

## Short Communication

# Willingness to use HIV self-test kits in Winneba, Ghana

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## ABSTRACT

Over the years, many successive governments of Ghana have been making efforts to minimise the transmission of HIV in the country through its agencies such as the Ghana health service and the Ghana AIDS Commission. In an attempt to continue to bring the transmission of HIV under control, the government of Ghana in July 2023, launched the HIV self-test (HIVST) kits for use. However, like new health products such as COVID-19 vaccines, there is a tendency of hesitancy to their use in the country. Using the case study design in connection with the purposive sampling technique, the study sampled 12 participants in Winneba, Ghana and data was analysed using thematic analysis. The study found that majority of the people were aware of the HIVST kits in the country with another indicating that the HIVST kits are yet to be made available in communities. Women were found to be more willing to use the HIVST kits than other population groups. Accessing the HIVST kits on the other hand was met with scarcity and participants identified the pharmacy to be the best place to access the HIVST kits. It is recommended that the municipal health directorate and the Ghana AIDS commission should collaborate to intensify education and publicity on the availability and use of the HIVST kits. Additionally, in order to prevent unforeseen shocks, there is a need for the pharmaceutical society of Ghana to train and equip its members to offer counselling services to users of the HIVST kits.

**Keywords:** HIV, HIV/AIDS, HIVST, HIVST kits, Willingness

## INTRODUCTION

The continued spread of the human immunodeficiency virus (HIV) globally has so far claimed 40.4 million lives and countries continue to report rising trends in new infections after previously seeing a reduction in infection rate of the disease.<sup>1</sup> This explains why it is one of the biggest public health threats the world has ever faced in recent times and many institutions, governments, and international organisations have heavily invested in providing measures to combat the spread of this disease.<sup>2</sup> However, the disease remains a significant challenge among other diseases, particularly in Africa.<sup>3</sup>

It has been stated that the world health organization (WHO) African Region alone accounts for two-thirds of the estimated 39.0 million persons living with HIV in

Africa, making the prevalence of the disease on the continent more serious and requiring more public health attention.<sup>1</sup> The attention needed has made governments and public health experts to embark on education to advise people especially those who are sexually active to abstain from pre-marital sex, be faithful to their partners, use condoms, and test for the infection. Although efforts have been made to minimize the spread of the disease on the continent, testing for HIV has been low. To emphasize this assertion, as low as a quarter of the youth in sub-Saharan Africa have tested for HIV and this does not support the campaign and effort to minimize the transmission of the disease on the continent.<sup>4</sup> This is because one of the most effective interventions for controlling the HIV epidemic is HIV testing.<sup>5</sup> Following this, the WHO has added that to achieve the United Nation's 95-95-95 target of ending HIV in the world,

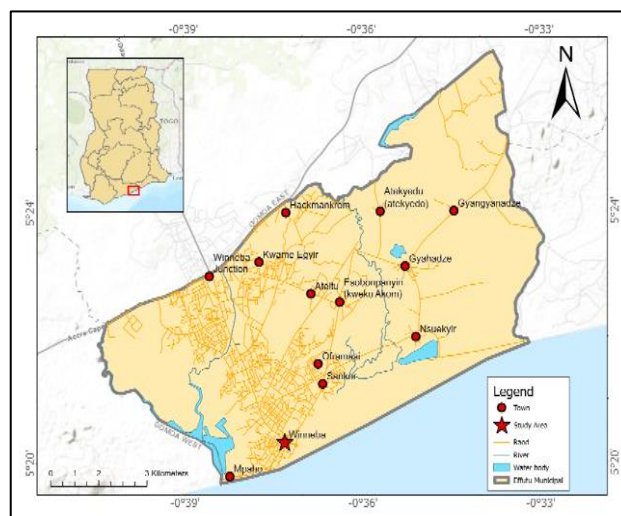
there is a need for people living with HIV to know their status by 2025 and this can only be possible through testing.<sup>6</sup> Although a study has made it clear that HIV testing is an important component of preventing the transmission of the disease, and without it, diagnosing the disease might not be possible, there is the need to come out with an innovative solution to people's reluctance to visit licensed pharmacies, hospitals and clinics for the test.<sup>5</sup> This innovative and convenient way of knowing one's HIV status is the usage of HIVST kits.

