

# Integration of Family Planning and HIV Services: A Study of the Health Systems Factors Affecting Integration in Public Health Facilities in Lusaka District in Zambia

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**Abstract:** Increased access to contraception by women of child bearing age still remains a global public health challenge. For instance, in 2017, 25% of women who did not intend to get pregnant were not using any form of modern contraceptives. The majority (21%) of the women who were not using modern contraceptives live in Sub-Saharan Africa. We conducted twenty-seven interviews with five policy makers, ten health administrators and twelve Service providers in Lusaka District in Zambia. The interviews were conducted at the Provincial Health Office, Ministry of Health and at three first level hospitals. An interview guide was used to generate data and the data was analyzed using thematic analysis. The factors that were investigated included; leadership and governance, planning, financing for health, service delivery, human resource for health and monitoring and evaluation. Availability of human resource for health and financial support from cooperating partners were identified as enablers to integration of family planning and HIV services. The absence of policy guidance, limited physical space and lack of coordination were recognized as barriers to the integration of family planning and HIV services. In addition, lack of regular training for service providers, lack of donor flexibility on fund utilization and frequent stock-out of long-acting reversible contraceptives were additional barriers to integrating family planning and HIV services. The purpose of this paper is to document the factors which affect integration of family planning and HIV services in public health facilities in Lusaka District in Zambia.

**Keywords:** Family Planning, HIV Services, Integration, Health Systems, Barriers and Facilitators

## 1. Introduction

The unsatisfied desires for contraception among women of child-bearing age remains high [7, 16, 23]. In 2017 alone, two hundred and fourteen million women aged fifteen to forty-nine years indicated that they had unmet need for contraception [25]. The majority of these women reside in less developed regions of the world [9] and Sub-Saharan Africa has the highest rate (21%) of unmet need for contraception [19]. The unmet need for contraception is bigger in rural than urban areas.

The unsatisfied need for contraception is a major contributing factor to unintended pregnancies in many countries. In fact, the biggest percentage (80%) of unintended

pregnancies among women of childbearing age arise from unmet need for contraception [23]. Sub-Saharan Africa accounts for 55 per cent of the unintended pregnancies among HIV positive women [6]. Unintended pregnancies among women who are infected with HIV are linked to a high maternal mortality rate which is ten times greater than that of women who are not infected with HIV [22].

Integrating family planning and HIV services has been associated with several public health benefits [2] and it is one way of reducing high rates of unintended pregnancies [3] as well as reducing high pregnancy-associated maternal mortality rates [17, 18]. It also helps to attain international and national development goals and targets, especially the Sustainable Development Goal 3 [19]. Further, it is a

scientifically established method for averting vertical transmission of HIV from a mother to an unborn child [4, 11].

Even though some countries have made considerable progress in integrating family planning and HIV services, the pace at which the integration process is taking place is slow and little consensus exists about the ideal models of integration or about how best to achieve them [14]. One of the reasons for the slow speed of integrating family planning and HIV services is that healthcare provision is complex and this makes it difficult to coordinate all the elements of a health system [15]. To harmonize the complex components of a health system is therefore a difficult task. Secondly, integration is complex because of the different cultural values, attitudes and professional diversity of everyone involved in the integration processes [28]. Integration is also a challenge because of the uncertainties that come with change. The introduction of new elements to the scope of work, like new roles and new responsibilities, can result in stress among stakeholders involved in the integration process.

According to [1], integration has been defined in many ways. Integration is the degree and speed at which health interventions have been conformed into key functions of a health system such as governance, financing, planning, service delivery, monitoring and evaluation and demand generation. In this case, integration is concerned with inputs such as drugs, human resource for health, infrastructure and finances which are required to attain successful service delivery as well as alterations in processes which relate to decision making, planning, service delivery, financing, governance and monitoring systems.

