, POVERTY AND FAMINE IN ETHIOPIA: MOTHERS AND BABIES UNDER STRESS

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Raising children is very difficult for women. It is just tiresome. First throughout the pregnancy women worry about their child and they continue to do so for the rest of their lives. *Woman from Oda Haro*

I. INTRODUCTION

Millennium Development Goal Number 4 is to reduce child mortality and Goal 5 is to improve maternal health. The latest UNICEF estimates of child mortality rates for Ethiopia are 171 per 1000 under 5 and 114 per 1000 under 1 (UNICEF, 2004). The maternal mortality rate estimated in 2000 by WHO, UNICEF and UNFPA is 850 per 100,000 and the lifetime risk of maternal death is estimated at 1 in 14 (UNFPA, 2000)¹. There are other problems related to reproduction which are of interest to statisticians and policymakers, including fertility rates, and maternal and infant malnutrition and morbidity. Behind these 'quantitative' measures lie the 'qualitative' stories which are the subject of this paper. Qualitative investigations of the kind undertaken here focus on the processes and experiences involved in the generation of outcomes, which in this case include malnutrition, illness and death.

The paper is based on a preliminary and exploratory analysis of qualitative information² on infertility, pregnancies, birth, and infancy, which was gathered by women researchers³ in 20 rural areas⁴ of Ethiopia (see Map) between July and September 2003⁵. Researchers were provided with a Protocol (see Appendix) to guide interviews with respondents of different social status, namely an educated woman with children; a richer uneducated woman with children; a poorer uneducated woman; a traditional birth attendant; and a woman health worker at health post. The focus is the structured Pregnancy/Infancy cycle, and given such a research subject 'time' is clearly an important aspect. This cycle is a period of a year or more during which a woman becomes pregnant, experiences huge bodily

¹ I do not know whether these are based on data or are projections.

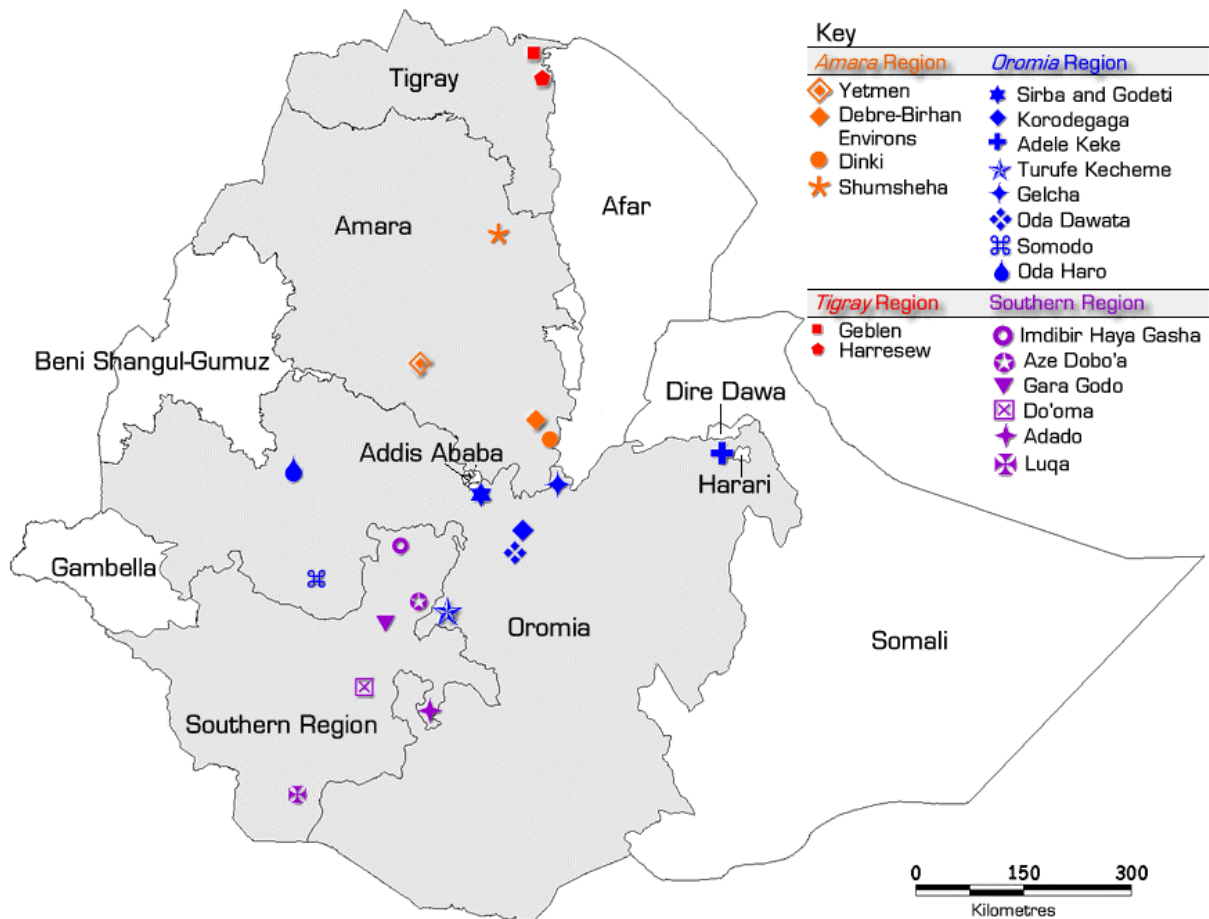
² This research is part of the Ethiopia WIDE project (Wellbeing and Illbeing Dynamics in Ethiopia: focused on 20 rural and two urban research sites) which is one of the three projects which constitute the Ethiopia WeD Programme (Wellbeing in Developing Countries: www.wed-ethiopia.org). The other two projects are (1) ENTIRE which is a country study of Ethiopia and (2) DEEP which involves in-depth research in four rural and two urban sites. WeD is an integrated multi-disciplinary and cross-cultural research programme conducted in Bangladesh, Ethiopia, Peru and Thailand, based at the University of Bath, UK, (www.welldev.org.uk), and financed by the British Economic and Social Research Council. Thanks to the women researchers and their anonymous respondents, the Ethiopia WeD team involved in the WIDE2 research, especially Alula Pankhurst, Ayalew Gebre, and Melese Getu, and the team of data enterers at the University of Bath. Also especial thanks to Ashebir Desalegn for the map and digging out some statistics and to Alula Pankhurst for useful comments on this paper and suggestions for follow-up.

³ Abebech Belayneh, Ajobush Argaw, Asmeret Gebrehiwet, Bethel Terefe, Bethlehem Tekola, Freiweini Zerai, Hilifsty Aregawi, Kiros Birhanu, Seblewangel Ayalew, Selamawit Hailu, Selamawit Menkir, Senait Yohannes, Tigist Tefera, Tirhas Redda, Tizita Jemberu, Tsega Melese, Yenenesh Tadesse, Yirgedu Meliket, Yirgedu Tefera, Zewdie Sinshaw.

⁴ The Appendix contains some information on the 20 research sites.

⁵ The qualitative tables on which this analysis is based can be found on the Ethiopia WeD website www.wed-ethiopia.org. It is impossible to do justice to this rich qualitative data set in a paper-length output. In particular I have been unable to analyse the diversity in any depth. There is diversity in responses from the different livelihood systems and cultures, and there is diversity among respondents, who included rich and poor, educated and uneducated, traditional birth assistants and health workers.

changes, gives birth, and in most cases cares for, and may breastfeed, the growing infant. From the baby's perspective an egg is fertilised, an embryo develops into a baby which matures in the womb, is born, and requires the provision of food and care. The health and safety of the mother-baby couple is inter-twined in complex ways, and also affected in complex ways by what is going on in their environment. During the Pregnancy/Infancy cycle mother-baby couples are particularly affected by diet, time-use, and illness. In rural Ethiopia these will be linked to seasonal changes in the availability of food and perhaps water, in the weather, especially heat and cold and rain and wind, and in work demands. In most rural areas the availability of food and water also vary by year according to the vagaries of the climates. The timing of a pregnancy/infancy cycle matters for the survival and quality of life of both mothers and babies.



The paper has three sections. The first provides local information on, and interpretations of, the main problems which arise during the process of the production of children. The second describes the ways in which seasonal and annual variations in food availability and disease impact on mothers and their babies. The third summarises the key findings and highlights what I think are the key policy issues⁶.

II. MOTHERS AND BABIES: REPORTS FROM TWENTY RURAL AREAS

In this section I describe the problems that are faced by mothers and babies in rural Ethiopia as they move through the Pregnancy/Infancy cycle. These problems are considered in relation to questions

⁶ At this point I must confess to almost complete ignorance of the relevant policies of the Government of Ethiopia, and of relevant donors in this area, which is new to me. Information about policy implementation and NGO practices is also important. These will be the focus of upcoming WeD research.

posed to respondents under four headings: fertility and infertility; pregnancy; giving birth; and infancy.

I. Fertility and Infertility

In rural Ethiopia the status of adult women is linked to the production of children: the number and the sex. In relation to pregnancy a woman faces two risks. The first is falling pregnant when she should not, which is usually outside marriage. The second risk is failing to become pregnant or to carry a pregnancy to term when she should, which is usually when she is married or has a stable partner. There are three particular problems here: infertility, unwanted pregnancies, and miscarriages.

i. Infertility

How many women are there in the community who have never been pregnant?

In some sites responses were very similar, while in others they varied. In 10 sites all respondents reported knowing 5 or less infertile women. In two of the larger 'urbanised' sites most respondents said they didn't know. In 5 sites respondents reported up to 10 infertile women, in most of those agreeing on higher figures. In the Debre-Birhan environs respondents only identified one woman who they claimed had left the area as a result. There were two sites reporting high levels of infertility:

So many! Who do you think can count them.

So many women. Poor them. At least about 50.

There are so many.

There are many women who have never been pregnant.

So many, who counted them. Even in this "Kushet" there are about 5 women married but who don't have children till now. So people gossip them that they are "Mekan", one who could not bear children. (Harresaw)

I don't know their exact number but there are many women who are not getting pregnant although they are in need.

There are lots of women but I don't know their exact number.

They are many.

There are many in number. (Oda Dawata)

What do women do if they are not getting pregnant when they wish to?

This varies according to local customs. Most respondent from Tigray and Amara Regions reported that infertile women pray, 'go to holy water' and to traditional practitioners ('witches')

Slaughter a goat and wash herself with the blood and she tie the animal skin in her head. (Harresaw)

They carry "Gedli", a big stone in the church and walk in the church compound seven times each day until they get pregnant. (Harresaw)

They will baptise in holy water, if they are not that much religious they will try to do some ritual activities. (Yetmen)

They pray to God and they use different traditional drugs (Shumsheha)

Respondents from sites in the Oromia Region reported praying to saints, to Allah, and using traditional medicine. In two sites there were reports of consulting doctors at the local clinics.

There are women who change their religion, who go to the magician's home for holy water. And there are some people who go to the health centre, although their number is very small. (Oda Dawata)

These days some get medical help and take fertility drugs. (Turufe Kecheme)

Responses from the two pastoralist sites were different:

Elderly women massage the lady's belly with the fatty meat of sheep as it is believed that this will make her fertile. (Gelcha)

I will go to witch doctor. He asked me why I fight with my father and/or uncle and why I'm insulted them. He tell me that it is a curse of them. So my husband send cattle for my father and for my uncle as an excuse, but if still I didn't have a baby I convince myself that it's God will. (Luqa)

Responses from SNNP sites also varied according to culture. Respondents from Adado said:

Go to witches, or go to churches to pray or she will call all people in her tribe and tell them to pray that she can have a baby, and she asks the tribe to forgive her if there are people upset with her.

In Do'oma:

Some of them will go to the magic house and some of them will go to the church and pray to God.

All respondents from Imdibir said that they would consult health professionals and all from Aze Debo'a said they would do nothing⁷.

