

PARTNER NOTIFICATION SERVICES IN KISII COUNTY, KENYA: EVALUATING BEHAVIOUR CHANGE COMMUNICATION STRATEGIES

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Abstract

In the Eastern and Southern African region, between 40-50% of people living with HIV remain undiagnosed. Partner Notification Services (PNS) programme was established to scale-up HIV testing coverage. This paper describes the behaviour change communication strategies used to implement PNS; and analyses HIV testing patterns arising from the implementation of PNS. Drawing data from purposively selected respondents from three health facilities in Kisii County, the sequential mixed method design was used to qualitatively analyse the views of providers of partner notification services on the behaviour change communication strategies and to present a quantitative analysis of partner notification trends in the year 2018. The results identified the following behaviour change communication strategies: contract referral, provider referral, dual referral, passive referral, telephoning, the suggestion box, and charts. Though the strategies have impacted HIV testing, inherent setbacks could slow down the process. These include lack of prior assessment of the PNS policy environment, pre-requisite training and adequate facilitation on communication strategies in PNS implementation. To increase HIV testing coverage, the application of a mixture of the communication strategies rather than a mutually exclusive process is critical.

Keywords: *partner notification services, behaviour change; communication strategies; HIV testing; contact*

Introduction

According to UNAIDS (2018), Eastern and Southern Africa remains the region most affected by the HIV epidemic, accounting for 45% of the world's HIV infections and 53% of people living with HIV globally. At the end of 2015, it was estimated that over 36 million people worldwide had HIV and, of these, 40% remained undiagnosed (UNAIDS, 2016). To address this gap in knowledge of HIV status and to achieve UN testing and treatment goals – in particular, the first of the 90–90–90 goals, to diagnose 90% of people with HIV infection by 2020 (UNAIDS, 2016) – new approaches were recommended to enhance the efficiency and coverage of testing people for HIV. HIV status here refers to the final report a patient is given that shows the final interpretation of the state of the patient's disease and may be reported as HIV-positive, HIV-negative or HIV-inconclusive.

One of the approaches for increasing HIV testing according to UNAIDS (2016) was the HIV Partner Notification Services (PNS). It is a voluntary process whereby a trained provider asks people diagnosed with HIV about their sexual partners and/or drug-injecting partners, and then, if the HIV-positive client agrees, offers these partners HTS (UNAIDS, 2016). In Sub-Saharan Africa, where heterosexual transmission is the primary driver of the HIV epidemic and half of HIV-positive people do not know their status, PNS is a promising strategy to fill testing gaps (Sharma et al, 2018).

A more popular form of PNS is the assisted one where consenting HIV-positive clients are assisted by a trained provider to disclose their status or to anonymously notify their sexual and/or drug injecting partner(s) of their potential exposure to HIV infection. Thereafter, the provider offers HIV testing to these partner(s). According to Ferreira et al (2013) assisted partner notification has been an important public health approach in infectious disease management, including in programmes targeting sexually transmitted infections (STIs) and tuberculosis (TB). Thus, WHO (2016) issued a strong recommendation on the inclusion of voluntary assisted HIV partner notification services (PNS) as part of a comprehensive approach to improving the coverage of HIV Testing Services. It must also be cushioned from inciting intimate partner violence by screening partners for proclivity to physical, psychological or sexual harm to their partners. Intimate violence takes such forms as physical violence, sexual violence, emotional or psychological abuse and controlling behaviour.

Health care service providers should be involved in PNS. According to CDC (2016), programmes should ensure that HIV-positive clients who consent to voluntary partner notification services are informed of and understand the following: the purpose of partner notification services; that partner notification services are voluntary and clients still have access to other health services if they decline. Furthermore, the different communication approaches available for notifying partners such as provider, contract, dual or passive referral; potential risks and benefits, and how to minimize risks should be known. It is also important to know how and to what extent privacy and confidentiality can be protected; and where support services are available, and how to contact and access those services if needed, particularly if harm is experienced.

The purpose of this paper is two-fold. Firstly, we qualitatively analyse the behaviour change communication strategies employed to promote PNS and what the implementers think about them. Secondly, we quantitatively analyse the patterns emerging from the implementation of PNS in three sub-county hospitals in Kisii County.

Theoretical Framework

This paper is guided by the Behaviour Change Communication model (Family Health International, 2002). The model draws upon various models and theories to design effective programs and activities. One of these is the Diffusion of Innovations theory by Rogers (1962) which explains how, over time, an idea or product gains momentum and diffuses (or spreads) through a specific population or social system.

Another model is the trans-theoretical (stages of change model) which identifies stages of behaviour change as pre-contemplation (not ready), contemplation (getting ready), preparation (ready), action, and maintenance (Bandura, 1997). Next, is the Self-Efficacy model (Prochaska et al, 2002), viewing behaviour change as the result of optimistic self-belief in our competence or chances of successfully accomplishing a task and producing a favourable outcome. Finally, is the Behaviour Change Continuum approach (Cabanero-Verzosa, 1996) which presents stages of behaviour change in a rank scale involving unawareness, awareness, motivated to change, trial of new behaviour, and sustenance of new behaviour. The study reported in this paper applies the integrated model by Family Health International (2002) as expressed in Figure 1.

