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Personnel Requirement for Proficient HIV Counselling Services in a Teaching Hospital in Nigeria

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Abstract
The purpose of the study is determination of the maximum workload per counsellor per day, and the minimum personnel requirement to provide quality HIV counselling services for 100% clients receiving HIV testing services.Every client receiving HIV testing should be provided the statutory pre- and post- test skilled counselling dialogue, for a minimum of 45 minutes. Excessive workload is a deterrent. Maximum workload that guarantees HIV counselling for a minimum of 45 minutes was determined and applied to records of HIV serological tests, and HIV counselling, during January, 2007 to December, 2014, in a Teaching Hospital, to determine the minimum HIV counselling personnel requirement. It was established that maximum workload of 10 clients per counsellor per day, is required to effect the recommended minimum of 45 minutes' counselling dialogue with clients; that only 45% of clients receiving HIV Serological tests were counselled, tested and received results, during the period of study (January, 2007 – December, 2014), in UBTH; and that a minimum of seven trained counsellors would be required to ensure statutory counselling services to 100% of clients receiving HIV Testing services. Monitoring statistics of HIV testing services enables prompt review and determination of minimum personnel requirement to prevent disparities between serological tests and and statutory counselling services.

Keywords: Minimum Workload, HIV Counsellors, Personnel, Monitoring,Test Kits

Introduction
Quality HIV counselling dialogue requires a minimum duration of 45 minutes per client. HIV counselling is a statutory service. No HIV test should be provided without pre-test counselling or pre-test education/information. HIV counselling services consists of counselling before HIV voluntary testing and after the results of the HIV test, followed by appropriate referrals [1,2]. HIV counselling is a voluntary dialogue between a counsellor and client, couple or group of clients. It is a process of enabling clients to explore their risk of HIV, understand and make an informed decision on whether to be tested for HIV, to understand the results, facilitate future planning and learn about appropriate prevention strategies. HIV counselling services are provided by trained HIV counsellors [3,4,5,6].

HIV Counselling Service (HCS) is the key entry point to prevention, comprehensive care, treatment and support services, where people can access information on HIV/AIDS, learn whether they are infected, and are helped to understand the implications of their HIV status and make informed choices for the future [6,7, 8,9,10].

HIV counselling should be performed by persons who are skilled in HIV Counselling and testing. HIV Counsellors receive training with standardized curricula for special groups such as discordant couples, homosexuals, older clients, children, and in-patients. The role of HIV counsellors is challenged by excess workload, lack of designated work areas to maintain privacy (auditory and visual) and confidentiality, low morale and motivation attributable to poor remuneration and poor recognition by fellow health workers [11,12,13].

HIV testing includes HIV antigen or antibody serological tests. Serological tests, based on Test kits, are the most common. Laboratory scientists or technicians should be dedicated, recruited or deployed to perform or supervise HIV testing (in situations where the rapid test is performed by the counsellors) [2,6,7]. All sites providing HIV Testing Services, Voluntary Counselling and Testing (VCT), or Provider Initiated Testing and Counselling (PITC), should ensure adequate staffing in accordance with demand for services and resources available and ensure counsellors follow the standard protocols to provide pre-test counselling/education. In PITC information to individuals, couples, or groups should be brief and focused on the benefits of testing and services available, including Anti-Retroviral Therapy (ART) and Prevention of mother-to Child Transmission [2].

Justification of Study
Low counsellor-to-client ratio increases risk of poor quality counselling due inadequate duration of counselling dialogue. A minimum of 45 minutes is required to achieve client satisfaction in quality HIV counselling. Data on Serological Tests, without counselling and received result, do not count, in HTC statistical reports: Only Data from HIV counselling are used to assess the output of HIV Testing services. Data on HIV counselling also

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provide a framework for assessing the proportion of clients receiving full statutory HIV Testing services, in compliance with national and WHO Guidelines.

Aim and Objectives

Aim: To determine the minimum personnel requirement to provide quality HIV counselling services for 100% clients receiving HIV serological tests in an HIV Testing services.

Specific objectives: To determine the maximum workload per HIV, counsellor per day.

To determine the proportion of clients receiving HIV Serological tests that were counselled, tested and received results, during the period of study (January, 2007 – December, 2014), in UBTH.

To determine minimum number of HIV counsellors required to provide quality HIV counselling services for 100% clients receiving serological tests in UBTH.

Make recommendations for corporate response to significant findings, for the sustainable development of quality HCS in UBTH.

Hypothesis

Null Hypothesis: That 100% of clients given HIV serological tests were counselled, with confidential disclosure of results to clients, HIV counsellors.

