HIV/AIDS IN NAMIBIA AND THAILAND: A COMPARTIVE POLICY STUDY

A Major Qualifying Project

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HIV/AIDS in Namibia and Thailand: A Comparative Policy Study

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ABSTRACT:

The HIV/AIDS epidemic has been impacting people globally since the early 1980s. As the disease spread around the world, epicenters began to appear in the late 1990s. Both Namibia and Thailand were identified as epicenters. In the present day, Namibia continues to struggle with the HIV/AIDS epidemic, whereas Thailand has been hailed as a success story. This difference raises a series of questions. These questions ask about the differences and similarities between Namibian and Thai policies, if the lessons learned from this can be applied to future Namibian policy development, and how these lessons compare to suggestions from experts. In order to address these, an in-depth policy comparison and three round emergent Delphi were completed. The results of this analysis and surveying revealed key areas for policy development to focus on, recognition, specialization, and access. Within each of these areas policies were suggested based upon the policy comparison and comparison of polices to the results of the Delphi study. This study addressed the reasoning behind the continuation of Namibia's HIV/AIDS epidemic and provided a series of recommendations.

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SECTION 1: INTRODUCTION

The Human Immunodeficiency Virus (HIV) epidemic is one of the longest lasting global epidemics. Beginning in the 1980s and still plaguing certain areas of the world, the HIV pandemic has been impacting the human population for forty years (Lemey et al. 6588-6592). HIV eventually depletes the CD4 cells to a level where it is reclassified as a secondary stage of infection, Acquired Immunodeficiency Syndrome (AIDS) (Simon, Ho, and Karim 489-504). When a person becomes infected with AIDS, it is usually not AIDS that will kill them. Instead an opportunistic infection, such as pneumonia or tuberculosis will lead to their death (Simon, Ho, and Karim 489-504). HIV spreads through sexual, percutaneous, and perinatal pathways, but the major and most common pathway is through mucosal surfaces during sexual intercourse (Sharp and Hahn 1-22). The spread through bodily fluids has also led to the potential of transmission through blood donation and raised concerns regarding blood safety (Merson et al. 475-488).

It was initially believed that HIV was a disease contained within the homosexual population; the first cluster of the disease was found in a group of men who have sex with men (MSM) in Los Angeles (Merson et al. 475-488). This initial outbreak among MSM led to the disease to be named gay-related immunodeficiency disease (GRID), stigmatizing the disease (Merson et al. 475-488). Despite this belief, the disease quickly jumped from MSM to intravenous drug users (IDU) through needle sharing networks (Merson et al. 475-488). The HIV epidemic ravaged through the western world, initially spreading through high risk and marginalized groups (Merson et al. 475-488), such as MSM, IDU, and sex workers (SW). This perception that only marginalized groups were affected by HIV led to push back among various religious groups and more conservative cultures against policy action addressing the spread of HIV/AIDS (Merson et al. 475-488). This was due to their belief that HIV/AIDS was a disease that could only spread within groups that participated in negative or promiscuous behavior (Merson et al. 475-488). This only further aggravated stigmatization and isolation for those who were living with HIV/AIDS.

The epidemic began stabilizing globally by the late 1990s, with infection increasing with the population growth (Merson et al. 475-488). However, this was not true for all areas of the world. The epidemic had leapt from the marginalized groups into the general population in developing areas of the world. One developing area which is still severely and disproportionately

impacted is Sub-Saharan Africa (Merson et al. 475-488). This impact led the area to have higher levels of mortality among people living with AIDS (Sharp and Hahn 1-22). A country within Sub-Saharan Africa which is burdened with high HIV prevalence is Namibia. Namibia saw its first case of AIDS in 1986, indicating that HIV had reached the country before this date (Slotten 277-284). Held back by its centralized and curative-focused health care system, Namibia struggled to fight the rise of HIV within its borders (Slotten 277-284). Despite this set back, Namibia developed policies and practices which began improving the health care system and increasing accessibility. As these policies were implemented, HIV started a minimal retreat from the general population. This has allowed Namibia to focus on the drivers of continual transmission, one of which is sex work (Kharsany and Karim 34-48). Namibia is not alone in its fight against HIV/AIDS, neither was Sub-Saharan Africa during the early 2000s.

Another key developing region which was strongly and disproportionately impacted by HIV was Southeast Asia. In 2002, Southeast Asia was second to Sub-Saharan Africa in infections (Beyrer and Stephans 317-333). One of the largest contributors to the infection numbers was Thailand, where the northern region was considered to be the epicenter of the epidemic in 1990 (Goihman-Yahr and Parish 1-3). The epidemic in Thailand began in IDU and then quickly jumped into the SW population (Weniger et al. 71-86). The entry of infection into the general population was quick to follow. This led to a generalized epidemic within the country. Despite this difficulty, Thailand utilized their decentralized health care system to provide care and programming throughout the country. Coupled with this, Thailand relied on collaborative efforts from non-governmental organizations (NGOs) and civil societies (Siraprapasiri et al. 7-14). Thailand was able to thwart the spillover of HIV into the general population from high-risk populations and provide care, treatment, and programming (Siraprapasiri et al. 7-14). Thailand was able to achieve what Namibia is currently struggling to achieve, successfully suppressing the spread of HIV/AIDS within their country. Through this, Thailand was able to end the generalized epidemic which plagued them from the late 1980s.

