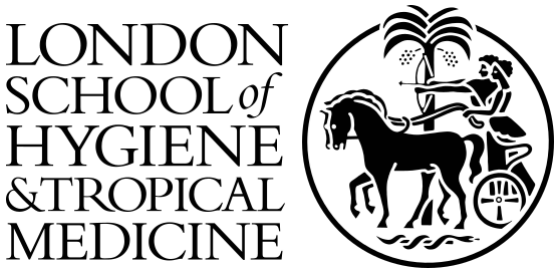

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APPENDIX 1: Ethical approval letters

TROPICAL DISEASES RESEARCH CENTRE
Tel/Fax +260212615444
tdrc-ethics@tdrc.org.zm
P O Box 71769
NDOLA, ZAMBIA

TDRC ETHICS REVIEW COMMITTEE
IRB REGISTRATION NUMBER: 00002911
FWA NUMBER: 00003729

30th July, 2013

The Principal Investigator

Dear Dr. Veronique Filippi

RE: APPROVAL OF PROTOCOL

Reference is made to your protocol entitled "Pretest of data collection tools for the evaluation of interventions to reduce maternal mortality from unsafe abortion and unintended pregnancy."

On behalf of the Chairman of the TDRC Ethics Review Committee, I am pleased to inform you that your protocol was reviewed and approved at the meeting held at TDRC on 27th July, 2013.

Your study number is **TDRC/ERC/3007/39/13**

For any amendments to the protocol or informed consent forms during the execution of the study, you should seek approval from the TDRC Ethics Review Committee.

You are required to submit at least two (2) progress reports annually. A final report to the Ethics Review Committee should also be submitted at the end of the study.

This approval is valid until 26th July, 2014.

The Committee wishes you and your team success in the execution of the study.

Yours sincerely
TROPICAL DISEASES RESEARCH CENTRE

Eric M. Njunju, Bsc, Msc
SECRETARY-TDRC ETHICS REVIEW COMMITTEE

cc: Secretary-STC

TROPICAL DISEASE RESEARCH CENTRE
ETHICS REVIEW COMMITTEE
30 JUL 2013
P.O.BOX 71769
NDOLA, ZAMBIA

THE UNIVERSITY OF ZAMBIA

BIOMEDICAL RESEARCH ETHICS COMMITTEE

Telephone: 260-1-256067
Telegrams: UNZA, LUSAKA
Telex: UNZALU ZA 44370
Fax: + 260-1-250753
E-mail: unzarec@unza.zm
Assurance No. FWA00000338
IRB00001131 of IORG0000774

Ridgeway Campus
P.O. Box 50110
Lusaka, Zambia

3rd September, 2013

Your Ref: 016-04-13.

Dr. Scott Giebel
Population Council,
No. 4 Mwaleshi Road,
Olympia
Lusaka.

Dear Dr. Giebel

RE: RE-SUBMITTED RESEARCH PROPOSAL: **"EVALUATION OF THE PREVENTING MATERNAL DEATHS FROM UNWANTED PREGNANCY PROGRAMME." (REF. No. 016-04-13)"**

The above mentioned research proposal was re-submitted to the University of Zambia Biomedical Research Ethics Committee with recommended changes on 17th June, 2013. The proposal is approved.

CONDITIONS:

- This approval is based strictly on your submitted proposal. Should there be need for you to modify or change the study design or methodology, you will need to seek clearance from the Research Ethics Committee.
- If you have need for further clarification please consult this office. Please note that it is mandatory that you submit a detailed progress report of your study to this Committee every six months and a final copy of your report at the end of the study.
- Any serious adverse events must be reported at once to this Committee.
- Please note that when your approval expires you may need to request for renewal. The request should be accompanied by a Progress Report (Progress Report Forms can be obtained from the Secretariat).
- **Ensure that a final copy of the results is submitted to this Committee.**

Yours sincerely,

Dr. J.C Munthali
CHAIRPERSON
Date of approval: 4th September 2013 **Date of expiry**: 3 September, 2014

Population Council

Institutional Review Board
Population Council
1230 York Avenue
New York, NY 10065

APPROVAL OF PROTOCOL

DATE: June 20, 2013

TO: S. Geibel, et al, Principal Investigators

FROM: Nick Gontarz, IRB Administrator, on behalf of
John Bongaarts, Chairman
Institutional Review Board (IRB)

RE: *Approval of Protocol 582* – Evaluation of the Preventing Maternal Deaths from Unwanted Pregnancy Program (EVA-PMDUP), Zambia

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The Institutional Review Board (IRB) on human research of the Population Council has approved the above request to involve humans as research subjects.

APPROVAL DATE OF PROTOCOL: JANUARY 16, 2013

ADVERSE REACTIONS/COMPLICATIONS: All serious and/or unexpected side effects must be reported immediately by email to the Population Council's SAE Desk (Safety@popcouncil.org) which will notify the IRB of the Population Council.

MODIFICATIONS: All protocol changes involving subjects must have prior IRB approval.

If this project is to continue, it must be renewed as specified by the IRB. THE EXPIRATION DATE FOR THIS PROJECT IS JANUARY 16, 2014. This renewal application consists of a brief status report summarizing the results obtained during the past period and a short statement of the research plan for the coming year.

If you have any questions, please contact Nick Gontarz at telephone number [212] 327-7112, email ngontarz@popcouncil.org or fax number [212] 327 – 7678.

cc: IRB Records and Reports File for Protocol 582

London School of Hygiene & Tropical Medicine
Keppel Street, London WC1E 7HT
United Kingdom
Switchboard: +44 (0)20 7636 8636
www.lshtm.ac.uk

Observational / Interventions Research Ethics Committee

Veronique Filippi
Senior Lecturer
IDE/ EPH
LSHTM

16 August 2013

Dear Dr. Filippi,

Study Title:

b - study 3)

/management/committees/ethics/

APPENDIX 2: Consent forms for women of reproductive age participating in the community survey

Adult Information Sheet for Sub-Study 2 (Community-Based Survey)

(English version, was translated into Bemba and Nyanja)

Good (morning/afternoon). My name is _____ and I am working with Population Council, an international organization that works to improve public health. You are invited to take part in a research study being led by the Population Council in collaboration with the London School of Hygiene and Tropical Medicine. Before you decide whether to participate, you need to understand, why the research is being done and what it would involve. Please take the time to read or to listen as I read the following information. Please ask me if there is anything that is not clear, or if you would like more information. When all of your questions have been answered and you feel that you understand this study, you will be asked if you wish to participate in the study, and if yes to sign this Informed Consent form. You will be given a signed copy to keep.

Purpose of the Study and Study Requirements

What is the study? The purpose of the study is to gather information that will help to improve healthcare for women in Zambia, especially as relates to pregnancies. We would like to understand how the health services available in your community impact your health and well-being. This study will take place in Central, Copperbelt, and Lusaka provinces.

Why have I been invited to take part? You have been invited to take part because your household was selected by chance to participate in the study and you are a woman between the ages of 15-44 years living in Central, Copperbelt, or Lusaka province.

What will happen if I take part? If you agree to take part in the study, we will ask you to sign this form. You will also be asked to answer questions about your background and your health. For example, you will be asked about your age, education, and your experiences with pregnancy and giving birth.

How long will the interview last? The interview will take 45 minutes to complete. We will be doing another survey in 2016 and you may be contacted again if your household is selected by chance to participate in the follow-up study.

Benefits & Risks

What are the benefits and risks of the study? There are no direct benefits or risks to you for participating in this study. You may be embarrassed by a few of the questions. However, the information that you provide will be used by health program managers to improve health services for women in Zambia.

Confidentiality

Will my participation in the study be kept confidential? The information that is collected during the interview will be kept private. No one will be told that you have participated in the study. Every member of the study team, including the research assistant who has come to visit you today, has been trained to protect your privacy and maintain the confidentiality of all of the information that you provide. The only place your name will be written down is on this informed consent sheet. Data will be stored in a secure location that only the study team can access.

Voluntariness

What are my rights as a research participant? Your participation in this study is completely voluntary. If any questions make you uncomfortable or you don't want to answer them, you do not have to respond. You can decline to participate and are free to stop your participation at any time without any consequences for you.

Additional Information

What will I receive for participating? Your opinions and experiences are very important to us. You will receive KR 30 as a token of appreciation for your valuable contributions and time spent participating in this study.

Who has reviewed the study for ethical issues? This study has been reviewed by the University of Zambia, Population Council, and London School of Hygiene and Tropical

Medicine Research Ethics Committees. These are the groups that make sure people participating in research studies are treated fairly and properly.

What if I need more information? If you have a concern about any aspect of the study, you should contact the Principle Investigator:

Scott Geibel

Population Council

Plot 3670, No. 4 Mwaleshi Road

P/Bag RW 319X

Lusaka, Zambia

Telephone: +260 211 295925

What if there is a problem? Any complaint about the way you have been treated during the study or any possible harm you might suffer will be addressed. Please contact the University of Zambia Research Ethics Committee:

University of Zambia Biomedical Research Ethics Committee

Ridgeway Campus

P.O. Box 50110

Lusaka, Zambia

Telephone: +260 211 256067

Parental Permission for Sub-Study 2 (Community-Based Survey)

(English version, was translated into Bemba and Nyanja)

Good (morning/afternoon). My name is _____ and I am working with Population Council, an international organization that works to improve public health. Your child is invited to take part in a research study being led by the Population Council in collaboration with the London School of Hygiene and Tropical Medicine. Before you decide whether to allow your child to participate, you need to understand why the research is being done and what it would involve. Please take the time to read or to listen as I read the following information. Please ask me if there is anything that is not clear, or if you would like more information. When all of your questions have been answered and you feel that you understand this study, you will be asked if you would like your child to participate in the study, and if yes to sign this Informed Consent form. You will be given a signed copy to keep.

