

Strengthening of Civil Registration and Vital Statistics System for Enhanced Public Health Information in Zambia

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Abstract

Background: The Civil Registration and Vital Statistics (CRVS) system in Zambia is expected to be compulsory but based on what has been happening, it now appears to be voluntary in spite the law being available. Not all events that are supposed to be registered are registered in Zambia. It appears that people do not to know or appreciate the use of registering vital events. CRVS information on population characteristics and health outcomes is a very important tool in the formulation and evaluation of health policies and programmes. The study was aimed at analysing the CRVS system and develop strategies for strengthening in order to enhance public health information system in Zambia.

Materials and Methods: This study was an exploratory qualitative study. Data was collected using various documents publicly available such as pieces of CRVS legislation in Zambia. This was triangulated with interview data. Data analysis was qualitatively done using document analysis.

Results: Lack of Policy and Advocacy foe CRVS; Issuance of Birth and Deaths Certificates is too centralised, lack of awareness, Weak Information System and Coordination, poor quality of data, lack of capacity building for Physicians in Certification of Death, inadequate and outdated pieces of legislation.

Conclusion: There is need to strengthen the CRVS system in terms of policy, legal and operations as there are of great importance to the effective development and evaluation of health programmes. The usefulness of vital statistics depends to a large extent on the completeness with which the vital events are registered. Despite the importance of vital statistics, there is urgent need to improve their availability, timeliness and quality. Enforcement of the laws and harmonization of laws with the Statistics Act No. 13 of 2018 will assist in strengthening the CRVS system for enhanced public health information in Zambia.

Keywords: Civil Registration, Births and Deaths, SAVVY, Vital Statistics, Zambia

Date of Submission: 11-04-2020

Date of Acceptance: 28-04-2020

I. Introduction

Information on population characteristics and health outcomes is a very important ingredient in the development of policies and programmes. It is also an important asset at all levels and management i.e. operational, tactical and strategic. In this regard, one of the important national information systems is the Civil Registration and Vital Statistics (CRVS). CRVS is defined by the United Nations Statistics Division as “the **continuous, permanent, compulsory and universal** recording of the occurrence and characteristics of vital events pertaining to the population as provided through appropriate legal requirements of a country” [1]. The system, is continuous because vital events continuously happen and it is permanent because the event is a permanent happening. It is compulsory because Zambia, like many other countries, has made it a legal requirement. It is universal because, world over, the CRVS systems are implemented with varying degrees of coverage and development. A vital event is further defined as: “the occurrence of a live birth, death, foetal death, marriage, divorce, adoption, legitimation, recognition of parenthood, annulment of marriage, or legal separation.” [1]. Public health decision-making and health-related Sustainable Development Goals are heavily dependent on CRVS.

The Civil Registration Authority in the Zambia is the Department of National Registration Passport and Citizenship (DNRPC). The DNRPC is charged with registration of all vital events as enshrined in the Births and Deaths Registration Act (Cap 51) of 1973 of the laws of Zambia. Vital events are registered by District Registrars at district councils for household members who report the events. These records are forwarded to the DNRPC Headquarters in Lusaka, which is also the capital city of Zambia. The Central Statistical Office (CSO) [now the Zambia Statistics Agency (ZSA) established under the Statistics Act No.13 of 2018] prepares vital statistics based on the registration details from the DNRPC.

1.1 Statement of the Problem

The CRVS system in Zambia is based on the, current practice appears to be voluntary due to lack of enforcement mechanisms in the existing legislation. Currently, not all vital events are recorded in Zambia. People seem not to know or appreciate the use of registering vital events. The DNRPC conducted an internal assessment in 2012 in which it was revealed that the system was weak. This was demonstrated by an indication that the coverage of birth and death registration was less than 5 percent. In general, coverage of civil events was under 80 percent. Hence, the need for improvements [2]. Factors affecting coverage of civil registration need to be identified and appropriately dealt with. Act No. 21 of 1973 Clause (5), requires that every birth and death to be registered. Despite the existence of laws on CRVS requiring reporting and registration of vital events such as births; deaths and marriages, this is not being implemented due to lack of enforcement mechanisms of these laws as the system basically operates along voluntary lines as it is up to 'households' to go forward to the District Councils (which act as registration centres) to register vital events. For example, GRZ/UNICEF (2012) report that out of 6,550 live births in Chadiza district in 2011, only 18 births were notified and none had a birth certificate. Despite the legal basis of the system being in existence for over 47 years, less than 20 percent of all deaths are registered [3]. According to the 2016 Vital Statistics Report (2019), coverage for birth registration was at 11 percent for under-five children, while coverage of death registration was about 5 percent [4]. Children's births with civil authorities was only 14 percent. In terms of urban and rural differences, the ZDHS report indicates: "25 percent of urban children are registered compared with only 8 percent of rural children" [5]. Therefore, the main purpose of this paper is to analyse CRVS system in Zambia in order to determine the weaknesses and propose strategies for strengthening it. It is expected that once the system is strengthened, public health information will also be expected to improve in Zambia.

