COMPREHENSIVE ABORTION CARE IN CHIBOMBO DISTRICT

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ZAMBIA

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TITLE

Analysing implementation of Comprehensive Abortion Care in Chibombo District: Barriers hindering women from accessing services

A thesis submitted in partial fulfillment of the requirement for the degree of Master of Public Health

By

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Declaration:

Where other people's work has been used (either from a print source, internet or any other source) this has been carefully acknowledged and referenced in accordance with departmental requirements.

The thesis analysing challenges in implementing Comprehensive Abortion Care in Chibombo District is my own work.

Signature: …….

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List of abbreviations

AIDS - Acquired Immunodeficiency Syndrome

AU – African Union

BTL – Bilateral Tubal Ligation

CAC – Comprehensive Abortion Care

CSO – Central Statistical Office

D & C – Dilatation and Curettage

DHMT – District Health Management Team

DMO – District Medical Office

Et al – and others

EVA – Electrical Vacuum Aspiration

FP – Family Planning

GDP – Gross Domestic Product

GRZ – Government of the Republic of Zambia

HAC – Hospital Affiliated Health Centre

HIV – Human Immunodeficiency Virus

HMIS – Health Management Information System

ICHD – International Course in Health Development

ICPD – International Conference on Population and Development

IPAS – International Pregnancy Advisory Service

IUCDs – Intrauterine Contraceptive Devices

IUDs – Intrauterine Devices

LMIC – Lower-Middle Income Country

MA – Medical Abortion

MDGs – Millennium Development Goals

MMR – Maternal Mortality Rate

MOH – Ministry of Health

MVA – Manual Vacuum Aspiration

NGO –Non Governmental Organisation

PAC – Post Abortion Care

RHC – Rural Health Centre

RPOCs – Retained Products of Conception

SRH – Sexual and Reproductive Health

STI – Sexually Transmitted Infection

TB – Tuberculosis

TOP – Termination of Pregnancy

TV – Television

UN – United Nations

UNICEF – United Nations International Children's Emergency Fund

UNFPA – United Nations Fund for Population Activities (now- United Nations Population Fund)

USD – United States American Dollar

WHO – World Health Organisation

Preface

I am an ICHD student from Zambia, a medical officer by basic training. This is my thesis as part of the requirement for fulfillment of the Master of Public Health (ICHD).

Maternal and child health is a subject that I have been passionate about from the early years of my medical career, when I realised the disproportionately high burden of ill health suffered by children and women in many societies. As a resident doctor I spent late nights performing Manual Vacuum Aspiration (MVAs) on hundreds of women admitted for incomplete abortions, most of which were unsafely induced. I was at pains to comprehend why unsafe abortions remained so high in a country where abortion is legal. In 2008 the Ministry of Health launched the abortion Policy to scale up services from Post Abortion Care (PAC) to Comprehensive Abortion Care (CAC). CAC intends to make abortion care more effective and enhance access to safe abortions (termination of pregnancy-TOP). I felt a sigh of relief that finally the plight of women was being looked into. The district I work in, Chibombo, was one of the early districts that benefited from the scale up. I participated fully in the programme coordinating CAC activities at district level. However, to my dismay introduction of CAC had no significant impact on improving the situation of unsafe abortions in the district and access to safe abortion services (TOP). Hence my motivation to write on this topic of great public health importance to analyse and inform health managers, providers, and communities on the possible challenges in implementing CAC in Chibombo District and barriers which hinder women from accessing care.

Abstract

Introduction: Zambia has one of the most liberal abortion laws in Sub-Saharan Africa. Liberal abortion laws however, have not translated into improved health for most Zambian women as many still die from unsafe abortion. There are many factors which continue to hinder women from accessing safe abortion services provided under the umbrella of Comprehensive Abortion Care (CAC). This raises questions on the liberality of abortion laws which seem illusory. In Chibombo District implementing CAC services has been challenging and services remain poorly utilised as women continue to die and suffer from the consequences of unsafe abortion. This study seeks to analyse implementation of CAC services in the district to determine barriers to accessing services, in order to contribute to the pool of knowledge for developing effective evidence based interventions.

Method: This is a Secondary data study. The Data collection methods are review of CAC registers and reports, existing literature and analysis of existing data sets. Data analysis was done with the help of graphs, tables and the supply and demand-side barriers conceptual framework.

Results: Access to CAC services in the district is still poor despite training of providers and infrastructure development to strengthen the capacity of facilities to provide services. Only six (6) safe abortion services against a total of 259 abortion related services were provided in the six months rollout period of CAC services. Younger age among women was associated with more barriers to accessing care. Both supply and demand barriers still exist. Lack of acceptability of abortion services seem to be the critical demand and supply barrier.

Conclusion: Legalising abortion is not an end to the means, but just a starting point in creating a platform to reducing unsafe abortion. Effective CAC services is the best intervention currently available, with good implementation the battle against unsafe abortion could be won. The current CAC services in Chibombo District are ineffective. Both demand and supply barriers still exist and need to be addressed simultaneously in order to improve access to CAC services for all women and mitigate the consequences of unsafe abortion.

Key words: Unsafe abortion, Chibombo, CAC, Barriers

Word count: 12,002

1. INTRODUCTION

Abortion is the discontinuation of a pregnancy due to the death or expulsion of the foetus from the uterus before it is capable of independent survival (WHO, 2012). Survival chances of premature births may vary based on available means to sustain the foetus. In Zambia a foetus is only considered viable at twenty-eight (28) weeks and beyond gestational age, hence any pregnancy loss before this gestational age is an abortion (MOH, 2008; WHO, 2013). Abortion may be induced or spontaneous; induced abortions are deliberate with intent to abort. On the other hand, spontaneous abortions are unintentional without any deliberate action undertaken (Fawcus, 2008; WHO, 2012). The focus for discussion in this paper is induced abortion which may be further subdivided into safe and unsafe. An induced abortion is said to be unsafe if it puts the pregnant woman's life at risk. This may be because the provider is not skilled enough to perform the procedure or the procedure is carried out in an undesignated place as allowed by law or both (WHO, 2012).

Unsafe abortion continues to be a major public health problem the world over, more so in the developing world where almost all maternal deaths due to unsafe abortion are said to occur (Grimes *et al*, 2006; Sedgd *et al*, 2012; WHO, 2012). Abortion data pose great challenges to collect hence its true incidence remains inaccurate and often underestimated, especially in places where it is illegal as is the case in many developing countries where its toll is greatest (Sedgh *et al*, 2012; Winikoff & Sheldon, 2012; WHO, 2012). Therefore, data on abortion must be viewed in the realm of this understanding.

Despite abortion being legal in Zambia there are many barriers that continue to hinder women's access to safe abortion services ranging from poor understanding and application of abortion laws by providers and the public, cultural, religious and health care related barriers (Dahlback *et al*, 2007; WHO, 2012). Interventions continue to focus on health sector strengthening leaving out the important demand component (cultural and client related factors). Health sector strengthening may be important, but appears not to be the sole solution, as Comprehensive Abortion Care (CAC) services remain relatively poor and under-utilised in Chibombo District and Zambia in general.

1.1. Comprehensive Abortion Care (CAC)

In a bid to accelerate reduction in maternal mortality in line with the Millennium Development Goals (MDGs), the Ministry of Health launched the CAC policy in 2008 as a way of scaling up abortion services in Zambia (MOH, 2012). Abortion services had been limited to Post Abortion Care (PAC) only despite abortion being legal since 1972 (GRZ, 1972; MOH, 2012). Access to legal abortion had been limited and in a bid to improve access to the whole range of abortion services including legal abortion, the Ministry of Health scaled up abortion services to CAC. CAC aims to strengthen family planning services to prevent unintended pregnancies, provision of legal abortion, and strengthening post abortion care (MOH, 2008).

In Chibombo District, scale up was focused on strengthening the capacity of three selected facilities to provide CAC. The programme was being spear headed and funded by an American Non-Governmental organisation (NGO), the International Pregnancy Advisory Services (IPAS). It is an NGO working in Sexual and Reproductive Health (SRH) especially supporting and promoting safe abortion services. IPAS was instrumental in both policy formulation and implementation. Strengthening capacity involved training of staff, infrastructure development, supply of equipment and medical abortion drugs. Three providers were trained from each facility and a coordinator was selected to supervise and monitor CAC services in the district. The three facilities were pilot sites with a view to scaling up to as many facilities as possible in due course. To date these are the only facilities providing CAC. Currently services have ceased in one facility due to movement of trained personnel. For the remaining facilities performance has dropped due to cessation of IPAS funding and technical support.

1.2. Background

Figure.1.1. Map of Zambia

Sources: CSO, 2007, ZDHS

1.2.1. Zambia

i) Geography and economy

Zambia is a lower-middle income (LMIC) country in Sub-Saharan Africa located in central-southern Africa. It is a former British colony that gained independence in 1964, hence much of the constitution was an adoption of the British constitution including the Termination of Pregnancy (TOP) Act of 1972 (CSO, 2007; MOH, 2012). The main economic activities are mining and agriculture contributing over 50% to the Gross Domestic Product (GDP) (CSO, 2007)

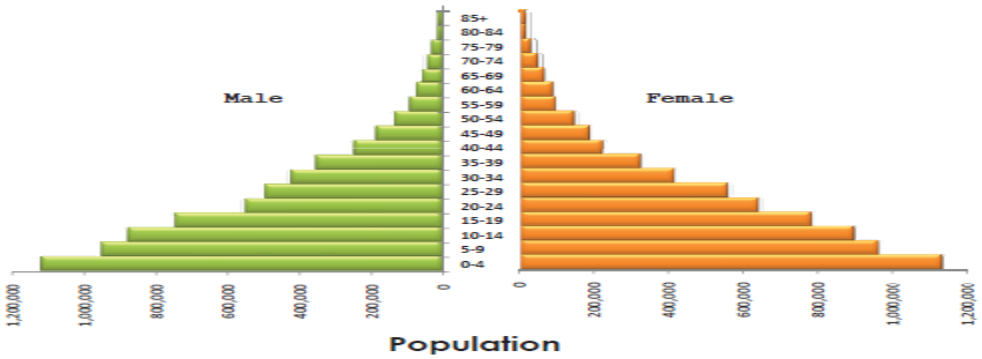
ii) Demographic characteristics

The population of Zambia is estimated at 13 million (CSO, 2012) with an annual growth rate of 2.8% between 2000 and 2010. Women of reproductive age group (15-49 years) constitute about 22% of the total population. Adolescent girls (10-19 years) constitute 27% of females (CSO, 2012) with the 15-19 years having a birth rate of 151 births/1000 girls and 34% have children (UNICEF, 2013). Table 1.1 below is a summary of the demographic characteristics.

Table 1.1 Summary of some demographic characteristics of Zambia

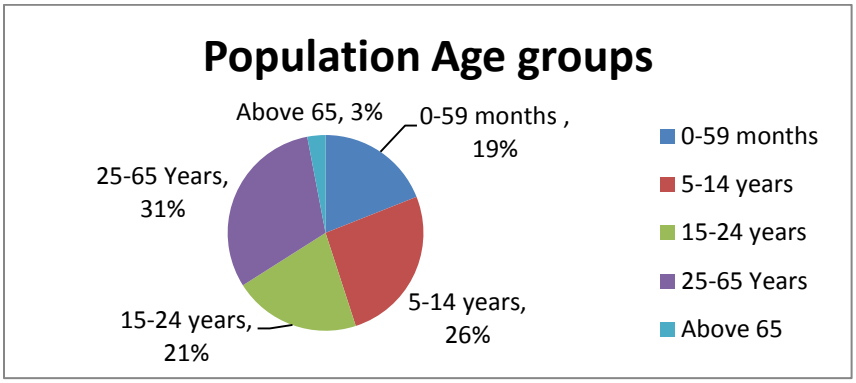
Total population	13 Million
Growth rate	2.8%
Women 15-49 years	22%
Total fertility rate/woman	6.2
Adolescent Birth rate/1000 girls	151
15-19 years with children	34%
Contraception prevalence	41%
Adolescent females as % of females	27%

Figure 1.2. Population pyramid, age and sex structure, Zambia 2010



Source: CSO 2010 Population census

Figure 1.3. Population distribution by age groups



Sources: Adapted from the CSO 2010 Census Report

iii) Health and related problems

The major health problems in Zambia are communicable diseases and a high maternal and child mortality. Communicable diseases remain the major causes of morbidity and mortality in Zambia (MOH, 2010). As a result, the priority areas in the 2011-2015 National Health Strategic Plan include combating HIV and AIDS (adult- above 15 years prevalence 16%), Tuberculosis (TB) (incidence 408/100,000) and malaria (cases reported 252/1000), improving maternal health (MMR 591/100,000 live births), improving child health (under-5 mortality rate 119/1000 live births). Other priorities are human resources for health aimed at improving the doctor/population ratio (1/17,500 population) and nurse/population ratio (1/1,860) (MOH, 2010). To improve maternal health one of the strategies is improving access to safe abortion services for all women (MOH, 2010).

iv) Health services

Zambia is a LMIC, with a GDP of USD ($) 1400 per capita (CSO, 2012). The total health expenditure is 6% of GDP (MOH, 2012; WHO, 2012), while the government health expenditure of the total general government expenditure is 16%. The 16% includes donor funds that go straight to the ministry of finance as part of budget support. Health funding is still donor dependent, with 40% of the health expenditure being donor funded (MOH, 2012; WHO, 2012). Inadequate health care funding impacts negatively on health service delivery (MOH, 2012).