This brings up a series of essential questions:

1. How can we learn from the success of Thailand?
2. Can we apply these lessons to Namibia?
3. How do lessons learned from Thailand compare suggestions from experts?

In order to best address these questions, a comparative policy analysis and Delphi Study were completed. These methods assessed the differences and similarities in the policies between the two countries and gave an understanding of expert opinions. The comparative policy analysis examined and reviewed all major policy plans. The plans were designed and implemented by the Namibian and Thai governments from either their conception as a nation or the beginning of their outbreak. The Delphi Study was completed in order to ascertain a general knowledge about the best practices to prevent an epidemic within a free-trade area. Experts were recruited from the health care, public health, and transport fields. They were then asked a series of questions over the course of three surveys, culminating in the creation and evaluation of a policy framework. After this evaluation, a series of recommendations for best practices were made. These recommendations were then compared to the policies put forth from both Namibian and Thai governments.

The key focus areas were revealed during these comprehensive investigations. The identification of when, where, and how the Namibian and Thai policies began to truly differentiate from each other is crucial to understanding the evolution and progression of the epidemic in each country. Where and when Thailand was able to design and implement policies, Namibia lagged, focused on promoting abstinence, being faithful, and condom usage (ABC). They utilized a blanket policy method, promoting ABC to their entire population. Thailand was able to develop specialized policy packages which can be delivered to any province based upon severity and distribution of infection. In comparison to the recommendations generated from the evaluation of the policy framework by key experts, the policies from Namibia and Thailand shared similar elements. These elements emphasized education or supply of condoms (personal protective equipment), but differed when considering the order of implementation and level of complexity assigned to each task. Based upon these comparisons, the questions posed above can be answered and the knowledge gap was addressed.

SECTION 2: LITERATURE REVIEW

2.1 HIV/AIDS IN NAMIBIA

While other countries have been able to treat and prevent the further spread of HIV/AIDS, it has remained extremely prevalent in Namibia. As of 2019 there were 37.9 million people living with HIV (PLWHIV) and 210,000 PLWHIV are in Namibia (5.5%), whose population is only 0.03% of the world population ("Namibia Population (2020) - Worldometer."). This prevalence of HIV/AIDS creates a generalized epidemic in Namibia, where the disease spreads outside of high-risk populations and is continually plaguing the entire population. This disease first officially reached Namibia in 1986 when four cases of AIDS were reported (Slotten 277-284). Identifying cases of AIDS before HIV means that the disease had spread throughout the country long before it was found as AIDS. Additionally, the availability and price of diagnostic methods initially limited Namibia's ability to identify cases of HIV/AIDS in asymptomatic patients. A lack of seroprevalence studies, which identify the level of a pathogen in the population, suppressed the number of reported cases (Slotten 277-284).

Many causes have been identified as openings which allowed for the initial spread of HIV/AIDS throughout Namibia. A large contributor was the organization of their health care system. With a focus on curative medicine instead of preventative medicine, the Namibian Health Care system became stuck in its colonial past. The central hospitals in Windhoek, the capital populated mainly by people of colonial descent, only serviced 30% of the population with high levels of care comparable to Europe (Slotten 277-284). This left 70% of the population without high quality curative care. In addition, there were nearly zero preventative measures put in place, such as vaccination. The centralization and nature of care, in combination with the still standing colonial structure created a system where HIV could ravage and grow.

Despite this past, Namibia's Health Care System grew when facing the HIV epidemic. Developing policies to address these inequalities in their health care system has allowed them to make progress regarding access and equitable care. Even with these measures implemented and integral changes made, Namibia still faces an extremely high prevalence of HIV/AIDS. With this in mind, there has been a call to refocus efforts on high risk populations, such as MSM, sex workers (SW), and intravenous drug users (IDU), due to sex work being identified as the driver of continual transmission of HIV in Sub-Saharan Africa (Kharsany and Karim 34-48).

2.2 SEX WORK IN NAMIBIA

Sex work in Namibia is complex. With factors such as gender dynamics, part time sex work, a "work from home" model, and criminalization of sex work, it is hard to for Namibia to classify and apply policies to SW (Scorgie et al. 920-933). The gender dynamics in Namibia often can lead to a woman turning to sex work. These arise from the cultural norms in Namibia, with a woman often receiving less education, less pay, and less rights than her male counterpart (Halperin and Epstein 19). These women often turn to sex work either to make ends meet when things are tight, picking up the jobs part time (Scorgie et al. 920-933). Working part time these women often do not identify as sex workers, making it harder for Namibia to fully grasp the number of women who partake in these types of transactions. These sexual transactions are often dictated by the women herself, instead of through a brothel or a third party, being offered at bars, borders, or other urbanized areas (Scorgie et al. 920-933). In addition, law regarding the legality of sex work is confusing and indirect. Never stating that it the actual act of selling sex is illegal, the law instead criminalized solicitation of sex for money, pandering, and keeping a brothel (LaFont 77-89). It remains extremely transactional and is not close to being commercially formalized (Fitzgerald-Husek et al. 35). The overall nature of sex work in Namibia dictates the way it needs to be addressed.