1.2 Significance of the Study

Statistics obtained from the CRVS system are very useful in coming-up with decisions that use evidence [6]. The study will contribute towards getting to know the current CRVS system and use it as a basis for strengthening it. This will also contribute towards the designing of strategies for accurate monitoring of progress towards achieving some of the Sustainable Developmental Goals (SDGs) which, depend on data from the CRVS system. One of the World Health Organisation Building Blocks is health information system. CRVS directly contributes to this building block.

1.3 Objectives

The general objective of the study was to analyse the CRVS system and develop strategies for strengthening in order to enhance public health information system in Zambia. Therefore, the specific objectives were to:

- (i) Determine why registration of vital events is very low in Zambia;
- (ii) Identify gaps in the current CRVS legal framework (CRVS);
- (iii) Determine factors associated with demand and supply of CRVS;
- (iv) Develop strategies for strengthening CRVS in Zambia.

1.4 Research Questions

The corresponding research questions were:

- (i) Why is registration of vital events very low in Zambia?
- (ii) What are the gaps in the current CRVS legal framework?
- (iii) What are the factors associated with demand and supply of CRVS?
- (iv) What strategies can be used to strengthen CRVS in Zambia?

II. Literature Review

2.1 Global CRVS Situation

In countries whose CRVS systems are fully developed, all births, marriages and deaths will officially be registered. The world picture regarding registration rates of under-five children in the previous 10-year period is reported to have increased from 58 percent to 65 percent [7]. Specifically, progress with death registration was found to be globally slow. In CRVS needy countries, approximately 80 percent of deaths that occur outside of health facilities are not counted. It is further estimated that two-thirds of all deaths occurring in the world are not counted [7]. With just a few exceptions, there is no African country that has achieved a full CRVS system. According to approximations, worldwide, about one-third of all births are not registered [8]. Unfortunately, about half of all deaths are not recorded. Furthermore, more than one billion people do not have a legal identity [8].

2.2 Global Birth and Death Registration Situation

It is estimated that 100 countries in the world do not accurately count births and deaths. Additionally, these countries do not have functioning CRVS systems [9, 10]. They estimate that 230 million children under-five have never been registered [9]. The authors particularly highlight the issue of low coverage levels especially in sub-Saharan Africa.

2.3 Rationale for Improving the CRVS systems

The overall responsibility of CRVS is national or central government. In this regard, it is proposed that propose three categories of functions as legal, administrative, and statistical [11]. The importance of CRVS system is that it provides human rights and duties to a country's citizens. Additionally, CRVS is the main system source of world-wide population data which help policy/decision-makers plan for the services. For example, Ministries of Health can easily obtain necessary epidemiological and demographic information for the designing of appropriate health interventions. Once CRVS systems are improved, we expect that birth and death certificates will speedily prepared for those who need them.

2.4 CRVS Challenges in Africa

The Fifth Conference of African Ministers responsible for CRVS was held in Lusaka in 2019 discussed what they viewed as proposed strategies for implementing new possible ways of accelerating improvement of CRVS systems with specific attention to the national identity management [12]. It is asserted that despite the remarkable progress achieved so far, there are various challenges still facing African CRVS systems [13].

2.5 CRVS Legal Framework in Africa

An adequate and current legal framework is necessary for the CRVS system to function properly by allocating relevant functions and responsibilities for various players to enable publication of vital statistics [14]. They further content that African countries should be encouraged to critically review their CRVS legal framework as Africa still faces a big challenge of many births and deaths cannot be found in any of the CRVS official records [14, 15].

