# REDUCING HIV-RELATED STIGMA AND DISCRIMINATION IN HEALTHCARE SETTINGS THROUGH THE DEVELOPMENT OF AN EVIDENCE-INFORMED GUIDELINE

By Garumma Tolu Feyissa

A dissertation presented to

**THE JOANNA BRIGGS INSTITUTE**

In fulfillment of the requirement for the degree of

**DOCTOR OF PHILOSOPHY**

in the discipline of

**MEDICINE**

# ACKNOWLEDGEMENTS

# DECLARATION OF AUTHENTICITY AND STATEMENT OF AUTHORSHIP

I certify that this work contains no material which has been accepted for the award of any other degree or diploma in my name, in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text. In addition, I certify that no part of this work will, in the future, be used in a submission in my name, for any other degree or diploma in any university or other tertiary institution without the prior approval of the University of Adelaide and where applicable, any partner institution responsible for the joint-award of this degree.

I give permission for the digital version of my thesis to be made available on the web, via the University's digital research repository, the Library Search and also through web search engines, unless permission has been granted by the University to restrict access for a period of time.

I acknowledge the support I have received for my research through the provision of an Australian Government Research Training Program Scholarship.

**Student signature:**

**Dated:**     21/05/2018

# DEDICATION

**In loving memory of my mother Kenate Woyessa (1948 to 2005)**

This dissertation is dedicated to my mother, Qanate Woyessa, who made limitless sacrifices, despite her ups and down, to raise us and educate us, and who lost her life from cancer. Mom, I will never forget your loving, caring and nurturing qualities. Thanks for inspiring the whole family towards better educational achievements. Though you were not fortunate enough to get a better education for yourself, you made sacrifices to educate us. My academic success was not from my capacity but from the huge sacrifice you made, your loving kindness and the continuous encouragement. These inspired me to attain the educational success that I achieved on this date. Mom, though it has been more than a decade since we lost you, I am still not convinced of life without your presence. I long for the time when we can see you again in a paradise, where there will be no more death nor pain nor sickness (Revelation 21:4).

# Table of Contents

## LIST OF TABLES

# LIST OF FIGURES

# LIST OF ACRONYMS AND ABBREVIATIONS

1. AIDS: Acquired Immune-Deficiency Syndrome
2. AGREE: Appraisal of Guidelines for Research and Evaluation
3. AHRQ: Agency for Healthcare Research and Quality
4. ART: Antiretroviral therapy
5. ARV: Antiretroviral
6. BHIVA: British HIV Association
7. BMI: Body Mass Index
8. CASH: Clean and safe health facility environment
9. CDC: Centers for Disease Control and Prevention,
10. CENTRAL: Cochrane Central Register of Controlled Trials
11. CINAHL: Cumulative Index to Nursing and Allied Health
12. CI: Confidence interval
13. CRC: Compassionate, respectful and caring
14. DALYs: Disability Adjusted Life Years
15. DARE: Database of Abstracts of Review of Abstracts
16. DFID: Department for International Development
17. EBHC: Evidence-Based Healthcare
18. EBM: Evidence-based Medicine
19. EBP: Evidence based practice
20. EBPH: Evidence-based Public Health
21. EHRIG: Ethiopian Hospital Reform Implementation Guideline
22. EIP: Evidence-Informed Practice
23. EHOA: Ethiopian Health Officers' Association
24. EMA: Ethiopian Medical Association
25. EMBASE: Excerpta Medica database from Elsevier
26. EPHA: Ethiopian Public Health Association
27. FHAPCO: Federal HIV Prevention and Control Office
28. FMOH: Federal Ministry of Health
29. GDT: Guideline Development Team
30. GIN: Guidelines International Network
31. GIPA: Greater Involvement of People living with HIV
32. GLIA: Guideline Implementability Appraisal

33. GRADE: Grading of Recommendations, Assessment, Development and Evaluation

34. HAPCO: HIV Prevention and Control Office

35. HCP: Healthcare Provider

36. HCT: HIV Counseling and Testing

37. HCW: Healthcare Worker

38. HIV: Human Immunodeficiency Virus

39. HMIS: Health Monitoring Information System

40. HREC: Health Research Ethics Committee

41. HSTP: Health Sector Transformation Plan

42. ICCM: Integrated Clinical and Community Mental Health

43. IRB: Institutional Review Board

44. IOM: The Institute of Medicine

45. IPPS: Infection Prevention and Patient Safety

46. JBI: The Joanna Briggs Institute

47. JIH: Jimma University Institute of Health

48. JUHAPCO: Jimma University HIV Prevention and Control Office

49. JUMC: Jimma University Medical Center

50. JZHAPCO: Jimma Zone HIV Prevention and Control Office

51. KI: Key informant

52. KPI: Key Performance Indicators

53. KTA: Knowledge to Action

54. MCH: Maternal and Child Health

55. MD: Mean Difference

56. MDT: Multidisciplinary Team

57. MEDLINE: Medical Literature Analysis and Retrieval System Online

58. MESH: Medical Subject Heading

59. MOE: Ministry of Education

60. MOH: Ministry of Health

61. M&E: Monitoring and Evaluation

62. NGC: National Clearinghouse

63. NGO: Non-Governmental Organization

64. NGT: Nominal Group Technique

65. NHMRC: National Health and Medical Research Council

66. NIH: National Institute of Health

67. NWQ: Nurses' Willingness Questionnaire

68. OR: Odds ratio

69. ORECI: Office of Research Ethics, Compliance and Integrity

70. P value: Probability value

71. PEPFAR: President's Emergency Plan for AIDS Relief

72. PHR: Physicians for Human Rights

73. PIHCT: Provider Initiated Counseling and Testing

74. PLC: People Living Close to HIV

75. PLHIV: People Living with HIV

76. PMTCT: Prevention of Mother to Child Transmission

77. POL: Popular Opinion Leader

78. PRISMA: Preferred Reporting Items for Systematic Reviews and Meta-analyses

79. PsycINFO: Psychological Information

80. QOL: Quality of Life

81. RCT: Randomized Controlled Trial

82. Rev Man 5.2: Review Manager 5.2

83. RNAO: Registered Nurses Association of Ontario

84. SD: Standard deviation

85. SAD: Stigma and discrimination

86. SIGN: Scottish Intercollegiate Guidelines Network

87. SIM: Site Improvement thoughmonitoring system

88. SOF: Summary of Findings table

89. STI: Sexually Transmitted Infections

90. TCA: Tanzanian Commission of AIDS

91. TRIP: Turning Research into Practice

92. UNAIDS: Joint United Nations Programme on HIV/AIDS

93. USA: United States of America

94. USAID: United States Aid for International Development

95. VCT: Voluntary Counseling and Testing

96. WHO: World Health Organizations

97. WLHIV: Women living with HIV

**DEFINITIONS**

1.  **Abusing**: Verbal or physical behavior intended to harm PLHIV, such as ridicule, insult and blame.[1]

2.  **Actionable drivers:** Factors that negatively influence the stigmatization process.[2]These include: lack of awareness of stigma and its negative impacts, fear of casual contact with PLHIV, fear of social breakdown due to HIV-positive family, and prejudice and stereotypes towards PLHIV and populations at highest risk of HIV infection.[2]

3.  **Anticipated stigma:** Real or imagined fears of societal attitudes and behaviors (e.g., from family, community, health care professionals) if HIV or other stigmatized behavior (e.g., drug use) is disclosed.[3]

4.  **Appropriateness:** 'The extent to which an intervention or activity fits with a particular context or situation.'[4(pp.5)]

5.  **Cognitive behavioral therapy:**Structured, problem-orientated, approach that uses cognitive and behavioural methods to challenge dysfunctional beliefs and promote adaptive way of thinking and bring about behavioural and emotional changes.[5]

6.  **Code of conduct:** An agreed-upon set of principles and behaviors in areas such as patient confidentiality, patient rights and respect, and quality of care.[6]

7.  **Discrimination:** The experience of prejudice and discrimination that falls inside the purview of the law.[7]Discrimination focuses on behavior. It refers to actions or omissions as the enactment of stigma. It occurs when a distinction is made against a person that results in them being treated unfairly or unjustly on the basis of their belonging, or perceived to be belonging, to a particular group.[8]

8.  **Dissemination**: Getting guidelines to the intended users.[9]

9.  **Effectiveness:** 'The extent to which an intervention achieves the intended result or outcome.'[4(pp.5)]

10. **Experienced (enacted) stigma:** Forms of stigmatizing behaviors or discrimination that are not typically actionable under law and are experienced by PLHIV or key populations.[7]

11. **Expert patients:** 'HIVpositive lay health workers who function as adherence counsellors, health educators, outreach workers and often community advocates for other patients living with HIV.'[10(pp.3)]

12. **External stigma**: Received and enacted behaviors and attitudes towards PLHIV. This may include verbal abuse (blaming, moral judgment, singing offensive songs, scolding and insulting PLHIV).[11]

13. **Facilitators of guideline use:** Factors that promote shared decision-making in clinical practice.[12]

14. **Fear-based stigma:** Stigma and discrimination that results from irrational fear of acquiring infection based on knowledge of the modes of transmission.[13]

15. **Fear of contagion**: Behavior showing a fear of close or direct contact with a PLHIV or things s/he has used, and offering/giving less care than is expected in a situation.[1]

16. **Feasibility:** 'The extent to which an activity or intervention is practical or viable in a particular context or situation.'[4(pp.5)]

17. **Gossiping**: Spreading rumors and talking inappropriately to others about another person and their illness (such as without permission, in an uncaring manner, in public, or 'behind their back').[1]

18. **Guideline**: 'Statements that include recommendations intended to optimize patient care that are informed by a systematic review of evidence and an assessment of the benefits and harms of alternative care options.'[14(pp.4)]

19. **Guideline adaptation:** 'A systematic approach for considering the endorsement or modification of guidelines produced in one setting for application and implementation in another as an alternative to de novo guideline development or as a first step in the process of implementation, while preserving *evidence*-based principles.'[15(pp.2)]

20. **Healthcare setting**: Any type of healthcare facility, which may include, but not limited to hospitals, health centers, clinics and health posts.

21. **Healthcare workers:** Any health personnel, regardless of their year of training or whether they have had specialty training or not, who are involved in the provision of professional healthcare for patients in health facilities. These may include, but not limited to health professionals from different disciplines including, Nurses, Medical Doctors, Laboratory Technicians, Medical Anthropologists, Medical Sociologists, Psychologists and Psychiatrists, Health Promotion experts, Midwives, Pharmacists, Health Extension Workers and community volunteers.

22. **HIV-related stigma**: is defined as 'prejudice, discounting, discrediting and discrimination directed at people perceived to have HIV or AIDS and individuals, groups and communities with which they are associated.'[16(pp.1107)]

23. **Internalized (self) stigma:** Acceptance by the self that the external stigma—society's judgment of oneself as being of a 'lesser status'—is true and justified. Can manifest in low self-esteem and low sense of worth, self-blame, and self-isolation/withdrawal, fear of disclosure.[7]

24. **Intersecting/compound/layered stigma:** Experience of multiple stigmas (e.g., stigma toward transgender, migrants, poor women plus HIV stigma).[7] HIV stigma that is layered on top of pre-existing stigmas (frequently toward most-at-risk groups).

25. **Key population groups:** Population groups who are more likely to be exposed to HIV or who are more likely to transmit HIV and whose engagement is critical for the success of HIV response.[17]

26. **Labeling**: Attaching an identifying, often negative, term or sign to a PLHIV.[1]

27. **Meaningfulness:** 'The extent to which an intervention or activity is positively experienced by an individual or a group.'[4(pp.5)]

28. **Mentorship**: An onsite training where experienced health professionals teach other junior and less experienced professionals.

29. **Negating**: Disallowing access to services and opportunities based on someone's HIV status.[1]

30. **Neglecting**: Offering/giving less care than is expected in a situation.[1]

31. **Observed stigma:** Forms of stigma witnessed by an individual (e.g., gossiping about a client's HIV status as seen by a lab technician).[3]

32. **One-to-five network:** A network of five to six people working in a unit.

33. **People associated with HIV:** Population groups who are vulnerable to HIV and who are stigmatized in association with HIV

34. **People living close to HIV (PLC):** Population groups who are family members or care providers for HIV positive clients.

35. **Pestering**: Persistent questioning of a PLHIV about his/her behavior or illnesses.[1]

36. **Perceived stigma**: The perception of how people believe and react to PLHIV.[18]

37. **Practice guidelines: '**Systematically developed statements to assist practitioner and patient decisions about appropriate health care for specific clinical circumstances.[9(pp.8)]

38. **Psycho education:** 'Systematic, didactic psychotherapeutic interventions that are adequate for informing PLHIV and their relatives about the illness and its treatment, facilitating both an understanding and personally responsible handling of the illness and supporting those afflicted in coping with the disorder.'[19(pp.19)]

39. **Psychological support**: 'Any form of support which is aimed at helping people living with HIV to enhance their mental health and their cognitive, emotional and behavioral wellbeing.'[20(pp.9)]

40. **Quality of evidence**: The extent to which one can be confident that an estimate of effect is correct.[21]

41. **Quality of life**: Overall subjective feelings of wellbeing.[19]

42. **Received stigma**: All types of stigmatizing behavior (e.g. neglecting, fearing contagion, avoiding, rejecting, labeling, pestering, negating, abusing and gossiping) directed towards a person living with HIV, as experienced or described by themselves or others.[7]

43. **Rejecting**: Behavior that humiliates or breaks off relationships, or that actively separates a PLHIV from groups or meetings.[11]

44. **Resilience**: The ability of an individual experiencing stigma and discrimination to overcome threats to health and development.[22]

45. **Revenge and anger**: Statements of behaviors indicating a wish for harm to others — usually the people who discriminate against PLHIV.[11]

46. **Secondary (courtesy) stigma:** Stigma experienced by individuals who are associated with people living with HIV (e.g., family, partners, friends, healthcare professionals).[3, 18]

47. **Self-exclusion:** A process by which a person decides not to use certain services due to his/her HIV status and fear of discrimination, and behavior that shows higher levels of achievement or exaggerated behavior, to compensate for illness or to lessen stigma.[3]

48. **Sero-status**: The presence or absence of HIV antibodies in blood.[17]

49. **Social stigma:** Stigma stemming from judgment of a person for having HIV, and for engaging in a behavior such as drug use or sexual activity or sexual orientation.[13]

50. **Social withdrawal:** When a PLHIV withdraws from a sexual or loving relationship to protect him/herself from discrimination.[7]

51. **Standards:** The performance expectations and/or structure and processes that must be in place for an organization to provide safe and highquality services.[23]

52. **Standard precaution**: The basic level of infection control precautions for all patients that protects both healthcare worker and the patient from exposure to body fluids.[6, 24]

53. **Stigma**: A social process of devaluing persons, beginning with marking or labeling of differences, attributing negative connotations or values to those differences, leading to distancing and separation of the person and culminating in discrimination.[3, 18]

54. **Strength of evidence**: The extent to which one can be confident that the desirable effects of the recommended actions outweigh the undesirable effects.[21, 25]

55. **Structural interventions**: 'Those interventions that seek to alter legal, physical and social environment in which a behavior takes place.'[17(pp.44)]

56. **Thematic analysis**: A method of qualitative data analysis that involves identifying, analyzing and reporting patterns within data.[26]

57. **Value-based stigma:** The negative judgments of people living with HIV resulting from cultural views and norms about marginalized groups and negative assessments of behaviors associated with them.[13]

58. **Vulnerable groups**: Groups that are subject to societal pressures or social circumstances that may make them more vulnerable to exposure to infections, including HIV.[17]

**THESIS ABSTRACT**

**Background**

The stigma and discrimination related to human immunodeficiency virus (HIV) have been obstacles against the achievement of the global health priority targets by negatively impacting adherence to, and uptake of services. As an effort to improve the practice and service in HIV and related areas, this project sought to develop an evidence-informed guideline to reduce HIV-related stigma and discrimination.

**Aims**: The overall aim of this project was to develop an evidence-informed guideline to reduce HIV-related stigma and discrimination among healthcare workers in the Ethiopian context.

**Method**

First, I conducted a systematic literature search for guidelines and systematic reviews, followed by systematic review of primary studies. After appraising the evidence found through the literature search, a content analysis of the included units of evidences was carried out to generate a list of working recommendations. Summaries of Findings tables were produced using software package developed by the Grading of Recommendations, Assessment, Development and Evaluation (GRADE) working group. The feasibility and appropriateness of the recommendations were then assessed using the Guideline Implementability Appraisal (GLIA v.2) checklist. Consensus was established through two rounds of a Delphi panel survey and two consensus meetings. The recommendations were also evaluated by external reviewers. In the final phase of this project, barriers and facilitators to the implementation of the guideline were assessed through key informant interviews with health professionals and health managers.

**Results**

Through the systematic literature search for guidelines, best practices, tools and systematic reviews I included 12 records (six guideline-related tools, and six systematic reviews). Since adequate conclusive evidence could not be drawn from these resources, a systematic review of quantitative evidence was undertaken. Initially, 31 recommendations and good practice points were extracted and drafted from the content analysis of the documents included. The recommendations were evaluated using a Delphi panel and external experts. Based on these evaluations, 12 recommendations and three good practice points were retained in the final draft. To contextualize the recommendations, barriers and facilitators were further explored using key informant interviews. The key informants suggested that the guideline should be introduced through training, workshops, hard copies, multidisciplinary team (MDT) meeting of experts working on care and treatment of clients living with HIV and HIV mentorship program and through one-to-five

networks in healthcare facilities. It was also suggested that the indicators should be integrated into local hospital key performance indicators (KPI). The importance of identifying and establishing the implementation structure, implementation team and a focal person responsible for overseeing the implementation of the guideline was stressed. Key informants specifically reported that the guideline would help to achieve not only HIV-related goals, but also other health facility initiatives such as 'compassionate,respectful, and caring' (CRC) services and clean and safe health facility (CASH)initiatives.

**Conclusion**

The project sought to develop trustworthy and rigorous guideline that is applicable and can be integrated into current initiatives and practices in the Ethiopian context. The current guideline can be implemented into new and existing health facility initiatives (such as CRC and CASH) and included in platforms like mentorship, multidisciplinary team (MDT) meetings and one-to-five networks. To ensure uptake of this guideline, health managers need to identify the implementation structure, implementation team and a focal person to implement the guideline.