Your child will also be asked whether she wants to participate in this study.

Purpose of the Study and Study Requirements

What is the study? The purpose of the study is to gather information that will help to improve healthcare for women in Zambia, especially as relates to pregnancies. We would like to understand how the health services available in your community impact your health and well-being. This study will take place in Central, Copperbelt, and Lusaka provinces.

Why has my child been invited to take part? Your child has been invited to take part because your household was selected by chance to participate in the study and your child is a woman between the ages of 15-44 years living in Central, Copperbelt, or Lusaka province.

What will happen if my child takes part? If you agree to let your child take part in the study, we will ask you to sign this form. Your child will be asked to answer questions about her background and her health. For example, she will be asked about her age, education, and your experiences with pregnancy and giving birth.

How long will interview last? The interview will take 45 minutes to complete. We will be doing another survey in 2016 and you may be contacted again if your household is selected by chance to participate in the follow-up study.

Benefits & Risks

What are the benefits and risks of the study? There are no direct benefits or risks to you or your child for participating in this study. Your child may be embarrassed by a few of the questions. However, the information that she provides will be used by health program managers to improve health services for women in Zambia.

Confidentiality

Will my child's participation in the study be kept confidential? The information that is collected during the interview will be kept private. No one will be told that your child has participated in the study. Every member of the study team, including the research assistant who has come to visit you today, has been trained to protect your child's privacy and maintain the confidentiality of all the information that she provides. The only place her name will be written down is on the informed consent sheet. Data will be stored in a secure location that only the study team can access.

Voluntariness

What are my child's rights as a research participant? Your child's participation in this study is completely voluntary. If any questions make her uncomfortable or she doesn't want to answer them, she does not have to respond. You can decline to allow your child to participate and are free to stop her participation at any time without any consequences for you or your child.

Additional Information

What will my child receive for participating? Your child's opinions and experiences are very important to us. Your child will receive KR 30 as a token of appreciation for her valuable contributions and time spent participating in this study.

Who has reviewed the study for ethical issues? This study has been reviewed by the University of Zambia, Population Council, and London School of Hygiene and Tropical

Medicine Research Ethics Committees. These are the groups that make sure people participating in research studies are treated fairly and properly.

What if I need more information? If you have a concern about any aspect of the study, you should contact the Principle Investigator:

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Population Council

Plot 3670, No. 4 Mwaleshi Road

P/Bag RW 319X

Lusaka, Zambia

Telephone: +260 211 295925

What if there is a problem? Any complaint about the way you have been treated during the study or any possible harm you might suffer will be addressed. Please contact the University of Zambia Research Ethics Committee:

University of Zambia Biomedical Research Ethics Committee

Ridgeway Campus

P.O. Box 50110

Lusaka, Zambia

Telephone: +260 211 256067

Adolescent Assent for Sub-Study 2 (Community-Based Survey)

(English version, was translated into Bemba and Nyanja)

Good (morning/afternoon). My name is _____ and I am working with Population Council, an international organization that works to improve public health. You are invited to take part in a research study being led by the Population Council in collaboration with the London School of Hygiene and Tropical Medicine. Before you decide whether to participate, you need to understand why the research is being done and what it would involve. Please take the time to read or to listen as I read the following information. Please ask me if there is anything that is not clear, or if you would like more information. When all of your questions have been answered and you feel that you understand this study, you will be asked if you wish to participate in the study, and if yes to sign this Informed Consent form. You will be given a signed copy to keep.

Your parent or guardian has already given permission. However, you do not have to say yes. We have talked to your parent or guardian and he/she agrees that you do not have to say yes.

Purpose of the Study and Study Requirements

What is the study? The purpose of the study is to gather information that will help to improve healthcare for women in Zambia, especially as relates to pregnancies. We would like to understand how the health services available in your community impact your health and well-being. This study will take place in Central, Copperbelt, and Lusaka provinces.

Why have I been invited to take part? You have been invited to take part because your household was selected by chance to participate in the study and you are a woman between the ages of 15-44 years living in Central, Copperbelt, or Lusaka province.

What will happen if I take part? If you agree to take part in the study, we will ask you to sign this form. You will also be asked to answer questions about your background and your health. For example, you will be asked about your age, education, and your experiences with pregnancy and giving birth.

How long will the interview last? The interview will take 45 minutes to complete. We will be conducting another survey in 2016 and you may be contacted again if your household is selected by chance to participate in the follow-up study.

Benefits & Risks

What are the benefits and risks of the study? There are no direct benefits or risks to you for participating in this study. You may be embarrassed by a few of the questions. However, the information that you provide will be used by health program managers to improve health services for women in Zambia.

Confidentiality

Will my participation in the study be kept confidential? The information that is collected during the interview will be kept private. No one will be told that you have participated in the study. Every member of the study team, including the research assistant who has come to visit you today, has been trained to protect your privacy and maintain the confidentiality of all of the information that you provide. The only place your name will be written down is on this informed consent sheet. Data will be stored in a secure location that only the study team can access.

Voluntariness

What are my rights as a research participant? Your participation in this study is completely voluntary. If any questions make you uncomfortable or you don't want to answer them, you do not have to respond. You can decline to participate and are free to stop your participation at any time without any consequences for you.

Additional Information

What will I receive for participating? Your opinions and experiences are very important to us. You will receive KR 30 as a token of appreciation for your valuable contributions and time spent participating in this study.

Who has reviewed the study for ethical issues? This study has been reviewed by the University of Zambia, Population Council, and London School of Hygiene and Tropical

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University of Zambia Biomedical Research Ethics Committee