2.6 Cause of Death Registration System in Zambia

One of the vital statistics derived from the CRVS system is the cause of death. The mandate to register vital events including deaths given to the DNRPC. Zambia has experienced low death registration in particular with estimated national coverage of less than 20 percent. It was observed that "about 65 percent of the deaths occur in health facilities while 35 percent take place outside health facilities" [16,17]. Capacity building through training is necessary for medical doctors and ICD-10 [16, 17]. The 2015-16 SAVVY undertaking by the Central Statistical Office, Ministries of Home Affairs and Health lays a good foundation strengthening of Zambia's vital registration system [18].

2.7 Association Between CRVS System and Health

"Nothing exists until it is measured". In this regard marriages, divorces, births and deaths can be measured through a functional CRVS system [10]. These events are very important in public health as they form a component of a health management system. In support of this position, CRVS that works well has a direct effect on the population's health outcomes [19].

2.8 Summary

The review has set a foundation on the critical challenges faced in the CRVS system have been identified at global, African Continent and Zambian levels. The review gives an appropriate framework for determining ways of strengthening the CRVS system and lead to improved health information system for good decisions to be made about health programmes.

III. Materials and Methods

This study was an exploratory qualitative study. It focused on the determination of the nature of the CRVS problem. It was not aimed at providing complete evidence, but helped us to simply have a full knowledge about nature of the CRVS system problem in Zambia. We used this study design and approach because it is flexible and lays a foundation for further studies. However, we acknowledge some weaknesses in this design and approach such as generation of qualitative information and the interpretation of such type of information has the likelihood of bias.

Data was collected using various documents publicly available such as pieces of CRVS legislation in Zambia. This was triangulated with interview data. The following pieces of legislation were found to be relevant to CRVS system in Zambia: the National Registration Act; the Births and Deaths Registration Act; the

Marriage Act; the Citizenship Act; Local Government Act; the Road Transport and Safety Act; the Matrimonial Causes Act; the Adoption Act; the Registration and Development of Villages Act; the Passport Act and the Statistics Act. Additionally, the following documents were also used: SAVVY Sample Vital Registration with Verbal Autopsy 2010-12 and 2015-16; Zambia Demographic and Health Surveys 2013-14 and 2018; Peer reviewed Journal articles and Technical Reports using internet searches. In order to guide the search two key phrases i.e. 'Civil Registration' AND 'Vital Statistics' were used in the searches. We chose the option 'AND' as one of Boolean operations because it allowed us to narrow our search to those materials that contained both terms. The decision on which studies to include in the review was based on the research questions. The age of the documents that we included were mainly studies conducted between 2007 and 2019, which were pertinent to answering the formulated research questions were included in the study. For the legal documents, age did not matter as long as it was the current piece of legislation in use. The authors made a decision on which documents needed to be reviewed and availability in the public domain as inclusion criteria.

Data analysis was qualitatively done using document analysis. We chose this method because “document analysis is a form of qualitative research in which documents are interpreted by the researcher(s) to give voice and meaning around an assessment topic” [20]. The process of document analysis is associated with coding of content into themes (Ibid). We created a list of texts to explore the CRVS system. Each document was analysed by paying attention to the research questions. Through the document analysis, themes emerged. This was done by analysing texts contexts and their meanings for each theme. The principles of impartiality and dependability were followed. “an analysis is considered ‘dependable’ if another reader would have ‘reached the same general conclusion given the opportunity to analyse the same set of documents under similar conditions’”. We used thematic analysis for because thematic analysis focuses on identifying and analysing themes that emerge from the data [21].

IV. Results

Based on the documents analysed and interview with key informants at the Data Coding Centre, the following were the results:

4.1 *Lack of Policy and Advocacy:* Based on the interview:

“The DNRPC is backed-up by law but there was no policy to guide its mandate. There is a great need to CRVS advocacy. This can partly be done by making it compulsory for every child born to have a birth certificate just like a National Registration Card (NRC) is compulsory or mandatory when one reaches the age of 16; albeit that there are no enforcement mechanisms for failure to obtain the registration card” (Interview).

4.2 *Centralisation of Issuance of Birth and Deaths Certificates:* This was found to be a great hindrance especially for rural areas, where long distance to registration centres makes it difficult for people to access the service.

4.3 *Weak Information System and Coordination:* There is no coordination between the DNRPC and the Ministry of Health in the provision of birth and death certificates at the various health facilities to enable the collection and compilation of vital statistics.