In Gara Godo it was reported that those who could afford would seek medical advice:

Those who are able (financially) to see a doctor go to hospitals or other health clinics but others go to ask traditional health practitioners and witchcrafts. (Gara Godo)

In some sites respondents suggested that adoption was a way out:

(T)hey take children of their relatives and raise them as their own (Sirba and Godeti)

Others will adopt the babies of their relatives. (Gara Godo)

A few respondents raised the issue of male infertility:

She would go to the hospital to know if the problem is with her or with her husband. If the latter is true nothing will be done. But if the former is true the husband will marry another woman. (Turufe Kecheme)

When infertility happens between a husband and a wife they always think that the problem only to her side. So their decision is divorce. And I know a woman case, after she get divorced she gave birth from another person. (Oda Dawata)

(If a man couldn't have a child a relative of his comes to his house and sleeps with his wife and if she becomes pregnant the baby will be announced as belonging to the woman's husband's. (Luqa)

What has happened to [the infertile women]? Describe a case.

This question was interpreted in two ways. First as asking *why they are infertile?*

In a number of sites the woman's behaviour was seen as the cause:

Some people also think that she is condemned by God. (Geblen)

One of them have been blamed by her father. They say that all this happen because she wouldn't marry the guy he suggested. (Luqa)

Some respondents gave 'modern' explanations

It may be caused by repeated abortion that results in barren. (Adele Keke)

One is naturally infertile. The other was seriously sick and after that she became infertile. (Shumsheha)

They could be naturally sterile or they may acquire it due to illnesses. (Imdibir)

The second interpretation was *what have been the consequences of their infertility?*

A very few respondents claim that there are no consequences, or even that they are positive:

Nothing. They live like others live. (Geblen)

She lives well. (Oda Haro)

Some respondents point out the consequences for the woman's subjective wellbeing:

They feel sad (Adele Keke)

They get weaker, thinner, they worry a lot. (Harresaw)

She feels as if she is not a normal person. (Geblen)

⁷ These responses may be particularly influenced by the interviewer

And she get jealousy when she look at other women with children. Feel lonely, secluded. (Harresaw)

There are material and human resource consequences:

They consume much time and cost to find child. (Geblen)

Because they don't have children, to follow the sheep, goats, they keep the herd by themselves. (Harresaw)

She don't have any child to help her and she lie leaving her property to no one. (Harresaw)

They didn't have a helper, if they didn't have a child/daughter and son. (Yetmen)

They should hire a worker, in addition when they become old there they didn't have any helper or servant. (Dinki)

In most places their status is low:

Besides they are not very much welcomed and respected in the community because it is considered as their own fault. (Harresaw)

Everyone insults her. She gets upset. She does not communicate with people in a normal way. She is inferior. (Adado)

They are unhappy people, many despise them. Neighbours insult her by saying you are a mule, you don't have anyone who may inherit you, and their husbands may divorce for they need children. (Gara Godo)

If a woman couldn't have a child at all, she will be given the name 'Dabade' which means 'the lost' and even her husband insult her with this name. (Luqa)

Although in Sirba and Godeti there is some sympathy for their plight;

Some of the women's husbands take a mistress. People sympathise and pity the woman. (Sirba and Godeti)

Their social relations will be affected, particularly their marriage:

They quarrel with husbands (Dinki)

They won't have peace at home. They would be blamed and insulted by their husbands for not being able to do so. (Korodegaga)

Here her only chance is to be a widow and her husband might suspect her of using a medicine and beat and torture her. (Harresaw)

He takes a mistress with his wife's permission. (Sirba and Godeti)

Some permit their husbands to marry other women. Some women live peacefully with their husband and his new wife. However, sometimes they get divorced. (Oda Haro)

They are usually divorced or make a second wife. (Imdibir)

They always become sad because during qeso wonfel if they haven't child this person couldn't co-operate with those who want to make wonfel because so as to make wonfel, they have to have proportional number of persons. (Dinki)

If her husband is a good person, she will stay in his house taking care of the children from his other wife/wives. Otherwise, she will be forced to leave the village and go somewhere else. (Luqa)

Some women go through frequent marriages:

She can marry or divorce again and again. (Do'oma)

She was married to five people. And now she confessed to herself that she will never be married again and she is living with her father (Luqa)

ii. *Unwanted pregnancies*

Are all pregnancies wanted? If not are there ways of getting rid of unwanted pregnancies?

From Somodo it was reported that 'not all pregnancies are wanted, especially premarital ones.'

In some sites respondents focused on pregnancies outside marriage. Here is a mixture of responses from Geblen in Tigray:

No, not all pregnancies are wanted. It is not acceptable to give birth out of marriage. Parents always advise their daughters. But if it happens many of the girls migrate to nearby towns, or they kill the baby by drinking some medicines (some die, some are sterilized).

In Luqa illegitimate children are not accepted:

Pregnancy is not wanted only in the case of unmarried girls. They use a traditional way to get rid of it. In such case the pregnant woman's stomach will be scraped with hand to kill the infant inside. If this method doesn't work and if the child is born, he will be thrown and killed by the village elders.

In Do'oma illegitimate children may be encouraged to die:

Almost all pregnancies are wanted but bastard is unwanted by the community. So that if there is a chance of bastard a few days after they are born the mother will stop giving the breast milk and give another kind of food made to make the child die early.

In Luqa there is a particular kind of unwanted pregnancy:

when a mother get pregnant before the newly born baby have milk teeth, the woman should abort the baby. If not after she gave birth, the newly born baby and the other baby will be thrown away by the village elders.

It was reported from most sites that pregnancies within marriage are often not wanted. A number of respondents claimed that even so women would not abort:

All pregnancies are not wanted but we will not take any measure to get rid of it. It is sinful to do so. (Yetmen)

However, from the same site came this report:

No, the abortion may take place in health centers of traditional medicine. But the traditional one is risky for the woman. (Yetmen)

A number of abortifacients were described:

Not all pregnancies are wanted. Traditional drugs are taken to terminate unwanted pregnancies. There are some who drink bleach. There are some who drink soup solution. Others consume large quantities of anti-malaria pills. There are some who come to hospital for help after they have started bleeding. (Turufe Kecheme)

Other items mentioned included a fluid prepared from *Indod* [*Phytolacca dodecandra*]⁸, local herbs, and boiled *chat* [*Catha edulis*]. In a few places it was reported that abortions take place in hospitals/health centres, legally and illegally:

Women who do not want their pregnancy go to hospital in Debre Zeit and after their partner signed, they will be able to get an abortion.

No, some of them go to health centres because there are health workers who perform illegal abortion. (Oda Dawata)

Poor people cannot afford abortions:

No, if the pregnancy doesn't have money they simply born but they are willing the born child becomes dead but they didn't use any other traditional means. (Dinki)

Women who might want to abort may be prevented:

Yes, there are but women are forced by their husband to have as much children so they can't abort. (Harresaw)

No, but if the husband is rich he likes to have more children, even if the wife doesn't want any more children. (Oda Haro)

Respondents from Gara Godo explain some of the pressures to have a lot of children:

All pregnancies are not wanted but there is strong cultural influence which favours having many children in our society and children are considered as old age security and inheritance.

In our culture people fear that they may lose their children due to death, so if we stop giving birth, what will happen if all the babies die.

⁸ This plant is reported to cause abortions in Azene Bekele-Tessema with Ann Birnie and Bo Tengnas *Useful Trees and Shrubs for Ethiopia*. SIDA, Nairobi 1993:352

In response to this question some respondents, particularly the health workers, mentioned contraception.

(W)e give women tablets to control the birth. (Debre-Birhan environs)

But these days, they teach us how to avoid pregnancy at the clinic. (Gelcha)

All are not wanted so to get rid of unwanted pregnancy currently women in our community are experiencing using family planning methods. (Gara Godo)

Nowadays women use contraceptives and if it any chance they unintentionally get pregnant, they usually accept it rather than getting rid of it. (Imdibir)

Although another respondent from Imdibir claimed:

Unwanted pregnancy is more common. Only a few pregnancies are wanted. (Imdibir)

From Gara Godo it was reported that:

Some fear to use family planning due to lack of knowledge and others may face opposition from their husbands to use family planning. (Gara Godo)

iii. *Miscarriages*

What happens when women miscarry?

In some places women who miscarry are denigrated:

She is not worth to marriage. She is called 'stupid'. (Geblen)

In others she is looked after:

Because women do not try to intentionally get rid of pregnancies, miscarriage is seen as a serious sickness.

Neighbours would visit and take care of such a woman until she recovers. (Korodegaga)

She becomes very sick. Parents, neighbours will be there for her. Usually women who are overburdened with work are the ones who face this problem. (Korodegaga)

There are personal consequences, some of them long-term:

She becomes sad, even crying. And she becomes dead. (Dinki)

Shocked, that is because they believe that it may be from God. (Shumsheha)

She becomes terrified because she thinks "I am infertile". (Shumsheha)

Psychological disturbance because of the occurrence of an unexpected situation (Shumsheha)

Many lose weight and are exposed to a variety of illnesses. Many women come to hospital after damage has been done and efforts to clean them up may not always succeed. Therefore, some women die. (Turufe Kecheme)

This may cause death for the woman may bleed and she may not get enough food to recover. Moreover, it may cause sterility and different disease like anaemia and uterine infections. (Gara Godo)

And consequences for the rest of the family:

That would make a woman so weak which is a trouble to her duty of managing her home. (Imdibir)

Some women will go to the clinic or hospital. Poor women may not be able to afford proper medical care:

If she has the financial capacity she will go to the hospital, otherwise she will treat at home by traditional birth attendant. (Oda Dawata)

Or it may be too far away:

Since there is transportation problem if there are people to help her, she may be taken to Dubo Hospital, i.e. 2 hours walk on foot, for that matter she may die. Most women in such cases die. (Gara Godo)

There are also traditional treatments:

Traditional birth attendants/elder women/ will massage her stomach so that no blood remains in her womb. (Gelcha)

If her husband is rich, he will slaughter a sheep and she will drink the melted fat and she will be massaged with the rest. (Gelcha)

If a woman miscarry, she will go to a witch doctor. They he will heat a white stone and round it on the woman's head. They believe that it happens because the woman had done something wrong before. (Luqa)

2. Pregnancy

Once pregnant a woman faces a number of problems related to bodily changes and their impact on activities, illness, and the need to 'eat for two', all of which can interact:

Women are facing many problems in producing and raising children, like too much household and farmwork while pregnant, sickness due to lack of rest and a proper diet. (Debre-Birhan environs)

i. Bodily changes and their impact on activities

In the pregnancy period there is high fatigue and there may be a health problem. (Yetmen)
Pregnancy is painful, especially during the first five months, it is not easy to move (Aze Debo'a)

Are there other special things that a women who is pregnant should do? Are there special things that a woman who is pregnant should not do?

There are a number of common suggestions for what pregnant women should do:

- Keep clean
- Go to the health centre for check-ups and vaccination
- Rest but keep active with light work

and some acknowledgement that these are not always possible. There are also some unique suggestions, such as being happy, not sleeping (as it will make the baby fat), eating onions, her husband should take care of her, if she has money she should employ a servant, and she should get her hair done.

While some respondents said 'there is nothing that she cannot do' (Harresaw) most respondents suggested some things which pregnant women should not do. Frequently mentioned prohibitions included:

- Lifting heavy loads
- Travelling far distances
- Working hard, especially 'when her born day is nearer' (Dinki); activities mentioned included grinding, weeding, collecting cow dung, cutting and carrying wood and farming,

It was recognised that, particularly in poor families, or female-headed households, pregnant women could not always avoid these activities:

Of course in poor families women are frequently seen engaging in agricultural work during pregnancy. (Turufe Kecheme)

If she doesn't have a person to support her she will continue doing all the work. (Oda Dawata)

Pregnant women should not work. Some of them work if there is no-one who can help them in the household activity. (Luqa)

In the initial open-ended question discussion 'about all the problems that women face in producing and raising children' respondents revealed that many pregnant women have to undertake activities which are not good for them or their babies:

Pregnancy requires a lot of care, but during pregnancy they face problems because of anxiety and picking up over-loaded things (Oda Dawata)

Pregnant women go to the market at Bule which is far and difficult to reach, they also cut wood. Sometimes even death occurs to the woman (Adado).