# CHAPTER ONE
## INTRODUCTORY BACKGROUND

## 1.1. Structure of the thesis

The overall aim of this project was to develop an evidence-informed guideline to reduce stigma and discrimination related to human immunodeficiency syndrome (HIV) and Acquired Immunodeficiency Syndrome (AIDS) in healthcare settings. The thesis has been organized in nine chapters. Chapter one provides an overall introduction to the thesis, the general and specific objectives of the research, the significance of the research, the structure of the thesis and a background of HIV, HIV-related stigma and discrimination and gaps in practice and research.

Chapter two describesthe methodological background for the project and the methodology used for the systematic review, guideline development, evaluation and contextualization. It summarizes the significance of putting research into practice, and of developing and evaluating guidelines. Chapter three presents the results of systematic reviews of guidelines, tools, best practices and systematic reviews on interventions addressing HIV-related stigma and discrimination. Chapter four reportson systematic reviews of primary studies of interventions on HIV-related stigma and discrimination in healthcare settings. Chapter five describesthe guideline development process employed in this project. Chapter six presents the internal and external evaluation of the guideline. Chapter seven is a detailed exploration of the barriers and facilitators to the implementation of the developed guideline, here after referred as 'the guideline'. Chapter eight contains the guideline. Chapter nine presents the discussion, conclusion and recommendations related to the entire project.

## 1.2. HIV/AIDS as a public health concern

The human immunodeficiency virus infection affects all dimensions of the infected person's life: physical, psychological, social and spiritual.[27, 28]Although the improved access to antiretroviral therapy (ART) has improved the survival of people living with HIV (PLHIV), there have been increased non-communicable disease co-morbidities in PLHIV.[29]The co-morbidities include common mental disorders such as depression, anxiety, somatoform and neurological disorders,[30] and substance misuse.[31-35]

In the last three decades, the HIV and AIDS epidemics have been one of the most challenging public health problems in the world. In 2010, HIV was the fifth cause of global disability adjusted life years (DALYs).[36]In 2014, nearly two million were infected by HIV and 1.2 million people AIDS-related deaths were reported.[37]At the end of 2014, there were 36.9

million PLHIV worldwide. Out of the 36.9 million PLHIV, 17.1 million did not know their HIV positive status and 22 million PLHIV did not have access to HIV treatments. Only 15.8 million had accessed HIV treatment by June 2015.[37]

Currently, there is a global commitment to end the HIV/AIDS epidemics by 2030.[38]As a roadmap to end the HIV/AIDS epidemic as a public health threat by the year 2030, the United Nations Joint Program of HIV/AIDS (UNAIDS) has set an ambitious goal to be achieved by 2020. These goals include making sure 90% of PLHIV know their sero-status and 90% of those who know their sero-status are receiving treatment, with 90% of PLHIV on treatment having suppressed viral loads.[39] If these goals are to be achieved, the stumbling blocks of stigma and discrimination need to be addressed.[39, 40]

## 1.3. HIV-related stigma and discrimination

**Stigma and discrimination and their impacts**

Stigma and discrimination have contributed to the continued transmission of HIV and its negative impacts from the very beginning of the epidemics of HIV/AIDS.[38, 41]HIV/AIDS stigma is defined as 'Prejudice, discounting, discrediting and discrimination directed at people perceived to have HIV or AIDS and individuals, groups and communities with which they are associated.'[16(pp.1107)]

Stigma and discrimination were also among the major obstacles against the success of prevention, treatment and support programs related to HIV[42-50]and tuberculosis, because tuberculosis is associated with HIV infection.[49, 50]For example, stigma related to HIV compromises access to and adherence to treatment and support programs among people living with HIV (PLHIV).[51-54]HIV/AIDS-related stigma is also associated with poor physical health and mental health outcomes[47, 53, 55] and low social support and poor income for those affected by the virus.[55]

**Domains of stigma and discrimination**

Stigma and discrimination related to human immune-deficiency virus (HIV) can be categorized into four domains: drivers, facilitators, manifestations and intersecting stigma.[2] Drivers are individual level factors that influence the occurrence of stigma. These include lack of adequate knowledge, fear of infection or prejudicial attitude towards people living with HIV (PLHIV) or key population groups.[2] Facilitators are organizational or societal level factors that influence stigma. These may include the presence or absence of protective or punitive laws, redress systems or support systems.[2] Manifestations are the immediate consequences of stigma such as discrimination (experiencing stigma), anticipated stigma or

perceived stigma.[56] Layered or intersecting stigma is stigma faced as a result of HIV status, gender, profession, poverty or sexual orientation.[2]

Although they are expected to be a source of comfort, support and encouragement, it has been documented that healthcare providers stigmatize PLHIV.[57, 58] This stigma is often manifested in the form of negligence, breaches of confidentiality, gossip, excessive or differential precautions, poor support, delayed or denial of treatment, or differential treatment and unnecessary referrals based on their sero-status.[57, 59] Therefore, PLHIV are not getting enough support because of their low healthcare seeking behavior related to fear of stigma or because of negligence by healthcare workers (HCWs).

Globally, all governments have committed to protect the human rights of PLHIV.[60] Studies have indicated that the involvement of PLHIV,[61] and the improvement of communication and HIV-related knowledge,[62] help in reducing HIV-related stigma and discrimination.To improve the coping skills of PLHIV and people living close to HIV (PLC), there is a need for evidence-based interventions for promoting the psychological wellbeing of PLHIV and PLC, and addressing stigma and discrimination.[54, 63]While the nature of stigma and discrimination is similar across countries,[64] no standard guideline has been developed for averting HIV-related stigma and discrimination. Researchers recommend that theory and evidence-based interventions are important for reducing HIV-related stigma and discrimination in developing countries.[65]

## 1.4. Researcher's history and experience

Garumma Tolu Feyissa has a bachelor-level training as a Medical Officer. With this training, Garumma has been engaged in teaching and mentoring health science students on clinical and public health subjects. He has also been supervising them during their clinical attachments. He has receivedhis master's degree in Public Health (Masters of Public Health) with both research and course components, after which his engagement in research commenced. Garumma has conducted qualitative, quantitative and mixed methods research on areas such as HIV, alcohol use disorders, substance use disorders, nutrition, depression, psychosis, primary healthcareand community-based health services. Garumma also has experience in conducting systematic reviews, best practice implementation and in guideline development. In addition, Garumma has been supervising medical and health sciences students in Jimma University on different topics for their master's thesis and senior research projects. In addition, Garumma has undergone community-based education (CBE) programs as a student and has also been supervising students during community-based attachments as

a faculty member. Garumma has also undertaken various short-term trainings such as clinical fellowship program and a train the trainer program in comprehensive systematic reviews with the Joanna Brigg's Institute (JBI) and other training programs on health systems research, policy brief and health technology assessment (HTA). These opportunities have contributed to Garumma's understanding of the social and medical approaches for solving health problems. Particularly, Garumma's previous experience on HIV-related stigma and HIV care givers research projects has laid the foundation for the current PhD project which aimed to put research into practice to reduce HIV-related stigma and discrimination.

## 1.5. Aims/objectives of the PhD project

The overall aim of this project was to develop an evidence-informed guideline to reduce HIV-related stigma and discrimination inEthiopian healthcare settings. Specifically, the main aims of this project were:

1.   To conduct a systematic review to establish a global evidence base on approaches to reducing HIV-related stigma and discrimination in healthcare settings.

2.   To appraise and select existing evidence on reducing HIV-related stigma and discrimination.

3.   To develop a guideline to reduce HIV-related stigma and discrimination for the Ethiopian context.

4.   To conduct internal and external evaluation of the guideline.

5.   To contextualize the guideline to local policy and practice.

The stated objectives, were addressed through activities conducted using a series of phases. In phase 1, asystematic search was conducted to locate guidelines, tools, best practices, consensus statements and systematic reviews on this topic. Following this, a systematic review of primary studies was conducted.In phase 2, recommendations were extracted from the best available evidence on the strategies/interventions to reduce HIV-related stigma and discrimination. Based on the CAN Implement Guideline methodology,[66] and drawing upon the Knowledge to Action model published by Graham et al,[67] all available guidelines/systematic reviews were identified, reviewed and evaluated to confirm whether a de-novo development was required, or whether adaption was appropriate.In this phase, the units of evidence (systematic reviews, guidelines and primary studies) were identified and critically appraised. Following that, content analyses of the units of evidence were carried out to generate the list of working recommendations and draft a guideline. The draft recommendations were sent to a guideline panel for consensus.In phase 3, the

recommendations drafted were tested for feasibility and appropriateness to the Ethiopian context. In this phase, the clarity, acceptability and relevance of the guideline were assessed using a multi-round Delphi survey and external panel review.In phase 4, barriers and facilitators to guideline implementation were identified through key informant interviews. Figure 1 summarises phases of the PhD project.
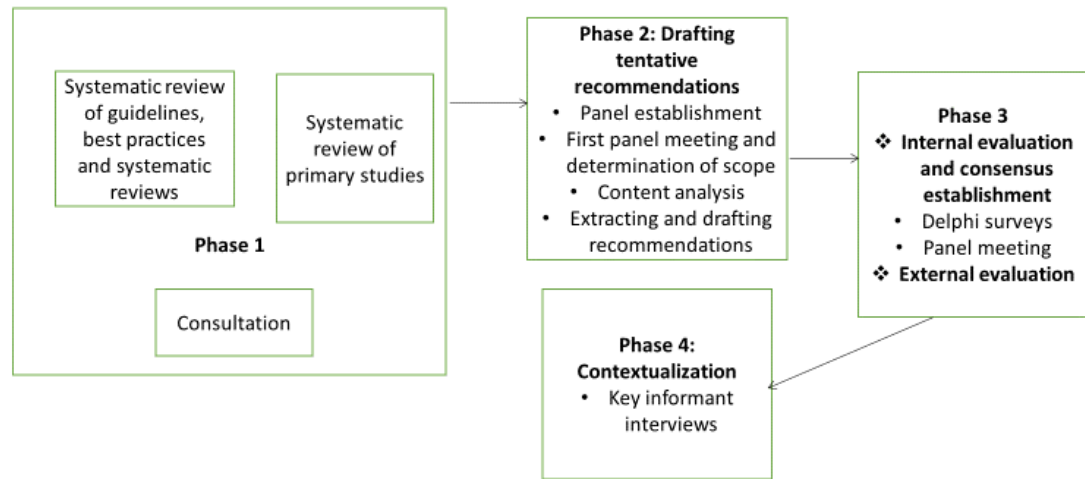
**Figure 1. Phases of the PhD project**

## 1.6. Significance/Contribution of the project

It has been indicated that HIV-related stigma and discrimination are obstacles to the achievement of the global health priority targets, such as prevention of maternal to child transmission of HIV (PMTCT) by negatively impacting adherence to, and uptake of services.[45, 68] Researchers recommend the integration of stigma reduction into maternal, neonatal, and child health services.[45]

However, there are no rigorous evidence-informed guidelines to guide interventions to reduce HIV-related stigma. Without an evidence-informed guideline, it is difficult to judge whether a program is being implemented effectively or not and whether or not it is having a positive impact. In addition, whether the activities being undertaken are averting stigma or enhancing stigma is not clear. Systematic methods of making judgements based on evidence can reduce such errors.[69]

As an effort to fill this knowledge and practice gap, this project searched the evidence and developed an evidence-informed guideline to tackle HIV-related stigma and discrimination, and to form a basis for regular auditing for adherence to this guideline and other guidelines. To customize the guideline to Ethiopian healthcare settings, the project identified potential barriers and facilitators of the implementation of the guideline. Such tailoring of the guideline based on the local context will potentially increase the uptake of the guideline. Stakeholders that may potentially utilize the resulting guideline are:

6

a. Healthcare providers, including health extension workers/community health workers

b. Health managers at different levels

c. Social support groups/home-based care volunteers; in Ethiopia, community volunteers provide free care and support services for PLHIV.[70]

In addition, faith-based organizations and non-governmental organizations (NGO's) involved in providing services for PLHIV may use the guideline to advocate for the improvement of services provided to PLHIV.

The guideline provides evidence-informed recommendations for policy makers and health professionals to accomplish the following objectives:

1. To reduce stigmatizing attitudes and actions towards people living with, or affected by HIV.

2. To reduce perceived or felt stigma faced by people living with, or affected by HIV.

3. To promote healthcare seeking and utilization behavior among people affected by or living with HIV.

The fulfillment of the above objectives will, in the long run, help to ensure that all people living with and affected by the virus have access to comprehensive care and support services.

# CHAPTER TWO
# METHODOLOGICAL BACKGROUND

## 2.1. Chapter overview

This chapter describes evidence-based healthcare and theunderpinning theoretical basis for the methods employed in the different phases of this PhD work. The first phase was searching global evidence for existing guidelines, tools, best practices, and systematic reviews, and a separate search for intervention studies addressing HIV-related stigma and discrimination in healthcare settings. The second phase included formulation of recommendations and development of the guideline. The third phase was internal and external evaluation of the guideline and the fourth phase was contextualizing the guideline to local policy and practice. Therefore, this chapter describes an overview of the methods related to activities conducted in these phases of the PhD project.

## 2.2. Evidence-Based Medicine and its evolution

The philosophy of Evidence-Based Medicine (EBM) dates back to the mid-19th century. It was defined by Sackettet al.[71(pp.71)]as: 'The conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients. The practice of evidence-based medicine means integrating individual clinical expertise with the best available external clinical evidence from systematic research.

Evidence-Based Medicine has evolved as a result of the recognition by professionals from various disciplines that evidence is critical to informing healthcare decisions. Apart from the discipline of medicine, other health disciplines such as Nursing, Social Care and Public Health have adopted the principle of EBMin their disciplines.[72-74] Jenicek argued that the same procedure and principle of basing decisions on evidence should be considered in public health. Hence, he defined Evidence-Based Public Health (EBPH) as '…the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of communities and populations in the domain of health protection, disease prevention, health maintenance and improvement (health promotion)'.[73(pp.190)]

Kohatsu defined EBPH as 'the process of integrating science-based interventions with community preferences to improve the health of populations'.[(pp.419)75]Similarly, recognizing the importance of evidence in social care, evidence-based social care was defined as '…the conscientious, and judicious use of current best evidence in making decisions regarding the welfare of service users and care givers'.[74(pp.61)]

Moreover, there has been an evolution in the paradigm of EBM. French et al.[72] criticized the concept of EBM for its tendency to medicalise the healthcare system and for neglecting other perspectives of evidence related to healthcare systems such as preventive healthcare. They also criticized EBM for defining evidence in quantitative terms. In addition, they criticized EBM for failing to incorporate the links between practitioner's understanding of the situation and the evidence that already exists.[72] Based on this analysis French et al.[72] clarified the definition put by Sachett et al. and they put definition of evidence based practice (EBP) as 'The systematic interconnecting of scientifically generated evidence with the tacit knowledge of the expert practitioners to achieve change in a particular practice for the benefit of a well-defined client or patient group'.[72(pp.74)]

French et al.[72] emphasized that there should be a link between external global evidence and the expert's experience. In line with the clarification made by French et al.,[72] the current project considered both global evidence found through systematic literature searchesas well as tacit knowledge of experts through Delphi surveys, consultative meetings (reported in chapter six), key informant interviews (reported in chapter seven) and formal and informal engagement with the experts to develop a guideline to reduce HIV-related stigma and discrimination (reported in chapter eight).

Evidence-based practice (EBP) involves the identification, evaluation and application of the best available evidence related to a client's problems to make decisions.[76]Nevertheless, EBP has been criticized in that it tries to utilize scientific rationality in an area in which scientific rationality traditionally competes with more practical forms of wisdom. Some of the early criticisms of EBP have been reduced by incorporating both interpretive and positivist approaches to evidence and decision-making.However, some scholars still argue that such modification cannot solve problems in EBP, claiming that it does not address the appropriate relationship between evidence and practice. These scholars argued that practice should be informed by evidence and that it should not be wholly 'based' on evidence alone. Hence, they adopted the term evidence-informed practice (EIP). Evidence-informed practice takes into consideration ethics and application issues.The proponents of EIP also incorporate factors such as values, goals, perspectives and alliances.[77]

In line with this claim, this project aimed to develop an evidence-informed guideline to reduce HIV-related stigma and discrimination in healthcare settings. This is because, apart from the consideration of the available evidence on the effectiveness of interventions that reduce stigma and discrimination, local perspectives, values and preferences, facilitators and

barriers to the implementation of the evidence were considered. Hence, the guideline developed through this process is named as an evidence-informed guideline.

## 2.3. The Joanna Briggs Institute approach to evidence-based healthcare

The Joanna Briggs Institute (JBI) model of evidence informed healthcare (updated in 2016) defines evidence-based healthcare as follows:

> *Clinical decision-making that considers the feasibility, appropriateness, meaningfulness and effectiveness of healthcare practices. The feasibility, appropriateness, meaningfulness and effectiveness of healthcare practices may be informed by the best available evidence, the context in which the care is delivered, the individual patient, and the professional judgment and expertise of the health professional.*[4(pp.5)]

The JBI model has four major components: a) healthcare evidence generation; b) evidence synthesis; c) evidence (knowledge) transfer; and d) evidence utilisation.[78] The model uses high quality systematic reviews as a basis for the translation of evidence into practice.[79] The model is shown in Figure 2.

**Figure 2. The JBI Model of Evidence based healthcare (source Jordan et al**).[4(pp.4)]

Evidence synthesized in the form of systematic reviews is translated into guidelines to facilitate the dissemination and utilization of evidence generated through research, and the evaluation of the impact of utilizing the evidence in practice.[79] The current PhD project was informed by the JBI model of evidence-based healthcare. Therefore, it considered global evidence on the effectiveness of interventions (reported in chapters three and four)located through systematic literature searches.The meaningfulness data taken from previous systematic reviews of qualitative research (reported in chapter three) was included to describe what the problem means and to emphasize the significance of addressing the problem in the light of the voices of PLHIV.In addition, the appropriateness and feasibilityof adapting these global evidence to the local Ethiopian context were assessed through the involvement of local experts and collecting contextual information. The experts were involved in evaluating (chapter six) and contextualizing the guideline (chapter seven).