The provision of family planning and HIV services using an integrated approach is a cheap way of averting unintended pregnancies among HIV positive women of child bearing age [10, 12, 24]. It is also an effective method of preventing the spread of HIV infection from an HIV infected mother to an unborn child [26]. For women who are HIV positive, the use of family planning methods helps them to delay conception until they attain viral suppression. Low viral load increases the chance of an unborn child being born without contracting HIV infection from the mother. Integrating family planning and HIV services also allows service providers to provide both services concurrently [17, 26, 27]. This is important because it reduces time wasting and lessens the number of visits made by clients to health facilities to seek health care services.

Integration of family planning and HIV services also inspires efficient utilization of resources [25]. When health care services are integrated, resources such as space and examination beds are used by clients seeking family planning and those seeking HIV services. In addition, integration lessens the repetition of actions and leads to shorter waiting times [25]. For instance, medical procedures such as checkups of temperature, weight and blood pressure are not repeated when a client visits another department for consultation. All these procedures would have already been done within one department. Further, providing family planning and HIV services jointly presents an opportunity to address HIV and unwanted pregnancies simultaneously [13]. Access to family

planning services among women living with HIV is vital because it increases contraceptive uptake, thereby helping women to achieve their fertility intentions [5, 8]. Despite the above-confirmed benefits of integration, contraceptive services for women living with HIV in some countries, especially in Sub-Saharan Africa, are mainly provided in family planning clinics and not in clinics providing HIV care [5]. This situation contributes to the high unmet contraceptive needs of HIV positive women.

Studies conducted have mainly focused on the evidence of the feasibility, effectiveness and cost-effectiveness of integrating family planning into HIV services and the range of models used to integrate the two programs [21]. Therefore, the focus of this study was to establish health systems barriers and facilitators to integration of family planning into HIV services.

## 2. Methods

We conducted a qualitative case study at three first level hospitals in Lusaka district in Zambia between June and August, 2021. The study participants were selected using purposive sampling and included four nurses from each of the health facilities, nine policy makers, and eleven health administrators. The total sample size was thirty and twenty-seven participants were interviewed. The selected nurses were trained either in HIV care or family planning and worked at the HIV and family planning departments. Participants were selected based on their knowledge and experience in policy formulation, administration of family planning and HIV services, and family planning and HIV service provision.

The study instrument used was a questionnaire and it contained open-ended questions. Two different interview guides were used. One interview guide was for service providers, while the other was for health administrators and policy makers. Data was generated through in-depth interviews. Participants were asked how leadership and governance, human resources for health, and financing for health and service delivery affect the integration of family planning and HIV services. Interviews for service providers and health administrators were conducted within health facilities, while interviews for policy makers were conducted at the provincial health office and the Ministry of Health. The interviews took approximately thirty minutes, and data was manually recorded.

The interviews were conducted by the Principal Investigator (LN), and was assisted by Research Assistants who were responsible for setting up appointments with participants before the Principal Investigator collected data. They were also responsible for numbering interview guides.

Twelve nurses, five policymakers and ten health administrators participated in the study. Saturation was reached when we kept getting the same responses from participants. The local ethics committee approved the study (ERES). Written consent was sought from participants before the interviews were conducted.

### 2.1. Patient and Public Involvement

This was a health systems strengthening study and as such, patients were not directly involved in research design, data collection and analysis. However, during the process of topic identification and selection, service users provided a patient perspective on outcomes that were important to them such as the provision of patient centered services. The formulation of research questions was influenced by the experiences of service users and the constraints they faced in accessing family planning services.

During the recruitment of the study participants, some members of the public with relevant experience were involved in identification of potential research participants as well as suggesting possible avenues for sharing the findings. The findings of the study will be shared with the public through publication in a journal, conferences and by depositing hard copies of the thesis in the University library.

### 2.2. Data Analysis

Thematic analysis was used to analyze data and identify the study's developing themes. Data analysis started with reading and re-reading the text, identifying initial ideas for analysis and taking down preliminary notes. After getting familiarized with the data, preliminary thematic groups were drawn from the interview transcripts. Thereafter, the initial thematic groups were subcategorized after the complete series of themes and patterns were developed. Responses to questions by study participants were manually coded by L. N. Trends and crosscutting themes were recognized and were examined further during the final analysis. The major themes identified were the problem, the intervention characteristics, the adoption system and the health systems characteristics.