The stigmas which surround sex work in Namibia continually impact those who rely on that profession. In small towns, SW are essentially cut off from the community if it is seen as their main source of income is sex work (Arnott and Crago). Not only do they face persecution, but their children are verbally attacked and insulted in school and around the community (Arnott and Crago). However, this stigmatism dives even deeper into their culture. SW face a higher rate of arrest and brutality from the police force and they do not have the same access to health care services due to fear of discrimination from the health care workers (Arnott and Crago). This level of stigmatism regarding sex work within Namibia is detrimental to the ability of SW to access HIV treatment as well as gain knowledge and help about their futures.

2.3 HIV/AIDS IN THAILAND

Thailand was a country which was late to become a hot spot for HIV/AIDS. The first cases were identified in 1985 in the form of antibodies to HIV (Weniger et al. 71-86). Initially,

this outbreak was concentrated within male prostitutes, but in 1988 was overtaken by an epidemic clustered within the IDU population (Weniger et al. 71-86). This outbreak mirrored the uptick in the usage of heroin and reached seroprevalence of 43% within this population by September 1988 (Weniger et al. 71-86). After HIV made its way into the IDU population, it quickly jumped into female sex workers (FSW), reaching seroprevalence of 15% in 1989 (Weniger et al. 71-86). The first red flag for the Thai government was when military conscripts began testing positive for HIV/AIDS, rising to 2.9% in 1991 (Weniger et al. 71-86). This acted as a good gauge of the spread of HIV/AIDS through the general population as the conscription is randomized throughout the population. Into the mid 1990s cases continued to rise within the FSW population, until various programs were put in place to prevent this continued transmission (Siraprapasiri et al. 7-14). Going into the 21st century, it is estimated that if Thailand had not acted that 5.7 million more people would have been infected with HIV by 2015 (Siraprapasiri et al. 7-14). Thailand has been hailed and praised as a leader in HIV/AIDS prevention and treatment.

There are major factors which contribute to the success of Thailand. Major health care reform, partnership with civil societies, and key initiatives are all credited. In the early 2000s, Thailand decentralized their health care system and began to implement a universal health care system (Siraprapasiri et al. 7-14). The National AIDS Committee shifted from policy and budget to co-ordination, monitoring, and technical support allowing for them to more effectively implement the various programs and policies which they had originally planned. In addition to this, the budget for HIV/AIDS program was a part of the decentralization, spreading the funding allocation decisions to the local government (Siraprapasiri et al. 7-14). Their ability to partner with major civil societies also benefitted Thailand in the fight against HIV/AIDS. Working with these NGOs allowed them to receive funding which they otherwise would not have had (Siraprapasiri et al. 7-14). Beyond funding, these civil societies helped to hold the Thai government accountable and keep them on track (Siraprapasiri et al. 7-14). Both the reform of the health care system along with key partnerships allowed for successful implementation of key programs and initiatives. One of the first initiatives which was implemented was the 100% condom usage program implemented in brothels. This program seemed to be initially extremely effective, but a it was found that there was still an elevated risk of infection of HIV/AIDS for FSW (Kilmarx et al. 313-316). Despite the continued infection and transmission within the FWS

population, there was a decrease of seroprevalence in young men, mainly the conscripts (Kilmarx et al. 313-316). While the 100% condom usage program was a beginning step the true champion for the fight against HIV/AIDS in Thailand has been antiretroviral treatment (ART) and pre-exposure prophylaxis (PrEP). Thailand was able to subsidize and provide ART to all of their citizens who are living with HIV/AIDS (Siraprapasiri et al. 7-14). This treatment suppresses the viral load so that if a situation arises where transmission is possible, the viral load is too low to cause infection. PrEP is a treatment option which has also been made available in Thailand (Siraprapasiri et al. 7-14). Working differently than ART, PrEP is a preventative medication which, if taken daily, can stop the spread of HIV through the body even if exposure occurs. By making both of these available, Thailand is able to suppress and control the transmission of HIV within high risk populations, which prevents spillover into the generalized population, therefore preventing an epidemic.

