



SUMMARY REPORT OF A QUALITATIVE RESEARCH STUDY ON INTERMITTENT PREVENTIVE TREATMENT DURING PREGNANCY FOR MALARIA IN RURAL ZAMBIA

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ACRONYMS

ANC	Antenatal Care
CCP	Center for Communication Programs
DOT	Directly Observed Therapy
FGD	Focus Group Discussion
IDI	In-depth Interview
ITN	Insecticide Treated Net
IPTp	Intermittent Preventive Treatment during Pregnancy (of malaria)
MOH	Ministry of Health
SP	Sulfadoxine-pyrimethamine
ZISSP	Zambia Integrated Systems Strengthening Program

EXECUTIVE SUMMARY

BACKGROUND

Malaria is endemic in Zambia and is the leading cause of health facility visits. Malaria is particularly harmful to pregnant women and their fetuses. Control of the disease is one of the Zambian Government's highest priorities.

Intermittent preventive treatment during pregnancy (IPTp) of malaria in Zambia is currently defined as at least three doses of Fansidar (also known as sulfadoxine-pyrimethamine), an effective antimalarial drug, taken during the beginning of the second trimester and into the third trimester of pregnancy. Antenatal clinic attendance during pregnancy is high in Zambia; 97% of pregnant women attend antenatal care (ANC) at least once during their pregnancy. However, pregnant women on average come for their first antenatal visit at 5.1 months gestation, or during their second trimester I. Therefore, pregnant women in Zambia often begin IPTp treatment after the recommended start and few take the recommended three doses, thus reducing the effect of the treatment and increasing the likelihood of malaria infection during pregnancy and ultimately poor birth outcomes.

The Johns Hopkins Bloomberg School of Public Health Center for Communication Programs (CCP) is a subcontractor under the USAID-funded Zambia Integrated Systems Strengthening Project (ZISSP) led by Abt Associates, Inc. Under the project, CCP conducted a qualitative formative assessment to gauge the factors that promote or inhibit timely IPTp uptake during pregnancy.

METHODOLOGY

The objective of this study was to understand the factors that facilitate and inhibit the timely use of intermittent preventive treatment to prevent malaria during pregnancy in Zambia from the perspectives of adult men and women, as well as health providers. A total of 24 focus group discussions (FGDs) and 24 in-depth interviews (IDIs) were conducted with 257 of participants in December 2011. The groups were stratified by sex, parity and region. The data were coded using ATLAS.ti software and analyzed using the thematic content analysis approach.

KEY FINDINGS

The study shows that knowledge about IPTp as malaria prevention is widespread in the study communities and indeed in some instances the possibility of accessing malaria prevention interventions at a health facility were a motivation for attending ANC. However, there was clearly a disconnection between being aware of the benefits of IPTp and accessing it at the appropriate time. Accessing IPTp was mainly dependent on accessing ANC on time, as the data indicates that once a pregnant woman attended ANC, the likelihood of her taking IPTp was high.

According to the FGDs, most pregnant women were motivated to take Fansidar during pregnancy in order to prevent themselves and the fetus from malaria infection. Women who attended ANC were able to access Fansidar, except in cases of stockouts.

¹ Central Statistical Office (CSO), Ministry of Health (MOH), Tropical Diseases Research Centre (TDRC), University of Zambia, and Macro International Inc. 2009. Zambia Demographic and Health Survey 2007. Calverton, Maryland, USA: CSO and Macro International Inc

There was a low awareness about the recommended number of ANC visits recommended for pregnant woman – especially among male community members. It was alarming that women with one child were more likely to indicate a pregnant woman only needs to make 1 ANC visit – especially due to their increased susceptibility to malaria during pregnancy and the need to receive at least two doses of IPTp.

RECOMMENDATIONS

In light of the data that emerged from the FGDs and IDIs in rural Zambia, numerous programmatic recommendations can be made. What follows is a list of recommendations for different aspects of program development.