Administratively there are nine provinces and 72 districts. A tenth province was recently created but is not yet administratively functional. Each province has a provincial hospital at the provincial capital; a district has one or two hospitals, one being the district hospital and a number of health centres and health posts. Health centres and health posts are the entry points to care mainly offering basic care. District hospitals are first level referral facilities offering a basic package of health services. Provincial hospitals are second level referral facilities offering essential package of services which include some specialist care (MOH, 2010). All district hospitals and higher level facilities provide PAC services and are in essence capable of providing legal abortion services.

Table 1.2. Shows number of facilities and types by region.

Regions/ Provinces	Level 3 Teaching Hospitals	Level 2 Provincial	Level 1 District	Urban Health Centre	Rural Health Centre	Health Post	**Total**
Central	0	2	6	32	113	35	**188**
Copperbelt	3	9	8	137	53	25	**235**
Eastern	0	2	8	8	156	53	**227**
Luapula	0	1	5	1	125	10	**142**
Lusaka	3	0	15	182	47	32	**279**
Northern	0	2	6	14	145	49	**216**
North-western	0	2	10	18	120	17	**167**
Southern	0	2	14	34	174	30	**254**
Western	0	1	12	10	127	24	**174**
Zambia/ Total	**6**	**21**	**84**	**436**	**1,060**	**275**	**1,882**

Source: MOH, 2012

1.2.2. Chibombo

i) Geography and Demographic characteristics

Chibombo is one of the six districts in Central Province of Zambia located 80 kilometres north of the capital city Lusaka and 50 kilometres south of the provincial capital, Kabwe. It is generally a rural district, major economic activity being agriculture. The majority are peasant farmers practicing maize growing, which is the staple food. The population is generally poor; 53% live below the poverty line (CSO, 2012). The district population is about 303,000 with an annual growth rate of 2.3% between 2000 and 2010. Women of reproductive age group (15-49 years) constitute about 22% of the population (CSO, 2012).

Table 1.3. Selected Demographic features for Chibombo District

CATEGORY/VARIABLE	PERCENTAGE (%)	NUMBER
Total Population	100	303,519
Annual Population Growth Rate	2.3	6,981
0-11 Months	4.1	12,444
12-59 months	18.9	57,365
5-14 years	27.7	84,075
Women 15-49 Years	22.3	67,685
Adults 15+ years	53.4	162,079
Total Males	49.7	150,849
Total Females	50.3	152,670
Annual Expected Pregnancies	4.6	13,962
Annual Expected Deliveries	4.5	13,658
Annual Expected Live Births	4.4	13,355

Source: Chibombo District health strategic plan 2013-2015 (DMO, 2012)

ii) Health and related problems

The major causes of morbidity and mortality are infectious diseases. In 2011 the top causes of morbidity reported in facilities included respiratory tract infections, diarrhoea, eye infections and skin conditions. Abortions however ranked as the highest pregnancy related complication treated in facilities. The major causes of mortality reported in facilities during the same period included pneumonia, diarrhoea, tuberculosis, meningitis, malnutrition, anaemia and cardiovascular diseases (table 1.4). HIV and AIDS is not appearing but remains a major burden and has a large influence on most of the above causes of morbidity and mortality especially infectious diseases hence remains a priority. Reducing maternal mortality is among the other priority areas and one of the areas of focus is reducing unsafe abortion (Chibombo DMO, 2012).

Table 1.4: Top Ten causes of Mortality (all ages) in facilities in Chibombo District

No	2011			2010			2009		
	Disease	**No. of Deaths**	**%**	**Disease**	**No. of Deaths**	**%**	**Disease**	**No. of Deaths**	**%**
1	Pneumonia	60	20.0	Pneumonia	59	16.7	Pneumonia	40	12.2
2	Diarrhoea non Bloody	40	13.3	Severe Malnutrition	43	12.2	Anaemia	38	11.6
3	Anaemia	28	9.3	Diarrhoea non Bloody	36	10.2	Diarrhoea non Bloody	34	10.4
4	TB	28	9.3	Anaemia	35	9.9	Pneumocystis Carinii Pneumonia	28	8.5
5	Cryptococcal meningitis	27	9.0	Cryptococcal meningitis	32	9.1	Severe Malnutrition	27	8.2
6	Severe Malnutrition	24	8.0	Cardio-Vascular diseases	22	6.2	TB	20	6.1
7	Cardio-Vascular diseases	21	7.0	TB	17	4.8	Trauma burns	7	2.1
8	Hypertension	14	4.7	Digestive system (not infectious)	14	4.0	Digestive system (not infectious)	6	1.8
9	Severe Diarrhoea with dehydration	9	3.0	Severe Diarrhoea with dehydration	10	2.8	RI Non Pneumonia	5	1.5
10	Digestive system (not infectious)	8	2.7	Pneumocystis Carinii Pneumonia	9	2.5	Severe Diarrhoea	5	1.5
	Total others	41	13.7	Total others	76	21.6	Total others	116	36.1
Total			**100**	**Total**		**100**			**100**

Source: Chibombo DHIS, 2012

iii) Health services

The district is served by one (1) first level district hospital, twenty-seven (27) rural health centres and seven (7) health posts (35 facilities in total). The rural health centres and health posts are primary care facilities linking the community and the health sector. They are connected to the district hospital via feeder roads and the main highway connecting the district to both the capital city, Lusaka and the provincial capital, Kabwe. The feeder roads are gravel, generally in bad state and some are impassable during the rainy season, which poses challenges to referral of patients especially emergencies and general access to health care services. Bad roads also negatively affect the delivery of medical supplies and drugs (Chibombo DMO, 2012).

iv) Religion

Chibombo District has a majority Christian population constituting 75% of religious groupings. The remaining 25% are mainly Muslim and the Bahai (Chibombo DMO, 2012). Being a generally religious population poses great challenge to provision of abortion services which is against the teachings of almost all religions.

2. Problem Statement, Justification, Objectives & Methodology

2.1. Problem Statement

Unsafe abortion has been and continues to be a focus directly or indirectly of many global health initiatives and treaties. This is evident from the Alma-ata in 1978 on maternal health and family planning as part of the advocated universal primary health care, to the world summit in 2000 on the Millennium Development Goals (MDGs) on improved maternal health (Lawn *et al*, 2008). Despite all this, unsafe abortion kills one out of every eight women (13%) who die of pregnancy related complications globally per year (WHO, 2012). Most (95%) of unsafe abortions and almost all (99%) women who die of unsafe abortion live in poor countries like Zambia (Mbizvo and Zaidi, 2010; Ngwena, 2010; WHO, 2012). In spite of almost all countries being signatories to such treaties and global initiatives aimed at making abortion safe, abortion continues to be illegal in many countries especially in Africa, Asia and Latin America and remains a major cause of morbidity and mortality among women of reproductive age group (15-49 years) (Ngwena 2012; Sedgh *et al*, 2012; WHO, 2012). In countries where abortion is criminalised over 90% of the abortions are unsafe (WHO, 2012; Sedgd *et al*, 2012). Complications of unsafe abortion continue to burden health care facilities, causing over 5 million admissions annually across the globe (WHO, 2012). The majority of these occur in poor countries especially in Africa resulting in 650 deaths/100,000 unsafe abortions (WHO, 2012).

In Zambia 590 women are estimated to die per 100,000 live births annually due to pregnancy/obstetric related complications (MOH, 2010). Despite scarcity of abortion data, community studies suggest up to 30% of maternal deaths may be due to unsafe abortion (Dahlback *et al*, 2007; Geary *et al,* 2012; Grimes *et al*, 2006; Webb, 2000). All women of reproductive age are at risk of unsafe abortion, but adolescents are the most vulnerable as most unwanted pregnancies and hence unsafe abortions (25%) occur in this age group as they suffer more barriers to accessing care (Dahlback *et al,* 2007; Grimes *et al*, 2006; Mbizvo and Zaidi, 2010). In Sub-Saharan Africa, Zambia together with South Africa are in the spotlight for liberal abortion laws in that abortion can be offered on a wider range of indications (Dahlback *et al*, 2007; Geary *et al* 2012, Sedgh *et al,* 2012). Legalising abortion however, has not translated into real benefits in reducing unsafe abortions and its impact on maternal mortality (Dahlback *et al*, 2007; Geary *et al*, 2012).

In Chibombo District abortion is the number one pregnancy related complication attended to in health facilities (Chibombo DMO, 2012). The district hospital treats at least one abortion related case everyday (Chibombo DMO, 2012). There are many abortions treated in facilities, it is however often difficult to distinguish induced from spontaneous abortions as women do not divulge inducing an abortion due to stigma and legal reprisal. However, studies within Zambia have shown that 70-80% of abortions attended are induced. (Dahlback *et al*, 2007).

Despite the introduction of CAC, family planning and legal abortion services remain poorly utilised while facilities continue to provide PAC and treating complications of unsafe abortion (DMO, 2012). The situation in other parts of the country where abortion services were scaled up remains similar (MOH, 2010).

2.2. Justification

Despite being one of the most preventable causes of maternal mortality women continue to die from unsafe abortion (Sedgh *et al*, 2012; Winikoff and Sheldon, 2012; WHO, 2012). The impact of unsafe abortion on maternal mortality is well known and without addressing it adequately meeting the MDG on improved maternal health remains illusory. Mortality from unsafe abortion is just one side of the coin, for any single death many more women are treated for complications while a good proportion do not even access care (Levandowskia *et al,* 2012; WHO, 2012). Cost of treating complications of unsafe abortion constrains health care budgets, which globally is estimated in excess of (USD) $1 billion, these resources may be used on other needy areas especially in developing countries with already deficient health budgets (Bensona *et al*, 2012; Fredrick , 2007; WHO, 2012). Treating complications of unsafe abortion is more costly than safe abortion (WHO, 2012). The impact of unsafe abortion on both the community and the health sector is enormous.

Despite the availability of CAC services, there are many barriers that continue to hinder women from accessing services. In order to have a functional and responsive health care system, barriers need to be known and hence be addressed. Failure to understand the barriers, services will remain poorly utilised and will not achieve the intended goal, as the situation seems to suggest. Hence this paper seeks to analyse and inform health managers, providers and the public on barriers hindering women from accessing CAC

services in Chibombo District and make recommendations on possible solutions. This will also be a response to a knowledge gap as no such analysis/evaluation has been done in the district.

2.3. Objectives

2.3.1. General Objective

To analyse implementation of Comprehensive Abortion Care (CAC) in Chibombo District and determine barriers hindering women from accessing services and make recommendations for possible remedial measures.

2.3.2. Specific Objectives

1) To provide an overview of CAC services in Zambia and Chibombo District.
2) To provide an overview of global trends of abortion and legislation.
3) To explore health care factors influencing access to CAC services in Chibombo District.
4) To explore patient/community factors influencing access to CAC services in Chibombo District.
5) To make recommendations on possible solutions to overcoming barriers to Accessing CAC, in a bid to improve utilisation of services.

2.4. Methodology

2.4.1. Study area

The study area is Chibombo District. There are three implementation sites, the district hospital and two rural health centres. The hospital was selected being the only hospital in the district. The two rural health centres were selected based on geographical location dividing the district into western and eastern regions. This was done to enhance equity of access as each region would have a service point to which other surrounding facilities would refer clients for CAC.

2.4.2. Study design

This is an analytical secondary data study. Variables are both qualitative and quantitative. Quantitative variables are numbers of CAC related services offered and qualitative variables are reasons for seeking TOP, other types of providers consulted by clients and client's sources of information on availability of CAC services in facilities.

2.4.3. Data collection method

The data collection method was review of routine district HMIS, CAC reports and registers from CAC pilot sites and review of published literature from various sources.

2.4.4. Search engines and terms

The data bases searched are Medline (Pubmed), Scopus, WHO, and local Ministry of Health national and district level. The search terms used are; abortion, unsafe abortion, safe abortion, Zambia, Sub-Sahara, developing countries, Africa and abortion laws. The main key word for articles considered is abortion in combination with any other key words listed above.

2.4.5. Inclusion criteria

The literature reviewed is publications after the year 2000. Selected few land mark documents earlier than 2000 like the Cairo 1994 International Conference on Population and Development (ICPD) and the 1972 TOP Act of the Constitution of Zambia have been considered.

2.4.6. Data analysis

Quantitative data is presented and analysed in tables and graphs. Qualitative data is presented and analysed in tables only. Barriers to accessing care as part of qualitative variables are analysed with the help of the conceptual framework below adapted from Jacobs *et al* (2011) which identifies supply and demand side barriers to accessing care along the four dimensions of access, namely geographical accessibility, availability, affordability and acceptability. The problem tree in annex 1 supplements the conceptual framework highlighting how determinants interact to result in unsafe abortion by hindering access to health care. The supply and demand side barriers along the four dimensions of access also form the basis of the discussion.

Table 2.1. Conceptual framework: Supply and demand side barriers along the four dimensions of access

Supply-side barriers to accessing services	Demand-side barriers to accessing services
Geographical accessibility	
Service points/location Distance Bad roads	Distance Bad roads Means of transport
Availability of services	
Trained providers Provider attitude and absenteeism Drugs, medical supplies and equipment Poor referral system Restrictive abortion laws	Lack awareness Lack Education/information
Affordability	
Informal payments Private providers	Transport and food costs Opportunity cost and perceived cost Poverty
Acceptability	
Staff attitude and stigma Lack of health promotion Restrictive abortion laws	Stigma (self or perceived) and discrimination Religious/cultural beliefs Lack of awareness of legal abortion services Perception of legal implications Fear of lack of confidentiality in facilities

Source: Adapted from Jacobs *et al,* 2011

2.4.8. Limitations

Literature search was limited to only literature published in English and no unpublished literature was searched. The inaccuracy of most abortion statistics/data is a challenge and limitation that cannot be avoided due to stigma associated with abortion (Winikoff & Sheldon, 2012).