4.4 *Sample Vital Registration with Verbal Autopsy (SAVVY) Reports:* The DNRPC has so far produced two SAVVY reports i.e. 2010-12 and 2015-16.

4.5 *CRVS Demand and Supply: Supply*

“Inability to transmit data to the Zambia Statistics Agency which is the Vital Statistics Authority has limited its capacity to generate vital statistics from civil registration.

Demand-The use of identities in present-day Zambia is probably in the multi-millions daily for financial transactions, obtaining a SIM card, entering employment, accessing educational facilities and many more activities in daily life” (Interview).

4.6 *Development of Curriculum and Training of Physicians:* There is no formal curriculum for training of physicians in Certification of Death.

4.7 *Legal Framework:* The following pieces of legislation needed to be reviewed and harmonised. The National Registration Act; the Births and Deaths Registration Act; the Marriage Act; the Citizenship Act; Local Government Act; the Road Transport and Safety Act; the Matrimonial Causes Act; the Adoption Act; the Registration and Development of Villages Act; the Passport Act the Passport Act and the provisions of the Statistics Act should be incorporated into these pieces of legislation for coordination and cooperation amongst the various statistical institutions.

The results of the document analysis and interviews are summarised in Figure 1.

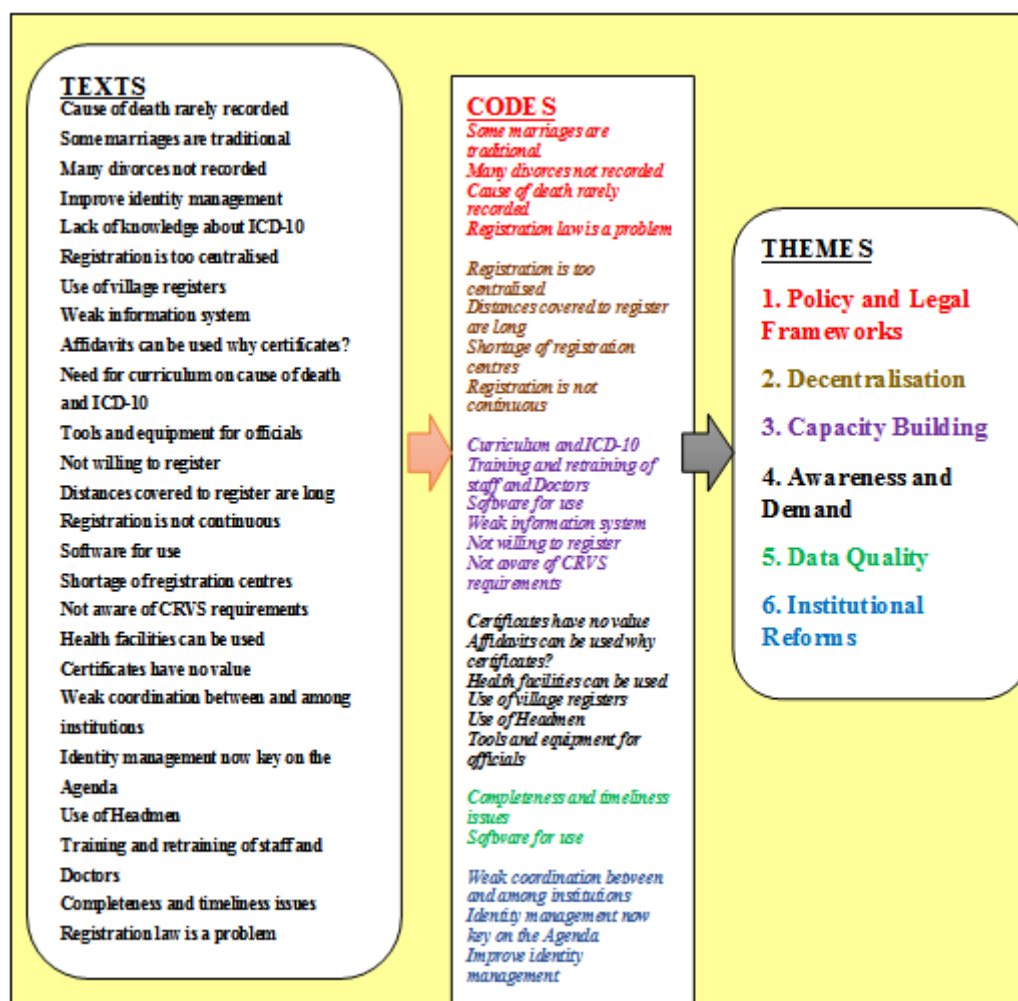


Figure 1: Document and Interview Analysis Diagram

Source: Authors' Analysis of Data (2020)

Figure 1 combines results from document analysis and interviews. It identifies why registration of vital events in Zambia is low, gaps in the legal framework, factors associated with CRVS demand and supply and possible strategies of strengthening CRVS are made. Seven key themes image from text, words and phrases and these are summarised as policy and legal framework, decentralisation, capacity building, awareness and demand, data quality, and institutional reforms.