Overall recommendations:

- Communities – especially via the traditional leadership – should be sensitized about the importance of attending ANC on time and consistently for all four visits.
- The Ministry of Health should address Fansidar stockouts. In addition, stockouts of other malaria medications should be addressed – so Fansidar sharing within clinics to non-pregnant women ends.

Demand generation messages:

- Programs should emphasize that the number of recommended ANC care visits is just four. This emphasis might encourage ANC attendance as four ANC visits are fewer than many community members perceive as the recommended number of visits.

ANC service provision messages:

- ANC service providers would benefit from very clear guidelines on when pregnant women should initiate ANC and the number of visits they should make. It would likely assist providers if they were given guidelines that cater to numerous scenarios – such as recommended timing of follow up visits given the gestational age of the initial visit. These recommendations should take into consideration the fact that the HIV and malaria prevention guidelines on ANC timing differ. The HIV and malaria ANC guidelines should corroborate the disparate advice into harmonious guidelines that the providers can use on a daily basis to advise pregnant couples.
- ANC service providers need to be informed that pregnant women can take purchased Fansidar at home during instances of stockouts.

I. INTRODUCTION

Malaria is a complex public health problem in Africa, where most cases and deaths occur due to the disease in the world. Malaria infection during pregnancy is a critical public health problem; maternal anemia and low birth weight newborns are two important consequences of malaria in pregnant women². Intermittent preventive treatment during pregnancy (IPTp), insecticide-treated nets (ITNs), and case management of malaria illness and anemia are recognized approaches for malaria prevention and control during pregnancy in areas of stable malaria transmission³.

The recommended treatment for IPTp is at least three doses of Fansidar, or sulfadoxine-pyrimethamine (SP), an effective antimalaria drug, taken during the second and third trimesters of pregnancy. Specifically, the first dose should be administered in the sixteenth week, the second dose following a month later and the third dose a month after the second.

Results from the 2007 Zambia Demographic Health Survey showed that 87% of women took an antimalarial drug during their last pregnancy in the two years preceding the survey (93% in urban areas and 85% in rural areas). The survey also collected information on the number of doses of SP/Fansidar taken by pregnant women. Overall, 87% of pregnant women received at least one dose of SP/Fansidar to prevent malaria during pregnancy and 66% of pregnant women received two or more doses of SP/Fansidar. Therefore, one of the major problems in Zambia is that pregnant women often begin IPTp treatment after the recommended start of the sixteenth week and few take the recommended three doses, thus reducing the effect of the treatment and increasing the likelihood of poor birth outcomes as a result of malaria infection during pregnancy.

² Wilson, N et al. 2011. Intermittent Preventive Treatment with Sulfadoxine-Pyrimethamine against Malaria in Anemia in Pregnant Women. *The American Journal of Tropical Medicine and Hygiene*, 85(1):12-21.

³ World Health Organization (WHO). 2004. A Strategic Framework for Malaria Prevention and Control during Pregnancy in the African Region. Brazzaville: WHO Regional Office for Africa, 2004. AFR/MAL/04/01. http://whqlibdoc.who.int/afro/2004/AFR_MAL_04.01.pdf. Accessed: 03 June 2012.

2. METHODS

2.1 STUDY DESIGN

Qualitative methods were used to achieve the aims of this study. Specifically, focus group discussions (FGDs) and in-depth interviews (IDIs) were employed to obtain information on the facilitators and barriers to IPTp in rural Zambia. The interviews and discussions were guided by Topic Guides. Projective techniques were used, which provided an indirect approach to gain information about underlying norms that can be overlooked or otherwise influenced by direct questioning or facilitator bias.

The specific projective techniques used include:

- Photo elicitation – visual aids to explore participants’ perceptions of pregnancy
- Storytelling – using a fictitious story with follow-up questions to explore social norms and perceptions of decision-making surrounding antenatal care (ANC) access
- Ranking – exercise to evaluate risk perception of malaria in pregnancy vis-à-vis other pregnancy complications

2.2 STUDY POPULATION

Study participants for the FGDs, adult men and women, were drawn directly from two rural districts in each of the following provinces of Zambia: Eastern, Lusaka and Northwestern. These participants were recruited by local leaders who informed and mobilized potential study participants based on the inclusion criteria (age, sex, and parity). All FGD study participants had to have had a child in the past year. The purpose of this inclusion criterion was to ascertain recent individual experience with the health system. In addition, it was important to discern whether barriers to ANC and IPTp differed by parity.