Materials and Methods

The study was an operational research of strategies for determination of minimum personnel for quality HIV counselling services in a Teaching Hospital. The study design included a retrospective descriptive epidemiological survey of clients tested for HIV compared with clients who were tested for HIV and received the statutory counselling services before and after the results of the serological test, during January 2007 to December, 2014, in the University of Benin Teaching Hospital (UBTH), Benin City. The UBTH is a designated centre of excellence for the delivery Comprehensive care, including HIV Counselling Services, for Persons Living with HIV/AIDS (PLWHAs) and Persons Affected by HIV/AIDS (PABA).

Counselling services in UBTH includes four (4) static HIV counselling Units located at the Centre for Disease control (CDC), Family Clinic, Chronic diseases Outpatient clinic, and the Blood Bank, and an Outreach service in the Accident and Emergency centre. The Counselling services are coordinated by a Focal Person. The HIV Counselling services supporting the Prevention of mother-to child transmission (PMTCT) is overseen by the PMTCT focal person.

In compliance with standards of HIV counselling protocol, Counselling services, are documented, collated as monthly reports which are shared with our funding Partners, represented by AHNi. Accurate and timely reports are useful for monitoring of HIV test Kits, and evidence-based justification for the sustainability of Donor support for HIV Testing services.

Determination of maximum workload

$$= \frac{\text{Number of Work Hours, per day, (less one-hour break time) x 60 minutes}}{\text{45 minutes (minimum duration of HIV counselling service per client)}}$$

Determination of Mean number of clients tested for HIV daily, between January, 2007 and December, 2014, in UBTH

$$= \frac{\text{Total number of Clients Tested for HIV during 2007 – 2014}}{\text{Number of Working Days in the Year x Number of Years.}}$$

Minimum Number of HIV Counsellors required for quality HIV Counselling services was calculated as follows:

$$= \frac{\text{Mean number of clients per tested for HIV daily}}{\text{Maximum Workload per HIV Counsellor per day}}$$

Results

Determination of maximum workload per counsellor, per day

We derived a formula based on the recommendations of national guidelines of a minimum duration of 45 minutes per hiv counselling service per client, as follows:

$$\frac{\text{number of work hours, per day, (less one-hour break time) x 60 minutes}}{\text{45 minutes (minimum duration of hiv counselling service per client)}} = 10 \text{ clients per hiv counsellor per day}$$

Determination of mean number of serological tests, per day, during january 2007 and december, 2014, in the hospital

total number of hiv serological tests during january 2007 and december, 2014
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number of working days in the year x number of years.
= 185,078
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313 x 8
= 74 serological tests per day

Determination of minimum number of hiv counsellors required for quality hiv testing and counselling services, during the period of study was calculated as follows:

= mean number of serological tests per day
maximum workload per hiv counsellor per day
= 74/ 10
= 7 counsellors, approximately.

it was found that only 83,142 (45%) of the total serological tests (185, 078) received the statutory counselling services, during the period surveyed (table 1; figure 1).

the comparative review of 185,078 hiv serological tests and clients counselled, tested and received results, in university of benin teaching hospital, benin city, from january, 2007 to december, 2014 (table1.), showed that only 45% of clients who were tested for hiv received the statutory counselling services, before and after the results of the serological test; 55% of clients received only serological tests without counselling. the difference between the proportions of total serological tests (100%) and the total counselled with disclosure of result was statistically significant. we rejected the null hypothesis that 100% of clients was counselled ($p = 0.00001$).

it was determined, using our innovative formula, based on a minimum of 45 minutes dialogue, and a maximum workload of 10 clients, per counsellor per day, that a minimum of seven trained counsellors would be required to provide statutory counselling services to 100% of clients, consenting for hiv serological tests in the surveyed teaching hospital. The study also showed that six (6) professional counsellors were available in the hospital, and counselled a total of 83, 142 clients; three (50%) of the counsellors were deployed to antenatal clinics, with an output of 22,247 services; the output of the three counsellors deployed to the general clinics was 60,895; difference between the average workload, per year, per counsellor, in the antenatal (22247/3x8 = 927) and general clinics (60,895/3x8 = 2537), was statistically significant ($p = 0.00001$).

