

# **THE OPINIONS OF PHARMACISTS IN ONDO STATE, NIGERIA, TOWARDS THE INCLUSION OF HIV SERVICES INTO COMMUNITY PHARMACIES**

**A Case Study By Olatoun Adefunke Adeola, Nigeria**

*(MBBS, MPH Student of Texila American University)*

*Email:- [olatounlabake@yahoo.com](mailto:olatounlabake@yahoo.com)*

## **ABSTRACT**

The purpose of this study is to ascertain opinion of pharmacists on the inclusion of HIV interventions into community pharmacy. This includes their willingness to deliver HCT and ARV services, their perceived knowledge of HIV management and the adequacy of personnel and infrastructure at community pharmacies.

In the course of this study, the survey method of descriptive research was used. It was implemented through the collaboration of the Ondo State branch of the Pharmaceutical Society of Nigeria (PSN) during the celebration of the World Pharmacy Day 2013. This afforded the opportunity of having pharmacists working in various health fields together under one roof. The main instrument of data collection was a pre tested questionnaire. The responses were entered into an excel data base with the data analysis done using tables and percentages. The result of the analysis revealed the readiness of pharmacists to accept the incorporation of HIV services into community pharmacy. It also revealed that Community Pharmacists in Ondo State are enthusiastic and willing to be included in HIV service provision.

Integrating HIV services into their services would support an increased uptake of prevention services, expansion of access to HCT, PMTCT, and ART services.

## **KEYWORDS**

HIV, AIDS, pharmacists, Community Pharmacy, Ondo State, Anti-Retroviral drugs.

## **INTRODUCTION**

The AIDS pandemic continues to spread globally with sub-Saharan Africa being the worst hit region. Nigeria has been regarded as the nation with the third largest number of HIV/AIDS patients globally after India and South Africa according to the WHO global reports on HIV/AIDS situation 2012. The trend of HIV prevalence in Nigeria peaked in 2001 at 5.8%. It declined to 4.4% in 2005. It is now plateauing between 4.4% (2005) and 4.1% in 2010 according to the National adult ART guideline 2010.

More than 30 years into the pandemic, HIV infection has continued to spread globally. Research indicates that people unaware of their HIV infection contribute disproportionately to the rate of the ongoing transmission rate. According to the National Institute of Health report of August 2013, in the United States, about 50% incident HIV infections can be attributed to the 20 percent of people living with HIV that are unaware of their infection. Globally, more than 60 percent of people living with HIV are unaware of their HIV status.

Persons who are aware of their HIV-positive status are more likely to reduce or eliminate behaviors that may expose others. Those that initiate and adhere to antiretroviral therapy are much less likely to be infectious to others. Research leading to strategies that will encourage individuals to learn their status and to link persons to care, treatment, and prevention services is a high priority.

Access to healthcare remains particularly poor among low-income and minority populations – groups that shoulder the highest HIV burden. We have been looking for new ways to reach out and offer testing to individuals in these groups and bring them into care if they need it. Unless integrated strategies that successfully accomplish each of these objectives are developed, it is unlikely that the goal of an “AIDS-free generation” will be achieved.

The Federal government of Nigeria has shown an unrelenting commitment to HIV/AIDS care through awareness, voluntary counseling and testing center and availability of anti-retroviral drugs in partnership with local and foreign organizations.

Pharmacists have been recognized to be very important in the delivery of high standard of care to patients. With the advent of antiretroviral drugs for the management of HIV and drugs to manage associated opportunistic infections, their role has received more significance.

According to Pharma ONE & Pharma News a privately owned pharmacy plus health news media October 2013 release, a Community Pharmacy is a Pharmacy that deals directly with people in a local area or community. It has responsibilities including compounding, counseling, checking and dispensing of prescription drugs to the patients with care, accuracy, and legality. A Community Pharmacy has appropriate procurement, storage, dispensing and documentation of medicines. It is an important branch of the Pharmacy profession and involves a registered Pharmacist with the education, skills and competence to deliver the professional service to the community

There are 44 Community Pharmacy outlets in the state which have a registered Pharmacist and the outlets are registered with the Pharmacist Council of Nigeria.