After study recruitment, verbal informed consent was obtained from all study participants before proceeding. A total of 233 individuals participated in 24 FGDs in December of 2011. The following FGDs were held in each selected district:

1. Women, 18+ years old, with one child 12 months of age or less
2. Women, 18+ years old, with 3+ children, the youngest child 12 months of age or less
3. Men, 18+ years old, with one child 12 months of age or less
4. Men, 18+ years old, with 3+ children, the youngest child 12 months of age or less

A total of 2 IDIs were conducted in each selected study district with ANC providers and administrators for a total of 24 IDIs. These participants were purposively recruited at the health centers where they work. This was accomplished via letters from the Zambian Ministry of Health (MOH) introducing the aims, procedures, participants, risks, and benefits of the study.

2.3 PROCEDURES

Ethical approval to conduct the study was obtained from the following Institutional Review Boards:

- ERES Converge in Lusaka, Zambia;
- Johns Hopkins Bloomberg School of Public Health in Baltimore, Maryland; and
- Abt Associates, Inc. in Bethesda, Maryland.

Qualified and experienced research assistants were recruited and trained by the research firm hired to conduct the study. The training provided the data collection team with an overview of the ZISSP project, and covered research issues such as qualitative research methods, fieldwork ethics and teamwork. The research teams also familiarized themselves with the discussion guides in both English and the local languages; each question in the guides was thoroughly discussed. In addition, the research assistants carried out role-plays to practice leading FGDs and IDIs. The topic guides were pre-tested with rural residents after the training and were further refined based on the pre-test results.

2.4 DATA ANALYSIS

With the consent of the participants, all discussions were audio taped and the recordings were transcribed verbatim in the local languages. The transcribed texts were then translated into English. Data sorting and analysis were carried out using ATLAS.ti software and group level matrices. In addition to using the discussion guides to develop the analysis codes, all transcripts were read to identify emerging themes and allow for the generation of new codes based upon the participants' own words. In this study, 'coding up' as opposed to 'coding down' was utilized; meaning that the codes were developed based on the data and were not defined prior to data collection⁴. The data analysis was guided by the thematic content analysis approach⁵.

After all of the transcripts were coded, matrices were created to help identify patterns in the data. The matrices were at the focus group discussion/in-depth interview level. Each row in each matrix represented one focus group and the relevant data from study participants in that group was placed in the cell under the column headed with the matching code. The matrices were useful in grouping the different nuances within each theme, discerning differences and similarities between groups within themes, and making connections broadly between themes.

⁴Keenan, Karen Forrest, Edwin van Teijlingen, and Emma Pitchforth. (2005). The analysis of qualitative research data in family planning and reproductive health care. *The Journal of Family Planning and Reproductive Health Care* 31(1): 40-43.

⁵Green, Judith and Nancy Thorogood. (2004). *Qualitative Methods for Health Research*. Thousand Oaks: Sage.

3. FINDINGS: IPT_p

3.1 FACILITATORS OF IPT_p

The focus group facilitators asked the study participants what motivates pregnant women to take Fansidar during pregnancy. Over a third of the groups, mostly female, discussed the benefits of protecting the mother from malaria. In over a half of the groups, the issue of protecting the fetus from malaria was discussed. Women were more likely to note this advantage than men.

It helps her to start Fansidar at the recommended time and the right way. The intake of Fansidar is meant to protect the unborn baby in its mother. That is the reason why they have to go for antenatal care services.