2.4.9. Dissemination and use of results

The findings will be shared with the District Health Management Team (DHMT) and key stakeholders in the district. It is hoped that the results will be used to improve access to CAC services in the district.

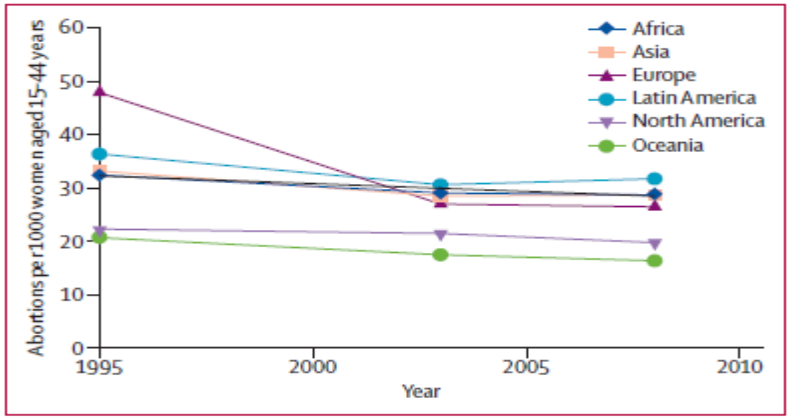
3. RESULTS

This chapter provides literature review on global trends of unsafe abortion and related mortality and advances in abortion legislation. It also highlights Zambian legislation on abortion (TOP Act), describes the components of CAC and highlights barriers to care along the four dimensions of access.

3.1. Global statistics/perspective of abortion

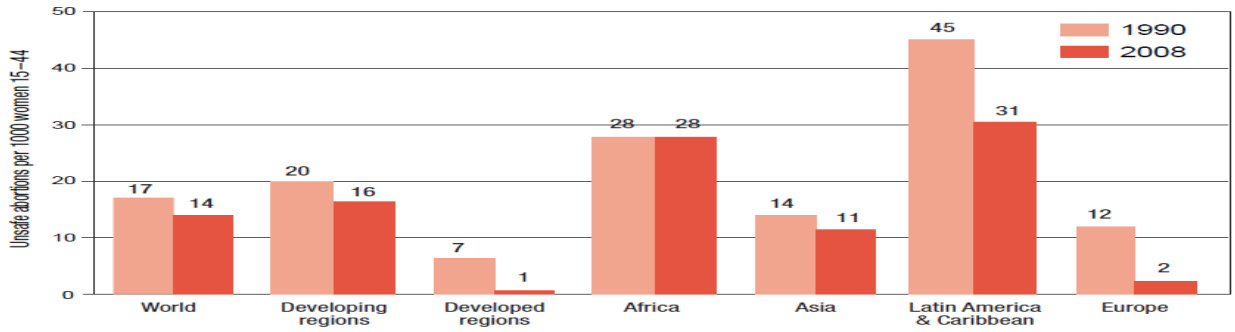
Reproductive health remains a global public health challenge with 80 million unintended pregnancies occurring each year (Sedgh *et al*, 2012; WHO, 2012). In 2008, half of the unintended pregnancies (44 million) were terminated as induced abortions and half (22 million) of which were unsafe (Sedgh *et al*, 2012; WHO, 2012). Not much progress has been made on the global front in reducing incidence of induced abortions as they continue to average 42 million per year (29/1000 women 15-49 years) and 47% being unsafe over the past two decades (Sedgh *et al*, 2012; WHO, 2012). There are significant regional differences in induced abortion rates across the globe especially in safety of abortions. Majority (over 90%) of induced abortions in developed countries are safe. On the contrary, almost all are unsafe in developing countries especially in Africa (Sedgh *et al*, 2012; WHO, 2012). Sub-regional differences may also be noticed in induced abortion rates, being lowest in Western Europe (12/1000 women 15-49 years) and highest in Eastern Europe (43/1000 women 15-49 years) (Sedgh *et al*, 2012; WHO, 2012). In Africa the highest rates have been recorded in Eastern Africa (38/1000 women 15-49 years), while the lowest is in Southern Africa (15/1000 women 15-49 years) (Sedgh *et al*, 2012; WHO, 2012). The regional variations may to a lesser extent be influenced by abortion laws, access to contraception and reporting practices (Sedgh *et al*, 2012; WHO, 2012). In 2008, unsafe abortions and related complications were responsible for about 47,000 deaths globally, two thirds of deaths occurred in Africa (Ahman & Shah, 2011; WHO, 2012). The graphs and tables below show regional trends of abortions, unsafe abortions and mortality. It is important to note that the data sources uses the age range 15-44 years as opposed to 15-49 years for the reproductive age.

Figure 3.1. Regional induced abortion rate trends between 1995 and 2008



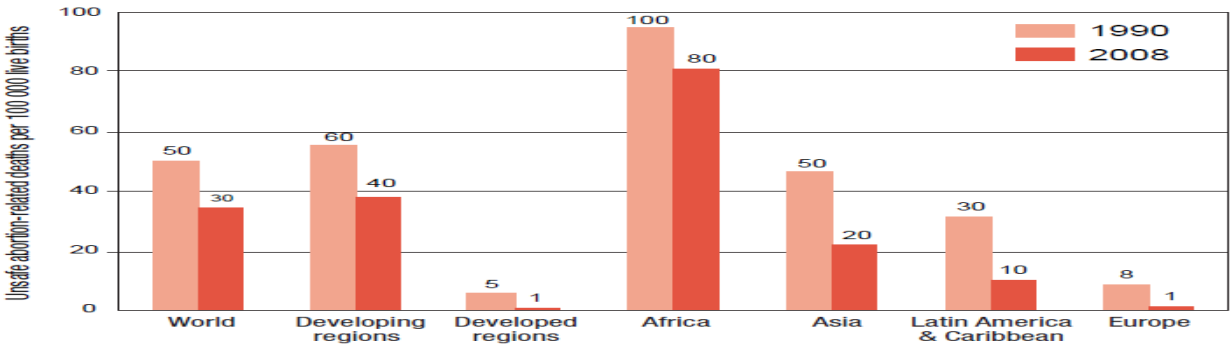
Source: Sedgd *et al*, 2012. Induced abortion: Incidence and trends worldwide from 1995 to 2008' *The Lancet,* 379: 625-32

Figure 3.2. Comparison of regional unsafe abortions between 1990 and 2008



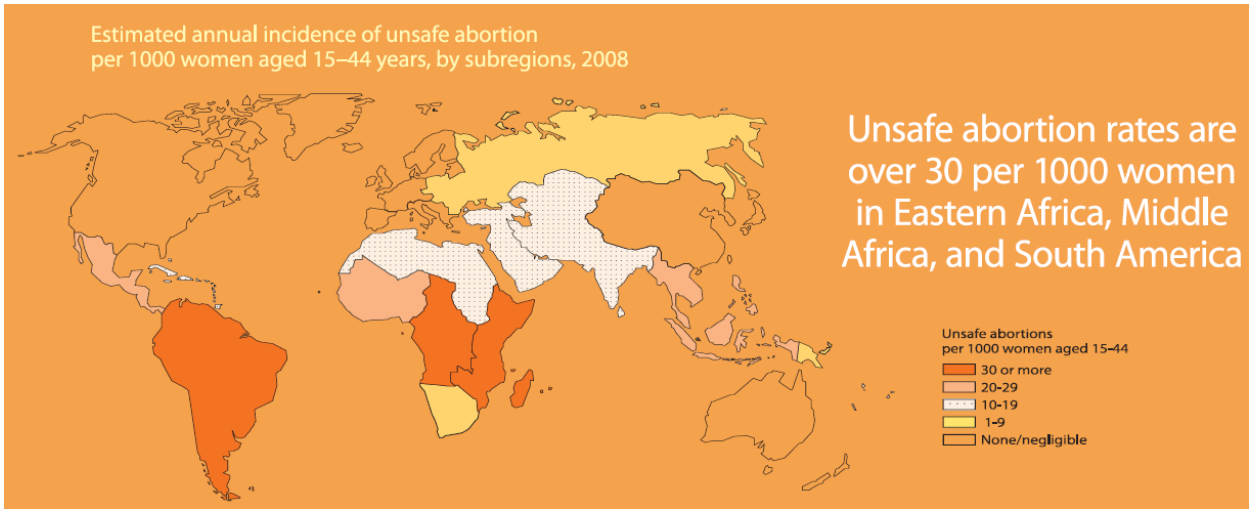
Source: Reproduced from WHO, 2012, Unsafe abortion incidence and mortality, information sheet

Figure 3.3. Regional Comparison of Maternal deaths due to Unsafe Abortion between 2008 and 1990



Source: Reproduced from WHO, 2012, Unsafe abortion incidence and mortality, information sheet.

Figure 3.4. Map showing global trends of unsafe abortions



Source: Reproduced from WHO: New Estimates, Unsafe abortion in 2008; Global and regional level and trends

3.2. Abortion Laws

3.2.1. Global perspective of abortion laws

Abortion has been a thorny issue the world over from time memorial (Brookman & Moyo, 2004). The controversies surrounding abortion have hampered development of pro-abortion laws aimed at safeguarding women's health and reproductive health rights (AU, 2006; Fredrick, 2007; Mbizvo & Zaidi, 2010). Abortion laws have evolved very slowly, until in the last decade when a human rights perspective was added to SRH (AU, 2006; Boland and Katzive, 2008; Mbizvo & Zaidi, 2010). Including a human rights dimension to SRH lead to a rapid evolution of abortion legislation in a number of countries and expansion of the scope of indications for which women can access abortion services, including on request (Boland & Katzive, 2008; Cook and Dickens, 2009; Fredrick, 2007; Ngwena, 2010). The 1994 Cairo International Conference on Population and Development (ICPD) is a land mark that added momentum to the abortion law reforms that have been seen in the past two decades (Brookman & Moyo, 2004; UNFPA, 1994). Several later conferences like the 1995 Beijing United Nations Conference on women, the 2006 Maputo Plan of Action and later ICPDs all continued to fuel the ideologies of the 1994 Cairo ICPD of improved SRH for women (AU, 2006; UN, 1995).

There are controversies in defining legality of abortion, as almost all countries have at least one indication for which a pregnancy may be terminated/aborted (Boland & Katzive, 2008; WHO, 2012), this however, is far from saying abortion is legal in countries. In many African countries, abortion laws are adopted from colonising powers, developed when advances in medicine were limited and intended/aimed to safeguard women against unsafe abortion. Many have remained static even when the mother country laws have evolved (Brookman & Moyo, 2004; Cook & Dickens, 2009). Advances in medicine have led to development of safer means of abortion (Brookman & Moyo, 2004; Hyman & Castleman, 2007). Restrictive laws are now a hindrance to accessing safe abortion services, as seen by high incidence of unsafe abortion in restrictive abortion laws settings like east Africa, which has the highest rates in Africa (Brookman & Moyo, 2004; Mbizvo & Zaidi, 2010; Sedgh *et al*, 2012; WHO, 2012).

Despite a human rights perspective being added to SRH, among the United Nations (UN) member states abortion is not permitted on any ground in four (4) countries (Egypt, Haiti, Philippines and El Salvador) and in fifty-three (53) countries it is only permitted to save the life of the woman (table 3.1 and annex 2) (Boland & Katzive, 2008; WHO, 2012). Other grounds on which abortion may be permitted in some countries include: to preserve the physical and mental health of the woman, rape or incest, fetal abnormalities, socio-economic reasons and on request (annex 2) (Boland & Katzive, 2008; WHO, 2012). Application of indications varies across countries, with fewer countries towards more liberal indications for abortion such as on request (Boland & Katzive, 2008; WHO, 2012). Despite a general global trend towards more liberal abortion laws, Nicaragua and El Salvador have regressed to more restrictive abortion laws than before (Boland & Katzive, 2008).

It is estimated that one out of every five (20%) women of reproductive age group (15-49 years) lives in countries with highly restrictive abortion laws (Boland & Katzive, 2008; WHO, 2012). Only about a third (39%) live in countries with liberal abortion laws including on request (Boland & Katzive, 2008; WHO, 2012). Unsafe abortion however, is said to occur in all legal settings in varying degrees being highest in highly restrictive settings and lowest in non restrictive settings (Brookman & Moyo, 2004; Ngwena, 2010; Sedgh *et al*, 2012; WHO, 2012).