V. Discussion

Lack of Policy

There is no guiding policy to guarantee registration of vital events is done on a continuous basis any yet. This has led to fragmentation in the operations of the DNRPC. There are no linkages between documents issued by the Department. For example, the system of issuing National Registration Cards and passports is not supported by birth registration.

As a result of the CRVS system weaknesses, the DNRPC relies on information from affidavits for applicants that are not able to produce a birth certificate. The DNRPC, therefore, runs the risk of issuing NRCs to non-eligible persons. This is a serious risk in identity management system. Similarly, with respect to marriage, only marriages contracted under the Marriages Act, Chapter 50 of the Laws of Zambia are registered by the DNRPC but customary marriages are sometimes registered by the Local Courts and this information is not transmitted to the DNRPC.

Centralisation of Issuance of Birth and Death Certificates

The current system is too centralised. The DNRPC should continue decentralising to other areas instead outside Lusaka only, which too centralised. Good efforts have been seen by opening offices in Central, Copperbelt and Southern Provinces in the context of the National Decentralisation Policy framework. The Offices should be established in all districts.

Weak Information System and Coordination

There are many inhibiting factors to vital events such as death registration. This mainly results from lack of appropriate coordinating mechanism between various players in the CRVS system and the DNRPC. For example, there appears to be no coordination mechanism between the Road Traffic and Safety Agency (RTSA), the Zambia Police Service and DNRPC. This is construed as a hindrance to registering deaths particularly from road traffic accidents. Information obtained by village headmen and chiefs in the village registers is not captured by the DNRPC and yet it forms a significant proportion of vital statistics. Figure 2 demonstrates the process of compiling vital statistics on registration and causes of death. Efficiency in the CRVS system can be enhanced in terms of speed and quality. The country can take advantage of SmartCare system, which has the capability to register births and can be integrated with the CRVS. The SmartCare electronic health record system (EHR) was developed by the Ministry of Health in partnership with Centres for Disease Control and Prevention (CDC). The system is an integrated electronic health record system which collects data up-to district level. This makes it a useful and potential tool for integration into the CRVS system.

Sample Vital Registration with Verbal Autopsy (SAVVY) Reports

The introduction of SAVVY is a good effort adding value in the CRVS system as verbal autopsies are being used to determine likely causes of death in the communities. This is being done by interviewing the next of kin and also caretakers. The system is not perfect as some of the people interviewed may not be elaborate on what the illness of the deceased was. Verbal Autopsies are expected to assist in addressing the gap in death and cause of deaths statistics compilation in conformity with the International Classification of Diseases (ICD).

CRVS Demand and Supply

The CRVS system is too centralised. It therefore creates a problem of distances to be covered especially in rural areas. Decentralisation is necessary to enhance demand. Human and financial resources, for the work will be required. Registration officers can work with Community Health Assistants in the Ministry of Health. This can also be linked to the immunisation programme under the Growth Monitoring Programme for children conducted by the Ministry of Health.

Supply-Side Challenges

The provision of registration services can be adversely affected by many factors. For example: Shortage of registration infrastructure which are often located in urban areas, may limit physical access to registration services; Registration facilities may not be available on a continuous basis in areas where religious rites require rapid burial; there may be insufficient financial and human resources for CRVS activities; and Capacities for data collection, analysis, interpretation and dissemination are limited. They need to be enhanced. The preparation of vital statistics is dependent on inputs from DNRPC as demonstrated in Figure 2. This is therefore the first time in the last two decades that a vital statistical report has been generated from the routine civil registration data [18]. Birth and death certificates can be produced faster by using modern information technologies.