HIVST is an innovative way of knowing one's HIV status whereby an individual collects his or her own specimen which is in the form of blood or oral fluid, performs a test, and then analyses the results in a private setting, either by themselves or with a trusted person of which the WHO sees as convenient and confidential option for HIV testing.<sup>7</sup> HIVST has come to reduce the number of persons who use the conventional facility-based and provider-assisted system for HIV testing services, which is characterized by barriers to ensuring that everyone can access testing and treatment such as inconvenience, stigma, unfavourable health provider attitudes and discrimination, and lack of confidentiality. Although the WHO had accepted and recommended HIVST for countries to practice, there were no clear regulatory procedures or data-gathering mechanisms to guarantee the quality of HIVST products or to keep track of the most acceptable, trustworthy, and efficient ways to execute self-testing because of governmental policy barriers at the international and national levels including Ghana.<sup>8</sup>

Ghana through the ministry of health launched the use of HIVST kits in July 2023 which is one of the newest innovations in reducing the transmission of HIV with the motive to allow the Ghanaian populace to check their HIV status from the comfort of their homes and places of convenience.<sup>9</sup> However, like any new health measure to control the spread of diseases such as the intake of polio myelitis, and COVID-19, Ghanaians are likely to show hesitance towards approved new health products including people in the urban setting of Winneba in the Effutu Municipality of Ghana.<sup>10,11</sup>

Studies conducted in the Effutu municipality specifically in Winneba have been on girl-child formal education, effects of large class size on teaching and learning, marriage and divorce, and climate change impacts and coastal livelihood.<sup>12-15</sup> Also, studies conducted in Winneba that were health-related have been on awareness and prevention of cervical cancer, nutrition and childbirth weight, and patients' rights violations at the hospital.<sup>16-18</sup> With an extensive review of literature, not many studies have been conducted on the willingness to use the newly launched HIVST kits in the urban setting of Winneba. This study therefore assesses the willingness to use HIVST kits Winneba, Ghana. It is expected that this study will help drive local and national health policy strategies on assessing the progress and patronage of

HIVST kits as a measure of controlling the spread of HIV in the country.



**Figure 1: Map of the study area in Ghana.**

Source: Author's construct, 2023.

## STUDY SETTING

Winneba is the capital of the Effutu municipal assembly of Ghana and is situated along the coast of the Atlantic Ocean. The town has a population of about 44,254 people.<sup>19</sup> Winneba has a rich history and is known for its cultural heritage, educational institutions, and fishing industry. In terms of climate, the town is located at approximately 5.35°N latitude and 0.62°W longitude. The town is situated on a coastal plain, with the Atlantic Ocean to the south. The area experiences the tropical savanna climate. This comes with two distinct seasons, which are the wet season and dry season. The wet season typically occurs between April and October, while dry season spans from November to March. In recent years, Winneba has seen significant growth in education and has become hub for higher learning institutions. University of education, Winneba (UEW), is one of Ghana's leading universities and offers wide range of academic programs. University attracts students from all over Ghana and other countries in West Africa. Also, Winneba's geographical location along the coast makes it an attractive destination for tourism. Town has beautiful beaches which offer opportunities for relaxation as well as lagoon which is another natural attraction that provides a serene environment for bird watching and boat rides. Tourism and educational services being offered by Winneba brings people from all walks of life and these people may be carrying diseases such as HIV/AIDS to town.

## STUDY DESIGN AND PROCEDURE

Using the qualitative research method, the study adopted the case study design. This research design was used because it enables an extensive and systematic assessment of a single individual, group, community, or

other units in which the researcher investigates in-depth data relating to multiple factors.<sup>20</sup> With the use of the purposive sampling technique and with informed consent from participants, data was gathered from 12 participants who were between the age group of 24 to 39 years. Participants were selected from this age group because a study has it that more than half of people living with HIV/AIDS (PLWHA) in Ghana are between the ages of 24 to 39 years.<sup>21</sup> This study relied on the use of the interview guide because, an in-depth interview is a typical qualitative research technique used by some studies to explore HIVST.<sup>22,23</sup> Interviews with open-ended questions were conducted to give participants the opportunity to express their ideas, sentiments, and personal experiences related to their willingness to test for HIV using the HIVST kits. Data was then recorded and analysed using the thematic analysis. The rationale for using this type of analysis is based on the fact that thematic analysis is used to organize and understand qualitative data, identify themes, acknowledge subjectivity and characterize diversity of ideas.<sup>24</sup> In all, the study was conducted from August 2023 to October 2023.