### 2.2.1. Evidence generation

According to the modified JBI model of evidence-based healthcare, evidence generation comprises both secondary research and primary research. Evidence takes different forms and is generated through research, experience and discourse (written communication based on

personal experience).[4]The model[4]emphasizes the consideration of the best available evidence, client preference, professional judgment and contextual factors when making evidence-based decisions in healthcare. Hence, the model encourages decision-making based on evidence of feasibility, applicability, meaningfulness and effectiveness.[4]In line with this, in the current project, I developed a guideline to reduce HIV-related stigma and discrimination with the consideration of evidence generated both through systematic search, and expert consultation. The evidence of feasibility and applicability was generated through key informant interviews as described in chapter seven. Therefore, the expertise and experiences of the local experts and contextual factors influenced the decision on what should be included in the guideline and how the guideline should be implemented.

## 2.2.2. Evidence synthesis

According to Jordan etal.,[4]evidence synthesis is defined as '…the evaluation or analysis of research evidence and opinion on a specific topic to aid in decision-making in healthcare'.[4(pp.8)]Systematic reviews constitute core part of evidence synthesis.[4] Systematic reviews differ from traditional literature reviews in that they are systematic and involve transparent methods to search, appraise and synthesize the evidence.[80]The JBI has tools and manuals on different types of systematic reviews.[81]A systematic review needs careful planning and guidance. Based on guidance from JBI and other organizations, the conduct of a systematic review includes the following steps.

1. Defining a review question[82]
2. Defining inclusion and exclusion criteria[82]
3. Searching for evidence
4. Critical appraisal of retrieved evidence
5. Data extraction from included studies[83]
6. Data analysis/synthesis[83]
7. Presentation of findings.[84]

The JBI guidelines for systematic reviews recommend that steps be based on an *a-priori* protocol.[81]The authors of systematic reviews are advised to follow the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) statement for the conduct and reporting of systematic reviews.[85]Systematic searching and collation of evidence are key features of this thesis. Chapter three presents a systematic review of guideline documents, tools, best practices, consensus statements and systematic reviews. In this chapter, I critically appraised existing intervention studies, summarized and graded the findings using a software

tool developed by the Grading of Recommendations, Assessment, Development and Evaluation (GRADE) working group[86] and critical appraisal tools for systematic reviews from JBI. In this chapter, I analyzed the quality of existing documents and described the strengths and limitations of the documents. Chapter four describes a systematic review of primary studies of interventions to reduce stigma and discrimination in healthcare settings. The qualities of the primary studies were assessed using critical appraisal tools from JBI. In presenting the findings of systematic reviews and in developing guidelines, it is imperative to indicate both quality and strength of evidence. Quality of evidence shows the degree to which one can be confident that an estimate of effect is correct.[69] The strength of a recommendation indicates the extent to which one can be confident that adherence to the recommendation will do more good than harm.[69]In order to reduce the differences and shortcomings in the various grading systems that exist internationally, the GRADE working group has created a systematic and transparent method of making judgments about the quality and strength of evidence.[69]

The GRADE approach considers study design, study quality, consistency, precision, publication bias and directness in determining the quality of evidence for each outcome. The approach considers the balance between benefits and harms, quality of evidence, appropriateness, and the certainty of the baseline risk in making judgments about the strength of recommendations.[69]The GRADE approach has been utilized to assess the quality and strength of evidence in the systematic review reported in chapter four and in the guideline reported in chapter eight. Details of how the grading system has been applied to develop the guideline recommendations are described in chapter five.

## 2.2.3. Evidence transfer

Jordanet al.[4]argue that evidence transfer should include active dissemination, education and clinical integration. They define evidence transfer as "a coactive, participatory process to advance access to and uptake of evidence in local contexts."[4](pp8-9)The new JBI model emphasizes that evidence transfer should include active dissemination, education and clinical integration.[4]In the model, evidence transfer incorporates development of transferrable and actionable messages, accommodation of the context, and the delivery of messages in cost effective ways. In accordance with this guidance, in the current project, through systematic literature searches, I identified effective interventions to reduce HIV-related stigma and discrimination. Based on this evidence, along with the guideline panel, I developed actionable recommendations, the details of which arereported in chapter five.

Chapter six reports the feasibility, clarity and applicability of these messages assessed through a Delphi survey. To accommodate local and contextual factors, as described in chapter seven, I assessed contextual factors through key informant interviews and suggested dissemination strategies based on thecurrent local policy and practice environment.

## 2.2.4. Knowledge translation

Knowledge translation has been defined differently by different organizations based on the roles assumed by different actors in the process.[87]Pearson et al.[88]identified three gaps in knowledge translation: gaps between knowledge need and knowledge discovery, gaps between knowledge discovery and its practical application, and gaps between practical application and policy and practice.[88] The JBI has integrated these translational gaps into its model of evidence-based healthcare.[4]There are various barriers to translation of research into practice. Some of these barriers are related to social, political, historical, economic, cultural and organizational factors, and may be beyond the scope of researchers.[89] Nevertheless, some barriers may be partially or wholly tackled by contextualizing the research findings.[89, 90]

Practice guidelines are among the tools used to translate evidence into practice.[91]Practice guidelines can contribute to health care as an educational tool and a source of guidance in clinical decision-making.They improve patient outcomes, minimize ineffective practice, and increase consistency in practice. Guidelines help practitioners to make better decisions and improve quality of care and prioritize research areas.[91]They also improve the reputation of health professionals in their profession.[92]Theycan empower clients by enabling them to make informed decisions, especially if they are accompanied by consumer versions of the guideline. Guidelines may also influence public policy.[93]

On the other hand, if not systematically developed, and informed by evidence, they may result in wrong, harmful, ineffective, or suboptimal practice.[93] Such guidelines may have detrimental effects both on patients and practitioners. Therefore, it is essential to employ a transparent and rigorous methodology to develop practice guidelines.[91]The Institute of Medicine (IOM) has listed the attributes of practice guidelines as valid (leading to health and cost outcomes), reliable, clinicallyappropriate and flexible, clear and being developed by a multidisciplinary team, having ascheduled review, and documenting the process involved in the development of the guideline.[9]

## 2.4. Approaches to guideline development, evaluation and implementation

Guideline development and implementation may employ an adaptation of an already existing guideline, be generated de novo (developing a new guideline) or a mixture of both.[23]Shekelle et al.[94] list the following five essential steps to be used in guideline development.

1. Identifying and refining the subject area.
2. Organizing and running guideline development groups.
3. Assessing evidence identified through systematic reviews.
4. Translating evidence into recommendations.
5. Subjecting the guideline to external review.

The Guideline International Network (GIN) has proposed a set of recommendations for guideline developers that lie under the following domains:[95]

a. The guideline development group should include diverse stakeholders composed of health professionals, methodologists and consumers.

b. The decision-making process should be set up before the commencement of guideline development and should be transparent.

c. The guideline panel should declare conflicts of interest.

d. The guideline objective and scope should be specified.

e. The methods of the guideline development should be clearly described.

f. Guideline developers should use systematic methods of evidence reviews.

g. Guideline recommendations should be based on scientific evidence of benefits, harms and if possible, costs.

h. A guideline should use a rating system to communicate the quality and reliability of both the evidence and the strength of its recommendations.

i. Guidelines should be peer-reviewed by external stakeholders before publication.

j. An expiration date and/or the process used to update recommendations should be indicated.

k. Financial support obtained for the development of the guideline should be described.

Guideline development generally involves establishing the guideline panel, determination of the scope of the guideline, searching for evidence, selecting the evidence, extracting and synthesizing the results, assessing quality, interpreting results, developing evidence statements and internal and external evaluation of the guideline.[96] Based on this guidance, chapters three and four of this thesis address the search, selection and appraisal of evidence.

Chapter five describes the establishment of the guideline panel, determining the scope of the guideline and development of evidence statements. Chapter six presents internal and external evaluation of the guideline.

## 2.4.1. Content analyses

Evidence is often analyzed using content analysis to develop recommendations that constitute practice guidelines. A content analysis is a data analysis method for analyzing written and verbal communication messages to attain a condensed and broad description of a phenomenon.[97, 98] It has long been used in the nursing and allied health disciplines to analyze qualitative data.[97, 98] There are two broad approaches to content analysis: the deductive approach and the inductive approach.[98] Deductive content analysis is used to test theories in different settings or to compare categories. This approach starts with an *a-priori* matrix developed from previous researche or knowledge to test theories. The inductive approach is a conventional method used when there are no previous studies on the phenomenon or when the existing knowledge is fragmented.[98] Hsieh and Shannon further categorize the deductive approach into directive and comparative approaches and hence describe three approaches to qualitative content analysis: conventional (inductive) approach, directive approach and a summative (comparative) approach.[99]

In the current project, the inductive method was used to develop guideline recommendations from emerging data from systematic reviews, best practice documents and guidelines. Chapter five describes how content analysis has been utilized to analyze evidence and develop guideline recommendations.

## 2.4.2. Consensus development methods

Guidelines are ideally based on the best available evidence, preferably randomized controlled trials (RCTs). This evidence is summarized through the systematic search, appraisal and synthesis.[93]However, the evidence may be limited, of lowquality or non-existent. Some researchers recommend that very low or lowquality evidence should not be used to develop recommendations to guide practice since this may result in wrong conclusions.[100]

On the other hand, topics on which there are only limited or lowquality evidence are usually areas where uncertainty exists.[101] In addition, since research evidence exists only for some problems, policy makers and practitioners use consensus-based methods to develop recommendations. Therefore, it is still important to make recommendations even in the absence of lowquality evidence. The use of expert opinions is appropriate in such cases. This

procedure should be transparently documented.[94]Even in the presence of high quality evidence, the consensus of experts is required.In line with this, guidelines are developed using multidisciplinary team members. Consensus of these team members is achieved through either formal or informal consensus methods. In the health field, since the 1950s, formal research methods have been in use to establish consensus.[102] Formal methods are used because of the following reasons:[103]

    a. To reduce the risk of wrong decisions being made by individuals, by involving several people.

    b. To improve decisions by reasoned arguments.

    c. To control the decision-making process through providing structured process and thereby reducing the negative aspects of group decision-making.

    d. To meet the requirements of scientific methods.

Formal methods of establishing consensus have been found to result in less risk of bias and a more evidence-based process compared to an informal process of establishing consensus.[95]The three most commonly used formal methods of establishing consensus during guideline development include: consensus development conference, nominal group techniques (NGT) and the Delphi technique.[102]

In a consensus development conference, a group of decision makers are presented with evidence from experts in the field to produce consensus statements based on their own judgments. This method provides an opportunity for clarification. Nevertheless, because of the limited time available, the topic experts may be unable to present all the available evidence. In addition, some of the meanings of the data may be lost.[104]

The second method (NGT) is conducted in several iterative stages over one session. In this technique, a small group of members who are affected by the guideline will be involved. The final consensus is established as an aggregation of the members' views rather than a communal viewpoint.[103] The advantage of this technique is that each member of the group is given equal opportunity to generate and present suggestions.[104] However, because a small number of participants is involved, generalization will be difficult. In addition, since there is limited time available, all evidence from the literature review may not be integrated into the discussion. Furthermore, certain members of the panel may dominate the discussion and drive results. Hence, the technique lacks rigor.[102,104]

In the Delphi technique, the third method, a series of questionnaires are used to gather opinions from experts.[105] The Delphi technique was first developed in 1953 at the Rand

Corporation.[106]It is used to test opinion consensus amongst a group of experts.[102,105]Delphi technique can be conducted by email, online surveys or by post.[102] The Delphi technique is the research method of choice when there is little evidence regarding the topic, when participant anonymity is required, and when the cost and practicalities of bringing the participants together are prohibitive.[104] By assuring anonymity, it reduces the effect of dominant individuals, and the unwillingness to abandon publicly expressed opinions.[107] It reduces the reluctance to, mention opinions that are unpopular, disagree with one's associates, or modify previously stated positions.[108]Taking these factors into consideration, a modified Delphi techniquewas chosento establish consensus in developing the current guideline. The entire process of establishing consensus is described in chapter six.

The potential limitation of the Delphi technique is that some people who participate in early rounds may drop out in subsequent rounds. However, in the Delphi technique, it is possible to involve large numbers of participants from different geographical areas.[105] In addition, anonymity can help to increase the response rates in the Delphi surveys.[107] Moreover, experts participate in the consensus process at a stage when convenient to them and only contribute to those aspects that they feel best able to contribute.[109]

## 2.5. Guideline adaptation

It is not always practical to develop a new guideline. An alternative to developing new guidelines is to adapt guidelines from other groups for local purposes. Guideline adaptation is defined as 'a systematic approach to considering the use and/or modification of (a) guidelines(s) produced in one cultural and organizational setting for application in a different context'.[23(pp.1)]

The ADAPTE guideline adaptation methodology[110] is commonly used by many organizations to adapt practice guidelines.[111]The CAN implement approach uses the ADAPTE methodology and provides detailed guidance on adaptation of practice guidelines. According to CAN implement, adaptation has three phases: the set-up phase, the adaptation phase and the finalization phase. The set-up phase involves establishing the committee, identifying the topic and resources, determining whether adaptation is feasible and the write-up of the protocol. The adaptation phase involves determining research questions and search, retrieval, assessment and customization of existing guidelines. The finalization phase comprises external review, after care planning and final production.[23]Although guideline adaptation is supposed to save time, avoid duplication of efforts and increase adherence and

uptake of guidelines,[23] sometimes it may consume substantial resources and time as guideline *de novo* does.[111]

## 2.6. Dissemination and implementation of guidelines

The mere production of a guideline is not enough to impact practice. Hence, active dissemination of the guidelines is mandatory.[4]According to the JBI model of evidence-based healthcare, evidence implementation is defined as 'a purposeful and enabling set of activities designed to engage key stakeholders with research evidence to inform decision-making and generate sustained improvement in the quality of healthcare delivery'.[4(pp.10)]Effective implementation of research evidence depends on the interaction between evidence, context, and facilitation.[112]

Gagliardi et al.[113] identified 22 elements organized into eight implementation domains that guideline developers might use to increase implementability of guidelines. These domains are: usability, adaptability,validity,appropriateness,communicability, accommodation, implementation, and evaluation.[113]Most guideline developing organizations have integrated these implementation domains into their hand-books and manuals for guideline developmentalthough the details of each component varies.[114]

Currently, there are tools that are used to assess the methodological quality of guidelines, among which the Appraisal of Guideline Research and Evaluation (AGREE) checklist[115]is the most commonly used one.The quality and strength of evidence supporting recommendations are rated using a software tool developed by the GRADE working group.[86] In addition, the Guideline Implementability Appraisal (GLIA) checklist[116]is used to identify potential barriers to implement guidelines.In the current project, as described in chapter six, I used GLIA v.2.0 checklist to assess the implementability of the guideline. Detailed contextual information is also needed to customize a guideline to the local policy environment. Hence, in chapter seven, indepth contextual factors were explored based on the framework suggested by the Registered Nurses Association of Ontario (RNAO).[117]

**Conclusion**:Evidence-based healthcare involves the creation, synthesis, transfer and implementation of evidence. Systematic reviews constitute a core part of evidence synthesis. Practice guidelines are among tools that are used to translate evidence into practice. If systematically developed, they can contribute to health care as an educational tool and a source of guidance for decision-making in clinical and public policy. There are systematic methods and tools that assist in developing and adapting practice guidelines and improving their implementability. The JBI model of evidence-based healthcare considers evidence of

feasibility, applicability, meaningfulness and effectiveness to aid decision-making for policy and practice. Informed by the JBI model of evidence-based healthcare, the current project attempted to link external global evidence to contextual factors in developing a guideline that aids the reduction of HIV-related stigma and discrimination in the Ethiopian healthcare settings.

## CHAPTER THREE

**REDUCING HIV-RELATED STIGMA AND DISCRIMINATION IN HEALTHCARE SETTINGS: A SYSTEMATIC REVIEW OF GUIDELINES, TOOLS, STANDARDS OF PRACTICE, BEST PRACTICES, CONSENSUS STATEMENTS AND SYSTEMATIC REVIEWS**

### 3.1. Abstract

#### Concise introduction

Policy makers and health professionals prefer to use a pre-appraised and summarized evidence. Stigma and discrimination (SAD) reduction activities and programs are needed to improve the quality of care delivered to people living with the human immunodeficiency virus (HIV) and improve the success of HIV-related prevention, care, and treatment programs**.**

**Review questions/objectives**

The objective of this review was to identify and describe systematic reviews, best practices, consensus statements, standards of practice and guidelines that addressed stigma and discrimination among healthcare workers (HCWs) and people living withHIV (PLHIV).

*Inclusion criteria*

*Types of participants*

This review considered HCWs, health managers and healthcare institutions.

*Type of intervention*

I considered interventions addressing SAD includinginterventions targeting health professionals or people living with HIV (PLHIV) such as training and interventions related to healthcare institution policies for inclusion.

*Comparators*

Comparators that I considered for this review were: no intervention or baseline intervention or one intervention compared to the other

*Types of outcomes*

The primary outcomes I considered for inclusion were HIV-related SAD reported in the form of fear-based stigma, value-based stigma, discrimination and internalized stigma. The secondary outcome I considered was PLHIV-specific extra-precaution.

*Types of studies/documents*

This review considered all documents in the form of systematic reviews, best practices, consensus statements, standards of practice and guidelines.

**Search strategy**

The search strategy aimed to find both published and unpublished studies reported in English with unlimited date range in Excerpta Medica database from Elsevier (EMBASE), Cumulative Index to Nursing and Allied Health (CINAHL), Psychological Information (PsycINFO) database and Medical Literature Analysis and Retrieval System Online (MEDLINE).Websites of organizations and guideline databases were also searched.

**Methodological quality**

Two individuals independently appraised the quality of the guideline-related documents using the Appraisal of Guidelines for Research and Evaluation (AGREE II) checklist. The reviews were independently assessed by two individuals using the Joanna Briggs Institute (JBI) critical appraisal checklist for systematic reviews.

**Data extraction**

Data extraction was done using a customized tool that was developed to record the key information of the source that is relevant to the review question.

**Results**

Twelve records (six guidelinerelated documents and six systematic reviews) were included in the review.Interventions and recommendations developed to reduce HIV-related SAD were categorized into: information-based; structural, biomedical, counseling and support, skillsbuilding and contact interventions.