## 3. Results

The results of the study have been presented using Atun's conceptual framework. The results section starts with an account of the problem of low contraceptive uptake and high pregnancy-related maternal mortality rates. The second part of the results section presents the barriers and enablers to integrating family planning and HIV services. The Atun conceptual framework has been utilised to categorise the elements that shape the integration of family planning and HIV services. These elements are the nature of the intervention, the adoption system, the characteristics of the health systems, and the broader context.

### 3.1. Nature of the Problem

#### 3.1.1. Low Uptake of Contraception

Some participants were aware of the challenges that women living with HIV faced in accessing family planning services. The participants indicated that the choice of contraceptives was limited in the HIV department at the three hospitals. It was reported that the HIV department mainly stocks short term methods of contraceptives like condoms and not the long acting reversible contraceptives. Among the reasons given for

the low contraceptive uptake was frequent lack of family planning commodities in the health facilities.

Participant 027, a service provider had this to say:

*"We cannot provide a full range of family planning methods to the clients who visit our HIV department because we have challenges with family planning supplies. We always have condoms in stock as a family planning method but the other types of family planning methods are out of stock most of the time."*

#### 3.1.2. High Maternal Mortality

Other than the low uptake of contraceptives among women who are HIV positive in the three health facilities, some participants also expressed concern on the number of pregnancy-related maternal deaths that were still being recorded in these health facilities. Participant 011, a health administrator stated that:

*"I have observed that we have continued to record pregnancy related fatalities in our hospitals. This trend is a source of concern and we should endeavor to reduce these cases"*.

A review of the Zambia Demographic Health Survey (ZDHS) (2018) reports indicated that only 48 per cent of married women who were aged between fifteen to forty-nine years used a modern contraceptive in Zambia. The review also indicated that as low as 43 per cent of sexually active unmarried women used a modern contraceptive.

Another review of the 2018 ZDHS reports revealed that pregnancy-related mortality ratio was still high at 278 deaths per 100,000 live births.

### 3.2. Characteristics of the Intervention

#### 3.2.1. Client-Centered Health Services

Most participants indicated that providing family planning and HIV services concurrently had helped clients to receive services according to their need and in one place. It was reported that in order to meet the needs of the clients, the family planning and HIV departments should provide both family planning and HIV services under each department and only refer clients to another department if they failed to handle the case. Participant 012, a service provider stated that:

*"Our clients are now able to get the services they want in one place without making too many movements between the two departments"*

During a visit to the family planning departments at the three First Level hospitals, the researcher found that clients seeking contraceptive services were also being counselled for HIV, tested for HIV and initiated on HIV treatment before being referred to the appropriate department.

#### 3.2.2. Timeliness in Service Provision

Some participants reported that integration of family planning and HIV services had enabled service providers to offer services quickly after a need was recognized. Other participants stated that women who are living with HIV and were seeking family planning services were now able to access care within acceptable and reasonable waiting time.

Participant 003, a health administrator reported that:

*"The clients who come to seek family planning and HIV services at our health facilities no longer waste time by moving from one department to the other since the two departments are able to provide integrated family planning and HIV services".*

### 3.2.3. Early Detection of Pre-existing Conditions

It was reported that integration of services had led to the early discovery of pre-existing conditions like Hypertension and HIV in women seeking family planning services. Some participants suggested that early detection of pre-existing conditions had helped to reduce the number of women dying from non-obstetric causes (indirect causes).

Participant 014, a service provider stated that:

*"When women know their HIV status before they get pregnant, we advise them to delay conception until their condition is managed and their viral load is low. During their routine visits to the HIV clinic, we also take advantage and screen them for other underlying conditions and we treat them"*

### 3.3. The Adoption System

#### 3.3.1. Availability of Human Resource for Health

Participants reported that both the family planning and HIV departments had enough service providers. Some participants acknowledged that the presence of human resource in the family planning and HIV departments facilitated integration because it had reduced the workload at the three hospitals. It was further suggested that the existence of adequate numbers of human resources also enabled them to share tasks among them.

