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FROM THE EDITORIAL DESK

You are welcome to our rejuvenated Pioneer Medical Journal. On behalf of the Publisher and the Editorial team, I apologise for the absence of the journal from the committee of journals for these past six years. It was due to circumstances beyond our control. We are back and ready to serve you better. The new edition continues with Volume 5 having stopped in Volume 4.

During the period of its absence from the stable, a reorganisation was undertaken with the appointment of a new Editor-in-Chief and the editorial team.

A website was created to interface with the public and online access is being worked on. Our web page is www.pioneermedicaljournal.com.

The editorial team promises to make the journal visible and much sought after by authors to publish articles. We are presently still publishing twice a year, and will, within the next two years publish four times a year.

We thank the Management of the hospital for support in seeing that this journal resurrected. The Editorial team also thanks the Chairman, the entire executive and members of the Medical and Dental Consultants' Association of Nigeria, Federal Medical Centre, Umuahia for their wonderful support.

Our watch word is that Pioneer Medical Journal has come to stay. Once again, thank you and God bless.

Prof Maxwell U. Anah
Editor-in-Chief

WHAT IS ON THIS EDITION

We are glad to publish several interesting topics in this edition. Most of the manuscripts are studies done in Umuahia and its environment. They are interesting and varied.

The Corona Virus disease 2019 (COVID-19) pandemic is raging and it is now the new normal as virtually all sectors have been affected. A review of this has been added. Expect more from us in the next edition.

GENERAL INFORMATION FROM THE EDITOR-IN CHIEF

ALL articles to be submitted to the email address:

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THE Pioneer Medical Journal of FMC Umuahia accepts manuscripts from Nigeria and beyond in areas of basic medical sciences; clinical sciences and related fields. Publication for now is semi-annually.

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Papers in the following categories are accepted: Original Scientific Articles, Case Reports, Brief Communications, Letters to the Editor, and Images in Medical Practice. Review articles are usually accepted. Articles should normally not exceed 3,000 words, while for Case reports, Letters, it is 1,500 words. Images in medicine should not exceed 1,000 words.

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Clinical Photographs should be disguised, as not to give away patients' identity.

REFERENCES should follow the *Vancouver* style.

Competing interest should be declared.

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Publication attracts administrative cost as or approved by the MDCAN.

Yours truly,
Prof. Maxwell U. Anah

CONTENTS

ARTICLES	PAGE
Ochigbo and Anah Review Article on Covid-19 Pandemic: The Raging Disease	1-15
Mbamba et al Case Control Study of Prevalence of Chlamydia Trachomatis in Tubal Factor Infertility and Normal Pregnancy in Umuahia, South-east Nigeria.	16-25
Nsa et al Electrolyte Abnormalities In HIV Infected Children in Calabar, Nigeria.	26-32
Ogbonnaya et al Frequency and Trend in Uptake of HIV Counseling And Testing in the Health Sector in Abia State, Nigeria: A Five-year Review.	33-39
Chukwukwe et al The Prevalence of Dry Eye Disease Among Glaucoma And Non Glaucoma Patients at Federal Medical Centre Umuahia, Abia State, Nigeria	40-45
Nduka et al Screening For Malnutrition And Nutritional Care in Children Living With HIV/ AIDs in Aba, Abia State, Nigeria	46-51
Obi et al Intimate Partner Violence in an Urban Community in Benin City, Nigeria: Awareness, Knowledge and Attitude	52-68
Ibrahim et al The Prevalence of Intestinal Helminthiasis Among Antenatal Booking Clinic Attendees in the Federal Medical Centre, Umuahia, Abia State, Nigeria.	69-74
Chimezie et al Peculiarities of Diabetic Nephropathy: A Case Report	75-80

FREQUENCY AND TREND IN UPTAKE OF HIV COUNSELING AND TESTING IN THE HEALTH SECTOR IN ABIA STATE, NIGERIA: A FIVE-YEAR REVIEW.

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Abstract

Background: HIV counseling and testing (HCT) is a pivotal intervention in the prevention and control of HIV. It is the gateway to early treatment, care and support for people living with HIV (PLHIV). HCT also provides a platform to provide support for HIV negative individuals to enable them adopt a healthy lifestyle in order to remain HIV seronegative.

Objectives: This study was carried out to describe the frequency in the uptake and outcome of health facility-based HIV Counseling and testing services in Abia state as well as reviewed the monitoring and evaluation unit of Abia State Agency for the Control of AIDS (AbiaSACA) on information on HCT.

Methods: Data from 84 health facilities all over the state as well as the AbiaSACA over a period of 5 years was reviewed and analysed. These data consisted of those who had counselling and were tested for HIV using nationally accepted testing methods.