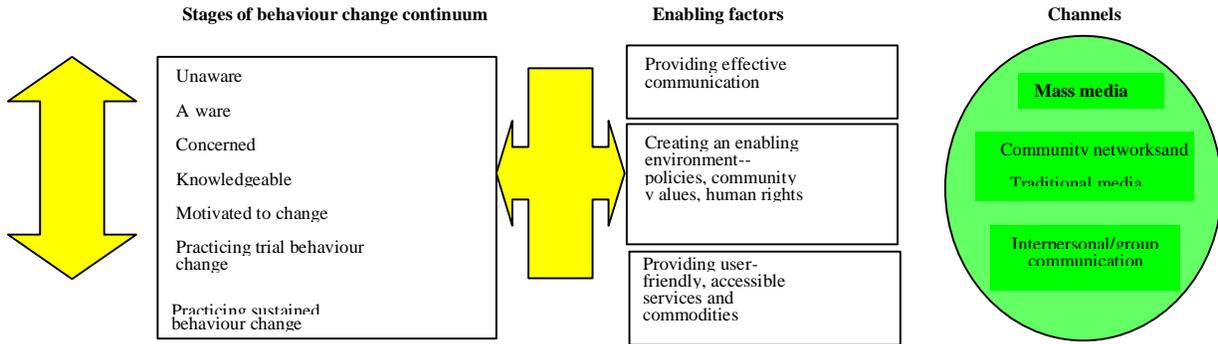


Figure 1: A framework for BCC Design

Source: Family Health International, 2002

As Figure 1 indicates, there are several elements of behaviour change continuum which interact with enabling factors through such channels as mass media, community networks, traditional media and interpersonal/group communication. In this paper, we use this model to identify behaviour change communication strategies employed in the implementation of PNS in Kisii County. The integrated model is used to explain the strengths and gaps in the existing communication strategies.

Methodology

Research Site

We carried out the study in Kisii County of Western Kenya. The County is among the 47 counties in Kenya. Kisii County neighbours Nyamira County to the North East, Narok to the South, Homabay and Migori to the West. It lies between latitude 30° and 10° S and longitude 35°38' and 35° East. The County covers a total area of 1,317.5km². It is divided into nine (9) Sub-Counties namely Bobasi, Bomachoge Borabu, Bonchari, South Mugirango, Kitutu Chache North, Kitutu Chache South, Nyaribari Masaba, Nyaribari Chache and Bomachoge Chache.

Research Design

We employed the multi-method design incorporating the qualitative and quantitative designs. The procedure for mixing was informed by sequencing and weighting. Accordingly, we used sequencing to place qualitative approaches before quantitative approaches. In this regard, focus was first on the exploratory qualitative analysis of focus group discussion and follow-up interview data on the behaviour change communicative strategies employed to effect the PNS programme. It was followed by the quantitative analysis of patterns of PNS-generated HIV and Aids testing in three Level 4 hospitals in Kisii County. In terms of weighting, we employed the qualitative and quantitative methods in equal measure. Considerations for adopting the mixed method design were informed by the need to complement and complete the operational nature of PNS as supported by Cresswell (2003), to increase the depth and/or breadth of the study, and to build on the findings of the other. The mixed method approach can also be

used to triangulate and validate the findings of the study. According to Cresswell (2003), biases inherent in any single method could neutralize or cancel the biases of other methods. Similar views are raised by Creswell & Hirose (2019) who aver that the ability to combine and qualitative and quantitative methods provides a more rigorous approach to research than using a mono method.

Population and Sampling

From a population of nine (9) level 4 hospitals, we selected three (3) based on their perceived good rating in the implementation of the PNS programme. All key health providers in HIV treatment and care in the facilities were purposively sampled. They included 3 clinicians and 3 HIV Testing and Counselling nurses. Our study sample also included lay health care personnel comprising 3 mentor mothers and 3 peer counsellors. Mentor mothers are women living with HIV but have never transmitted HIV to their children during breastfeeding. They are also leaders of support groups in the Prevention of Mother-to-Child Transmission (PMTCT) units. Peer counsellors, on the other hand, are role model youths living with HIV but have suppressed their viral loads through adherence to anti-retroviral therapy (ART). We used purposive sampling method to select these groups of participants from the three health facilities. According to Cresswell and Plano Clark (2011), this method involves identifying and selecting individuals or groups of individuals that are especially knowledgeable about or experienced in a phenomenon. In this case, the participants were knowledgeable about HIV and Aids-related stigma and discrimination and also willing and able to communicate their experiences and opinions in an articulate, expressive, and reflective manner.

Data Collection

One method of data collection we employed in this study was the focus group discussion. In each facility, the key respondents were engaged in group discussions based on a pre-determined interview guide. Ochieng, Wilson, Derrick, Mukherjee (2018) have recommended this method when in need of data from a purposely selected group. Thus, the method facilitated an in-depth understanding of the successes and failures of the communication channels used to implement the PNS program from the implementers' perspective. We conducted focus group discussions in the HIV Testing and Counselling room during lunch breaks to avoid interrupting service delivery. After introductions, we discussed the purpose of the research and the informed consent form with them. Focus group discussions only took place after respondents signed the informed consent form. Two themes informed our discussions namely, how the PNS program works and the communication channels used to implement it.