Participant 023, a service provider stated that:

*"Although not all of us are trained in integrated service delivery, what I can say is that we have enough numbers of health personnel to provide both Sexual and Reproductive Health and HIV services in the two departments. This has helped to reduce the workload and waiting time for our clients"*

The researcher observed that at the family planning and HIV departments, there were five nurses present during a shift. A further audit on the staff present during a shift also indicated that each department had an In-Charge supervising service provision. At all sites, it was established that the staff establishment was filled.

#### 3.3.2. Support from Cooperating Partners

One of the donors who supports family planning services at the three hospitals was found at one of the hospitals conducting mentorship sessions on insertion of implants. Participants, especially those in the category of health administrators, indicated that support from cooperating partners had facilitated integration by promoting work motivation as it had helped the health facilities to pay lunch allowances and procure daily medical requirements at the hospitals. Other participants indicated that donor support had led to skills development for service providers. Participant

021, a health administrator acknowledged that both family planning and HIV services receive support from cooperating partners and stated that:

*"A number of donors give us finances, family planning commodities, medical equipment and other medical supplies like gloves, needles, syringes and cotton wool which we use when providing services. Although donors support specific services, things like gloves, needles, syringes and some medicines are still shared between the two departments"*.

Information obtained from service providers and Health Administrators at the three First Level hospitals revealed that apart from the government, NGOs such as Marie Stopes Zambia (MSZ) and Planned Parenthood Association of Zambia (PPAZ) supported family planning services while the Centre for Infections Disease and Research in Zambia (CIDRZ) and Maryland University supported HIV services.

### 3.4. Health Systems Characteristics

#### 3.4.1. Family Planning Commodity Stock out

Frequent stock out of family planning commodities, especially Long Acting Reversible Contraceptives (LARC), was a common concern among the participants who were interviewed. It was reported that critical family planning commodities such as Intrauterine Contraceptive Devices (IUCDs), Jadelle and Implanon were out of stock most of the time. Some participants indicated that the stock out of family planning commodities affected integration by causing delays and frustrations among service providers in service delivery.

Participant 023, a service provider stated that:

*"We have a challenge of frequent family planning stock out especially the long acting contraceptives. In the absence of these supplies, it is difficult for us to offer services that meet the need of our clients"*.

Other participants also revealed that in the absence of family planning commodities at the health facilities, service providers had resorted to asking clients to buy their own drugs. It was reported that this practice discourages clients from seeking family planning services at the health facilities. Participant 025, a service provider stated that:

*"Not all family planning methods are available as such, clients are sometimes asked to buy their own medicine and bring to the health facility for administration. Not many clients are willing to buy their own drugs and this may result in an increase in unintended pregnancies"*

A physical assessment conducted to ascertain the availability of family planning commodities at the three first level hospitals indicated that the vast majority of the available family planning commodities were short-acting contraceptives. A number of Long-Acting Reversible Contraceptives such as Implants and Intrauterine Contraceptive Devices were not available.

#### 3.4.2. Lack of Policy Guidance

The absence of a supportive policy environment and lack of policy guidelines which provide strategies on how to implement integrated family planning and HIV services was another common source of concern among participants. It was

reported that service providers had no knowledge on what to integrate and how to integrate the two services. Participants acknowledged that policy guidelines on service delivery were important because they assisted in institutionalizing integrated services as part of health care delivery. A participant reported that the Ministry of Health had prepared manuals, guidelines and other tools for the provision of integrated health care services but that these tools were not yet in health facilities for use.

Participant 013, a policy maker had this to say:

*"The Ministry of Health has developed and produced training manuals and guidelines for integrated health care service delivery approach. The Ministry is yet to deliver these guidelines to service providers for use."*

An examination of the policy documents available at the health facilities showed that there were no policy guidelines on integrated service provision. However, family planning and HIV registers containing columns where to indicate the type of HIV or family planning service provided to clients were present in both departments.