Table 1 Annual total of HIV serological tests, HTC and PMTCT services

Year	**lab sero.(d)**	**htc (a)**	**pmtct (b)**	**htc+pmtct (c)**
2007	21,875	8,681	2,526	11,207
2008	23,351	9,812	2,487	12,299
2010	25,754	7,149	3,080	10,229
2011	9,303	8,105	3,225	11,330
2012	28,282	8,329	2,635	10,964
2013	30,612	6,748	2,695	9,443
2014	19,529	5,579	3,038	8,617
Grand total	185,078	60,895	22,247	83,142

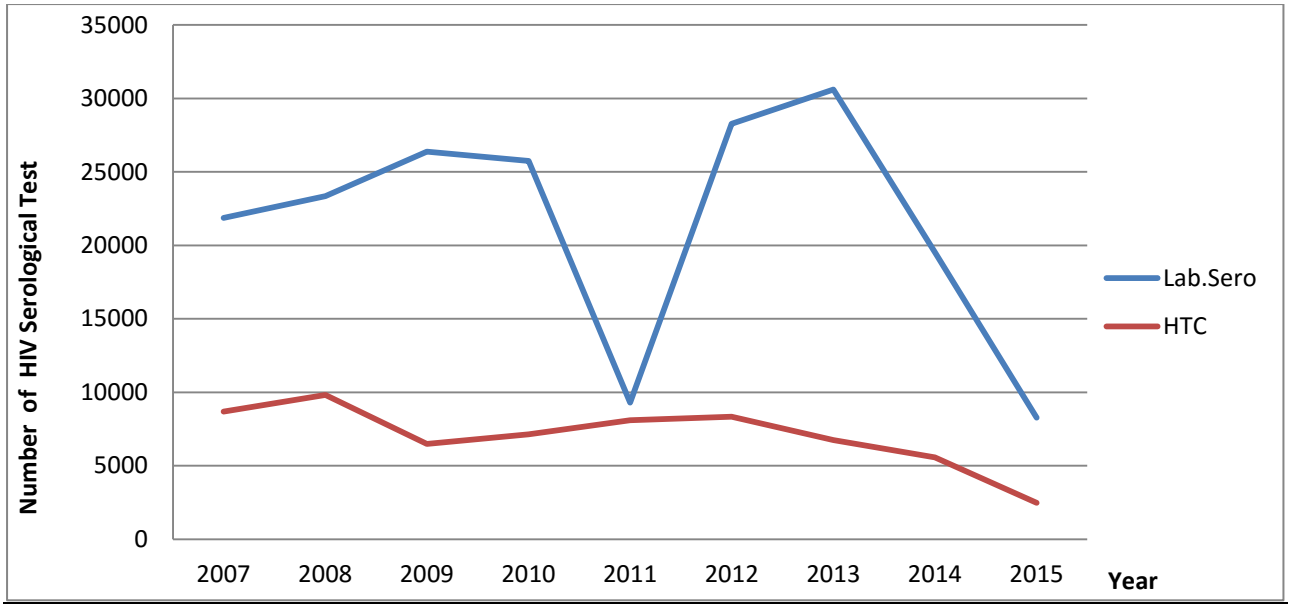

Figure 1. Disparities between HIV serological test and number of clients counselled, tested and received results, in UBTH, 2007 – 2014.

Discussion

HIV counsellors are reported to counsel an average of 12 clients a day, with a range of nine to 25 clients on a busy day [13]. Based on the WHO recommendation of a minimum of 45 minutes counselling dialogue, for quality HCT service, it was found that the maximum workload for quality HIV service should be 10 clients per counsellor, per day.

Quality HIV counselling is client-driven, i.e. propelled and determined by client's needs. Thus the counselling process involves responding appropriately to the specific and unique needs of each client: this cannot and must not be rushed, as it often involves the handling of emotions and helping the client to make informed choices about relevant lifestyle modifications. Shortage of HTC counsellors (Low counsellor to client ratio), and high workload, increases the risk of short (< 45 minutes) counselling dialogue and unsatisfied clients' needs.

It is estimated that 54% of people living with Human Immunodeficiency Virus (HIV) are unaware of their infection. The only way to determine a person's HIV status is for her/him to have an HIV test. HIV testing is essential to achieving 'the first 90' of the United Nations' 90-90-90 targets to end the HIV epidemic. The UN advocates the strategic expansion of HIV testing services to diagnose 90% of people with HIV as early as possible [3, 17]. It is expedient to increase access to quality HIV counselling services by increasing numbers of HCT sites and strengthen existing HCT with adequate with adequate manpower.