2.4 SEX WORK IN THAILAND

Sex work in Thailand is a commercialized, contributing heavily to the GDP (approximately 10-12%) but remains criminalized without enforcement (Singh and Hart 155-173). While the act of selling sex is not illegal, the various activities associated with it are, such as running a brothel, or the solicitation of sex are (Singh and Hart 155-173). While brothels do exist within Thailand, many SW work out of bars or massage parlors, with a job as a waitress or bartender allowing for them to earn extra money on the side as a SW (Singh and Hart 155-173). One key aspect of sex work in Thailand is the tourist side. This tourism aspect pushes sex work to become commercialized, leading to the promotion of these clubs as well as the advertisement of sex work in travel brochures (Singh and Hart 155-173). Despite all of this, the commercialized and advertised sex work industry is not acknowledged officially by the government. This has a severe impact. The common knowledge of Thailand's sex work industry generates a large demand for SW. This leads to the exploitation of children and young women in the industry, often initially hired under false pretenses (Singh and Hart 155-173). However, women often join the sex work industry in order to provide for their families where they cannot make ends meet. In addition, as the sex work industry continues to grow in Thailand, there have been new types appearing. Brothels are popping up on the border with China, generating low-rate SW who are

more at risk for HIV/AIDS infection than those who are tourist orientated (Singh and Hart 155-173).

Despite the quasi-decriminalization of sex work in Thailand, there still is a high level of stigma surrounding the profession. While in some cases women feel comfortable with their profession due to the economic necessity, others face stigmatism and feel that it is hard to speak about their profession in larger public forum (Conn, Modderman, and Nayar 619-623). This stigma prevents SW from being able to speak about their needs and prevents large education initiatives from taking place due to a desire for anonymity (Conn, Modderman, and Nayar 619-623). This is often related back to the lack of recognition from the government and other organizations, leading it to be named taboo (Manopaiboon et al. 39-52). In addition to the stigmatism that this creates, it also raises a large number of issue when controlling the spread of HIV/AIDS, such as inability to implement effective policies within the industry.

SECTION 3: METHODS AND FINDINGS

The stark differences between the HIV/AIDS epidemics in Namibia and Thailand bring up a series of questions which must be addressed.

1. How can we learn from the success of Thailand?
2. Can we apply these lessons to Namibia?
3. How do lessons learned from Thailand compare to suggestions from experts?

In order to best address these questions, the following methods were utilized. To understand the policy differences and similarities between Thailand and Namibia a policy comparison was completed. This allowed for a complete understanding of the way each country addressed and handled the HIV/AIDS epidemic. The final question required the completion of a Delphi Study to ascertain a series of recommendation based upon suggestions of best practices from key experts. These recommendations were then compared with the Namibian and Thai policies in order to understand key differences and similarities between the two. With the combination of these two methods a complete and in-depth study was completed that addressed the reasons behind the continued HIV/AIDS epidemic in Namibia and applied the lessons learned from Thai policies and suggested by key experts.

3.1 POLICY COMPARISION

An in-depth review of the response to the HIV/AIDS outbreak was completed for both Namibia and Thailand. The policies produced by both countries from the beginning of their outbreak or conception as a country, were reviewed and similarities and differences were found in each. Policies from Namibia which were reviewed were: Short Term Plan (1990-1992), Medium Term Plan I (1992-1998), Medium Term Plan II (1999-2004), Medium Term Plan III (2004-2009), National Policy on AIDS (2007), National Strategic Framework for HIV and AIDS Response in Namibia (2010/11-2015/16), and National Strategic Framework for HIV and AIDS Response in Namibia (2017/18-2021/22). Policies from Thailand which were reviewed were: Medium Term Program for the Prevention and Control of AIDS (1989-91), 100% Condom Campaign (1991), National AIDS Plan (1992-1996), National Plan for Prevention and Alleviation of HIV/AIDS (1997-2001), National AIDS Alleviation Plan (2002-2006), National Plan for Strategic and Integrated HIV and AIDS Prevention and Alleviation (2007-2011), AIDS

Zero (2012-2016), National AIDS Strategic Plan (2014-2016), Operational Plan for Ending AIDS in Thailand (2015-2019), and National Strategy to End AIDS (2017-2030).

3.1.1 SIMILARITIES – OUTBREAK, CONDOMS, AND TREATMENTS

Namibia and Thailand both suffered from an initial surge in infection at the beginning of their respective HIV/AIDS epidemics. They were quickly categorized as hotspots in the early 1990s, either regionally, in the case of Namibia (Ministry of Health and Services), or specifically, in the case of Thailand (Porapakkham et al.). Both Namibia and Thailand suffered from a slow response to the initial outbreak. In Namibia, inability to afford diagnostic methods severely limited their ability to respond to the outbreak (Slotten 277-284). Combined with inability to test, also was the inability to identify cases. Initially setting criteria for tuberculosis (TB) patients, which is a common co-infection of AIDS, Namibia were diagnosing without actually testing (Slotten 277-284). In Thailand, there was a different problem. Delay in response time was due to the desire of the governing party to admit the full reach of the disease within the country (Porapakkham et al.). The downplaying of the outbreak lead officials to hold back the data which they were collecting and continue to advertise the disease as a "foreigner's disease" (Porapakkham et al.) Both of these situations initially held back Namibia and Thailand from being able to properly address the outbreak.