#### **3.4.3. Limited Physical Space**

Limited physical space was cited by most participants as a barrier to integration of family planning and HIV services. When asked about the need for adequate space, there was a general agreement among participants that physical space, like private counselling rooms and procedure rooms, were important for carrying out procedures such as insertions of Intrauterine Contraceptive Devices (IUCDs) and for performing vasectomies. It was reported that a lack of adequate physical space had created challenges in service expansion.

Participant 001, a service provider stated that:

*"The space is not only inadequate but not decent as well for the provision of integrated services. For example, services such as counselling, laboratory services and medical procedures such as vasectomy, Bilateral Tubal Ligation (BTL) and insertion of Intrauterine Contraceptive Devices (IUCDs) that require private, separate and decent space are difficult to provide"*.

During a fact check at the family planning and HIV departments, it was observed that the three health facilities provided integrated family planning and HIV services. However, it was observed that there was no specific room designated for integrated services.

#### **3.4.4. Lack of Coordination and Monitoring in Integrated Service Delivery**

Lack of harmonization in service provision and monitoring of activity implementation were reported to be barriers to the successful integration of family planning into HIV services. Some participants suggested that the absence of standard indicators for integrated service provision affected the integration process of family planning and HIV services. Participants in the health administrators' category stated that a lack of enhanced supportive supervision to guarantee quality of integrated services also affected integration of family planning into HIV services.

Participant 017, a health administrator stated that:

*"Although supervisory visits for other health care services are common, we rarely have visits from supervisors in our departments to specifically check on how integrated services are being provided and as a result, it takes long to correct mistakes made by service providers"*.

At all sites, the researcher observed that the family planning and the HIV departments were located in different buildings. An assessment on service provision indicated that both the family planning and HIV departments provided integrated care. However, the researchers observed that there was no evidence of supervisory visits made to the two departments for the purpose of supervising integrated service provision.

#### **3.4.5. Lack of Training in Integrated Service Provision**

The absence of skills development and mentorship programs in integrated care was considered to be a barrier to integration of family planning into HIV services by participants. When asked about the importance of training in integrated family planning and HIV service provision, participants indicated that a lack of tailor made training programs to match service change or to suit altered responsibilities for service providers hindered integration of family planning into HIV services at the three health facilities. Participants suggested that since they have not been trained in integrated service provision, they were not sure what particular integrated activities to undertake and that they sometimes felt unprepared to take up new responsibilities. Participant 011, service provider said that:

*"I think that the integration process should have been planned and implemented better than it was done. Every staff should have been trained before attempting to integrate the services. Service"*.

Information obtained from service providers, as well as some health administrators, showed that only a few service providers had received post-basic training in both family planning and HIV care.

#### **3.4.6. Donor Restrictions on Fund Utilisation**

A lack of flexibility in fund utilization by donors was reported to be a barrier to integration of family planning and HIV services. Some participants indicated that there was no common source from which to draw funds for integrated family planning and HIV services. It was reported that despite having many donors who support both family planning and HIV services, the donors support these services separately and impose serious restrictions in the way funds are utilized. Participant 004, a health administrator stated that:

*"Integrated services do not have their own budget line and there is no donor who provides financial support for integrated family planning and HIV services. Funds are either for family planning or HIV services and are not utilized jointly. For instance, you cannot use HIV funds to procure family planning supplies and vice versa."*

The researcher reviewed the monthly reports which were submitted to donors for medical supplies and, observed that the family planning and the HIV departments prepared and submitted reports to different donors.

### 3.5. Broader Context

#### 3.5.1. Collaboration and Networking

Most participants understood the significance of bringing together different health actors to plan and implement integrated family planning and HIV services. Participants indicated that networking among various stakeholders in the health sectors had enhanced service provision and coordination among various systems. For instance, participant 013, a health administrator stated that:

*"In the recent past, we have seen an increase in the coming together of various stakeholders to pool their resources to support family planning and HIV services. As departments, our approach to service provision is more coordinated now and we work together more and more".*