To complement and seek clarification for focus group discussion data, we conducted follow-up interviews involving HIV testing service providers. Follow-up interviews have been found by DeJonckheere & Vaughn (2019) to facilitate collection of open-ended data and exploring participant thoughts, feelings and beliefs about a particular topic and delving deeply into personal and sometimes sensitive issues like, in this study, HIV and Aids.

Data Analysis

Data analysis involved incorporating qualitative and quantitative analytical procedures. Guided by the research purpose, we executed the qualitative analysis of focus group discussions and follow-up interview in order to explore the behaviour change communication strategies used to implement the PNS programme. We carried out a simple descriptive narrative analysis followed by the quantitative determination of frequencies on such variables as number of new positives, spouses contacted, other sexual partners contacted and number linked to medical facilities for the year 2018 by month. We used the outcome of the mixed data analytic processes to present data in descriptive narratives and frequency tables, leading to interpretations and comparisons for conclusion making.

Ethical Considerations

To anchor the study reported in this paper within acceptable ethical standards, the research proposal, data collection instruments and the informed consent form were reviewed and approved (Approval Number CU/IERC/NCST/18/53) by a registered Institutional Ethics Committee. The study was then issued with Research Permit Number NACOSTI/P/18/50245/24190 by the National Commission for Science, Technology & Innovation. Before data collection, we debriefed all respondents fully about the purpose of the study and asked each to sign an informed consent form. We assured them of anonymity and confidentiality.

RESULTS

Communication Strategies for Partner Notification Services

In this section, we present a qualitative discussion of the behaviour change communication strategies used to put into effect the PNS programme as presented by healthcare providers. The qualitative methods we involved included ethnography in which we studied the providers in their hospitals, case studies of three health facilities in which we explored the communicative strategies in depth from the implementers' points of view and narrative research where we asked the providers to provide stories about their experiences with the various behaviour change communication strategies in use and how they affected the PNS programme.

When we asked providers of the PNS programme to list behaviour change communication strategies they used to implement PNS, the most frequently identified were: contract referral, provider referral, dual referral, passive referral, telephoning, the suggestion box, and charts. We further engaged the respondents on how they evaluated each of these strategies, the outcome of which is discussed below:

Contract referral

Contract referral occurs when HIV-positive clients enter into a contract with a trained provider and agree to disclose their status and potential HIV exposure to their sexual contacts by themselves, and refer their partners to HIV testing services (HTS) within a specific time period. If the sexual contacts of the HIV-positive individuals do not access HIV Testing Services, or contact the health provider within that period, then the provider will contact the partner(s) directly and offer voluntary HTS. However, the healthcare provider must seek and receive the consent of the client.

In some cases, it was reported that HIV-positive clients failed to disclose sexual partners other than their spouses. As a result, they contacted and referred their spouses to the health facilities for testing. It also implies that eligible people are not notified and linked to a facility. This therefore amounts to a breach of contract as attested by a clinician in one of the sampled facilities:

Over time, we have discovered that HIV-positive clients do not reveal all their sexual contacts. As a matter of procedure, we commit to the contract referral strategy but they end up revealing and referring their spouses only. As such, there is a possibility of unknown HIV-positive people out there. This is clearly a breach of the contract referral. But as providers, we cannot undertake to follow the undeclared cases up. We do not know where to start.

In other cases, HIV-positive clients failed to notify their spouses within the stipulated time, paving the way for healthcare workers to take over. This was particularly the case where the client was a female. It was reported that intimate partner violence was highly likely because males believed their wives had contracted the HIV virus from elsewhere. An ante-natal clinic nurse in one of the facilities narrated:

A pregnant mother tested HIV-positive in this facility. As is the norm, we asked her to advise the husband to visit the facility for testing. When she visited the facility another time, she reported that the husband turned hostile and asked her, "Am I the one who is pregnant." As such, she failed and we had to take charge.

It is apparent that confidentiality issues coupled with stigma and discrimination are standing in the way to successful implementation of the contract referral behaviour change communication strategy. For it to work well therefore, there is need for robust anti-stigma and discrimination mechanisms through multi-media campaigns.

Provider referral

Regarding provider referral, with the consent of the HIV-positive client, a trained provider confidentially contacts the person's sexual partner(s) directly and offers them voluntary testing and counselling services. While this strategy was reported to work in some cases, in others, instances of violence were reported when healthcare providers visited some homes offer HIV testing and counselling services to named sexual contacts. In one episode, a team of providers was chased by an enraged relative to a contact as narrated an HIV testing counsellor:

We had been directed by a new positive to her spouse at home. After making a telephone call and informing him that he could have been exposed to the HIV virus and needed to be tested, he reluctantly asked us to visit his home. When we got there some times in the evening, we met the contact milking cows with his elder brother. After introducing ourselves and telling him why we visited, the elder brother brandished a machete and ordered us to leave the home immediately. We took off. We are yet to go back.