## **RESEARCH PROBLEM**

Will the pharmacists in Ondo State accept the inclusion of HIV counselling and testing and ARV dispensing into community pharmacy.

### *THE PURPOSE OF THE STUDY*

Purpose of this study is to understand the opinions of pharmacists on the inclusion of HIV interventions into community pharmacy. This is to ensure that more people become aware of their HIV status and more PLHIV have access to ARV in the community they live.

### *OBJECTIVES OF THE STUDY*

To determine the Percentage of pharmacists in Ondo State that are positive towards the inclusion of HIV care and services

To ascertain the Percentage of pharmacists in Ondo State that are adequately staffed to render HIV care and services.

To establish the Percentage of pharmacies in Ondo State that are structurally ready in Ondo State to be included into community pharmacy

To determine the Percentage of pharmacists in Ondo State that require capacity building on HIV care and services.

### *RESEARCH QUESTIONS*

Are pharmacists in Ondo State willing to incorporate HIV services into community services?

Do pharmacists think that the incorporation of HIV services community pharmacy will impact negatively on their patronage?

## SIGNIFICANCE OF THE STUDY

The discovery of Anti-Retroviral drugs (ARV prescription and refill is the backbone of ART) has led to an increase in the number of People Living With HIV (PLHIV). This together with the fact that personnel and infrastructure development are not increasing has made the burden of health delivery to be overwhelming on the healthcare providers at the facility. There is therefore a need to involve non facility based health providers such as community pharmacy in the management of the HIV epidemic. A study on the inclusion of community pharmacy into HIV care will provide new perspectives on how best this option can be explored to further improve the delivery of quality care to PLHIV.

## ASSUMPTIONS IN THE STUDY

The study assumed that:

The participants in this study will fill the form honestly. On the questionnaire, they were assured of confidentiality and the name was left optional.

Participants of this study are a good representative of pharmacists in Ondo State, thus the study will be conducted during an event that a large percentage of pharmacists in the State will be in attendance.

The burden of ART will continue to grow because the PLHIV will be on ARV for life as a cure for the HIV is yet to be found, thus the need to involve community pharmacies in ART.

## LITERATURE REVIEW

According to the Ndukwe et al., Novel Science International Journal of Pharmaceutical Science (2012) the components of a Comprehensive Integrated HIV/AIDS Service at the Community Pharmacy level will involve a model that consists of:

*Prevention:* Advocacy and mass education, management of STIs; behavior change in people with/without HIV; safety of blood products.

*Care and Treatment :* Basic medical care; home-based care; community-based care ;referral network; palliative care; nutritional care; ART and opportunistic infections therapy.

*Impact Mitigation:* Orphans, vulnerable children; supportive policies; stigma reduction,

*Infrastructural Development:* Human capacity; drugs and commodities; resource management; research.

Some of the major services that a Community Pharmacy provides are also the tools that are used to effect integration of services among members of the health profession. These include HCT (HIV Counseling and Testing), PMTCT (Prevention of mother-to-child transmission), Psychosocial Counseling, Monitoring and Evaluation, Behavior Change in people with chronic diseases or syndrome.

Integrating Reproductive Health Care, Tuberculosis (TB) and HIV/AIDS Services in the Community Pharmacy as a strategic goal will contribute to achieve overall improvements in access to HIV and Tb prevention, treatment, care and support services towards achieving the universal access targets and MDGs. Opportunities are arising on a daily basis for community pharmacists to function as clinically as their hospital-based counterparts. Many of these pharmacies have started to offer free blood pressure checks and or blood sugar testing; some have gone to the extent of performing health screenings such as lipid panels and HIV screenings. Thus, pharmacists are becoming leaders in diabetes or hypertension management and are proficient in discussing these subjects with their patients.

According to a publication in Drug Topics, July 2013(an online pharmaceutical magazine) as services for some disease states have flourished, those for other treatment areas such as oncology, mental health, and HIV/AIDS seem to be dropping in community pharmaceutical care. With regards to HIV treatment, many community pharmacists are confused by the extensive array of medications, the complex regimens, the question of whether a regimen is correct, or even the best way to counsel patients in the use of these medications.