**Conclusion**

**Implications for practice:**Interventions that reduce HIV-related SAD are broadly categorized into information-based, structural, biomedical, counseling and support, skillsbuilding and contact interventions. Because of limited methodological description of the included documents, it was difficult to draw recommendations for policy and practice.

**Implications for research:** Future studies need to use up-to-date instruments to measure stigma and discrimination. Further studies of greater methodological quality are needed. Guidelines, tools and best practice documents that aim to reduce HIV-related SAD should be developed with the considerations of research evidence on thespecific setting and specific targeted populations.

## 3.2. Concise introduction

Policy makers and health professionals need high quality research evidence to make decisions on public health and clinical practices. However, they are being challenged with

an overwhelmingly increasing volume of research published everday.[118] Taking the increasing volume of published research evidence into account, systematic reviews are being prioritized to make policy and practice decisions.[118]Nevertheless, because of the limited time, health managers and health professionals prefer evidence in a summarized form such as guidelines and evidence summaries.[119]Particularly,they prefer to use a pre-processed and summarized evidence.[119, 120]

Cognizant of this, scholars and organizations, such as the Joanna Briggs Institute (JBI) have developed a system to avail evidence at the point of care through presenting evidence in a summarized and usable format.[119] Some scholars have developed a hierarchical model to search for and utilize pre-appraised bodies of evidence.[120] The list from top down in the hierarchy includes a) systems (computerized decision support systems), b) summaries such as evidence-based practice guidelines, c) synopsis of syntheses, d) syntheses of primary studies, e) synopsis of single studies and f) single studies.[121, 122]According to this model, while making a decision in healthcare practice, one always should start from the top and proceed down until one gets the best available evidence saving time and resources.[122]

Currently, only few systemslevel evidences are available. Hence, the highest universally available evidence for most health topics is summaries.[122]As one example of summary level evidence, guidelines are accessible globally through different organizational web pages and publications. Guidelines offer options for practitioners, policy makers and patients to make informed decisions to improve the outcomes of patients. Guidelines are believed to improve the quality of healthcare practices by making explicit recommendations on specific healthcare practice.[93] Guidelines also reduce variations in practices.[23]

The lack of uniformity in handling People Living with human immunodeficiency Virus (PLHIV)such as differential treatment, denial of treatment, or differential or excessive use of barriers are considered as discrimination.[57, 58]The fear of being stigmatized discourages PLHIV from disclosing their sero-status to families, friends and healthcare workers (HCWs) and getting healthcare services and the support they need.[53]To this end, globally, there has been effort to reduce stigma and discrimination (SAD) related to HIV.[2, 123]It has been indicated that the absence of guidelines and protocols that protect PLHIV from SAD was associated with higher levels of SAD among HCWs.[124, 125]Researchers recommend theory and evidence-based interventions[65] and policies and guidelines[125] to direct SAD reduction activities.

Evidence-based SAD reduction activities and programs are urgently needed to improve the quality of care delivered to PLHIV and improve the success of HIV-related prevention, care, and treatment programs.[3, 125] There should be healthcare facilitylevel policies and practices that support SAD reduction activities.[3]In line with this, it is imperative to identify and summarize the best available evidence to inform policy and practice on HIV-related SAD.To this end, this review aimed to identify and describe systematic reviews, best practices, consensus statements, standards of practice and guidelines that have addressed HIV-related stigma and discrimination among healthcare workers and/or in healthcare settings.

## 3.3.    Review questions/objectives

This review sought to locate and describe international literature in the form of guidelines, tools, best practice documents, consensus statements and systematic reviews that contained recommendations and/or interventions for reducing HIV-related stigma and discrimination. Specifically, the review aimed to:

- Identify and describe guidelines, tools, consensus statements and best practices containing recommendations or interventions to reduce HIV-related stigma and discrimination.
- Identify systematic reviews containing findings, conclusions and recommendations to reduce stigma and discrimination related to HIV.

## 3.4. Inclusion criteria

For this review, I considered the following inclusion criteria.

**Population**
This review considered HCWs, health managers, PLHIVor healthcare institutions.

**Interventions**
I considered records for inclusion if they contained research results or recommendations to reduce HIV-related SAD. This review considered interventions on:

- Interventions targeting health professionals such as training,
- Interventions related to health institution policies such as institutional protocols and standards.

**Comparators**
Comparisons I considered for inclusion were: no intervention or baseline intervention or one intervention compared to the other.

**Outcomes**

The primary outcomes I considered for inclusion were HIV-related stigma and discrimination among HCWs or healthcare institutions. Stigma reported in the form of fear-based stigma, value-based stigma, discrimination and internalized stigmawere included. The secondary outcome considered was PLHIV-specific extra-precaution.

**Context**

This review considered all documents and studies conducted worldwide that addressed HIV-related SADamong HCWs and in healthcare settings.

**Types of studies/documents**

This review considered all documents in the form of systematic reviews, consensus statements, best practices, standards of practice, tools and guidelines that report on the interventions or recommendations to reduce stigma and discrimination related to HIV.Both published and unpublished (gray literature) studies reported in the English language were considered.Reviews that did not indicate inclusion and exclusion criteria, and an appraisal process, were not considered as systematic reviews. Guideline documents that did not indicate recommendations specific to the reduction of HIV-related stigma and discrimination in healthcare settings were not included in the current review. Scoping reviews, critical reviews or systematic reviews with the lack of specific focus and inclusion criteria for the inclusion of interventions or trials were excluded. Interventions such as specific treatments for PLHIV diagnosed with mental disorders were nor considered. In addition, interventions beyond the scope healthcare facilities such as financial interventions were not the focus of current review.

## 3.5. Search strategy

The search strategy aimed to find both published and unpublished studies. A three-step search strategy was utilized in this review. An initial limited search of Cumulative Index to Nursing and Allied Health (CINAHL) and Medical Literature Analysis and Retrieval System Online (MEDLINE) was undertaken followed by an analysis of the text words contained in the title and abstract, and of the index terms used to describe the article. A second search using all identified keywords and index terms was then undertaken across all included databases. Thirdly, the reference list of all identified reports and articles was searched for additional studies.Both published and unpublished papers reported in English language were searched with no restriction to age, country and date of publication.The databases searched included: Excerpta Medica Database from Elsevier (EMBASE), CINAHL,MEDLINE and Psychological Information (PsycINFO) database.The search for unpublished studies

included: HIVinSite, AIDSinfo, HIV and AIDS clearinghouse, Communicable Diseases Control (CDC) HIV publications, British HIV Association (BHIVA)websites,Health Policy Project (HPP) website, United States Aid for International Development (USAID) experience clearinghouse, World Health Organization (WHO) guidelines and Joint United Nations Program on HIV/AIDS (UNAIDS) publications.An additional search was conducted for existing guidelines and systematic reviews in the following websites: Turning Research into Practice (TRIP) database, Guideline International (GIN) library, National Guideline Clearinghouse (NGC), National Institute for Health and Clinical Excellence (NICE), and Task Force on Community Preventive Services. A detailed search strategy for each database was appended (Appendix 1). The result of the search for each website and database isshown in Appendix 2.

### 3.5. Assessment of methodological quality

Two individuals independently appraised the quality of the guideline documents using the Appraisal of Guidelines for Research and Evaluation (AGREE II) checklist.[115]The AGREE II checklist has six domains, namely scope and purpose (three items), stakeholder involvement (three items), rigor of development (eight items), clarity of presentation (three items), appropriateness (four items) and editorial independence (two items).[115]The reviews were independently assessed by two individuals using the JBI critical appraisal checklist for systematic reviews (Appendix 3).

### 3.6. Data extraction

Data extraction was done using a format developed to record the key information of the source relevant to the review question. The data extraction instrument was developed both for systematic reviews and guideline-related documents. Relevant information such as population characteristics, publication year, authors and summary of the findings and recommendations were extracted.

### 3.5. Results

The search yielded a total of 1670 records. After removing duplicates, 1605 documents were retained for further analysis. Based on the analysis of the titles and abstracts, 118 records were retained for further full text analysis. Based on pre-defined inclusion criteria, we retained 12 records (Figure 3). Six of the records were guidelinerelated documents (best practices, tools and standards of practice), and six of the records were systematic reviews.
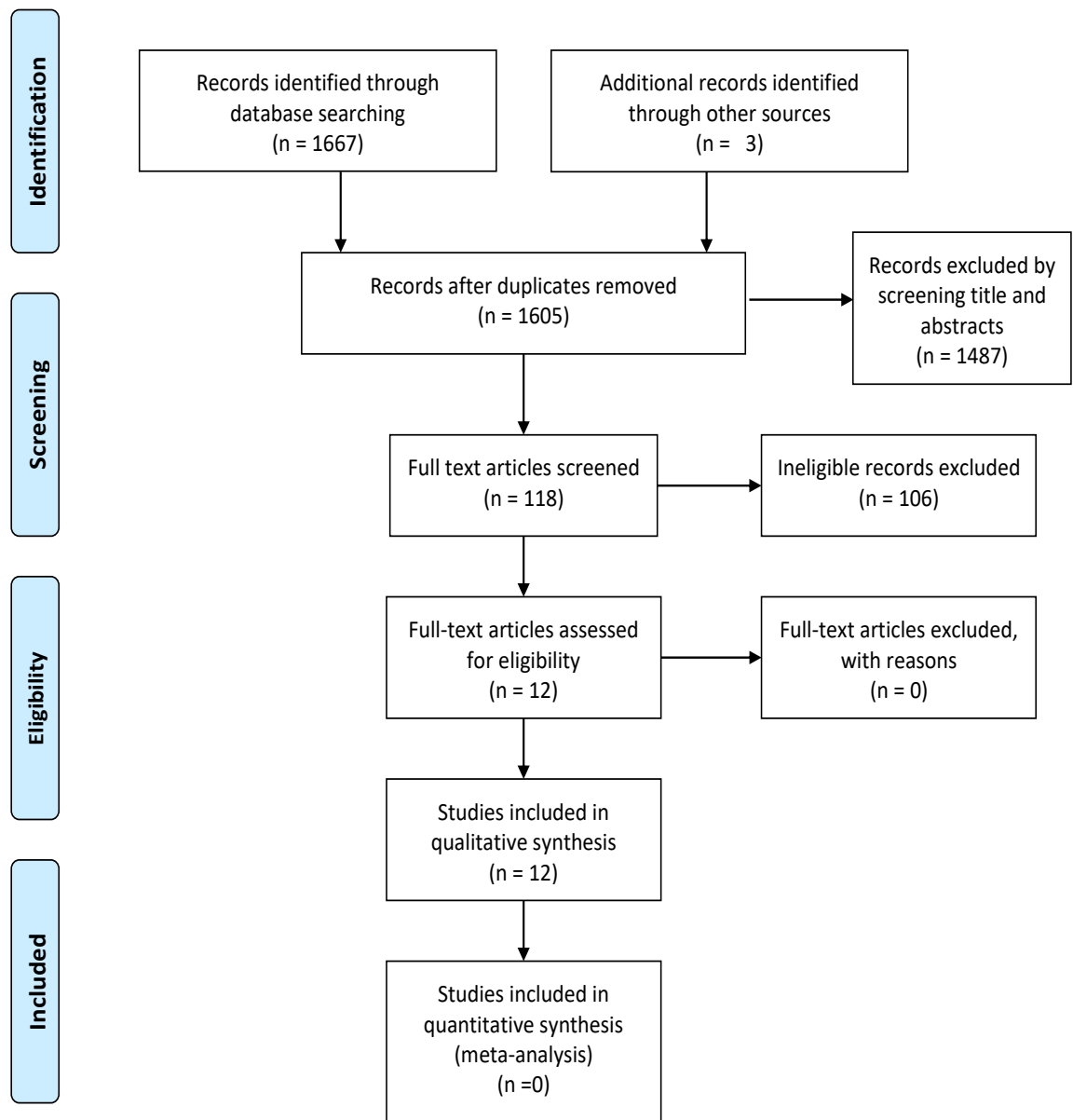
**Figure 3. Study selection process for systematic review of guidelines, best practices and systematic reviews**

(*From:* Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group (2009). *P*referred *R*eporting *I*tems for *S*ystematic Reviews and *M*eta-*A*nalyses: The PRISMA Statement. PLoS Med 6(7): e1000097. doi:10.1371/journal.pmed1000097.[126]

### 3.5.1. Description of the characteristics of the documents

*Guidelines, best practice documents, standards of practice and tools*

Among the six guideline-related documents, two were published by the USAID[6, 7] and one was published by the Department for International Development (DFID),[127] one by Physicians for Human Rights (PHR),[128] one guideline document was developed by the UNAIDS[129]and one national guide[130]was published by Tanzania Commission of AIDS (TCA) (Table 1). The guidelines were assessed against AGREE II reporting criteria.[131]

### a. USAID 2012[7]

The first guide (USAID 2012[7]) which was published by the USAID health policy initiative in 2012, provided an overview of HIV epidemics and the impact of HIV-related SAD. The guide developed the recommendations under six guiding principles. This guide addressed four criteria out of the 23 criteria on AGREE II reporting checklist. It provides advice on how to implement the recommendations into practice. The guide had resources for implementation such as tool kits. Although it indicates and cites existing research evidence in the recommendations, it does not explicitly indicate the link between recommendations and research evidence. It does not provide details on how the recommendations were developed. Even though the guideline provides recommendations to be applied in healthcare settings, the target of most of the recommendations were not specifically described. The specific health questions considered, the potential resource implications of the recommendations and whether a systematic search was used to develop the recommendations were not described. Recommendations found in the guide addressed biomedical, information-based, structural, contact, skillsbuilding and counseling and support interventions.

### b. Carr et al 2015[6]

The second guide (Carr et al 2015[6]) was published by the USAID health policy initiative. The guide addressed seven of the AGREE II criteria for reporting guidelines. The guide was specifically developed to reduce HIV-related SAD in healthcare settings. It was developed by the synthesis of existing programs, tools and research evidence. However, details of how the developers located these sources werenot described. The guide had added resources for implementation, including tool kits, health facility and provider assessment checklists. The recommendations included in the guideline were under the categories of information-based and structural interventions.

### c. PHR 2011[132]

The third guide (PHR 2011[132]) was developed by Physicians for PHR. This guideline addressed ten of the criteria for AGREE II reporting standards. The recommendations in the guideline were easily identifiable. The guide indicated tools and references that supported the recommendations. The guide addressed the roles of different actors to reduce SAD in healthcare settings. The guide was based on examples and experiences of previous research and programs. Nevertheless, it did not indicate the details of the development process. Moreover, the link between the recommendations and the research evidence was not explicitly reported. While most of the citations were from the field of HIV-related stigma, it also included citations from other diseases, such as leprosy. Recommendations found in the guideline generally fell under information-based, structural, counseling and support approaches to stigma and discrimination-reduction.

   d. **UNAIDS2007[129]**

The fourth guideline (UNAIDS 2007[129]) was published by UNAIDS. This guide addressed five of the 23 AGREE II criteria for reporting guidelines. It provided programmatic examples, research findings and resources for the reduction of stigma and discrimination. However, the details of the retrieval of this body of evidence and the process of the development of the recommendations were not described. The guideline recommendations were under the categories of information-based, structural, skillsbuilding, contact and counseling and support approaches.

   e. **Carr et al 2007[127]**

The fifth guideline (Carr et al 2007[127]) was developed by the DFID. This document addressed six of the 23 AGREE II criteria for reporting guidelines. The guideline presented best practices and lessons learnt to tackle SAD. It provided resources for implementation. However, it did not detail the process for the development of recommendations. It was mainly developed for DFID and their partners. Moreover, the settings where recommendations were to be implemented were not clearly described. The guideline addressed recommendations that comprised information-based, structural, skillsbuilding, contact, and counseling and support domains of stigma and discriminationreduction interventions.

   f. **TCA 2009[130]**

The sixth guide (TCA 2009[130]) was developed by the Tanzania Commission for AIDS (TCA). This guideline addressed six of the 23 AGREE II reporting criteria for guidelines. The guide focused on how to integrate SAD reduction in HIV programs. It cited some

research findings and tool kits. The guide mentioned that it was developed from the research and intervention programs. Nevertheless, the process of developing that guide was not detailed. The guideline addressed SAD reduction interventions falling under information-based, structural, skillsbuilding, contact and counseling and support interventions.

In all the documents, the expected update timeline and process were not mentioned. The results of assessment based on AGREE II reporting criteria for each guideline is found in Appendix 4. As none of the guidelines and tools mentioned any information on the quality of the recommendation or the design of the linked references, it was difficult to extract recommendations.

**Table 1. Summary of guideline topics and citation details**

| Author, year | Title | Publisher | Country | Population addressed | Publication year | Intervention component addressed | Implementation tools | AGREE II score |
|---|---|---|---|---|---|---|---|---|
| USAID 2012[7] | Programmatic Guidance for Reducing HIV and Key Population Stigma and Discrimination | USAID, Health policy initiative | Greater Mekong Region Countries | General (PLHIV, HCWs and community) | 2012 | Biomedical, Information-based, structural, contact, skillsbuilding and counselling and support | Yes | 4 |
| Carr et al 2015[6] | Achieving a Stigma-free Health Facility and HIV Services: Resources for Administrators | USAID, Health policy initiative | Not specific | HCWs and health administrator | 2015 | Information-based, structural | Yes | 7 |
| PHR, 2011[132] | Ensuring Equality: A Guide to Addressing and Eliminating Stigma and Discrimination in the Health Sector | Physicians for Human Rights | Not specific | HCWs and health administrator | 2011 | Information-based, structural, counselling and support | Yes | 10 |
| UNAIDS2007[129] | Reducing HIV stigma and discrimination: A critical part of national AIDS programmes: A resource for national stakeholders in the HIV response | UNAIDS | Not specific | General (PLHIV, HCWs and community) | 2007 | Information-based, structural, skillsbuilding, contact and counselling and support | Yes | 5 |
| Carr et la 2007[127] | Taking Action Against HIV Stigma and Discrimination: Guidance and supporting resources | DFID | Not specific | General (PLHIV, HCWs and community) | 2007 | Information-based, structural, skillsbuilding, contact and counselling and support | Yes | 6 |
| TCA 2009[130] | National Guide on the Integration of Stigma and DiscriminationReduction in HIV Programs | TCA | Tanzania | General (PLHIV, HCWs and community) | 2009 | Information-based, structural, skillsbuilding, contact and counselling and support | Yes | 6 |

**NB**: AGREE: Appraisal of Guidelines for Research and Evaluation USAID: United States Aid for International Development,HIV: Human immunodeficiency virus, PLHIV: People Living with HIV, HCWs: Healthcare workers, PHR: Physicans for Human Rights, UNAIDS: United Nations program on HIV/AIDS, DFID: Department for International Development, TCA: Tanzanian Commision of AIDS..