The form of violence reported in this narrative is indicative of denial as a form of self-stigma among the people. Given that HIV testing and counselling is a voluntary process, it remains difficult to understand how aspects of violence can be dealt with to ensure the provider referral behaviour change communication strategy works well. Provider referral is an efficient and high yield method that should target those at highest risk of HIV (Sharma et al, 2018). In line with behaviour change communication model⁷ perhaps there is need to provide user friendly accessible services such as the HIV self-testing kit for the self-stigmatized people. Moreover, community networks and traditional media should be emphasized to address confidentiality issues.

Dual referral

The HIV-positive clients may prefer to make disclosure about their HIV status jointly with the provider in an approach called dual referral. During the joint disclosure, the provider also offers voluntary HTS to the partner(s) of the HIV-positive client. However, some contacts feared to make joint disclosures to their intimate partners due to fear of intimate violence as attested by an HIV Testing Counsellor:

An index contact once told me that she could not make her HIV status known to the husband and that she had no way of convincing him to visit the facility for the test. She requested that when we shall be conducting home-based testing, we begin with her home. She instructed me not to disclose her HIV status to the husband but instead test both and their children and only comment about their status after. That is how we identified the husband and linked him to the facility for ART. Since then, we have been using home-based testing where index contacts refuse to disclose their status or their contacts refuse to visit the facility.

Intimate partner violence could be a serious impediment to the successful implementation of the dual referral behaviour change communication strategy. Innovative ways need to be devised to protect the index client where opportunities for intimate partner violence are high.

Dual referral may cause serious consequences including family break-ups especially where one partners turns out to be HIV-negative. A clinical officer in one of the sampled facilities narrated as follows:

An HIV-positive woman is under care and treatment in this facility. The husband works away in the city and comes occasionally. We asked her to come along with him so that we can jointly disclose his wife's HIV status and offer him testing services. The couple showed up one day. The wife and I disclosed the wife's status and offered pre-testing counselling. He readily agreed to do the HIV test. When it turned negative, he performed the sign of the cross and left me with his wife in the counselling room. It is now six months and the wife says he has never come home since then. She can't even reach him on phone because he has blocked her telephone number.

This episode arising from dual referral presents a new dilemma involving discordant couples. It is clear that discordant couples need a programme for helping them to understand their situation without one stigmatizing and discriminating the other.

It is notable that the dual referral communication strategy adopts the group communication channel (Family Health International, 2002). To improve its effectiveness, there is need to create an enabling environment, adopt and adapt relevant policies, instill community values and human rights as envisioned in the behaviour change communication model (Family Health International, 2002). This will perhaps ensure seamless progression of both known positive clients and eligible ones through the stages of change as articulated in the trans-theoretical model (Bandura, 1997).

Passive referral

Finally in the passive referral approach, HIV-positive clients are encouraged by a trained provider to disclose their status to their sexual and/or drug injecting partners by themselves voluntarily. They are also advised to encourage their sexual contacts to seek HTS in facilities convenient to them given their potential exposure to HIV infection. Due to the high stigma and discrimination in Kisii County, the HIV-positive clients are trained on how HIV Self-Testing (HIVST) is done and supplied with testing kits for their sexual contacts in case they refuse to visit a health facility for testing. According to WHO (2016), self-testing is a process in which a person collects his/her own specimen (oral fluid or blood) and then performs a test and interprets the result, often in a private setting, either alone or with someone he or she trusts.

Targets for HIVST include key populations (Prestage et al, 2016), men (Choko et al, 2015), young people, health workers, the general population, pregnant women and their partners, and other couples and partners (Liu et al, 2015). A reactive self-test result requires further testing and confirmation by a trained tester and if the test result is confirmed, be advised and linked to treatment and care (WHO, 2016).

Implementation of the passive referral strategy as supported by HIVST is facing hurdles in the County ranging from fear of effecting the test to the possibility of partners being notified turning violent. Consider the narrations below by a clinician for HIV Testing and Counselling Services:

Some index contacts advise us that their sexual contacts including spouses might not wish to turn up to the health facility for HIV testing. We recommend HIVST but they sometimes decline. In fact, in one case a client said that if the wife tested positive, then they can use the results for ART services without the husband taking the test.

This suggests that lack of pre-counselling component in the implementation of the HIVST may be the reason for fearing to undertake the HIV test. A case involving violence was narrated by the respondent as follows:

There is a senior officer of the Government in this town. The wife tested positive and was linked to the comprehensive care centre for treatment and care. Since he is a senior officer who is known by everybody in the town, we gave the wife a self-testing kit and asked her to guide the husband on how to test himself. When she came back to us, she said that the husband turned very violent and demanded to know who infected the wife.

It can be deduced that the level of stigma and discrimination remains high in parts of Kisii County, posing a challenge to the effective implementation of the passive referral form of PNS. It is also clear that pertinent information on pre-test counselling has no place in the HIVST strategy. Someone using the strategy might be lacking information on HIV, risk assessment and prevention, need for disclosure and importance to reach out to partners for HTS, benefits of self-testing, relationship between testing and HIV care and treatment services, and client preparation, testing process and interpretation of test results.

The other challenge facing passive referral is denial as a form of self-stigma. In an episode, a woman was in denial because she did not know how to disclose her HIV status to her spouse. See the illustration below:

A woman tested positive in this the facility. She did not know how she would disclose this outcome to her husband whom she claimed was very hostile. She therefore refused to own the results. She is therefore unable to begin medication for fear of being discovered by the husband, making very weak and anaemic. Since her immunity has been compromised greatly, she has contracted TB.