Once the countries began to address their outbreaks, they both emphasized on condom usage. Thailand implemented their 100% condom usage program in 1991, which required condoms to be used in brothels and allowed for the dissemination of condoms, as well as the cheap production (Porapakkham et al.). Similarly, one of Namibia's first actions was to begin to distribute condoms along with instructional pamphlets (Ministry of Health and Services). Both Namibia and Thailand relied on their other Sectors or Ministries to help distribute and implement these policies. Namibia put in place requirements that all sectors had condoms and distributed them to their staff and clients (Ministry of Health and Services). Beyond this, Namibia frequently relied on and tasked their sectors with various pieces of HIV/AIDS policy. This included requiring each sector to make and disseminate their own informational pamphlet about HIV/AIDS (Ministry of Health and Services) and making sure that ongoing projects are not contributing or fueling the continued spread of HIV/AIDS (Ministry of Health and Social

Services and Directorate of Special Programmes). In Thailand, upon division of the budget, each Ministry was asked to develop a plan regarding HIV/AIDS on how they would allocate a large sum of money (Porapakkham et al.).

As Namibia has progressed further into their HIV/AIDS treatment and prevention policies, they have become more similar to Thailand's. Starting with the National Policy on AIDS (2007), Namibia began to address HIV/AIDS with policies that targeted key or high-risk populations (Directorate of Special Programmes). Developing these specified policies, Namibia began to attempt the drivers of the spread of HIV/AIDS. From the beginning of their HIV/AIDS prevention and treatment policies, Thailand always addressed key or high-risk populations specifically (Porapakkham et al.). However, it was not until the Operational Plan for Ending AIDS in Thailand (2015-2019), when they developed a series of specialized policy packages, which ranged in intensity level for severity of infection and were specialized by key or high-risk population (Thailand National AIDS Committee).

With regards to treatment, Thailand has been on the for front of providing antiretroviral treatment (ART) to people living with AIDS (PLWA). While Namibia was slower on the uptake, they are now able to provide the majority of PLWA ART (Directorate of Special Programmes). While there are similarities in the policies from Namibia and Thailand, there are still large differences which create differences in their current HIV/AIDs statuses as countries.

3.1.2 DIFFERENCES – TIMING, SPECIALIZATION, AND HEALTH CARE SYSTEMS

While there were significant similarities between Namibia's and Thailand's policies and approaches to HIV/AIDS, the differences are far more important and impactful. One of the most obvious differences was the timing of the policy implementation. While both Namibia and Thailand had slower initial responses, Thailand was able to implement effective policy almost immediately after a change in power (Porapakkham et al.). Namibia, on the other hand, struggled to gain traction and implement impactful and effective policies. In 2007 it was assessed that the policies in Namibia were implemented inconsistently and ineffectively (Directorate of Special Programmes). This set back Namibia and it was not until the National AIDS Policy and the National Strategic Framework for HIV and AIDS Response in Namibia (2010/11-2015/16) that

effective implementation was seen (Ministry of Health and Social Services and Directorate of Special Programmes), 19-20 years after Thailand.

Another key and impactful difference was their initial approaches. Namibia first attempted to use a blanket approach, treating all areas and key or high-risk populations the same way (Directorate of Special Programmes). Namibia relied on informational pamphlets promoting abstinence, be faithful, and condoms (ABC) which were disseminated throughout Namibia in multiple languages (Ministry of Health and Services). Namibia ignored the key or high-risk populations and refused to address them. Namibia only began addressing Men who have sex with Men (MSM) and sex workers (SW) in their National Strategic Framework for HIV and AIDS Response in Namibia (2010/11-2015/16) (Ministry of Health and Social Services and Directorate of Special Programmes). They lacked the specificity that Thailand had in its policies. Thailand focused on key and high-risk populations right away (Porapakkham et al.). They provided scholarships to girls who were at risk of joining the sex work industry so that they could continue their education (Yamamoto and Itoh 247-265). The 100% condom program was initially targeted at brothel's and sex workers to promote condom usage (Yamamoto and Itoh 247-265).

Another key difference between Namibia's initial approach and Thailand's was the type of programs which they were providing. Thailand began by focusing on prevention, treatment, and community empowerment programs (Yamamoto and Itoh 247-265). These programs placed PLWHIV and HIV/AIDS at the forefront of the conversation. From running educational programs, such as an annual essay competition, to generating an environment where HIV/AIDS was treated a social and a public health problem, Thailand was successfully able to create an enabling environment (Yamamoto and Itoh 247-265). Namibia, on the other hand, gave zero percent of their HIV/AIDS budget to community empowerment and the creation of an enabling environment until the National Strategic Framework for HIV and AIDS Response in Namibia (2010/11-2015/16) (Ministry of Health and Social Services and Directorate of Special Programmes). This difference hindered Namibia in their initial attempts to prevent and suppress the spread of HIV/AIDS.