### *Systematic reviews*

Of the six systematic reviews, four of them (Stangl et al.2013;[2] Senguptaet al.2011;[133] Loutfyet al 2015;[134] and Paudel et al.2015[135]) scored 9/11 using the JBI critical appraisal checklist for systematic reviews. One qualitative review (Chamber et al. 2015) scored 7/11. One quantitative review (Brownet al.2003[136]) scored 4/11. All reviews did not assess the likelihood of publication bias. None of the systematic reviews combined the findings of the studies using meta-analysis. All reviews except one (Brown et al.2003[136]), indicated clear

and comprehensive search strategies. All of the included reviews except one (Brownet al.2003[136]), included both published and unpublished studies. However, formal assessment of risk of publication bias was not indicated in all the systematic reviews. All reviews except two (Brown et al.2003[136]and Chamberset al.2015[137]), reported the appraisal criteria, process and results explicitly (Table 2).The appraisal results for the systematic reviews are found in Appendix 5.

### Stangl et al.2013[2]

This systematic review (Stangl et al.2013)[2] aimed to obtain a complete picture of intervention efforts in interrupting stigma and discrimination. The review included 48 studies. The included studies were randomized controlled trials (RCTs), quasi-experimental designs with and without control groups, repeated cross-sectional surveys, qualitative studies and mixed method studies.[2] The review conceptualized domains of stigma and discrimination, and stigma reduction approaches as follows

a) **Domains of HIV-related stigma and discrimination:** The authors categorized HIV-related stigma domains into drivers, facilitators and manifestation domains. Drivers are individual-level factors that negatively influence the stigmatization process.[2] Manifestations of stigma include how stigma is executed or experienced.[2]

b) **HIV-related stigma and discriminationreduction approaches:** The authors categorized the interventions into information-based, skillsbuilding, counseling and support, contact, structural and biomedical interventions.[2]

As indicated in the review, most programs used information-based approaches, but some used a combination of two or more of these approaches.The information-based approaches were both written and verbal information to increase the understanding of HIV, and of stigma and discrimination. These were provided in the form of leaflets, brochures and other methods.[2] The structural approaches to SAD reduction employed in healthcare settings were availing supplies for standard precautions, revision and development of standard operating procedures (SOPs), policies and regulations, and putting a grievance addressing system in place.[2]Biomedical approaches are interventions such as universal access to care and treatment.[2] Contact strategies are activities such as testimonials of PLHIV and activities that encourage interaction between HCWs and PLHIV. Counseling and support approaches are activities that aid in minimizing the negative psychosocial impact of HIV-related SAD on clients and their families.[2]

The review conceptualized levels and targets of stigma and discrimination reduction interventions as follows:

a) **Levels of HIV-related stigma and discriminationreduction interventions:** The review considered a range of interventions at the individual, interpersonal, organizational and community and public policy levels. At the individual level, interventions were targeted to influence how individuals feel about HIV and how they respond to it. At the interpersonal level, interventions addressed stigma between individuals, including family and friends. At the organizational level, interventions addressed stigma within institutions, such as schools and hospitals. At public policy level, interventions addressed stigma that was reflected in public laws or policies.[2]

b) **Targets of stigma and discriminationreduction interventions:** The review comprised interventions that targeted various population groups, including HCWs, people living with HIV, female sex workers and men who have sex with men.[2]

Out of the included studies, 38 (79%) of them reported statistically significant reductions in all stigma measures. Five studies reported reductions in some stigma measures. The review, however, did not pool the findings from the primary studies because of heterogeneity of the interventions and measures used in the primary studies. The authors called for more rigor and improved quality studies and future interventions to address intersectional stigma (multiple prejudices experienced by clients both because of their disease status and their other attributes such as sexual activity or orientation).[2]

**Sengupta et al. 2011[133]**

This review assessed the effectiveness of HIV-related interventions to reduce HIV-related stigma and discrimination. The review included 19 studies. The designs of the included studies were RCTs and pre-post study designs with and without control groups. This review identified interventions that targeted a range of population groups such as students, healthcare workers, working women and the general community.The included studies addressed information-based approaches, PLHIV testimonials, skillsbuilding, support groups and a combination of these approaches.[133]Outcomes reported were perceived, enacted, internalized and compounded stigma. Fourteen of the included studies demonstrated a reduction in HIV-related stigma and discrimination. Only two of these studies were considered good quality by the reviewers. The reviewers called for further studies with good internal validity and employing validated measures of stigma.[133]

### Loutfy et al. 2015[134]

This review identified studies addressing interventions to reduce HIV-related stigma and discrimination among African diasporic women living with HIV (WLHIV). The review included three RCTs and two prospective cohort studies. The included studies measured internalized stigma (holding negative attitude against oneself); and perceived stigma (awareness of social devaluation, social rejection, diminished social identity and limited social opportunity attributed to stigma). Four of the studies demonstrated a positive effect in the reduction of HIV-related stigma and discrimination among WLHIV. The reviewer concluded that the included studies addressed interpersonal and intrapersonal stigma. The authors recommended further research to address stigma and discrimination at community, institutional or structural levels. They also concluded that there was alack of research evidence addressing intersectional stigma and discrimination experienced by African diasporic women living with HIV.[134]

### Paudel et al. 2015[135]

This review examined the feelings, experiences and perceptions of women living with HIV (WLHIV) and assessed the role of support groups as a coping strategy from seven qualitative studies. The review identified five themes: a) disclosure is a sensitive issue for WLHIV b) WLHIV have physical, social, emotional and spiritual difficulties in dealing with stigma and discrimination from family, friends, community and health professionals, c) internalized or self-stigma affects WLHIV more than the actual experience of stigma, d) WLHIV are rejected, shunned and treated differently by physicians, family and close friends: e) support groups are among the best interventions for HIV-related stigma and discrimination. Based on the findings, the authors recommended that support group interventions should constitute the main approach for HIV programs. They also recommended additional RCTs to demonstrate the effectiveness of support group interventions.[135]

### Chambers et al. 2015[137]

This review synthesized and presented the findings of 55 qualitative studies into three categories. These included; the conceptualization of HIV-related stigma and discrimination, which included dimensions of stigma, experiences of stigma and managing stigma. The review also showed that healthcare practices were negatively affected by personal stigmatizing perceptions of practitioners. The reviewers also found that feeling stigmatised negatively influenced health services utilization, adherence to treatment, and overall health and well-being of PLHIV. In addition, the review reported that HIV-related stigma and

discrimination in healthcare settings was interlinked with other forms of marginalization due to sexual behaviour or orientation, race, gender and other factors. This is called intersectional or double stigma. The review identified social support, education, self-efficacy, resilience activities, and advocacy as major strategies to address HIV-related stigma and discrimination.[137]

**Brown et al.2003[136]**

This review included 22 studies that reported on interventions to reduce stigma and discrimination related to HIV. Among the included studies, 14 reported on interventions aimed to reduce stigma and discrimination towards PLHIV among the general population and five studies included interventions aimed at increasing the willingness of healthcare workers to treat PLHIV. Three studies aimed to improve coping strategies to deal with HIV-related stigma using counseling and information-based approaches. Most studies included in this review found that information combined with a skillsbuilding approach was more effective than the information-only approach to reduce HIV-related stigma and discrimination in the general population. The studies also found that contact with PLHIV was more effective in reducing HIV-related stigma and discrimination when combined with information provision than a contact-only approach. Taking the limitations of the studies included into account, the authors recommended the utilization of validated scales of measurement to aid appropriatequantification of HIV-related stigma and discrimination and assessment of the long-term impact of the interventions. The settings, population characteristics and summarized findings extracted from the systematic reviews are shown in Table 2.

## Table 2. Description of systematic reviews

| Authors/year | Stanglet al. 2013[2] | Sengupta et al. 2011[133] | Loutfy et al. 2015[134] | Paudelet al. 2015[135] | Brown et al. 2003[136] | Chamber et al. 2015[137] |
|---|---|---|---|---|---|---|
| Quality assessment score | 9/11 | 9/11 | 9/11 | 9/11 | 4/11 | 7/11 |
| Participant characteristics | PLHIV, community members and HCWs | Not specific | African-diasporic WLHIV | Women living with HIV | Not specific | PLHIV, community, family, HCWs) |
| Intervention(s) or phenomenon of interest | a) Information-based approaches b) Skillsbuilding c) Counselling, and 4) Contact with PLHIV | HIV-related interventions or programs | a) Emotional writing disclosure b) Skill-building activities c) Participatory educational exercises d) Symptoms management intervention e) Unity workshops | Feelings and experiences of WLHIV; and the role of support groups as a coping strategy | Information-based approaches, contact with PLHIV, skillsbuilding and counselling | Definitions and health-related effects of stigma, responses of PLHIV to stigma |
| Year ranges of included studies | 1 January 2002 and 1 March 2013 | Conducted in March 2009 (no date restriction) | 1995 to August 2013 | 1995 onwards (date of search not indicated) | Publications before 31/12/2001 | 1/1/1996 to 1/05/2010 |
| Appraisal instrument used | A modified Downs and Black checklist and Spencer checklist | AHRQ checklist | Newcastle-Ottawa Scale and the Cochrane Risk of Bias tool | 12 quality assessment criteria | Not mentioned | Not mentioned |
| Outcomes assessed | Drivers, facilitators and manifestations of stigma | Perceived, enacted, internalized, and compounded stigma | Stigma, QOL, avoidance coping, proactive coping | NA | Attitude toward PLHIV, anxiety, willingness to treat, disclosure | NA |
| Number of studies included | 48 | 19 | 5 | 7 | 22 | 55 |
| Types of studies | Qualitative and quantitative | RCT, pre-post studies with or without a control group | 3 RCTs and 2 prospective cohort studies | Qualitative | RCT, quasi-experimental and pre-post studies | Qualitative and mixed method |
| Results | 79% of the studies reported statistically significant reductions in all stigma measures. 5 studies reported reductions for some SAD measures | 14 studies demonstrated reduction in SAD. Only 2 of these studies were considered good quality. | 4 of the 5 studies found significant reduction in SAD. | Identified 5 themes: a) Disclosure as a sensitive issue b) Negative impact of SAD. c) Internalized stigma d) Experience of SAD e) Support group among best interventions for SAD | Combination of information-based approach and contact with PLHIV reduced stigma | Social support, education, resilience activities, and advocacy were strategies used to address SAD |
| Significance/direction | The need for rigorous design of interventions with multiple stigmadomains | Future studies should considerinternal validity and use | Limited interventions addressed the intersectional SAD | Support groups should be offered as a main part of | There should be an appropriate measurement of SAD and | To reduce SAD in healthcare settings, the internal and externalaspects |

| | at multiple levels. | validated stigma scales. | experienced by African-diasporic WLHIV. | HIV services. RCTs are needed to provide further evidence | assessment of the long-term impact of the interventions. | of healthcare settings should be considered |
|---|---|---|---|---|---|---|
| Quality of evidence | Most studies were rated as high quality | Moderate | Not given | Not mentioned | Not mentioned | Not mentioned |

NB: HIV: Human immunodeficiency virus, PLHIV: People Living with HIV, HCWs: Healthcare workers, WLHIV: Women Living with HIV, AHRQ: Agnecy for Healthcare Research and Quality, QOL: Quality of life, NA: Not applicable, RCT: Randomized controlled trial, SAD: Stigma and discrimination.

None of the systematic reviews reported a meta-analysis nor a Summary of Findings table.

### 3.6. Discussions

In this review, I attempted to locate documents in the form of guidelines, consensus statements, best practices, standards of practice and systematic reviews indicating directions on how to tackle stigma and discrimination. In this project, I searched both published and gray literature to locate the evidence on stigma and discrimination related to HIV. Acknowledging stigma and discrimination as a significant barrier to HIV prevention and control programs[45] and its negative impact on clients,[53] for more than three decades, organizations have been working to reduce stigma and discrimination related to HIV,[138]and through time, implementers and researchers are improving practice, based on the lessons they learn from their experiences.[138]

In addition to the interventions and primary studies conducted so far, researchers have tried to synthesize the global evidence to reduce stigma and discrimination related to HIV and present the evidence in the form of guidelines, best practices and systematic reviews.[2]Through these efforts, they have understood and conceptualized the interventions falling under the following general categories: information-based interventions; structural interventions, biomedical interventions, counseling and support, skillsbuilding and contact strategies.[2]

The quality of thefive systematic reviews included in the current review weregenerally good. Nevertheless, in the current review, we could not obtain evidence in a usable form. Systematic reviews are supposed to facilitate the guideline development and knowledge translation process.[94]The following were missing from the reviews included in the current project: indication of the quality of the findings and pooling of the results of the primary studies or presenting Summary of Findings tables to inform policy and practice. There were no meta-analyses conducted on interventions to reduce HIV-related stigma and discrimination. Hence, it was very difficult to draw conclusions from the findings of the

systematic reviews. One of the reasons that contributed to these gaps was due to the fact that stigma measures were not always uniform across different studies.[2, 133, 136] The other reason was that the interventions, most of which were behavioral in nature, were not always similar across different studies in mode of delivery, duration of delivery and type of population they addressed.[2, 133] Public health interventions are often complex and this makes the systematic review challenging.[139] In circumstances where the interventions were found to be similar, the study designs or the populations varied.[2, 133]In addition, programs and policy implementers also need to consider others factors such as, the degree to which the interventionsdescribed in the protocols were implemented (intervention fidelity).[139]

As was recommended in most of the systematic reviews, it is vital to focus on the design of the studies which includes, paying attention to internal validities and using validated instruments to measure stigma and discrimination.[2, 133, 134, 136] Future studies may fill these gaps as stigma instruments have been evolving over time. This, however, will be possible only if the researchers are aware of the recent developments in measurements and scales. The other limitation that the reviews had was that some did not report the findings specifically within different population sub-groups and settings.[2, 133]

Different guidelines and best practice documents were developed globally based on the lessons learnt from primary studies and implementation programs.[7, 127, 130, 132] Efforts were made to develop standard tools and instruments to reduce HIV-related stigma and discrimination and to monitor these efforts.[6]Nonetheless, most of these guideline-related documents did not indicate the details of how they developed the recommendations and the scientific rigor of their methods. The guidelines and best practice documents for addressing HIV-related stigma and discrimination were developed based on the experiences of implementers and best practices in tackling stigma and discrimination. In most of these documents, however, detailed information on how these best practices were located, selected, appraised and synthesized was missing.

The systematic reviews included in the current review, did not give conclusion on direction regarding the specific nature, content and duration of an ideal healthcare setting or with specific population shouldto help HCWs living with HIV cope with stigma or secondary stigma.[140]One of the strengths of the guideline documents on the reduction of HIV-related stigma and discrimination included in this review was that implementers of stigmareduction programs in the field of HIV had good networks and collaborations[6, 127] and most of these

implementers developed the guidelines based on their work worldwide.[129, 138] This might have been because the funding organizations were working worldwide.

Because of the limitations in the transparency of how the reviews and the guideline-related documents were developed, putting them into practice and setting priorities for specific intervention is challenging. While drawing conclusions from the reviews and guideline documents available to date, it is very important to consider the details of the primary studies linked to these documents. The context in which the primary studies linked to these documents were conducted (healthcare settings, community, media, faith-based organizations) and the target beneficiaries involved in the original primary studies must be examined. The intervention might have been effective or not effective, simply because of pre-existing contextual factors.[139, 141] In addition, details of the intervention characteristics such as the providers of the intervention and the fidelity of the intervention are worthy of consideration.[141, 142]

In healthcare settings, additional factors exist that fuel stigma and discrimination related to HIV. Some of these factors are specific to the practice of HCWs such as fear of casual transmission, and limited knowledge of what stigma is and its negative consequences. Hence, these factors should be addressed through skillsbuilding and infrastructural interventions such as availing universal precaution supplies.[58] This makes the stigma related to HIV in healthcare settings different from HIV-related stigma and discrimination in other settings. However, some of the guidelinerelated documents included in this review have extrapolated community-based findings to healthcare settings.[132]It is therefore essential to develop context and populationspecific recommendations and guidelines that help to improve accountability for monitoring and evaluation, as well as those that support efficient delivery of audiencespecific recommendations.

It is critical to consider the specific nature of stigma and discrimination related to HIV. Stigma related to HIV results from associating HIV with immoral or unacceptable behaviors.[58] However, only two of the guideline-related documents identified in this review were specific with respect to the setting or population or the disease condition they addressed.[7, 129] In some of the guideline-related documents, although most of the evidence was drawn from HIV-related stigma and discrimination, the guidelines also drew recommendations based on interventions that were found effective in addressing stigma related to other disease conditions such as leprosy.[132]Hence, organizations or programs

working on stigma and discrimination reduction should consider the settings and specific population for which each of these interventions should be applied.

On the other hand, it is encouraging to see some of the guidelines mentioning the roles of different stakeholders in reducing stigma and discrimination in healthcare settings.[7] As clearly indicated in the guidelines, it is imperative to consider that stigma in healthcare settings is affected by the factors and actors beyond healthcare settings.[7, 132]

### 3.7. Conclusion

**Implications for practice:** Stigma and discriminationreduction interventions are framed as information-based, skillsbuilding, structural, biomedical, counseling and support and contact-based approaches. Currently existing systematic reviews and guideline-related documents are not transparent enough to provide details of the quality of evidence supporting the recommendations.

**Implications for research:**Although good quality systematic reviews exist, they were not presented in a usable form. Future systematic reviews should address this by including Summary of Findings tables. Future studies need to use up-to-date stigma instruments to measure HIV-related stigma and discrimination. Studies with rigorous designs, such as RCTs are needed.

# CHAPTER FOUR

# REDUCING HIV-RELATED STIGMA AND DISCRIMINATION IN HEALTHCARE SETTINGS: A SYSTEMATIC REVIEW OF QUANTITATIVE EVIDENCE

## 4.1. Abstract

**Concise introduction**

In healthcare settings, both structural and individual-level factors fuel stigma and discrimination (SAD) related to human immunodeficiency virus (HIV).