Ridgeway Campus

P.O. Box 50110

Lusaka, Zambia

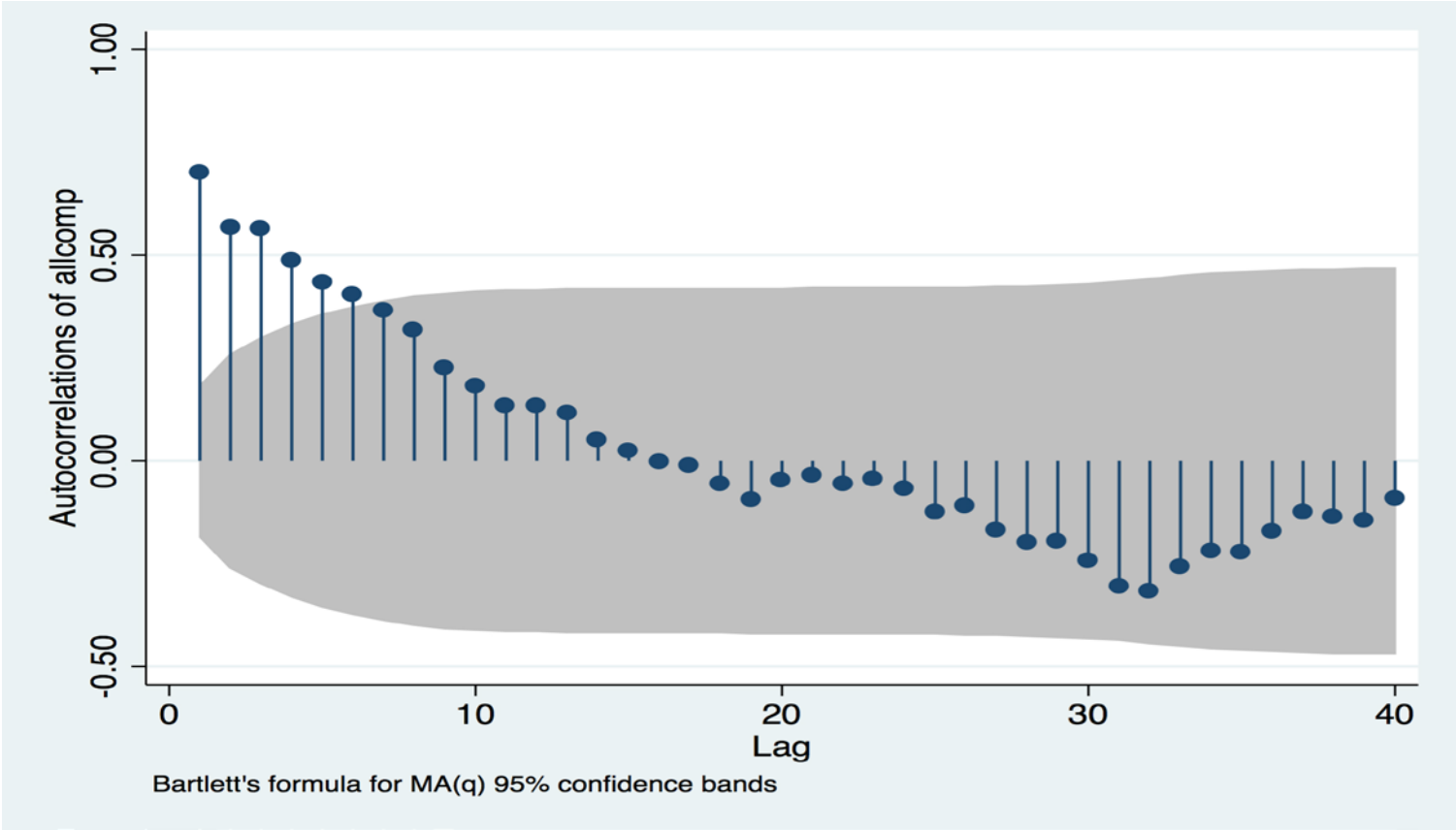
Telephone: +260 211 256067

Appendix 3: Data collected from hospital registers for trend study

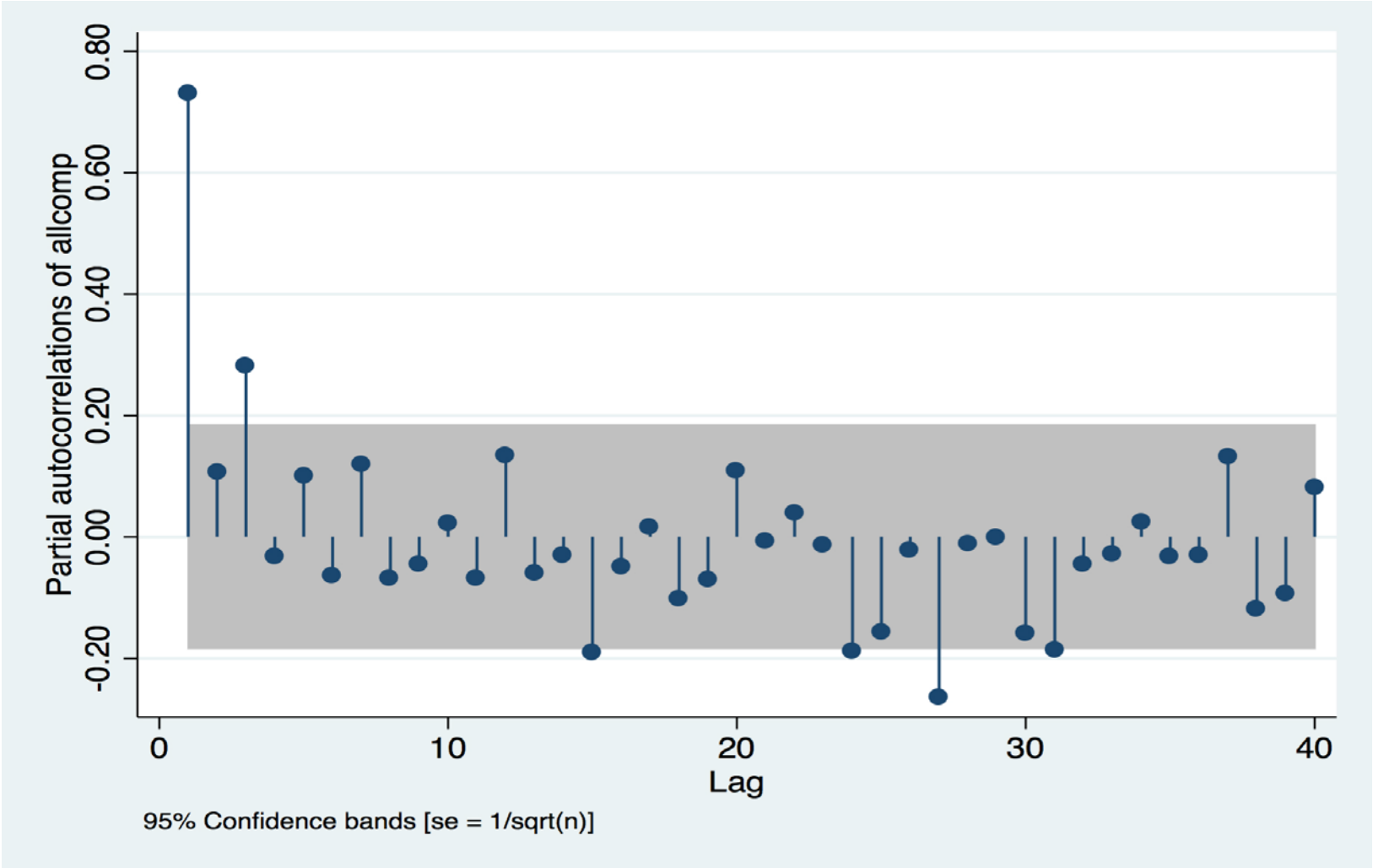
S/N	Date of extraction	Patient's hospital number	Sex	Age	Religion	Date of admission	Diagnosis	Ward	Disease code	Date of discharge	Death

APPENDIX 4: Correlogram and partial correlogram graphs for data on the abortion-related complications

Correlogram of admissions for abortion related complications.



Partial correlogram of admissions for abortion related complications



APPENDIX 5: Results of interrupted time series describing trends in death rate for chapter 4

Interrupted time series analysis on UTH deaths per 1000 abortion-related complications between two important contextual changes affecting access to abortion care

Admissions for abortion-related complications in UTH	Coefficient	95% CI	p-value
Constant	1.37	0.79,1.95	<0.001
Pre-intervention slope *(Secular trend per month)*	-0.01	-0.03,0.05	0.629
Change in level after Ministry of Health guidelines *(Immediate effect)*	0.31	-0.54, 1.15	0.471
Change in slope after Ministry of Health guidelines *(Gradual effect per month)*	-0.03	-0.09, 0.01	0.108
Change in level after availability of mifepristone for pharmacies *(Immediate effect)*	0.53	-0.23, 1.31	0.172
Change in slope after availability of mifepristone for pharmacies *(Gradual effect per month)*	0.03	-0.01, 0.06	0.148

APPENDIX 6: Data extraction algorithm for near miss study

APPENDIX 7: Near-miss study tool

MEDICAL RECORD ID	EVA-PMDUP ID

Eva-PMDUP

Data extraction form for women with abortions who spend at least 24 hours in hospital

A. Identification

1. Name of Facility:

2. Date of medical record extraction:

d	d	/	m	m	/	y	y	y	y

3. Name of investigator:

4. Patients town/village of residence:

5. Patients district of residence:

6. Patients Province of residence:

7. Date of admission:

d	d	/	m	m	/	y	y	y	y

8. Time of admission:

h	h	:	m	m

B. Demographic characteristics

9. Age (in years)

10. Marital status:

	Married
	Single
	Divorced/ Widow/Separated

11. Occupation of woman:

C. Reproductive history

12. Total number of pregnancies (including this one)	
13. Total number of live births	
14. Total number of pregnancy losses (including this one)	

15. What was the LMP before this terminated/lost pregnancy?

D	D	M	M	Y	Y	Y	Y

16. What was the estimated gestational age?
_____(weeks) ____(days)

17. Was contraception used before this pregnancy?
(Circle the appropriate answer)
1.YES 2. NO 3. Don't know
→ ***IF NO SKIP TO question 19***

18. If **YES** what contraceptive method was used?

19. Did this woman say that she tried to induce an abortion (herself or through another provider) before coming to this facility?
(Circle the appropriate answer)
1.Yes 2.NO 3. Don't know
→ ***IF NO or "Don't know" SKIP to question 21***

20. If **YES** how was the pregnancy loss induced?

21. Was the woman referred here from another facility?
(Circle the appropriate answer)
1.Yes 2.NO 3. Don't know

D. Management of Abortion complications

22. Was a procedure performed to evacuate the uterus?
(Circle the appropriate answer)
1.YES 2.NO 3. Don't know
→ ***IF NO or "Don't know" SKIP to question 25***

23. What procedure was performed:
(Circle the appropriate answer)
1. MVA 2. D&C 3. ERPC 4. Oxytocin/Syntocinon infusion 5.Misoprostol OR Misoprostol/Mifepristone 6.Other (please specify)_____

24. Date of MVA OR other procedure

d	d	/	m	m	/	y	y	y	y

25. How long did the client stay in this facility for care?
1. Less than 24 hours □ 2. 24 hours or more□

EVA-PMDUP ID								

26. Was the woman referred to another facility? ***(Circle the appropriate answer)***

1.YES 2.NO 3. Don't know

27. Vital status of the woman at discharge/referral **(Tick appropriate answer)**

1. Alive	
2. Dead	
3. Discharged against medical advice (DAMA)	

28. Date of discharge/death/DAMA of the woman

d	d	/	m	m	/	y	y	y	y

➡ ***IF woman is DEAD skip to SECTION E***

29. Was Family planning counselling done before discharge? ***(Circle the appropriate answer)***
1.Yes 2.NO 3. Don't know

➡ ***IF NO skip to SECTION E***

30. If **YES** what Family planning method was accepted upon discharge?

E. Abortion complications presented with. Multiple answers can be chosen in this section

31.	Haemorrhage	
32.	Anaemia	
33.	Infection	
34.	Injury	

35. Other (please specify)

36. Diagnosis recorded for the patient on admission?

F. Clinical symptoms and signs/ management during ADMISSION (For temp, pulse, BP and HB fill in worst available symptoms during admission)

37.	Axillary Temperature	_____ ℃	
38.	Did the patient have chills/rigors	1. YES	2. NO
39.	Pulse rate:	_____ bpm	
40.	Blood pressure	_____ mmhg	

41.	RVD positive	**1. YES**	**2. NO**
42.	What was the Haemoglobin level?	____g/dl	Not done
43.	Did the doctor request a blood transfusion	**1. YES**	**2. NO**
44.	Were blood or blood products transfused?	**1. YES**	**2. NO**
45.	How many pints of blood were given?		
46.	Were intravenous (IV) fluids given?	**1. YES**	**2. NO**
47.	Evidence of foreign body in the vagina, cervix or uterus (e.g. sticks, herbs metal or misoprostol)?	**1. YES**	**2. NO**
48.	Were antibiotics given to the patient?	**1. YES**	**2. NO**

For 49- 56, mark the box with an "X" if the patient presented with any of the following signs or symptoms. Multiple answers can be chosen in this section.

