STRENGTHENING PSYCHOSOCIAL SUPPORT AND ADHERENCE BY INTEGRATING MENTAL HEALTH ASSESSMENT WITH AN AIM OF IMPROVING VIRAL SUPPRESSION IN PLWHIV THIKA LEVEL V HOSPITAL

ANNE WANJA KIBERA

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Declaration

I declare that this dissertation is my original work and has not been submitted for examination in any other University.

Name: Anne Wanja Kibera **Reg/No:** W/82/89468/2016

Signature: _____ **Date:** 10.02.2021

Approval of Supervisor's

This dissertation has been submitted for examination with our approval as University of Nairobi supervisors.

Dr Jesse Ngugi
TL5H, Med. Sup. Signature: _____ Date: 10/02/21

Dr Muthoni Mathai

University of Nairobi: Signature: _____ Date: 15.03.21

Approved by the Chairman, Department of Public and Global Health, University of Nairobi

Professor Joyce M. Olenja, **BA; M.Phil; Ph.D.**

Chairman, Department of Public and Global Health

University of Nairobi: Signature: _____ Date: 17.11.21

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To all of you I say, THANK YOU AND GOD BLESS YOU MIGHTLY!

Dedication

This dissertation is dedicated to my beloved family for their patience, love, inspiration, prayers and support during my studies and project implementation.

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List of abbreviation and definition of terms

AIDS	Acquired Immune Deficiency Syndrome
ART	Antiretroviral Treatment
CASCO	County AIDS and STI coordinator
CCC	Comprehensive Care Centre
CDC	Centres for Disease Control and Prevention
CRISSP	Central Province Response Integration, Strengthening and Sustainability Project
DICs	Drop-In-Centres
FY	Fiscal Year
HIV	Human Immunodeficiency Virus
HTC	HIV Testing and Counselling
HTS	HIV Testing Services
KAIS	Kenya AIDS Indicator Survey
KASF	Kenya AIDS Strategic Framework
KCHASP	Kiambu County HIV and AIDS Strategic Plan
KHSSIP	Kiambu Health Sector Strategic and Investment Plan
KENPHIA	Kenya Population-based HIV Impact Assessment
MSM	Men having Sex with Men
NASCOP	National AIDS and STI Control Program
OCA	Organizational Capacity Assessment report
PLHIV	People Living with HIV
PWIDs	People who Inject Drugs
TL5H	Thika Level 5 Hospital
ToTs	Training of Trainers
UNITID	University of Nairobi Institute for Tropical Diseases and Infectious Diseases
UoN	University of Nairobi
SAT	Social Action Theory

DEFINATION OF TERMS

Adherence: to medication regimen is the extent to which patients take medications as prescribed by their health care providers.

Integration: This is the delivery of services or multiple interventions together on the same patient visit by the same health worker or clinical team.

Key Population: defined groups that, owing to specific higher-risk behaviours, are at increased risk of HIV irrespective of the epidemic type or local context. These guidelines refer to the following groups as key populations: men who have sex with men (MSM), people who inject drugs, people in prisons and other closed settings, sex workers, and transgender people.

Linkages: It is the liaison between the health centre and services at the hospital or in the community, or between separate clinics organized within the same health centre, or between clinicians and the laboratory or pharmacy.

Medication non-adherence: can be defined as either the deliberate or unconscious failure to take medications as prescribed.

Mental Health: Mental health is a state of well-being in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and is able to make a contribution to his or her community.

Prevalence: The proportion of a population infected with HIV

ABSTRACT

HIV, harmful substance use and mental health problems, world over are health concerns and co-morbidity matters. A comprehensive care support structure is critical to progress health sequels for people living with HIV (PLHIV). The need for preliminary screening for mental health and substance use referral; counselling services, cannot be emphasised enough. While continuation of care, treatment adherence, and retention to HIV care for PLHIV will improve the quality of life in people living with HIV (Gutmann and Fullem 2009). These services are currently limited in Kenya. According to World Health Organization (WHO) report, HIV positive cases are greater in people living with mental illnesses than those without mental health issues.

It is unfortunate that mental health problems contribute substantially in the spread of HIV; adherence to antiretroviral therapy as well as willingness to test. The Integration of mental health and HIV program has imminence to improve health results for PLHIV. By the end of the project, health care workers will be able define signs related to various mental health issues, and their influence on HIV/AIDS outcomes. Psychosocial support is critical in decreasing psychological distress, better treatment adherence and results (Reece et al. 2007). This project encourages and plans for strong linkages to improve care and identify clear referrals to address mental health needs as well as improve patient retention for those living with HIV attending Thika Level 5 hospital CCC.

The training used validated mental health and substance use screening tools such as Patient Health Questionnaire-9 (PHQ-9)-9, (WHO, 2008), appropriate for screening depression, it measures the intensity, severity and depth of depression, while CAGE-AID, adopted to include drugs, is used to measure hazardous and dependent use of alcohol use disorders and drugs as well. The tools were appropriate given that they contain fewer items and do not require trained administrators. The findings indicated that integrating mental health screening tools into HIV services enhanced patient-provider relationship. The training provided the participants with better understanding and identification of mental health problems. This Increased use of referral procedures and protocols.

CHAPTER ONE

1.0 Introduction and Background

Kiambu County HIV prevalence is at 4.7% with an estimate of 70,971 people living with HIV. Young people aged 15-24 years are10% with children below 15 years at 4% (Kenya HIV County profile 2016). In year 2015 December, Kiambu County HIV prevalence rate was ranked sixth highest out of the 47 counties in Kenya.

Kenya Health Sector Strategic and Investment Plan (KHSSIP) recorded HIV and AIDS related infections as the leading cause of mortality and morbidity. The Kiambu County HIV and AIDS Strategic Plan (KCHASP) acknowledged leading contributors of the HIV epidemic in the County included: both female and male sex workers, people who inject drugs (PWID), men who have sex with men (MSM), adolescents and young women from both the urban and rural settings in the county. Distinct key populations were identified in Thika town, Ruiru town, Kiandutu slums and Githunguri Township. Through the Drop-In-Centres (DICs) established in Thika Town and Kikuyu, Men who have sex with Men (MSM) and People injecting drugs have been identified. Kiambu County has an ART coverage of 92% and viral suppression of 35%. There is need for more improvement to achieve the unmet gaps of 95-95-95 in identification, linkage, and viral suppression. The best indicator of adherence and response to treatment is the viral suppression.