Table 3.1. Global landscape of abortion laws

	Abortion is **not** permitted	Abortion is permitted **only** to save the woman's life	Abortion is permitted to save the woman's life **and** for another 1–5 other grounds, or on request					
	No grounds	Only to save the woman's life	**and** 1 other ground	**and** 2 other grounds	**and** 3 other grounds	**and** 4 other grounds	**and** 5 other grounds	On request
Number of countries (193)[a]	4	53	7	32	17	19	6	55
% of countries	2	28	4	17	9	10	3	28
% of women 15–44	0.4	17	6	10	4	6	18	39
% of births	0.4	21	5	17	3	7	20	27

Source: United Nations, 2007; Reproduced in WHO, 2012

3.2.2. Zambian abortion laws

In Zambia abortion was legalised in 1972 through the Termination of Pregnancy Act (TOP Act) (GRZ, 1972; MOH, 2008). Under the TOP Act a pregnancy may be terminated if;

1. Continuation of the pregnancy endangers the life of the mother.
2. The baby is grossly malformed that if it were born will be severely handicapped.
3. Continuation of the pregnancy endangers the lives of the existing children.
4. Continuation of the pregnancy poses a risk to the woman's physical, mental or emotional health.
5. If the pregnancy is the result of rape/Incest/defilement (GRZ, 1972; MOH, 2008).

The Act also stipulates that TOP should be carried out in a government gazetted hospital (facility) with the authority of three doctors one of which must be a specialist in the area the woman is being examined (GRZ, 1972; MOH, 2008). However, one doctor may authorise TOP in emergency situations when a woman's life is in danger (GRZ, 1972; MOH, 2008). Minors seeking TOP must have consent from their legal guardians, the legal age for medical consent being twenty-one (21) years in Zambia (GRZ, 1972; MOH, 2008). Initially only doctors were permitted to conduct TOP, however, the 2008 MOH Standards and Guidelines for providing CAC permitted midlevel providers (nurses, midwives and clinical officers) to perform TOP as long as they are trained in CAC (MOH, 2008). Midlevel providers are however, not

permitted to authorise a TOP. Only doctors are to permitted to authorise TOP (MOH, 2012). Studies have shown that midlevel providers are capable of providing equally safe and effective TOP services (WHO, 2012; Ngo *et al*, 2013).

Realising the controversies surrounding abortion, the Act permits providers to exercise conscientious objection, thus only providers willing to do so may participate in provision of TOP services. However, the conscientious objectors are obliged to refer clients to other providers or facilities where they can receive care (GRZ, 1972; MOH, 2008). Despite enacting the TOP Act, abortion is generally criminalised and still considered illegal and unacceptable in Zambian communities (Dahlback et al, 2007). The Penal Code stipulates a 7 years jail term for one who seeks an unlawful abortion and 14 years for one who provides an unlawful abortion (GRZ, 1972).

3.3. Comprehensive Abortion Care (CAC)

Comprehensive Abortion Care (CAC) is the term that has replaced Post Abortion Care (PAC) in modern day practice (Hyman & Castleman, 2007; MOH 2008). CAC comprises; provision of family planning services, safe abortion (TOP) services and PAC (Hyman & Castleman, 2007; MOH 2008). Below are brief highlights of the components of CAC.

3.3.1. Family planning (FP)

Family planning has since long been identified as a critical component of health care, more so SRH. A major landmark is seen from the Alma-Ata declaration of 1978 by including FP into universal Primary Health Care (Lawn *et al,* 2008; WHO, 2004) and has continued to be an important theme for many later (reproductive) health treaties/conferences. FP has been cited as not only being a reproductive health issue, but also a developmental issue and a means through which the MDGs can be achieved (African Union, 2006; Cates, 2010; WHO, 2004). In SRH, FP reduces maternal morbidity and mortality (African Union, 2006; Glasier *et al,* 2006; WHO, 2004). Effective FP services are also the back bone of a successful CAC programme as it reduces the incidence of unintended pregnancies, by so doing reducing the need for abortion (TOP) and PAC (MOH, 2008; Sedgh *et al*, 2012; WHO, 2012). Effective FP services must be able to provide all women (including adolescents) with a wide range of choices of contraceptives including emergency contraceptives at all times (Hyman & Castleman, 2007; MOH, 2008; WHO, 2004).

3.3.2. Safe abortion (or Legal TOP)

According to Glasier *et al* (2006) and Hyman & Castleman (2007), it is every woman's right to decide when to have children and the fate of her pregnancy. When faced with unwanted pregnancy it is the right of the women to access safe abortion services provided to the full extent of the law (Glasier *et al*, 2006; Hyman and Castleman, 2007).

Modern methods of abortion (TOP) can be surgical or pharmacological (Hyman & Castleman, 2007; MOH, 2008; WHO, 2012). Surgical methods involve the use of instruments and are mainly in two types, Manual Vacuum Aspiration (MVA) or Electric Vacuum Aspiration (EVA) and Dilatation and Curettage (D&C) (Hyman & Castleman, 2007; MOH, 2008; WHO, 2012). D&C has fallen out of favour in modern day practice; hence the preferred method is MVA/EVA (Hyman & Castleman, 2007; MOH, 2008; WHO, 2012). Pharmacological or Medical abortion (MA) involves the use of drugs only. However, a combination of methods may be used in some instances (Hyman & Castleman, 2007; MOH, 2008; WHO, 2012). Mifepristone and Misoprostol are the two drugs approved by WHO and licensed in many countries, including in Zambia for use in medical abortion (Hyman & Castleman, 2007; MOH, 2008; WHO, 2012).

CAC encourages early TOP for women needing termination; for health centres and midlevel providers, only first trimester (12 weeks or shorter gestational age) pregnancies are allowed to be terminated (MOH, 2008; WHO, 2012; WHO, 2008). Abortion remains the choice of the women, often not an easy choice, hence counseling is an important component that provides an opportunity to provide morale support, empathy and ascertain the woman's genuine wish for abortion (Hyman & Castleman, 2007; MOH, 2008; WHO, 2012). Counseling may also help identify cohesion by a third party which sometimes may be the case. The above modern methods of TOP have been proven safe and effective, thus good implementation can improve women's health and save lives (MOH, 2008; Hyman & Castleman, 2007; WHO, 2012)

3.3.3. Post Abortion Care (PAC)

PAC is the oldest abortion related service that is offered in many facilities (Hyman & Castleman, 2007; MOH, 2008; WHO, 2012). PAC comprises evacuation of retained products of conception (RPOCs) and provision of post abortion contraception (Hyman & Castleman, 2007; MOH, 2008; WHO,

2012). Evacuation of RPOCs can be medicinal with the use drugs only or surgical with the use of instruments. Surgical techniques use MVA/EVA and D&C as in TOP (Hyman & Castleman, 2007; MOH, 2008; WHO, 2012). Medical evacuation of RPOCs uses Misoprostol only, as opposed to TOP which requires a combination of Mifepristone and Misoprostol. Medical evacuation of RPOCs is as effective as MVA/EVA (Hyman & Castleman, 2007; MOH, 2008; WHO, 2012). Post abortion FP and counseling is a critical component of PAC and often the weakest link in many PAC services (Hyman & Castleman, 2007; MOH, 2008; WHO, 2012).

3.4.1. Reasons why Women may want an abortion

Legal systems have outlined circumstances or reasons under which an abortion may be permitted (GRZ, 1972; WHO, 2012). These however, merely form broad or generic terms while the actual reasons women may want to abort vary widely (Boland and Katzive, 2008). Social and economic reasons are the most common reasons for seeking abortion and are the least approved indications in many legal settings (Dahlbäck *et al,* 2007; WHO, 2012). A study by Dahlbäck *et al* (2007) found the following as reasons for aborting; not ready to have a child, not wanting to disrupt future plans such as education, lack of finances to support a child, shame and social stigmatisation for unmarried women, unstable relationships, 'intimate partner violence', influenced or forced by a partner or third party and rape. 'Intimate partner violence' has been demonstrated in a number of studies to be highly associated with abortion as cited by Stöckl *et al* (2012).

The above reasons or factors alone will not lead to unsafe abortion. Unsafe abortion is the result of an interaction of the above factors with barriers to accessing safe abortion services (WHO, 2012). Some of the barriers to accessing safe abortion services that force women to resort to clandestine abortions include; restrictive abortion laws and legal reprisals, lack of awareness by providers and women on the provisions of the law, poor implementation of abortion laws, socio-cultural and religious beliefs stigmatising abortion, cost of abortion services, inadequate and poor quality abortion services and attitude of health staff including conscientious objection (Dahlbäck *et al*, 2007; Geary *et al,* 2012; Harrison *et al,* 2000; Webb, 2000; WHO, 2012)

3.4.2 Providers and methods for unsafe abortion.

There are several providers and methods of unsafe abortion that have been identified (Dahlbäck *et al*, 2007; WHO, 2012). The providers includes; the women themselves (self induced), health providers of various categories (outside formal health sector) and others which include elderly women within the community and traditional healers in many African settings (Dahlbäck *et al*, 2007; WHO, 2012). Some of the methods or agents identified to conduct unsafe abortions includes; modern abortifacient drugs which could be oral, vaginal or injectable, including curettage often provided or performed by health care providers outside the legal system, an overdose of any modern drugs (contraceptives, analgesics, antimalarials, antibiotics), washing powder, crushed bottles, and strong beverages have all been cited for use in self induced abortions. Herbs, roots, use of sticks or wires into the uterus and scarification often provided/performed by traditional healers are other methods/agents used (Dahlbäck *et al*, 2007; Webb, 2000).

From the above methods used to conduct clandestine abortions, the causes of death can thus be deduced and these include bleeding (haemorrhage), infection (sepsis), injury to the uterus and internal organs (trauma), drug and herbal intoxication (poisoning) (Adler *et al,* 2012; Dahlbäck *et al*, 2007; Geary *et al,* 2012; Harrison *et al,* 2000; Webb, 2000; WHO, 2012).

3.5. Sexual and reproductive health services in Chibombo District (all facilities)

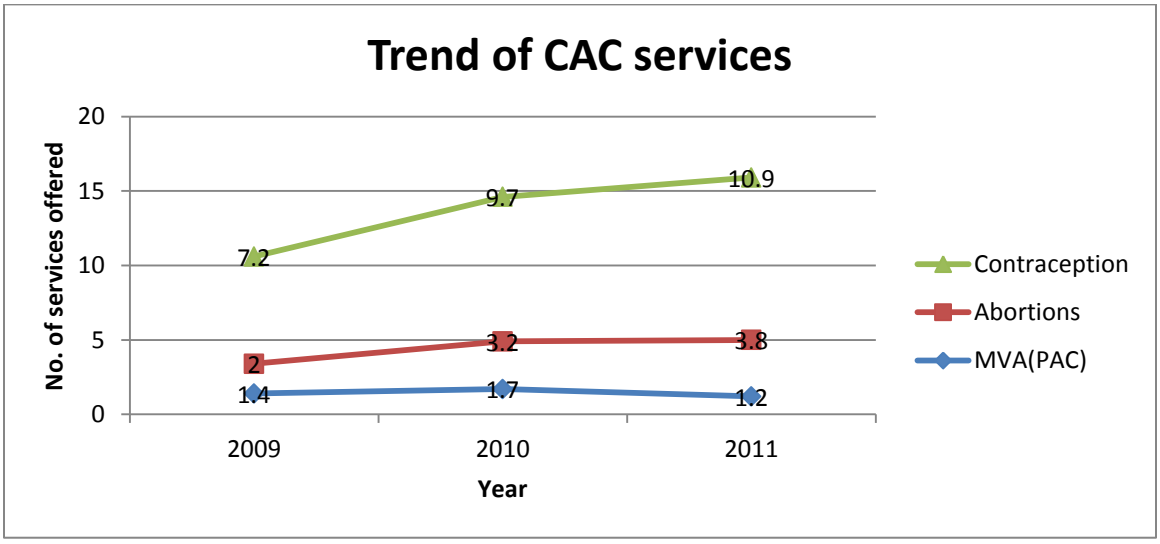
Table 3.2. SRH and CAC coverage from 2009-2011 for Chibombo District for all facilities

Service	2011		2010		2009	
1.Pregnancy related complications	**%**	**No. attended to**	**%**	**No. attended to**	**%**	**No. attended to**
Post-partum haemorrhage	9%	55	10%	59	7%	28
Hypertensive Diseases/Eclampsia	3%	18	3%	17	3%	12
Abortions	61%	375	56%	321	51%	197
Obstructed Labour	5%	31	7%	39	14%	53
Infections (Direct)	7%	41	7%	38	8%	30
Others	5.4%	33	6%	33	5%	21
Caesarean section	9.6%	59	11%	63	12%	47
2. Family Planning						

Service	2011		2010		2009	
	% attended	No. attended to	% attended	No. attended to	% attended	No. attended to
FP New Acceptors		10,885		9,672		7,182
Pill	63%	6,816	67%	6,488	66%	4,740
Injectables	15%	1,652	16.3%	1,573	16%	1,149
Implants	4%	496	3.2%	307	4.8%	345
Condoms	13%	1,363	13.4%	1,297	13.1%	944
IUDs	4.9%	542		3	0%	0
BTL (Female Sterilization)	0.1%	16		4		4
Vasectomy (Male Sterilization)		0		0		0
Emergency Contraception				0		
3.FP Re-attendance						
FP Re-attendance		36,838		29,163	63,941	16,739
Pill	66%	24,313	66%	19,248	66%	11,048
Injectables	16%	5,894	16%	4,666	16%	2,678
Implants	0%	0	0%	0	0%	0
Condoms	18%	6,631	18%	5,249	18%	3,013
IUDs	%		%	0	%	0
BTL (Sterilization)						
Vasectomy						
Emergency Contraception						
4. Youth Friendly Health Services						
Family Planning		0		0		0
STIs		0				0
HIV/AIDS		0				0
Pregnancy		0				0
5. Post-abortion Care (PAC)						
Manual vacuum aspiration (MVA)		120		169		140
Dilation and Curettage (D and C)		0		0		0

Source: Chibombo DMO, 2012

Figure. 3.5. Trend of CAC services 2009-2011 (All facilities)



Source: Chibombo, DMO, 212

Scale: 1 to 100 cases for MVA and Abortions, 1 to 1000 for contraception. Note that MVA cases are part of the abortion cases attended (for incomplete abortions).

