

The fight against HIV/AIDS IN Zimbabwe: A comparative study with South Africa

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Abstract

Research on Humanitarian logistics and Supply chain management has not been very comprehensive. It is still growing and one can note a few gaps. It has mainly dwelt upon adapting pointers that can be noted in private/commercial sector logistics and figuring out how they can be in cooperated into Humanitarian supply chains. This was an exploitative research aiming to compare lessons learnt from within.

Keywords

Humanitarian supply chains, Logistics, Health commodities, HIV/AIDS

1. Introduction

Sub Saharan Africa has the largest figures of victims both on and off Anti-retroviral therapy. Zimbabwe and a South Africa are both in the top 3 in the World. The greatest access to therapy is also in this region and both South Africa and Zimbabwe has been constantly trying to improve its delivery. More than 61% of adults are enrolled on the program (UNIAIDS,2016). In 2010 more than a tenth of all people worldwide on therapy were Zimbabweans and South Africans. This goes to show how tremendous the efforts they are making are. Experts calculate that about 9000 Zimbabweans are enrolled on the therapy every month and the figures are projected to increase. For youngsters aged between 0-14, access to the much needed therapy becomes higher and it sits above 80% (UNIADS) as testing has been made compulsory for pregnant mothers and children. With such great figures one might be shocked to learn that they are still much in very short supply and then, they might realise how big the fight is, it has been so and will remain so unless something drastic is done. This is very worrying especially when one realises that victims need to commit to the drug for life and it supply needs to be stable and reliable. (Noguera et al 2003).

Existing literature relevant to the study

Research on Humanitarian logistics and Supply chain management has not been very comprehensive. It is still growing and one can note a few gaps. It has mainly dwelt upon adapting pointers that can be noted in private/commercial sector logistics and figuring out how they can be incooperated into Humanitarian supply chains. A number of researchers have published in this line of work, including Tomasini and Van Wassenhove (2005; 2006). Some even focus on how a multinational organisation can actually perform some logistics during relief operations assisting large non-governmental organisations. Mbohwa 2008, Discusses the operations of large NGOs in Zimbabwe, these include the world food programme, Red Cross

and Unicef amongst others. He also explains problems faced and suggest solutions. In some cases, logistics performance was measured. Most researchers have focused on trying to make relief operations swifter and quicker whilst saving costs. These include; Van Wassenhove (2006), Qiang and Nagurney (2008), Thompson (2008), Kleindorfer and Van Wassenhove (2004), Clark and Culkin (2007), Van Wassenhove (2004), Thomas (2003), Thomas and Mizushima (2005) amongst others.

Thus one can note that there's a gap in literature where one can focus research on strengthening supply chain systems, which are mostly continuous replenishment. One can try to make them more lean and then agile. Another study can also be conducted on measuring the logistics performance and try to make them sustainable and faster where possible. Hence a lot of work in this regard still need to be done and more specially, implemented. This study also seeks to fulfil the gap in comparative studies as it shall compare the Zimbabwean vs South Africa case. Humanitarian logistics are quite complicated sometimes, it's a surprise manual processes are still being mostly used at the expense of digital and faster software. Information Technology (IT) resources that are most likely to increase and improve information availability, reporting and learning are mostly not being effectively used (Thomas and Kopczak, 2005). Research has shown that only a few aid agencies have strived for the creation of high-performing logistics and supply chain operations in their efforts to ease humanitarian burdens. For most aid agencies, it might be beyond their control as environmental factors and the nature of funding have resulted in operations with high employee-turnover rates, fragmented technology, poorly-defined manual processes, and a lack of institutional learning as time goes by. Thus, relief operations are not as smooth and swift and effective as they could be and relief does not reach victims in time and always (Thomas and Kopczak, 2005).

Methods

The researchers carried out a survey in Zimbabwe, distributed a total of 105 questionnaires to key players in the field including, Government officials, NGOs and Health facilities. This data was complemented with secondary data gathered from a thorough desktop search of the South African experience. The experiences were summarised lessons learnt were drawn and conclusions were made.

THE CASE OF SOUTH AFRICA

South Africa is the biggest fighter against HIV/AIDS in the world. It is in great need of a stable supply of quality and affordable antiretroviral (ARV) drugs, it has the largest number of people living with HIV/AIDS. It has the largest number of people living with the epidemic, about 5 million victims are accessing the life-saving medication in the public healthcare sector alone through their continuous replenishment supply chain. .