Among patients with HIV, caregiver and family psychosocial support is paramount because of the stressful nature of the illness. Psychosocial support helps PLHIV cope with each stage of the infection. Psychosocial support, prevents the possibility of developing serious mental health problems in PLHIV. Reactions to a HIV positive diagnosis include shock, denial, depression, and hostility. It is for this reason that HIV Testing Service providers try to address these challenges at every stage of the patient's illness to ensure viral suppression in the first six months of treatment.

1.2 Statement of the Problem

PLHIV compared to those without the infection experience higher rates of depression and attest to a poor quality of life. (Brandt 2009; Collins et al. 2006). This underlines the serious need for mental health support in PLHIV. One mental disorder that commonly affects new HIV

patients is depression as patients try to internalize the implications of HIV positive results that include stigma, shorter life expectancy and lifelong treatment. (Brandt, 2009). Nonadherence to HIV antiretroviral regimens is a problem in patients suffering from mental illnesses. It is for this reason that we sought to train; clinical officers, nurses and HTC counsellors in order to strengthen psychosocial support and adherence by integrating mental health assessment with an aim of improving viral suppression in PLHIV at the Thika Level V hospital attending the comprehensive care centre.

1.3 Project Goal and Objectives

1.3.1 Goal (Long term change or impact):

To Strengthen psychosocial support in HIV infected patients by integrating mental health assessment, observing appointments, ensuring adherence to ART treatment and retention to care thus achieving viral suppression.

1.3.2 Purpose (Short term change or outcome that the project will bring):

Participants to understand the values of mental health screening tools and to integrate mental assessment into daily HIV services, create a network of referrals and linkages and support mental health needs in PLHIV.

1.3.3 Specific Objectives

- By the end of training, the CCC health care workers will be able to:
    - Explain symptoms related to different mental health problems and their effect on HIV/AIDS outcomes.
    - Explain how symptoms of harmful alcohol and substance use affect treatment of HIV/AIDS.
    - Explain the referral procedure for clients who have mental health and substance use needs.

1.3.4 Outputs

- Number of active CCC personnel (HTC, Clinician, counsellors, nurses) skilled and knowledgeable on the use of ‘mental health assessment tools’

- Number of mentally ill patients referred for psychiatric treatment and retained in the CCC as per referral procedures/protocols ?
- Number of re-engagement of hospitalised patients into HIV treatment and care after mental illness treatment
- Number of patients sensitized to undertake mental health assessment and who are back to the CCC or connected to other facilities for support.

1.4 Justification/ Significance

Integration of mental health assessment tools into HIV treatment will contribute towards achieving 95:95:95 targets of 2021 to 2030. The timely diagnosis of HIV and mental illness will enable linkage for support and retention in care that will consequently increase ART coverage in Kiambu County and the reduce the prevalence of HIV.

CHAPTER TWO

2.0 Project Implementation Methods and Management Plan

2.1 Key Institutional Issues to be Addressed

According to the Organization Capacity Assessment report, carried out by the University of Nairobi in collaboration with Thika Level 5 Hospital, recommendations were made to address the gap 'staff training and development plan'. In this regard, it was proposed that the best intervention was to strengthen the psychosocial support team by integrating mental health assessment tools to the HIV program where all patients attending the comprehensive care clinic would be assessed to identify those suffering from mental illnesses and subsequently referred for psychiatric treatment and psychosocial support thus ensuring adherence and viral suppression.

2.2 Project activities

2.2.1 To strengthen capacity of health care workers (Clinicians, Nurses, HTC staff) in the use of mental health assessment tools targeting all patients living with HIV/AIDS attending TL5, CCC and provide linkages/referrals to address mental health needs.

2.2.2 Facility Entry. The project was introduced to the CCC management by the medical superintendent, who hailed the task and promised to offer the necessary support required. The Program manager discussed the project with the staff who were equally enthusiastic to participate.

2.3. Human Resource Plan (Implementers, Partners and Beneficiaries).

The main participating groups included University of Nairobi HIV Fellow, TL5H-CCC secretariat, University of Nairobi and CDC through PEPFAR. Below are the summarized roles and responsibilities.

2.3.1 Roles and responsibilities

To enable successful implementation of the project, the following key people/organizations will be instrumental:

Table 1: Roles and responsibilities

WHO	RESPONSIBILITIES
TL5H	• The Program Manager & Nurse in-charge handle all matters pertaining to the project with the hospital Management. Space allocation for the Fellow
University of Nairobi/PEPFAR	• A point a Fellow, Provision of financial and technical support, medium term trainings, supervisors and mentors.
UHIV Fellow	• Develop a proposal and implementation of the project • Developed training materials and case studies • Proposed a system of referrals for psychiatric support for mental health and HIV integration.
Programme Manager and the Nurse-in-Charge	• Provided participants list plus invites and necessary administrative arrangements for the training. • Provided feedback and guidance during implementation.
CCC staff – HTC, Clinical Officers, Nurses, Social workers	• Kept a tab of all MH referrals and maintained a log book • Monitored patients viral load suppression and adherence to treatment (ARVs and clinic dates) • Gave feedback on the project impact
UHIV Supervisors and PLP Mentor	• Followed the implementation of the project closely and advised accordingly.

2.4 Beneficiaries

The beneficiaries included CCC clinical officers, nurses, HTC, Social workers, data officers.

2.5 Communication processes

At the CCC Communication was generally easy, we used peer-peer communication that made each one of us comfortable as one big family. Meetings were generally informal with the staff during tea breaks and I cannot emphasize enough on how effective they proved to be. Vertical communication was also applied when communicating with other departs and levels of the institution. The project team included the Program Coordinator, Nurse-In-charge and the UoN Fellow. The team had weekly meetings to work on all activities, participants, necessary materials and equipment needed and the training programme. Other forms of communication included telephone calls to follow-up invitations to participants. Informal meetings with the supervisors updating them on progress.

2.6 Documentation process

Progress reports were forwarded to the UHIV secretariat on monthly basis with all activities and any setbacks when applicable.