**Review questions/objectives**

The objective of this review was to locate, appraise and describe international literature reporting on interventions that addressed SAD related to HIV in healthcare settings.

**Inclusion criteria**

**Population**

This review considered healthcare workers (HCWs), health managers and healthcare institutions for inclusion.

**Interventions**

I considered interventions that addressed HIV-related SAD. These comprised information-based, skillsbuilding, structural, contact-based, biomedical and counseling and support interventions.

**Comparators**

Comparators considered for inclusion were baseline (before intervention), no intervention, usual care or one or more of the above components compared to one another.

**Outcomes**

The primary outcomes considered for inclusion were HIV-related SAD among HCWs or in healthcare institutions.

**Context**

This review considered all studies conducted worldwide that addressed HIV-related SAD in healthcare settings.

*Types of studies*

Both published and unpublished studies with comparative designs, such as randomized controlled trials (RCTs), quasi-experimental studies and before and after studies were considered.

**Search strategy**

The databases searched were: Cumulative Index to Nursing and Allied Health (CINAHL), Excerpta Medica Database from Elsevier (EMBASE), Medical Literature Analysis and Retrieval System Online (MEDLINE) and Psychological Information (PsycINFO) database

**Assessment of methodological quality**

Two individuals independently appraised the quality of the papers prior to inclusion in the review using appraisal instruments from the Joanna Briggs Institute (JBI).

**Data extraction and analysis**

Quantitative data were extracted from papers included in the review using the standardized data extraction tool from JBI. Since the studies were methodologically or clinically heterogeneous, statistical pooling was not possible; hence, the findings are presented in narrative form. Quality of evidence for major outcomes was assessed using Grading of Recommendations, Assessment, Development and Evaluation (GRADE).

**Results**

We retained 14 records reporting on eight studies. Five categories of SADreduction (information-based, skillsbuilding, structural, contact-based and biomedical interventions) were identified. Training popular opinion leaders (POL's) resulted in significantly lower mean avoidance intent scores (MD=-1.87 [95% CI -2.05 to -1.69]), mean prejudicial attitude scores (MD=-3.77 [95% CI -5.4 to -2.09]) and significantly higher scores in mean compliance to universal precaution (MD=1.65 [95% CI 1.41 to 1.89]) when compared to usual care (moderatequality evidence). In addition, professionallyassisted peergroup interventions, modular interactive training, participatory self-guided assessment and intervention, contact strategy combined with information giving and empowerment were effective in reducing HIV-related stigma (very lowquality evidence). The Summary of Findings table (SOF) is shown in Table 3.

**Conclusion**

**Implications for practice:** Moderatequality evidence indicates that training popular opinion leaders is effective in reducing avoidance intent and prejudicial attitude and improving compliance to universal precaution. Very lowquality evidence indicates that professionallyassisted peergroup interventions, modular interactive training, participatory self-guided assessment and intervention, contact strategy combined with information giving and empowerment are effective in reducing HIV-related stigma.

**Implications for research:** Further RCTs are needed to provide information that guide policy and practice regarding HIV-related SAD in healthcare settings. Future trials need to

use up-to-dateand validated instruments to measure SAD.

## Table 3. Summary of Findings table

**1. Training popular opinion leaders**

| Outcomes | Illustrative comparative risks* (95% CI) | | Relative effect (95% CI) | No of Participants (studies) | Quality of the evidence (GRADE) | Comments |
|---|---|---|---|---|---|---|
| | Assumed risk | Corresponding risk | | | | |
| | **Control** | **Training popular opinion leaders** | | | | |
| **Avoidance intent** Scale from: 8 to 40. Follow-up: mean 12 months | The mean avoidance intent in the control groups was **18.65** | The mean avoidance intent in the intervention groups was **1.87 lower** (2.05 to 1.69 lower) | | 1760 (1 study) | ⊕⊕⊕⊖ **moderate**[1] | |
| **Prejudicial attitude** Scale from 8 to 40 Follow-up: mean 12 months | The mean prejudicial attitude in the control groups was not given | The mean prejudicial attitude in the intervention groups was **3.77lower** (5.4 to 2.09 lower) | | 1760 (1 study) | ⊕⊕⊕⊖ **moderate**[2] | |
| **Compliance to universal precaution** Scale from: 0 to 52. Follow-up: mean 12 months | The mean compliance to UP in the control groups was**32.88** | The mean compliance to UP in the intervention groups was **1.65 higher**(1.42 to 1.89higher) | | 1760 (1 study) | ⊕⊕⊕⊖ **moderate**[1,2] | |

**2. Peer education of HCWs for HIV-related stigma**

| Outcomes | Illustrative comparative risks* (95% CI) | | Relative effect (95% CI) | No of Participants (studies) | Quality of the evidence (GRADE) | Comments |
|---|---|---|---|---|---|---|
| | Assumed risk | Corresponding risk | | | | |
| | **Control** | **Peer education of HCWs** | | | | |
| **Public contact stigma** Scale from: 1 to 3. Follow-up: mean 12 months | The mean blame in the control groups was **1.11** | The mean blame in the intervention groups was **0.07 lower** (0.12 to 0.02 lower) | | 927 (1 study) | ⊕⊖⊖⊖ **very low**[3] | |
| **Client contact stigma** Scale from: 1 to 4 Follow-up: mean 12 months | The mean contact stigma in the control groups was **1.81** | The mean contact stigma in the intervention groups was **0.28lower**(0.37 lower to 0.19 lower) | | 927 (1 study) | ⊕⊖⊖⊖ **very low**[3,4] | |

**3. Interactive training and discussion focusing on HIV-related stigma, infection control and medical ethics and contact with PLHIV for value-based stigma and fear-based stigma**

| Outcomes | Illustrative comparative risks* (95% CI) | | Relative effect (95% CI) | No of Participants (studies) | Quality of the evidence (GRADE) | Comments |
|---|---|---|---|---|---|---|
| | Assumed risk | Corresponding risk | | | | |
| | **Control** | **Interactive training and discussion focusing on HIV-related stigma, infection control and medical ethics and contact with PLHIV** | | | | |
| **Fear-based stigma** Scale from: 1 to 10 Follow-up: mean 3 months | The mean fear-based stigma in the control groups was**3.2** | The mean fear-based stigma in the intervention groups was **2.1 lower** (CI not given, P<0.01) | | 347 (1 study) | ⊕⊖⊖⊖ **very low**[5,6] | |
| **Value-based stigma** Scale from: 1 to 10 Follow-up: mean 3 months | The mean value-based stigma in the control groups was **3.8** | The mean value-based stigma in the intervention groups was **1.7 lower**(CI not given, P<0.01) | | 347 (1 study) | ⊕⊖⊖⊖ **very low**[5] | |

**4. Participatory self-guided assessment and intervention for Stigma**

| Outcomes | Illustrative comparative risks* (95% CI) | | Relative effect (95% CI) | No of Participants (studies) | Quality of the evidence (GRADE) | Comments |
|---|---|---|---|---|---|---|
| | Assumed risk | Corresponding risk | | | | |

| | Control | Participatory self-guided assessment and intervention | | | |
|---|---|---|---|---|---|
| **Stigma index (attitude towards PLIV and healthcare-related practices)** Scale from 21 to 63 Follow-up: mean 6 months | The mean stigma index (attitude towards PLHIV and healthcare-related practices) in the control groups was **42.79** | The mean stigma index (attitude towards PLHIV and healthcare related practices) in the intervention groups was **4.72 lower**(CI not given, p<0.01) | | 1769 (1 study) | ⊕⊖⊖⊖ **very low**[7,8] |
| **Use of glove when drawing blood if sero-status is unknown** Follow-up: mean 6 months | **Study population** **642 per 1000** | **1000 per 1000** (1000 to 1000) | **RR 7.81** (3.64 to 16.76) | 269 (1 study) | ⊕⊖⊖⊖ **very low**[7,8] |
| **Sought informed consent before HIV test** Follow-up: mean 6 months | **Study population** **403 per 1000** | **862 per 1000** (471 to 1000) | **RR 2.14** (1.17 to 3.91) | 177 (1 study) | ⊕⊖⊖⊖ **very low**[7,8] |

**5.** Addressing both fear-based and social stigma (stemming from moral judgments) compared to addressing only 'fear-based' stigma (stemming from lack of knowledge) for Hospital staff

| Outcomes | Illustrative comparative risks* (95% CI) | | Relative effect (95% CI) | No of Participants (studies) | Quality of the evidence (GRADE) | Comments |
|---|---|---|---|---|---|---|
| | Assumed risk | Corresponding risk | | | | |
| | **Addressing both fear-based and social stigma (stemming from moral judgments).** | **Addressing 'fear-based' stigma (stemming from lack of knowledge)** | | | | |
| **Fear-based stigma** Scale from: 4to 12. Follow-up: mean 6 months | The mean fear-based stigma in the control groups was **5.1** | The rate of change in mean fear-based stigma in the intervention groups was **0.37 lower**(0.54 to 0.21lower) | | 797 (1 study) | ⊕⊖⊖⊖ **very low**[9] | |
| **Social stigma** Scale from 5 to 15 Follow-up: mean 6 months | The mean social stigma in the control groups was **7.4** | Therate of change in mean social stigma in the intervention groups was **0.14 lower** (0.43 lower to 0.15higher) | | 797 (1 study) | ⊕⊖⊖⊖ **very low**[9] | |
| **Overusing any form of barrier protection** Follow-up: mean 6 months | **Study population** **168 per 1000** | **98 per 1000** (59 to 155) | **OR 0.54** (0.31 to 0.91) | 797 (1 study) | ⊕⊖⊖⊖ **very low**[9] | |
| **Signs on bed indicating HIV status** Follow-up: mean 6 months | **Study population** **851 per 1000** | **587 per 1000** (285 to 832) | **OR 0.25** (0.07 to 0.87) | 797 (1 study) | ⊕⊖⊖⊖ **very low**[9] | |
| **Marked files indicating HIV status** Follow-up: mean 6 months | **Study population** **98 per 1000** | **55 per 1000** (30 to 98) | **OR 0.54** (0.29 to 1) | 797 (1 study) | ⊕⊖⊖⊖ **very low**[9] | |

**6.** Contact strategy combined with information giving and empowerment for HIV-related stigma

| Outcomes | Illustrative comparative risks* (95% CI) | | Relative effect (95% CI) | No of Participants (studies) | Quality of the evidence (GRADE) | Comments |
|---|---|---|---|---|---|---|
| | Assumed risk | Corresponding risk | | | | |
| | **Control** | **Contact strategy with information giving and empowerment** | | | | |
| **PLHIV self-esteem** Scale: from 10 to 40 Follow-up: mean 1 months | The mean PLHIV self-esteem in the control groups was **19.46** | The mean PLHIV self-esteem in the intervention groups was **2.12 higher** (0.18 to 4.06 higher) | | 82 (1 study) | ⊕⊖⊖⊖ **very low**[10,11,12] | |
| **PLHIV Workplace stigma** | The mean PLHIV workplace stigma in the control groups was **0.46** | The mean PLHIV workplace stigma in the intervention groups | | 82 (1 study) | ⊕⊖⊖⊖ **very low**[10,11,12] | |

| | | | | | |
|---|---|---|---|---|---|
| Scale: Not described Follow-up: mean 1 months | | was **0.31 lower** (0.61 to 0.01 lower) | | | |
| **Total stigma score** Scale: Not described Follow-up: mean 1 months | The mean total stigma score in the control groups was **0.42** | The mean total stigma score in the intervention groups was **0.17lower**(0.35 lower to 0.01 higher) | | 82 (1 study) | ⊕⊖⊖⊖ **very low**[10,11,12,13] | [1] The hospitals were |
| **Negative self-perception** Scale: Not described Follow-up: mean 1 months | The mean self-perception in the control groups was **0.82** | The mean self-perception in the intervention groups was **0.46 lower**(0.81 to 0.11 lower) | | 82 (1 study) | ⊕⊖⊖⊖ **very low**[10,11,12] |
| **Nurses' stigmatizing behaviour** Scale: Not described Follow-up: mean 1 months | The mean nurses' stigmatizing behaviour in the control groups was **0.46** | The mean nurses' stigmatizing behaviour in the intervention groups was **0.07 higher** (0.04 lower to 0.18 higher) | | 86 (1 study) | ⊕⊖⊖⊖ **very low**[10,11,12] |

7. **A 5-day workshop comprising didactic lecture for Stigma**

| Outcomes | Illustrative comparative risks* (95% CI) | | Relative effect (95% CI) | No of Participants (studies) | Quality of the evidence (GRADE) | Comments |
|---|---|---|---|---|---|---|
| | Assumed risk | Corresponding risk | | | | |
| | **Control** | **A 5-day workshop comprising didactic lecture** | | | | |
| **Empathy** Scale: from 1 to 6 Follow-up: mean 5 days | The mean empathy in the control groups was **4.1** | The mean empathy in the intervention groups was **0.2 higher** (CI not given, P<0.01 | | 360 (1 study) | ⊕⊖⊖⊖ **very low**[14,15] |
| **Avoidance attitude** Scale: from 1 to 6 Follow-up: mean 5 days | The mean avoidance attitude in the control groups was **3.5** | The mean avoidance attitude in the intervention groups was **0.4 lower** (CI not given) P<0.01) | | 360 (1 study) | ⊕⊖⊖⊖ **very low**[14,15] |
| **General attitude towards PLHIV** Scale: from -5 to 15 Follow-up: mean 5 days | The mean general attitude towards PLHIV in the control groups was **3.5** | The mean general attitude towards PLHIV in the intervention groups was **0.6 higher** (CI not given, P<0.01) | | 360 (1 study) | ⊕⊖⊖⊖ **very low**[14,15] |
| **Nurses' willingness to care for PLHIV** Scale: from 0 to 130 Follow-up: mean 5 days | The mean nurses' willingness to care for PLHIV in the control groups was **97** | The mean nurses' willingness to care for PLHIV in the intervention groups was **13 higher** (CI not given, P<0.01) | | 0 (1 study) | ⊕⊖⊖⊖ **very low**[14,15] |

8. **A one-hour group education (homophobia and fear of death) for AIDS phobia**

| Outcomes | Illustrative comparative risks* (95% CI) | | Relative effect (95% CI) | No of Participants (studies) | Quality of the evidence (GRADE) | Comments |
|---|---|---|---|---|---|---|
| | Assumed risk | Corresponding risk | | | | |
| | **Control** | **A one-hour group education (homophobia and fear of death program)** | | | | |
| **AIDS phobia** Scale from: 15 to 75. Follow up: NA | The mean AIDS phobia in the control groups was **39.49** | The mean AIDS phobia in the intervention groups was **0.03 higher** (3.13 lower to 3.19 higher) | | 70 (1 study) | ⊕⊖⊖⊖ **very low**[16,17] |

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI). **CI:** Confidence interval;

GRADE Working Group grades of evidence
**High quality:** Further research is very unlikely to change our confidence in the estimate of effect.
**Moderate quality:** Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
**Low quality:** Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
**Very low quality:** We are very uncertain about the estimate.

randomized into intervention and control groups. A matched-pair design was applied to optimize the randomization. However, method of the selection of the pairs was not clear. Downgraded one level for risk of bias
[2] No explanation was given about blinding of allocators

3 No control group and the sample sizes at the baseline and post intervention survey are different, hence downgraded two levels for risk of bias

4 Wide and statistically non-significant confidence interval

5 One control hospital and one experimental hospital was used (conveniently selected), so downgraded one level for risk of bias

6 Groups had different scores in fear-based stigma at baseline

7 No control group

8 The hospitals were conveniently selected. A cross-sectional sample of providers was taken from the selected hospitals. (downgraded one level for risk of bias)

9 Cross-sectional nature of data collection, facility characteristics were not considered

10 No control group. The intervention sites were conveniently chosen by researchers based on accessibility and willingness to participate. (downgraded one level for risk of bias)

11 Five unique case studies were combined, which might have masked differences among the settings

12 case series

13 Wider confidence interval

14 No explanationwas given on how lost participants were handled. Around 9% did not provide responses to all questions

15 No control group

16 No adequate follow up, poor intervention focus.

17 Wide confidence interval (additionally downgraded for risk of bias)

**NB:** CI: Confidence Interval, HCWs: Healthcare workers, HIV: Human immunodeficiency virus, PLHIV: People Living with HIV, OR: Odds Ratio, UP: Universal precaution.AIDS: Acquired immunodeficiiency syndrome.

## 4.2. Concise introduction

Stigma and discrimination (SAD) related to human immunodeficiency virus (HIV) occur in healthcare settings because of a discriminatory policy environment, or limited awareness of what constitutes stigma among healthcare workers (HCWs).[2]Stigmatizing interactions are often not recognized by healthcare providers.[59] For instance, marking the files of People Living with HIV (PLHIV) is taken as an appropriate practice by some HCWs.[59]Although there are reviews that addressed interventions targeting stigma and discrimination related to HIV,[2, 133, 136] some of them did not report the findings specifically within different population sub-groups (healthcare workers, PLHIV, community members, etc.) and settings (community, healthcare settings, schools, etc.).[2, 133] The effectiveness of these interventions might have been affected by pre-existing contextual factors.[139, 141] In addition, details of the intervention characteristics such as the implementers of the target intervention and its fidelity should be considered.[141, 142]

In healthcare settings,both structural and individual-level factors fuel stigma and discrimination related to HIV. These include factors specific to the practice of HCWs such as fear of casual transmission, and limited knowledge of what stigma is and its negative consequences,[58] shortage of protective equipment, or the absence of a redressal system or a supportive policy in the healthcare facility.[58] Hence, these factors should be addressed through skillsbuilding and structural interventions such as availing supplies for standard precautions.[58]

As reported in chapter three, I found no systematic review addressing stigma and discriminationreduction interventions specific to healthcare settings or HCWs published within the last three years. Existing systematic reviews, as reported in chapter three of this

thesis, were not context and populationspecific. Therefore, the aim of this review was to identify, appraise and analyze findings of studies reporting on interventions aimed to reduce HIV-related stigma and discrimination among HCWsin healthcare facilities.

## 4.3. Review questions/objectives

This review sought to locate, appraise and describe international literature reporting on interventions that addressed stigma and discrimination related to HIV in healthcare settings. Specifically, the review aimed to:

- Identify, appraise and describe studies containing interventions to reduce HIV-related stigma and discrimination by HCWs.
- Identify, appraise and describe studies that report on institutional-level interventions to reduce SAD related to HIV.