South Africa has the largest ART programme in the world. In April 2014, more than 3 million victims were receiving ART, which equates to 47% of people living with HIV in the country, the figures are still highly alarming. In 2012, it was just 31.2% of people living with HIV were on ART, the impact is increasing but still more work still needs to be done.

Delivering and getting people to accept and continue to take medicine is critical. In South Africa a lot of people end up dying before actually receiving their medicine as sometimes the waiting period and screening takes time. Victims can even wait up to 6 months after diagnosis. There is serious shortage problem of the critical lifesaving therapy. In the fight against the epidemic the government pledged to provide the ART therapy to those that have been tested positive and are in dire need of therapy, these normally receive their medication in batches after every 3 months. The private sector is more organized, patients can track and receive their medication monthly. The capsules help strengthen a weak immune system and enables otherwise death bound people to carry-on with their lives normally and productively. But from every now and then in some locations of the country clinics record stock outs, exposing victims to the bitter outcome of defaulting drug intake which can be very futile. Some patients even default on their own, especially males hence they have a lower life expectancy than females.

The country has gone to long strides in supporting its affected victims. It accounts for more than 80% of all efforts to alleviate the devastating impacts of the epidemic. The efforts are so huge that the international efforts only contribute about 20%. The National Strategic Plan 2012-2016 however still highlights that there is a big gap and a lot of people still need the therapy. According to the South African National Aids Council (2015) the country's budget is still too low to meet the requirements of the epidemic. External donors tend to also reduce support as the country is rated as middle income nation and they assume most of the citizens can support themselves of which they can't, treatment cost a monthly average of R1000.00, this is beyond the reach of many, even the working population. (South African National Aids Council 2015)

Drug supply in South Africa: In common with many other areas, primary healthcare facilities have struggled to maintain continuous access to medication and other stock items. (Everything from paracetamol to antibiotics to ART for the prevention of mother-to-child transmission (PMTCT), as well as needles, HIV test kits and more, has been out of stock at some point over the years.) Not only is our district hospital committed to supporting primary healthcare, it is a resource-efficient and economically viable approach to link hospital and clinic care in order to prevent more complicated, expensive care at hospital level due to stock-outs at clinic level. As in the Sub Saharan Africa region, stock outs are also generally a problem in South Africa as well. This also sometimes happens at district hospitals as most vital commodities sometimes run out. Larger hospitals such as the provincial Hospitals and national referral centers must be linked to these such that they can support the smaller entities

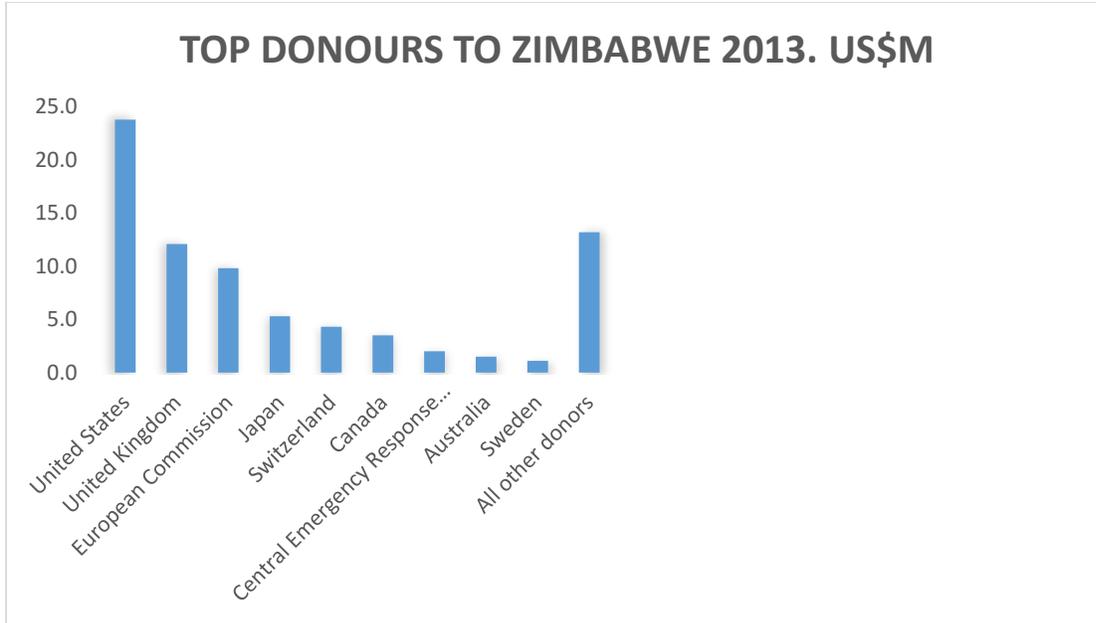
South Africa is also fighting to lower the price of which they buy the HIV/AIDS commodities from suppliers. They should at least try to control the suppliers as they are the largest buyer and they also have the largest market. In 2013 they eventually managed to settle for the lowest price in the world, this resulted in a 53% reduction in spending on ART for South Africa. (UNAIDS, 2013). The prices are still quite high and more must be done. Perhaps more effort should be focused on producing the drugs locally and also increasing the gap between dosages and quantities, that is from daily intake to yearly. This will also reduce the complexity of the supply chains.