During times of pregnancy women face many problems e.g. fetching water from distances, shouldering all household responsibilities. (Gara Godo)

The problem begins in the pregnancy period. At this period women are expected to work hard as they do usually. (Luqa)

There are many problems; pregnant women do not rest. She works to the day and gets problems to deliver that night (Adado)

I used to do any type of work. I stopped working the day I gave birth. I remember that the day I had my child I came to Debre-Birhan environs to sell firewood. (Debre-Birhan environs)

Some respondents recommended continuing to work:

She should avoid heavy work. She should not lift heavy things. But she should not stop working. If she stops working it would be difficult during delivery. She would have protracted labour (Turufe Kecheme)

There were some unique suggestions:

She should not run (Geblen)

..should not annoy, fight... (Geblen)

..can't sleep upside down (Geblen)

She should not pass through a wet place and a place infested with blood. (Harresaw)

She should be careful when she walks so that she won't fall. (Imdibir Haya Gasha)

She shouldn't sit. She has to move in order to relax her body. (Luqa)

And also a pregnant woman shouldn't stare at monkey. They say, she could have a baby that looks like it. (Luqa)

She shouldn't sleep and sit down for long hours. (Aze Debo'a)

ii. Eating for two

In a good year are there pregnant women who cannot eat the food that they should eat? Roughly what proportion?

Some respondents replied that, in a good year, all or most women could eat 'the food that they should eat':

No there are no women who don't eat what they should eat in a 'good' harvest year. (Somodo)

I eat everything which is important for me and for my baby because the year which I get pregnant was a good season. (Luqa)

Yes - in a good year some pregnant women cannot eat the food they should, however the majority get enough food. (Aze Debo'a)

Some respondents reported that women may not be able to eat because they feel sick as a result of pregnancy or are otherwise ill:

Women who are not healthy and specially during first pregnancy cannot eat anything. (Harresaw)

Yes, one-third of the pregnant couldn't eat the food that they ate before (Shumsheha)

There are lots of women who don't want to eat when they are pregnant. (Luqa)

Even in good years poor women may be unable to eat enough food, or food that is good for pregnant women:

Yes, the poor ones can't get almost more than half of the food they want. (Yetmen)

People like me can't get it because we work for daily feeding. (Yetmen)

There are many who deliver without having the nutrition that they need due to poverty. (Turufe Kecheme)

Yes, those who are poor. (Imdibir)

Yes, poor women. There are many of them. (Korodegaga)

Some households prefer to sell their output

Yes. In a good harvest they prefer to sell it rather than consume it. (Oda Dawata)

Women health workers may have a different view about what pregnant women should eat than many of the women themselves

Yes, there are. The educational status of women can contribute much to the problem of malnutrition. (health worker)

These four responses from Adado suggest different definitions of what pregnant women should eat:

There is no different food for pregnant women.

No

Yes, there are few who don't get enough food.

Yes, more than half (health worker)

Local practices may lead to poor nutrition of both mother and baby:

Yes there are. But mainly because new mothers [are] fed on thin porridge. (Turufe Kecheme)

We eat whatever is available. However, when the delivery is approaching, we intentionally avoid eating to make the labour easy. (Gelcha)

In a bad year are there pregnant women who cannot eat the food that they should eat? Roughly what proportion?

In bad years the problems are generally worse:

Yes, surely higher than the one in a good year. (Imdibir)

Yes, many. (Aze Debo'a)

Two-thirds of women. (Gara Godo)

The cattle will go far where they can get grass. So we couldn't have milk, butter. (Luqa)

In a bad year most women suffer from the shortage of food. (Luqa)

There are women who do not eat good food during pregnancy because they can't afford to. They are many. (Turufe Kecheme)

Although, as these responses from Somodo show, respondents of different social status provide rather different estimates:

Yes there are. In a bad year around 10 percent don't eat what they should eat.

Yes, there are. But I don't know the proportion.

Yes, there are. About 80-90 percent

Yes, there are. Around 40 percent.

Only two sites reported few problems in bad years:

It is very difficult for me to remember a bad year and a pregnant woman. (Debre-Birhan environs)

There is always milk, even in bad years, and pregnant women consume this. If this is not available, cereals will be bought from the market. (Gelcha)

In some places women have problems in getting anything to eat, much less the kinds of food recommended for pregnant women, such as fruit, milk etc.

Yes, there are many, almost all pregnancies. (Geblen)

In a bad year almost all women do not get even something to eat, leave alone making choices of what they should eat and what they shouldn't. (Korodegaga)

Yes, especially fruit, meat and milk. Even she cannot eat twice a day. (Shumsheha)

The local type of 'famine' food may be a solution or a problem for pregnant women:

Yes, there are a few (there is Kocho [food produced from the Enset plant] at least) (Adado)

There is a tree whose leaves are used during drought which is called 'Akina' but a pregnant woman can't eat this one and this is because they dislike it. (Do'oma)

Drought is not the only reason for bad harvest years; in eighteen out of twenty sites, not all of which suffer from drought (Pankhurst and Bevan, 2004) respondents report that food is a problem for pregnant women in years of bad harvest.

Rich families may avoid problems in bad years:

If the family is rich, the[y] could go to urban area and get the food on bad years. But if the family is poor, the[y] could not have anything to eat unless they have in their own house. (Luqa)

It depends on the social position of the mother. If she is too poor she may not get any. If she is medium she will get half of it. The other will get three quarters of the food lose one quarter of it. (Yetmen)

We were interested in local ideas about what pregnant women should eat.

Describe the food which women should eat during pregnancy? Is this different from what women should eat generally? If so describe the differences.

Responses fell into two categories: what people should eat and what they should avoid. In most sites there was at least one respondent who identified fruit, vegetables, and some form of 'nutritious' food, which variously included dairy products, eggs, meat, liver. In a couple of sites vitamins and minerals were mentioned.

There were a few sites where all respondents reported that there was no special food for pregnant women:

There is no different food that women should eat during pregnancy. (Adado)

She eats whatever food is available in the house. It is very difficult in rural areas to prepare luxury foods because there is shortage of money. (Debre-Birhan environs)

There is no special food. (Adele Keke)

There is no special food that women should eat and not eat, however, it is better not to eat fat. (Oda Haro)

They should eat whatever is available. They don't have to hurt themselves not eating well. There is no difference.

(Somodo)

Some respondents from sites with active health centres reported changes in diet as a result of health education:

Pregnant women eat more fruits and vegetables (a change due to the health centre's education) previously pregnant women did not eat anything different. (Sirba and Godeti)

although these are restricted to richer women:

Women who are better off eat more nutritious food when they are pregnant, but poor women can't. (Sirba and Godeti)

They eat more vegetables, people who are better off try to change their eating habit. (Adele Keke)

In this area pregnant women do not get that much special treatment because most of the dwellers do not afford it. (Imdibir Haya Gasha)

In other sites women have 'modern' ideas about what pregnant women should eat, but report that these cannot be put into practice:

It is difficult to get it but normally a pregnant women should eat vegetables, milk products, boiled cereals and so on, but what we do is just eat like what the other people eat. I mean anything we get. (Harresaw)

As they said they would like to eat meat with 'injera' and cabbage, but they can't get these types of food, so they eat "kollo [roasted grain]" and "injera" or such ordinary foods. (Shumsheha)

Women should eat good foods during pregnancy, like dairy products and fruits. As for me I used to eat whatever food was available in the house. (Debre-Birhan environs)

Others report that pregnant women should eat more and take care that the food is fresh:

What ever kind of food will be eaten. The difference in eating/ feeding is that the pregnant one needs some additional food. (Yetmen)

Food which hasn't bad smell. (Dinki)

There are local beliefs about what women should not eat that reduce maternal nutrition:

She has not to eat very nourishing food because if the child's weight is high it can create problem during delivery. (Geblen)

The regular intake of fresh milk increases weight and makes delivery difficult. (Turufe Kecheme)

She should eat dietary nutrient until 6 months during pregnancy and after that the amount of food she eats should decrease so as not the infant becomes overweight before birth. (Oda Dawata)

There is no food that is not eaten, but it is advised not to eat any kind of vegetable. According to the local people it makes the baby fat inside the mother's womb and makes the delivery of the child difficult. (Adele Keke)

To prevent the mother from suffering from the weight of the baby it is better they do not eat too much. (Oda Dawata)

She should not eat 'choma', meat, cheese and she should not drink milk. (Gara Goda)

The belief that if the mother eats well the baby will grow too big, causing delivery problems, was expressed in five sites spread across the regions.

In one site potentially harmful local beliefs no longer hold:

Before they didn't eat egg and meat, but they do now. (Aze Debo'a)

In some sites the dangers of alcohol and smoking are recognised:

Alcoholic drinks and smoking are not suggested. (Geblen)

They are not allowed to take alcoholic drinks.(Yetmen)

In one site a respondent noted the dangers of overweight:

And if she is overweight, I think she should control it. (Imdibir Haya Gasha)

Pastoralist respondents reported some local superstitions:

But we don't eat the meat of sheep, goats or cows that were pregnant when they were slaughtered (if we do, the baby will be dumb). We also don't eat porridge that was prepared for a lady that gave birth. (Gelcha)

She is not allowed to eat the meat of hunted animals. If she does, the newly born baby will be dumb. This is the belief. (Gelcha)

If she eats honey the baby will be deaf and the reason they don't eat pepper is that the baby's eyes will be burned with it, and also his face will have spots. (Luqa)

What effects does [not eating the food that she should eat] have on the health of the pregnant woman?

A respondent in each of two sites reported that not eating the right kind of food had no effect on the mother:

It doesn't have any effect on the woman. But her baby will have skin problems, particularly on the face. (Turufe Kecheme)

It doesn't affect her health as she adapts to it. (Oda Haro)

Otherwise a number of harmful consequences were mentioned including pain

Her (nerves?) shrink, become dry, pain on her muscles. (Geblen)

It hurts them a lot. (Harresaw)

her face becomes haggard, vomiting, headache, stomach ache, etc. (Shumsheha)

Suffer from backache. (Somodo)

psychological problems

It has a mental effect - she will not be happy. (Yetmen)

It results in thinness, being miserable. (Adele Keke)

They will lose their strength from time to time. This brings psychological problems to the woman.

(Korodegaga)

Women may suffer for the babies may be born thin and die. (Gara Godo)

vulnerability

She is highly exposed to different diseases, she might, for instance, suffer from anaemia. (Adele Keke)

She will have different kinds of health problems. (Turufe Kecheme)

She can't have resistance to different diseases. (Oda Dawata)

They get thin and can't resist problems and accidents. (Somodo)

It may cause different diseases like malaria and swollen body, anaemia. (Gara Godo)

exhaustion and inability to function

Anaemia, tiredness. (Adado)

...she quickly stops working, she can't stand-up easily. (Geblen)

...they get weak. (Harresaw)

After she has born she might not stand and work properly. (Dinki)

They feel tired, they stagger when they walk, they breathe strongly when they work. (Shumsheha)

delivery problems

....during delivery they then find it was difficult to give birth because they do not have the strength.

(Harresaw)

During birth there can be a loss of excessive blood, much more problems. (Geblen)

During labour women's strength becomes less. (Dinki)

She becomes thin and weak and she doesn't have strength during the birth. (Shumsheha)

It will be difficult for her during the labour. (Oda Haro)

She would be weak and on labour she would have a back problem. (Turufe Kecheme)

She becomes weak and the placenta can't easily detach from the womb during delivery. (Oda Dawata)

she does have lots of labour pains. (Oda Dawata)

They don't get enough strength at labour and could also bleed a lot giving birth. (Somodo)

They find it difficult to push and breathe during labour. (Gelcha)

longterm damage

Moreover they may get uterine problems. (Gara Godo)

and death

The pregnant woman can even die if she is malnourished. (Sirba and Godeti)

She will be sick and they will die. (Aze Debo'a).

This may have death. (Gara Godo)

Does [not eating the food that she should eat] have effects on the health of the baby?

A respondent from each of two sites claimed that the baby will not be harmed, with one saying 'It is the mother who will be harmed' (Turufe Kecheme). However, the vast majority of respondents said the baby would be harmed.

Underweight and sickliness were widely reported, for example:

The baby will be thin and sickly. (Sirba and Godeti)

Very much, he is born underweight, weak and thin, bad looking. (Harresaw)

Their stomach will be big. (Aze Debo'a)

Other problems include inability to feed and develop properly

..it can't feed his mother's breast milk. (Geblen)

Yes, if it results in thinness, the baby doesn't grow in the proper manner. (Adele Keke)

vulnerability to disease

It will be very thin, it will get diarrhea. (Adado)

The baby become thin and it is affected by different diseases. (Dinki)

The baby becomes weak, unhealthy, thin and can't have resistance. (Oda Dawata)

mental retardation

The baby will be sick and thin and mentally retarded (Aze Debo'a)

Babies will be thin and sick always, they can't cope with their friends in educating mentally. (Gara Godo)

The baby has the probability of being born disabled, mentally retarded and weak. (Oda Dawata)

skin problems

The baby will have skin problems. (Turufe Kecheme)

When I didn't get the food I need to have in time of pregnancy, the baby will have black signs on his body.