2.7 Risks and assumptions

The project had minimal risk since the stakeholders relevant bodies and authorities were engaged in the project design and implementation which reduced the risk of rejection. The assumption was that the CCC would support the project and participate diligently during implementation. The only foreseen risk was failure of sustainability after the fellow left the program.

2.8 Sustainability Plan

Trained HTS staffs from TLV-hospital received necessary knowledge and skills are available as resource persons that will benefit the hospital at large. All the relevant information regarding the training, mental health assessment tools, referral forms are available in the Program Coordinators office. The lessons learnt can be easily replicated in other health centres and hospitals within Kiambu County in training other hospital staff. Again, the Program Manager is one of our own trained medium-term fellow.

2.9 Sample Size

The project proposed to train 20 HTS (clinicians, nursing staff, counsellors) stationed at the CCC, Thika Level V Hospital but ended up with 40 participants.

2.10 Ethical Issues

The information collected from the patients was protected and will not be exposed to people who are not indebted without permission. Confidentiality of patient's information was maintained in their files. Do no harm attitudes were also applied at all levels of patient support (referral, linkage and treatment).

CHAPTER THREE

PROJECT IMPLEMENTATION

3.1 The Project Goal

The project goal was to strengthen psychosocial support in HIV infected patients by integrating mental health assessment, in HIV treatment. According to Mello & Malbergier, (2001), higher rates of depression are reported in PLHIV who also experience poor quality of life unlike those living without infection highlighting the need for mental health support for this population. Nakimuli-Mpungu, et al. 2011, stated that those that tested HIV positive found themselves thinking of the implications of the positive status, the stigma, shortened life and worst of all, treatment that will last a lifetime and as a result, depression start setting in.

One challenge that contributes many risks in HIV treatment is alcohol dependence, with implications in risky sexual behaviour, non-adherence to HIV treatment regimens including; failure to keep appointment as well and failure to take ARVs as prescribed. The relationship between HIV and mental health needs to be addressed as an urgent comorbidity in PLHIV. It is for this reason that the Fellow felt the need to implement basic mental health services into existing HIV services as a project.

The Fellow initiated discussions and developed a working team with both the Program Manager and the Nurse-in-charge to implement the project. Participants selection was based on those that would benefit most from the mental health assessment tools training particularly, those that worked closely with patients including: clinical officers, nurses, HIV testing and counselling staff, social workers, and the nutritionists. Initially, we intended to train 20 participants, but we ended up with a total number of 40 participants due to high demand of basic mental health knowledge by nursing staff, who indicated that the training was beneficial in their routine duties with patients from all departments. By gaining knowledge on how to

assess patients using mental health screening tools, the nurses felt that immediate referral for psychiatrist help in the hospital was possible without delay.

Participants were trained in:

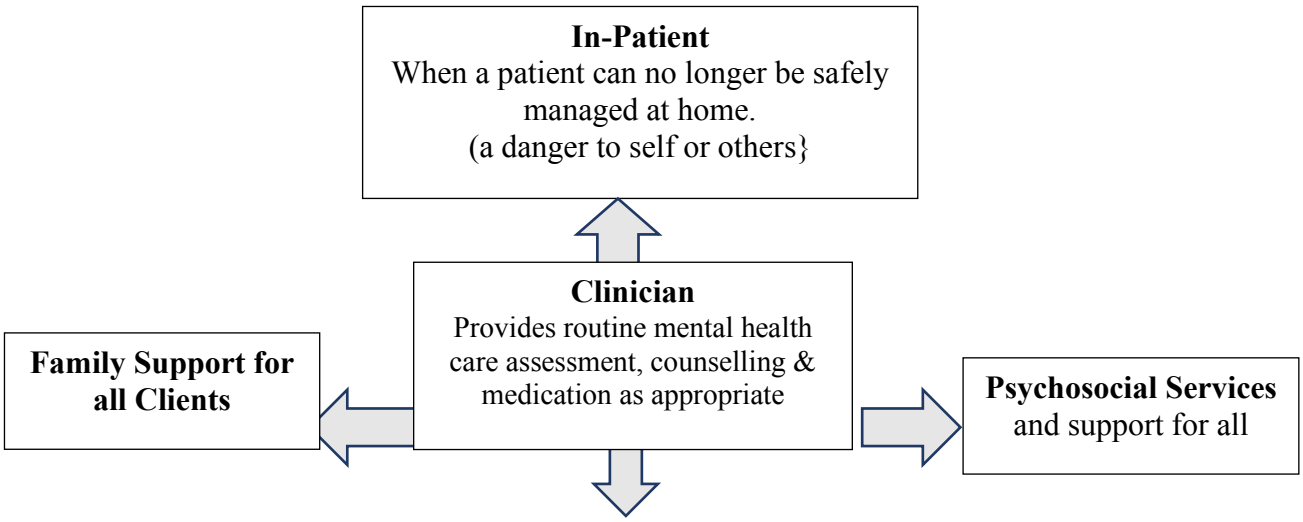
a) the main challenges in Adherence among PLHIV,

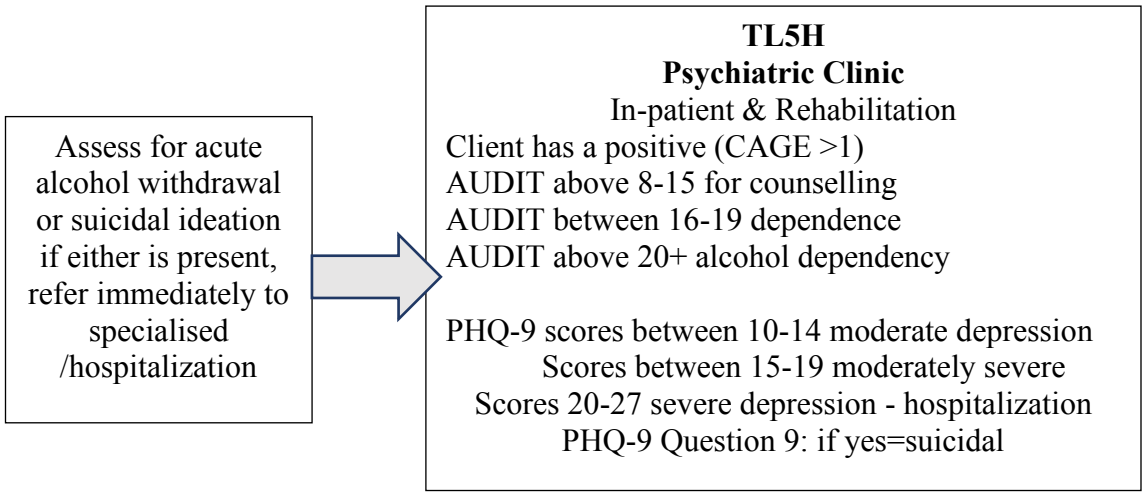
b) using and implementing validated mental health and substance use screening tools that included:

- The mental Status Examination
- The CAGE-AID Questionnaire, adopted to include drugs
- The Alcohol Use Disorders Identification Test (AUDIT)
- The Patient Health Questionnaire-9 (PHQ-9)
- The Generalized Anxiety Disorder 2-item (GAD-2)
- The Generalized Anxiety Disorder 7-item) (GAD-7)
- The Primary Care Post Traumatic Stress Disorder for DSM-IV (PC-PTSD-5)

HTS providers were urged to offer basic counselling and referral for comprehensive assistance whenever needed. After the training, the leading team offered supportive follow-up to ensure the new practice of integrating mental assessment was being practised that involved; basic counselling, mental health screening, clients' referral as per need. The recommendations for adapting the assessment tools and referral included (a) type of specialist (b) level of care needed. As per Figure I below.

Figure I: Procedure for positive screening




Assess for acute alcohol withdrawal or suicidal ideation if either is present, refer immediately to specialised /hospitalization
TL5H
Psychiatric Clinic
In-patient & Rehabilitation
Client has a positive (CAGE >1)
AUDIT above 8-15 for counselling
AUDIT between 16-19 dependence
AUDIT above 20+ alcohol dependency
PHQ-9 scores between 10-14 moderate depression
Scores between 15-19 moderately severe
Scores 20-27 severe depression - hospitalization
PHQ-9 Question 9: if yes=suicidal

3.2 Mental Health Screening

3.2.1 Feasibility and Usability of Tools

During the group-work sessions, participants were positive about incorporating the mental health tools to their daily routine work in the clinic. The participants enhanced their awareness with the tools, and termed them easy to comprehend. A Clinician stated that "the PHQ-9 was both perfect and beneficial in exploring clients' issues", promising that assessment tools would increase with time. We used "self-report versions" that were perceived to be easily understood by clients who used "English" in communicating. A comment from a nurse stated that, "she had a presumption that mental health tools were very hard to comprehend but interestingly, they proved easy and helped the participants understand mental illnesses better". Participants preferred CAGE-AID, to AUDIT for screening alcohol use disorders.

3.3 Screening Protocol and Outcomes

Our aim for the integrated mental health and HIV screening practise was intended to screen all PLHIV for mental health, alcohol and substance use issues as a routine. Depending on the results, patients bearing positive results would either be referred for psychiatry care or managed at the CCC while patients bearing a negative screen result would be re-assessed after six (6) months or one (1) year, subject to the CCC's time period preferred.

A key theme that emerged and hailed by participants on what screening tools were able to do – (a) mental illnesses were identified that could have passed unnoticed and (b), the objective was to identify patients that suffered mental ill health and needed treatment was achieved. Evidently, depression was the number one illness followed by some suicidal cases mainly after testing HIV positive diagnosis.

3.4 Screening and Referral Data

The management team was provided with data collection forms (Appendix J) to be distributed to the health staff where the biodata was to be filled for each client. Depression assessment tool PHQ-9 scores or Alcohol assessment tool CAGE-AID scores, with a mention if referred for follow-up, and if so, whether the referral was completed. The screening and referral data was to be analysed after a six (6) months period for those that screened positive for PHQ-9 with a score of ten (10) or higher; CAGE-AID with a score of one (1) or higher. Referrals made were to be classified as internal or external referrals.

3.5 Communication and Plans for Client Follow-Up

In regard to patient management and referral, both horizontal and vertical communication were particularly useful among the CCC health care staff. Patient follow-up and referral issues remained as important as communication. Regarding patient follow-up, which included; checking to see if the patient had issues with the prescribed medication, adherence or, any mental health illness. Unaccompanied patients by care-givers provided feedback to the Clinician .The concern however, was on the accuracy of the patients self-report. Screening scores were documented in the clients' record booklets or file during their clinic appointments. Follow-up activities:- mobile phones were used to send reminders to clients as well as call referral sites for follow-up.

CHAPTER FOUR

SUMMARY OF FINDINGS, DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

4.0 Results

4.1.1 The training of health workers in the use of mental health screening tools and integration into HIV services, was reported as having increased the participants skills in the identification of mental health issues which might have passed unnoticed. One nurse commented that, "*the discussion of mental health screening tools prompted in-depth discussions of mental health issues that helped in decision making about patient care"*. There was an increased use of mental health assessment tools in PLHIV and consequently an increase in referrals for psychiatry and psychological treatment .

4.1.2 Relationship between the healthcare provider and the patient in care has highly improved and has further enhanced engagement of patients after the introduction of mental health tools.

4.1.3 The training raised staff awareness and understanding in this new area of focus for the CCC staff. In solidarity, the participants agreed to consistent use of mental health assessment and treatment combined with ART use lead to viral suppression and reduced morbidity and mortality.

4.1.4 The training demonstrated that, mental health screening, and referral is feasible and can be rolled-out in other hospitals within the Kiambu county

4.2 Challenges in Implementation

Staff workload was rated as number one challenge due the high volume of patients both new and old visiting the clinic each day. Staff shortages limited the staff's ability to provide counselling as required or even administer the screening tools due to the long ques of waiting patients. Privacy in main hospitals in-patient wards was difficult as no private rooms were availed to HTS staff. Testing, screening and counselling was provided in the open – by the bedside, exposing the patients' HIV status and mental health issues. It was recommended that an additional training in both counselling skills and mental health tools be conducted in the future to build on the new learnings.

4.3 Limitations

The project 'mental health integration into HIV treatment' was only implemented in one clinic and not all CCC clinics' in the county and therefore cannot be generalized.