But despite the enormous volumes of medication involved in its HIV-treatment programme, South Africa still relies on international pharmaceutical companies for the active components in the ARVs. Most of the HIV/AIDS Commodities are imported from overseas, mostly India and China. None of the local pharmaceutical companies that supplies the medication to public clinics and hospitals produces them. Instead, they buy the ingredients that go into ARVs (called active pharmaceutical ingredients, or API) and formulate them into tablets, the finale assembly happens in south Africa. This reduces shipping and storage costs.

THECASE OF ZIMBABAWE

The HIV/AIDS situation in Zimbabwe is worsened by the figures of “Prevalence of undernourishment” in the total population (% of population) 2006-2008 which was calculated to be an astonishing at 30% and has been constant for a number of years thereafter. Human Development Index (Rank) 2012 of 172 is also quite low as the government can hardly support itself and its workers, most Multi-National Companies have closed down or scaled down as they can barely operate in the severe economic and political conditions. GINI (income inequality) index percentage (1994-2012) was 50 % this also the two acute streams that dominate Zimbabwe, which is the rich and the poor, this also shows about half of the Zimbabwean population live in poverty and can barely take care of themselves. The Vulnerability Index which could either be high, medium or low between the years 2011-2012 was noted to be High so was the Crisis Index as well. Multidimensional Poverty Index (Rank) 2013 of 66, evidence that most Zimbabweans are living in Poverty and can hardly fend for themselves, this is also coupled and associated with sickness and thus need emergency relief in the form of food and medicinal commodities hence Zimbabwe is in constant need of humanitarian assistance.

In most cases this also tends to contribute to, and worsens the efforts to control the HIV/AIDS epidemic which has affected a record 2million from about 12 million Zimbabweans. Draughts tends to impact hugely on the same marginalised poverty stricken people at the periphery of society in rural areas that are also hugely exposed to the HIV/AIDS epidemic.



Most aid that flows into Zimbabwe comes from the West, With the United states being the top Donor. The Government of Zimbabwe also assist in the fight against the epidemic mostly through the collection of aids levy as a tax on the working population.

Drug Supply Zimbabwe: Most organisations that participated in the survey did not have a good number of vehicles to serve the nation as a whole. However, good number of good functioning vehicles are available and are efficiently used for routine and emergency distribution hence in general, orders are delivered on time between Stores and Provincial and District Hospitals and other health facilities. The distribution capacity was strengthened mainly by the European Union who donated several seven tone trucks. The roads are poorly maintained and during the rainy season some clinics, hospitals, and community-based distribution workers become inaccessible due to the bad condition of roads, thus leading to increased stock outs.

In Zimbabwe institutions are generally required to order/procure commodities once every month. Procurement generally is associated with establishing requirements and source quotation in accordance with the state procurement board procedures. Check all procurement records against goods in stock. Ordering and procuring. Producing monthly expenditure report on goods and services, consolidate the administration budget. The survey indicated that most organisations had less than the number of require procurement request a year. This might also contribute to the shortage of critical commodities and on time deliveries. (Chingono et al 2017)

Collaborations with other industry players is also encouraged. If the government cannot assist, donor agencies are also recommended to assist in road maintenance in inaccessible areas. Most organisations relay and use their own facility managed transport. This also enables them to have more control of their supply chain. In Zimbabwe relief agencies mostly used their own fleet and it will also mostly be a truck load. About 60 and 80 responses respectively supported

this. No participants indicated that they use rail or ocean transport. This does not mean that Ocean transport is not used, Multinational donor organisations like UNICEF usually ship bulk commodities from source.

Problems associated with Health Systems Supply management systems.

Most participants indicated that they faced a serious problem when it comes to skills shortage, vendor support and integration with customer’s system, but these were rather rare when compared to responses of those facing a little problem mostly in Hidden cost.