49.	Offensive products of conception (foul smelling vaginal discharge, retained products of conception)	
50.	Localized peritonitis (uterine tenderness, tenderness when the cervix is moved, lower abdominal tenderness, or adnexal tenderness (near ovaries and tubes)	
51.	Cardiac arrest (sudden absence of pulse and loss of consciousness)	
52.	Hysterectomy (surgical removal of uterus following infection or haemorrhage)	
53.	Hypovolemic shock (persistent systolic blood pressure <90 mmHg with a pulse rate of at least 120 beats per minute + cold sweat) ± Hb between 7-9.9 g/dl or mucocutaneous signs	
54.	Septic shock (clinical diagnosis of septicaemia or one of the following (T>39C; T<36C; genital infection) AND one of the following (systolic blood pressure <90mmHg; icterus; altered consciousness; oliguria <100ml in 4h)	
55.	Oliguria non responsive to fluids and diuretics (urine output <30 ml/h for 4 hours or <400 ml/24h nonresponsive to fluids or diuretics)	
56.	Generalised peritonitis, tetanus, gangrenous uterus	
57.	Major trauma (uterine perforation, gut injury or bowel injury)	

An abortion related near-miss is **"A woman who nearly died but survived a complication that occurred during pregnancy, or within 42 days of termination of pregnancy".**

58. Do you consider this woman a near-miss case?

	Yes
	No

➡ ***IF NO end questionnaire here***

59. When did she become a near miss?

	Before she was admitted
	During her admission in hospital

FOR SUPERVISORS ONLY
CHECKED BY:_____DATE:_____SIGNATURE:_____

APPENDIX 8: Data collection tools for Abortion Incidence Complications Method (AICM)

A. Health professionals survey questionnaire

Investigation about Abortion and Post abortion Care "Survey of Health Professionals in Zambia--2014"
Respondent Identification number:_____ Region:_____
My name is _____ and I am working with the London School of Hygiene and Tropical Medicine in conjunction with the Population council, and the Guttmacher Institute, conducting a national study to assess abortion care. We would like to ask for your cooperation in getting a better picture of the situation in Zambia. This research will provide information about the reproductive health care system in Zambia, which will contribute to the improvement of women's health.
We would greatly appreciate if you base your answers on your experience and knowledge, or if you lack actual experience, on your perception of the situation. We will be asking you questions about legal induced abortion as well as all other ways that women induce abortion. Questions are asked separately about abortion practices in urban and rural areas, and separately about poor women and women who are relatively well-off (non-poor). If your experience or perceptions are insufficient to enable you to answer questions on a sub-group of women, please feel free to point this out. We urge you, however, to answer as fully as possible because your perceptions and opinions are valuable information where factual data are lacking.
Your responses to this questionnaire will be completely confidential and will be used for research purposes only. No personal reference will be made to your participation in this survey of health professionals. We will combine your responses with those of other health professionals to describe the general picture of induced abortion practice in Zambia.
Do I have your permission to proceed with the interview? ☐ Yes ☐ No
If you have any questions about this survey or the study please call Dr Onikepe Owolabi at the Population council Zambia. Dr Owolabi may be reached at (+260)975910361 (mobile) or by email at oowolabi@popcouncil.org.
Thank you

MODULE 1: Basic information			
S/N	**Questions and Filters**		**Responses and Codes**
101	Gender of respondent	1	Male
		2	Female
102	Which of the following categories describes your primary profession?	1	Researcher
	[Interviewer: If more than one applies, tick the category that accounts for the greatest proportion of the respondent's time.]	2	OBGYN specialist
		3	Other medical professional (*specify*): _____
		4	Program manager
		5	Policy maker/policy advisor
		6	Advocate or activist, e.g. in women's organizations *(specify)*:_____
		96	Other *(specify):* _____
103	In which sector do you work primarily?	1	Public sector (Government)
	[Interviewer: If the respondent works in more than one sector, tick the category corresponding to the sector where he/she contributes the most time. If the respondent works equally in both the private and the public sector, they can fill that in under "Other".]	2	Private for profit sector
		3	Private not-for-profit sector (NGO/CBO/Religious organization)
		4	In a non-medical framework (research, policy, counseling, law)
		96	Other (specify) _____
104	How long have you been working in this field?	___	Years
105	Is this information you are providing us about this province/district or another province/district?		Fill in Province(s): _____
			Fill in District(s): _____
			Rural area (Yes or N0)?
106	Do you have experience working in rural areas for six months or more in the last five years?	___	1 Yes 2 No

			List the names of the rural areas where you have worked for six months or more in the last five years _____ _____ _____
107	Please identify the different situations in which you have encountered the issue of abortion. ***[Interviewer : Please tick all that apply, but do not suggest the answers]***	1	Personally, in a public health center
		2	Personally, in a private health center
		3	Personally, in a non-medical framework (research, policy-making, counseling, advocacy, law, etc.)
		4	Through colleagues in any of the above settings
		5	Other (specify) _____

MODULE II: SERVICE PROVISION								
Little is known about the provision of safe abortion in Zambia. Nevertheless, we would like to have your opinion about several aspects of this area of reproductive behavior, insofar as you are able to give an informed opinion or an educated guess. When we talk about woman, we mean any female who can become pregnant.								
201	As far as you are aware, what methods are used in urban areas of Zambia to induce abortion? ***[Interviewer: Please read out each type of method for urban areas, tick the appropriate response and then repeat the same questions for rural areas. Please tick all that apply from the list below, regardless of the type of practitioner who may use the method.]*** How about in rural areas?							
	TYPE OF METHOD	**RURAL AREAS**				**URBAN AREAS**		
		1. YES	**2. NO**	**3. DON'T KNOW**		**1. YES**	**2. NO**	**3. DON'T KNOW**
	a. Dilation and Evacuation (D&E)							
	b. Dilation and curettage (D&C)							
	c. Manual vacuum aspiration (MVA)							
	d. Electric vacuum aspiration (EVA)							
	e. Medication abortion (e.g. Cytotec/misoprostol)							
	f. Oral introduction of drugs, solutions or other substances (e.g. through the mouth)							
	i. Hormonal drugs (e.g. Contraceptive pills)							
	ii. Herbs/ Teas/ Solutions							
	iii. Caustic agents (e.g. Washing detergent)							
	iv. Overdose of pharmaceuticals (e.g. Quinine, SP 3 tablets)							
	v. Other (Specify) _____							
	g. Injectables specify_____							
	h. Cervical/ Vaginal introduction of drugs, solutions or other materials							
	i. Hormonal drugs (e.g. Contraceptives)							

	ii. Herbs/Teas/ Solutions (Using form of insertion)							
	iii. Catheter							
	iv.Piercing objects (e.g. Plant stems and roots e.g. cassave, sticks, wires, knitting needles)							
	v. Other (specify) _____							
	i. Heavy massage/physical exertion, physical blows, jumping, falling, marching							
	j. Other means (Specify any additional method/s not listed above)_____							

Q202.
Now we want to understand the distribution of 3 broad categories of abortion women in Zambia use to obtain an induced abortion?The sum of women in each of the 3 categories should add up to 100%. The following questions are asked about women who live in urban and rural areas. Each one asks you to consider two broad income groups – the poor and the relatively well-off (non-poor). Looking at this province as a whole and bearing in mind the differences in this province, I want you to give us your opinion on the following.

[Interviewer: You can mention that there are not exact definitions for "poor" and "non-poor," but by "poor" we mean women with lower income levels/cash incomes and/or education.]

1. What percentage of all induced abortions among poor women in urban areas do you think are medication abortion? By medication abortion, we mean an oral introduction of drugs (Mifepristone and misoprostol or misoprostol alone).

2.What percentage of all induced abortions among poor women in urban areas do you think are surgical abortions? By surgical abortions, we mean vacuum aspiration (MVA or EVA) or dilation and curettage (D&C).

3.What percentage of all induced abortions among poor women in urban areas do you think are other types of abortion? By other types of abortion, we mean oral introduction of other substances, vaginal introduction of drugs, solutions, or other materials, physical methods, or any other means.

[Interviewer: Please ensure all percentages total to 100%. If not, please ask respondent to adjust percentages. After asking about poor women in urban areas, go back through and repeat questions for each of the other subgroups]

	Medication abortion	Surgical abortion	Other types of abortion	Total
Q202a. Urban poor women				**100%**
Q202b. Urban non-poor women				**100%**
Q202c. Rural poor women				**100%**
Q202d. Rural non-poor women				**100%**

In the next 4 questions (Q203-206), we are going to expand on the questions we have asked for each category of women in Q202.