Results: Out of the total of 559,113 individuals tested over a period of 5 years, 39,784 (7.1%) tested positive. There was a yearly increase in number of individuals tested for HIV, but a progressive decline in HIV seropositive rate from 12.9% in 2012 to 4.0% in 2016. Females were disproportionately more infected than males while individuals in the 25-49 age-groups had the highest HIV positive rate compared to other age groups. The prevalence of HIV among individuals with Sexually Transmitted Infections was higher than in the general population through all the years studied.

Conclusion: There was yearly increase in the uptake of HCT services in the State. Females were disproportionately more infected than males though there was a consistent decline in seropositivity rate over the years. Measures to maintain HCT preventive activities are encouraged and should be expanded.

Keywords: HIV Counseling and Testing, trends, seropositivity.

INTRODUCTION

The prevalence of Human Immunodeficiency Virus (HIV) infection is high in Nigeria with about 3.5 million people living with the virus and 227000 new infections in 2015.^{1,2} According to the Prevention Gaps Report by UNAIDS, It was estimated that in 2015, 60% of new HIV infections in western and central Africa occurred in Nigeria.² For HIV prevention and control efforts in Nigeria to yield maximum results, these new infections need to be promptly diagnosed and the infected individuals placed on treatment, care and support.

Studies^{3,4} have shown that early detection of

HIV infection significantly reduces mortality rates in the first year of initiation of Highly Active Antiretroviral Therapy (HAART). It also reduces the proportion of unrecognized infections among infected individuals because those who are unaware of their infection are 3.5 times more likely to transmit the virus to other persons when compared to those who knew their status. The good news is that early detection of HIV infection by HIV Counseling and Testing (HCT) is beneficial in reducing transmission in the community. Although testing for HIV can be very scary for some people, early detection of HIV infection invariably leads to better clinical outcomes.^{5,6}

HIV Counseling and Testing (HCT) provides an excellent opportunity for people to know their HIV status and thereafter take necessary actions for best health outcome. Knowledge of HIV status is important in helping individuals make informed decisions such as adopting safer sex practices to reduce their risk of contracting or transmitting HIV.⁵ For those who are HIV positive, knowledge of their HIV status allows them to take actions to protect their sexual partners and access treatment services.⁶ This confidential service is recognized globally as a critical and very important entry point for many HIV prevention and control interventions. HCT is therefore very essential for access to treatment, care and support for people living with HIV (PLHIV).^{7,10}

In Nigeria, HCT services are delivered through Client-initiated Counseling and Testing (CICT) and Provider Initiated Counseling and Testing (PICT) approaches. Three models are currently used to deliver the services and these are the stand alone, Integrated Health Facility and Mobile/Outreach models. In the stand alone model, the CICT approach is used and services are provided in venues situated outside the health facilities. On the other hand, in the Integrated Health facility model individuals can access HCT services together with other health services within the health facility while the Mobile/outreach model targets special populations such as Most at Risk Populations (MARPS), nomads, fisherman etc.

Both models use the CICT and PICT approaches.⁸ Traditionally, individuals receiving HCT services after pre-test counseling, were required to give consent before the HIV test. This is referred to as “opt-in” strategy.⁹ Another strategy, the “opt-out”, specifies that HIV test be provided to all patients in a clinical setting. However, the patient is informed of his right to decline the

test.^{7,10,11} Nigeria has adopted the “opt-out” strategy to boost access to HCT within selected clinical settings.⁸ In spite of scaling up of HIV prevention services and activities, HCT uptake is still suboptimal in Nigeria.¹⁰ This is due to several barriers to access of HCT services which includes stigma, discrimination, low awareness, fear, cost, low risk perception and misconceptions.^{8,11,12}

In Abia State HCT service provision was guided by objectives and targets which were well-articulated in the Abia HIV/AIDS State Strategic Plan of 2010-2015. The objectives for HCT was to ensure that 80% of adults and 80% of Most at Risk Populations (MARPS) in Abia had access to HCT services in an equitable and sustainable way.¹³ A population-based survey conducted by the Federal Ministry of Health showed that 31.8 % of individuals in Abia who had done HIV testing did so voluntarily. The survey also showed that 23.8% were mandated to do the test while 35.6% claimed the test was offered to them. This survey provided an insight into the reasons why people do HIV test in Abia State.¹⁴ The Abia HIV/AIDS strategic plan 2010-2015 has been implemented and there is need to evaluate what has been achieved with regards to HCT uptake in the state. This study sought to describe the trend in uptake and outcome of health facility-based HCT services between 2012 and 2016 in Abia state.