## 4.4. Inclusion criteria

For this review, I considered the following inclusion criteria.

**Population**

This review considered interventions addressing HCWsand health managers in healthcare institutions. I included only in-service healthcare professionals (those professionals engaged in care provision after graduation) in this review. Hence, I did not include medical, allied health, nursing and other health and medical science students.

**Interventions**

I considered interventions that addressed stigma and discrimination related to HIV. These included, but were not limited to the following:

- Information-based approaches including both written and verbal information to increase the understanding of HIV, and the associated stigma and discrimination that may be provided in the form of leaflets and brochures or through other methods.
- Skillsbuilding approaches, such as demonstrations and role-play.
- Structural approaches such as availing supplies for standard precautions, revision and development of standard operating procedures, polices and regulations, and putting a grievance addressing system in place.
- Contact strategies, such as testimonials of PLHIV and activities that encourage interaction between HCWs and PLHIV.[2, 133]
- Biomedical interventions such as universal access to care and treatment or expansion of HIV counseling and testing (HCT).[2]

48

- Counseling and support interventions to help cope with stigma and discrimination.[2]

Comparators

The comparators I considered for inclusion were baseline (before intervention), no intervention, usual care and one or more of the above components compared to one another.

**Outcomes**

The primary outcomes I considered for inclusion were HIV-related stigma and discrimination among HCWsin healthcare institutions. Stigma reported in the form of fear-based stigma, value-based stigma, enacted stigma, internalized stigma or in other forms were included. The secondary outcome I considered for inclusion was PLHIV-specific extra-precaution.

**Context**

This review considered all studies conducted worldwide that addressed HIV-related SAD among healthcare workers in healthcare settings (hospitals, clinics or health centers).

*Types of studies*

This review considered all studies with comparative designs, such as randomized controlled trials (RCTs), quasi-experimental studies and before and after studies.

**4.5. Search strategy**

The search strategy aimed to find both published and unpublished studies reported in English language. A three-step search strategy was utilized in this review. An initial limited search of Cumulative Index to Nursing and Allied Health (CINAHL) and Medical Literature Analysis and Retrieval System Online (MEDLINE) was undertaken followed by an examination of the text words contained in the title and abstract, and of the index terms used to describe the article. A second search using all identified keywords and index terms was then undertaken across all included databases. Thirdly, the reference list of all identified reports and articles was searched for additional studies.

Both published and unpublished papers reported in the English language were searched with no restriction to age, country and date of publication.The databases searched were: CINAHL, Excerpta Medica Database from Elsevier (EMBASE), MEDLINE and Psychological information (PsycINFO) database. The search for unpublished studies included: HIVinSite, AIDSinfo, HIV and AIDS clearinghouse, Communicable Diseases Control (CDC) HIV publications, Health Policy Project (HPP) website, United States Aid for International Development (USAID) experience clearinghouse, and United Nations Joint Program on HIV/AIDS (UNAIDS) publications.A detailed search strategy for each database was

appended (Appendix 6). The results of the search for each website and database areshown in Appendix 7.

## 4.6. Assessment of methodological quality

Two individuals independently appraised the quality of the papers prior to inclusion in the review using appraisal instruments from the Joanna Briggs Institute (JBI)[143, 144](Appendices 8-11). All disagreements that arose between the reviewers were resolved through discussion, and there was no requirement for a third reviewer.

## 4.7. Data extraction and syntheses

Quantitative data were extracted from papers included in the review using the standardized data extraction tool from the JBI (Appendix 12). Relevant information such as population characteristics, publication year, authors, intervention type and summary of the findings were extracted. Where necessary, I asked primary authors to provide additional information on the articles. Details of data from primary studies with limited data or with limited follow up were checked through making request to the authors and checking subsequent publication from the same project based on cross-checkingthe linked publications from the registries of trials (if trial registry number existed). For instance, Li et al. 2013[145] published another article from the same project in 2015.[146]

Since the studies were methodologically or clinically heterogeneous, statistical pooling was not possible; hence, the findings are presented in narrative form. The quality of evidence for major outcomes reported in each study was assessed using a software package developed by the Grading of Recommendations, Assessment, Development and Evaluation (GRADE)[86] working group. The Summary of Findings (SOF) for all outcomes extracted from all studiesare then presented in a single table (Table 3).

## 4.8. Results

The search yielded a total of 2,927 records. After removing, duplicates, 2,856 documents were retained for further examination. After screening the titles and abstracts, 167 records were retained for full text examination. Based on pre-defined inclusion criteria, 30 records were included in critical appraisal. Finally, 14 records reporting on eight studies were retained (Figure 4).  Sixteen studies were excluded based on reason. Almost all studies excluded based on reason had significant measurement bias (Appendix13).
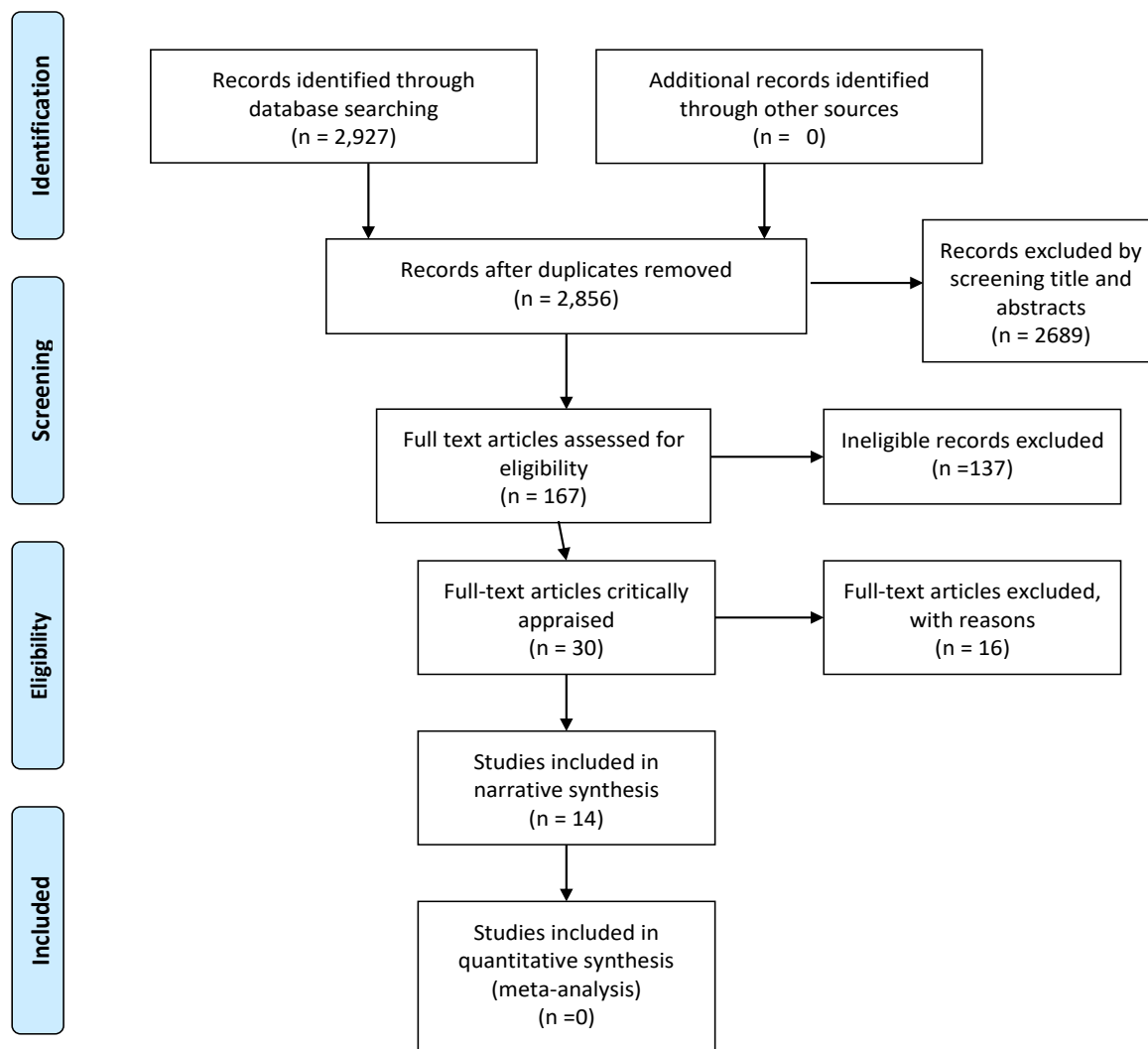
**Figure 4. Study selection process**

(*From:* Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group (2009). *P*referred *R*eporting *I*tems for *S*ystematic Reviews and *M*eta-*A*nalyses: The PRISMA Statement. PLoS Med 6(7): e1000097. doi:10.1371/journal.pmed1000097[126]

### 4.8.1. Description of the characteristics of included studies

Among the 14 records included in this review, six articles (Li et al. 2013a;[147] Li et al. 2013b;[148] Li et al. 2013c;[149] Li et al. 2014a;[150] Li et al. 2014b;[151] and Liet al. 2015.[146]) reported on the findings of a single randomized trial. The trial was conducted in 40 hospitals of China. Hereafter,Li et al. 2015[146]will be used to describe the findings extracted from the

51

studyalthough data were extracted from all the six articles to get complete information. In addition, another before and after study (Williams et al. 2006[152]) was conducted in China.The other studies were conducted in Chile (Norret al. 2012[153]); India (Mahendra et al.2006[154]);Vietnam (Pulewitz et al. 2015[13]and Oahnet al.2008[155]); Egypt (Lohiniva et al. 2016[156]); USA (Zachary1998[157]) and one study was a multi-country case study (Uyset al.2009[158]) (Table 4). Pulewitz et al.2015[13] and Oahn et al.2008[155] both reported on a single study. For reporting purpose, hereafter, I will use Pulewitzet al.2015.[13]The characteristics of the included studies are shown in Table 4.

**Table 4. Study characteristics**

| Study ID | Study location | Category of intervention | Type of intervention versus comparison | Participants | Follow up duration | Level of implementation | Domain of stigma | Outcomes |
|---|---|---|---|---|---|---|---|---|
| Li et al. Li et al. 2015[146] | China | Information-based, skillsbuilding and structural | Identifying and training POL through group discussion, games, and role-play versus usual care (supplies provided for both arms) | 1740 (880 control and 880 intervention) HCWs from 40 hospitals | 12 months | Organizational, individual | Driver, facilitator | Prejudicial attitude, avoidance intent, adherence to universal precaution, and institutional support |
| Lohiniva et al. 2016[156] | Egypt | Information-based, skillsbuilding and contact | Interactive training and discussion focusing on HIV-related stigma, infection control and medical ethics combined with contact with PLHIV (5 modules) | 347 (203 intervention and 144 control) HCWs from 2 hospitals | 4 months | Individual | Driver | Value-based stigma, fear-based stigma |
| Norret al. 2012[153] | Chile | Information-based | 8 sessions of professionally assisted peergroup intervention | 555 (293 control and 262 intervention) HCWs from 5 clinics | 3 months | Individual | Driver | Public contact stigma, client contact stigma, blame |
| Mahendra et al. 2006[154] | India | Information-based, skillsbuilding, structural, contact and biomedical approach | Participatory self-guided assessment and intervention with training, development and dissemination of guidelines and educational materials on infection control | 884 HCWs in pre-test and 885 HCWs post-test from 3 hospitals | 6-months | Organizational, individual | Driver, facilitator, manifestation | Stigmatizing beliefs and practices |
| Pulewitzet al. 2015[13] | Vietnam | Information-based, skillsbuilding, structural and contact | Arm 1: 1-day workshop and 1.5-day training on HIV/AIDS basic knowledge and universal precaution | 795 HCWs at baseline and 797 HCWs at end line | 6 months | Organizational, individual | Driver, facilitator, manifestation | Fear-based stigma, social stigma, enacted stigma |

53

| | | | Arm 2: SAD in addition to interventions in Arm 1 | | | | | |
|---|---|---|---|---|---|---|---|---|
| Williams et al. 2006[152] | China | Information-based, skillsbuilding | A 5-day workshop comprising didactic lectures | 180 nurses at baseline and 180 nurses post intervention | 5 days | Individual | Driver | AIDS attitude, willingness to carry out nursing activities for PLHIV |
| Uys et al. 2009[158] | Lesotho, Malawi, South Africa, Swaziland, and Tanzania | Information-based, skillsbuilding, and contact | A 2-day workshop bringing PLHIV and nurses together | 43 nurses and 41 PLHIV | 1 month | Organizational, individual | Driver, manifestation | stigma, self-efficacy and self-esteem |
| Zachary1998[157] | USA | Information-based | A 1-hour group education on homophobia and fear of death | 35 nurses in one medical Centre | Only post intervention data (No follow up) | Individual | Driver | AIDS phobia, homophobia |

NB: POL: Popular opinion leaders, HCWs: Healthcare workers, SAD: Stigma and discrimination,HIV: Human immunodeficiency virus, PLHIV: People Living with HIV, USA: United States of America, AIDS: Acquired immunodeficiency syndrome.

### 4.8.2. Methodological quality of individual studies

Six articles (Li et al. 2013a;[147] Li et al. 2013b;[148] Li et al. 2013c;[149] Li et al 2014a;[150] Li et al. 2014b;[151] and Li et al. 2015[146]) reported on the findings of a single randomized trial. None of the included articles clearly described the method of randomization and allocation concealment. Three studies (Norr et al. 2012;[153] Lohiniva et al. 2016[156]and Pulewitz et al. 2015[13]) were non-randomized trials with control groups. Two before and after trials without control groups (Williams et al. 2006[152] and Zachary1998[157]) had post intervention data taken from the same cohort of participants as those of baseline participants. One study (Uys et al. 2009[158]) was a multiple-case study design reporting on the same cohort of nurses and PLHIV before and after the intervention. One before and after study without a control group (Mahendra et al.2006[154]) reported on independent cross-sectional samples from the same institution. The study did not identify and control for confounding factors.

Participant blinding is not practical for such behavioral interventions. Hence, none of the studies described blinding of participants or assessors, and outcome concealment. However, five of the studies (Li et al. 2015;[146] Lohiniva et al.2015;[156] Pulewitzet al.2015;[13] Norret al. 2012[153] and Zachariah1998[157]) used self-administered questionnaires.Five studies (Lohiniva et al 2016;[156] Williams et al.2006;[152] Pulewitz et al. 2015;[13] Mahendraet al. 2006[154] and Uys et al. 2009[158]) were judged to have unclear or a high risk of bias on outcome assessment,

because either there was significant loss to follow up or inadequate information (Lohinivaet al. 2016[156] and Williams et al. 2006[152]), or they used repeated cross-sectional samples with different samples (Mahendra et al. 2006[154]) or there was a considerable proportion of participants within completedatawho were excluded from analyses (Pulewitz et al. 2015[13]).Overall, the included RCT (Li et al. 2015[146])scored 8/13. One of the quasi-experimental studies (Norr et al. 2012[153]) scored 9/13. Four studies ((Lohiniva et al. 2016;[156] Williams et al. 2006[152]and Pulewitz et al. 2015[13]) scored 8/9. One repeated cross-sectional study (Mahendra et al. 2006[154]) scored 6/8. The multiple case study (Uys et al. 2009[158]) was given a score of 8/10. Summaries of assessment scores are presented in Tables 5-8.

**Table 5. Methodological quality of randomized controlled trails**

| S/n | Study ID | Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Total of 'yes' scores |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  | Li et al. 2015 | U | U | Y | U | U | U | Y | Y | Y | Y | Y | Y | Y | 8 |

**NB**: Y=Yes, U=unclear, NA=not applicable

Q1. Was true randomization used for assignment of participants to treatment groups?
Q2. Was allocation to treatment groups concealed?
Q3. Were treatment groups similar at the baseline?
Q4. Were participants blind to treatment assignment?
Q5. Were those delivering treatment blind to treatment assignment?
Q6. Were outcomes assessors blind to treatment assignment?
Q7. Were treatments groups treated identically other than the intervention of interest?
Q8. Was follow-up complete, and if not, were strategies to address incomplete follow-up utilized?
Q9. Were participants analyzed in the groups to which they were randomized?
Q10. Were outcomes measured in the same way for treatment groups?
Q11. Were outcomes measured in a reliable way?
Q12. Was appropriate statistical analysis used?
Q13. Was the trial design appropriate, and any deviations from the standard RCT design (individual randomization, parallel groups) accounted for in the conduct and analysis of the trial?

**Table 6. Methodological quality of quasi-experimental studies**

| S/n | Study ID | Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Total of 'yes' scores |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | Lohinva et al. 2015 | Y | Y | Y | Y | Y | N | Y | Y | Y | 8 |
| 2. | Norr et al. 2012 | Y | Y | Y | Y | Y | Y | Y | Y | Y | 9 |
| 3. | Pulewitz et al. 2015 | Y | Y | Y | Y | Y | N | Y | Y | Y | 8 |
| 4. | Williams et al. 2006 | Y | Y | Y | N | Y | U | Y | Y | Y | 8 |
| 5. | Zachariah 1998 | Y | Y | Y | N | Y | Y | Y | Y | Y | 8 |

**NB**: Y=Yes, U=unclear, NA=not applicable

Q1. Is it clear in the study what is the 'cause' and what is the 'effect' (i.e. there is no confusion about which variable comes first)?

Q2. Were the participants included in any comparisons similar?

Q3. Were the participants included in any comparisons receiving similar treatment/care, other than the exposure or intervention of interest?

Q4. Was there a control group?

Q5. Were there multiple measurements of the outcome both pre-and post the intervention/exposure?

Q6. Was follow up complete and if not, were differences between groups in terms of their follow up adequately described and analyzed?

Q7. Were the outcomes of participants included in any comparisons measured in the same way?

Q8. Were outcomes measured in a reliable way?

Q9. Was appropriate statistical analysis used?

## Table 7. Summary score for methodological quality of repeated cross-sectional studies

| Study ID | Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Total of 'yes' scores |
|---|---|---|---|---|---|---|---|---|---|
| Mahendra et al. 2006 | Y | Y | Y | Y | N | N | Y | Y | 6/8 |

**NB:** Y=Yes, U=unclear, NA=not applicable
Q1. Were the criteria for inclusion in the sample clearly defined?
Q2. Were the study subjects and the setting described in detail?
Q3. Was the exposure measured in a valid and reliable way?
Q4. Were objective, standard criteria used for measurement of the condition?
Q5. Were confounding factors identified?
Q6. Were strategies to deal with confounding factors stated?
Q7. Were the outcomes measured in a valid and reliable way?
Q8. Was appropriate statistical analysis used?