Q303.
What percent of all induced abortions performed through medication abortion to POOR women in URBAN areas do you think are being performed by each type of provider? Give an approximate percentage (all providers sum to 100%). Now, let's turn to surgical abortion. Next, we will look at other types of abortion. Next, we will look at complications from each type of abortion at each provider.

POOR URBAN WOMEN	a. Medical doctor	b. Nurse or midwife	c. Clinical officers and medical licentiates	d. Traditional provider**	e. pharmacist, dispenser, drugstore	f. Woman (self-induced)	Total
Q203a. percent going to each type of provider for **medication abortion**							
Q203b. Percent experiencing **complications from medication abortion** at each provider.							
Q203c. Out of 10 women who have **complications from medication abortion** at each provider, how many do you think actually get treated by a trained person in a health facility?							
Q203d. percent going to each type of provider for **surgical abortion**							
Q203e. Percent experiencing **complications from surgical abortion** at each provider							
Q203f. Out of 10 women who have **complications from surgical abortion** at each provider, how many do you							

think actually get treated by a trained person in a health facility?							
Q203g. percent going to each type of provider for **other types of abortion**							
Q203h. Percent experiencing **complications from other types of abortion** at each provider							
Q203i. Out of 10 women who have **complications from other types abortion** at each provider, how many do you think actually get treated by a trained person in a health facility?							

Q304.
What percent of all induced abortions performed through medication abortion to <u>NON-POOR</u> women in <u>URBAN AREAS</u> do you think are being performed by each type of provider? Give an approximate percentage (all providers sum to 100%). Now, let's turn to surgical abortion. Next, we will look at other types of abortion. Next, we will look at complications from each type of abortion at each provider.

<u>NON-POOR URBAN WOMEN</u>	**a. Medical doctor**	**b. Nurse or midwife**	**c. Clinical officers and medical licentiates**	**d. Traditional provider****	**e. pharmacist, dispenser, drugstore**	**f. Woman (self-induced)**	**Total**
Q203a. percent going to each type of provider for **medication abortion**							
Q203b. Percent experiencing **complications from medication abortion** at each provider.							
Q203c. Out of 10 women who have **complications from medication abortion** at each provider, how many do you think actually get treated by a trained person in a health facility?							
Q203d. percent going to each type of provider for **surgical abortion**							
Q203e. Percent experiencing **complications from surgical abortion** at each provider							

Q203f. Out of 10 women who have **complications from surgical abortion** at each provider, how many do you think actually get treated by a trained person in a health facility?							
Q203g. percent going to each type of provider for **other types of abortion**							
Q203h. Percent experiencing **complications from other types of abortion** at each provider							
Q203i. Out of 10 women who have **complications from other types abortion** at each provider, how many do you think actually get treated by a trained person in a health facility?							

Q303.
What percent of all induced abortions performed through medication abortion to <u>POOR</u> women in <u>RURAL</u> areas do you think are being performed by each type of provider? Give an approximate percentage (all providers sum to 100%). Now, let's turn to surgical abortion. Next, we will look at other types of abortion. Next, we will look at complications from each type of abortion at each provider.

<u>POOR RURAL WOMEN</u>	**a. Medical doctor**	**b. Nurse or midwife**	**c. Clinical officers and medical licentiates**	**d. Traditional provider****	**e. pharmacist, dispenser, drugstore**	**f. Woman (self-induced)**	**Total**
Q203a. percent going to each type of provider for **medication abortion**							
Q203b. Percent experiencing **complications from medication abortion** at each provider.							
Q203c. Out of 10 women who have **complications from medication abortion** at each provider, how many do you think actually get treated by a trained person in a health facility?							

Q203d. percent going to each type of provider for **surgical abortion**							
Q203e. Percent experiencing **complications from surgical abortion** at each provider							
Q203f. Out of 10 women who have **complications from surgical abortion** at each provider, how many do you think actually get treated by a trained person in a health facility?							
Q203g. percent going to each type of provider for **other types of abortion**							
Q203h. Percent experiencing **complications from other types of abortion** at each provider							
Q203i. Out of 10 women who have **complications from other types abortion** at each provider, how many do you think actually get treated by a trained person in a health facility?							

Q304.
What percent of all induced abortions performed through medication abortion to <u>NON-POOR</u> women in <u>RURAL AREAS</u> do you think are being performed by each type of provider? Give an approximate percentage (all providers sum to 100%). Now, let's turn to surgical abortion. Next, we will look at other types of abortion. Next, we will look at complications from each type of abortion at each provider.

<u>NON-POOR RURAL WOMEN</u>	**a. Medical doctor**	**b. Nurse or midwife**	**c. Clinical officers and medical licentiates**	**d. Traditional provider****	**e. pharmacist, dispenser, drugstore**	**f. Woman (self-induced)**	**Total**
Q203a. percent going to each type of provider for **medication abortion**							
Q203b. Percent experiencing **complications from medication abortion** at each provider.							

Q203c. Out of 10 women who have **complications from medication abortion** at each provider, how many do you think actually get treated by a trained person in a health facility?							
Q203d. percent going to each type of provider for **surgical abortion**							
Q203e. Percent experiencing **complications from surgical abortion** at each provider							
Q203f. Out of 10 women who have **complications from surgical abortion** at each provider, how many do you think actually get treated by a trained person in a health facility?							
Q203g. percent going to each type of provider for **other types of abortion**							
Q203h. Percent experiencing **complications from other types of abortion** at each provider							
Q203i. Out of 10 women who have **complications from other types abortion** at each provider, how many do you think actually get treated by a trained person in a health facility?							

To get a summary estimate of what we have asked in Q203-206, answer Q207 and 208.

Q207	a. Think about poor women in urban areas: out of 10 poor urban women who experience a medical complication due to an induced abortion, how many do you think actually get treated by a trained person in a health facility?	*Urban poor women with complications: # out of 10 treated in a health facility*	_____
	b. What would the number be for non-poor women living in urban areas? [Interviewer: explain that we mean health facilities that can provide PAC care in all sectors - public, private, and NGO]	*Urban non-poor women with complications: # out of 10 treated in a health facility*	_____
Q208	a. Think about poor women in rural areas: out of 10 poor urban women who experience a medical complication due to an induced abortion, how many do you think actually get treated by a trained person in a health facility?	*Rural poor women with complications: # out of 10 treated in a health facility*	_____
	b. What would the number be for non-poor women living in rural areas? [Interviewer: explain that we mean health facilities that can provide PAC care in all sectors - public, private, and NGO]	*Rural non-poor women with complications: # out of 10 treated in a health facility*	_____

Q209	In your opinion, among 10 women who have spontaneous abortion in the first trimester, how many are likely to seek care from a skilled health provider?	FIRST TRIMESTER	RURAL	URBAN
Q210	In your opinion, among 10 women who have spontaneous abortion in the second trimester, how many are likely to seek care from a skilled health provider?	SECOND TRIMESTER		

Q211	The preceding sections included questions that required you to give your opinion on concepts that are not easily measured. On a scale of 1 to 10, with 1 being "not at all sure" and 10 being "very sure", what is your degree of certainty that the answers you've given reflect the real situation encountered in your province?		**10 (Very sure)** **9** **8** **7** **6** **5** **4** **3** **2** **1 (Not at all sure)**

B. Health facility survey questionnaire

A. Demographic characteristics

1. Name of participant:

   _____

2. Gender: a. Male ☐ b. Female ☐

3. Name of the facility you work for:

   _____

4. Your position in the facility:

   _____

5. Number of years you have worked in your facility:

   _____

6. What ward/department do you work in presently?

   _____

7. Number of years you have worked in your current ward/department:

   _____

8. Province where your facility is located:

   _____

9. Date of training:

B. Hospital context

1. In your facility are post-abortion care patients usually treated as outpatients (they do not spend the night in the hospital) or inpatients (they spend at least one night in the facility)
   A. Outpatient ☐ B. Inpatient ☐

In the next few questions, we would like to understand the patient flow for post abortion care (PAC) when women come into your facility with abortion-related complications

2. When a patient comes in, where is/are their usual first destination(s) in the hospital:

   _____
   _____

3. After this where is/are the next place(s) the client is usually transferred to:

   _____
   _____

4. If a client needs to be admitted for 24 hours or greater as an in-patient, what ward(s) is/are they usually admitted into:

   _____
   _____

5. If the patient is not admitted for 24 hours but is treated as an outpatient where do they stay before receiving treatment:

   _____
   _____

6. If a procedure is needed to evacuate the uterus where is it done:
   _____
   _____
7. What procedures are usually performed in your facility to evacuate the uterus (Tick all that apply):

a. MVA	☐	d. Oxytocin or Syntocinon infusion	☐
b. D&C	☐	e. Medical abortion (e.g. cytotec/ misoprostol)	☐
c. EPRC	☐	f. Other please specify: _____	

8. After the evacuation procedure in-patients (admitted for 24 hours or greater) are usually transferred to:
   _____
   _____
9. After the evacuation procedure out-patients (not admitted for 24 hours) are usually transferred to:
   _____
   _____
10. Is family planning counselling done before the woman is discharged: _____?
11. Where is the family planning counselling done: _____?
12. What methods are available to the **woman immediately after discharge from PAC** (tick all that apply)

a. Male condoms	☐	e. IUDs	☐
b. Female condoms	☐	f. Vasectomy	☐
c. Oral contraceptives	☐	g. Bilateral tubal ligation	☐
d. Injectables	☐	h. Rhythm (periodic abstinence)	☐
e. Implants	☐	i. Withdrawal	☐

Patient caseload:

1. In the past month (October 2013) how many patients with abortion-related complications (include all post abortion care patients whether they are due to spontaneous or induced abortions) do you estimate were treated at your facility as **in-patients**: _____

2. In the past month (October 2013) how many patients with abortion-related complications (include all post abortion care patients whether they are due to spontaneous or induced abortions) do you estimate were treated at your facility as **out-patients**: _____

3. In an average month how many patients with abortion-related complications (include all post abortion care patients whether they are due to spontaneous or

induced abortions) do you estimate were treated at your facility as **in-patients**:
_____

4. In an average month how many patients with abortion-related complications (include all post abortion care patients whether they are due to spontaneous or induced abortions) do you estimate were treated at your facility as **out-patients:**
_____

5. To confirm your previous answers, in the past month (October 2013) you estimate that your facility treated a total of _____ patients with abortion-related complications (include all post abortion care patients whether they are due to spontaneous or induced abortions)

6. To confirm your previous answers, in an average month you estimate that your facility treated a total of _____ patients with abortion-related complications (include all post abortion care patients whether they are due to spontaneous or induced abortions)

C. ADAPTATION OF KEY QUESTIONS IN THE AICM

The tools for this study were developed by adapting AICM tools that had been used in Ethiopia and Kenya provided by the Guttmacher Institute.