METHODOLOGY

This study was carried out in Abia state, Nigeria in 2017. It was a longitudinal study of the uptake of HCT services over a five-year period (2012 to 2016). The data used for the study were secondary data obtained from the monitoring and evaluation (M&E) unit of Abia State Agency for the Control of AIDS (AbiaSACA). All relevant information with regard to HCT services and the number of persons tested from 2012 to 2016 were extracted from the database and analyzed using Microsoft Excel 2013 and Epi Info 7 software.

All 84 health facilities that undertook HCT services were included in the study. Baseline data on HCT service uptake and outcome for the year 2012 was compared with other years. Frequencies, means and standard deviation were calculated for quantitative variables while qualitative variables were described using proportions. The denominator used for calculating proportions was the total number of persons tested in the health facilities. The results were presented in tables and line graphs. AbiaSACA approved the use of her monitoring and evaluation (M&E) data for this study.

RESULTS

A total of 559113 individuals were screened for HIV from January 2012 to December 2016. Out of this number, 39784 (7.1%) tested positive.

Table 1: Number of individuals screened from 2012- 2016

Total tested in 2013 was 103886. Out of those tested 11383 (11.0%) were positive. In 2014, out of the 103260 tested, 8348 (8.1%) were found to be positive.

	2012	2013	2014	2015	2016
Age group (HIV negative)					
0 -14	4000	13390	10338	12254	22453
15-19	8109	6332	6309	7310	16885
20-24	11221	12404	15177	21699	39909
25-49	15641	45746	48651	49637	73411
50+	4168	14631	14437	18580	26637
Sub-Total 1	43139	92503	94912	109480	179295
Age group (HIV positive)					
0 -14	322	757	479	458	507
15-19	367	215	136	210	175
20-24	1358	910	641	716	733
25-49	4131	8331	6136	4161	4767
50+	260	1170	956	834	1054
Sub-Total 2	6438	11383	8348	6379	7236
Grand Total	49577	103886	103260	115859	186531

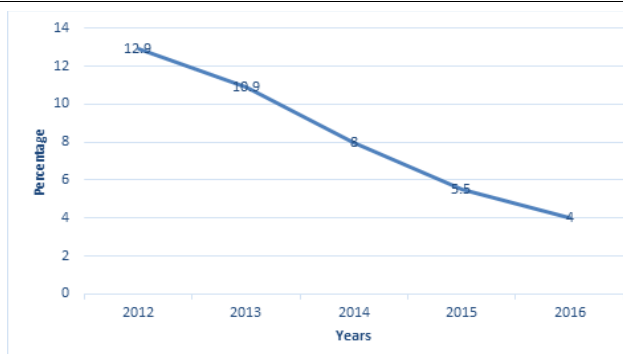


Figure 1: Trend in HIV seropositivity from 2012 to 2016

There was progressive decline in HIV seropositivity from 12.9% in 2012 to 8.0% in 2014 and 4.0% in 2016

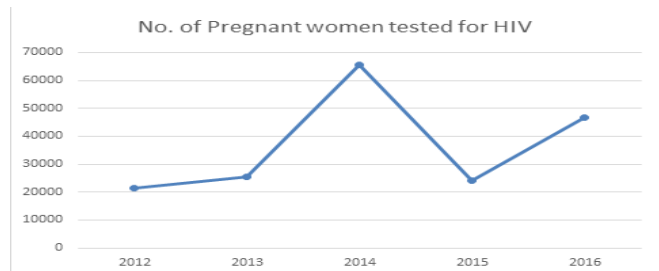


Figure 2: Trend in number of pregnant women tested for HIV from 2012 to 2016.

The number of pregnant women tested rose to a peak in 2014, dipped after that to a low in 2015 and thereafter increased again.

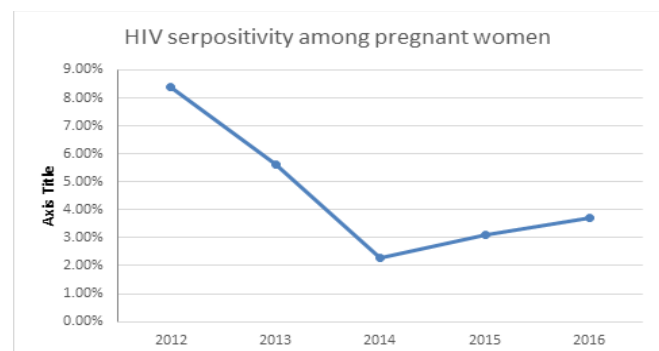


Figure 3: Trend in HIV seropositivity rate among pregnant women from 2012 to 2016.