4.4 Lessons Learned

To strengthen the implementation process, mental health assessment tools were new to most staff making in-house coaching, mentoring and supervision is essential. There was a need for a standard screening guide to be followed by all health staff working at the CCC, and a flexible one to accommodate different clinical needs. A standardized referral guide was found to be essential for inter-departmental communication for example the CCC and Psychiatry.

4.5 Recommendations

- Mental health and HIV integration to be rolled out in other departments within the hospital. Integration of the screening tools was found to be possible within other departments.
- An additional training on mental health care and counselling skills is necessary, in the service delivery at TL5-CCC.
- Procedures for all referrals and follow-ups should be advanced and integrated at the CCC

4.6 Conclusion

The project findings confirmed the feasibility of integrating mental health care services to HIV treatment, confirming the valuable role in covering mental health needs of PLHIV. The use of mental health assessment tools was both positive and valuable to holistic care of PLHIV. It was reported that mental illnesses passed unnoticed before integration of mental health tools which qualified the need for integration. Continued support for mental health and HIV integration will maintain better health outcomes for PLHIV in the future.

Time Frame:

A work plan with time lines Year 2018

Activity	Feb-March	March-April	April-May	May-June	June-July	July Aug	Sept
Proposal Development							
Proposal approval							
Preparation of Mental Assessment Tools							
Hospital grant permission to learners							
Preparation of HTS and Nursing staff on psychometric tools							
Capacity Building event							
Report							
Monitoring and Evaluation							
Project Closure							
Report Writing							

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APPENDIX: A – PHQ-9

PATIENT HEALTH QUESTIONNAIRE-9 (PHQ-9)
Depression Scale

Over the last 2 weeks, how often have you been bothered by the following problems?		**Not at all**	**Several days**	**More than half the days**	**Nearly every day**
1.	Little interest or pleasure in doing things	0	+1	+2	+3
2	Feeling down, depressed or hopeless	0	+1	+2	+3
3.	Trouble falling asleep, staying asleep, or sleeping too much	0	+1	+2	+3
4.	Feeling tired or having little energy	0	+1	+2	+3
5.	Poor appetite or overeating	0	+1	+2	+3
6.	Feeling bad about yourself – or that you are a failure or have let yourself or family down	0	+1	+2	+3
7.	Trouble concentrating on things, such as reading the newspaper or watching television	0	+1	+2	+3
8.	Moving or speaking so slowly that other people could have noticed. Or, the opposite – being so fidgety or restless that you have been moving around a lot more than usual	0	+1	+2	+3
9.	**Thoughts that you would be better off dead or of hurting yourself in some way**	**0**	**+1**	**+2**	**+3**

PHQ-9 score is obtained by adding score for each question (total points)

Interpretation:

- Total scores of =0-4 =none-minimal, no treatment required
- 5-9= mild, watchful waiting; repeat PHQ-9 at follow-up
- 10-14=moderate; consider counselling or pharmacotherapy
- 15-19= moderately severe; pharmacotherapy and or psychotherapy
- 20-27=severe depression; immediate initiation of pharmacotherapy or, referral to mental health specialist/hospitalisation (collaborative management).

Note:
Question 9 is a single screening question on suicide risk. A patient who answers Yes to question 9 needs further assessment for suicide risk by an individual who is competent to assess this risk.

APPENDIX B: CAGE-AID TOOL

CAGE-AID Questionnaire

The **CAGE** Adapted to Include Drugs (CAGE-AID) Questionnaire is an adaptation of the CAGE for the purpose of conjointly screening for alcohol and drug problems.
The CAGE-AIDS focuses on lifetime use. When thinking about drug use, include illegal drug use and the use of prescription drug use other than prescribed.

Questions Points

C: **Have you ever felt that you ought to** Cut **down on your drinking or drug use?**

Yes+1

No+0

A: **Have people** Annoyed **you by criticizing your drinking or drug use?**

Yes+1

No+0

G: **Have you ever felt bad or** Guilty **about your drinking or drug use?**

Yes+1

No+0

E**: Have you ever had a drink or used drugs first thing in the morning to steady your nerves or to get rid of a hangover (**Eye opener)?

Yes+1

No+0

Interpretation:

CAGE score is obtained by adding the points (total points)

0 points= no substance use

One or more "yes" responses is regarded as a positive screening test, indication possible substance use and need for further evaluation.

APPENDIX C: AUDIT Assessment Tool

Alcohol Use Disorders Identification Test: Self-Report Version

Because alcohol use can affect your health and can interfere with certain medications and treatments, it is important that we ask some questions about your use of alcohol. Your answers will remain confidential so please be honest.
Place an X in one box that best describes your answer to each question.

Questions	0	1	2	3	4
1. How often do you have a drink containing alcohol?	Never	Monthly or less	2-4 times a month	2-3 times a week	4 or more times a week
2. How many drinks containing alcohol do you have on a typical day when you are drinking?	1 or 2	3 or 4	5 or 6	7 to 9	10 or more
3. How often do you have six or more drinks on one occasion ?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
4. How often during the last year have you found that you were not able to stop drinking once you had started?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
5. How often during the last year have you failed to do what was normally expected of you because of drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
6. How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session ?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
7. How often during the last year have you had a feeling of guilt or remorse after drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
8. How often during the last year have you been unable to remember what happened the night before because of your drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
9. Have you or someone else been injured because of your drinking?	No		Yes, but not in the last year		Yes, during the last year
10. Has a relative, friend, doctor, or other health care worker been concerned about your drinking or suggested you cut down?	No		Yes, but not in the last year		Yes, during the last year
					Total

Hazardous Alcohol Use = 1,2,3 Dependence Symptoms = 4,5,6 Harmful Alcohol use = 7,8,9,1 Pg.1

Scoring and Interpretation

- Scores 0-7 – Alcohol Education
- Scores between 8 and 15 are most appropriate for counselling focused on the reduction of hazardous drinking.
- Scores between 16 and 19 dependence - psychotherapy/counselling and continued monitoring
- AUDIT scores of 20 or above clearly warrant further diagnostic evaluation for alcohol dependence.

Standard Drinks

- One bottle of beer (330 ml at 5% ethanol),
- A glass of wine (140 ml at 12% ethanol), and
- A shot of spirits (40 ml at 40% ethanol) represent a standard drink of about 13 g of ethanol.