Health facility survey

The HFS tool was shortened considerably for this study. It solicited information on characteristics of the survey respondents, patient flow for women admitted for PAC, clinical management of PAC, family planning methods available in the facility immediately after discharge and the patient caseload. Questions taken out included those about the country's abortion law, opinions on barriers to PAC, and how PAC services can be improved. These questions are usually asked after the key questions to estimate incidence and have no impact on their answers.

Health professionals survey

The HPS tool was adapted from the original version to reflect the Zambian context, and to include questions on medical abortion, which has anecdotally become more widely available in Zambia and is used increasingly to induce abortion in many low- and middle-income contexts. The adaptations are compared with the way the questions were typically asked in former versions of the tool in (Table 7-1). These adaptations were discussed with senior staff members at the Guttmacher Institute where the AICM methodology was developed and who made suggestions on how to field the questions appropriately.

Both questionnaires were pretested and edited before data collection to ensure clarity and accuracy.

Table 7-1 How the HPS questions were adapted for the Zambia AICM

Questions in original Kenya HPS tool	Adapted questions for Zambia HPS**
"I will mention the main types of people who perform induced abortions in Kenya. Considering first rural areas, indicate whether, <u>in your opinion</u>, each type of provider is used rarely, sometimes or commonly by poor rural women seeking abortion. *[Interviewer: Please read each type of provider and circle the respondent's answers for poor rural women. Mark all the respondent's answers relating to poor rural women, then ask the next question.]* **Now indicate whether, <u>in your opinion</u>, each type of provider is used rarely, sometimes or commonly by** poor/non-poor & rural/urban **women. "** **Provider types: TBA/traditional healer, Clinical officer, Nurse, trained midwife, Doctor, Pharmacist/chemist, Woman-self induced**	**Now we want to understand the distribution of 3 broad categories of abortion women in Zambia use to obtain an induced abortion? The sum of women in each of the 3 categories should add up to 100%. The following questions are asked about women who live in urban and rural areas. Each one asks you to consider two broad income groups – the poor and the relatively well-off (non-poor). Looking at this province as a whole and bearing in mind the differences in this province, I want you to give us your opinion on the following.** **[Interviewer: You can mention that there are not exact definitions for "poor" and "non-poor," but by "poor" we mean women with lower income levels/cash incomes and/or education.]* **What percentage of all induced abortions among** poor/non-poor & rural/urban **women do you think are medication abortion? By medication abortion, we mean an oral introduction of drugs (Mifepristone and misoprostol or misoprostol alone).** **What percentage of all induced abortions among poor/non-poor & rural/urban do you think are surgical abortions? By surgical abortions, we mean vacuum aspiration (MVA or EVA) or dilation and curettage (D&C).** **What percentage of all induced abortions among poor/non-poor & rural/urban do you think are other types of abortion? By other types of abortion, we mean oral introduction of other substances, vaginal introduction of drugs, solutions, or other materials, physical methods, or any other means.** [Interviewer: Please ensure all percentages total to 100%. If not, please ask respondent to adjust percentages. After asking about poor women in urban areas, go back through and repeat questions for each of the other subgroups]
In your opinion, what percent of all induced abortions in poor/non-poor & rural/urban do you think are being performed by each type of provider? Give an approximate percentage (all providers sum to 100%) *[Interviewer: Confirm that all providers sum to 100%. If they do not, probe for a correction, and adjust the answers below.]*	**What percent of all induced abortions performed through medication abortion to poor/non-poor & rural/urban do you think are being performed by each type of provider? Give an approximate percentage (all providers sum to 100%). Now, let's turn to surgical abortion. Next, we will look at other types of abortion. Next, we will look at complications from each type of abortion at each provider. Then we will consider how many out of 10 women who have complications from each type of abortion at each provider, actually get treated by a trained person in a health facility?**
Not all abortions that happen in this province are unsafe. There could be situations under which a woman is able to obtain an abortion that does not result in any complications for the woman. Now I am	

going to ask you a few questions about how often you think abortions don't result in any complications for the four sub-groups we've been discussing above. **Thinking now of (i)** poor/non-poor & rural/urban **women in the province, what percent of abortions would you say are without complications?**	**Provider types: Traditional provider, Clinical officers/medical licentiates, Nurse, trained midwife, Doctor, Pharmacist/dispenser/drug store, Woman-self induced**
Think about poor women **in** rural areas**: Out of ten** poor rural women **who have an abortion performed by each type of provider that I will mention, how many would experience a medical complication that should receive medical treatment?** **What would the number be for** poor/non-poor & rural/urban? *[Interviewer: Ask for each type of provider separately; insert a number in each column, even though it might be "0."]*	

****** *Questions are asked in a table so each question is asked for each category of women according to wealth/residence, for each type of abortion and for each group of provider.*

D. Additional sampling information

Figure 7-1 Flowchart showing how eligible hospitals were identified for the EVA-PMDUP study

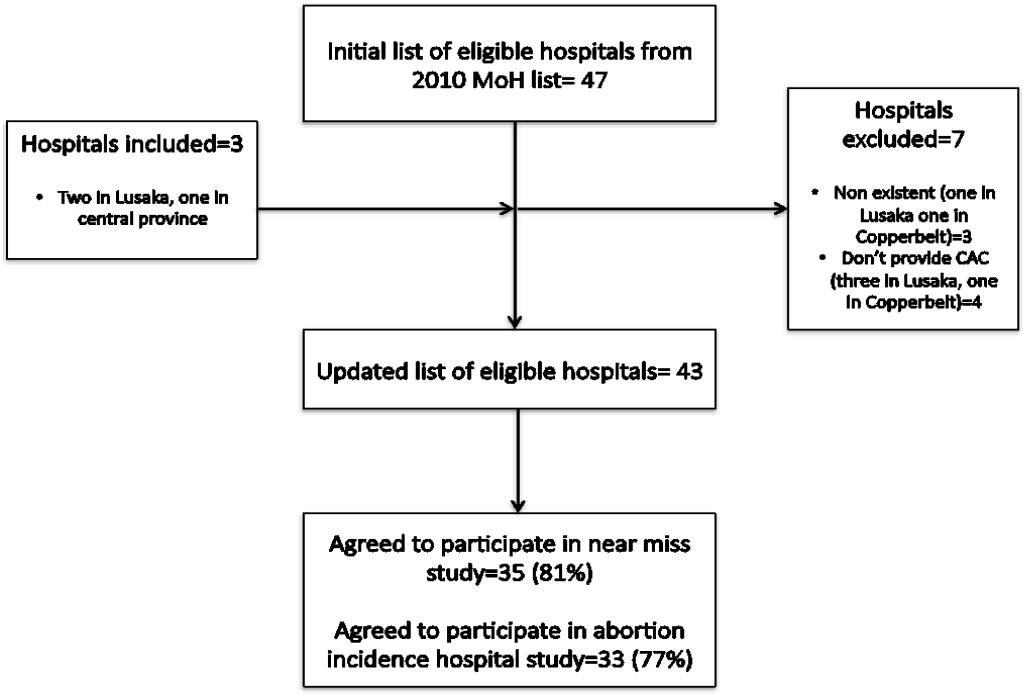


Table 7-2 shows the sampling fraction achieved with hospitals that participated in the AICM study out of all eligible hospitals.