#### 3.5.2. Standardization of Tools

Participants understood the role played by integration in influencing standardization of family planning and HIV tools such as electronic health records and combined registers in the two departments. Participants indicated that standardization of tools had improved accuracy in client record keeping and in treatment regimens which had in turn improved client care and safety. It was also reported that standardization of tools had helped in assessing care procedures and outcomes and that the information obtained was being used for service improvement. Participant 022, a health administrator indicated that:

*"Service providers have registers which contain information on both family planning and HIV services that a client has received within that particular department. The presence of the combined registers has reduced limitations of variability as well as technical problems in the use of these tools in practice".*

An examination of the tools being used by the family planning and HIV departments to collect client information showed that both departments have integrated registers which have provisions for entering both family planning and HIV services. An electronic record system for keeping records of clients who are HIV positive and were seeking family planning services was found to be in place.

#### 3.5.3. Sharing of Resources

Some health administrators indicated that integrated family planning and HIV services provision had improved the efficiency in resource utilization. It was reported that pooling and joint usage of resources such as finances, human resources and equipment in integrated care had helped in meeting the demands of services seekers. Participant 011, a health administrator had this to say:

*"We now use the same nurses to provide both the family planning and HIV care. Other resources like gloves, needles and cotton wool are also shared"*

A check in the HIV department revealed that nurses providing HIV care were also providing family planning services such as the distribution of condoms and contraceptive pills.

## 4. Discussion

This study was conducted to establish barriers and enablers

to integration of family planning and HIV services in public health facilities in Lusaka District in Zambia. The study focused on health systems factors because these are vital components of a health system which ensures that a health care system functions properly and sustains the health and well-being of individuals in a particular community.

In earlier studies, side effects of contraceptives, lack of knowledge, myths and misconceptions, shortage of human resources, lack of funding, long waiting times and unavailability of family planning commodities were identified as barriers to integration of family planning and HIV services [17, 20]. The two studies identified convenience in accessing services, trust and confidence in service providers and a chance to receive couple counselling as the facilitators to integration of family planning and HIV services [17, 20].

This study has provided strong proof on factors which facilitate and constrain integration of family planning and HIV services. The study established that the availability of human resources for health and support from cooperating partners enabled the successful integration of family planning and HIV services in health facilities in the study area. In addition, the study established that frequent stock out of family planning commodities, donor restrictions on fund utilization, and lack of training among service providers were barriers to integrating family planning and HIV services. The absence of policy guidance on integrated family planning and HIV service delivery, limited physical space in public health facilities and lack of monitoring and coordination in integrated service delivery were also identified as barriers to integration of family planning and HIV services. It was also established that integration of family planning and HIV services improves resource distribution and sharing among health facilities, resulted in improved collaboration and network creation and led to the standardization of tools in the health facilities.

#### 4.1. Enablers to Integration

Human resource for health is one of the vital elements of a well-functioning health system. Sufficient numbers of skilled human resources are critical to any successful effort to integrate family planning and HIV services. The availability of human resources controls the speed of integrating family planning and HIV services and dictates the degree to which integrated family planning and HIV services are capable of responding to the health needs of women who are living with HIV infection. Therefore, human resource for health is an important component to the success of service integration.

Support from cooperating partners was also established as an enabler to integrating family planning into HIV services. A number of countries in the world, especially the low resource countries, depend significantly on the availability of grants and loans from cooperating partners to finance health care delivery. Support from partners, especially financial support, is used to improve local health care infrastructure administrative functions and procure medical supplies such as family planning and HIV commodities. Donor funding is also used for recruitment and payment of human resource

emoluments. Further, support from cooperating partners contributes to strengthening service provision and strengthening monitoring and disease surveillance systems. Therefore, support from cooperating partners is key to the successful integration of family planning into HIV services.

#### **4.2. Barriers to Integration**

Unavailability of family planning commodities was identified as an access barrier to the integration of family planning and HIV services. Availability of contraceptive method mix is a critical component in the successful integration of family planning and HIV services. The convenience of access to contraceptives ensures that HIV positive women can choose, obtain and use contraceptives whenever and wherever they need them. Shortages of contraceptives may lead to poor quality of care, low levels of client satisfaction and an increase in unintended pregnancies. In addition, frequent family planning commodity shortages in health facilities may increase household expenditure on the procurement of contraceptives, limiting affordability of care, especially among poor households.