APPENDIX D: Generalized anxiety Disorder 2-item (GAD-2)

Over the last 2 weeks, how often have you been bothered by the following problems?		Not at all	Several days	More than half the days	Nearly every day
1.	Feeling nervous, anxious or on edge	0	+1	+2	+3
2	Not being able to stop or control worrying	0	+1	+2	+3

GAD-2 score obtained by adding score for each question (total points)

Interpretation:
A score of 3 points is the preferred cut-off for identifying possible cases and in which further diagnostic evaluation for generalised anxiety disorder is warranted.

Action

- Psychotherapy
- Pharmacotherapy if more than a score of 4. Refer to psychiatric

APPENDIX E: GAD-7 item

Generalized Anxiety Disorder 7-item (GAD-7)

Over the last 2 weeks, how often have you been bothered by the following problems?		Not at all	Several days	More than half the days	Nearly every day
1.	Feeling nervous, anxious or on edge	0	+1	+2	+3
2	Not being able to stop or control worrying	0	+1	+2	+3
3.	Worrying too much about different things	0	+1	+2	+3
4.	Trouble relaxing	0	+1	+2	+3
5.	Being so restless it becomes hard to sit still	0	+1	+2	+3
6.	Becoming easily annoyed or irritable	0	+1	+2	+3
7.	Feeling afraid as if something awful might happen	0	+1	+2	+3

GAD-7 score obtained by adding score for each question (total points).

Interpretation

Score 0-4: Minimal Anxiety

Score 5-9: Mild Anxiety

Score 10-14: Moderate Anxiety

Score greater than 15: Severe Anxiety

APPENDIX F: PTSD-5

Primary Care PTSD Screen for DSM-IV (PC-PTSD-5)

Sometimes things happen to people that are unusually or especially frightening, horrible, or traumatic.

For example:

- a serious accident or fire
- a physical or sexual assault or abuse
- an earthquake or flood
- a war
- seeing someone be killed or seriously injured
- having a loved one die through homicide or suicide

If you have ever experienced this type of event, please answer the following:

In the past month, have you:

Had nightmares about the event(s) or thought about the event(s) when you did not want to?

No
Yes

Tried hard not to think about the event(s) or went out of your way to avoid situations that reminded you of the event(s)?

No
Yes

Been constantly on guard, watchful, or easily startled?

No
Yes

Felt numb or detached from people, activities, or your surroundings?

No
Yes

Felt guilty or unable to stop blaming yourself or others for the events(s) or any problems the event(s) may have caused?

No
Yes

Interpretation:

the PC-PTSD-5 should be considered "positive" if a patient answers "yes" to any three items

If assessment is positive, if moderate or severe, there is reason to refer for psychotherapy or psychiatric evaluation

APPENDIX G: THE MENTAL STATUS EXAMINATION (MSE)

The Mental Status Examination (Mse)

I.	Appearance -	observed
II.	Behaviour -	observed
III.	Attitude -	observed
IV.	Level of Consciousness	observed
V.	Orientation	inquired
VI.	Speech and Language	observed
VII.	Mood	inquired
VIII.	Affect	
IX.	Thought Process/Form	observed/inquired
X.	Thought Content	observed/inquired
XI.	Suicidality and Homicide	inquired
XII.	Insight and Judgment	observed/inquired
XIII.	Attention Span	observed/inquired
XIV.	Memory	observed/inquired
XV.	Intellectual Functioning	observed/inquired

MSE Elaborated

Components of the Mental Status Examination

I. Appearance (Observed) - Possible descriptors: Gait, posture, clothes, grooming.

II. Behaviour (Observed) - Possible descriptors:

 Mannerisms, gestures, psychomotor activity, expression, eye contact, ability to follow commands/requests, compulsions.

III. Attitude (Observed) - Possible descriptors:
 Cooperative, hostile, open, secretive, evasive, suspicious, apathetic, easily distracted, focused, defensive.

IV. Level of Consciousness (Observed) - Possible descriptors:
 Vigilant, alert, drowsy, lethargic, stupors, asleep, comatose, confused, fluctuating.

V. Orientation (Inquired) – Possible questions for patient:

- "What is your full name?"
- "Where are we at (floor, building, city, county, and state)?"
- "What is the full date today (date, month, year, day of the week, and season of the year)?"
- "How would you describe the situation we are in?"

VI. Speech and Language (Observed)
A. Quantity - Possible descriptors:

 Talkative, spontaneous, expansive, paucity, poverty. B. Rate - Possible descriptors:

 Fast, slow, normal, pressured.
C. Volume (Tone) - Possible descriptors:

 Loud, soft, monotone, weak, strong.
D. Fluency and Rhythm - Possible descriptors:

 Slurred, clear, with appropriately placed inflections, hesitant, with good articulation, aphasic.

VII. Mood (Inquired): A sustained state of inner feeling – Possible questions for patient:

- "How are your spirits?"
- "How are you feeling?"
- "Have you been discouraged/depressed/low/blue lately?"
- "Have you been energized/elated/high/out of control lately?"
- "Have you been angry/irritable/edgy lately?"

VIII. Affect (Observed): An observed expression of inner feeling. - Possible descriptors:
- Appropriateness to situation, consistency with mood, congruency with thought content.
- Fluctuations: Labile, even.
- Range: Broad, restricted.
- Intensity: Blunted, flat, normal intensity.

- Quality: Sad, angry, hostile, indifferent, euthymic, dysphoric, detached, elated, euphoric, anxious, animated, irritable.

IX. Thought Processes or Thought Form (Inquired/Observed): logic, relevance, organization, flow and coherence of thought in response to general questioning during the interview. - Possible descriptors:

 Linear, goal-directed, circumstantial, tangential, loose associations, incoherent, evasive, racing, blocking, perseveration, neologisms.

