WHO UNDERSTANDS VIRAL LOAD? CHALLENGES FOR REACHING THE THIRD 90 IN SOUTH AFRICA.

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BACKGROUND

South Africa continues to face a severe HIV epidemic, with an estimated 350,000 new infections every year. Despite having the largest antiretroviral therapy (ART) programme in the world, **South Africa faces significant barriers to linkage and retention in HIV care**. This is hindering progress towards meeting the UNDAIDS 90-90-90 HIV treatment targets[1].

Overall, only 45% of people living with HIV are virally suppressed[1].

Figure 1: *Progress toward 90-90-90 targets among South African adults 15-49 years [1]*

Many of the barriers associated with poor access to and retention in HIV care can be addressed through communication to improve patient treatment literacy. The Centre for Communication Impact (CCI) has developed a new campaign under the Brothers for Life brand to improve HIV treatment literacy in young men, and women.

BROTHERS FOR LIFE

The aim of CCI's new campaign is to encourage early initiation and adherence to treatment.

Genesis Analytics conducted a baseline assessment, prior to CCI's campaign launch, on the levels of HIV treatment literacy and understanding of viral load among the target audience of men and women aged 18-34 years in South Africa.

METHODS

- 9 provinces; cluster sample proportional to population.
- Data analysis and weighting conducted in Stata V14.
- n=3,000 — Respondents were men and women, all races, age 18-34.
- Data frequency and percentage (chi-squared tests).
- Quantitative questionnaire; interviews in households.
- Multi-variate regression controlling for covariates.

To understand factors that contribute toward viral load knowledge we measured self-reported knowledge through the question "do you know what viral load is?" with response options "yes/no" and then asked respondents to define the term.

RESULTS

SAMPLE DESCRIPTION

The surveyed 3,000 respondents equate to a weighted sample of 16,551,109 which is representative of the South African population.

Figure 2: *Socio-demographic and socio-economic characteristics of sample (weighted data)*

SELF-REPORTED HIV STATUS

The majority of respondents were comfortable disclosing their HIV status (2,059/3,000), of whom 9% (184/2,059) reported being HIV-positive.

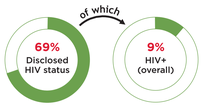

Figure 3: *Self-reported HIV status*

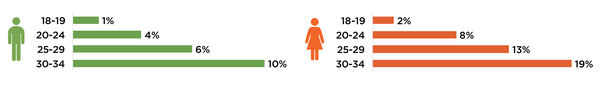

Figure 4: *Proportion who reported that they were HIV-positive, by sex and age group*

KNOWLEDGE OF VIRAL LOAD

Only 8% (252/3,000) of respondents correctly defined the term viral load as 'the number of HIV cells or copies in the blood of someone who is HIV positive'. An equivalent of 15 million South Africans either did not know the meaning of the term viral load or incorrectly defined the term.

Figure 5: *Differences in viral load knowledge, by HIV status*

Viral load knowledge also changes by socio-demographic characteristics.

Viral load knowledge is:

- Less likely in **men** (AOR 0.73, CI 0.54-0.98, p=0,038)
- More likely in **older** respondents (AOR 1.06, 95% CI 1.03-1.09, p=0,000)
- More likely in respondents of **higher LSM** (AOR 3.5, 95% CI 2.25-5.49, p=0,000)
- Less likely in self-reported **HIV-negative** respondents (AOR 0.19, 95% CI 0.14-0.28, p=0,000)

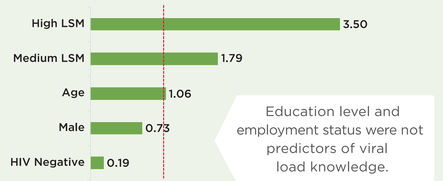

Figure 6: *Multivariate analysis of viral load knowledge*

LIMITATIONS

Respondent HIV status was self-reported and may not be accurate. Analysis shows that self-reported HIV-positive status was lower than the most recently available population based findings (HSRC prevalence estimates from 2012[2]) for the age groups included in this study. The findings presented, which show higher knowledge amongst self-reported HIV-positive respondents, are thus likely over-estimated; this sample only includes those who know and are willing to disclose their HIV status. If we included those who did not disclose their HIV-positive status or did not know their HIV-positive status, the results may have shown lower knowledge levels amongst HIV-positive respondents. This was however beyond the study scope.

CONCLUSION

Knowledge and understanding of viral load is low in South Africa. Understanding of viral load is concerningly low in **self reported HIV-positive people**. This is an immediate issue with a direct bearing on achieving the third-90.

Additionally, **young, HIV-negative men of low socio-economic status** are the least likely to know what viral load is, which is particularly alarming as this group also displays poor testing behaviour.