Female, 32 years, 3 children, Luangwa

3.2 MALE PARTNER ENCOURAGEMENT

Male partners encourage their female pregnant partners to access IPT_p by encouraging them to attend ANC, either through verbal encouragement or by providing transport. They also encourage their partner to take the preventive medication given to them by the health care providers or even purchase the medication when the clinic experiences a stock out. Females were more likely to contribute to discussions about male partners encouraging wives to access IPT_p during pregnancy than males.

It is the same even for them; they encourage the woman because they are scared that she might end up having a miscarriage in her 6th or 7th month. So he makes sure that when there are no drugs at the clinic, he gives you money so that you can buy from the nearest shop.

Female, 20 years, 1 child, Nyimba

3.3 COMMUNITY LEVEL USE OF IPT_p

Facilitators asked study participants if most women in the community access Fansidar during pregnancy – all responses to this question indicated that the majority of women do access Fansidar. The reason being that most women, if not all, access ANC and the respondents felt that if a woman accesses ANC, then she is also receiving Fansidar.

3.4 SEASONALITY

When asked if women are more likely to access Fansidar in one season versus another the dominant reaction was no – women go for ANC throughout the year, and hence, they receive Fansidar whenever they access these services. Women and individuals with at least 3 children were more likely than others to indicate that pregnant women access Fansidar throughout the year at the same rate.

...many people die from malaria...there is no season...there is nothing like...this is the dry or rain season...it's throughout the year.

Male, 28 years, 3 children, Nyimba

3.5 INITIATING FANSIDAR

The FGD facilitators asked the participants when a pregnant woman should begin taking Fansidar during her pregnancy. Answers ranged from during the 1st month to the 6th month – with 4 months as the mode answer. In most cases 4 months was mentioned in conjunction with the typical timing for the first ANC visit.

ANC providers were asked when pregnant women should receive the first dose of Fansidar. The mode response among providers was 16 weeks, however, answers ranged from the first trimester to 28 weeks. Some providers gave very specific responses to the question about initiating Fansidar and administering the remaining doses.

After 16 weeks which is in the second trimester, that is when the first dose is given; and the second dose is given in the subsequent visit, that is 4 weeks from the first dose; and the third dose is also given after 4 weeks of taking the second dose, which is at 24 weeks.

Female, Administrator and ANC Provider, Nyimba

3.6 IPTp VIA DIRECTLY OBSERVED THERAPY

ANC providers indicated that Fansidar is provided via directly observed therapy (DOT) to pregnant women during ANC visits.

They use the DOT method whereby the pregnant mother takes the drug in presence of the health care provider.

Male, Administrator and ANC Provider, Nyimba

FGD study participants indicated that women were more likely to get Fansidar these days due to the rule of administering Fansidar via DOT. Apparently, in the past, prior to the establishment of DOT for Fansidar treatment, women would carry the Fansidar home but rarely actually take the medication. Male and female FGD participants were equally knowledgeable about DOT. Individuals with 3 or more children were more likely to comment on the DOT method of administration, possibly due to their experience of pre-DOT and post-DOT Fansidar regulations.

Previously, only a few used to take [Fansidar] because they were asked to take from home. But as of now, many pregnant women are taking Fansidar because of DOT.

Female, 40 years, 3 children, Chongwe

Only female providers indicated that, to continue DOT during Fansidar stockouts, they would instruct pregnant women to purchase the drug from other sources and return to the clinic to take the medication under the watch of a health provider.

We tell the women to buy and then bring to the center. Why we do that is that we don't want to see her come and say, "I bought and drunk," when, in fact, she didn't. Therefore, we emphasize you go and buy, then come with medicine because we want us to see you drink from here. If they tell us that, "I will buy and drink," We tell them, "No!"

Female, ANC Provider, Chongwe

3.7 SIDE EFFECTS OF IPTp

The main reason given for pregnant women not taking Fansidar at home prior to DOT was due to the side effects associated with it. When FGD study participants were prompted to explain why women wouldn't want to take Fansidar, very few participants responded to this prompt.