Demand Side Challenges

People are unable or unwilling to register vital events as they see no value of doing so. From the perspectives of individuals and families, there are many reasons why they do not register births and deaths. For example: People may not know about civil registration or be aware of the legal requirement to register births and deaths. There may be indirect and opportunity costs of registration. For example, travel to the local registration; Distances to registration facilities may be problematic and travel difficult. Families may face long queues and delays at registration offices. People's identities are dependent on the CRVS system. This voluminous, personal and institutional demand for trusted identity deserves a robust response by government.

Incentives and Disincentives for Registration

The issue of incentives for registration of vital events still requires a lot of attention; there are fewer incentives for registration because of the general acceptance for alternative documents for civil certificates. If, as a country, we make these civil certificates a requirement for obtaining other services such as obtaining national registration cards and passports, school enrolment, claim for pension among others, demand will increase. On the other hand, the system is centralised on the certification side. There is literally no major dis-incentive for not registering, as people can register whenever they need to use the document (2016 Vital statistics Report, 2019:12).

Development of Curriculum for Training of Physicians

Death certification curriculum for physicians for certification of death is necessary. Reliable CRVS information is important for identifying health needs and monitoring progress towards the achievement of SDGs. This information is abstracted from death certificates which are completed by trained physicians. Only high-quality medical certificates of death are usable and the information abstracted from them has a major role in policy development, in decision-making and in monitoring the national health situation and health-care outcomes. Furthermore, in order to build capacity among doctors, training should be provided. So far, about 540 doctors have been trained. Currently, numeric codes are being assigned in line with the WHO ICD 10. For the programme to succeed, it requires involvement of the Zambia Medical Association and the Health Professionals Council of Zambia to institutionalise this activity in their rules of procedure.

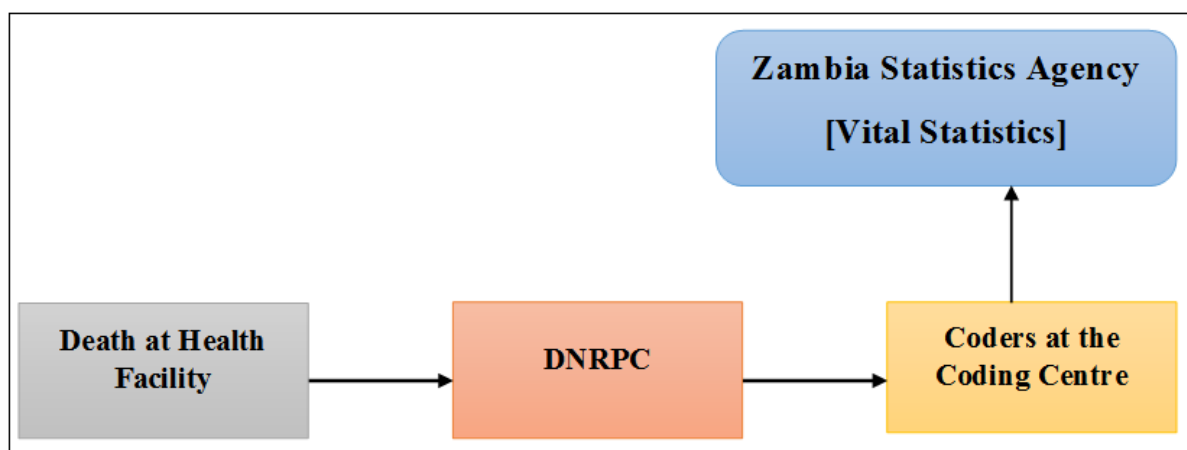


Figure 2: Registration of Deaths Model

Verbal Autopsy (VA)

Use of Village Registers can include Notification and Registration of Death. Verbal autopsy For Brought-In-Dead (BID) cases, the Police at the University Teaching Hospital (UTH) issue a Form similar to Notification of Death Form but they have no capacity to determine cause of death or probable cause. Production of a SAVVY report in 2019 is a very good step towards strengthening vital statistics. So far, approximately 3,000 verbal autopsies in Lusaka were done. Validation can be done using Pathologists through post-mortem results.

Policy Advocacy

Make it Compulsory for every child born to have a birth certificate just like NRC is compulsory or mandatory and provide for appropriate legally enforceable mechanisms.