Community Pharmacies, if given the mandate by relevant governmental agencies, would support an increased uptake of prevention services, expansion of access to HCT, PMTCT, and ART services. It would enable increased provision, access and uptake of TB/DOTs services, malaria diagnosis and treatment as well as reproductive health services, and would strengthen the existing health systems.

Counseling as a preventive measure has recorded huge successes all over the world. Counseling is an integral part of the provision of pharmaceutical care. It has served as an empowerment for even the illiterates. Community pharmacies are, therefore, well positioned to lead the course in health promotion, education, and disease prevention advocacy and implementation programs. When people are given the right counsel at the appropriate time, their health-seeking behavior and their responses to health issues are positively influenced.

## **A NIGERIA CASE STUDY**

The Global Health Access Initiative Project in Conjunction with Howard University Continuation Education project (HUCEPACE) trained Community Pharmacists to act as Palliative care and referral points to help increase accessibility to HIV AIDS care and support.

## **APPROACH**

Advocacy meeting with the members of Association of Community Pharmacies in Lagos, Edo, Cross River, Kano, Anambra and Federal capital Territory of Nigeria were conducted.

## **INITIAL RAPID ASSESSMENT**

An initial tool for rapid evaluation of the capacity of the community Pharmacies was developed. The indicators evaluated include: Staff strength, Quality of Pharmacy services, Volume of clients, Willingness to partake in HIV/AIDS programme, Staff with training on HIV/AIDS, Stock or have experience with ARV drugs, Provides services for STI, TB and HIV infections, Stock rapid test kits, drugs for STIs and OIs, Proximity to high risk settings, Proximity to identified clusters of PLHIV, Proximity to HIV/AIDS care centres.

The initial rapid assessment shows that most Community Pharmacies see an average of 350 clients weekly have often been referred to as the most accessible health professional and therefore have an opportunity to openly interact with many in their communities. The report also showed that 66% of the Community Pharmacies routinely provides care and drugs for STIs, TB and other opportunistic infections, while 70% have seen 5-20 suspected HIV infected clients, 62% has dispensed prescribed drugs for HIV infection. This undoubtedly shows the potential of the Community Pharmacies to support the clients at home within the community and has established good relationships with them.

## **SKILL CERTIFICATION**

The primary training method for equipping the Community Pharmacists was the skills certification process. The process began with didactic training, followed by onsite mentoring, hands on seminar and follow up.

## **PROVISION OF PALLIATIVE SERVICES**

The community Pharmacies in most communities are seen as the first point of call for both therapeutic and psychosocial support services because of the absence of sometime frustrating appointment systems. This strategic role was identified by the HUCEPACE and developed in this program to improve the capacity of Community Pharmacies to deal with palliative care issues in HIV/AIDS conditions. Following the capacity building and hands on mentoring provided by HUCEPACE participating community Pharmacies now provide and document palliative care services to identified PLWHA and clients suspected to be at risk. The number of clients provided with palliative care services rose from 504 to 1813 in just over one year of the

program In this program the Community Pharmacies also served as referral points for Voluntary Counselling and testing as well as HIV/AIDS care and treatment.

## **AUSTRALIA CASE STUDY**

In the year 2013 the 8th national LGTBI (Lesbians, gays, bisexual, transgender, intersex and other sex and gender transverse people) conference held in Australia. (The National LGTBI alliance is a coalition of individuals across Australia that work to improve the health of Lesbians, gays, bisexual, transgender, intersex and other sex and gender transverse people.) In the conference one of the major issues discussed were ways to improve the well-being of People Living with HIV/AIDS. Two major resolutions they came to are:

### **ACCESS TO ADEQUATE DENTAL CARE**

One of the most important health issues for PLWHA is access to adequate dental care, given that the vast majority of people with HIV will develop at least one oral condition associated with HIV disease. According to the LGBTI, these conditions like candidiasis and hairy leukoplakia, may be the first indication of immune suppression associated with HIV infection and in many people are the first signals that lead doctors to encourage HIV testing. Many of the conditions are eminently treatable but treatment is reliant on the sort of regular dental checkups/professional interventions that are increasingly difficult for HIV positive people to access and sustain due to a lack of Commonwealth funding for public dental health care.