Another extremely important difference is the methods used by each country to estimate the spread of disease in the general population and key or high-risk populations. In Namibia a sentinel survey was completed every two years, collecting data from pregnant women in

antenatal clinics (Directorate of Special Programmes). It is believed that this actually provided an underestimation of the prevalence of HIV/AIDS in Namibia (Directorate of Special Programmes). In Thailand, they completed a sentinel survey twice every year from 1989-1995 and then once every year from 1995 to the present (Yamamoto and Itoh 247-265). They utilized the key or high-risk populations, surveying male and female SW, intravenous drug users (IDU), and male patients suffering from STDs, as well as several indicators of the general populations, blood donors, pregnant women in antenatal care, and army conscripts (Yamamoto and Itoh 247-265). This widespread surveying allowed Thailand to identify various trends and the impact which the level of infection in key or high-risk populations had on the general population.

Finally, one of the most integral differences between Namibia and Thailand are the health systems. Starting in 2002, Thailand had universal health care, which allowed for them to provide HIV/AIDS services to all PLWHIV and heavily promote prevention programs in health care facilities, which were frequented regularly (Yamamoto and Itoh 247-265). Beyond this they were able to provide specialized care and support to key or high-risk populations as well as affected populations, such as abandoned or orphaned children (Yamamoto and Itoh 247-265). Recently, Thailand was able to remove the requirement of a specific CD4 count for access to ART (Thailand National AIDS Committee), whereas in Namibia there is still is a requirement (a CD4 count of 350) (Ministry of Health and Services). Beyond this Namibia struggled to provide decentralized care, as their health system was centralized in Windhoek, where only 30% of the population resides (Slotten 277-284). Thailand utilized their strong partnerships with NGOs and other civil organizations to provide services to hard to reach areas (Yamamoto and Itoh 247-265) and they recently began reallocating resources in order better address each provinces' needs (National AIDS Committee). Namibia initially struggled to work with NGOs and to coordinate services to their far-reaching regions (Directorate of Special Programmes). These differences drastically impacted the outcome of policies and prevention and treatment of HIV/AIDS in Thailand and Namibia.

3.2 DELPHI STUDY – EXPERT OPINIONS

In order to best understand how these similarities and differences Namibian and Thai relate to expert opinions a three round Delphi study was completed. The Delphi Study aims to

generate a consensus from experts about best practices in free trade regions to prevent the spread of disease. In general, Delphi studies are utilized in situations where exploration on a topic is necessary and a consensus or divergence among experts can be generated (Hasson 1008-15). These studies usually consist of a series of surveys, with each round building on the next (Hasson 1008-15). This iterative process allows for the opinions of multiple experts to be commented on and improved upon by other experts (Hasson 1008-15). A version of the Delphi which can be utilized when limited information is known about a subject, is an emergent study. By choosing an emergent type of Delphi, the question in the first round of surveying changes into something more open ended (Pailthorpe 1-2). This allows for the generation of ideas and conceptions which can be presented to the experts in the subsequent round of surveying. This type of study is crucial to developing a series of best practices and recommendations regarding the spread of disease within free trade regions. These expert opinions can then be utilized in creating a series of policy recommendations. After these recommendations are developed, they can be compared to policies which are currently in place in order to assess their agreement.

In order to best address the topic from multiple perspectives experts from the public health, health care, and transport fields were included. They were asked to develop a series of best practices that will limit the spread of disease in free trade areas. The criteria for these experts varied depending on their field. For experts from the public health field the criteria were: Master of Public Health (MPH) and Ph.D. in a related field, or Ph.D.in a related field with demonstrated interest in Public Health and published within last 5 years. The criteria for experts from the health care field were: ten plus years of experience in the healthcare field and/or five plus years of experience in government public health organizations. For transport experts, the criteria were: ten plus years of experience and/or proprietor or owner of a transport company. Once the experts had been identified, they were enrolled in the study.

This Delphi Study was completed in three rounds of surveying. The first round asked a broad open-ended question regarding the spread of disease in areas of free trade and allowed for experts to write a response. This response was then analyzed for common threads among the answers. Once identified, these threads were used to create the next survey, which asked the experts to rank a series of best practices based upon their effectiveness and ease of implementation for three specific disease types (Respiratory, Bloodborne, and Vector Borne). They were then given the option to explain their rationale and provide any other thoughts in the

manner of free response. These answers were then used to develop a policy framework for generalized disease and outbreak. This framework was presented in the final round of surveying. The experts were asked whether or not they believed that the framework would lead to productive policy development. They then were prompted to leave any final thoughts or suggestions in a text box. If they disagreed with the framework, they were asked why and for an explanation.

The results of the survey were analyzed and from this a series of recommendations were generated. These recommendations were based on a hierarchy of needs, requiring one level to be implemented before the next can be. These levels were the fundamental level, focused level, and advanced level (Figure 1).