A variety of side effects from Fansidar were mentioned. One of the most commonly noted by FGD participants was how Fansidar makes pregnant women feel weak. IDI participants were less likely to note this side effect. The second most common side effect mentioned for both FGD and IDI participants was vomiting, especially if the medication was taken on an empty stomach.

3.8 SHARING IPTp

Another reason pregnant women didn't take Fansidar prior to DOT was to share the malaria prophylaxis with others. None of the FGD participants mentioned this; however, female ANC providers mentioned it as another reason for providing Fansidar via DOT. These providers further explained that pregnant women supposedly shared Fansidar with sick family members prior to DOT.

They may not drink...some would divert the medicine. They would say "Me, I am not sick," or, "I have got a sick child at home so I will give the Fansidar for malaria to my baby at home." What we want is to be sure that this woman has really taken...We don't just enter on the card minus witnessing her drink. For the deworming tablets, we make them chew whilst we are observing them and the same applies to Fansidar, they drink whilst we are there.

Female, ANC Provider, Chongwe

In alignment with this sharing theme, there was some mention in the IDIs of providers sharing Fansidar with sick patients at the health center who were not pregnant.

...in certain cases you cannot...you want to save life...that pregnant woman is not there and then someone else comes and that's the only drug that can help. You end up breaking the rule that this is for pregnant women only.

Female, ANC Provider, Chongwe

3.9 FANSIDAR STOCKOUTS

FGD participants from Mambwe, Nyimba, and Zambezi noted that Fansidar does stockout at times.

I collected [Fansidar] two times during my pregnancy. When we went there [to the ANC clinic] on a day we were supposed to collect, we were told that they had run out of drugs at the clinic.

Female, 18 years, 1 child, Mambwe

The ANC providers interviewed were also asked if stockouts occur at their respective facilities. Over half of the respondents indicated that stockouts of Fansidar does occur. The ANC providers also supplied information about the duration of the stockouts, reporting them to be as short as one day to as long as 5 months.

The Fansidar is also not always available. For example, in the last quarter we never had Fansidar and the pregnant women did not receive Fansidar during that period.

Male, Administrator and ANC Provider, Zambezi

3.10 INCREASING IPTp UPTAKE

The IDI facilitators asked ANC providers how IPTp uptake could be improved. The most common response noted by two thirds of the providers and by more administrators than non-administrators, was that pregnant women need to access ANC on time, or earlier than they are now, to ensure they obtain all 3 doses of Fansidar.

The only problem we have is that there is no IPTp third dose to many pregnant women. They take the first two doses quite well but when it comes to the third dose usually the dropout rate is high because they are coming late to initiate their pregnancy care. This means that by the time they are supposed to take the third dose, they will be due for delivery. For us, we want to improve on all three IPTp doses. It is only early ANC booking that will help us.

Female, Administrator and ANC Provider, Nyimba

The second most common suggestion given by providers to improve IPTp uptake by pregnant women was to eliminate all stockouts of Fansidar. Male providers were more likely to mention this suggestion than female providers.

It's having the things, making sure that you have stocks equivalent to the services you are providing to the woman, or a bit more, so that you don't run out of the IPTp drugs.

Male, Administrator and ANC Provider, Nyimba

4. FINDINGS: BARRIERS AND FACILITATORS OF ACCESSING ANTENATAL CARE

Since pregnant women reportedly accessed IPTp as long as they attended ANC early and on time, FGD study participants were probed via the storytelling technique to find out why pregnant women and their male partners chose to not access ANC during pregnancy. A variety of barriers surfaced. The following is a list of the barriers mentioned by community members, in order of frequency: HIV testing; ANC providers; male partners; unaware of benefits of ANC; financial constraints; laziness; distance to the health facility; shyness; tradition; lack of proper maternity wear; age; and parity.

During the interviews with health providers, participants brought up a similar list of barriers to accessing ANC, with HIV testing and male partners being the most often mentioned.

For some women it is because of the issue of testing for HIV/AIDS that they are afraid of [attending ANC]. They do not want to know their status for fear of being depressed or committing suicide when they know the truth.