This narrative is indicative of how passive referral strategy is being slowed down by self-stigma and the fear of intimate violence. While Brown et al (2011) acknowledge that passive notification has had little success in Sub-Saharan Africa, the strategy may work better if the counselling phases are meticulously implemented with emphasis on the post-counselling phase.

Telephoning

When new HIV positive adults have been identified at the health facility, they are requested to name and provide telephone contact information of the people they have had sexual relations with. Trained HIV Testing Service clinicians call the named persons with a message that they need to meet the healthcare officer for counselling and testing. Asked how they package the message, one clinician said:

As per our training by the implementing partner, we call the person and tell him or her that we picked their names and telephone contacts from the hospital suggestion box. We explain to them that the person who provided the details is living with HIV and has had sexual contact with them. To protect the identity of the person who provided the details of our recipient, we tell them the message was anonymous. We then advise that it is important for the recipient to organize and get tested either at the nearest health facility or come to our facility. We even offer to meet and test them wherever they are.

The respondent however said that some of the recipients turn hostile when they hear that it is a health practitioner calling and the fact that they could be living with HIV without their knowledge. We sought know how they deal with this challenge and he said:

Sometimes we use different phone numbers ensure that communication continues till we arrive at a logical conclusion. Sometimes we disguise ourselves as ordinary people who are just concerned about their health. We even go to the extent of travelling to where the recipient is, buy him tea and convey HIV testing information in the process.

Given the sensitivity of the HIV-related discourse and the stigma and discrimination associated with it in Kisii County, a telephone conversation can be long and winding as noted by an HIV Testing Counsellor:

For clients who agree to talk, a telephone conversation can last between thirty minutes and an hour, sometimes longer. The recipient is first startled and in denial. Then he becomes very inquisitive. We have to patiently handle their worries and concerns. Unfortunately, the airtime earmarked for such calls in the facility is never enough. We have to use our phones to follow a case up sometimes.

Due to the expense associated with calling, a respondent noted that they request to meet their recipient at a place of his/her convenience for in-depth face to face interactions. However, a new challenge is that some recipients reside or work in far flung areas as attested by a clinician:

It works well when we meet the recipient in person for a one-on-one with them. However, some of them work or live a long distance away from the hospital. In particular, this group includes business people, people from the surrounding working in other Counties and towns, and travelers. Although some of them request that we meet, it becomes difficult since there is no budget for such travels.

Another challenge mentioned by respondents is that index contacts sometimes provide wrong numbers for their sexual contacts which makes it hard to reach them. The clinician said:

While we manage to reach some contacts with ease, it is impossible to reach others because index contacts provide telephone numbers which either do not exist or belong to different people from the contacts they identified for us. That becomes a dead end for us.

An HIV Testing counsellor noted that some contacts become very hostile and uncooperative when they are advised to be tested for HIV. The respondent narrated this episode:

I was given a contact by client who had tested positive at our clinic. When I called the contact and provided details about the need for the person to get tested, he became angry and hurled abusive words and expletives at me. He said he doesn't care whether he could be living with HIV or not and vowed to slash us with a machete should we visit their home for HIV counselling and testing. I couldn't continue following the client any longer.

From the narratives, it is evident that telephoning is very critical in the implementation of PNS. However, it faces a number of serious challenges which need urgent mitigation for better outcomes.

The suggestion box

The suggestion box is a means of collecting slips of paper with feedback information from internal and external public. This strategy was mentioned as another medium for identifying eligible contacts for HIV counselling and testing. According to a clinician in one of the sampled facilities:

There are clients after testing positive to HIV do not want to accept the results. They even do not want to identify their sexual contacts. These are the clients we recommend to use the suggestion box. We advise them to provide the identity of their sexual contacts and provide their

telephone numbers. Unfortunately, the suggestion box remains largely unused although we have referred several contacts to use it.

In another facility, a clinician noted that the suggestion box is one of the recommended media for eliciting eligible contacts for HIV counselling and testing but it remained unutilized in her facility. She said:

The suggestion box is one of the methods we are supposed to use to identify eligible contacts for testing. But in this hospital, we have never opened it to see if it has any information. In fact I can't really tell who has the key to the box in this facility.

A clinician in another facility noted that some index clients are very protective of their sexual contacts probably due to culturally-instigated stigma and discrimination. As a result, they do not disclose them even if they are asked to use the suggestion box. He said:

An index person in some cases wants to keep his/her status to themselves. It doesn't matter which channel you prescribe to them for disclosing their contacts. Not even the suggestion box. They simply keep it to themselves. I think it is because of the culture of the people. Someone does not want to be seen by the society as the bad one.

According to the behaviour change model (Family Health International, 2002), the effectiveness of a channel of communication will be dependent on an enabling environment. Owing to the high levels of stigma and discrimination in Kisii County, the placement of these boxes in open areas could be the reason for avoiding them. There is need for more innovative ways of increasing the use of suggestion boxes by creating virtual ones (Ferreira et al, 2013). Other innovative mechanisms such creating client awareness of the suggestion box and a reward system for those who use it may grow the number of users.