### **HIV MEDICATION IN COMMUNITY SETTINGS**

The current regime for the distribution of specialist HIV medication in Australia is through a limited number of specialized settings such as hospitals and select Pharmacies. Such a regime places burden on PLHIV who in most cases must travel significant distances and wait for a considerable amount of time before receiving their medication. Allowing HIV medication to be distributed through Community Pharmacies will be an important step in alleviating some of the stress that PLWHA must go through in order to access their treatments.

It was decided that the changing nature of the lives of PLHIV in Australia means that the Commonwealth must effectively respond to a range of issues including, but not limited to, access to adequate dental care and HIV medication. The response should include:

Ensuring that low-income PLHIV have adequate access to dental health services for HIV-specific as well as general oral health care

Putting in place processes to allow HIV positive patients to obtain their specialist medication in community settings (such as local pharmacies) rather than having to attend a hospital or special clinic for this purpose.

## UNITED STATES OF AMERICA CASE STUDY

A study in the August issue of the journal *AIDS Patient Care and STDs* by researchers at Albert Einstein College of Medicine of Yeshiva University revealed that community-based Pharmacies can be effective locations for offering rapid HIV testing, diagnosing HIV, and connecting those who test positive with medical care quickly. Public Health Advocates (PHAs) were trained to approach people in the Pharmacies and on the sidewalks outside to offer HIV testing.

When an individual agreed, the PHA would administer the rapid HIV test, which needs only a swab of saliva and provides results in 20 minutes. While waiting for the results, the PHAs asked the participants to fill out an HIV-risk factor and test satisfaction questionnaire, and then counseled them about HIV-risk reduction behavior based on their answers. If the HIV test result was positive, the PHA offered to escort the participant to a nearby HIV clinic where they were seen immediately by an HIV specialist. All participants were allowed to accept or decline the escort. HIV-positive clients saw an HIV specialist less than an hour after being diagnosed on the average.

During the 294 testing days, 2,030 individuals agreed to HIV testing, with 6 Of them testing positive. Five of these six agreed to accompany the PHA to a HIV clinic. Their median CD4 count on further investigation was 622 white blood cells/mL, indicating they were diagnosed at a relatively earlier stage of infection. The results demonstrate that pharmacies can effectively supplement the current healthcare system for HIV testing.

According to another study by researchers at the Indiana University School of Public Health-Bloomington, the Rural Center for AIDS/STD Prevention and Butler University College of Pharmacy and Health Sciences, Community pharmacists in the United States have a unique opportunity to consult with , customers about HIV treatment when selling over-the-counter HIV tests. In a study lead by Beth Meyerson, licensed community pharmacists in Indiana indicated that they wanted an active consultation role when customers purchased over-the-counter HIV tests. They understood the advantage of greater access to HIV testing, but felt that their role as pharmacists was beyond that of OTC test seller. She said rural communities have the most to gain from an engaged pharmacy environment because these communities often lack an HIV testing and treatment infrastructure, and people often feel stigmatized about HIV testing.

According to the report, the engagement of pharmacists especially in low income settings might help in increasing the number of those who test for HIV and also the number of people linked to HIV treatment.



## **POSSIBLE STRATEGIES FOR THE INCLUSION OF HIV SERVICES INTO COMMUNITY PHARMACIES IN ONDO STATE NIGERIA INCLUDE:**

Empowerment of community pharmacists to carry out HIV counselling and testing. One or two workers in these Pharmacies will be trained on HIV counselling and testing after which rapid HIV antibody test kits will be supplied to the Pharmacies. Billboards or posters (IEC materials) showing that people can access free voluntary HCT should be placed outside the respective Pharmacies and every one that comes to purchase drugs in the Pharmacies will be offered voluntary HIV counselling and testing.

There will be adequate linkage/referral system between the Pharmacies and Hospital and everyone who tests positive will be appropriately linked to the hospital where he or she can receive care and treatment.