(Luqa)

crying

Baby will be thin, tiresome, malnourished. (Aze Debo'a)

The baby becomes weak, skinny and cries for no reason. (Shumsheha)

and death

The baby will be born being thin or ill or dead. (Gara Godo)

Sometimes they give birth to a dead baby. (Gelcha)

Yes, it has effect on the child. It may have a bad posture, some get sick and some even die. (Somodo)

4. Giving Birth

The delivery process is a risky time for both mother and baby which is affected by the history of the pregnancy. This section provides information about the perceived consequences of nutritional failure during pregnancy for both mother and baby, about the actual delivery, and about reproductive health services.

i. Delivery

Many die due to birth complications (Korodegaga)

In the open-ended interview a number of problems were mentioned, some frequently:

pain

I have a great pain when I was about to get birth and the placenta after birth is a big problem. (Luqa)

bleeding

During delivery if they don't go to the health centre there might be a problem losing too much blood, because it is a little far to reach to the centre. (Harresaw)

She may have lots of bleeding during delivery because her body did not get treatment in terms of food and rest. (Oda Dawata)

the position of the baby

The problems women face in producing a baby is bleeding, the position of the baby, womb problems... (Debre-Birhan environs)

the narrowness of the birth canal

Even the narrowness of the birth canal could make labour very protracted. It could take up to 3 days. (Turufe Kecheme)

There is narrowness of a womb when they deliver a child. (Do'oma)

a stuck placenta

Domestic deliveries sometimes run into complications with the placenta remaining inside (Turufe Kecheme)

particular problems of young girls⁹

Underage girls face a severe problem during delivery. (Harresaw)

problems from unspaced births

Women face problems at birth giving if they do it over without recess and programme. (Somodo)

problems resulting from circumcision

Women face problems at birth giving. Those who have been circumcised and young girls. (Somodo)

Women of Do'oma have a big problem while they deliver the child. This is because they should circumcise before they get married. (Do'oma)

⁹ It is surprising that no respondent mentioned fistula about which there is a lot of literature and a specialized hospital in Addis. This is something we will follow up in our in-depth research.

dead babies
or the baby will die inside (Luqa)

ii. *Infant deaths*

Why are some babies born dead?

A range of answers were provided:

Physical stress

If the pregnant woman had an accident, like crashing into hard things, if she worked hard, if she carried heavy things. (Geblen)

If her husband beat her. (Oda Haro)

It can be because of ...heavy sexual intercourse during pregnancy. (Oda Dawata)

(I)f the mother falls down during pregnancy. (Aze Debo'a)

Malnutrition

When the mother has heavy sunlight and lack of food that has important nutritional values. In Oromiffa this is called "*Wanjole*". (Adele Keke)

Illness during pregnancy

Because of bad health conditions of the mother. Example; she might suffer from malaria. (Adele Keke)

Mothers may also be ill of some diseases like blood pressure. (Imdibir)

Inadequate antenatal care

During pregnancy period the mother may not have anti- natal care. (Adele Keke)

When she doesn't take vaccination. (Korodegaga)

Use of medical drugs or harmful substances during pregnancy

(I)f the mother also used drugs while pregnant. (Sirba and Godeti)

Most women of Do'oma are drinking local [alcoholic] drink '*areke*', so that it may be due to that. Even they are smokers that they call it as '*gaya*' [hubble bubble]. (Do'oma)

Damage from previous deliveries/abortions

It could also happen from incomplete abortions. (Turufe Kecheme)

Delivery problems

When the woman labours she may make him unable to breathe so he will die. (Yetmen)

Prematurity

(T)hey are born before the exact birth date (Somodo)

Hereditary factors

(H)ereditary factors; they call her "*moldogedel*". (Somodo)

God's will

It is God's work. (Harresaw)

Witchcraft

If some people use some magic practice. (Geblen)

Superstitions

Some babies are born dead maybe because of their mother's exposure to the sun rays after cooking food. (Debre-Birhan environs)

(T)here is a traditional belief the baby will die if she leaves home while lacking *injera*. (Sirba and Godeti)

When the mother smells something strong, overpowering smell, when she is pregnant (traditional belief). (Sirba and Godeti)

It is due to 'alatil' (disease due to bird of prey). (Adele Keke)
 If the mother wore high-heeled shoes during pregnancy. (Turufe Kecheme)
 Recently a lady gave birth to 3 babies at the same time. Two of them were dead. The lady told us that she was very angry and unhappy in her life and that this anger killed the two babies. (Gelcha)
 If the mother is face-down during pregnancy. (Adado)

How many babies do most women have in their lifetimes? On average how many of these survive to be children?

Table 1 shows some selected responses.

Table 1: Births and Infant Deaths

Region	Site	How many babies in a lifetime	How many will survive to be children
Tigray	Geblen	Average 7 -12 children, in some cases 15.	Average 5 out of 12, 4 out of 7. Mostly, 1 or 2 die.
	Harresaw	Some have six and others have 10-12 children; even some have only one.	Half of them or most of them might survive since there is a vaccination.
Amara	Yetmen	It depends in recent years/regimes most families have had 8-12 children. But nowadays most families have 7 children on average	5 of them will survive on average
	Debre-Birhan environs	Some women have one child and some have up to 10. Most have 6-7 babies.	I am a midwife and helped 53 children of whom 2 died. A one year old boy due to a fracture [?] and a 84 day baby girl due to a cold. So thank God children are not dying in this area.
	Dinki	They have about 8 - 10 children	They may all survive but on average 5. It may survive all, or it may die all.
	Shumsheha	About eight	About five
	Sirba and Godeti	From 10-16	If given proper care all will survive. The majority survive, but sometimes two or three might die young.
Oromia	Adele Keke	about 10	6
	Oda Haro	Up to 12. However, most of the time woman have 3 children. Mostly 8	Mostly 6-7 Half of their children
	Turufe Kecheme	Between 6 and 8 In the past up to 10-13 babies. But after women start to use birth control the number of babies that are born is reduced to 4-5 babies.	On the average about 4. In the past many babies used to die, but now with vaccines this has changed.
	Oda Dawata	Muslim - 10 - 12 (per wife) Christian – up to 8	Muslim - almost all survive Christian - almost half. Most of them survive but those who are not in good living conditions can't survive.
	Somodo	Around 10 or 11 children. Around 18, but no longer now.	Around 7 or 8 children.
	Gelcha	If the lady is 'educated', she can have up to 6 children. From 8-13 children	If you give birth to 10-13 children, 10 may survive.
	Korodegaga	Up to 12/13, some give birth to more. Up to 10 (she also has 10 children)	8 or 7 (one woman who gave birth to 18 now has only 2 left) It depends upon the standard of living of the family. Children of poor families are more likely to die.
	SNNP	Adado	10 – 12
Imdibir		About 9-15.	This depends on the family's income level That is God's will, all may survive sometimes.
Luqa		A woman can have as much babies as she can with God's will but if she has too many most of the babies will die. A rich person could marry ten wives and all these women will have as much babies as they could.	All of them could survive. Most of the babies die even though it is getting better every day. Because the clinic provides medicine and people start to take their babies to clinic. Most babies die. In some family from four babies, three of them could die.
Do'oma		they have 6 - 10 children Some women have a maximum of 13 children.	4 –8 Most of the time they die, but they will have about 6 - 10 children.
Aze Debo'a		It depends but most have 8-9 6-7	5-6 All can have a chance to grow
Gara Godo		5 to 8	4 – 6

The responses suggest that in all areas there are high average birth rates, while recognising variations. Those who describe very high rates suggest that a higher proportion of these die, though again not always. In two of the rural sites (Yetmen and Turufe Kecheme) respondents suggest that some women are using birth control and having fewer children. This is also the case for 'educated' Gelcha women. Respondents from three sites suggest that children born into poverty are more likely to die. Respondents from three sites report reductions in infant mortality as a result of vaccination and medicines obtainable at health clinics.

5. Infancy

The information in this section comes under three headings: the infant's health; feeding babies; and baby care (clothes, cleanliness, shelter, nurturing and socialisation).

i. The infant's health

Health is a major worry for mothers:

Above all the mother worries about the child by thinking [about] his/her health. (Yetmen)

The main problem in raising children is their health. Children tend to fall ill frequently (Turufe Kecheme)

Women are so worried about their children's good health (Debre-Birhan environs)

What are the main illnesses babies suffer from?

Some of these are universal, while others depend on the local ecology. Table 2 shows the number of sites reporting each illness.

Table 2: Babies' Illnesses

Illness	Number of sites
Diarrhoea	18
Vomiting	13
Respiratory illnesses: cold, cough, pneumonia	12
Malnutrition	8
Malaria	8
Abdominal pain	6
Measles	6
Fever	5
Parasitic diseases	5
Eye disease	5
Throat infections	2
'TB'	2
'Wesse'/shortage of blood: makes face go white	2
Polio	1
Hepatitis	1

The fact that no respondents in a site reported a particular illness does not mean that it is not prevalent. This is an area where survey research at household and individual level would be very useful. Diarrhoea and vomiting were widely reported and often associated with 'poor hygiene'. Respiratory illnesses were also widely reported, some of which may be related to smoky houses. Malnutrition, often described as marasmus or kwashiorkor, was identified in eight sites, not all of them in famine-prone areas, while malaria is reported as a considerable threat to babies in eight sites. Despite the vaccination programme measles is reported as a problem in eight sites. Parasitic and eye diseases are likely to be more widespread than reported.

When a baby is sick how does the family try to cure them?

When a baby falls ill the carers are faced with choices: waiting and seeing, treating the baby themselves in the home, taking the baby to the traditional healer they consider to be appropriate for the illness, and/or taking the baby to the health clinic or hospital. Important variables are the type of illness and its progress, the types of local home remedies, types of local traditional healers, proximity of health centres and hospitals, availability of transport and a person with time to wait, and the wealth of the household. Most respondents say that, unless the household is rich the first resort will be home remedies and traditional healers, and in most cases the baby is only taken to local health facilities if home or traditional remedies fail.

It depends on how sick they are. If the baby falls down and suffers a fracture, the family will take the child to a traditional masseur, but if the baby catches a disease which needs to be treated by a doctor, the family will take the child to a clinic. (Debre-Birhan environs)

Tries to cure him/her with traditional medicine. But if the sickness is critical, the family takes the baby to the health centre. (Debre-Birhan environs)

They see if in 1 to 2 days they become dead or not, then if they didn't become well they give them traditional medicine. (Dinki)

The family firstly try to take them to the traditional medicine attendants, then if it isn't successful to the modern clinic. (Adele Keke)

We try to cure the disease using cultural medicine. If this is difficult, we go to the clinic. (Oda Haro)

They would take the baby to a health station. Of course there are people who take their baby to traditional health practitioners. (Turufe Kecheme)

They go to health centre, holy water and magician's home. (Oda Dawata)

He gets traditional medical ('tenadum', 'demakese') and if he does not get well he will be taken to health centres. (Imdibir)

We take her to traditional medicine practitioner or if there is no change we will take her to clinic. (Luqa)

Sometimes they take them to the clinic, but most of the time they will go to the magic house. (Do'oma)

They will use herbs first, if this does not work they will go to clinics. (Aze Debo'a)

Household-treatment and traditional healers

His mother speaks different, sharp and continuous voice to comfort him (Shumsheha)

His mother continuously feeds him/her breastmilk (Shumsheha)

Herbs, hot things, holy places, after one year old, there is tattoo around the leg of the baby. (Geblen)

For children who suffer from measles, the family prepares a wonderful coffee ceremony with popcorn (Harresaw)

if children suffer from diarrhoea a boiled barley with a lot of boiled water is given to eat (Harresaw)

Wash with holy water, put "Ihtit" on his forehead. "Ihtit" is a myrrh. Burn his jaw with hot iron. Remove his uvula. Use the smoke from a particular leaf. Cover their back with a cloth painted by oil all mixed with garlic and a leaf from "Chene adam" and put a myrrh-like substance on their forehead. (Harresaw)

They use traditional methods like heating metal material (especially coins) and put on their face and this they call 'asti'. (Do'oma)

They go to the nearest health centre or to the *Kallu*, the traditional ritual religious leader. (Sirba and Godeti)

They go to a cultural doctor. They will hang some medicine around the baby's neck. (Oda Haro)

Since they think that it is evil eyes that they give to the baby - what is suggested is medicine. (Oda Dawata)

They use traditional medicine and if it doesn't bring change, they will go to the witches. (Luqa)

If a baby is sick, we give him traditional medicine or we treat him with intestine of a goat, we put it on his face or we cover his body with the waste of the goat, then he will be okay. (Luqa)

For diarrhoea - they give the baby some herbs. Don't give them water as they think it will worsen the diarrhoea. (Aze Debo'a)

Attendance at clinics depends on the seriousness of the disease

At the beginning they do nothing. If the illness becomes serious they go to the health centre. (Yetmen)

They take it to a clinic, sometimes they do not take it. (Dinki)

They go to the clinic and they try to get medical help or they may go to "Awaqi" [a traditional healer] (Shumsheha)

They take the child to a health centre in Debre Zeit. (Sirba and Godeti)

and whether the household can afford to pay the costs associated with treatment

If rich families, they are taken to clinics (Geblen)

They don't do much except give them milk and wait until s/he recovers. However, these days they will take the baby to the clinic if they have the money. (Gelcha)

They will be taken to the clinic as soon as the father has the money. The poor also borrow money. (Gelcha)

In a poor family, there isn't any cure. But in a rich educated family, the baby might be taken to hospital.