Charts

Charts on the PNS programme have been developed by implementing partners and healthcare personnel tasked with HIV testing and support services. These are displayed in the HIV Testing Services and the Comprehensive Care clinics. They are meant to supplement clients with information and help demystify HIV and Aids. Figure 2 is one of the prominent charts in the HTS clinics we visited.

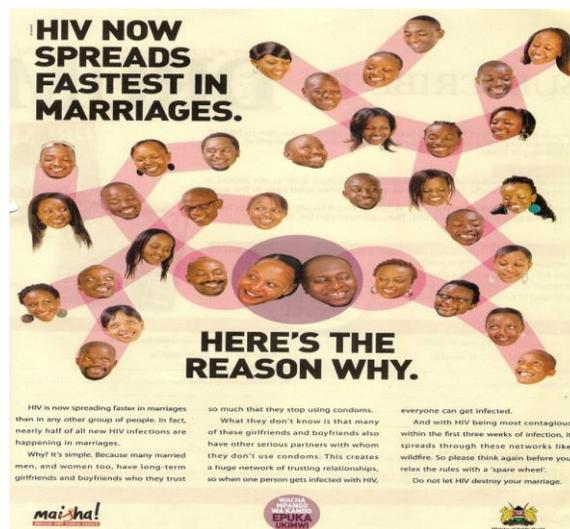


Figure 2: Spread of HIV (Source: NASCOP)

At the centre of Figure 2, is a couple. Each of them has a trusted sexual contact with whom they have unprotected sex. The sexual contacts, in turn, have their trusted intimate partners. The social network keeps expanding. A clinician noted the following about this chart:

When index contacts are adamant to disclose their sexual contacts, I take my time to explain to them the chart. I remind to them that it is real for some people to have more than one sexual contact. After studying the chart with them, they start opening up. The chart is working very well.

Another type of chart used is the PNS tree. Every facility has been asked by the implementing partners to draw PNS trees and keep on updating it. One such tree from one health facility is displayed in Figure 3.