Legal Framework

The analysis reviewed that a number of pieces of legislation need review and harmonisation as highlighted set out below:

National Registration Act, Chapter 126 of The Laws of Zambia

This Act provides for the registration of all persons in Zambia of 16 years and above. The registration takes place in specified areas i.e. districts. The Act provides for the appointment of the Chief Registrar to be in charge of maintaining and keeping a register of persons in Zambia and is assisted by Registrars in each district who are designated as such by the Minister. The information required for registration includes name in full, sex, date and place of birth and declared National status as well as other information to be prescribed. The Act further provides for the issuance of a National Registration Card (NRC) as proof of registration in the Register as well as for the surrender of such card on the death of the registered person.

The Register is accessible by payment of a prescribed fee. The offences under the Act include prohibitions against altering, deleting any material particular on a registration card, failure to register when required to do so by the Chief Registrar, falsely denying previous registration, wilful destruction or mutilation of national registration card, unlawful deprivation of any person of a national registration card. The registration under Act is continuous in all districts however the distances within the districts are vast and hence many remain unregistered. Therefore, the issue of compulsory registration does not apply to the general population of the country and as a result – the offence of not being registered in general does not exist and even the particular reference to Section 6 which mandates the Chief Registrar to order registration of all eligible persons within a specified area, is not enforced at all; there is use of mobile registration offices particularly to facilitate the registration of voters in an election or to facilitate voting in a referendum by all registered citizens (Constitution,

Electoral Process Act) in specified areas in various districts. The Act further does not provide for the Chief Registrar to submit the Register to the Zambia Statistics Agency thereby making the Agency liable to pay fees to extract information from the Register. Consequently, in relation to constitutional requirement for voters in a referendum, the information in the Register may not be reliable to ascertain the number of person eligible to vote in a referendum, as they could be many eligible but without registration cards.

Births and Deaths Registration Act Cap 51

The Act provides for the Registrar-General to register births and deaths and for Registrars to be based in each district for the purpose. The issuance of a birth or death certificate is proof of registration of birth or death. The Act further provides for the responsibility of giving notice of birth on the parents including that of a still born baby. The father to an illegitimate child must expressly consent before the child can be given the father's name (Section 15). The Act provides for an offence for not being able to give notice of birth or death unless there are difficult circumstance based on expense, knowledge and education (Section 9). In relation to death, notice is to be given within 3 months of the death and where the death occurs in a medical institution the medical practitioner is obliged to show the cause of death. The notice of birth or death is used to obtain a certificate of birth or death certificate. Delayed registration has no time limit and as such, for as long as the event meets the legal criteria, registration can still be done.

The registration of births is continuous in the district centres, however in many instances parents or guardians rely on affidavits of birth for registering their children at school as they are not able to obtain certificates of birth due to various reasons including expense, education and knowledge referred to in the Act. With regard to deaths, registration through issuance of a death certificate is possible where a burial permit is to be obtained. In many rural areas however, the dead are in many instances buried without a burial permit and hence the numbers of such deaths if any depends on information to be obtained from the village headmen.

It should be noted that the offences under the Act are tied to giving notice of birth or death and not to register as the registration is conducted by the Registrars after receiving the notice. Furthermore, the offence for failure to give notice of birth or death is mitigated under Section 9 so that it is not an offence where "circumstances are such that it was not reasonably practicable for the person to have given notice, or where such notice could not be given without causing unnecessary hardship or expense to that person; or having regard to the education, knowledge and understanding of the person and to the social environment of the locality in which he resides, the person could not reasonably be expected to have sufficient knowledge of their obligation under this Act". Therefore, it is not compulsory to register births or death albeit that registration certificates are necessary for certain purposes, for example, access to education system or to inheritance and pension benefits.

The Marriage Act Cap 50

The Act provides for the Registrar General of Marriages, a Deputy and Assistant Registrar Generals who administer registration of marriages in district centres. The Act further provides for licensing places of worship and ministers of any church to solemnize marriages as Registrars do. A marriage certificate is issued to the married couple by the Registrar General or the Church Minister as proof of marriage. The Registrar files certificates of marriage at the Registrar General's office. The marriage Register Book can be accessed by anyone on payment of a prescribed fee. It should be noted that marriages in Zambia are not only conducted before the Registrar General or Church Minister but also there are customary law marriages – which are conducted and registered at Local Courts (Cap. 29); which are conducted entirely through custom by making the lobola payments and fulfilling other customary obligations; these marriages are not formally registered anywhere, nevertheless those marriages conducted in villages could have that information noted by the village headman.