X. Thought Content (Inquired/Observed) – Possible questions for patient:
- "What do you think about when you are sad/angry?"
- "What's been on your mind lately?"
- "Do you find yourself ruminating about things?"
- "Are there thoughts or images that you have a really difficult time getting out of your head?"
- "Are you worried/scared/frightened about something or other?"
- "Do you have personal beliefs that are not shared by others?" (Delusions are fixed, false, unshared beliefs.)
- "Do you ever feel detached/removed/changed/different from others around you?"
- "Do things seem unnatural/unreal to you?"
- "What do you think about the reports in papers such as *The National Enquirer*?"
- "Do you think someone or some group intend to harm you in some way?"
- [In response to something the patient says] "What do you think they meant by that?"
- "Does it ever seem like people are stealing your thoughts, or perhaps inserting thoughts into your head? Does it ever seem like your own thoughts are broadcast out loud?"
- "Do you ever see (visual), hear (auditory), smell (olfactory), taste (gustatory), and feel (tactile) things that are not really there, such as voices or visions?" (Hallucinations are false perceptions)
- "Do you sometimes misinterpret real things that are around you, such as muffled noises or shadows?" (Illusions are misinterpreted perceptions)

XI. Suicidality and Homicidality
1. Suicidality – Possible questions for patient:
   - "Do you ever feel that life isn't worth living? Or that you would just as soon be dead?"
   - "Have you ever thought of doing away with yourself? If so, how?"
   - "What would happen after you were dead?"
2. Homicidality – Possible questions for patient:
   - "Do you think about hurting others or getting even with people who have wronged you?"
   - "Have you had desires to hurt others? If so, how?"

XII. Insight and Judgment (Inquired/Observed) – Possible questions for patient:
- "What brings you here today?"
- "What seems to be the problem?"
- "What do you think is causing your problems?"
- "How do you understand your problems?"
- "How would you describe your role in this situation?"
- "Do you think that these thoughts, moods, perceptions, are abnormal?"
- "How do you plan to get help for this problem?"
- "What will you do when _____ occurs?"
- "How will you manage if _____ happens?"
- "If you found a stamped, addressed envelope on the street, what would you do with it?"

- "If you were in a movie theatre and smelled smoke, what would you do?"

XIII. Attention (Inquired/Observed) - Possible descriptors:

 Attend, concentration, distractibility.

A. Digit Span (forward and reverse) - Suggested patient instructions:

 "I will recite a series of numbers to you, and then I will ask you to repeat them to me, first forwards and then backwards." [Begin with 3 numbers – not consecutive numbers, and advance to 7-8 numbered sequence.]

B. Spelling Backwards - Suggested patient instructions:

 "Spell the word 'world.' Now spell the word 'world' backwards."

C. Calculations - Suggested patient instructions:

- (Serial 7's) "Starting with 100, subtract 7 from 100, and then keep subtracting 7 from that number as far as you can go."
- (Serial 3's) "Starting with 20, subtract 3 from 20, and then keep subtracting 3 from that number as far as you can go." [Monitor for speed, accuracy, effort required, and monitor patient reactions to the request]
- "Add these numbers: (15 + 12 + 7)"
- "Multiply these numbers: (25 x 6)"
- "If something costs 78 cents and you give the cashier one dollar, how much change should you get back?"

APPENDIX H: Mental Health Case Studies

CASE I - CHARLES MARTIN

Charles is 32 years old and an accountant working with a humanitarian organization. He loves his job and has recently bought himself a car. His mates admire him and has become a motivational speaker in his Church Youth group.

- He met his girlfriend Yvonne six months ago, who has since moved to his house. His mother visited is apartment and found the lady who did not impress her at all. She has a nose ring and wears very long coloured wigs and long coloured nails. The mother informed Charles he was not impressed with that girl as she was not wife material. The mother insisted that she moves out of his apartment. Charles is now confused and has asked Yvonne to return to her house as they decide on the way forward. Since then, Charles has not been himself. He does not enjoy activities he used to enjoy before. At work his Charles work is full of mistakes and he does seem to concentrate. Early in the month, Charles suffered symptoms of feeling lethargic and malaria like fever. He decided to visit the Kamukuji hospital for check-up and treatment. The work-up included; Routine lab studies - Sequential multiple analysis, CBC count with differential, urinalysis, and HIV test.
- Charles received a prescription that included some painkillers, but was asked to return the following day for another blood sample and results. Charles did not eat that evening although he complained to of poor appetite. The Doctor called Charles and asked him to walk with him to the counselling section where he would receive his results. After a session, Charles learnt that he was HIV+ though he stated he was a virgin before he met Yvonne. He was introduced to the CCC clinic where he started treatment.
- At work, his mates complained of Charles's social withdrawal
- for a month, Charles was irritable and suffered low mood -- nobody could understand why. Yvonne complained of Charles abusing her and having crying spells, and sitting all night and not sleeping at all.
- At work, his boss requested the HR to talk Charles and find out what was happening to him before his promotion date. When asked to make a presentation Charles reported he was not ready for a promotion. Charles did mention to the HR that life was not worth living and needed talk to his doctor.

CASE II - JEFF

Jeff is a 46-year-old man whose wife has encouraged him to seek treatment. He has never been in therapy before, and has no history of depression or anxiety. However, he lost his job due to retrenchment in June 2018.

Before retrenchment, he had incidences of absenteeism from work, where is wife would call in to say he was unwell. He forgot to pay school fees and even forgot his children school appointment as well as birthdays. This makes him very guilty saying that no one reminds him. His alcohol use has been getting in the way of his marriage, and interfering with his newly-retired life.

He has described drinking increasing amounts over the last year, currently consuming approximately a six-pack of beer per day. He had a car accident while coming home. He notes that this amount "doesn't give him the same buzz as it used to." He recently fell and broke his left arm. He denies ever experiencing "the shakes" or any other withdrawal symptoms if he skips a day of drinking. Despite his answer, he always keeps a drink in the house to take early morning before having his breakfast.

CASE III

Tabitha is an obese woman in her mid-thirty and has been referred to the psychiatric clinic from casualty for abnormal strange body movement without loss of consciousness. She came in accompanied by her mother. In the last month, the client had been treated for the same strange behaviour and hypertension that she has had for some years. Previously she had disclosed that she had been through six abortions and denied to have had an HIV test.

She disclosed that her first pregnancy was at age sixteen, when she had innocently visited her father at his work place at the Taveta Mines who sexually abused her. As she recounted the abuse, she became tearful and agitated. She is unable to stop blaming herself for visiting her father who abused her. Tabitha stated that she had no friends and felt alone most of the time. She added that she was also seeing a "Mundu Mugo" (a traditional healer) who was treating her for hypertension as well as her bad dreams that make her scream at night.