Table 7-2 Sampling facilities achieved with hospitals included in the AICM study

FACILITY CLASSIFICATION		LOCATION							
Facility ownership	Facility level	Central province		Copperbelt province		Lusaka Province		3 provinces together	
		Eligible facilities	Sampled facilities (%)	Eligible facilities	Sampled facilities (%)	Eligible facilities	Sampled facilities (%)	Eligible facilities	Sampled facilities (%)
Government	District	7	6(85.7)	2	2(100)	6	4(67)	15	12(80%)
	Provincial	2	2(100)	4	4(100)	1	1(100)	7	7(100%)
	Tertiary	0	0	2	2(100)	1	1(100)	3	3(100%)
Private	District	0	0	4	2(50)	6	3(50)	10	5(50%)
	Provincial	0	0	3	1(33)	0	0	3	1(33%)
	Tertiary	0	0	0	0	0	0	0	0
Mission	District	1	1(100)	2	2(100)	2	2(100)	5	5(100%)
	Provincial	0	0	0	0	0	0	0	0
	Tertiary	0	0	0	0	0	0	0	0
PROVINCE TOTAL		**10**	**9(90)**	**17**	**13(76.4)**	**16**	**11(68.8)**	**43**	**33(76.7)**

E. Weights generated for study by type of health facility

We weighted the results to be representative of each province. The weighting factor used for each facility type/ownership group included in the study was the inverse of that group's sampling fraction (number of facilities for which caseload data was available divided by the total number of facilities theoretically capable of providing PAC in that group). These weights were generated for each province. Weights were then applied to the 86 facilities in the sample to construct data for the total 229 facilities.

Table 7-3 presents the distribution of the facilities capable of providing PAC and sampled health facilities and weight within the three provinces by ownership and type of facility.

Table 7-3 Distribution of facilities in Central, Copperbelt and Lusaka provinces capable of providing PAC and samped according to ownership and level of facility

Ownership	Type of facility	Number of health facilities in adjusted universe in Central, Copperbelt and Lusaka provinces	Number of sampled health facilities in Central, Copperbelt and Lusaka provinces	Weight within the three provinces
Public	**Rural Health centres**	20	17	1.18
	Urban Health centres	36	34	1.06
	Level 1 hospitals	15	12	1.25
	Level 2 hospitals	7	7	1.00
	Level 3 hospitals	3	3	1.00
Private	**Rural Health centres**	0	0	0
	Urban Health centres	127	0	0
	Level 1 hospitals	10	5	2.00
	Level 2 hospitals	3	1	3.00
	Level 3 hospitals	0	0	0
Mission	**Rural Health centres**	3	2	1.50
	Urban Health centres	0	0	0
	Level 1 hospitals	5	5	1.00
	Level 2 hospitals	0	0	0
	Level 3 hospitals	0	0	0
TOTAL		229	86	

F. Additional results

Characteristics of HPS respondents

A list of 23 possible respondents from the three study provinces was generated, out of whom 19 (83%) participated. Amongst the respondents to the HPS 42% were female. 53% were trained doctors (half of whom were medical officers and the other half obstetrician/gynaecologists), 27% were nurses and midwives. The remaining had backgrounds in research and programme management. The majority worked primarily in the public sector (10 out of 19), whilst six people worked in the private not-for-profit sector, two in the private-for-profit sector and one person worked in an international parastatal. However, many of those in the public sector also worked simultaneously in the private sector. They had an average of 12 years of work experience in their primary profession (ranging from 3 to 30 years)

42% reported primarily working in only urban areas, whilst 58% had worked in rural areas in the six months prior to the survey.

Methods of abortion

HPS participants were asked to identify the method of abortion commonly used to induce pregnancy termination in urban and rural areas. They believed that amongst the urban poor, rural poor and rural non-poor majority of women used other means (non-medication and non-surgical) to induce termination or pregnancy, whilst amongst the urban non-poor majority (55%) of women used medical abortion. The proportion of women using other means was highest amongst the rural poor (82%), whilst it was similar amongst the rural non-poor (57%) and urban poor (58%) (Table 7-4). In all categories of women except the urban poor, the respondents believed that at least a quarter of women used medication abortion to terminate their pregnancies.

Table 7-4 HPS respondent's views on types of abortions obtained by different categories of women

Type of abortions obtained by different categories of women	Urban Poor (%)	Urban Non Poor (%)	Rural Poor (%)	Rural Non Poor (%)
Medical abortion	25.4	55.3	11.1	28.2
Surgical abortion	15.9	25.9	7.4	15.4
Other kinds of abortion	58.7	18.8	81.6	56.5
TOTAL	**100**	**100**	**100**	**100**

Percentage distribution amongst different types of abortion according to type of provider

Respondents believed that the four categories of women were likely to access medication abortion from different kinds of providers. Urban poor women were more likely to get MA from pharmacists/dispensaries, urban non-poor from doctors or pharmacists/dispensers, whilst rural poor and rural non-poor were more likely to get it from nurses.

For surgical abortion urban poor and non-poor women were believed to be most likely to see a doctor, whilst rural poor and non-poor women were more likely to receive services from a nurse.

For other types of abortion, urban poor women, rural poor and rural non-poor were believed to be more likely to receive services from traditional providers, urban non-poor from pharmacists/dispensers. In each category, respondents also believed that at least 25% of women would attempt to self-induce the abortion.

Probability of complications amongst different types of abortion according to type of provider

For all categories of women, respondents believe that the highest proportion of complications using MA was likely to occur when the woman herself prescribed it. This was closely followed by when MA was provided by pharmacists/dispensers.

For women receiving surgical abortion in all groups, the highest proportion of complications for all categories was believed to occur when the provider was a clinical officer or medical licentiate, except for rural poor women, where nurses were believed to cause the highest rates of complications.

For all categories of women using other types of abortions, the highest proportion of complications were believed to occur when self-induced by the woman followed.

APPENDIX 9: Anonymous Third Party Reporting Method (ATPR)

A. Adaptation of ATPR questionnaire

We adapted the ATPR tool that was created by Clementine Rossier, and used in Burkina Faso. The Burkina Faso questionnaire was provided by the Guttmacher institute who also worked on the Burkina Faso study. In September 2013, we (OO with help from VF) translated the tool, modified it to suit the Zambian context, and shortened to include the key questions needed in order to fit the data collection timeframe for the broader evaluation. Between January and February 2014, we pretested the tool with Zambian women. Thereafter we modified the network-generating question (see the next paragraph) to suit the local context, revised other aspects of the tool, and trained interviewers. The tool was piloted as part of the community survey in February 2014. Finally, we programmed the tool into Open Data Kit (ODK) for mobile data collection and piloted the mobile version.

The ATPR module had four sections. The first part of the data collection tool was a network-generating question that asked women to list and characterize all women 15-49 currently confiding in them. In a focus group with field interviewers, we applied the broad network-generating question and found out that women confide different kinds of secrets to different confidants. For example, in Zambia confiding in someone about marital or financial challenges did not translate into sharing reproductive health secrets such as abortions. Thereafter we adapted the question to ask about women who would confide in respondents about reproductive and sexual health secrets and compared the numbers of confidants and information on abortion provided from both types of questions. Using a broad definition of confidence (secrets), most participants knew nothing about the abortion behaviour of most confidants. When confidences were limited to reproductive health secrets, they were aware if many of the confidants listed had procured an induced abortion or not in the years of interest. Based on this evidence, the question was worded:

"We would like to speak about those women and young women who confide in you. Count the women and young women in your surroundings that you are their confidant. They trust you and talk to you or seek your advice about things that concern them (their problems), or things close to their hearts (secrets) related to their reproductive and sexual lives. We would like you to mention only women or girls who are currently between 15 and 49 years "

In section 2, respondents were asked to define each confidant's relationship, the duration of confidence, age, educational level and main place of residence in 2013 and 2014. The larger community survey interviewed respondents 15-44 years old, while the ATPR module asked for information on confidants aged 15-49 years old. In section 3, respondents were asked whether each confidant had undergone an induced abortion, and if so, how many abortions they had in the year preceding the survey (2013) and the year of the survey (2014). The fourth section collected information on the circumstances around each induced abortion including where it was conducted, who conducted it, occurrence of complications following the procedure, whether complications were managed in a health facility, and if so, which kind of facility. Additional questions were asked for each abortion mentioned to ensure it was not a miscarriage or an unsuccessful termination of pregnancy. This included:

Was it a miscarriage or an induced abortion?

Was the pregnancy really interrupted or was there a birth?

The final English version of the tool can be found in Appendix 9, section B.

In addition to the data collection tool on the tablets, interviewers were provided with a paper table to list out each confidant mentioned in section one under the network generating question, assign them a confidant number (which was intended to be a unique identification number for each respondent's confidants), assign a nickname and record the number of abortions they had if any. This was because they did not collect names and surnames for each confidant but defined them based on their relationship to their respondent. Hence they needed a simple means of referring to them

throughout the interview. A copy the paper table can be found above in Appendix 9, section C.

B. Data collection tool

We would like to speak about those women and young women WHO CONFIDE IN YOU. Count the women and young women in your surroundings that you are their confidante. They trust you and talk to you or seek your advice about things that concern them (their problems), or things close to their hearts (secrets) related to their reproductive and sexual lives. We would like you to mention only women or girls who are currently between 15 and 49 years;

SUPERVISOR REMINDER: EACH CONFINDANT MUST BE METIONED ONLY IN ONE CATEGORY i.e. the same woman cannot be both a sister and friend she should be put in only one group.