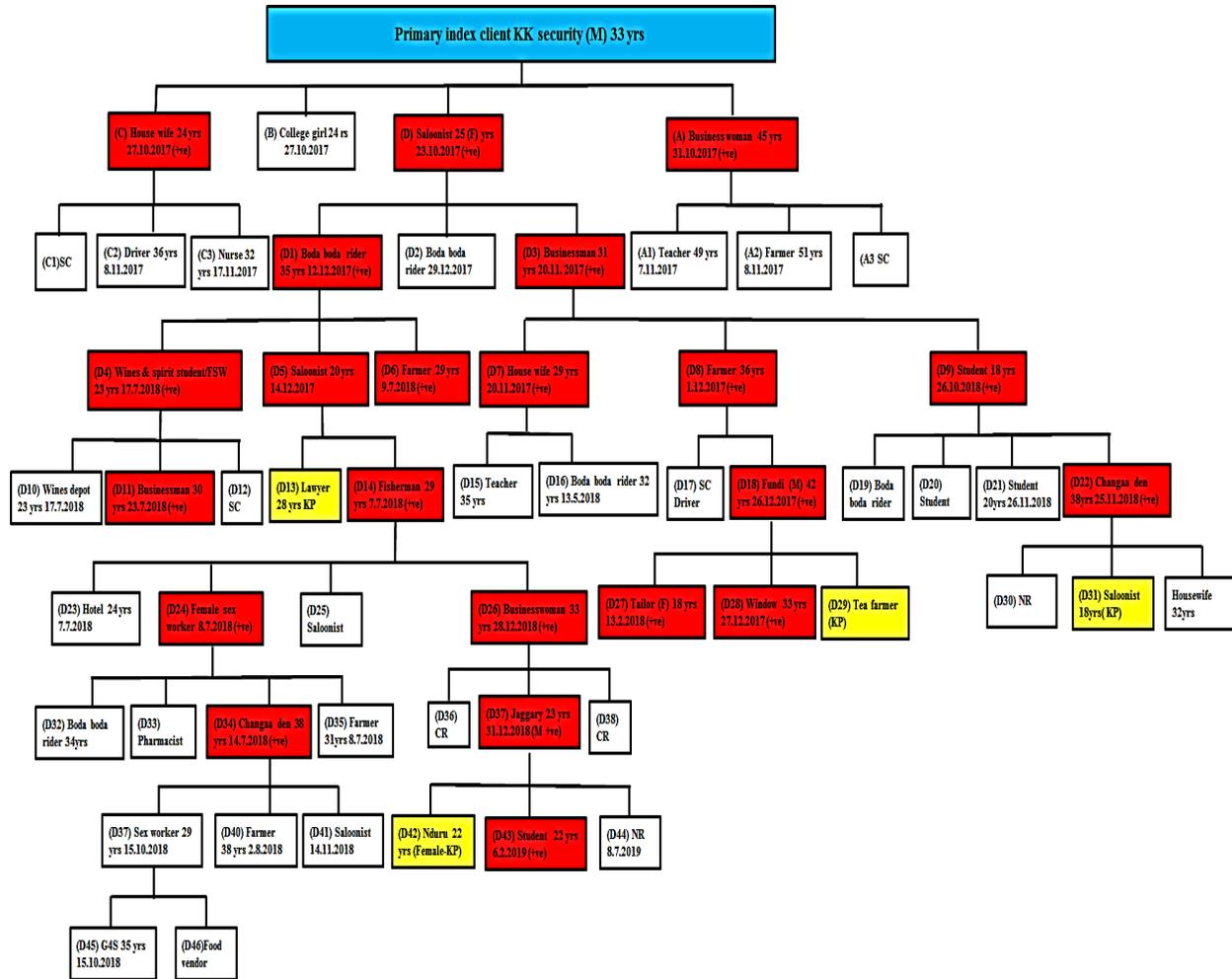


Figure 3: Model PNS Tree in Kisii County (Source: Nduru Level 4 Hospital)

Figure 3 indicates that between 2017 and 2019, one HIV-positive index contact has yielded 57 sexual contacts. This means that, if updated closely, the PNS tree could turn out to be a very effective communication strategy in HIV/Aids management in Kisii County. According to the originator of the chart:

This chart is very instrumental in making people to disclose their sexual contacts. After taking them through it, they realize that they are not the only ones with multiple sexual partners.

Hence, they reveal their contacts. The chart is doing great in fighting HIV and Aids stigma in this area.

Implementing partners in Kisii County have also found the PNS tree as a very important tool in expanding HIV testing coverage using the social network approach. It emerged that several of them have engaged the originator of the chart (Figure 2) in their training sessions. The clinician added:

I tell you I have been invited as a trainer of clinicians and HTS counsellors on how to increase HIV testing using the PNS tree. Some implementers have even visited this clinic to benchmark on how I use it to fight issues with disclosure due to stigma and discrimination. As a result, the tree is growing wider day by day.

It is notable that each time a new positive client has been identified the tree is updated. But it is interesting to note that some nodes in the tree do not generate branches. When we sought an explanation from our informant, he explained the following:

The people who have not yielded branches in the tree are those affected by deep-seated stigma. They are very secretive. In other cases, the phone numbers of sexual contact we are given do not work. But, the biggest challenge is financial support to facilitate the PNS programme. Calling contacts and convincing them to come to the facility is costly. It is even harder to visit them in their homes or work places when the locations are far from here. There is no budget for such.

From this account, it can be noted that the PNS tree is a critical behaviour change communication strategy in HIV/Aids programming. HIV Testing Service providers need to be proactive in initiating a PNS tree each time they encounter a new positive and keenly track its growth. However, it is also clear that it is an expensive strategy to implement. This calls for concerted financial support by the County Government and implementing partners to address the finance-related bottlenecks that stifle its effective implementation. It might also help if more convenient software could be sourced to increase efficiency in PNS tree implementation.

PNS Trends in Selected Facilities in Kisii County

To gauge the performance of the communicative strategies in the implementation of PNS, quantitative data from three Level 4 hospitals in Kisii County in the year 2018 was sought. These were Kenyena, Gucha and Nduru. Variables of interest were month, new positives, spouses contacted, other sexual partners contacted, sexual partners tested, children tested, total positive and the number of those positive linked to health facilities. The results are presented later, beginning with Table 1.

Table 1: PNS Trend for Kenyena Level 4 Hospital

	Month	New positives	Spouses Contacted	Other sexual Partners Contacts	Sexual Contacts Tested	Children Tested	Total Positive	Positive Linked
1	Oct.	7	3	9	9	0	4	4
2	Nov.	7	4	5	3	0	1	1
3	Dec.	4	2	3	3	0	0	0
4	Jan.	6	4	8	7	0	1	1
5	Feb.	7	4	13	11	0	6	6
6	Mar.	7	1	4	3	0	0	0
7	Apr.	4	0	10	7	0	2	2
8	May	8	5	10	10	0	4	4
9	June	8	6	20	16	3	3	3
10	July	7	5	28	24	0	3	3
	Total	65	34	110	93	3	24	24

Source: HTS clinic

Table 1 indicates that for the last ten months PNS has yielded new positives ranging between 4 and 8 totaling 65. In the same period, the number of spouses contacted stands at 34 which is barely half of the total of new positives at 65. The data reveals that in the month of April alone, no spouse was contacted despite the 4 new positives identified. A similar pattern can be noted in the month of March where there were 7 new positives but only 1 spouse was notified.

It is interesting to note that the 65 new positives yielded 110 sexual contacts out of whom 93 were tested. It can also be noted that only 3 children were tested. The table also indicates that out of the 93 tested, 24 tested positive. The low number of spouses identified by the index persons at 34 implies that they are uncomfortable disclosing their new HIV positive status to their spouses.

It is impressive to note from Table 1 that all the 24 contacts who tested positive were linked to the comprehensive care centres for anti-retroviral therapy (ART).