In Nigeria, HIV Testing Services are mainly Donor – driven, by the US Government in collaboration with various contractors, including, 'Achieving Health Nigeria Initiative (AHNi). AHNi in partnership University of Benin Teaching Hospital (/UBTH), supports comprehensive care for Persons Living with HIV/AIDS (PLWHA) and Persons Affected By AIDS (PABA). The HIV Counselling and Testing (HCT) programme includes protocols for the statutory documentation of counselling services and utilization of HIV test Kits, in compliance with good practices. Accurate and timely documentations provide evidence-based accountability of resources, and justification for the sustainability of funding by Donors [3,4,5,6].

All HIV counselling sites should fulfil the minimum requirements [1,3,7]. HIV counselling provides opportunity for clients to explore their risk of HIV and learn about appropriate prevention strategies. This study showed that 101,936 (55%) clients did not have the opportunity of HIV counselling, during January, 2007 – December, 2014, in the UBTH. The social sensitivity of HIV counselling requires that the service is provided through skilled professional dialogue with appropriate visual and auditory privacy, for a minimum duration of 45 minutes and maximum workload of 10 clients per counsellor per day to guarantee client satisfaction. The goal of HIV testing is to achieve a Risk Reduction Plan, and the specific objectives include, the prevention of exposure to HIV infection by HIV negative clients, and control the spread of HIV infection by HIV positive clients. Prompt access to HTC services, by clients referred for Provider Initiated Counselling and Testing, from clinics and wards, e.g. A & E Complex, requires availability and easy access to HTC services, in large Health Institutions. Long distance between existing HTC Units and referral clinics or wards, increases risks of clients getting lost with increased risk of client's refusal to accept the HIV testing. Multiplicity of HTC Units, staffed by trained professional HTC Counsellors, will promote availability, access, utilization of quality HTC services,

adequate counselling, skilled disclosure of results and documentation as statistics that count in the monitoring of National HIV Programme.

In teaching hospitals, HIV counsellors do not perform HIV testing, although trained to perform serological tests with HIV Test Kits. HIV testing is performed strictly by trained Laboratory Scientists, in Teaching hospitals. Counsellors are however responsible for statistical documentation, collation and reporting of data on HTC activities.

Serological Tests, without counselling and received result, do not count, in HTC statistical reports.

Only data from HTC and PMTCT Thematic Areas are used to assess HTC output in the UBTH/AHNi HIV/AIDS Project. The observation that 55% of the total clients that received serological tests did not receive counselling could be explained by shortage of HIV counsellors or poor compliance with National statutory guidelines to scale-up PICT (Provider-Initiated Testing and Counselling). In UBTH, only 45% of clients who were tested for HIV and received the statutory counselling services before and after the results of the serological test, were recorded and forwarded as National Statistics. The public health implication is the challenge of full accountability for 55% of the total HIV test kits supplied mostly by Donor agencies, during the study period, January, 2007 to May, 2015.

Poor referrals of clients, receiving serological services, to counsellors, by Health Care Workers, could also contribute to disparities between serological tests and complementary statutory counselling services. Promotion of Provider-Initiated HIV Testing and Counselling (PICT) should include provider-awareness of the unmet need to refer clients for statutory Counselling services.

We determined the HTC manpower requirement in an HTC Centre. The maximum workload established per HIV counsellor per day that guarantees a minimum of 45minutes counselling dialogue with a client was ten.

The mean number of clients receiving HIV serological test per day was seventy-four. It was found that 55% of clients receiving HIV testing were not provided counselling services during the study period (January 2007 – December, 2014). The minimum manpower requirement to guarantee counselling services for 100% clients receiving HIV testing was 7 counsellors, compared to existing manpower of six counsellors. Three (50%) of the available counsellors were engaged in the PMTCT programme which contributed only 26.8% of the total recorded HIV counselling services.

Recommendations

Staffing of HTC services should be based on actual workload. Fairer distribution of existing counselling personnel was indicated. Corporate recruitment of 10 additional permanent HIV counsellors, by the Hospital Management would strengthen the existing HIV counselling manpower, with the additional potential to facilitate the reduction and eventual elimination of disparities between HIV serological tests and number of clients that receive quality counselling, testing and results, in the teaching hospital, in compliance with the National and WHO standards.

Strengthening HIV Counselling manpower will contribute to the unmet need to scale-up PICT (Provider-Initiated Testing and Counselling), in health care institutions.

Improved networking between the HIV Counselling and Laboratory Thematic Areas of the HIV programme would promote referrals of un-counselled provider initiated clients from the Laboratory for essential HIV counselling services before and after HIV testing. There is need to orientate health workers on the National statutory guidelines for client-friendly implementation PICT (Provider-Initiated Testing and Counselling), by referring all clients for Pre- and Post-test counselling.

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