3.5.1. Family planning

Table 3.2 and figure 3.5 above show SRH services and trends respectively, for Chibombo District for the three years 2009-2011. Almost all methods of FP are available and being provided in the district, except for male sterilisation (vasectomy) and emergency contraceptives. All facilities are able to provide some methods of contraception, except for female sterilisation which is only provided at the district hospital. Intrauterine devices (IUDs) and implants are only provided in some facilities where providers have been trained. The district hospital only provides female sterilisation while other methods are provided at the hospital affiliated health centre (HAC) within one kilometer radius from the hospital. This is a major weakness in the CAC services offered at the hospital, instead of being a 'one stop facility', women have to be referred to the HAC for contraception. This is inconveniencing for women especially after MVA procedure and many may not go.

There had been a progressive increase in new registrations for FP over the three years period. New registrations rose from 7,182 in 2009 to 9,672 in 2010 and to 10,885 in 2011. Only 16% of women of reproductive age group accessed contraception in 2011 as new attendances. There has been tremendous improvement in re-attendance for FP over the 3 years, by over

100% between 2009 and 2011. However, interpreting this into number of women attended is difficult, as each woman is attended to several times. Hence re-attendance merely correlates to doses of contraceptives dispensed during the period. An increase in re-attendance however, is still a good indication that contraceptive use is on the rise. The pill was the most commonly used method during all the three years comprising 66% of all contraceptive use. Preference may be a factor influencing utilisation of a method, more so availability. Condom use is difficult to determine and interpret hence excluded in further analysis as a FP method.

The picture of youth friendly services in the district is worrying. No data was captured throughout the 3 years period. This does not mean youth never sought services, but that there are no specific services for youth, as such there is no reporting undertaken in the format of youth friendly services. Youths seeking SRH services are attended within the mainstream health care, which is a major weakness in SRH services being offered in the district as youth may be hindered from accessing services (Bearinger *et al,* 2007).

3.5.2. Abortion

Abortion was the most common pregnancy related complication, accounting for 61% of all pregnancy related complications attended in facilities in 2011 (table 3.2). The trend of abortions has been increasing over the three years (figure 3.5), from 197 in 2009, to 321 in 2010 and 375 in 2011. Introduction of CAC may have contributed to the rise in 2011. Following training of providers in CAC more cases may have been attended. The majority of abortion related services offered were PAC services. Women often presented with already occurred abortions and deducing whether it was induced or spontaneous was difficult, bearing in mind legal implications. A third of all abortions were incomplete as indicated by the number of MVA procedures performed.

There were 375 abortion cases attended in 2011, translating into 6 abortions per 1000 women of reproductive age group per year, even lower in 2010 and 2009. This is certainly too low for a setting with high unmet need of FP and represents only a small fraction of abortion burden in the district. As noted by Sedgh *et al* (2012) and WHO (2012), for any single abortion recorded in facilities, there are many more that go unnoticed without reaching facilities. The introduction of medical abortion heightens the challenge of under reporting of abortions, as it is safer and can be done

illegally even at home (Winikoff and Sheldon, 2012). Many more abortions may go unnoticed provided by health care providers outside the formal health care setting for personal financial gains. Restrictions in the Zambian abortion law create fertile grounds for such unscrupulous activities.

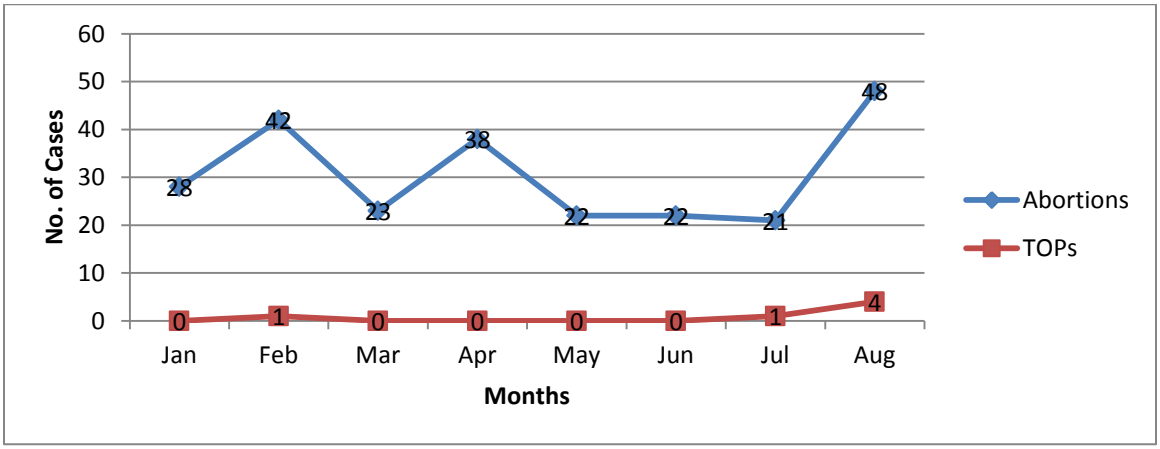
3.5.3. Post Abortion Care (PAC)

PAC services were offered to women who presented with incomplete abortion. Services were limited to MVA for evacuation of RPOCs and post abortion contraception. There was a slight rise in MVAs done from 140 in 2009 to 169 in 2010 and a drastic drop to 120 in 2011. The drop in MVAs in 2011 may have been influenced by introduction of effective medical abortion.

3.6. Trends in uptake of CAC services during the rollout

Section 3.6 provides data on CAC utilisation in the 3 CAC facilities for the rollout period Jan-Aug 2011.

Figure 3.6. Trends of abortions and TOPs

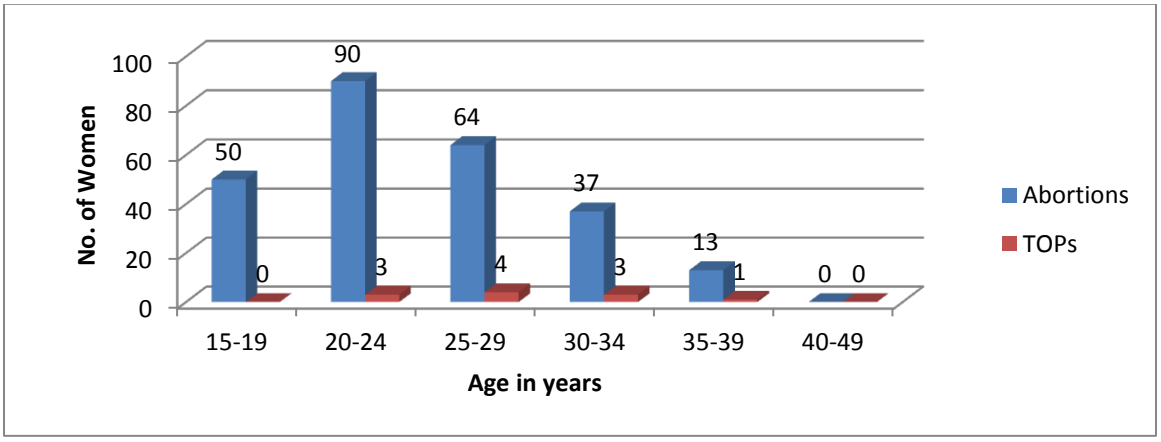


Source: Chibombo DMO, CAC registers and reports, 2011

Figure 3.6 above indicates number of abortions attended compared to TOPs performed. There were 11 TOP requests during the period (annex 4), but only 6 were performed. The 5 that were not performed, 2 did not meet the criteria as they had gone beyond the recommended gestational age and where referred to higher level of care, while the other 3 were not conducted due to provider related reasons, such as deferred to a later date and clients never returned and lack of equipment to confirm the gestational age in instances when clients were not sure of the dates.

It can be seen from the graph that unsafe abortions were relatively high throughout the period compared to safe abortions (TOPs). As indicated earlier from the study by Dahlback *et al*, (2007), 70-80% of all abortions may be induced, it would therefore be expected that with a good uptake of safe abortion services, facility induced abortions would approximated 70-80%. From the data above (and annex 3) only 6 of all the 259 abortions attended were induced in facilities and the same could be said to be the proportion of safe abortions.

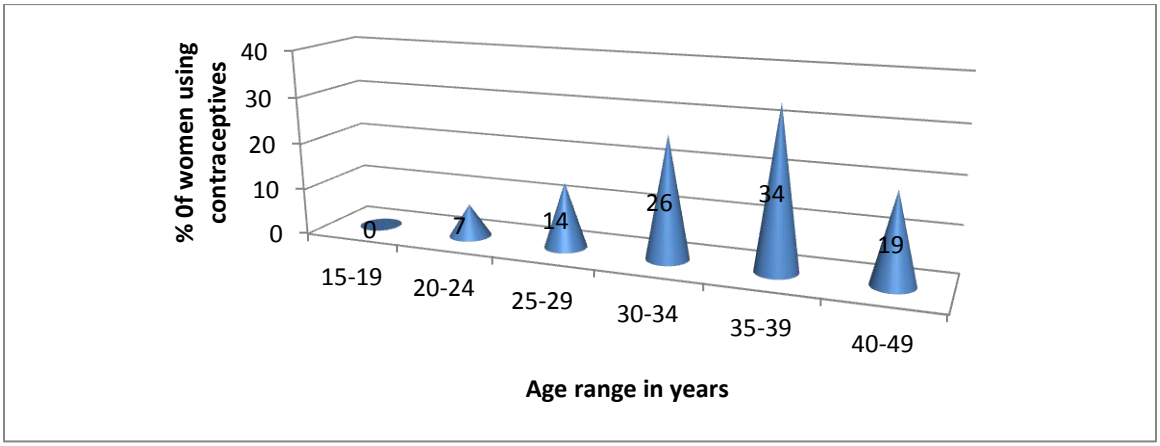
Figure 3.7. Age distribution of women using TOP and PAC services



Source: Chibombo DMO, CAC registers and reports, 2011

Figure 3.7 show that women younger than 20 years were less likely to visit facilities for safe abortion services as compared to older women. Despite unsafe abortions being relatively high in the age group 15-19 years, none sought safe TOP in facilities. The number of abortions among younger girls (15-19 years) is clear need to improve access to FP and safe TOP services for younger women.

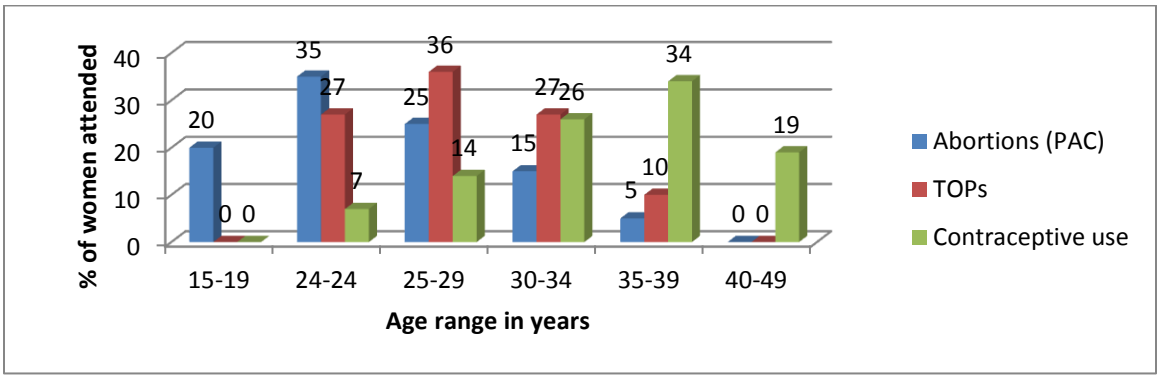
Figure 3.8. Age distribution of general contraceptive use (excluding condoms)



Source: Chibombo DMO, CAC registers and reports, 2011

Figure 3.8 show general contraceptive use by age category. Peak use was noted in the age 35-39 years. Contraceptive use was increasing with age except after 40 years. Poor contraceptive use in the younger age groups especially 15-19 years is worrying seeing that unsafe abortions still occur in younger age groups (figure 3.7). The picture is influenced by cultural beliefs as many below 20 years old are not married and may have more barriers to accessing contraception. The 20-24 years old are usually just beginning to have families and want children; hence utilisation may be low in this group. The 30 years and above are usually the ones faced with the challenge to limit number of children, and this may explain high contraceptive utilisation in this group comprising 79% of all users recorded in the 3 CAC facilities.

Figure 3.9. Age distribution of women accessing CAC services



Source: Chibombo DMO, CAC registers and reports, 2011

Figure 3.9 show Utilisation of PAC, TOP and general contraceptive services according to age groups. It can be seen from the graph that contraceptive use is inversely proportional to abortions. The age groups that recorded more contraceptive use recorded fewer abortions and requests for TOPs especially the older age groups. Note that TOP data may not be very representative due to small sample size; the percentages are based on the 11 cases that sought TOP services.