There was a sharp decline from 2012 to 2014. After 2014, the prevalence showed a slow rise towards 2016.

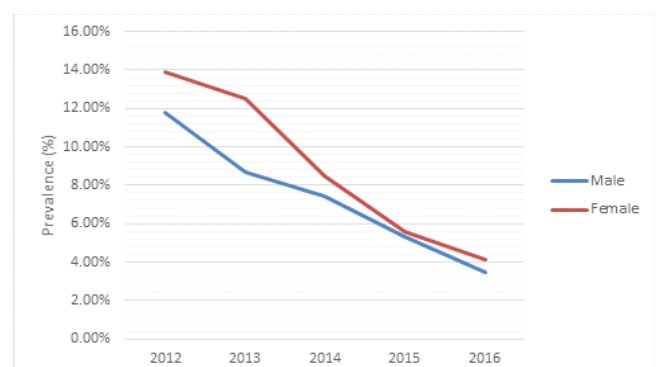


Figure 4: Trends in Male versus female HIV seropositivity rate.

There was a consistent decrease from 2012 to 2016 in both males and females although more females than males tested positive.

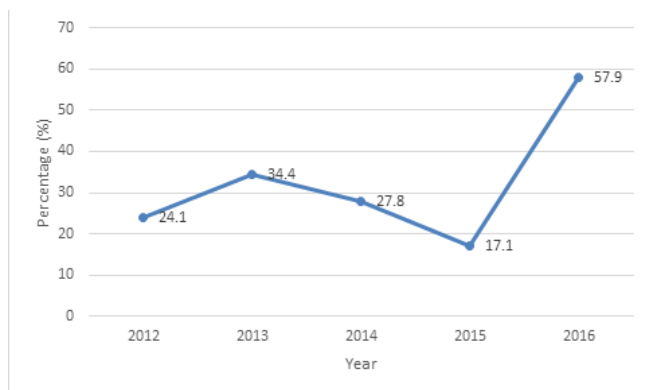


Figure 5: Yearly proportion of tuberculosis patients who tested positive for HIV.

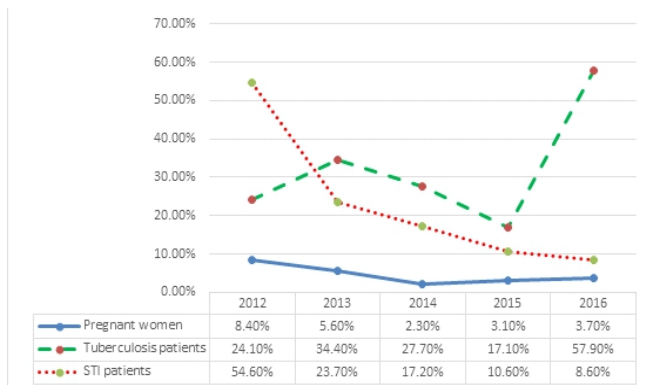


Figure 6: Yearly incidence of HIV among selected groups

HIV seropositive rate showed a slow decline from 2012 to 2016 among persons with Tuberculosis (TB) and Sexually Transmitted Infections (STIs) but among pregnant women, there was a rise between 2012 and 2013, a slow decline from 2013 to 2015, and then a sharp decline in 2016.

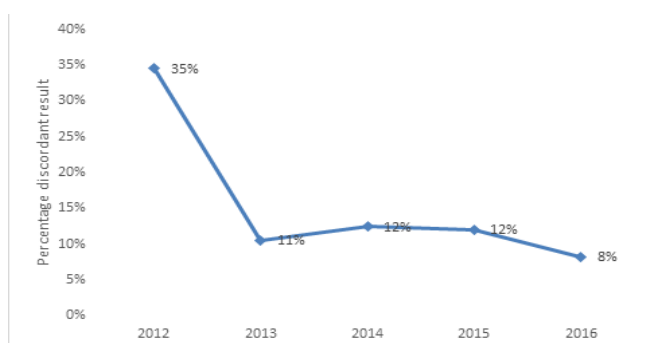


Figure 7: Proportion of couples with discordant results.

The proportion of couples who had discordant results after screening for HIV was very high (35%) in 2012, then sharply dropped to 11% in 2013, became steady at 12% in 2014 and 2015, and declined to 8% in 2016.