(Somodo)

Rich people go to health centre and others get traditional healers. Most people go to the traditional healers.

(Adado)

They will take him to hospital if they can afford. (Imdibir Haya Gasha)

Those who can afford take their babies to the clinic and some take them to traditional health practitioners.

(Gara Godo)

Children need money when they become sick and it is the mother who mostly bothers about her children.

Mothers cannot work hard during pregnancy, for this reason they do not bring a lot of income to themselves.

(Adado)

In a number of sites respondents reported increased use of health clinics

(Measles) but now we are going to the clinic at Dera (Harresaw)

Earlier we used to give the baby the fat of the sheep to drink. Now we take them to the clinic. (Gelcha)

Most of the time the babies are sick when they are about 6 months old, and nowadays they start bringing to the clinic. (Do'oma)

ii. *The infant's diet*

When babies are born what are they given to eat?

In 13 of the 20 sites at least one respondent reported that babies were given butter as soon as they were born. In a number of these health workers were apparently recommending water and sugar as a replacement.

In the past, a newly born child is made to suck another woman's breast and taste butter, but now sugar mixed with water is given to a baby. (Harresaw)

In Shumsheha one respondent said that newborns were fed with a fluid made from flour before the breastmilk appeared, while in Do'oma the equivalent made from enset. In Adele Keke one respondent said that boys were given water, but girls were given milk. Many respondents reported that water was given; in some cases it was described as 'boiled water'. In Luqa they also put the butter all over the baby's body.

Describe what food babies should be fed in the first month of life

In fourteen sites the response was breastmilk only or breastmilk plus water (and perhaps sugar). In Harresaw one respondent identified 'boiled baby flour mixed with water'. In Oda Haro a respondent reported that if the mother is rich she will give milk to the baby. This does not meet with the approval of a respondent from Gara Godo.

Some women also feed them cow's milk but this is not good. (Gara Godo)

Other respondents from Gara Godo reported the feeding of boiled 'ariti' [*Artemisia afra.*] and 'tenadam' [*Ruta chalepensis*]. In Somodo some give *telba* [*Linum usitatissimum* or linseed] and *abish* [*Trigonella foenum*, or fenugreek] soup, while in Adado babies are fed 'water and breast and *ano*'. Luqa infants are reported to receive a very mixed diet:

Mother's breast ('Adinko'), a fluid made up of sorghum and boiled water ('kumbula'), milk ('Ahe')

'Ane delati' (goat's milk), 'Ahe leti' (cow's milk), 'kumbela' (juice like which is made up of maize and corn and milk).

They will eat butter 'shenico bea'. After a month they will be fed with goat's milk boiled with sorghum and maize with honey. If the family is poor the baby would drink a kind of coffee that is made up of coffee hull. (Luqa)

While the considerable majority of respondents say that babies should only be fed breastmilk in the first month of life actual practice is likely to vary from the ideal. Maternal malnutrition can lead to insufficient breastmilk:

This might result in to drying up of her breast. (Harresaw)

(S)he will have problems breastfeeding (Aze Debo'a)

If women do not eat enough food there will not be breast-milk for the baby. (Adado)

Since she doesn't eat nutritious food she can't feed her child appropriate food through breast feeding. (Oda Dawata)

Still do not get enough food for me I can't feed the baby my breast as needed and this may cause the baby to be weak (Gara Godo).

What problems do mothers have with breastfeeding?

In a few sites respondents report no problems with breast-feeding

Women don't have any problem in breast feeding, and that's why babies are breastfed quite for long. (Somodo)

Whether or not there are problems depends on the local livelihood system and ecology

If they are healthy and well-fed, they will not have any problems with breast-feeding. (Gelcha)

Mothers face difficulties in feeding their babies. Their breast may not get milk due to famine and they may be infected by different diseases. (Gara Godo)

Many respondent reported pain, tiredness, hunger and illness associated with breastfeeding

Some women feel pain whilst breastfeeding (Shumsheha)

Unless her breast has a pain there is no problem. (Turufe Kecheme)

Sometimes they face sickness of their breast (and the breast gets plump). Then at this time they use cultural medicine like leaves and other. (Do'oma)

Unless and otherwise she is infected, there is no problem. (Adele Keke)

The breast gets drier and since the babies fight with their breast to get milk some times it swells and women get hurt a lot. (Harresaw)

If they don't have enough milk, the baby may bite his/her mother (Shumsheha)

She feels sick due to the breastfeeding, so she goes to the clinic. (Oda Haro)

Due to overfeeding they may feel tired (Shumsheha)

Headache, feeling of tiredness because all what she eats is taken as milk for the baby. (Adado)

If breast-feeding mothers didn't get good food they would feel dizziness in the heart. (Turufe Kecheme)

She becomes tired, so she feeds the baby other food. (Oda Haro)

Breastfeeding makes the mother hungry. (Oda Haro)

She will get hungry quickly, to solve this problem, she tries to eat on time. (Adado)

...breast-feeding mothers would lose weight. (Turufe Kecheme)

Because they do not get enough food, most face a problem of anaemia. (Korodegaga)

Breast feeding is tiresome and it causes a feeling of light-headedness, especially if the mother doesn't take enough food. (Adado)

Malnourishment of the mother leads to insufficient breastmilk

Because of malnourishment breast-feeding is not sufficient. (Geblen)

The problem is since there is a drought they cannot get enough to eat; some kind of pulses, peas and vegetables are expensive and they can't afford to buy such things. (Harresaw)

Some women have problems breastfeeding (milk dries up). Women with children should eat a proper diet (nutritious food) and drink lots of fluid which will enable her to feed her child. (Debre-Birhan environs)

Breast feeding doesn't satisfy the baby because women don't get enough food. (Dinki)

This is more likely to happen to poor mothers.

They usually get thin and weak especially if they are poor. Mothers stop breast-feeding as soon as babies grow up a little. (Imdibir Haya Gasha)

Illness can also be a problem

..when mothers get sick they have their breast dried and cannot feed the children. (Harresaw)
Sometimes, the mother's breast gets dry because the mother is either sick or did not get enough food after giving birth. (Sirba and Godeti)

especially when is accompanied by a lack of medication

Lack of proper diet and medication. Since the community is found in a severe poverty, they cannot do anything about these problems. (Korodegaga)

and hard work

The other problem is the hard work they do that makes them weak and unable to feed their children. (Gelcha)
Women usually overwork and they do not get enough food. (Korodegaga)

associated with lack of time

They don't have time to feed their babies breast for they are busy in household chores and travel long distances for trade. (Gara Godo)

Some respondents claimed that ignorance plays a role

Some young women do not know how to carry the baby when they breast feed. (Harresaw)
If it is their first time, they feel pain and sometimes find it difficult to release milk. (Shumsheha)
Milk does not come out because they do not let the baby suck the breast, in some cases the nipple hides inside because they do not keep the nipple area clean. When they come for a check-up we advise them about the importance of sanitation. (Health worker, Debre-Birhan environs)

In one site it was reported that using a 'wet nurse' was a solution

If her breast gets dries she is forced to ask other women to help her in feeding her baby with their breast. (Harresaw)

Another is to avoid the baby

Some even have sour on their breast. (Harresaw)
Mothers who breast feed lose a lot of weight. They become thin. Since they can't afford to fortify themselves with good food they tend instead to avoid the children for large parts of the day. (Turufe Kecheme)

Getting pregnant again affects breastfeeding

Most of the women raise their children with breast feeding, but since they get pregnant soon the baby can't get sufficient breast feeding. (Oda Dawata)
We have no problem here. Unless you give birth to one child after another, children will not give up breastfeeding. (Gelcha)
she will face a problem if she is pregnant when she is breastfeeding – she will not have sex with her husband. (Adado)

What happens to babies who cannot get enough to eat?

Their physical development is affected

He may not grow properly. (Gelcha)
Their limbs and legs become thin and weak. (Geblen)
They got weaker and thinner, they become white, their legs swollen and their hair gets bald. (Harresaw)
They get thinner, weaken and do not start walking and moving in the right time. (Harresaw)
He doesn't become fat, rather he is thin and his physical structure is not correct. (Dinki)
Bad posture, a big belly. (Somodo)
Their kidney will swell and their stomach will grow big. (Luqa)
They will not be able to stand properly. Their stomach will swell up. Other parts of their body will shrink. (Oda Haro)
They will not walk at the right time for they become weak, they become ill and weak. (Gara Godo)
There will be a problem with their eyes, their leg becomes bracket-shaped and they won't be healthy and happy. (Somodo)
The baby will become thinner and thinner and he/she has like an adults face. (Do'oma)

He can't think as well as the one who gets enough to eat. (Aze Debo'a)
They have problems with their sight. (Aze Debo'a)

and they are vulnerable to disease

They can't resist disease. (Geblen)
They become thin and weak. They can't resist disease. (Korodegaga)
They will lose weight and become vulnerable to disease. (Turufe Kecheme)
They will be weak and don't have resistance to simple disease. (Oda Dawata)
They become weak and thin as a result, they get sick. (Yetmen)
It becomes thin, ill and doesn't take long time. (Dinki)
They are thinner, weak and cough. (Shumsheha)
They fail to resist disease, especially malaria. (Adele Keke)
Diseases such as marasmus and kwashiorkor. (Adele Keke)

They are unhappy and cry a lot

They get ill, they scream and cry a lot. (Harresaw)
They cry and disturb their family. (Shumsheha)
Doesn't look happy, always crying, always needs its mother (Adele Keke)
They complain and cry. (Turufe Kecheme)

and they may die

The babies get weaker and thinner and some die as a result. (Harresaw)
They will die if they can't take the food. I know a woman who lost her baby twice because of this. (Yetmen)
It might die (Dinki)
They are vulnerable to accidents and also death. (Somodo)
Get sick. Die. (Adado)
They get thin and unhealthy, they may even die. (Imdibir Haya Gasha)

although this does not happen in all the sites

They die. But I do not remember a child who has died due to food shortage in our community. (Debre-Birhan environs)

Another major problem is lack of time, particularly when there are other children:

They have a problem of taking care and feeding children because they deliver a child almost every year without a gap between the first and the second. As a result they lose a lot of blood and they do not get enough balanced diet and their breasts get drier and children scream and cry all the time. They do not have rest. (Harresaw)

Women are working so hard in the house and farm. It is very difficult to raise children and do the household and farm work. (Debre-Birhan environs)

It will be very difficult for us to take care of the baby and do all the household activities. (Luqa)

We are economically poor to raise our children and take rest after giving birth. We start work after only a week and we are so busy even to breastfeed our babies, this causes difficult problems for our babies. (Gara Godo)

iii. Clothes, cleanliness, childcare and socialisation

When women are pregnant some respondents reported that they should prepare for the baby:

Clothes to sooth the baby should be prepared. (Geblen)
She prepares cloth, ... and other necessary materials that need for child before she is born. (Dinki)
She should prepare clothing that she would need for the baby. (Turufe Kecheme)

Childcare and socialisation can all be problematic for working mothers

After delivery feeding, clothing as well as losing a child to illness brought about by unclean water are problems. Also while she is doing household or field work she needs someone to look after the child. (Debre-Birhan environs)

There is a problem during delivery and after that there is a problem to raise them, to keep them clean and to teach them. (Adado)

III. SOME CONSEQUENCES OF THE TIMING OF BIRTHS: SEASONALITY AND ANNUALITY

1. Seasonality

Ask whether there is a good time in the year for babies to be born and about the effects of seasonality.