Table 3.3. Reason for seeking TOP

Reason for seeking termination of pregnancy	**Number of women**
Wants to continue with Education	3
Unmarried- Fear of parents (Social stigma)	2
No means to support the child (Lack of finances)	1
One night stand (Unstable relationship)	2
Has quit the relationship due to partner violence	1
Forced by Partner (partner not ready to take responsibility)	1
Rape	1
Medical condition (Advice by health provider)	0
Total	**11**

Source: Chibombo DMO, CAC registers and reports, 2011

Table 3.3 show indications or reasons for which women sought to abort (TOP). Going by what is stipulated in the TOP Act, it remains subjective to relate to the actual reasons women presented. If interpreted in the most liberal way, most of the above indications are actually on request by the women. As indicated by WHO (2012) it is the liberal indications for abortion that are least implemented and where controversies arise. This may partly explain the few TOPs undertaken during the period. No woman had an abortion indicated on medical grounds (either to the woman or the foetus) during the period.

Table 3.4. Sources of information on availability of TOPs services in facilities among women seeking TOP

Source of information on available of TOPs services in facilities	**Number of women**
Media (TV/Radio/News paper)	0
Health worker	1
Friend	5
Neighbor	1
Relative	2
Was just trying (Just came to request)	2
Total	**11**

Source: Chibombo DMO, CAC registers and reports, 2011

Table 3.4 shows client's sources of information on availability of TOP services in facilities. It can be noticed that majority of information was from a third party. No woman got information through the media, while only one heard from a health care provider. The majority got information from other community members, while 2 clients did not even have any information but were just trying if they could be helped at the health facility. Thus awareness was generally poor among clients seeking TOP.

Table 3.5. First point of seeking TOP

Where did you first go to seek help for TOP	Number of women
Public health facility	1
Private health facility	2
Private pharmacy (to inquire/or procure drugs)	2
Health worker outside formal health care	2
Traditional healer	2
Elderly woman within the community	1
Others (friends, relatives, partners)	1
Total	**11**

Source: Chibombo DMO, CAC registers and reports, 2011

Table 3.5 shows first point of seeking care by clients requesting for TOP. It can be observed that 10 of the 11 women requesting for TOP first sought help outside the formal health care. This may be due to a lot of factors, but lack of awareness as indicated above is a contributing factor. Women preferred to seek help from health care providers outside formal health care than within facilities. Hence as indicated earlier, health providers add to the list of providers of unsafe abortions.

3.7. Analysing barriers to accessing CAC services

The implementation of CAC services in Chibombo District was faced with many challenges as evidenced by the poor utilisation of services. Access to care is a complex phenomenon with several determinants and often not easy to measure. However, service utilisation may be used as a proxy to measure access to care (Jacobs *et al,* 2011; Peters *et al,* 2008). A health system as defined by WHO encompasses all elements whose primary aim is to foster health, these elements could be institutions, individuals or actions (WHO, 2007). This then entails that analysing supply and demand barriers to accessing care, is simply two sides of the coin. However for the purpose of analysis and according to the conceptual framework, these have been divided in health care (supply) and patient (demand) related barriers. There are four dimensions of access identified, geographical accessibility,

availability, affordability and acceptability (Jacobs *et al,* 2011). The barriers to access will thus be analysed in relation to these four dimensions complemented by the unsafe abortion problem tree in annex 1.

3.7.1. Supply/Health care related barriers

i) Geographical accessibility

Geographical accessibility to services is critical for utilisation of services. Acceptable distance clients have to cover to the nearest facility has been defined by the Ministry of Health to be five (5) kilometers (km) for the facility to be deemed accessible (MOH, 2012). There are only 3 CAC facilities in a district with a radius of over 200 kilometers that is served by 35 facilities. Even the 35 facilities still do not meet the 5km distance from all households, as some clients still have to cover very long distances to access care. Chibombo being mainly a rural district, the whole situation is compounded by bad roads and poor transport system. Due to bad roads some sections of the district are not served by public transport. Even for the sections that are served by public transport, it is often irregular and unreliable. Distance and bad roads also affects support visits to the facilities and supply of drugs and medical supplies. During CAC roll-out providers where supposed to be mentored/supervised through bedside demonstrations and support visits, which were greatly hampered by distance and bad roads. Geographical accessibility is thus an important determinant of access to care (Jacobs *et al,* 2011).

ii) Availability

Availability is another important component of access to care (Jacobs *et al,* 2011). Services have to be available if they are to be utilised. CAC services are not available in 32 of the 35 facilities in the district. It can thus be deduced that CAC services are only available to women within the catchment areas served by the 3 facilities. Even for women in the catchment areas served by the 3 facilities, access is further limited by distance going by the 5km distance highlighted above. Availability of trained staff is critical as highlighted in the South African example (Mhlanga, 2003). Trained staff is available only in the 3 facilities, even in these facilities only 3 providers are trained per facility, as many more providers are not willing to participate in abortion services due to conscientious objection. These providers also have to participate in provision of all other services and may sometimes not be available for CAC services. There are also times when trained providers are

out of station (facility), either on leave, out on other duties or mere absenteeism. During such times services may not be available to clients. One facility under performed during rollout because trained providers were out of station most of the period.

Stock-out of commodities is another factor that affects availability of services. For the period that supplies are not available even services are not available. Medical abortion drugs were only supplied four months into the programme (in June, 2011) implying that before then, medical abortion services were not available. Family planning commodities were also intermittently out of stock during the period, with one facility having no family planning services available for a whole month (annex 5).

There are only 3 CAC facilities in the district, a good referral and transport system would make services available to all women needing them. In the South African example, in some provinces due to limited resources, TOP services were centralised. An effective referral and transport system was put in place for women from all over the province needing TOP to access services. By so doing services were made available to all women in the province (Mhlanga, 2003). Chibombo District has only one ambulance serving all the 34 RHCs to transport patients to the hospital and priority is given to emergencies. Hence patients seeking CAC services have to find their way to the nearest facility offering services. Unless it is an emergency like in the event of life threatening complications of abortion, then ambulance services may be provided. There are no ambulance services available from home to health facilities; services are only available to transport patients between facilities (from health centres to the hospital). The referral system is compounded by bad roads and poor public transport. Because of the poor referral system, CAC services remain relatively unavailable to many women.

Youth friendly services are not available in the district (table 3.2). It is an initiative that is meant to create a platform to improve access to SRH services for young people, especially adolescents who often have more barriers to accessing care (Bearinger *et al*, 2007). It is evident from the poor utilisation of FP and TOP services by younger women. Without well structured youth friendly services, SRH services remain relatively unavailable to this critical age group (Bearinger *et al*, 2007, Mbizvo and Zaidi, 2010) while unsafe abortion remain rampant (figure 3.6).

Restrictive abortion laws hinder availability of services. Only doctors are permitted to conduct TOP under the Act, and require the approval of 3 doctors. In a setting with a critical shortage of doctors, it is obvious that the TOP Act has restrictions that may hinder women from accessing safe abortion services (Grimes, 2003; MOH, 2012). Most rural district hospitals may not meet that criteria, and even those that may have 3 doctors, not all may be willing to participate. Because of this, services are not available in most facilities. In order to enhance availability of services, midlevel providers have been permitted to provide TOP, but the TOP Act has not changed. As a result it creates uncertainties among midlevel providers on their legitimacy to participate in provision of TOP. Even though midlevel providers have been permitted to conduct TOP, they are not allowed to sign approval consent forms for the procedure; this remains the responsibility of the supervising doctor. The doctor coordinating CAC services in the district had to travel to approve all TOP cases in facilities, which created delays in service provision and all were approved using the emergency consent form which require only one doctor. South Africa had similar laws which meant TOP services were virtually not available to most women, which were repealed in 1996 under the Choice on Termination of Pregnancy Act to more liberal abortion laws. Since then South African has made tremendous progress in mitigating unsafe abortion (Mhlanga, 2003).

The Zambian TOP Act also provides for minors to have consent from parents or legal guardians to access services (GRZ, 1972; MOH, 2008). Fear of family stigma and maltreatment for pregnancies while in school or out of wedlock may be one of the reasons for seeking abortion especially for younger girls (Dahlbäck *et al,* 2007), and involving parents or guardians is a major barrier to accessing services. Hence, services are virtually not available for many young girls who may need TOP. As seen above younger girls were less likely to seek safe abortion services (Figure 3.6). In the South African Choice on Termination of Pregnancy Act, realizing such barriers for younger girls, the clause offers autonomy to any girl who falls pregnant on the fate of her pregnancy (Trueman & Magwentshu, 2012).

iii) Affordablity

Affordability is another important dimension of access that affects service utilisation (Jacobs, *et al,* 2012). CAC Services in Chibombo District are offered for free to clients in the designated facilities. It however, does not go without costs on the supply side. There are administrative costs on the supply side. MVA equipment and medical abortion drugs are relatively

expensive and most health budgets have not been adjusted to accommodate CAC activities. The facilities had to rely on IPAS to supply equipment and drugs, this led to delay in initiation of services and the deterioration noted after cessation of financial and technical support. CAC services appear unaffordable within the current district health budgets amidst competing interests with other needy portfolios. The situation is aggravated by lack of ownership and by health managers who may have conscientious objection to allocate resources towards abortion services (Trueman & Magwentshu, 2012).

Private health care providers are not permitted to provide TOP services (GRZ, 1972) they however have been identified among providers of unsafe abortion (Dahlbäck *et al,* 2007). Some private providers meet all the medical standards to offer safe abortions, especially with the advent of medical abortion. However, they are still officially unsafe because they occur in undesignated places and outside the provisions of the law. Because of such restrictions private providers still provide services illegally usually at exorbitant costs which most women may not afford (Trueman & Magwentshu, 2012). Sometimes because of lack of awareness by women on the availability of services, providers may charge informal payments to clients seeking TOP within the designated CAC facilities, which may be unaffordable for some women. Awareness on availability of services in facilities among women seeking care is low, and women are more likely to approach providers to seek help outside the facility (table 3.4 and 3.5), hence are at risk of being exploited.

iv) Acceptability

For services to be provided, providers must accept and be willing to provide services. Thus acceptance of services by providers or the health care sector is a critical component to making services accessible (Jacobs *et al,* 2011). Operating in a society were cultural norms and religious teachings stigmatise abortion, providers being part of the larger community often operate under very hostile conditions (Trueman & Magwentshu, 2012). Health providers not only have to contend with stigma from the community, but also from among fellow health workers who object to abortion services. Health managers who do accept or approve of abortion services may even object to provision of such services in facilities under their jurisdiction (Trueman & Magwentshu, 2012).

In Chibombo District providers participating in CAC services are viewed as being unchristian and inhuman by other providers to the extent of being labeled 'murderers'. Providers are also stigmatised as sacrificing their moral values for financial gains because of the hotel training (workshops) and per diems paid during CAC training. It is also assumed that providers are paid by IPAS (the funding agency) for participating in the programme as a result even after training some providers still find it difficult to provide services. During the entire rollout period some of the trained providers never provided TOP services because of a hostile working environment. In South Africa for example, by 2012, less than 50% of the initially accredited facilities to provide legal abortions after enacting the Choice on Termination of Pregnancy Act in 1996 were still providing services due to hostile working environment (Trueman & Magwentshu, 2012).

Providers who do not accept provision of services in facilities often give a negative impression to the community on access to TOP services in facilities (Harries *et al,* 2009). The same applies to other sexual and reproductive health services especially for young people. Some providers do not accept provision of contraceptives to younger and unmarried women (Bearinger *et al,* 2007) such attitudes by providers may have contributed to the poor access to services among younger women who often may be unmarried.

Lack of acceptability of abortion services among some health care providers may be due to lack of proper stakeholder involvement at inception of the programme. Health care providers are a major stakeholder in abortion services and should have been well engaged from inception of the abortion policy. With proper advocacy among health workers and attainment of consensus, despite the varied opinions among them, the public would receive consistent information on the availability of abortion services in facilities. Services are thus being implemented at a time when even the health care sector is not ready. This often is the case for partner driven programmes and raises concerns of ownership and sustainability.

3.7.2. Demand/Patient related barriers

i) Geographical accessibility

Chibombo is purely a rural district with many settlements being traditional and unplanned (Chibombo DMO, 2012). This means that households are scattered and present challenges in planning effective health care services which provide equity of access by distance. Because of this (as mentioned in

5.1) there are very few households that fall within the recommended 5km radius to be deemed to have access to health care. Many women have to cover over 5km to access services, this is further compounded by the fact that only 3 facilities provide CAC, hence even those that may fall within the accessible distance of a none CAC facility have to travel long distances to access services from another facility. Bad roads, lack of means of transport and unreliable transport alluded to early all have demand aspect to accessing services as clients have to spend money or valuable time in the quest for CAC services.

i) Availability (Utilisation of available services)

Making services available in facilities does not automatically make them available to the community or clients. Clients have to be aware of the availability of services, without which services are none existent as far as the clients/public is concerned. It can be noted that among clients seeking CAC services, knowledge sources on availability of services in facilities comprised mainly unreliable means such as friends and relatives while others were totally unaware. In an operational research by Geary *et al (*2012) in two other towns in Zambia prior to implementation of CAC services, lack of knowledge on the abortion Act and availability of legal abortion services in facilities, was identified as a major barrier to accessing services. In South Africa, community ignorance on the provisions of the law on legal abortion was identified as a barrier to implementing safe abortion services (Harrison *et al,* 2000; Jewkes *et al,* 2005; Trueman & Magwentshu*,* 2012).

iii) Affordability

Affordability (financial accessibility) is another important dimension of access that affects demand for services and impacts on service utilisation (Jacobs *et al*, 2011). As mentioned earlier, clients are not charged to access CAC services in the district. However, this does not imply that it goes with no cost on the part of the clients. With only 3 service points in the district, most women have to travel long distances to access services and have to pay travel cost. With high poverty levels in the district and generally being rural with high unemployment levels most women may not afford travel cost.