Figure 7: *Focusing on PLHIV and low-knowledge-high-risk groups to close the knowledge gap*

While the majority of those who know of viral load correctly understand the term, there is still a need to clearly and accurately communicate HIV treatment literacy in South Africa. Thus, the CCI campaign is an appropriate investment for South Africa.

Health system communication should be strengthened with a focus on PLHIV and other low-knowledge-high-risk groups to achieve the third-90 in South Africa.

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2. *Shisana O, et al. (2014) South African National HIV Prevalence, Incidence and Behaviour Survey, 2012. Cape Town: HSRC Press*

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GENESIS UNLOCKING VALUE FOR 20 YEARS

CONDOM USE AT FIRST SEX PROTECTS YOUNG WOMEN IN SOUTH AFRICA FROM HIV AND TEENAGE PREGNANCY

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AIDS 2018

SOUL CITY INSTITUTE FOR SOCIAL JUSTICE

BACKGROUND

HIV and pregnancy are key challenges facing young women in South Africa.

The most recent national HIV prevalence survey found that 5.6% of young women aged 15-19 years were infected. This was eight times higher than in men (0.7%) in the same age group. In the 20-24 year age range, prevalence was three times higher among women than men: 17.4% compared to 5.1% [1].

The latest Demographic and Health Survey found that 16% of women aged 15-19 in South Africa have begun childbearing [2].

This study aimed to use data from an existing study to determine the impact of condom use at first sex on HIV status and teenage pregnancy in young women from two provinces in South Africa.

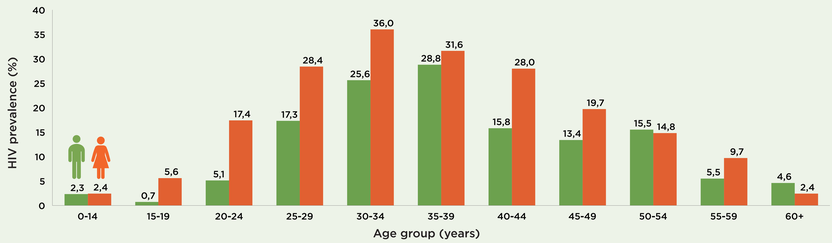

Figure 1: *HIV prevalence by age and sex, South Africa 2012* [1]

METHODS

- Retrospective study design
- Fieldwork conducted in Gauteng and KwaZulu-Natal
- Interviewer-administered, structured questionnaire used and captured digitally
- **Measures:** Anonymous, linked HIV testing with those who agreed to be tested
  - Screening: Advanced QualityTM
  - Confirmatory: DetermineTM
- **Pregnancy:** "Have you ever been pregnant?" and teenage pregnancy: Pregnancy <19 years
- **Condom use at first sex:** "Did you use a condom the first time you had sex with someone?"

DATA ANALYSIS

Data analysed in Stata v.14

Data presented using frequencies and percentages

Multivariate logistic regression analysis to determine impact

- Age was controlled for in all models
- Other control variables include education and socio-economic status

RESULTS

SAMPLE DESCRIPTION

- 403 women aged 18-26 from KwaZulu-Natal and Gauteng
- Analysis restricted to 79% (n= 320) of young women who had ever had sex

Characteristic	Total (n)	Percentage (%)
Age (years) n=320		
≤ 20 years	144	45.00
21-26 years	176	55.00
Socio-economic status n=314		
Low	43	13.69
Medium	102	32.48
High	169	53.82
Education n=320		
Some high school	46	14.37
Grade 12	81	25.31
Some tertiary	193	60.31

Table 1: *Sample description*

- 16% (n=38) were of young women who had ever had sex were HIV positive
- 42% (n=134) of young women who had ever had sex reported having ever been pregnant
  - Of these pregnancies, 90.3% were unintended and unwanted
- Of the total unintended pregnancies, 60% were teenage pregnancies
- About 69% of young women reported condom use at first sex
- Young women who used a condom at first sex were significantly more likely be HIV negative (AOR 2.50, 90% CI 1.15 – 5.42, p = 0.02).
- Young women who used a condom the first time they had sex were also less likely to have ever been pregnant (AOR 0.47, 95% CI 0.27 - 0.80, p =0.006) and less likely to have had a teenage pregnancy AOR 0 .34, 95% CI 0.14 - 0.82, p = 0.016).

LIMITATIONS

Respondent pregnancy status was self-reported and may not be accurate.

CONCLUSION

In this study condom use at first sex seems to protect young women against both HIV infection and early pregnancy.

Health programmes need to improve self-efficacy for condom use and assist young women to have the confidence and ability to use condoms.

Comprehensive sexuality education should start before young people start having sex in order to improve their likelihood of condom use at first sex.

Programmes need to reinforce messaging around condom use at first sex and emphasise the need for consistent condom use in order to reduce HIV and teenage pregnancy in South Africa.