During her admission for observation of the 'movement' and hypertension, her HIV test results were delivered from the laboratory and were positive. She initially refused to admit the test results were positive. The mother reported that Tabitha had lost interest in most activities and followed her whenever she went around their home and wondered if she was becoming retarded. On asking Tabitha why she followed her mother, she stated that she could be followed by bad people and it was never safe away from her mother. The mother further reported that Tabitha hardly slept.

After discharge, Tabitha came back for review and while in the waiting area, she started talking in a strange voice stating that 'she was a demon and she was moving as being in trance'. The mother stated that Tabitha's condition worsens whenever the father was home. The mother could not understand why Tabitha received gifts, but was never appreciative of good deed. The mother wondered for how long she was to continue as all that which was happening to Tabitha was too much to handle because she could not do anything for herself, she could not visit her friends or go anywhere without her mother not even to her grandmother.

APPENDIX I: DSM-5 Criteria for Depression

The specific *DSM-5* criteria for major depressive disorder are outlined below.

At least 5 of the following symptoms have to have been present during the same 2-week period (and at least 1 of the symptoms must be diminished interest/pleasure or depressed mood) :

- Depressed mood: For children and adolescents, this can also be an irritable mood
- Diminished interest or loss of pleasure in almost all activities (anhedonia)
- Significant weight change or appetite disturbance: For children, this can be failure to achieve expected weight gain
- Sleep disturbance (insomnia or hypersomnia)
- Psychomotor agitation or retardation
- Fatigue or loss of energy
- Feelings of worthlessness
- Diminished ability to think or concentrate; indecisiveness
- Recurrent thoughts of death, recurrent suicidal ideation without a specific plan, or a suicide attempt or specific plan for committing suicide

The symptoms cause significant distress or impairment in social, occupational or other important areas of functioning.

The symptoms are not attributable to the physiological effects of a substance (e.g., a drug of abuse, a medication) or another medical condition.

The disturbance is not better explained by a persistent schizoaffective disorder, schizophrenia, delusional disorder, or other specified or unspecified schizophrenia spectrum and other psychotic disorders

There has never been a manic episode or a hypomanic episode

DSM-5 Criteria for Alcohol Use Disorder

The *Diagnostic and Statistical Manual of Mental Disorders, 5th Edition* (*DSM-5*) changed from differentiating Alcohol Abuse and Alcohol Dependence to a single category of Alcohol Use Disorder. *DSM-5* criteria are as follows:

A maladaptive pattern of substance use leading to clinically significant impairment or distress, as manifested by 2 or more of the following, occurring at any time in the same 12-month period:

- Alcohol is often taken in larger amounts or over a longer period than was intended.
- There is a persistent desire or unsuccessful efforts to cut down or control alcohol use.
- A great deal of time is spent in activities necessary to obtain alcohol, use alcohol, or recover from its effects.
- Craving, or a strong desire or urge to use alcohol.
- Recurrent alcohol use resulting in a failure to fulfil major role obligations at work, school, or home.
- Continued alcohol use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of alcohol.
- Important social, occupational, or recreational activities are given up or reduced because of alcohol use.
- Recurrent alcohol use in situations in which it is physically hazardous.
- Alcohol use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by alcohol.

- Tolerance, as defined by either of the following:
    1. A need for markedly increased amounts of alcohol to achieve intoxication or desired effect.
    2. A markedly diminished effect with continued use of the same amount of alcohol.

- Withdrawal, as manifested by either of the following:
    1. The characteristic withdrawal syndrome for alcohol
    2. Alcohol (or a closely related substance, such as a benzodiazepine) is taken to relieve or avoid withdrawal symptoms.

DSM-5 Criteria for PTSD

All of the criteria are required for the diagnosis of PTSD. The following text summarizes the diagnostic criteria:

Criterion A: stressor (one required)

The person was exposed to: death, threatened death, actual or threatened serious injury, or actual or threatened sexual violence, in the following way(s):

- Direct exposure
- Witnessing the trauma
- Learning that a relative or close friend was exposed to a trauma
- Indirect exposure to aversive details of the trauma, usually in the course of professional duties (e.g., first responders, medics)

Criterion B: intrusion symptoms (one required)

The traumatic event is persistently re-experienced in the following way(s):

Unwanted upsetting memories

Nightmares

Flashbacks

Emotional distress after exposure to traumatic reminders

Physical reactivity after exposure to traumatic reminders

Criterion C: avoidance (one required)

Avoidance of trauma-related stimuli after the trauma, in the following way(s):

Trauma-related thoughts or feelings

Trauma-related external reminders

Criterion D: negative alterations in cognitions and mood (two required)

Negative thoughts or feelings that began or worsened after the trauma, in the following way(s):

- Inability to recall key features of the trauma
- Overly negative thoughts and assumptions about oneself or the world
- Exaggerated blame of self or others for causing the trauma
- Negative affect
- Decreased interest in activities
- Feeling isolated
- Difficulty experiencing positive affect

Criterion E: alterations in arousal and reactivity

Trauma-related arousal and reactivity that began or worsened after the trauma, in the following way(s):

Irritability or aggression

Risky or destructive behaviour

Hypervigilance

Heightened startle reaction

Difficulty concentrating

Difficulty sleeping

Criterion F: duration (required)

Symptoms last for more than 1 month.

Criterion G: functional significance (required)

Symptoms create distress or functional impairment (e.g., social, occupational).

Criterion H: exclusion (required)

Symptoms are not due to medication, substance use, or other illness.

Two specifications:

- **Dissociative Specification** In addition to meeting criteria for diagnosis, an individual experiences high levels of either of the following in reaction to trauma-related stimuli:
  - **Depersonalization.** Experience of being an outside observer of or detached from oneself (e.g., feeling as if "this is not happening to me" or one were in a dream).
  - **Derealization.** Experience of unreality, distance, or distortion (e.g., "things are not real").
- **Delayed Specification.** Full diagnostic criteria are not met until at least six months after the trauma(s), although onset of symptoms may occur immediately.

APPENDIX J: Data Collection Form at the Health Facility

Name of Facility: _____

Name of Provider: _____

	Mental Health/HIV Integration Activity Data Collection Form								
	Client MR≠	Gender (M/F)	Date of Assess-ment	PHQ9 Score	CAGE-AID Score	Referral (Yes/No)	Person/Organization Receiving Referral	Referral completed (Yes/No)	Comments
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									