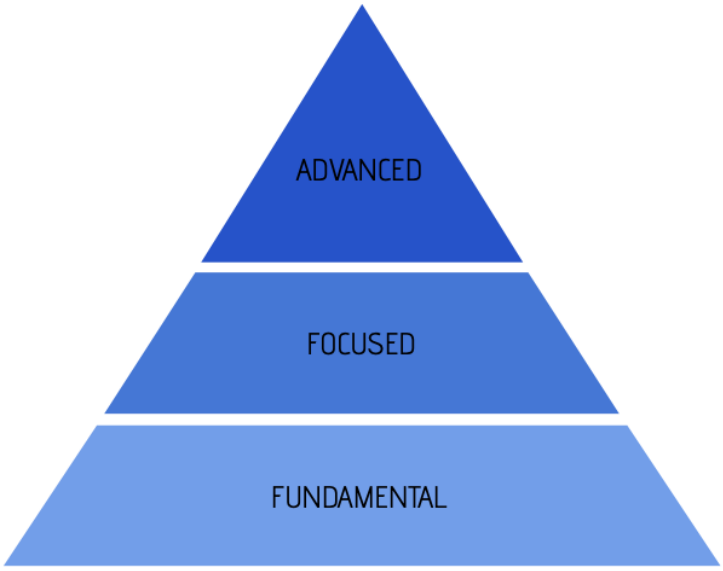

Figure 1: Pyramid Detailing the Hierarchy of Policies

On the fundamental level, personal protective equipment, essential information, and disinfecting common workspaces were suggested. The focused level was separated by generalized disease type. Based on the experts opinion, recommendations to increase education were generated and for respiratory diseases, limiting human interaction through social distancing was recommended. In the case of vector borne diseases decontamination zones were the next measure to be implemented. At the advanced level priorities were limiting human-to-human interactions via automation, treatment and testing, and monitoring and tracing. It was important that each level was implemented before the next for the highest level of effect to be achieved by

these policies. When comparing these results to the policies implemented in both Namibia and Thailand similarities and differences can be seen.

3.2.1 EXPERT OPINION COMPARISON TO NAMIBIAN AND THAI POLICY

While lacking a solidified hierarchy, both Namibia and Thailand promoted the HIV/AIDS version of personal protective equipment via condom promotion programs. In addition to this Namibia and Thailand both ran informational campaigns about HIV/AIDS early on in their fight against HIV/AIDS (Ministry of Health and Services) (Yamamoto and Itoh 247-265). With regards to the focused measures, Thailand succeeded at first implementing educational and empowerment programs regarding HIV/AIDS and applied them to a broad range of the population (Yamamoto and Itoh 247-265). Namibia was slower to the rise to the challenge of implementing educational and empowerment programs but did succeed in implementing policy in 2008 (Directorate of Special Programmes). With regards to the advanced level, both countries have been able to provide treatment and testing as well as monitoring and tracing services. While Thailand was able to provide these services and monitoring sooner than Namibia, they both are able to provide them at this date, albeit at varying levels.

Major differences between the recommended hierarchy and the actual policies seen in Namibia and Thailand have to do with the ordering of events. While both policies implemented the suggested measures at each level, they did not do so in the same order as was recommended. Often measures were implemented in tandem, such as condom promotion and education. In addition to this there was no mention of specialized services for key or high-risk populations in the recommendations made from the expert surveys. These policies were key in preventing the further spread of HIV/AIDS and treating PLWHIV. Despite these differences the suggestions made still provide a strong basis and plan for initial steps for the treatment of a generalized disease.

SECTION 4: RECOMMENDATIONS FOR FUTURE POLICY DEVELOPMENT

Similarities which were identified in the policy comparison were a slow initial response, emphasis on condom usage, emphasis on a collaborative effort among different government sectors, later policy specialization, and usage of ART therapy. Even among these similar threads, each country approached these policy pieces differently. The key differences identified point to a larger problem among Namibia's policies. These differences are timing of policy implementation, initial approach (targeted or blanket), type of programming, surveillance system used, and the ability to effectively use their health care system and NGOs. Upon comparison to the recommendations developed from the Delphi Study, another set of similarities and differences were identified. The similarities were based upon content. Both Namibia and Thailand were able to address the recommended practices and prevention measures through their policies. The key difference was the order in which these practices and prevention measures were implemented. Both Namibia and Thailand difference in the order which they implemented these measures when comparing with the recommendations. Through the identification of these similarities and differences, recommendations for Namibian policy regarding HIV/AIDS can be created.

The recommendations are separated into three categories: recognition, specialization, and access. These categories were developed by looking at the where the policy in Namibia significantly differs from the policy in Thailand causing a group of people to suffer disproportionately due to greater HIV prevalence. Thailand has been able to successfully address and empower the high-risk groups, allowing for them to gain control over their stake in HIV/AIDS policies. Looking at how Thailand has accomplished this gave inspiration for these recommendations.