Travel cost is not the only thing women have to contend with, opportunity cost is another (Jacobs *et al,* 2011). The major economic activity in the district is farming, during long travel and time taken to seek care women miss out on time to work in their fields or gardens as a source of income.

Younger women (especially adolescents) are more likely to be disproportionately economically disadvantaged than older women, hence less likely to afford to seek care (Bearinger *et al,* 2007). This may have contributed to poor health seeking among younger women, sometimes coupled with need for consent from the legal guardians who also provide the finances. Sometimes barriers may not be actual costs but perceived costs

iv) Acceptability

Abortion has been a contentious issue from time in memorial across cultures. Religion has often closed its doors by deeming abortion Sin, immoral and unacceptable (Geary *et al,* 2012, Harrison *et al,* 2000; Trueman & Magwentshu*,* 2012). Culture and religion has been a major determinant in the abortion law landscape seen globally (Brookman and Moyo, 2004) and a force to reckon with in implementing abortion services. The South African Government has been challenged on a number of occasions in the courts of law by religious factions over the Choice on Termination of Pregnancy Act and the pressure continues to mount (Trueman and Magwentshu*,* 2012). Culture and religion have become so intermingled as to be inseparable in determining societal norms. Unlike religion which has written rules, culture often has no written rules, but abortion is still deemed unacceptable in many cultures and is against the teaching of almost all religions.

In a study by Geary *et al* (2012) in two provinces in Zambia, on attitudes towards abortion, it was seen that 88% of the respondents considered abortion as being immoral and less than half agreed that women should have access to safe abortion services. Most people against abortion cite religious, cultural or personal beliefs as the reason for their opposition (Geary *et al,* 2012, Harrison *et al,* 2000; Trueman & Magwentshu*,* 2012). The general lack of acceptance of abortion in the community results in stigma and discrimination for any person associated with abortion services, both providers and clients (Trueman and Magwentshu*,* 2012). Stigma and discrimination as seen in HIV and AIDS is associated with poor health seeking behaviour (Winskell *et al*, 2011). In Chibombo, the picture is no different, with the predominance of Christianity; abortion is unacceptable and highly stigmatised. Thus the lack of acceptance of abortion services and the stigma and discrimination associated with it, is a major factor hindering women from accessing safe abortion services.

Culture and religion are not only determinants of access to abortion services, but a whole range of SRH services including family planning. Most cultures

do not approve of sexual relations among young people and unmarried women. Adolescents and unmarried women as a result are hindered from accessing family planning services (Bearinger *et al,* 2007).
Gender inequalities have often disadvantaged women in many aspects of life including SRH (Blanc, 2001). Like culture and religion, gender issues are also intertwined and influenced by these elements. The balance of sexual power relations in many African societies tilt in favour of men (Blanc, 2001). This disadvantages women who cannot demand safer sex to prevent unintended pregnancies which are a risk for unsafe abortion (Blanc, 2001). Women often have to get consent from their partners to access and use contraception, which may be denied as men usually lack knowledge on such services. Men also control resources for women to use to access services which may be denied. Male partners may thus prevent women from accessing services or may sometimes force them to seek abortion even against their wish, which often may be unsafe (Blanc, 2001).

Lack of knowledge and information by the public has been identified as one of the reasons for lack of acceptance of abortion services (Geary et al, 2012; Trueman & Magwentshu*,* 2012). Homosexuality is one example showing that knowledge can make a difference and that societal perceptions can change over time with increasing knowledge as seen in the west (Millet *et al,* 2012). The operational study for CAC by Geary *et al* (2012) in two provinces in Zambia showed that lower than secondary education was associated with less knowledge on legal abortion and less likely to accept provision of abortion services. Chibombo being rural, with a literacy level disparity against women, they are more disadvantaged with information and knowledge to enable them access services.
Lack of community acceptance of abortion is compounded by lack of community participation. It is an all encompassing phenomenon that ensures the community is involved and empowered to be in charge of their health and participate in health care delivery (Preston *et al,* 2010). Community participation is the platform through which community sensitisation can be fostered and also ensure that demand barriers are identified and addressed.

4. DISCUSSION

The utilisation of CAC services was is poor in Chibombo District. All the above mentioned factors may have contributed to the poor utilisation of services. However the factors that may be very significant and need immediate attention to improve service utilisation are discussed below.

4.1. Supply barriers

4.1.1. Availability

Availability of CAC services in Chibombo District remains illusory as only 3 of the 35 facilities provide CAC services. This entails that less than 10% of the facilities provide CAC services. Assuming facilities are placed within a certain radius to cater for a specific population, CAC services are available to less than 10% of the women population in the district. The number of service points is inadequate to have a significant impact on utilisation of services and improving the unsafe abortion situation in the district. CAC is a critical component of SRH and being the right of every woman to have access to SRH services, CAC services must be available in all facilities to be deemed available to all women in the district. Even within the catchment area of a CAC facility, services may not be deemed available to all women because of distance. Therefore services may be available to only a small proportion of women.

Services may also not be available because facilities have no capacity to provide services. Stock-out of commodities further diminishes the availability of already inadequate services. FP planning services are not only restricted to CAC facilities, hence the stock-outs of commodities in CAC facilities is representative of the district situation of FP commodities because FP commodities are centrally procured. CAC facilities may even have been a priority being part of the CAC pilot, the situation may be worse in other facilities. With stock-outs to the extent of a facility having no FP commodities for an entire month, availability of FP services can never be adequate. The situation is worse for medical abortion drugs that are dependent on IPAS to procure. Following the cessation of IPAS support medical abortion services may no longer be available as the DHMT has not yet incorporated CAC activities in its budget. None avaialability of youth friendly services in the district heightens barriers for youth to access CAC services who seem to be the neediest group.

Restrictive abortion laws (TOP ACT) greatly undermines efforts to make CAC services widely available. With a doctor population ratio of 1/17,500 population, restricting service provision to doctors makes it virtually impossible to meet the requirement of 3 doctors to approve an abortion. Even women in emergency situations needing only one doctor to approve TOP, not all will have access to a doctor. Task shifting to midlevel providers is a good idea but the process remains incomplete if the TOP Act is unchanged, coupled with conscientious objection the number of providers reduces further. The TOP Act remains a major hindrance to a robust CAC programme to make services available to most women.

4.1.2. Acceptability

CAC services especially TOP have not been accepted by wider majority of actors in the health sector. Implementation was rushed even when the implementation field was not prepared. In as much as reducing maternal mortality is a national priority, combating unsafe abortion may not be one of the top priority strategies. The situation is not surprising seeing the controversies surrounding abortion amidst other interventions that equally need attention which can easily gain support of many actors. CAC is thus purely donor driven lacking ownership at all levels of health care.

Health care providers and legislators are individuals that are bound to be influenced by cultural and religious believes, hence these elements also influence acceptability of services in the health sector. In a nation with a generally Christian population legislators will not go outside what is generally accepted to openly support abortion in order to maintain their political comfort zones. This may be reason the TOP Act has remained static since 1972 and the restrictions in the Act are a reflection that abortion services are not generally accepted. Lack of acceptability to provide services have largely influenced poor utilisation and lack of expansion of CAC services in the district.

4.2. Demand barriers

4.2.1. Geographical accessibility

Chibombo is purely a rural district with no tarred roads. Only one CAC facility, the district hospital is located along the highway, the other two facilities are off the tarmac, the nearest of the 2 being over 30 kilomtres from the highway. Geographical access to health care is relatively poor in the entire district due to bad roads and distance. The situation of CAC

services is aggravated by having only 3 service points in a district served by 35 facilities with a radius of over 200 kilomtres. Only populations along the highway served by regular transport and those within 5 kilometre radius of a CAC facility have physical access to CAC services, which constitutes less than 10% of the women in the district. Hence lack of geographical access is a significant barrier to accessing CAC services in Chibombo District.

4.2.2. Affordability

CAC services remain relatively unaffordable to most women in Chibombo District. In as much as facilities may not charge for CAC services, the geographical inaccessibility highlighted above entails women have to spend valuable resources, monetary or time to seek services. With over 60% living below the poverty line majority of women may not afford travel costs. Women being disproportionately disadvantaged in wealth and control of resources, affordability barriers may be much more than meets the eye for women.

4.2.3. Acceptability

Abortion in general and FP services for young people are not accepted by the majority of communities in Chibombo District due to religious and cultural beliefs. Culturally abortion is immoral and taboo. When something is labeled taboo in a cultural context, it often leaves little room for reason and change as it is perceived as a norm. Change may occur in cultural beliefs but it is not easy and takes a long time. With the current efforts in implementing CAC services change is a nightmare. Synergistic to cultural beliefs are religious beliefs. Chibombo is has a Christian majority and abortion is Sin according to Christian teaching. As a result of cultural and religious beliefs abortion and FP for unmarried women is highly stigmatised this forces women to make unhealthy choices. Cultural and religious beliefs have contributed greatly to the general lack of acceptability of CAC services in the district even when a dare need for services exists. Luck of acceptance by the community in compounded by lack of adequate community participation in health care delivery.

5. CONCLUSION

The legal status of abortion in Zambia is not translating into improved access to legal abortion for women. Legalising abortion and leaving it at that, is illusory for its intent as a lot still need to be done to make abortion services accessible. Legalising abortion is thus just the beginning of the long journey to making safe abortion accessible to all women.

The picture in Chibombo may be a glimpse into the bigger picture of the country situation and it is clear that many barriers still exist. The TOP Act is too restrictive to create an enabling environment for a robust CAC programme. There is no alignment between partners implementing services and MOH priorities to foster ownership and sustainability. Management of CAC commodities is poor resulting in stock-outs which negatively affect service provision. The service points in the district are still inadequate to have a significant impact on access to services and hence utilisation. There is still lack of awareness of the TOP Act for both providers and the public. Finally there is lack of stakeholder participation to bring on board all actors to advocate and implement CAC services.

There is overwhelming evidence that unsafe abortion is one of the most preventable causes of maternal death and CAC is the solution. CAC if well implemented has far reaching benefits beyond sexual and reproductive health through its family planning component which has been identified as the key to achieving all the MDGs.

6. RECOMMENDATIONS

1. There is need for continued advocacy for policy makers to repeal the restrictions in the TOP Act, such as the need for three doctors to approve an abortion, also to include midlevel providers to make them feel secure, protected and mandated by law to provide services.

2. There is needed for alignment of programmes to foster ownership, effective implementation and sustainability. It is clear that CAC services were being spear headed by IPAS and the health sector was not prepared for implementation. MOH must step out and provide governance in all health matters and stewardship of the health of the citizenry especially SRH, including CAC.

3. Values clarification training and advocacy among providers must be stepped up. Health managers especially must be brought on board to support and protect providers and resource mobilisation and allocation towards CAC. Values clarification training must incorporate empowering providers with knowledge on the TOP act, this will also help reduce stigma among providers and establish consensus among providers.

4. Logistics and commodity management at the district level must be improved to ensure availability of family planning commodities and medical abortion drugs.

5. The DHMT should ensure youth friendly services are established in facilities to create an enabling environment for youths to access CAC and other SRH services.

6. Community participation must be fostered. It is the important component that was left out in the implementation. Empowering women and communities with knowledge on legal abortion, human rights including sexual rights for women, SRH, gender inequalities, religion and culture's role in SRH, can all be addressed through community participation. This will also promote advocacy and sensitisation through stakeholder involvement such as the church, civil society and other community actors including private providers, traditional healers and other providers of unsafe abortions in the community.

7. Despite the many challenges, effort must be made to rollout CAC services to all facilities in order to improve access.

8. Finally, but not the least, there is need for continued monitoring and evaluation of CAC programmes and research to continue informing on effectiveness of interventions and to be responsive to the ever changing needs and evidence in the evolving world of science and medicine.