Table1: Problems associated with using supply chain management systems at one major distributor

	No problem at all	Little problem	Serious problem	Don't know
Resistance to change from employees	X			
Resources shortages e.g. no maintenance and			X	
Skills shortages e.g. Computer illiteracy within the company		X		
Insufficient vendor support	X			
Hidden cost	X			
Integration with existing system	X			
Integration with supplier’s system				
Integration with customer’s system				
Other (specify)				

Forecasting and quantification

Government is encouraged to establish a well-defined and sustainable systematic process for forecasting and quantifying national commodity requirements, more accurate consumption based forecasts will only be possible if essential logistics data on commodities distributed to victims is collected and reported on a routine basis. Multiyear forecasting should also be done and recoded quarterly to ensure that assumptions made during the forecast are replaced with actual occurrences on the ground so as to provide a clearer picture of the total natural requirements of the HIV and AIDS commodities.

Procurement

Procurement is mostly done by donor organisations, these are usually not coordinated and there is normally high risk of duplication. The government also assist and collaborate with a few NGOs in bringing the much needed relief.

It is of pivotal importance that procurement is coordinated centrally through information sharing among different NGOs, government and donor agencies. This can be done through encouraging information sharing via the already existing Procurement and Logistics Subcommittee or via the National ARVs programme. Organisations should build and relay upon their experience in the procurement of essential drugs through close co-operation with technical partners and agencies to carry out procurement of HIV & AIDS commodities. As a part and produce of capacity building, they should be in the position to carry out large procurements to access lower prices and sign framework contracts with suppliers to enable them to regulate deliveries according to their needs. Procurement of commodities should also be coupled with other functional members of the logistics system, including forecasting and quantification, inventory management and calculating stock status, within the pipeline at all times. It has been noted that there is little direct association between the procurement actions, forecasting and quantification and the supply pipeline at most times. Procurement is mostly driven by the availability of funds hence more funds should be made available, such that more people are enrolled onto the National ARVs programme and risks and possibilities of stock outs and defaulting are reduced. (Takang et al, 2006)

Inventory Control

A localised inventory control subsystem for the management of HIV & AIDS commodities is yet to be fully implemented. The provisional HIV & AIDS logistics subsystem which determines the needed stock amounts and procuring time frames should become operational as soon as possible to enable desires sustainable management of stocks thereby preventing stock outs ensuring constant availability.

Key players should aim to cooperate Radio Frequency Identification (RFID) and Electronic Data Interchange (EDI) if possible. It is also encouraged to implement Bar coding for quick identification of commodities.

Storage

From the survey, most donor agencies do not have adequate storage space but they also noted that they maintain and keep their facilities up to recommended storage and safety measures. Some of them even have up to date security systems way advanced. Organisations should provide additional secured storage space for the anticipated increased volume of HIV & AIDS commodities. The space to be secured should be calculated taking into consideration the interim logistics subsystem design including the maximum stock level at the central level and the refurbishment of existing cold rooms to take care of increasing volume of commodities. It is recommended that financing for proper storage and distribution be sought and secured as soon as possible and that the charges are carefully negotiated because of the high cost of ARVs. Organisations and can also try and adopt some of the security measures used by fellow industry players, these include the use of bio-metric entrance system and also security cameras.

General Challenges

Some of the deficiencies of current humanitarian logistics and supply chain systems at most humanitarian aid agencies include: Data must be written out onto multiple forms and keyed into multiple spreadsheets, Budget control is hence difficult and almost impossible; funds may be misspent as a result, Usage of funds is not tracked to the extent that donors have requested, Procurement procedures are difficult to enforce; Integrity is lacking, Tracking and tracing of shipments is done manually using spreadsheets. There is no central database of history on prices paid, transit times, or quantities received/purchased and Reports are done manually, therefore little reporting and performance analysis is performed, other than reporting to donors on quantities of relief items delivered for a given operation. Developing flexible technology solutions will improve responsiveness by creating visibility of the materials pipeline and increasing the effectiveness of people and processes. (Thomas and Kopczak, 2005). The Zimbabwe National HIV and AIDS Strategic plan 2011-2015 (2011) also points out that the current logistics and supply chain management system needs further strengthening as the uptake of antiretroviral remains low at 59 percent in 2010, there is also inadequate human resource, infrastructure and equipment to support antiretroviral services, financial resources constraints in rolling out the CD4 350 eligibility criteria, weak services referral system, weak ART monitoring systems that are linked to other related services, support and supervision system for quality assurance are inadequate amongst others.