Donor restrictions on the utilization of funds meant for HIV on family planning activities were also identified as an obstacle to integrating family planning and HIV services. Donor funding is vital to the ability of a health system to maintain or improve the outcomes of national health status. Availability of financial support from donors is also essential for basic infrastructure, meeting personnel costs, medical supplies, and service provision. Further, financing is required to improve the general operations of a health system. Restrictions imposed by donors on fund utilization has negative consequences on the integration of family planning and HIV services. The lack of flexibility in fund utilization makes it challenging to adapt to changing priorities and provide timely need-based responses.

Lack of training was recognized as a barrier to integrating family planning and HIV services. Training is a crucial aspect of successfully implementing integrated health care models. Continuous training assists in refreshing past knowledge and practice, thereby helping to correct mistakes and identify new ways of providing health care services. In addition, training improves the general performance of the health workforce and creates homogeneity and reliability in service delivery. Further, continuous training supports continued competence development, making it easier for health personnel to fit into integrated working processes. Lack of training may lead to a decrease in the performance of health workers and consequently hinder the delivery of integrated family planning and HIV services.

The absence of policy guidelines was identified as a barrier to integrating family planning and HIV services. Policy guidelines support the alignment of the integrated services and help to fine-tune procedures, treatment, and medication plans between the family planning and HIV programs. Lack of policy guidance jeopardizes the provision of ideal services. In the absence of policy guidelines, providers cannot understand how to deliver integrated family planning and HIV services.

Limited physical space was identified as one of the hindrances to integrating family planning and HIV services. Physical space is one of the critical components of a health system that enables health facilities to be ready and provide integrated family planning and HIV services. Availability of physical space can act as a catalyst for change from none-integrated service to integrated service provision. Further, sufficient physical space may support improved access to integrated services, improve privacy, reduce the risk of infection spread, and improve staff-patient communication. However, its absence may be an obstacle to providing both family planning and HIV services in one place.

## **5. Conclusion**

The findings indicate that there are several health systems barriers and facilitators to integrating family planning and HIV services. Availability of human resources and support from cooperating partners were enablers to integration. Lack of family planning commodities, lack of adequate physical space and the absence of policy guidelines were barriers to integration. Restrictions on fund utilization, lack of skills development and the absence of a proper coordination mechanism were also identified as barriers to integration. Efforts must be made to ensure that these barriers are addressed to succeed in service integration.

## **Key Messages**

- a) Availability of skilled human resource and financial support from cooperating partners, were identified as enablers to integration of family planning and HIV services.
- b) The absence of policy guidance, limited physical space, and lack of organization were identified as barriers to integration of family planning and HIV services.
- c) In addition, lack of continuous skills development for service providers, lack of donor flexibility on fund utilization and frequent stock out of essential family planning commodities were also recognized as barriers to integration of family planning and HIV services.

## **Declarations**

### ***Ethics Approval and Consent to Participate***

The study received ethical clearance from ERES and consent to participate was sought from participants before they were enrolled onto the study.

### ***Consent for Publication***

The study did not contain any individual person's data in any form. Consent for publication was therefore not required.

### ***Availability of Data and Materials***

Data sharing is not applicable to this article as no datasets were generated during the current study.

## Competing Interests

The authors declare that they have no competing interests.

## Funding

The study was self-sponsored.

## Author's Contribution

LN was the major contributor in the conception, design, analysis and interpretation of the data on factors which facilitate and constrain integration of family planning and HIV services. LN was also the writer of the manuscript.

JMZ and DCS provided significant contribution during data analysis, editing and proof reading of the manuscript. The two also reviewed the manuscript critically for logical content. In addition, JMZ and DCS provided the final approval for the work to be published and agreed to be held accountable for the work.

## Author's Information

LN is a holder of a Master of Public Health Degree and is currently studying for a PhD in Public Health at The University of Zambia.

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