N°	Relationships	Number	Filter
601	Among your sisters between 15 and 49 years, how many confide in you?		
602	Among your cousins (or similar) between 15 and 49 years, how many confide in you?		
603	Among your nieces between 15 and 49 years, how many confide in you?		
604	Among your daughters between 15 and 49 years, how many confide in you?		
605	Among your neighbours between 15 and 49 years, how many confide in you?		
606	Among your friends between 15 and 49 years, how many confide in you?		
607	Among your colleagues at work/ employees/bosses (or similar) between 15 and 49 years, how many confide in you?		
608	Among your mothers and aunts between 15 and 49 years, how many confide in you?		
609	Among your sisters-in-law between 15 and 49 years, how many confide in you?		
610	What other people ages 15 to 49 years confide in you? How many are they?		
611	**Calculate the total number of women that confide in the respondent**	**TOTAL** **If total =00**	 **>>>Q646**

In the table below, attribute a number to every person who confides in the respondent as listed above, then ask the questions 612 to 619 for each person.							
612	613	614	615	616	617	618	619
Confidant number (in 2 figures)	**Current residence of the confidant?**	**Age on last birthday**	**What is their level of education?**	**What is their relationship with the respondent?**	**For how long has she confided in you?**	**How many other people does she confide in?**	**Where has the person lived during the past year (2013)?**
	PROVINCE: _____ URB/RURAL:_____						PROVINCE: _____ URB/RURAL:_____
	PROVINCE: _____ URB/RURAL:_____						PROVINCE: _____ URB/RURAL:_____
	PROVINCE: _____ URB/RURAL:_____						PROVINCE: _____ URB/RURAL:_____
	PROVINCE: _____ URB/RURAL:_____						PROVINCE: _____ URB/RURAL:_____
	PROVINCE: _____ URB/RURAL:_____						PROVINCE: _____ URB/RURAL:_____
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	PROVINCE: _____ URB/RURAL:_____						PROVINCE: _____ URB/RURAL:_____
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	URB/RURAL:_____						URB/RURAL:_____
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	PROVINCE: _____ URB/RURAL:_____						PROVINCE: _____ URB/RURAL:_____
	PROVINCE: _____ URB/RURAL:_____						PROVINCE: _____ URB/RURAL:_____

Q613 and Q619: Place of residence		**Q 615: Education**	**Q616: Relationship with the confidante**		**Q617: Duration of relationship**	**Q618: Does she confide in any other people ?**
Province Lusaka =1 Central = 2 Copperbelt =3 Other = 4	**Urban/rural** Urban= 1 Rural= 2 Don't know = 99	No education = 0 Primary = 1 Secondary = 2 Higher = 3 Don't know = 99	Sister =1 Cousin =2 Niece =3 Daughters =4 Neighbour= 5	Friend = 6 Colleague/employee= 7 Aunt/Mother = 8 Sisters-in-law= 9 Others (Specify) = 10	<1 year=1 1 year =2 2 years = 3 3 years = 4 4 years = 5 5 years or more= 6	Me alone= 1 1 or 2 people = 2 More than 2 people= 3 Don't know = 99

SECTION 3: ABORTIONS AMONGST CONFIDANTS

Now we would like to speak about the cases of induced abortion that you have heard about. We would like to remind you that this questionnaire is absolutely confidential and anonymous. We are trying to measure the extent of abortions because it is a serious problem, which causes many illnesses and deaths that can be avoided.

ENTER THE CONFIDANTS IN THE SAME ORDER THAT YOU LISTED THE CONFIDANTS IN THE PREVIOUS SECTION AND ASK QUESTIONS 620 TO 622 ABOUT THEIR ABORTIONS. WE WOULD LIKE TO COLLECT INFORMATION ABOUT INDUCED ABORTIONS AND NOT SPONTANEOUS ABORTIONS/MISCARRIAGES). NOTE THAT WE ARE INTERESTED ONLY IN THE INDUCED ABORTIONS THAT SUCCEEDED AND NOT IN ABORTION ATTEMPTS THAT FAILED.

Did (the person who confides in the respondent) have an induced abortion in 2014 or 2013? If no, are you sure that she didn't have an abortion or not sure? **Q620 – Q622, If YES, RECORD THE NUMBER OF INDUCED ABORTIONS (range: 1-7)** **None…….……..0 Yes……1 to 7** **Not sure……99**			
Confidant number (in 2 figures)	**620**	**621**	**622**
	2014	**2013**	**TOTAL**
TOTAL			
If TOTAL =00			**>>>CONCLUDE CONFIDANTS' MODULE**

CONFIDANT NUMBER	**In this section we want to ask some more questions about the abortions listed for each confidant the respondent mentioned in the previous section.** **ENTER THE CONFIDANTS IN THE SAME ORDER THAT YOU LISTED THE CONFIDANTS IN THE PREVIOUS SECTION. FOR EACH CONFIDANT, ASK QUESTIONS 623 TO 630 ABOUT ALL OF THEIR INDUCED ABORTIONS STARTING FROM THEIR MOST RECENT (I.E. INDUCED ABORTIONS IN 2014 FOLLOWED BY 2013).** **IF THE RESPONDENT MENTIONED THAT ANY CONFIDANT HAS HAD MORE THAN ONE INDUCED ABORTIONS IN ANY YEAR (E.G. THEY HAD 2 INDUCED ABORTIONS IN 2014), ASK QUESTIONS 623-630 FOR EACH INDUCED ABORTION IN THAT YEAR SEPARATELY (I.E. ASK ABOUT THE 2 INDUCED ABORTIONS IN 2014) BEFORE MOVING TO THE NEXT YEAR (2013). OTHERWISE END THE CONFIDANT MODULE**							
	623. **Was it a miscarriage or an induced abortion?** Induced abortion= 1 Miscarriage =0 Don't know =99 **If it is a miscarriage or Not sure, go to the next case.**	**624.** **Was the pregnancy really interrupted or was there a birth?** Interrupted pregnancy= 1 A birth occurred= 0 Don't know= 99 **If there was a birth or it is Not sure, go to the following case**	**625.** **Who conducted the induced abortion?** **ATTENTION: Note the last person who successfully triggered the induced abortion.** Traditional practitioner=1 Herself=2 Health worker (or similar)=3 Don't know= 99	**626** **What method was used to provoke the induced abortion?** **ATTENTION, NOTE THE LAST METHOD USED (THE ONE WHICH TRIGGERED THE INDUCED ABORTION)**	**627** **Afterwards, did the woman have a post-abortion health problem health related to the induced abortion?** Yes = 1 No = 0 **>> go to 644** Don't know = 99 **>> go to 644**	**628** **Did she receive medical treatment?** Yes=1 No=0 **>>go to 644** Don't know= 99 **>>go to 644**	**629** **If the woman received medical treatment, in what kind of facility did she get it?** Public hospital =1 Public health centre/health post =2 Private hospital =3 Private clinic =4 Pharmacy or chemist shop OR drug seller =5 Traditional birth attendant =6 Other(Please specify) =7 Don't know= 99	**630** **Amongst the other confidantes of the woman being discussed, (See Q618), how many are aware of the abortion?** Me alone…1 Some of her confidantes…2 All……..3 NSP…….. 8

	623. **Was it a miscarriage or an induced abortion?** Induced abortion= 1 Miscarriage =0 Don't know =99 **If it is a miscarriage or Not sure, go to the next case.**	**624.** **Was the pregnancy really interrupted or was there a birth?** Interrupted pregnancy= 1 A birth occurred= 0 Don't know= 99 **If there was a birth or it is Not sure, go to the following case**	**625.** **Who conducted the induced abortion?** **ATTENTION: Note the last person who successfully triggered the induced abortion.** Traditional practitioner=1 Herself=2 Health worker (or similar)=3 Don't know= 99	**626** **What method was used to provoke the induced abortion?** **ATTENTION, NOTE THE LAST METHOD USED (THE ONE WHICH TRIGGERED THE INDUCED ABORTION)**	**627** **Afterwards, did the woman have a post-abortion health problem health related to the induced abortion?** Yes = 1 No = 0 **>> go to 644** Don't know = 99 **>> go to 644**	**628** **Did she receive medical treatment?** Yes=1 No=0 **>>go to 644** Don't know= 99 **>>go to 644**	**629** **If the woman received medical treatment, in what kind of facility did she get it?** Public hospital =1 Public health centre/health post =2 Private hospital =3 Private clinic =4 Pharmacy or chemist shop OR drug seller =5 Traditional birth attendant =6 Other(Please specify) =7 Don't know= 99	**630** **Amongst the other confidantes of the woman being discussed, (See Q618), how many are aware of the abortion?** Me alone…1 Some of her confidantes…2 All……..…..3 NSP…….. 8

Q 626 Methods used to provoke the induced abortion								
Traditional practice			**Herself**			**Health workers**		
· Cassava root……..01			· Caustic agents (acid, bleach)……05			Tablets……..……..11		
· Another plant stem……..02			· High doses of medicine. (e.g. Cafemol, paracetamol aspirin, malaria tablets)……..06			· Injection……12		
· Herbal concoction……03			· Strong tea or Coffee, Guinness, Coke, etc. alone or mixed with other substances……..……07			· Curettage, aspiration……...13		
· Other (please specify)……04			Crushed bottle or other crushed glass…….. 08			Others (please specify)……14		
			Cytotec tablets in any combination……..09			· **Don't know……..……88**		
			· Other (please specify)……..……10					

C. Paper table used to record information the Anonymous Third Party Reporting Method (ATPR)

Date of interview: DD/MM/YYYY **Time of interview**: HH:MM
Name of interviewer: _____
Team supervisor: _____
Province_____ **District**_____
Ward_____
Woman's ID_____

CONFIDANT NUMBER	Category of confidant e.g. sister, cousin, friend etc.	Confidant's ID e.g. name, nickname, initials etc.	Total number of abortions confidant had in 2013 and 2014