Since the pregnancy/infancy cycle lasts at least a year the mother-baby couple is bound to be affected by seasonal changes at some point. However, most respondents reckoned that there was a good time to give birth and be born; the main factors were:

availability of food and cash

November, December and January. This is a harvest time. It is good for mothers to give birth in these months. (Korodegaga)

Summer¹⁰ [rains] is not a good time as there won't be enough food to eat. Winter [dry season] is better. (Aze Debo'a)

October to January is a good harvest time in which we harvest coffee, tef, maize, beans and April - June is bad harvest time in which we face famine (all rich people and poor people are equal). (Gara Godo)

I prefer to have babies in the summer times. This is because the cattle will not go to other places for grazing so we will not be short of milk. (Luqa)

In our country we have harvest two times a year. One is called 'Berko' and the other is 'Hagalfte'. If God give you a child at this time of the year it is good, because at these times of the year we will have plenty of cabbage, milk and butter, and also the cattle will not go far to graze. (Luqa)

Winter, because there is cabbage which is very important for woman with baby. (Adado)

I think it is better to have babies during the summer because that is when food stuffs are available and at relatively low price. (Imdibir Haya Gasha)

February to September are not good seasons. In September there is nothing to eat. (Geblen)

It is better if children are born in 'Tahasas' [December], the harvest month because there will be enough food and money. (Sirba and Godeti)

Summer is not favourable to be born... the harvest crops are completely finished during this time. (Dinki)

It is better to have babies in harvest season; there is a saying 'there is no poor in December'. (Yetmen)

availability of water

Summer (the rainy season) is a good season to give birth as ...there is water, milk and butter. (Gelcha)

During winter ... you ...must fetch water from distant places. (Gelcha)

temperature (for a variety of reasons)

Winter good time for baby to be born. There is no problem to wash baby's clothes. There is sun to dry the clothes. (Oda Haro)

Summer (the rainy season) is a good season to give birth as the temperature is low...(Gelcha)

In the hot season the temperatures are high. (Gelcha)

They prefer to have a baby on summer season. This is because on the winter season the sun is very strong. (Luqa)

September, January and February are suitable. But in other month, as there is scarcity of food and very less temperature, it is not suitable. (Adele Keke)

disease prevalence

In the hot seasonmalaria affects them badly (Gelcha)

the timing of women's agricultural work

They prefer to have a baby on summer season. This is because on the winter season ... the women are expected to work hard. (Luqa)

Yes, 'kiremt' [the rainy season] is good time because there ... is no tiresome job to be done on the fields during that season... (Adado)

If the woman is a farmer it will be considered to be good timing if she gives birth outside of the high season.

If she delivers at a time when her labour is needed in the farm she will not be able to rest. (Turufe Kecheme)

¹⁰ 'Summer' refers to the rainy season, and winter to the dry season.

January is good to bear children. It is a time of plenty in the year. It is also a good time to invite relatives for christening since there is not much farm work during this month. (Turufe Kecheme)

2. Famines and epidemics

We asked respondents whether there had been child deaths from starvation and/or epidemics in the 1980s, 1990s, and the first three years of the new millennium.

Table 3: Child deaths from starvation and epidemics

Region	Site	1980s		1990s		2000-3	
		Lack of food	Epidemics	Lack of food	Epidemics	Lack of food	Epidemics
Tigray	Geblen	Many	Many	Quite a lot	Quite a lot	Quite a lot	Not many.
	Harresaw	Many	Many.	Not so many	Not many		Not too much.
Amara	Yetmen						A Few
	Debre-Birhan environs	No	No	No	No		
	Dinki		Yes		Yes		Yes
	Shumsheha	Many	Many	A few	Many	Yes	Yes
Oromia	Sirba and Godeti		Yes		A few		A few
	Adele Keke	Many	Many	Many	Many	Many	Many
	Oda Haro		Yes		Yes	Yes.	Yes
	Turufe Kecheme	Yes	Yes		Some		Yes
	Oda Dawata	Many	Many			A few	
	Somodo	Many	Many				
	Gelcha				Yes		Yes
	Korodegaga	Many	Many	Many	Many	Many	A few
SNNP	Adado					Yes	Yes
	Imdibir	A few	Don't know				A few
	Luqa	Many	A few	Some			Yes
	Do'oma	no answer	no answer	Many	Many	No	Yes
	Aze Debo'a	Many	Many	Yes	Yes	One or two	Some
	Gara Godo	Many	Many	Many	Many	Many	Many

As we saw in 18 sites diets of women and babies are affected in years of bad harvest. In some sites harvests have sometimes failed so badly that they have led to child deaths from starvation and/or epidemics. Women from 12 sites reported that children had died of starvation during the 1984 famine. In 10 of these sites many children died and in nine of them there were also deaths from epidemics. During the 1990s some child deaths from starvation were reported from eight sites with larger numbers in five sites. The recent drought brought some child deaths from starvation to nine sites, ranging from one or two deaths to many deaths, reported from three sites.

Women from the two Tigray sites report a reduction in deaths from both starvation and epidemics comparing the 1980s with 2000-2003. In Amara region no serious problems are reported from the two rural sites, while Dinki, a food-aid dependent site, reports deaths from epidemics rather than starvation. Conditions at the Wollo site have improved since the 1980s but some recent child deaths from starvation and epidemics are reported. In Oromia five of the eight sites saw child deaths from starvation and epidemics as a result of the 1984 famine. Two of those sites, which have incorporated cashcrops, have had no problems since and in another problems have reduced. However the two sites which were food aid dependent in the 1980s report that the recent famine brought deaths from starvation and epidemics, and one site which reported no deaths from starvation in the 1980s and 90s suffered some during the recent drought. In SNNP three sites report many deaths from starvation in the 1980s. Things have improved somewhat in two of the sites, but the Wolayta site regularly suffers many deaths from starvation and epidemics. Do'oma is a (voluntary) resettlement site established in the 1980s which had considerable initial problems which seem to be reducing. The coffee-producing site of Adado reports its first ever serious problems as a result of the recent drought, and perhaps the fall in coffee prices.

*Are women affected differently [by drought and famine] from other people?
Question asked of men in 20 sites.*

The responses in this section come from the parallel Protocol that was asked of men, entitled 'Exploration of Conceptions of and Responses to Drought and Famine' (see Pankhurst and Bevan, 2004). In five sites at least one of the male respondents said that women were not affected differently.

In two sites a respondent claimed that it was more difficult for men:

(smiling). Men do the ploughing which needs more energy. They do not stay at home. They may migrate in search of employment, risking their life. Many more men died than women during the 1984 famine - he can only remember two women who died then. (Oda Haro)

Men have an additional burden imposed on them due to the drought. They have to move a long distance to get pasture and water for their cattle. (Gelcha)

Other respondents claimed that it was harder for women for a number of reasons:

women are responsible for feeding children

Women are responsible for the food to their children more than men. Hence, women do not eat before their children. (Gara Godo)

Yes, women are more vulnerable because they give their own food to their children. (Gara Godo)

Yes, both women and children will be affected differently. They will be made to look for food both for themselves and their family. (Luqa)

If there is shortage of food at home the one who suffers is the woman. They give priority to her children. A man will go and get some food for himself. (Harresaw)

and usually give priority to their children and husbands

Yes, women usually give priority to their children and husbands. (Gara Godo)

They give priority to their children and husbands. (Somodo)

The women suffer much because she wants to feed her children and husband. If there is no less food she will give them. (Harresaw)

Because when they distributed the limited small amount of food to family members, they are finally found themselves with no extra food and forced to pass the night without having dinner. (Yetmen)

Women are more affected because she feed first for her children and for her husband what has been there in the household. (Dinki)

breast-feeding is a particular problem

Women suffer more because they breast feed their babies. (Adado)

Women are affected more than men because they breast-feed children. (Adele Keke)

Yes, because they breast-feed their kids. (Oda Dawata)

and giving birth during a time of famine is very problematic.

..when they give birth they need additional food for recovery but in time of famine they can not get adequate food. (Yetmen)

Because at any time of birth they need food and they can't find any. They also lose much of their blood at these time. (Oda Haro)

Because they do not eat enough and work hard they become physically weak.

Because they become weak physically. (Adado)

Women in our society are more affected because they don't have resistance (because in the society it is the women who work harder, compared to men). (Adele Keke)

Yes, it is because women are not as strong as men physically. They also become weak due to childbirth and other jobs. (Turufe Kecheme)

Men can migrate

However, men can move to other places and work for rich men so they can feed themselves there. (Aze Debo'a)

Women are weak, they remain at home with their children. Men on the other hand will move from place to place and will be better off than the women. (Luqa)

In the community, it is common for men (husbands and young people) to migrate to far off places in search of wage labour. (Shumsheha)

or eat away from home

man can get food somewhere else like in hotels, tea houses etc. Because he can get income by being a daily labourer in the near towns and satisfy his need. (Gara Godo)

They also spend most of the time around the house; however men can go anywhere and look for something to eat. (Turufe Kecheme)

and women often become responsible for those living at home

In addition, women are shouldering the responsibilities of the household and family. (Aze Debo'a)

Women are affected differently than men, women are moving here and there to get household food. (Gara Godo)

Women walk longer distances to buy crop food. (Do'oma)

They are affected differently because during the drought women are engaged in off-farm work like collecting and selling fire-wood and charcoal. (Korodegaga)

Yes, the burden of collecting fire wood and selling it in cities and the making of charcoal rests on the shoulders of the women. The whole family depends on the women for food. (Korodegaga)

They ... engage in many works, such as collecting firewoods. (Oda Dawata)

Women are responsible for fetching water and grass for cattle where it is available. (Gelcha)

Women are most affected. The men may migrate and survive. The women often remain with the children.

They always give priority to their children. They buy food and bring it home for their children. Worry itself devastates them. They often eat less - proverb - 'women eat their belt.' (Oda Haro)

If there is famine the man will go to other places but the women remain at home to suffer the famine with their children. (Harresaw)

It is common for the women to remain at home with their children. The economic hardship and burden is usually on such women who have nothing to eat and nothing to give to their children. (Shumsheha)

Are babies affected differently [by drought and famine] from other people?

This question was also asked of men in the 20 sites.

Babies are more affected by famine and drought than other people

Yes, babies are more affected than others. They have little resistance. They cannot survive under famine conditions. (Luqa)

Because babies are dependent upon the other famine-affected people and these affected people are sometimes being so selfish, thus babies are affected. (Gara Godo)

....in 1984 children were abandoned. (Oda Haro)

through lack of food

...babies need more food than adults but in the time of famine the food that given to children are dramatically reduced and babies are malnourished. (Gara Godo)

Even in the distribution of the available food the children receive a small proportion compared to the young people. (Luqa)

They do not get enough milk. Their families cannot afford to buy milk for them. According to Kereyu culture, cereal foods are not recommended for babies. (Gelcha).

...they need food again and again and again. (Oda Dawata)

they are more vulnerable to malnutrition because of lack of milk from hungry mother or no livestock etc. (Geblen)

including the failure of breast milk

Yes, lack of milk. Mother's breast milk is not sufficient. (Aze Debo'a)

They are not well-fed by their mothers. (Adado)

Babies are affected differently because there is no milk. The mothers could not feed them breast milk as they don't get enough food. (Korodegaga)

Their mothers also can not breastfeed their children since the breast has no milk. (Turufe Kecheme)

....if food is minimal mothers can't breastfeed their babies. (Dinki)

Yes, babies affected differently because in time of famine the mothers would not feed them with adequate breast milk as they do not take adequate food. (Yetmen)

and the inability to eat famine food or the food provided as aid

They can't eat everything available. (Somodo)

Moreover, the babies do not eat what the adults take such as roasted pulses and others. (Yetmen)

Yes, because they don't take different kinds of food aid and the mother don't have enough milk at that time. (Adele Keke)

leading to suffering

Yes, when a baby is hungry, he always cries, mother is not able to breastfeed. (Imdibir)

Their body becomes paralysed, have skin problems. (Imdibir)

There were cases where people committed suicide as they could not bear to see their starving children. (Oda Haro)

Because they cannot resist hunger and at the same time they do not think that the family is run out of grain. (Yetmen)

and vulnerability to disease

Then babies are affected physically and are vulnerable to various disease types such as malaria, trachoma, TB etc. (Gara Godo)

There is a problem of a lack of resistance to different diseases because of malnutrition. (Adado)

Babies are more affected than other because they don't have resistance. Moreover, they are more affected because it is them who are attracted quickly by diseases. (Adele Keke)

and death

If they have a problem, they can die quickly. (Somodo)

but parents are unable to pay for health treatment.