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8. ANNEXES

Annex. 1. Problem tree of determinants of unsafe abortion

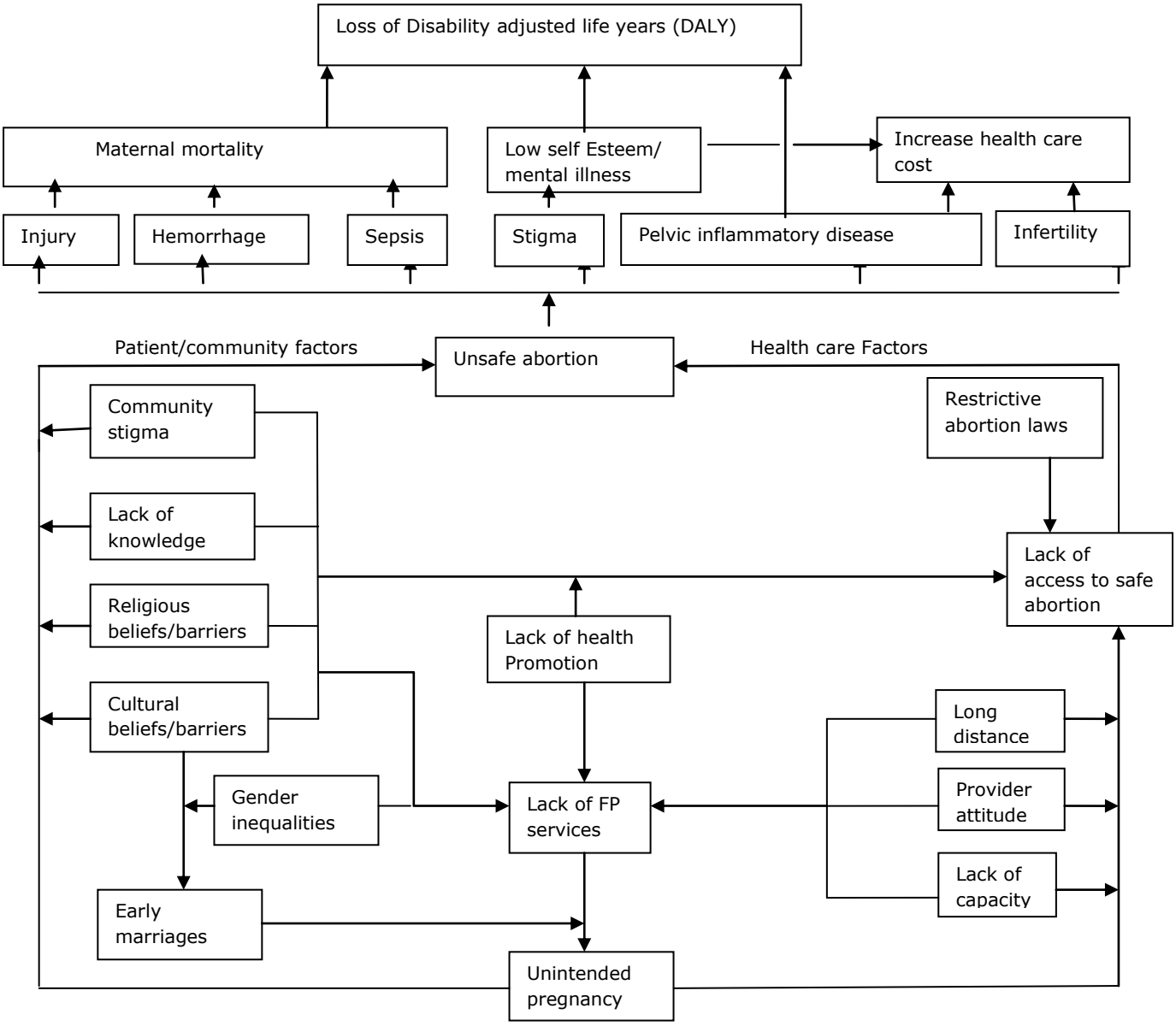

FIGURE 2.1: Source; formulated based on the supply and demand side dimensions of access, adapted from Jacobs et al, 2011.

Annex. 2. Countries by restrictiveness of abortion laws**,** according to region, by 2008

1. PROHIBITED ALTOGETHER OR TO SAVE THE WOMAN'S LIFE

The Americas and the Caribbean
Antigua & Barbuda, Brazil ,Chile, Dominica, Dominican Republic, El Salvador ,Guatemala, Haiti, Honduras, Mexico , Nicaragua, Panama, Paraguay, Suriname, and Venezuela

Central Asia, the Middle East and North Africa
Afghanistan, Egypt, Iran, Iraq, Lebanon, Libya, Oman, Syria, United Arab Emirates, West Bank & Gaza Strip, and Yemen

East and South Asia and the Pacific
Bangladesh, Bhutan, Brunei Darussalam, Indonesia, Kiribati, Laos, Marshall Islands, Micronesia, Myanmar, Palau, Papua New Guinea, Philippines, Solomon Islands, Sri Lanka, Tonga, and Tuvalu

Europe
Andorra, Ireland, Malta, Monaco, San Marino

Sub-Saharan Africa
Angola, Central African Rep, Congo (Brazzaville), Cote d'Ivoire, Dem. Rep. of Congo, Gabon, Guinea-Bissau, Kenya, Lesotho, Madagascar, Malawi, Mali, Mauritania, Mauritius, Nigeria, Sao Tome & Principe, Senegal, Somalia, Sudan,Tanzania, and Uganda

2. PHYSICAL HEALTH

The Americas and the Caribbean
Argentina, Bahamas, Bolivia, Costa Rica, Ecuador, Grenada, Peru, and Uruguay

Central Asia,the Middle East and North Africa
Jordan, Kuwait, Morocco, Qatar, and Saudi Arabia

East and South Asia and the Pacific
Maldives, Pakistan, Rep. of Korea, and Vanuatu

EUROPE
Liechtenstein and Poland

Sub-Saharan Africa
Benin, Burkina Faso, Burundi, Cameroon, Chad, Comoros, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Guinea, Mozambique, Niger, Wandajogo, and Zimbabwe

3. PHYSICAL AND MENTAL HEALTH

The Americas and the Caribbean
Colombia , Jamaica, Saint Kitts & Nevis, Saint Lucia, and Trinidad &Tobago

Central Asia the Middle East and North Africa
Algeria and Israel

East and South Asia and the Pacific
Hong Kong, Malaysia, Nauru, New Zealand, Samoa, and Thailand

Europe
Northern Ireland and Spain

Sub-Saharan Africa
Botswana, Gambia, Ghana, Liberia, Namibia, Seychelles, Sierra Leone, and Swaziland

PHYSICAL AND MENTAL HEALTH, AND SOCIO-ECONOMIC GROUNDS

The Americas and the Caribbean
Barbados, Belize, and Saint Vincent & Grenadines

East and South Asia and the Pacific
Australia, Fiji, India, Japan, Taiwan

Europe
Cyprus, Finland, Iceland, Luxembourg, and Great Britain

Sub-Saharan Africa
Zambia

WITHOUT RESTRICTION AS TO REASON

The Americas and the Caribbean
Canada, Cuba, Guyanat, Puerto Rico, and United States

Central Asia, the Middle East and North Africa
Armenia, Azerbaijan, Bahrain, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Tunisia, Turkey, Turkmenistan, and Uzbekistan

East and South Asia and the Pacific
Cambodia, China, Dem. People's Rep. of Korea, Mongolian Nepal, Singapore, and Vietnam

Europe
Albania, Austria, Belarus, Belgium, Bosnia/Herzegovina, Bulgaria, Croatia, Czech Rep., Denmark, Estonian, Former Yugoslav Rep. of Macedonia, France, Germany, Greece, Hungary, Italy, Latvia, Lithuania, Moldova, Montenegro, Netherlands, Norway, Portugal, Romania, Russian Fed., Serbia, Slovak Rep., Slovenia, Sweden, Switzerland, and Ukraine

sub-Saharan Africa

	Cape Verde and South Africa

Source: Center for Reproductive Rights (CRR), 2007, reproduced by Boland and Katzive, 2008, 'Developments in Laws on Induced Abortion: 1998-2007'

Annex. 3. Abortion Services from Jan to Aug 2011

SERVICES	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Complete abortions	11	17	22	13	9	4	4	9
Incomplete abortions	16	24	10	24	11	15	14	25
Septic abortions	0	0	0	0	0	0	1	0
Threatening abortions	1	1	1	1	2	3	2	14
MVAs done	8	12	5	11	7	15	13	25
TOP requests	1	0	0	0	0	3	1	6
TOPs done	0	1	0	0	0	0	1	4
PAC contraception	0	0	0	0	0	2	3	3

Source: Chibombo DMO, CAC reports and registers, 2011

Table in annex 3 shows abortion services during the CAC roll out period and the 2 months preceding the programme. In total, 259 related abortion cases were attended (i.e. complete, incomplete, septic, threatening abortions and TOPs). Of these, only 6 were TOPs in facilities. The number of TOPs being conducted in facilities is the only indicator of safety of abortions. It can thus be noticed that many more abortions took place outside the formal health care and only presented to facilities when it was already complete, incomplete or septic. Complications of abortion/unsafe abortions remained relatively high while safe abortions services (TOPs) remained poorly utilised. PAC contraceptive services remained poor throughout the period. Despite a slight rise towards the end of the period, they were still relative poor compared to all abortion cases attended, which are entitled to PAC contraception. This was partly due to most MVAs took place at the hospital where the only available contraceptive method was sterilisation.

Annex. 4. Family Planning Services by type of contraceptive in CAC facilities; Jan to Aug 2011

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Total
Oral combined pill	62	85	61	28	3	5	5	78	**327**
Prodesterone only pill	12	21	3	2	0	60	74	5	**177**
Medroxyproges-terone injection	97	133	101	94	7	24	114	43	**613**
Norethisterone injection	93	102	194	81	0	121	199	224	**1,014**
Norplant (jadell)	29	22	22	35	27	14	13	10	**172**
IUCD	13	4	4	10	9	6	6	5	**57**

Female sterilization	0	0	2	1	2	0	0	2	**7**
Total (Excluding condoms)	**306**	**367**	**387**	**251**	**48**	**230**	**411**	**367**	**2,367**

Source: Chibombo DMO, CAC registers and reports, 2011

Table in annex 4 shows general family planning during the roll-out period in the three CAC facilities. One other method of contraception not captured in the table are condoms. Female condoms were not available in all facilities during the period. Data capturing on male condoms was inconsistent as only one facility reported utilisation. Data on condoms is difficult to interpret as often what is recorded is merely what is dispensed and cannot be related to use and number of clients, also the intention of use may not be for FP alone but also protection against Sexually Transmitted Infections (STIs). Because of this, condoms are excluded in any further analysis on contraceptives in this paper. The injectable contraceptives were the most utilised. In as much as preference is a factor, the picture may be influenced by availability. Each facility recorded at least stock-out of one commodity every month, in addition to female condoms that were not available throughout the period.

Annex. 5. Stock-out of contraceptives and medical abortion drugs in the 2 RHCs; Jan to Aug 2011

Methods	**Jan**		**Feb**		**Mar**		**Apr**		**May**		**Jun**		**Jul**		**Aug**	
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B
Male condoms																
Female condoms																
Oral combined pill																
Progesterone only pill																
Medroxyprogesterone injection																
Norethisterone injection																
Norplant (Jadell)																
IUCD																
Medical abortion drugs																

A-Chisamba RHC, B-Chitanda RHC, **Shading is stock-out**

Source: Chibombo DMO, CAC registers and reports, 2011

Table in annex 5 shows stock out of contraceptive commodities and medical abortion drugs in the two pilot rural health centers. As mentioned earlier the hospital only provides female sterilisation hence excluded from further analysis of contraceptive data. Female condoms were out of stock throughout the period. During the month of May one facility had completely no contraceptives while the other facility had stock-out of progesterone only pill and Norethisterone injectable contraception in addition to females condoms. In addition to female condoms, at least 2 other commodities were out of stock in either facility throughout the period. Medical abortion drugs

were only procured and supplied in June; this explains the lack of medical abortion services before the month of June. Stock outs had a large influence on utilisation of methods and family planning services in general.

Annex. 6. Case Scenario

J.M, 25 years old female presented to Liteta hospital on 5th July 2011, with a 2 days history of illness, she was brought by the district ambulance from one of the non CAC rural health centres. The history presented by the mother indicated that she was 4 months (16 weeks) pregnant and attempted to abort using some herbal concoctions whose source was not known. She was found bleeding and very weak, she was rushed to the nearest rural health centre where a referral was immediately arranged to Liteta hospital. On examination at Liteta, she was unconscious, BP was very low, had fever and a foul smelling greenish vaginal discharge. Intravenous fluids, antibiotics and laboratory tests were ordered. An urgent bed side manual vacuum aspiration (MVA) was arranged and performed after initial resuscitation and slight stabilisation of the patient. The laboratory results showed very low haemoglobin, high urea and creatinine. Blood transfusion was performed and upon catheterisation the urine output was very low. At this stage a diagnosis of septic abortion with acute renal failure and herbal intoxication was made. Referral to the national referral hospital (the University teaching hospital-UTH) in the capital was arranged immediately. At UTH she was in intensive care unit on renal dialysis for a week and she passed away. Her social history was that she was a single mother of 2, a girl and a boy aged 6 and 3 years respectively from different fathers, she was unemployed and her source of income was selling vegetables along the highway. She had not yet disclosed the man responsible for the aborted pregnancy.

Total cost of treatment to her demise was estimated at USD $3000 (Medabon a combination of Mifepristone and Misoprostol for medical abortion costs less than USD $20)

Analysis

This is the septic abortion that was recorded in the month of July, 2011 (table 4.2) during the rollout of CAC services. It is unfortunate that the client died at a time when CAC services where available in the district. There are several factors that may have contributed, first to her unintended pregnancy which turned out to be also unwanted. Unmarried women are often stigmatised in family planning services as the FP card also has details of the

husband (name). The fact that she got pregnant while unmarried was also stigmatising in the community, coupled with her having 2 children already with no stable source of income. The social pressure was enormous. It is not known whether she was aware of TOP services in facilities, however, in view of her socio-economic status, travel costs and opportunity costs might have been prohibitive. The nearest facility to her household was a non CAC facility, which may also be a factor. From this case it is clear that there are both supply and demand barriers that may have contributed. It is also evident that treating complications of unsafe abortion is extremely costly compared to safe abortion services, not to talk of the life that was lost. This death was preventable, firstly with access to family planning services to prevent unintended pregnancy, secondly with access to safe abortion services for unwanted pregnancy and thirdly timely access to post abortion care for complications of abortion. Therefore, with an effective CAC programme this death was preventable.