Community Pharmacies can be empowered to dispense antiretroviral drugs. The Pharmacists that own or work in Community Pharmacies will be trained on the Pharmaceutical care of People Living with HIV/AIDS and Logistics and inventory control management. The Pharmacies should be supplied with ARVs regularly and clients can then bring their prescriptions from Doctors in hospitals to get a refill.

## **METHODOLOGY**

The study was conducted during the world pharmacy day celebration in Ondo state. During this event a large number of pharmacists in the State from different industries are expected to be in attendance as one of the mandatory Continuous Medical Education courses was conducted as part of the activities to mark the day. Hard copies of the questionnaire were printed for distribution during the program.

The Ondo state branch of the Pharmaceutical Society of Nigeria (PSN) was carried along in this study. Their consent was sought to have randomly selected pharmacists fill the prepared questionnaire. A general address was given before the program, then questionnaires were distributed to explain the purpose of the study and the intended outcome.

*STUDY DESIGN:* An observational cross sectional survey was conducted.

*DATA SOURCES:* The data is a survey data collected from questionnaires distributed during the world pharmacy day celebration in Ondo State, Nigeria.

*SAMPLE SIZE:* Non random sampling was done among participants that attended the World Pharmacy Day celebration, where Continuous Medical Education was conducted. One hundred out of 140 registered pharmacists in Ondo State were expected to attend this program. The 1<sup>st</sup> 50

participants (about 1/3 of the total population in the State) were selected to fill the questionnaire.

*DATA COLLECTION:* This project utilized the qualitative data collection (using the questionnaire).

The questionnaire was administered at the celebration of the world pharmacy day before the commencement of the world pharmacy day activities and was self-administered. The questionnaire was returned on the same day after it had been fully filled. All the 50 respondents administered the questionnaires returned their questionnaires. Information on the filled questionnaires were entered on windows excel spreadsheets for analysis.

*DATA ANALYSIS:-* It was done using the advanced windows excel spreadsheet. This was used to generate tables and charts used in data analysis.

## **FROM THE ANALYSIS OF THE QUESTIONNAIRES**

Table 1 shows that , 36% (9:25) of the respondents were female, while 64% (16:25) were males

In Table 2, 58% (29:50) of the respondents were community pharmacists, 28% (7:25) were hospital pharmacists, 8% (2:25) work in the administrative pharmacy sector and while 6% (3:50) work in the pharmaceutical industry.

All the 50 participants (100%) agreed that HIV care should be incorporated into Community Pharmacy practice. Most of the participants (94%) are of the opinion that Community Pharmacies in Nigeria have the capacity to do HIV counselling and testing. A large percentage(96%)which is 47 of the 50 participants are of the opinion that Community Pharmacies in Nigeria have the capacity to dispense antiretroviral drugs. All the 50 participants (100%) said HIV care should be incorporated only into Community Pharmacies that have a registered Pharmacist.

A considerable proportion (68%)in ratio 17:25 of the participants agreed that they have sufficient staff in their Community Pharmacy outlet that can handle the clients in case HIV services are incorporated into Community Pharmacy practice, 9% (1:10) of participants said they do not have sufficient staff while 23% (11:50)said they were not sure. Most of the participants (95%) said the staff will need training in the ratio 24:25. A Large proportion (77%) of participants said there is adequate space in their Community Pharmacy for counselling, to store drugs and test kits while 23% said they were not sure. The result revealed that 72%(18:25)of participants said they have adequate storage conditions for drugs e.g an airconditioner, 9% (9:10) said they do not have while 19% (1:5) said they were not sure.

With respect to proximity to a hospital, 64% (16:25) of participants said they have a Hospital close to their Pharmacy outlet where they can refer clients to, 6% (3:50) said there is none and

30% (3:25) said they are not sure. Analysing their interest, 67% (17:25) of participants indicated that they are interested in offering HIV services in their outlets while 30% (3:10) said they are not sure. Most of the participants (73%) in the ratio 37:50 are of the opinion that HIV clients will not mind accessing treatment in their Community Pharmacy outlets.