The category of recognition revolves around the idea that the high-risk populations, MSM, IDU, and SW, are often marginalized as well. Namibia has struggled with their policies to recognize these populations and empower them, creating an enabling environment. Through recognition of these populations on a governmental level, Namibia will be able to identify concentrations and clusters of HIV, which are hiding in the country. They then will be able to reach out to these groups and empower them by running educational programs similar to those in

Thailand. These programs can be run by leaders in withing the high-risk populations, placing them in control of their education and giving them a stake in the policies being made. Recognition also has another aspect, which is surveillance. In comparison to Thailand's surveillance system, Namibia's system is weak. Only completing surveillance surveys every two years within antenatal care clinics, Namibia is struggling to get an accurate estimation of the prevalence of HIV within the general population. By increasing frequency of and the populations under surveillance, both within high-risk populations and other estimators of the prevalence in the general population, such as blood donors. By increasing surveillance through frequency and population, Namibia would be able to identify a more accurate number of cases. Recognition on the governmental level is key in creating an enabling environment, running empowering programing, and identifying the HIV/AIDS epidemic. Once it has been recognized, specialization becomes a clear next step.

Specialization is a step which Namibia has already begun to take. However, looking at Thailand's specialized policy packages, there is a significant amount of room for improvement. Developing more specified programs and initiatives will allow for Namibia to address the drivers of the continued spillover into the general population. In addition, it will allow for more impactful programs and policies to be implemented as there can be more specifications made. This directly links to the recognition category, as these high-risk populations need to be recognized before they can be addressed. The severity of the level of infection must also be recognized before targeted and specialized policies can be implemented. The impact level of specialized policies is greater than that of generalized or blanket policies, as it allows for the policies to actually address the problems faced by individual groups. This specialization ties directly into the next category, access.

The category of access encompasses several policy areas, collaboration with NGOs, health care systems, and regional access, but revolves around one key problem, centralization. In comparison with Namibia, Thailand has been able to provide much greater access to care, treatment, prevention, and educational programs through a decentralized health care system. This decentralization is key to the success as it allows for quality care to be provided throughout the entirety of the country. This is extremely important in Namibia as some of the worst affected areas are extremely far from the capitol, where the majority of the health services are offered. Thailand relied on help from NGOs in order to provide care to hard to reach areas of their

countries. Increasing collaboration and communication with the NGOs who are interested in Namibia will allow for Namibia to more effectively distribute resources and increase access to services in isolated parts of the country. Working on decentralizing the health care system is another step which will help Namibia provide services to all who are impacted by HIV/AIDS. In addition to this, offering health services training opportunities for young people who are at risk for high-risk behaviors, such as sex work or intravenous drug use, would allow for Namibia to decrease the high-risk populations all while increasing access and fighting the "brain drain" which they suffer from. Along the same lines of specialized policy packages in Thailand, is regional specification and access. Providing specific policies to regions based upon severity of infection and transmission allows for the policies to be more impactful and increases access appropriately for those regions who currently do not have adequate access. By addressing these categories, designing, and implementing suggested policies Namibia will be able to better address their HIV/AIDS outbreak.

SECTION 5: CONCLUSION

The HIV/AIDS epidemic has been plaguing the world for nearly forty years (Lemey et al. 6588-6592). This previously deadly and debilitating disease is now considered treatable and people can live a nearly normal life due to the medications and treatments available, such as antiretroviral therapy (ART). Despite the rest of the worlds' ability to take the initially generalized epidemic and prevent continued spillover from high-risk or key populations, Namibia has struggled to combat the spread of HIV/AIDS. Initially hindered by their curative, centralized health care system and their blanket ABC policy approach, Namibia struggled to prevent, identify, and treat HIV. Despite a shift in policy direction, Namibia still has a high percentage PLWHIV globally in comparison with their percent of the global population ("Namibia Population (2020) - Worldometer."). This increased disease burden has hindered them as they have strived to push themselves into the developed world. Similar to Namibia, Thailand initially struggled to combat and design effective policy in the fight against HIV/AIDS, the north becoming an epicenter in the global epidemic in the 1990s (Goihman-Yahr and Parish 1-3). Since then, Thailand has become a leader in HIV/AIDS prevention through their successful implementation of specialized, treatment oriented, and empowering policies.

This difference in success stories brings up three essential questions.

1. How can we learn from the success of Thailand?
2. Can we apply these lessons to Namibia?
3. How do lessons learned from Thailand compare to suggestions from experts?

These questions were address through a two-part study. The first part was to complete a thorough review and comparison of the policies which were implemented in Namibia, since its conception as a country, and in Thailand, since the outbreak of HIV/AIDS. This review allowed for key similarities and differences to be identified between the two countries' approaches. In order to address expert opinions, a Delphi Study was utilized. This was completed in a series of three surveys where expert opinions were gathered on the topic of best practices for disease prevention within free trade areas. The experts were from the health care, public health, and transport fields. At the end of the surveys a policy framework was developed and evaluated. This framework was used to develop a series of recommendations which were then compared to the policies utilized by Namibia and Thailand.

Through an in-depth policy comparison and Delphi Study, the HIV/AIDS-related policies from Thailand and Namibia were assessed for similarities and differences and then compared with a series of recommendations generated from the opinions of key experts. These recommendations encompassed recognition of the high-risk populations, specialization of policy for these groups, and increased access. This study was completed in order to best address the gap in knowledge regarding the HIV/AIDS epidemic in Namibia through policy comparison Thailand, a country who has seen success in suppressing its HIV/AIDS epidemic.

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