It should be noted further that the office of Central Statistics can only obtain information on marriages from Registrar General's Register Book or from the Local Court administration and may obtain some informal indication of number on marriages – some of which are conducted and registered at Local Courts (Cap. 29); whilst others are conducted entirely through custom by making the lobola payments and fulfilling other customary obligations; these marriages are not formally registered anywhere, nevertheless those marriages conducted in villages could have that information noted by the village headman.

Registration and Development of Villages Cap. 289

The Act provides for the registration of villages and their inhabitants. The District Secretary in every district is obligated to assist headmen and chiefs in their area of jurisdiction to prepare and maintain a village register. The headmen are obligated to record and register in his or her village the inhabitants, race, nationality and date of birth or death of inhabitant, and inform the Chief accordingly. Other particulars to be recorded by the headman can be prescribed by statutory instrument. In this regard, the record could include marriage and divorce as may be prescribed in a village. The headmen or headwomen provide the record on the inhabitants to the Chief who keeps a master village Register that can be accessed by the District Secretary. The Act should be amended to obligate the District Secretary to submit the Master Village Register to the Registrar General under the Marriage Act and the Chief Registrar under the National Registration Act. This would facilitate planning by

the Chief Registrar to plan for registration centres for the purposes of NRCs. It should also be noted that under the Registration and Development of Villages Act section 18 specifies that the duties of a Chief are to promote unity, self-reliance and economic development of his or her village in all areas including health education and sanitation of the village. In this regard accurate and particulars of the inhabitants of the village contained in the Registers would be critical for such planning of development. However, offences apply to inhabitants for not supplying information to headman, but not to headman or Chief for failure to keep register.

The Statistics Act No.13 2018

The Act provides that the Agency shall liaise coordinate and cooperate with other statistical agencies and users and may –

(a) have joint programmes, plans, strategies and policies, taking into account the national policies of the Government;

(b) enter memoranda of understanding as instruments of cooperation.

The Agency is mandated to establish necessary coordination mechanisms at local, national and international levels to enable the overall coordination of the statistical function with the national statistical system. The Agency is further designated under the Act to be sole entity responsible for the publication of official statistics. Therefore, it is imperative that the other pieces of legislation referred to above are harmonised with the Statistics Act No. 13 of 2018 to provide for the Statistics Agency's important role regarding collection and publication of official statistics.

In summary, the information contained in civil registration records as described could be made effective and assist in public health, economic development, and good governance in Zambia in accordance with the constitution in general, and in particular with regard to referendum or elections on condition that the pieces of legislation are amended to make it mandatory for registration of births and deaths, obtaining national registration cards and for the registration of marriages whether under the Marriage Act or Customary law; obligate the various officers in charge of registration of births, deaths, marriages and national registration to submit their registers to the Zambia Statistics Agency within a specified period of time; and provide for institutional structures to ensure that all have access to registration centres and facilitate the enforcement of the mandatory provisions for registration.

Document Analysis Results

Figure 1 combines results from document analysis and interviews. It identifies why registration of vital events in Zambia is low, gaps in the legal framework, factors associated with CRVS demand and supply and possible strategies of strengthening CRVS are made. Seven key themes image from text, words and phrases and these are summarised as policy and legal framework, decentralisation, capacity building, awareness and demand, data quality, and institutional reforms.

VI. Conclusion

The main objective of the CRVS system is to meet legal requirements as specified by laws of the land but the health sector also benefits from the system through provision of relevant health data. The study has shown that registration of vital events very low in Zambia partly due to lack of awareness and enforcement mechanism of the laws, harmonization of laws with the Statistics Act No. 13 of 2018. There are alternatives to the demand for birth certificates such as use of affidavits. There is, therefore, need to strengthen the CRVS system as the usefulness of vital statistics depends to a large extent on the completeness with which the vital events are registered. There is still a lot of work required for the CRVS system in Zambia to be fully developed in terms of technological development and human resource capacity building. Part of this technological capacity development depends on full computerisation of CRVS system.

Acknowledgements

We wish to thank Dr. Jeremiah Banda at Bloomberg Data for Health Initiative (BD4HI) in Lusaka for giving us an opportunity to discuss with him issues on CRVS challenges and possible solutions. We also wish to thank Bloomberg Data for Health Centre staff for the expert insights that they gave us during the discussion with them in understanding efforts being made to improve the CRVS system in Zambia.

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