## **DISCUSSION**

The analysis showed that pharmacists in Ondo State were enthusiastic about the inclusion of HIV services into community pharmacy. This is evident by proportion that agreed to the concept and are willing to carry it out.

Although the pharmacists were enthusiastic, a high percentage needed to be trained. Though a lot of HIV care and treatment capacity building is ongoing in Ondo State by State agencies and implementing partners, the pharmacists seem to have been left out in all these trainings. Capacity building is one of the key ingredients of a successful HIV program especially with respect to pharmaceutical care and drug logistics. The dynamism of HIV management makes it compulsory to refresh whatever has been taught in in the course of the university education with respect to HIV.

Against the backdrop of shortage of health personnel and poor infrastructural development of health facilities (community pharmacy inclusive) it was surprising that more than half of the respondents felt they had adequate space and personnel to implement community pharmacy. This may suggest a high level of zeal on the part of the pharmacists, knowledge gap on the storage requirements of ARVs and also a need for standard situational analysis of these pharmacies before rolling out the inclusion of HIV services. The fact that more than 50% of the respondents are community pharmacists gives the assurance that the respondents well informed about community pharmacies.

Also, the fact that 64% of the respondents were confident of a hospital close to their pharmacies shows the need for strong linkage and referral network. This referral can be two-way with community pharmacies referring HIV positive clients to the nearest hospital and hospitals referring stable patients on ART to community pharmacies for ARV pick up.

## **TABLES AND CHARTS**

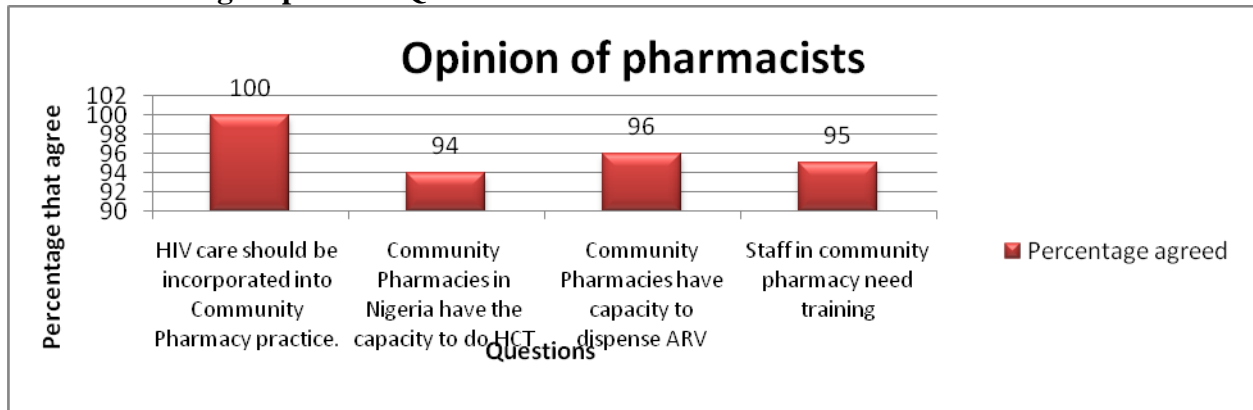
**Table 1 showing the Sex distribution of respondents**