## OBSERVATION

First, it is important to report on the awareness of the use of HIVST kits in Ghana. Also, following the data gathered, the result was categorised into the following themes; willingness, accessibility, and confidentiality to use the HIVST kits.

### Awareness of the HIVST kits in Ghana

Most of the participants indicated that they are aware of the HIVST kits in the country and they got to know through news on the radio and social media. This is expressed in the narrations below:

*"I heard we can now test for HIV in the comfort of our homes or places of convenience with a health product called HIVST kit in the country. Upon getting this information on my Facebook page, I was curious so I visited a local pharmacy and purchased one for myself"* (27-year-old participant).

*"I subscribed to some news feed on my phone. I was very surprised when I saw a picture of the HIVST kits which are currently available in the country. I think the Ghana health service has done well by introducing that health product in the country. This will go a long way in helping the youth to know their HIV status and make informed decisions"* (35-year-old participant).

One participant expressed that though information about the HIVST kit has been made public, she is yet to see one for herself. This is indicated in the quotation below:

*"I had the information that we can now test for HIV ourselves using the HIVST kit. I went to a nearby*

*pharmacy to see whether I could purchase one for myself but couldn't get one.... I would like to see one for myself in the coming days"* (32-year-old participant).

### Willingness to use the HIVST kit

When the participants were asked the category of the population who would be more willing to use the HIVST kit, the result of this study found that a number of the participants were of the view that women were more likely to use the HIVST kit. This is explained in the following narrations:

*"In my opinion, in terms of gender, women are more likely to be infected with HIV in Ghana and I expect more of them to purchase and use the HIVST kit"* (29-year-old participant).

*"Already, women are used to buying pregnancy test kits at the pharmacy and buying the HIVST kit at the pharmacy won't be difficult for them at all.... Also, I heard that a lot of women in Ghana have tested positive for HIV than men and women would be more willing to use the HIVST kit than any other population in the country"* (25-year-old participant).

Some participants have expressed that teenagers will be more likely to use the HIVST kits as compared to other population groups. This is explained in the narrations below:

*"This current generation of teenagers are curious and want to know everything. In my view, they will be more willing to use the HIVST kit than adults like me.... teenage pregnancy has been increasing over the years and that means that teenagers have been engaging in risky sexual behaviours.... I won't be surprised if there should be a national or a district survey on the use of the HIVST kit which will see teenagers ranked first in the usage of this health product"* (36-year-old participant).

*"With my profession and my contact with teenagers, they would like to take risks by trying new products. HIVST kits are one of the health products they would like to use"* (33-year-old participant).

When participants were asked about what would motivate them to use the HIVST kit, a number of them were of the view that they would like to test with this health product because it is convenient to use and easily helps one to know his or her HIV status. This is evident in the following narrations:

*"HIV is a deadly disease and no one should be infected with it. Personally, I regularly test and know my HIV status at the hospital. The introduction of the HIVST kits in our local pharmacies will save me the time of going to the hospital to test.... I can now easily get it at the pharmacy and easily know my HIV status"* (28-year-old participant).

*“Like the pregnancy test kit, the HIVST kit also comes with convenience. There will be minimal movement to the hospital to test for HIV. I can conveniently use it and recommend it to my partner before intimacy” (29-year-old participant).*

One participant indicated that though he will be willing to use the HIVST kit, if the result from the test kit tends to be positive, he will seek for a confirmatory test at a licensed health facility. He is quoted as saying:

*“I am not fully sure the HIVST kit can give an accurate result or can be fully reliable. To save time from going to join a long queue at the hospital to test for HIV, I will purchase and use it in the comfort of my home. However, when it happens that the result of testing with the HIVST kit becomes positive, I will go and test again at the hospital” (34-year-old participant).*