Their parents are not capable of affording medical fees. (Adado)

During drought babies in some places also suffer from lack of care since mothers have to leave them to make ends meet.

They don't get the proper care because their mothers go to fetch fire wood and making charcoal. (Korodegaga)

Yes, babies need more care and during the famine mothers could not take care of their babies because they are engaged in different activities to feed the family. (Korodegaga)

Yes, since children are not strong to force problems, their mother will work on communal labour and can't protect them well. (Harresaw)

IV. CONCLUSION

1. Summary of Findings

i. Infertility

Infertility is extremely problematic for a woman in rural Ethiopia, whose adult identity and status depends on becoming a mother. It is a problem for a small proportion of women in most sites and extremely high rates of infertility are reported from two of the twenty sites, which warrants further investigation. It leads to high personal suffering in terms of sadness and envy of 'normal' women, and provokes a desperate seeking for pregnancy as time and resources are spent on prayer, ritual activities, and traditional and (very occasionally) modern health services. There is a process of 'blaming the victim': relationships with husbands are profoundly affected often ending in divorce, and neighbours may insult the 'mule'. Male infertility is rarely recognised. Important consequences are inadequate family labour and insecurity in old age. Major causes include abortions and complications from previous deliveries which ended in miscarriage or a dead baby, often associated with child pregnancies and/or circumcision.

ii. Abortions and miscarriages

In most places first pregnancies occurring outside marriage are frowned upon and end in abortion, or in some cases in the young girl migrating to a town. Many pregnancies within marriage are unwanted by the women and some resort to abortion, involving self-treatment (for example, drinking bleach, taking traditional drugs, or using anti-malarial tablets), or other traditional practices. Some women are

prevented from aborting by husbands or regard it as sinful. Poor people cannot afford abortions but may 'will the born child to die'. In some places it is reported that illegitimate children are 'thrown away' in one way or another. In some communities spontaneous miscarriages are regarded as the woman's fault, but in others she is cared for by her woman neighbours. Both abortion and spontaneous miscarriage can lead to considerable suffering for a woman in terms of pain, bleeding and consequent anaemia, infections, long-term reproductive consequences including sterility, psychological disturbance which may involve sadness, fear that God is punishing her, and/or fear of infertility, and sometimes death. Often potential treatment does not exist or is too far away or too expensive.

iii. Pregnancy

There is considerable suffering involved in the process of pregnancy including, for the woman¹¹, pain, sickness, high fatigue, inappropriate work activities, anxiety, and pregnancy-related illnesses. In most sites there was at least one respondent who reported that pregnant women should keep clean, undertake light work, and go to the health centre (for checkups and vaccination), and that they should not lift heavy loads (e.g. fetch water and carry wood), do heavy work (e.g. grinding, collecting cow dung, cutting wood, farming), or travel long distances. However, many women cannot follow these precepts, particularly if they are poor or live in female-headed households, or if they are pregnant during a time of drought or other local calamity.

When asked about diet during pregnancy some respondents replied that, in a good year, all or most women could eat 'the food that they should eat', although some women health workers reported ignorance about nutrition during pregnancy and a failure to follow their advice. In most sites there was at least one respondent, probably the health worker, who identified the following as important: fruit, vegetables, and some form of 'nutritious' food, which variously included dairy products, eggs, meat, liver. In a couple of sites vitamins and minerals were mentioned. There were a few sites where all respondents reported that there was no special food for pregnant women (some sites had no health worker) while there were reports from sites with active health centres of changes in diet as a result of health education although these are restricted to richer women. In other sites women have 'modern' ideas about what pregnant women should eat, but report that these cannot be put into practice: Others report that pregnant women should just eat more and take care that the food is fresh. The belief that if the mother eats well the baby will grow too big, causing delivery problems, was expressed in five sites spread across the regions. In one site potentially harmful local prohibitions on the food women can eat no longer hold, although they may still do so elsewhere. In some sites the dangers of alcohol and smoking were recognised while in one site a respondent noted the dangers of overweight.

Even in a good year women may not be able to eat because they feel sick as a result of pregnancy or are otherwise ill, and poor women may be unable to eat enough food, or the food that is good for pregnant women. Richer households may prefer to sell their output. Local practices may lead to poor nutrition of both mother and baby. In bad years the problems are generally worse. In some places women have problems in getting anything to eat, much less the kinds of food recommended for pregnant women, such as fruit, milk etc. Drought is not the only reason for bad harvest years; in eighteen out of twenty sites, not all of which suffer from drought (Pankhurst and Bevan, 2004) respondents report that food is a problem for pregnant women in years of bad harvest. Rich families may avoid problems by migrating to towns.

Extreme hunger leads to the following consequences for pregnant mothers: pain, haggard looks, vomiting, headaches, stomachaches, backaches, misery, psychological problems, worry about the baby's survival, physical weakness, exhaustion, inability to work, vulnerability to disease, problems during delivery, long-term physical damage and sometimes death. Harm is caused to the baby developing in the womb which becomes visible on delivery. When babies do not eat the food that they should eat they suffer from underweight and sickness, inability to feed and develop properly, vulnerability to disease, mental retardation, skin problems, crying and death.

iv. Delivery

¹¹ Not much is known about ways in which babies growing in the womb suffer.

Delivery also involves varying degrees of suffering for both mother and baby. Women may suffer extreme pain, bleeding, protracted labour due to the position of the baby and/or the narrowness of the birth canal, physical damage and other birth complications some of which lead to death. Particular problems arise as a result of physical immaturity, circumcision and frequent unspaced births. Delivery often produces suffering for the baby resulting from failure to develop healthily in the womb and/or birth complications, which occasionally leads to death before, during or just after delivery.

It was reported that babies are born dead as a result of physical stress (falling over, carrying heavy things, being beaten by husband, or having heavy sexual intercourse), malnutrition, illness during pregnancy, inadequate antenatal care, use of medical drugs or harmful substances during pregnancy, damage resulting from previous deliveries or abortions, delivery problems, prematurity, hereditary factors, God's will, witchcraft, and various superstitions. The average birth rate is probably around seven although rates between 10 and 18 were frequently reported. While it was reported that at the extreme all or no children may survive, on average a mother giving birth to seven children should expect to lose one or two. More accurate estimates could be achieved using survey data.

v. *Infancy*

A major maternal worry is the health of the baby. The main illnesses reported were diarrhoea and vomiting (often associated with poor hygiene), respiratory illnesses, malnutrition, malaria, abdominal pain, measles, fever, parasitic diseases and eye diseases. Throat infections, 'TB', 'shortage of blood', polio and hepatitis were also reported. When a baby falls ill, unless the household is rich, the first resort will be home remedies, followed by traditional healers. In most cases the baby is only taken to local health facilities if these remedies fail and if the household can afford to pay the costs associated with treatment. In a number of sites respondents reported an increased use of health facilities and in a few it was reported that babies died less frequently as a result of the vaccination programme.

Mothers also have to worry about feeding the baby. Some of the food given to newborns, for example butter, is unlikely to be good for them but the main worries are breast-feeding failure and tainted water. Many respondents reported pain, tiredness, hunger and illness associated with breast-feeding. Malnourishment of the mother leads to 'drying up' or insufficient or poor quality breastmilk. Illness can also be a problem, especially when it is associated with lack of medication. Having to work hard and long on the farm and in the house makes the mother weak and unable to produce milk, and it is also associated with lack of time to breastfeed and neglect. Getting pregnant again also affects breast-feeding. When babies do not get enough to eat their physical development is affected, they are vulnerable to disease, they are unhappy and cry a lot and they may die.

vi. *Seasonality*

Since the Pregnancy/Infancy cycle lasts at least a year the mother-baby couple is bound to be affected by seasonal changes at some point. However most respondents reckoned that there was a good time of the year to give birth and to be born, which varied by livelihood system. The major factors were the availability of food and cash, and in some places water, temperature (for a variety of reasons), disease prevalence and the timing of women's agricultural work.

vii. *Annuality, famines and epidemics*

As we saw in 18 sites diets of women and babies are affected in years of bad harvest. In some sites harvests have sometimes failed so badly that they have led to child deaths from starvation and/or epidemics. Women from 12 sites reported that children had died of starvation during the 1984 famine. In 10 of these sites many children died and in nine of them there were also deaths from epidemics. During the 1990s some child deaths from starvation were reported from eight sites with larger numbers in five sites. The recent drought brought some child deaths from starvation to nine sites, ranging from one or two deaths to many deaths, reported from three sites.

Most male respondents from the sites reported that women are more affected by drought and famine than men because they are responsible for feeding children, they usually give priority to their children

and husbands, because breast-feeding is a particular problem and giving birth during a time of famine is very problematic. Because they do not eat enough and work hard they become physically weak. Men can migrate or eat outside the home and women often become responsible for family members who cannot do this. Men also reported that babies are more affected by drought and famine than others as they have little resistance, lack the kind of food they need, particularly breastmilk, and cannot eat famine food or the food provided as aid. This leads to suffering and vulnerability to disease at a time when the parents do not have the resources to pay for health treatment. Death often results. In some sites during droughts mothers work at food for work or selling firewood to bring in some income and this can lead to neglect of the baby.

2. Three key issues

i. Food and diet

There are two issues here in relation to both mother and baby throughout the Pregnancy/Infancy cycle. The first is starvation, which relates to whether the person has enough to eat in order to survive, and the second is nutrition, which relates to whether the person has enough of the 'right kind' of food in order to develop properly and to flourish. At any point in time mothers and babies in rural Ethiopia occupy a range of positions on a continuum from total food failure to a more or less adequate nutritional intake. Where the mother-baby couple actually is at any point in time depends on physical location and relative wealth.

Extreme hunger and (occasionally) starvation have been regular features of rural life in Ethiopia. Of the twenty villages studied four have never been affected by food production failures, seven have been affected but not regularly, and nine have regularly faced chronic food insecurity and are dependent on food aid (Pankhurst and Bevan, 2004). This is the problem of 'annuality' or yearly variability in harvests. There are also problems related to seasonality; all rural livelihood systems have their 'hungry seasons'. Finally, within communities there is inequality, which means that even in relatively more prosperous sites there may be pockets of extreme hunger.

ii. Work and time-use

Women in rural Ethiopia work a 'double shift' that usually occupies all their waking hours. Agricultural work, gathering and selling of wood or dungcakes, and food-for-work programmes, do not fit well with the demands associated with the production and maintenance of babies.

iii. Illness and health care

The Pregnancy/Infancy cycle is a structured period of vulnerability for both mother and baby, demanding reliable preventive health measures, health education programmes and treatment for illnesses and pregnancy-related problems. In many parts of rural Ethiopia these are non-existent or of poor quality and/or expensive.

3. Mother and Baby Suffering and the Millennium Development Goals

The evidence presented above demonstrates that many mothers and babies in rural Ethiopia experience acute and/or chronic suffering as they move through the Pregnancy/Infancy cycle.