Female, 20 years, 1 child, Chongwe

FGD study participants were also probed to find out what motivates pregnant women and their male partners to access ANC during pregnancy. A similar number of motivating factors were mentioned, albeit at a higher frequency than the barriers. This potentially indicates that the motivation to attend ANC was stronger than the deterrents. The following is a list of facilitators of accessing ANC in order of frequency mentioned: male partners; confirming the pregnancy; malaria prevention; HIV testing; fetal position; fetal health; maternal health; fetal growth; general prevention; safe delivery; registration card; nutrition advice; treatment for ailments; anemia prevention; education; first pregnancy; and avoiding community fines.

Two barriers of accessing ANC, male partners and HIV testing, were also noted as facilitators, however they were ranked differently. Male partners were mentioned most often as the facilitators of ANC out of all themes mentioned, whereas HIV testing was the most often cited barrier to ANC.

When I receive or see any support from my husband on the issue of antenatal, I will make sure that I go for antenatal every appointed day and drink all the medicine I am given at the clinic so that I please my husband; that his efforts are not in vain.

Female, 20 years, 1 child, Luangwa

The list of facilitators of accessing ANC from the perspective of ANC providers only included male partners, the registration card, incentives, peer influence and leader imposed fines.

A full discussion of the barriers and facilitators to ANC is beyond the scope of this summary report. However, please see the full report for a more in-depth discussion.

5. FINDINGS: THE TIMING, INITIATION AND NUMBER OF ANTENATAL CARE VISITS

As the timing of initiating and continuing ANC surfaced as a critical influencer of IPTp access, study participants were probed about the recommended and actual timing of ANC visits.

5.1 TIMING AND INITIATION OF ANTENATAL CARE

It was acknowledged that the majority of pregnant women initiate ANC at 4 months; however, most FGD participants felt that 4 months was too late and that women should start ANC at 2 or 3 months.

What makes them access ANC late...is when a woman gets pregnant, they want to wait up to a certain period...to see if they are truly pregnant. Maybe she'll wait for two to three months and go to the antenatal clinic at four months, which is late. A pregnant woman needs to know that she needs to book her pregnancy at two or three months.

Male, 32 years, 4 children, Nyimba

In line with the FGD findings, most ANC providers interviewed indicated that pregnant women should initiate ANC at three months or 12 weeks of pregnancy. However, the timing of ANC initiation, according to the ANC providers, ranged from as early as possible to 16 weeks. Some ANC providers seemed confused about the recommended gestation at which to initiate ANC, as did some of the FGD participants. These providers indicated there was no specific gestation age at which a pregnant woman is supposed to initiate ANC.

In short, I should just say there's no recommended time.

Female, ANC Provider, Chongwe

Some ANC providers indicated that pregnant women should initiate ANC at 14 weeks for HIV prevention and return at 16 weeks gestation for IPTp prevention.

In the 14th week, we encourage them to come for booking, but they start IPTp in the 16th week. The reason we ask them to come in the 14th week, is so that we can test them for HIV and start the necessary interventions. The interventions for HIV [ARVs] have changed but for IPTp it is 16 weeks. They can come in the 14th week, get counseled and tested, if they are HIV positive, they start the prophylaxis [ARVs]. Then for IPTp, we tell them to come in the week when their pregnancy will be 16 weeks old.

Female, Administrator and ANC Provider, Chongwe

In this setting of focused ANC, where the total number of recommended visits is four, these providers recommended that two of the ANC visits would occur within 2 weeks of each other in the beginning of the second trimester.

5.2 NUMBER OF ANTENATAL CARE VISITS

According to the ANC providers, pregnant women should make a total of four ANC visits during pregnancy.

...mothers are supposed to visit the clinic for ANC only four times, unlike in the past where they would attend the ANC clinic seven times. This time it is focused.

Female, Administrator and ANC Provider, Nyimba

When asked how often pregnant women actually attend ANC, some providers indicated it is often less than the recommended number of four visits.

We are trying to have them attend at least four visits, though the majority delivers before their third visit.