Table 2: PNS Trend for Gucha Level 4 Hospital

	Month	New Positives	Spouses Contacted	Other sexual Partners Contacts	Sexual Contacts Tested	Children Tested	Total Positive	Positive Linked
1	Oct.	5	2	4	2	3	1	1
2	Nov.	15	17	14	13	14	4	2
3	Dec.	8	5	7	4	0	3	1
4	Jan.	15	12	23	22	13	9	3
5	Feb.	6	4	6	6	4	2	1
6	Mar.	12	7	9	8	15	5	3
7	Apr.	17	13	19	15	14	9	5
8	May	15	11	27	21	12	9	6
9	June	10	8	16	17	12	3	3
10	July	19	16	25	21	1	3	3
11	Aug	22	15	9	4	4	9	4
	Total	144	110	169	133	92	57	32

Source: HTS clinic

Table 2 indicates that only 110 spouses were reached through the PNS programme which was lower than the number of new adult positives (144) in the last 11 months. However, the new adult positives yielded a higher number of other sexual partners at 169. Patterns in the table also show that out of the 169 other sexual partners reached, 36 remain untested for HIV. The number of children screened and tested stood at 57 which is significantly higher than the 3 tested in Table 1. It is also notable that 25 people despite testing positive for HIV are yet to be linked to a health facility for ART.

Table 3: PNS Trend for Nduru Level 4 Hospital

	Month	New adult Positives	Spouses Contacted	Other sexual Partners Contacts	Sexual Contacts Tested	Children Tested	Total Positive	Positive Linked
1	Oct.	8	6	26	20	6	4	4
2	Nov.	11	7	23	14	8	1	1
3	Dec.	3	3	7	5	3	3	3
4	Jan.	14	12	29	17	16	5	5
5	Feb.	6	2	12	8	6	0	0
6	Mar.	11	8	22	20	4	3	3
7	Apr.	3	2	5	3	4	1	1
8	May	4	4	5	3	7	0	0
9	June	11	9	33	23	9	2	2
10	July	7	6	19	9	2	2	2
11	Aug	8	8	31	22	0	2	2
	Total	86	67	212	144	65	23	23

Source: HTS clinic

Table 3 shows that approximately 19 spouses are yet to be contacted despite their partners testing positive to HIV. Similar to trends in Tables 1 and 2, the new adult positives disclosed a bigger number of other sexual partners at 212 out of whom only 144 have been tested for HIV. This means that a total of 68 eligible people are yet to be tested. The number of children screened and tested is slightly lower (65) than

those tested in Table 2 (92) but significantly higher than the 3 tested in Table 1. However, the total number of positive clients at 23 have been linked to health facilities for ART.

Overall, a number of observations can be made from the trends in Tables 1-3. First, the number of new adult positives is higher than the number of spouses reached through the PNS programme. This means that new adult positives are hesitant to disclose their HIV status to their spouses. This corroborates interview data involving healthcare providers which revealed that stigma and discrimination together with possible intimate partner violence are contributing factors. Second, the number of disclosed sexual contacts other than the spouses is high, suggesting that new adult positives are freer to disclose sexual partners other than their spouses. This observation can be best illustrated by the model PNS tree (see Figure 1). Third, the number of “other sexual contacts tested” is far less than the number contacted through PNS. If the combined total of eligible “other sexual contacts tested” stood at 491 in the three health facilities and only 370 have been tested for HIV, 179 eligible people are probably untested. Reasons provided by HIV Testing Service personnel included lack of financial support to implement communication strategies for PNS; hostility from the people and intimate partner violence. Fourth, though the number of children screened and tested was higher in Tables 2 and 3 than in Table 1, considering the number of eligible families involved, a bigger number of children is expected to have been screened and tested. While a number of factors could explain these observations, this paper hypothesizes that family testing is only partially implemented.

Conclusion

The PNS remains a viable programme for increasing HIV testing coverage as attested by Cherutich et al (2017) where it is reported 69% of reported sexual partners were recruited through PNS. We therefore conclude that the myriad challenges affecting the effective implementation of behaviour change communication strategies in the implementation of PNS in Kisii County are indicative of lack of prior assessment of the policy environment. This could have included mapping all HIV and Aids programme implementing partners in the county, their activities and budgets, level of support from the County Government, and the legislative framework that may hinder or support PNS. Next, we conclude that the healthcare providers of the PNS programme lack pre-requisite training and adequate facilitation on behaviour change communication strategies in PNS implementation. Additionally, though data on the status of PNS implementation is captured on standard templates, there are no measures for monitoring and evaluating the communication strategies in use in order to continually improve PNS implementation. Lastly, to achieve desired outcomes, the application of a mixture of the communication strategies rather than a mutually exclusive process is critical.

Recommendations

Based on the foregoing conclusions, we make a raft of recommendations. First, a meticulous PNS policy environment assessment is critical. This should entail assessing political, economic, social, technological, environmental and legal factors that may impact communicative strategies in the implementation of PNS. The Kisii County Government and implementing partners can use the outcome of the assessment to address challenges such as inadequate financial support for some strategies, flouting people’s rights to privacy and dignity, instigation of gender-based violence, poor communication skills needed to implement PNS, and lack of legislations to support PNS implementation. Further, since stigma and discrimination are not adequately addressed in PNS communication strategies, the strategies need to be redesigned to incorporate them. In particular, PNS should be implemented alongside anti-HIV stigma and discrimination campaigns to increase the number of HIV status disclosures. Public meeting forums such as chief’s *barazas* should be ideal for presentation of such campaign messages.

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