Babies suffer as a result of experiences of:

- nutritional failures while in the womb
- problematic birth experiences
- starvation or nutritional failures in the first trimester
- local diseases and illnesses
- neglect which may be a result of their mothers having to make ends meet in hunger periods

Women suffer as a result of experiences of :

- infertility
- unwanted pregnancies
- too many pregnancies

- botched abortions
- miscarriages
- difficult pregnancies
- illnesses during pregnancy
- starvation or nutritional failures during pregnancy
- overwork during pregnancy
- absence of, poor or costly health facilities during pregnancy
- lack of care and support during pregnancy
- difficult deliveries
- absence of, poor or costly health facilities during delivery
- post-delivery complications
- absence of, poor or costly health facilities for the new mother and baby
- overwork once the baby is born
- starvation or nutritional failures while breastfeeding
- being responsible for the physical welfare of the children, especially in times of famine
- worry about feeding the family
- worry about the health of their baby

These experiences of suffering are embedded in livelihood systems under stress, and within cultures which accord low respect and little autonomy to women, while expecting high levels of self-sacrifice from them. Given current global resources the level of suffering described here is outrageous. MDG No 4 (to reduce child mortality) and MDG No 5 (to improve maternal health) should be interpreted as a call for the elimination of mother and baby suffering. Mother and babies should be prioritised in all relevant policy processes. The main focuses should be mother and baby poverty, family-friendly livelihood opportunities for mothers, improving health services for mothers and babies and ensuring that they are free, special food aid packages that meet the needs of pregnant and lactating mothers and of babies, targeting harmful practices in the context of a larger family and community policy designed to establish fair and efficient intra-household rights and responsibilities for men, women and children.

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APPENDIX

This brief description of the sites is taken from Pankhurst and Bevan, 2004.

The 20 WIDE rural sites are located in the four main regions of Ethiopia, which together, represent the bulk of the country's population (86%): Amara (26%), Oromia (35%), Southern Region (19%), and Tigray (6%). The distribution of the sites is as follows: 8 in Oromia, 6 in the Southern Region, 4 in Amara and 2 in Tigray. Although the Southern Region therefore seems over-represented it contains the greatest diversity, particularly in linguistic and ethnic terms since about half the 80 or so ethnic groups in the country reside within the Southern Region.

The sites were selected mainly on the grounds of existing household survey panel data in 18 of the sites, and village studies undertaken in 1995 in 15 sites, which allows us to build up a picture over time. Six of the sites were selected in 1989 for household surveys by the International Food Policy Research Institute on the grounds that they were food deficit areas. The Economics Department of Addis Ababa University together with the Centre for the Study of African Economies added nine more sites in 1993 to cover the major livelihood systems to be found in Ethiopia. Three further sites were added by the economists who were revisiting in 1999 to include more cash-cropping areas. The 18 panel sites provide data going back over 15 years for the first selection, 10 years for the second selection and 5 years for the last selection. As the selected sites did not include pastoralist communities, which make up 10 percent of the population, two sites in which WED Ethiopia team members had done in-depth anthropological research were added in 2003.

Sites in Tigray Region

Harresaw

Located in the Eastern zone of Tigray Region in Atsbi *wereda* Harresaw is a highland site on the eastern escarpment. The main production is cereals notably barley. Livestock sales, migration and the salt trade are the major sources of additional income. The site used to produce a regular surplus but has become vulnerable to famine.

Geblen

Located in Tigray region, Geblen is a highland escarpment site producing cereals, notably barley. Cash is obtained by selling livestock and labour migration. The site is vulnerable to famine.

Sites in Amara Region

Yetmen

Located in Amara Region, East Gojjam Zone, Enemay *wereda* Yetmen is a mid-altitude site producing cereals, especially *tef* and wheat. Cereals, livestock and their products are the main sources of cash as well as some trade and migration. The site is fairly rich

Debre-Berhan environs

The four sites near the town of Debre Berhan are in Amara Region, in Basso and Worana and Debre Berhan Zuria *weredas*. The area is a highland cereal producing area that is generally self-supporting.

Dinki

Located in Amara Region, North Shewa Zone, Tegulet Wereda, Dinki is a small lowland site producing mainly *tef*, maize and sorghum, with some fruit around the river. The site is vulnerable to famine.

Shumsheha

Located in Amara Region, in the Lasta area, Shumsheha is a lowland site near the airport of Lalibela Town. The main crops are cereals and pulses, with limited irrigation. The area is vulnerable to famine and many people migrate out in search of work.

Sites in Oromia Region

Sirba and Godeti

Located in Oromia Region in the fertile Ad'a plain Sirbana Godeti are two mid-altitude road-side villages producing cereals, notably *tef* and pulses. *Tef* is the major cash crop and livestock and their products are also traded. The area has been a surplus producing area linked to nearby markets and is fairly prosperous.

Turufe Kecheme

Located close to the town of Shashemene in Oromia Region, Eastern Shewa Zone, Turufe Kecheme is on the edge of the Rift Valley. The main products are cereals, pulses, oilseeds and vegetables. The site produces cereals and vegetables, notably potatoes which are sold as cash crops as are livestock. The site has become rich due to its linkages with Shashemene and involvement in the market economy.

Adele Keke

Located in the Oromia Region, Kersa Wereda, Adele Keke is a middle altitude site which produces a variety of cereals and vegetables and the cash crop chat. It is by the roadside near the town of Alemaya that provides a ready market and the site can be considered to be fairly rich with some very wealthy inhabitants. The site has regularly been affected by rain failure and in bad years is dependent on food aid.

Oda Dawata

The site of Oda Dawata is located in Oromia Region, Tiyo Wereda of Arsi Zone. Cereals and pulses are produced as well as vegetables on irrigated land. The site is within a agricultural surplus producing area and is fairly well off.

Oda Haro

Located in Oromia region, West Shewa Zone, Bako Tibe Wereda the site of Oda Haro is mainly a maize producing area, as well as other cereals, pulses, oil seeds, and *chat* for cash crops. The area is relatively wealthy.

Somodo

Located in Oromia Region, Jimma Zone, Mana Woreda the village of Somodo is a mid altitude site producing cereals, pulses and *enset*. Coffee is the most important cash crop and some villagers are involved in trade, and the sale of livestock products. The area is fairly prosperous.

Gelcha

Located in Oromia Region among the pastoral Kereyu this site is a lowland area which has been affected by the introduction of irrigated farms and the establishment of a park. The Kereyu rely largely on their livestock although some sedentarisation and cultivation has been taking place. The Kereyu have found their livelihoods becoming more vulnerable in part owing to externally induced pressures.

Korodegaga

Located in Oromia Region, Arsi Zone, Dodota *wereda*, Korodegaga is a lowland area by the Awash river. The main crops are maize and *tef*, as well as pulses. The main source of cash are livestock and firewood sales. The Oromo population is only partly settled, and the site is vulnerable to drought despite some irrigation, and malaria poses a major problem.

Sites in SNNP Region

Adado

Located in the Southern Region in Gedeo Zone, Adado is a middle altitude site within the *enset* growing area. Coffee is the major cash crop. Both hoe and ox-plough agriculture are practised to produce a wide variety of crops and livestock. The site is within the area of the Gedeo people and can be considered fairly rich, although it was hard hit by the drought of 2002.

Imdibir

Located in the Southern Region in the Chaha Gurage area near the town of Imdibir Haya Gasha is a mid-altitude site producing *enset*, maize, and vegetables. The main cash crop is eucalyptus trees. The site can be considered to be fairly well off.

Aze Debo'a

Located in the Southern Region in the Kambata area, Aze Debo'a is within the highly populated *enset* growing area. Cereals, pulses and vegetables are the main crops, and cash is obtained through sale of livestock and their products, as well as Eucalyptus, *chat* and coffee, as well as through trade and migration.

Do'oma

Located in the Southern Region, North Omo Zone within the Gamo area Do'oma is a lowland site set up initially as a resettlement project in 1985. The main production is cereals notably maize and the main sources of cash are cotton production and weaving and trade in livestock products. The site relies on irrigation but is vulnerable to drought.

Gara Godo

Located in the Southern Region, Wolayta Awraja, Bolosso Wereda, Gara Godo in a densely populated middle altitude site within the *enset* growing area. The main other crops are maize, vegetables, and fruit. Trade and migration are the main sources of cash together with sale of coffee and livestock products. The site is vulnerable to famine.

Luqa

Located in the Southern Region, South Omo Zone, the Tsamako site is an agro-pastoralist lowland site relying partly on traditional irrigation. The main crops are sorghum and maize and livestock are important sources of cash. The area has been vulnerable to drought.

1. What the data can and can't tell us

The twenty case studies described above are not 'representative' of Ethiopia as a whole and the conclusions cannot be generalised on the basis of indications of statistical significance. However, they have been chosen at different points in time to represent the major livelihood systems and the similarities and diversities that they show are indicative. Our planned research under the ENTIRE project, using secondary sources, will help us to demonstrate how each site fits into the wider regional and national pictures.

The research methodology is experimental. Social science graduates were provided with a protocol of questions to guide the research and trained in how to use it. They were expected to pursue all the questions in the protocol but could choose how to do this, and could follow up interesting leads using their own initiative.'

MODULE 5: PROTOCOL 1F - CONCEPTIONS OF AND RESPONSES TO CHILD MALNUTRITION, ILLNESS AND DEATH

Respondents:

Educated woman with children
Richer uneducated woman with children
Poorer uneducated woman
Traditional birth attendant
Women health worker at health post

Ask for the local terms distinguishing different ages of baby/toddler/child.

Q1. Open-ended question

Get into a discussion about all the problems that women face in producing and raising children.

Q2. Guided discussion

Ask whether there is a good time in the year for babies to be born and about the effects of seasonality. Also ask about differences between 'good' harvest years and 'bad' harvest years.

Q3. Describe what happens when a woman discovers she is pregnant.

Q4. Are all pregnancies wanted? If not are there ways of getting rid of unwanted pregnancies?

Q5. What happens when women miscarry?

Q6. What do women do if they are not getting pregnant when they wish to?

Q7. How many women are there in the community who have never been pregnant?

Q8. What has happened to them? Describe a case.

Q9. Describe the food which women should eat during pregnancy? Is this different from what women should eat generally? If so describe the differences.

Q10. Are there other special things that a woman who is pregnant should do?

Q11. Are there special things that a woman who is pregnant should not do?

Q12. When should she stop working before birth and start working after birth.

Q13. In a good year are there pregnant women who cannot eat the food that they should eat? Roughly what proportion?

Q14. In a bad year are there pregnant women who cannot eat the food that they should eat? Roughly what proportion?

Q15. What effects does this have on the health of the woman?

Q16. Does it have effects on the health of the baby?

Q17. Why are some of the babies that are born thin, weak and/or ill?

Q18. Why are some babies born dead?

Q19. How do you know if a baby is likely to grow up to be a strong child and adult?

Q20. How many babies do most women have in their lifetimes?

Q21. On average how many of these survive to be children?

Q22. Do men usually prefer baby boys to baby girls? If so what do they do to show this?

Q23. Do women prefer baby boys to baby girls? If so what do they do to show this?

Q24. How is a baby boy/girl greeted?

Q25. When babies are born what are they given to eat?

Q26. Describe what food babies should be fed [*in the first month of life? ... use local categories*]?

Q27. Describe what food babies should be fed up to 6 months old? [*use local categories*]

Q28. Describe what food babies should be fed from 6 months to 1 year? [*use local categories*]

Q29. Describe what food babies should be fed from 1 to 2 years? [*use local categories*]

Q30. In a good year are there babies in the community who cannot eat the food that they should eat? Roughly what proportion?

Q31. In a bad year are there babies who cannot eat the food that they should eat? Roughly what proportion?

Q32. What problems do women have with breast-feeding. Why? and what do they do to try to solve them?

Q33. What happens to babies who cannot get enough to eat?

Q34. What are the main illnesses that babies suffer from?

Q35. When a baby is sick what do the family do to try to cure the illness?

Q36. What are the main reasons why babies die?

Q37. Are babies of poor people more likely to fall sick and die? If so why?

Q38. At what age are babies named properly?

Q39. What happens when a baby dies? Where are they buried?

Q40. Have you heard of child 'malnutrition'?

Q41. What kinds of food do children [*use local term that applies to those who have stopped being babies*] need in order not to suffer from malnutrition

Q42. How do you know if a child is not getting enough to eat? What are the signs in the child?

Q43. During the 1980s were there children in the community who died because they did not get enough to eat? Roughly when and how many?

Q44. During the 1980s were there children who died from epidemics of illness? Roughly when and how many?

Q45. During the 1990s were there children in the community who died because they did not get enough to eat? Roughly when and how many?

Q46. During the 1980s were there children who died from epidemics of illness? Roughly when and how many?

Q47. Why did some children die and some survive?

Q48. In the last three years have any children died because they did not get enough to eat?

Q49. In the last three years have any children died as a result of epidemics?

Q50. Have there been any changes in diet resulting from the new crops/extension packages?

Add any questions that have occurred to you as a result of your experience in the site or the interview.