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1. Shisana O, et al. (2014) South African National HIV Prevalence, Incidence and Behaviour Survey, 2012. Cape Town: HSRC Press
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G:ENESIS UNLOCKING VALUE FOR 20 YEARS

WHAT WOMEN WANT: Branding a new HIV prevention vaginal ring using a user-centric design approach

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AIDS 2018 | International Partnership for Microbicides

BACKGROUND

In Sub-Saharan Africa, far more women are living with HIV than men[1]. Despite this fact, there are no long-acting female-initiated HIV prevention methods currently available. The International Partnership for Microbicides (IPM) developed the dapivirine (DPV) vaginal ring to provide another option for women to reduce their risk of HIV infection. The DPV ring is a monthly vaginal ring containing the antiretroviral drug dapivirine.

The DPV ring was shown to be well-tolerated and decrease the risk of HIV-1 infection via vaginal intercourse by approximately 30% in HIV-negative women in two large Phase III clinical trials, known as The Ring Study and ASPIRE study[2]. This data is currently under regulatory review for possible licensure.

As HIV prevention methods such as the DPV ring are developed the challenge lies not only in bringing them to market quickly but also ensuring uptake. Branding can influence uptake which generates demand for a product, however, end-users are not always consulted regarding the branding of medical products. To ensure that the branding is culturally appropriate, acceptable and appealing, we tested potential names and packaging designs with end-users.

METHODS

SAMPLE DESCRIPTION

We held focus group discussions (FGDs) in high HIV burden countries for both the naming (Malawi, South Africa, Uganda and Zimbabwe) and packaging studies (South Africa and Uganda).

FGDs were conducted in rural/peri-urban and urban areas with women aged 18-45 and men aged 22-45 years. In total, 459 women and 46 men were consulted. Men were included (in the packaging study) as they can influence a woman's use of the ring due to power dynamics in their roles as sexual partners and/or head of the family/community.

Women included in the naming study were based on a specific inclusion criteria (age, education and had no prior participation in any IPM clinical studies). The packaging study included women from the naming study to keep them updated on the progress of the project.

DATA COLLECTION TECHNIQUES

Confidential Voting
Participants took part in a confidential voting exercise in which they marked their top three brand names (out of eight) and top three packaging designs (out of six).

Group Discussion
Open discussions were held to gain in-depth insights into all brand name options and package design options.

DATA ANALYSIS

Quantitative Analysis
The top three ranked votes from the voting exercise were weighted and then summed using Excel to determine the favourite name and packaging design.

Qualitative Analysis
FGDs were analysed thematically. Data were analysed per age group, country and area (rural/peri-urban/urban).

RESULTS

NAMING RESULTS

There were names that were found to be culturally inappropriate, had negative connotations or could be misinterpreted for another product and were thus disliked by participants across all countries. For instance, one name was associated with death in some local languages, whilst another sounded Chinese and was perceived to be associated with something cheap. This may deter women from using the product.

Certain names did not have a negative connotation but had other meanings e.g. sounded like "earring" or meant "to wait". Names that were liked across the countries were those that referred to the drug dapivirine or the ring.

PACKAGING RESULTS

In South Africa, the groups attached importance to the colour and size of the logo, citing that the box needed to be interesting to look at. These participants expressed less concern over the need to discreetly hide the box, as compared to Ugandan participants.

Figure 1: *Four of the six mock-up packaging designs that were tested in South Africa and Uganda. Neither the product or the packaging* ***are final or*** *have been approved by regulatory agencies.*

Women in Uganda preferred the packaging that had colour but was not too conspicuous. A packaging design that would be recognisable and accessible to those with less formal education was identified as crucial. While text-heavy, non-descript boxes had some appeal, the varying levels of education were raised as a barrier in Uganda towards understanding the use of the product.

In both countries, women emphasised the need for a small box that would fit in their purse. This factor had not been considered by the designers and women stated their hesitance on using a package that they could not carry or store discreetly.

LIMITATIONS

The majority of the FGDs were conducted in urban and peri-urban areas.

FGDs might result in "group think" where participants are more likely to agree with the views of others, though they may differ from their own.

RECOMMENDATIONS

We recommended a packaging option and brand name that resonates positively with the majority of end-users across the countries.

Alternatively, some product developers may wish to explore country-specific branding to meet the needs of end-users, if warranted.

CONCLUSION

Branding preferences vary between countries due to cultural norms, social context and language differences. Prior to introducing new medical products, consultations with end-users are important for uptake.

Although participants in the countries have preferences on various aspects of the packaging design, the size of the package and the name of the ring are more likely to influence the use of the ring.

Testing the DPV ring branding has shown how understanding consumer preferences for product branding could influence its use.

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