DISCUSSION

There was progressive increase in the number of individuals tested for HIV from 2012 to 2016 with a similar trend in the number of facilities (public and private) that provided HCT services in each year. According to the National HIV & AIDS and Reproductive Health Survey (NARHS Plus) report, 67.0% of males and 68.7% of females in Abia State knew where to access HCT services.¹⁴ Although data on HCT uptake among MARPS was not available, results from the Integrated Biological and Behavioral Surveillance Survey carried out by NACA showed that 91.8% of brothel based women who sell sex in Abia state had ever had an HIV test and 95.5% received their results after the test.¹⁵ Knowledge of the availability of these HCT sites may have contributed to increasing number of individuals tested each year. There was also consistent decline in the seropositive rate over the years. The crude prevalence dropped from 12.9% in 2012 to 4.0% in 2016. This is a clear indication that AbiaSACA's HIV prevention and control activities were effective and had a positive impact on prevention of new HIV infections from the epidemiological point of view.¹³

Over the years, various studies and reports^{14,17} have shown that women are disproportionately more infected by HIV than men. This is not necessarily due to the fact that more females had HCT. The Gap Report documents that an estimated 380,000 new HIV infections occurred among young women aged 15 to 24 every year, accounting for 60% of all new HIV infections among young people.¹⁶ This present study also showed that a higher proportion of females than males tested positive for HIV over the years as shown in figure 4. While women are reluctant to test because of discrimination and stigma that is placed on those who openly acknowledge their HIV status,¹⁸ there are numerous factors that increase their risks of getting infected with HIV. Such factors include biological¹⁹, early marriage²⁰, transactional sex²¹ and gender

based violence.²² HIV/AIDS prevention and control programs should see these as the basis to focus more on women in HIV infection prevention and control programming.

HIV infection is strong risk factor for the development of tuberculosis. Tuberculosis on the other hand, is a leading cause of death among people living with HIV.²³ HIV testing in Tuberculosis (TB) patient is very important in reducing mortality from TB/HIV co-infection. We observed that there was a slow decline in the proportion of persons with TB who tested positive for HIV from 2013 to 2015, then a sharp increase in 2016. On average 32.2% of tuberculosis patients screened for HIV tested positive while 44.3% of HIV positive patients screened for tuberculosis were smear positive. These coinfection rates are higher than the estimated rate for Nigeria which has been reported to be 22%.¹⁶ One possible explanation for this outcome is late initiation of HAART since there is ample evidence that the incidence of tuberculosis is drastically reduced in patients on anti-retroviral therapy.^{16,27,28} A strong TB/HIV collaboration in the state will ensure prevention of HIV among uninfected TB patients, prompt detection of HIV and early initiation of HIV treatment among HIV infected TB patients.

The level of awareness of HIV/AIDS among women attending antenatal clinic has been reported to be high.²⁹ High level of awareness coupled with expansion of PMTCT services can lead to increase HCT uptake among pregnant women. There has been a progressive expansion of PMTCT services in Abia state over the years. This may be responsible for the progressive increase in the number of pregnant women tested for HIV from the year 2012. The drop in 2015 was probably due to strike actions by health workers in the state. The decline in HIV seropositivity among the pregnant women from 8.4% in 2012 to 4.1% in 2014 was similar to the trend observed in the general data but

the reason for rise in 2015 and 2016 could not be ascertained.

HIV seropositivity was observed to be higher in clients with sexually transmitted infections (STIs) compared with clients who did not have STI (Fig. 7). This is in line with the fact that the presence of an STI increases the risk of HIV infection.³⁰ Individuals with STIs are also more likely to transmit. Furthermore, a high prevalence of STI among PLHIV may undermine efforts to prevent and control the transmission of HIV in the society. This should be addressed as early as identified.

Limitations: The use of secondary data for this study was a major limitation because some information were missing from the data. Attempts were made to source such information from published national surveys on health in Nigeria. In addition, findings from this study have some level of bias and may not be a considered a true reflection of the picture in HCT uptake in Abia state. This is because only facility-based data were analyzed. Analysis of a more comprehensive data from all HCT services will be needed to get the true picture of HCT uptake in the State.

CONCLUSION

Facility-based HCT service uptake showed a positive trend in the number of individuals screened for HIV and a consistent decline in the seropositivity rate over the years studied. Females were disproportionately more infected than males while HIV seropositive rates were highest among individuals with tuberculosis and sexually transmitted infections.

RECOMMENDATIONS

In the light of the results of this study, we recommend that Abia state government should expand coverage and make HCT services more acceptable, accessible, affordable and equitable for women. TB/HIV collaboration should also be strengthened between AbiaSACA and State Tuberculosis

and Leprosy Control Program. The target should be universal testing for HIV among all TB patients and prompt initiation of HIV treatment to those who test positive. STI management, prevention and control should be incorporated as an essential component of HIV control strategy in the state.

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