### Accessibility of HIVST kit

Regarding the accessibility of the HIVST kit, some participants described the test kit as an emerging health product, therefore accessing it may be difficult at the moment. This is made clear in the quotations below:

*“New products are sometimes difficult to come by. With the HIVST kit, I would like to use one but I am yet to see one being sold in the pharmacies in this community” (28-year-old participant).*

*“I am in the nursing college and I would like to explore and see how the HIVST kit works.... I was not able to find one around me. It seems the test kits are yet to be distributed across the country” (26-year-old participant).*

When asked about the best place to access the HIVST kit, majority of the participants were of the view that the pharmacy should be the leading or best place to acquire this health product. For example, one participant had this to say:

*“The pharmacies in our localities are like hospitals to us.... We can easily access the pharmacies for drugs or other health products than the hospitals. In order to test and control the transmission of HIV in this country, there is a need to make the HIVST kit more accessible in the pharmacies than the hospitals” (37-year-old participant).*

### Confidential use of HIVST kit

Submissions from the participants indicated that they will be willing to test with the HIVST kit if they have their privacy as without this, using the test kit can lead to stigmatization and discrimination. This is expressed in the following narrations:

*“Anything about testing for HIV should be done in private.... Imagine testing for this disease in the presence of people you cannot trust or confide in, and the result*

*tends to be positive... just know that you’ve sold yourself out for stigmatization and discrimination. As for me, I will make sure I test with the test kit knowing that I have my privacy” (29-year-old participant).*

*“HIV is a stigmatized disease in this country and even in other parts of the world. There is no way I will allow someone to see me while testing for HIV with the test kit” (33-year-old participant).*

It is interesting to note that some participants were of the view that it would be appropriate to test in the presence of friends, loved ones or people one can trust in order to prevent suicide and medical emergencies such as cardiac arrest. Some participants were quoted as saying the following:

*“Growing up, we were made to understand that there is no cure for HIV/AIDS and this disease can lead an infected person to his or her early grave. As for me, I will be willing to test with the test kit in the presence of my partner so that in case the result emerges to be positive, I won’t collapse and die... at least, there should be someone around to take me to the hospital in case I collapse” (30-year-old participant).*

*“There have been cases of suicide upon receiving HIV-positive results in this country. I am young and have many more years to live. Knowing one’s HIV-positive status in the presence of no one can easily trigger suicidal thoughts. To prevent that, I will make sure I test with the HIVST kit in the presence of a family member I can confide in” (27-year-old participant).*

## DISCUSSION

HIV/AIDS continues to affect most people in Africa with high prevalence in sub-Saharan Africa. For this reason, most governments in the sub-region, including the Ghanaian government, are working tirelessly to control the transmission of the disease. Though many countries had allowed for the use of the HIVST kit, Ghana through its ministry of health launched this health product for use in July 2023.<sup>9</sup> Following the launch of the HIVST kit in the country, this study sought to explore the willingness to use the HIVST kit in Winneba, the capital town of the Effutu municipality in Ghana.

As part of the willingness to use the HIVST kit, this study examined the awareness of the use of the HIVST kit in Winneba. The result of the study indicated that majority of the participants were aware of the HIVST kit in Ghana. This might probably be as a result of a lot of the youth now used to social media which gives them current information. This is because it has been made clear that a lot of the youth have been affected by digital media and will definitely have knowledge of issues or current developments in the country.<sup>25</sup> Additionally, issues about health are a concern to many people in addition to the deadly nature of HIV/AIDS. Already, HIV/AIDS has



been identified to be part of the most common health issues in the world and any method to control its transmission will be made known to people across all digital media platforms.<sup>26</sup>

On the willingness to use HIVST kits, information gathered by this study is that women will be more willing to use the HIVST kits than other population groups. The willingness to use new health products is sometimes met with hesitancy. However, this is not associated with women in Winneba. In consonance with what this study found, a study also discovered that most young women who were offered the option between HIVST kits and clinic-based HIV testing preferred to use the HIVST kits on their own.<sup>27</sup>