Surveyed Organisations encounter a number of challenges, which have a considerable impact on their ability to deliver and perform fully and effectively.

- Late payments by the Ministry
- Lower wages
- Lack of commitment from some donors.
- Stock outs, due to bad roads and weather.
- Government control and involvement discouraging NGOs
- General high demand for therapy, which can be overwhelming

Recommendations

In order to address these threats, there is need to put mechanisms in place that ensure organisations are adequately compensated for the services it renders to its customers, and paid on time. There is a need ease pressure on major health institutions by decentralization of services from major hospitals to smaller health care facilities. Decentralization of HIV/AIDS care and ART services is therefore needed to facilitate easier access to services and monitoring of patients. This will also help decongest ART initiating sites and also reducing the waiting period for patients.

An education, teaching, training and research network is also recommended .it can initiate and/ or complement educational programmes in humanitarian logistics in the country, leading to a variety of competencies and qualifications.

Development of a humanitarian logistics and supply chain network that brings together participants from industry, government and academia to develop specialised systems for humanitarian logistics is required, a centre for Zimbabwean Humanitarian Logistics and

Supply chains is therefore proposed. The inquiry and attention can be on learning and adaptation from business and military logistics strategies and systems and also development of systems that respond swiftly and flexibly to changing and high needs and also identification of gaps for exploiting synergies (Mbohwa 2008)

Discussion and lessons learnt from South Africa.

Zimbabwe need to drastically increase its operations and ART output such that it can meet the standards set by South Africa, the biggest fighter of HIV/AIDS in the world. It has more than 3,6 million people receiving treatment. The Zimbabwean government can learn a lot from its neighbour. The south African government contributes more than 80% of the resources from the fight whilst its counter parts only account for less than 20% and the rest comes from Donor agencies. From that small percentage some of it is claimed from the workforce through the HIV/AIDS levy that they are taxed.

The South African government only imports materials/ingredients that make ARVs. This also creates employment for the country as their pharmaceuticals industry will be involved in making the ARVs capsules. There is also evidence of strides towards producing SAs first capsules. The Zimbabwean government should also strive to do the same as poverty and unemployment are both rampant and they make the fight against the HIV/AIDS various difficult and complicated in Zimbabwe, driven by the shrinking economy and hyper-inflation. This situation exposes most Zimbabweans to a high risk and vulnerable of contracting the epidemic, most end up engaging in prostitution activities as they try to make ends meet and others especially males travel a lot as cross boarder traders thus most families end up being separated for long periods of time. Thus the revival of the economy is and must be the first port of call that will help strengthen supply chains and also the fight against the epidemic. Government should source more funds from Organisations like the IMF and World Bank. Although there is also high unemployment in South Africa, the situation is way better and its one of Africa strongest Economy.

In South Africa Politics is quite transparent and can be easily regulated by law. One can note that aid is being politicised in Zimbabwe. Foreign donors in Zimbabwe face a difficult operating environment where well-intentioned aid seems to have unintentionally contributed to weakening the opposition forces and strengthening the ruling Party who constantly interrupt the supply chain and are also trying to control it for their own benefits. Thus for any organisation that is trying to have a success full and even supply chain, politics must be removed from donor aid and Donor agencies operations.
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Furthermore, Zimbabwe has experienced major systems limitations in the delivery of services and commodities which have been largely resulted from the political and economic crisis that the country has experiencing over the past decade. South Africa is like the opposite, it has world class infrastructure and the economy is vibrant.

Blurring the lines between political goals and humanitarian response will have dire consequences in an already highly politicised context. The government of Zimbabwe must give humanitarian agencies the space they need to function independently. Food aid is the clearest

example of politicised humanitarian action. Although food distributions have resumed in some locations following the government's ban on NGO activity during the elections in 2008, patients at MSF clinics tell us that distributions are manipulated for political purposes. In Epworth clinic, MSF patients were unable to get food aid for over six months after the June election, leading HIV/AIDS patients to default from treatment as they searched for food. Political and aid actors including the UN and donors need to shift their approach and strategy if they are to address the humanitarian issues facing Zimbabwe effectively and efficiently. Increased humanitarian aid is necessary, but so too is a move to a more proactive emergency approach based on a recognition of the severity of the crisis in all its forms. Donor governments and UN agencies must ensure that the provision of humanitarian aid remains distinct from political processes. Their policies towards Zimbabwe must not be implemented at the expense of the humanitarian imperative to ensure that Zimbabweans have unhindered access to the assistance they need to survive.

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Biographies