<b>Gender</b>	<b>Frequency</b>	<b>Percentage</b>
Male	32	64%
Female	18	36%

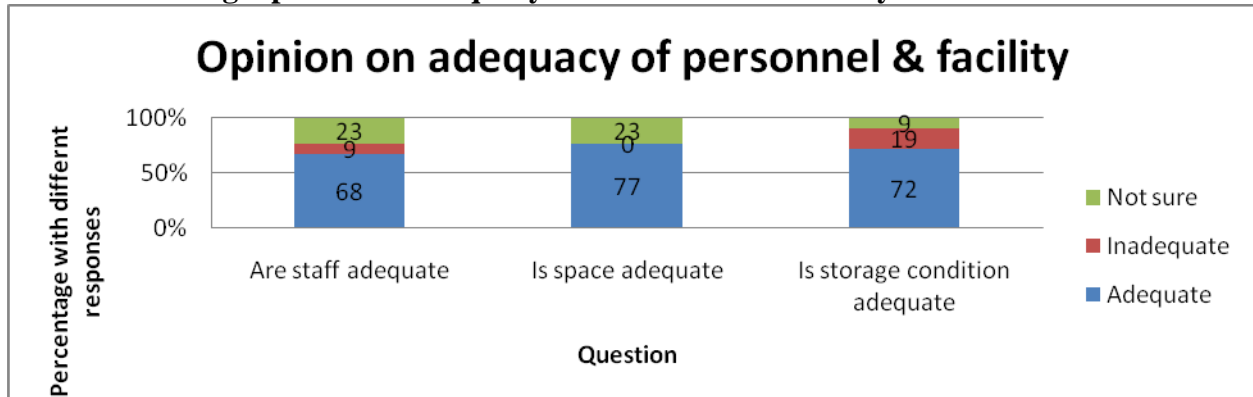
**Table 2 showing the work place of respondents**

Category of Pharmacist	Frequency	Percentage
Community Pharmacist	29	58%
Hospital Pharmacists	14	28%
Administrative sector	4	8%
Pharmaceutical Industry	3	6%

**Chart 1 showing response to Questions**



**Chart 2 Showing Opinion on Adequacy of Personnel and Facility**



## CONCLUSION

The community Pharmacies in most communities are seen as the first point of call for both therapeutic and psychosocial support. Community Pharmacists in Ondo State are enthusiastic and willing to be included in HIV service provision. Integrating HIV services into their services would support an increased uptake of prevention services, expansion of access to HCT, PMTCT, and ART services. This strategic activity will contribute to achieving overall improvements in access to HIV prevention, treatment, care and support services towards achieving the universal access targets and MDGs.

## REFERENCES

1. Albert Einstein College of Medicine of Yeshiva University., (2013). Community pharmacies are effective locations for rapid HIV testing. Science Daily. Retrieved from [www.sciencedaily.com/releases/2013/08/130806155543.htm](http://www.sciencedaily.com/releases/2013/08/130806155543.htm).
2. David, D., & Ben, C., (2013). HIV: A clinical opportunity for community. Retrieved from <http://drugtopics.modernmedicine.com/drug-topics/news/hiv-clinical-opportunity-community-pharmacy?page=full>.
3. Kevin Schweers., (2014). Community pharmacists can help reduce drug related hospitalizations. Assura Script. Retrieved from <http://www.assurascript.com/mtm/>.
4. Murphy, P., Cocohoba, J., Tang, A., Pietrandoni, G., Hou, J., & Guglielmo, J., (2013). Impact of HIV-Specialized Pharmacies on Adherence and Persistence with ART., (2012). The Journal AIDS Patient Care and STDs. Retrieved from <http://online.liebertpub.com/doi/abs/10.1089/apc.2012.0189?journalCode=>
5. National LGBTI Health Alliance., (2013) Health and Wellbeing of People Living with HIV/AIDS. Retrieved from <http://www.lgbthealth.org.au/living-with-hiv>
6. National Population Commission of Nigeria., (2006,2013) Census Report. Retrieved from <http://www.population.gov.ng>
7. United Nations AIDS., (2012). Report on the Global AIDS Epidemic. Retrieved from [http://www.unaids.org/en/media/unaids/contentassets/documents/epidemiology/2020/gr2012/20121120\\_UNAIDS\\_Global\\_Report\\_2012\\_with\\_annexes\\_en.pdf](http://www.unaids.org/en/media/unaids/contentassets/documents/epidemiology/2020/gr2012/20121120_UNAIDS_Global_Report_2012_with_annexes_en.pdf)
8. World Health Organization., (2012). Report on Global HIV/AIDS Situation. Retrieved from <http://www.who.int/hiv/mediacentre/news62/en/>
9. World Health Organization., (2006). Report on Global HIV/AIDS Situation. Retrieved from <http://www.who.int/hiv/mediacentre/news62/en/> Federal Ministry of Health Abuja Nigeria., (2010). Nigerian National adult ART guideline.