Still on the willingness to use HIVST kits, this study also discovered that the motivation to use the HIVST kits was based on the perception of convenience. Every day comes with its own uncertainties coupled with lots of time to engage in economic activities. Some people are so time-constrained that they have limited time for regular health check-ups or book an appointment to meet health professionals at their health facilities. Per the discovery made by this study, it presupposes that a lot of people willing to know their HIV status will test with the HIVST kits in the comfort of their homes or places of convenience. Though people may find it earlier by picking up HIVST kits from retail outlets, the personnel at these retail outlets such as the pharmacists may be poorly equipped to provide counselling services to the HIVST kit users.<sup>28</sup>

Another discovery made by this study is that there is a possibility of testing with the HIVST kit, but this will come with a confirmatory test at a health facility upon knowing that the result from the test kit is positive. This finding indicates that there is some level of doubt or dissatisfaction among some users of the HIVST kits. This finding is in line with another study that discovered that lack of satisfaction with the test result is one of the reasons for seeking a confirmatory HIV test in the event of testing positive with the HIVST kits.<sup>29</sup> On the other hand, decisions to go for confirmatory tests at a health facility after using the HIVST kits might be based on the desire to know the accuracy of the test kit.

Regarding accessibility to HIVST kits, the study found that although the health product has been launched in the country, some people are yet to purchase and use it. With this development, the WHO has stressed that only when safe, effective, and high-quality healthcare supplies or products are easily accessible can universal health coverage be realised and several challenges confront nations in achieving this with shortages or stockouts of medical products being one of them.<sup>30</sup>

More to accessing HIVST kits in Winneba, the study found that preference was given to accessing the HIVST kits at the pharmacies than the hospitals or health

facilities. Information gathered indicates that the pharmacies were the best place to access the HIVST kits. As this may be the preference of participants in this study, some people in different jurisdictions have expressed a different opinion on the best place to access the HIVST kits. For instance, in a study conducted in another African setting in Kenya, it was discovered that there is more preference for accessing HIVST kits in health facilities than the pharmacies.<sup>31</sup> The assertion that can be made towards the preference of accessing the HIVST kits in the pharmacy as discovered by this study is that there might be more pharmacies around the homes of the participants than health facilities and this can influence their choice of accessing HIVST kits at the pharmacy than a health facility.

Having elaborated on the awareness, willingness, and accessibility of HIVST kits in Winneba, it also emerged that there will be acceptance to use the HIVST kit if privacy and confidentiality can be guaranteed. This shows that stigma and discrimination which is associated with HIV/AIDS have also extended to the use of the HIVST kits. In this regard, people would not be willing to use the test kit in the presence of people they cannot confide in because the HIVST kit was designed for use in order to overcome privacy and confidentiality issues.<sup>32</sup> Interestingly, the study also discovered that participants will be willing to use the HIVST kit in the presence of friends and loved ones in order to be rescued or saved from committing suicide or experiencing medical emergencies. In this case, privacy and confidentiality will be breached to save lives. Though privacy and confidentiality will be breached, it is better than experiencing psychological trauma which in extreme cases can lead to suicide. This is because getting to know one's HIV-positive status results in psychological distress with a tendency to have suicidal thoughts.<sup>33</sup>

## CONCLUSION

This study which sought to explore people's willingness to use HIVST kits in Winneba discovered that majority of participants were aware of the HIVST kits in the country. However, it was further discovered that not enough of the HIVST kits were distributed across the country, especially in Winneba. This also means that many of the pharmacies and health facilities are yet to receive consignments of this health product though there might be few in stock for sale. Also, the result of this study indicated that women were recognised as being more willing to use the HIVST kits than other population groups. More discoveries were made where it was indicated that the pharmacy was the best place to access the HIVST kits, and people would be willing to use HIVST kits provided their privacy would be assured as well as testing for HIV in the presence of loved ones to prevent any unforeseen shocks such as suicide. The study therefore recommends that though women were identified to be more willing to use the HIVST kits, the Ghana AIDS Commission and the District Health Directorate

should embark on intensive education and publicity in order to allow other population groups to patronize the usage of the HIVST kits. Again, the study recommends that the Pharmaceutical Society of Ghana should train and equip its members to provide counselling services to the HIVST kit users with the motive of preventing suicide and medical emergencies such as cardiac arrest.

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