Male, ANC Provider, Luangwa

When asked how many times a pregnant woman attends ANC, the FGD respondents gave a range of one to nine times. However, the most common response was either three or four visits. Male FGD participants were slightly more likely to indicate that pregnant woman make three ANC visits, while female FGD participants were twice as likely as males to respond that pregnant women make four antenatal visits. The most common response after four, three, or five visits, was that pregnant women attend ANC monthly. Male FGD participants were almost four times more likely than female participants to indicate that the visits occur monthly.

A pregnant woman needs to be going to the clinic every month. I am emphasizing, every month without missing...from the time a woman gets pregnant she has to be going to the clinic.

Male, 23 years, 1 child, Chongwe

6. DISCUSSION

This study shows that knowledge about IPTp as malaria prevention is widespread in the study communities, and indeed in some instances, the possibility of accessing malaria prevention interventions at a health facility were a motivation for attending ANC. However, there was clearly a disconnect between being aware of the benefits of IPTp and accessing it at the appropriate time. The data also indicates that once a pregnant woman attended ANC, the likelihood of her taking IPTp was high, demonstrating that accessing IPTp was mainly dependent on accessing ANC.

One key health system challenge in relation to malaria prevention was identified: Fansidar stockouts. These stock-outs were fairly common, preventing pregnant women access to Fansidar when they needed and wanted it.

The administration of IPTp was most commonly implemented through DOT, mainly because women feared the side effects of IPTp or shared their IPTp with others. This could be an indication that there were persistent myths around IPTp side effects within the community or that the health education regarding IPTp was not comprehensive enough to cover these issues. Given the high service provider to client ratios that exist in the healthcare system, it is possible that the DOT approach may not be consistently implemented. Thus pregnant woman may not get the full benefit of IPTp if they are not equipped to take personal responsibility for taking it.

There were also contrasting views as to when a woman should start attending ANC and how many visits she needed to make over the duration of her pregnancy. The health providers recommended the initial ANC visit to be ideally at 14 weeks, since that was the newly recommended time for initiating PMTCT, otherwise at 16 weeks for IPTp. However, pregnant women were reported to start ANC anywhere from the time they missed their first period to the time they were eight months pregnant. While the health providers indicated that they provided the recommended four focused ANC visits, communication that encouraged women to start attending ANC once pregnant caused apprehension that they may make too many visits. This was a particular challenge for women who lived far from the health facility. Clarity about how many ANC visits and how they are scheduled is important, but should be weighed against the risk of women sticking to these schedules even when their individual situation may require earlier and more frequent visits.

7. RECOMMENDATIONS

In light of the data that emerged from the FGDs and IDIs in rural Zambia, numerous programmatic recommendations can be made. What follows is a list of recommendations for different aspects of program development.

7.1 OVERALL RECOMMENDATIONS

- Communities – especially via the traditional leadership – should be sensitized about the importance of attending ANC on time and consistently for all four visits.
- The MOH should address Fansidar stockouts. In addition, stockouts of other malaria medications should be addressed – so Fansidar sharing within clinics to non-pregnant women ends.

7.2 DEMAND GENERATION MESSAGES

- Programs should emphasize that the number of recommended ANC care visits is just four. This emphasis might encourage attendance as the number of visits is less than perceived, so hence is a barrier to accessing ANC.

7.3 ANTENATAL CARE SERVICE PROVISION MESSAGES

- ANC service providers would benefit from very clear guidelines on when pregnant women should initiate ANC and the number of visits they should make. It would likely assist providers if they were given guidelines that cater to numerous scenarios – such as recommended timing of follow up visits given the gestational age of the initial visit. These recommendations should take into consideration the fact that the HIV and malaria prevention guidelines on ANC timing differ. The HIV and malaria ANC guidelines should corroborate the disparate advice into harmonious guidelines that the providers can use on a daily basis to advise pregnant couples.
- ANC service providers need to be informed that pregnant women can take purchased Fansidar at home during instances of stockouts.