## Table 8. Summary score for methodological quality of case series studies

| Study ID | Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Total of 'yes' scores |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Uys et al 2009 | Y | Y | Y | NA | Y | Y | NA | Y | Y | Y | 8 |

**NB:** Y=Yes, U=unclear, NA=not applicable
Q1. Were there clear criteria for inclusion in the case series?
Q2. Was the condition measured in a standard, reliable way for all participants included in the case series?
Q3. Were valid methods used for identification of the condition for all participants included in the case series?
Q4. Did the case series have consecutive inclusion of participants?
Q5. Did the case series have complete inclusion of participants?
Q6. Was there clear reporting of the demographics of the participants in the study?
Q7. Was there clear reporting of clinical information of the participants?
Q8. Were the outcomes or follow up results of cases clearly reported?
Q9. Was there clear reporting of the presenting site(s)/clinic(s) demographic information?
Q10. Was statistical analysis appropriate?

### 4.8.3. Findings of the studies

Interventions used in studies included in this review fell under five general categories: information-based interventions; structural interventions, biomedical interventions, and skillsbuilding and contact strategies. Most studies utilized more than one of the above general categories of interventions. One study (Mahendra et al2006[154]) used all of the five categories of interventions in combination (information-based, skillsbuilding, structural, contact and biomedical approaches). One study (Pulewitz et al. 2015[13]) utilized a combination of information-based, skillsbuilding, structural and contact approaches. Two studies (Uys et al. 2009[158] and Lohiniva et al. 2016[156]) used a combination of information-based, skillsbuilding, and contact approaches. One study (2015[146]) utilized a combination of information-based, skillsbuilding and structural approaches. One study (Williams et al. 2006[152]) utilized a combination of information-based and skillsbuilding approaches. The remaining two studies (Norret al. 2012[153]and Zachary1998[157]) utilized only information-based intervention.

Since the design, duration of follow up and instruments used to measure the effect of the interventions were not uniform, I could not compare one type of intervention with another nor multiple interventions with a single intervention. Ialso could not pool the findings of the studies using meta-analysis. Nevertheless, I present the findings of the studies along with their respective quality of evidence.The details of the intervention and their effects are described in detail below.

### a. Training popular opinion leaders

The study by Li et al.[146]identified and trained popular opinion leaders (POLs)through group discussions, games, and role-play. The POLs attended a 1.5-hour weekly group training session run for four weeks and fortnightly re-union sessions. Materials for universal precaution were supplied in both control and intervention hospitals. The authors took data from 880 HCWs of 20 intervention hospitals (where POLs were trained) and from another 880 HCWs from 20 control hospitals.

An avoidance intent was measured using a five-point Likert-scale that asked HCWs about their willingness to treat PLHIV in eight scenarios. Higher scores indicated a higher intent to avoid service provision to PLHIV. The intervention effect on avoidance intent was sustained even at 12 months follow up. At 12 months, avoidance intent among HCWs in the intervention hospitals was significantly lower (mean difference (MD)=-1.87 [95% CI -2.05 to -1.69]) when compared to that of healthcare workers in control hospitals (P<0.01). Prejudicial attitude was measured using eight items rated on the five-point Likert scale. However, only effect estimate was reported.At 12 months, the prejudicial attitude among healthcare workers in the intervention hospitals was significantly lower (MD=–3.77[95% CI -5.4 to -2.09]) when compared to that of HCWs in control hospitals (P<0.01). Universal precaution (UP) was measured using 13 items with responses ranging from 0 (never) to 4 (always) on Likert scale. Higher scores indicate higher levels of adherence to UP.Compliance to Universal precautionwassignificantly higher among HCWs in the intervention group (MD=1.65 [95% CI 1.41 to 1.89]) when compared to HCWs assigned to usual care (P<0.01) [moderate quality of evidence].

### b. Modular interactive training and discussion

The study by Lohiniva et al.[156]conducted an interactive training and discussion intervention focusing on HIV-related stigma, infection control and medical ethics using five modules.The intervention was complemented by interaction with PLHIV. The authors assessed the effect of the training taking pre-intervention and post-intervention data from the same cohort of

participants. They used 12 items to measure fear-based stigma. Nine items were used to measure value-based stigma. Both scales were standardized to obtain scores ranging from 1 to 10. For both scales higher scores indicated higher levels of stigma. At the post-intervention survey, the participants from the experimental group reported significantly lower levels of value-based stigma (mean= 2.1) when compared to participants in the control group (mean=3.8)(MD=-1.7, P<0.01, CI was not given). Similarly, fear-based stigma was significantly lower among participants in the experimental group (mean=1.1) when compared to that of participants in the control group (mean=3.2) (MD=-2.1, P<0.01, CI was not given) [very lowquality evidence].

c. **Professionallyassisted peergroup intervention**

The study by Norr et al.[153]conducted eight sessions of professionallyassisted peergroup interventions. The sessions covered (a) the importance of community HIV prevention; (b) standard precautions in the healthcare setting; (c) HIV testing and treatment; (d) offering care that respects human dignity and confidentiality; (e) human sexuality, sexual transmission of HIV and other sexually transmitted infections (STIs), and HIV transmission through drug use and blood; (f) partner communication and HIV prevention;(g) counselling about HIV infection; and (h) HIV prevention to clients and families using roleplays.

To assess the effect of the intervention, pre-and post-intervention measurements were made for both control and intervention groups. Public contact stigma was measured using three items on the four-point Likert scale. Since mean item score (instead of the mean scale score) were reported possible scores ranged from 1 to 4. Client contact stigma was measured using three items on the three-point Likert scale. Since mean item scoreswere reported possible scores ranged from 1 to 3. For both scales, higher scores indicated a higher level of stigma.After the intervention, the level of client contact stigma among participants in the intervention group was significantly lower [MD=-0.28 (95% CI -0.37 to -0.19)] (P<0.01)[very lowquality of evidence]. Similarly, public contact stigma among the intervention group was significantly lower (MD=-0.07(95% CI -0.12 to -0.02) (P<0.01) [very lowquality of evidence].

d. **Staff training, participatory hospital policy development, provision of materials and supplies, and expansion of HCT services**

  1. *Participatory self-guided assessment and intervention with training and the development and dissemination of policy guidelines and educational materials*

The study by Mahendra et al.[154]conducted a participatory self-guided assessment and intervention with interactive training facilitated by representatives of AIDS service organizations (including PLHIV),which involved the development and dissemination of policy guidelines and educational materials, such as posters on infection control and expansion and strengthening of HIV counseling and testing (HCT) in three hospitals. The effect of the intervention was measured using an index score of stigma that could range from a minimum of 21 to a maximum of 63, a higher score indicating greater stigma. They assessed the effect of the intervention using repeated cross-sectional surveys. After the intervention, there was a significant decrease in stigma score from 42.79 at baseline to 38.08 after the intervention (MD=-4.72, CI not given, P<0.01) [very lowquality evidence].

In addition, the risk of seeking informed consent was 2.14 (95%CI1.17 to 3.91) times higher after the intervention when compared to the risk before the intervention (P<0.01) [very lowquality evidence].Therisk of using gloves after the intervention was 7.81 (95% CI 3.64 to 16.76) times higher after the intervention when compared to the risk before the intervention (P<0.01) [very lowquality evidence].

## 2. *Staff training, participatory hospital policy development and provision of material supplies*

The study by Pulewitz et al.[13]compared the effect of addressing fear-based stigma alone (arm 1) to that of addressing both fear-based stigma and social stigma (stemming from moral judgments) (arm 2) through interventions that encompassed staff training, participatory hospital policy development and provision of materials and supplies. Healthcare workers in arm 1 received interventions that addressed only fear-based stigma. The interventions included a half-day training on basic knowledge of HIV/AIDS and a one-day training on universal precaution. Healthcare workers in arm 2 received interventions that addressed both fear-based stigma and social stigma. The training for arm 2 participants encompassed basic knowledge of HIV, universal precaution and stigma. The authors reported that both interventions had significantly reduced stigma.

The authors measured fear-based stigma using four items with alternative responses ranging from 1 (no fear) to 3 (a lot of fear). Hence, the composite score ranged from 4 to 12. Social stigma was measured using five items, each having a score range of 1 to 3. The composite score ranged from 5 to 15. In both scales, higher scores indicated a higher level of stigma. After the intervention, HCWs exposed to interventions that addressed both fear-based stigma and social stigma had significantly lower scores (MD=-0.37, 95% CI -0.54 to -0.21) in fear-

based stigma when compared to those HCWs exposed to interventions that addressed only fear-based stigma (P<0.01) [Very lowquality evidence]. On the other hand, there was no statistically significant difference in social stigma (MD=-0.14, 95% CI -0.43 to 0.15) between the two intervention groups[very lowquality evidence].

The odds of over-using barriers was 46% (OR 0.54 (95 % CI 0.31 to 0.91) lower among HCWs exposed to interventions addressing both fear-based and social stigma when compared tothose ofHCWs exposed to intervention that addressed fear-based stigma alone (P<0.01) [Very lowquality evidence]. The odds of marking files of HIV positive clients was 46% (OR 0.54 (95 % CI 0.29 to 1) lower among HCWs exposed to interventions addressing both fear-based and social stigma when compared to those of HCWs exposed to interventions that addressed fear-based stigma alone(P<0.01) [very lowquality evidence].

The odds of marking files of HIV positive clients was 46% (OR 0.54 (95 % CI 0.29 to 1) lower among HCWs exposed to interventions addressing both fear-based and social stigma when compared to those of HCWs exposed to intervention that addressed fear-based stigma alone [very lowquality evidence].The odds of putting signs on bed indicating HIV status was 75% (OR 0.25 (95 % CI 0.07 to 0.87)) lower among HCWs exposed to interventions addressing both fear-based and social stigma when compared to those of HCWs exposed to interventions that addressed fear-based stigma alone (P<0.01) [very lowquality evidence].

e. **Multifaceted educational programs comprising didactic lectures and activities eliciting discussions**

The study by Williams et al.[152]investigated a five-day workshop comprising didactic lectures on HIV/AIDS epidemiology, natural history, transmission routes and clinical care combined with activities that provoked discussion of participants' values and personal feelings about HIV/AIDS.To measure the effect of the intervention, both empathyand avoidance attitude scores ranged from 1 to 6. Higher scores in empathy and lower scores in avoidance attitude indicated a more desirable attitude.General attitude score was calculated by substracting the avoidance score from the empathy score. It ranged from -5 to 5. Positive and negative general attitude scores suggested a supportive attitude and a negative attitude respectively.The nurses' willingness questionnaire (NWQ) was used to measure the willingness of nurses to perform activities on HIV positive patients. This questionnaire comprised 13 items measured on the 11-point Likert scaleranging from 0(not all willing) to 10 (extremely willing).Hence the scoresranged from 0 to 130.

The intervention resulted in significant improvement in empathy (MD=0.2 (CI not given, P<0.01); reduction in avoidance attitude (MD=-0.4, CI not given, P<0.01) and improvement in general attitude towards PLHIV (MD=0.6, CI not given, P<0.01) and willingness to care for PLHIV (MD=13, CI not given, P<0.01). [Very low quality of evidence]

## f. Contact strategy: Workshops bringing PLHIV and Healthcare workers together

The study by Uyset al.[158]conducted a two-day workshop that brought PLHIV and nurses together using a multi-country case study. The authors measured self-esteem using Rosenberg's self-esteem scale, which consists of ten items rated on a four-point Likert scale. Scores could range from 10 to 40. Stigma among PLHIV was measured using 33 items. It had six domains: verbal abuse, negative self-perception, healthcare neglect, social isolation, fear of contagion and workplace stigma. The HIV/AIDS stigma instrument for nurses that contained 19 items was used to measure stigma among nurses. The authors reported stigma items in mean scores, but did not indicate the possible ranges for mean scores.

After the intervention, there was a significant increase in self-esteem (MD=2.12 (95% CI 0.18 to 4.06)) (P<0.05), decrease in workplace stigma [MD=-0.31 (95% CI -0.61 to -0.01)) (P<0.05), total stigma score (MD=-0.17 (95% CI -0.35 to -0.01))(P<0.01), and negative self-perception (MD=-0.46 (95% CI -0.81 to -0.11)) (P<0.01) among PLHIV[Very lowquality evidence]. On the other hand, there was no significant effect observed on verbal abuse (P=0.38), healthcare neglect (P=0.24), social isolation (P=0.51) and fear of contagion (P=0.29).Similarly, there was no significant change in nurses' stigmatizing attitudes (MD=0.07 (95% CI -0.04 to 0.18)) (P=0.37) [very lowquality evidence].

## g. Group education on homophobia and fear of death

The study by Zachary1998[157]used group education on homophobia and fear of death. The study measured AIDS phobia using 15 items rated on the five-point Likert scale. Hence, the score could range from 15 to 75. The intervention did not result in a significant reduction in AIDS phobia (MD=0.03 (-3.13 to 3.19) (P=0.94). [Very lowquality evidence]

## 4.9. Discussions

This systematic review attempted to locate, critically appraise and describe the best available evidence on interventions to reduce HIV-related stigma and discrimination in healthcare settings among HCWs. Studies included in this review employed different measures, intervention types and durations of interventions. Hence, I could not pool the results of the primary studies using meta-analysis.

Previous reviews categorizedSADreduction interventions into the following categories:information-based; structural, biomedical, counseling and support, skillsbuilding and contact.[2, 133, 136]Most studies included in this review used a combination of two or more interventions to reduce stigma and discrimination in healthcare settings. Information-based approaches used in the studies included in the current review were:

a. Training popular opinion leaders through group discussions, games, and role-play.[146]

b. Professionallyassisted peergroup intervention.[153]

c. Group education on fear of death and homophobia.[157]

d. Interactive modular training and discussion focusing on HIV-related stigma, infection control, medical ethics and contact with PLHIV.[156]

e. Workshops,[152, 158] training and dissemination of policy guidelines and educational materials, such as posters on infection control.[13, 154]

These information-based approaches were used alone[153, 157]or in combination with others. Among the combinations were: information-based approaches combined with skillsbuilding and structural approaches.[146]

information-based approaches combined with skillsbuilding and contact-based approaches;[156]information-based approaches combined with skillsbuilding, structural, contact and biomedical approaches;[13] information-based approaches combined with skillsbuilding, structural and contact-based approaches; [158] and information-based with skillsbuilding approaches.[152]

Although some results reached statistical significance, because of the poor design of the studies, most of the interventions were assigned low or very lowquality evidence. Only outcomes reported in one intervention (identifying and training popular opinion leaders, in the presence of adequate supplies) was assigned a moderatequality evidence.This intervention was reported by Li et al.[146]The study used both an information-based and structural approach to reduce SAD. The intervention employed diffusion of innovation theory to disseminate information to correct misconceptions related to PLHIV2015.[146]

The intervention was effective in reducing avoidance intent and prejudicial attitudes and in improving compliance to universal precaution. This indicates that structural interventions (availing materials for standard precaution) alone are not sufficient, whichhighlights the necessity of complementing structural interventions with behavioral interventions.

As reported in one study, interventions addressing fear-based stigma reduction through training on basic knowledge of HIV and universal precautionswere effective in reducing

both social stigma and fear-based stigma.[13]However, the study showed that the effect of the interventions that addressed both fear-based and social stigma was significantly higher in reducing fear-based stigma and extraprecaution when compared to interventions addressing fear-based stigma alone.[13]This implies that behavioral interventions targeting stigma and discrimination among healthcare providers should address prejudices and social stigma that may also be part of wider cultural beliefs.[137]Apart from equipping healthcare providers with knowledge and skills, it is paramount to address their emotions.[159]

The outcomes reported by all other interventions were assigned very lowquality evidence. These interventions were modular interactive training and education on HIV/AIDS,[156]professionallyassisted peergroup interventions,[160]participatory self-guided assessment and interventions,[154] workshops that included didactic lectures,[152] and contact-based strategies combined with information provision.[158]All these interventions resulted in statistically significant reductions in stigma scores. As well, a study that used group education on homophobia reported no significant change on AIDS phobia after the intervention.[157]On the other hand, the poor design of the studies included in this review and the poor quality of evidence supporting most of the findings underscores that more rigorous studies such as RCTs are needed to make appropriate decisions for policy and practice.

This review identified five categories of stigma and discriminationreduction interventions: information-based, skillsbuilding, structural, contact and biomedical interventions. Unlike other previous reviews,[2, 133, 136] in this review we did not identify any study conducted among HCWs reporting on counseling and support approaches to SADreduction. This may be because, unlike other population groups,HCWswere not provided counseling and support interventions to cope with secondary stigma (stigma that they may face because of their association with PLHIV).

On the other hand, previous studies indicated that HCWs themselves face secondary stigma as a result of their association with PLHIV.[161, 162]It wasalso shown that HCWs living with HIV faced perceived or actual SAD from colleagues or the community.[161]It was demonstrated that counseling and support interventions helped to minimize the negative psychosocial impact of HIV-related SAD on clients living with HIV and their families.[134-136, 140, 163, 164]

After I completed this review one meta-analysis and systematic review was published. The study indicated that stigma and discriminationreduction programs resulted in small effect sizes in the improvement of attitudes towards PLHIV.[165] Nevertheless, the subgroup analysis

indicated that effect sizes were moderated by the settings in which the intervention was conducted, population type and number of intervention sessions.[165]The review hadalimitation in that it was not focused enough with regard to settings, intervention type and population type. Other previous reviews on HIV-related SAD did not provide a focused summary of SAD reduction interventions for specific population groups and settings and an indication of the quality of the findings and the pooling the results of the primary studies to inform policy and practice.[2, 133, 136]Although, I could not pool the findings of the studies in the current review because of the heterogeneity of the interventions and outcome measures, I have indicated the quality of evidence for findings reported in this review.These summarized findings may guide policy makers, practitioners and researchers to make appropriate decisions. Nevertheless, the poor quality of evidence supporting most of the findings poses a challenge especially for practitioners and policy makers.

Most studies were excluded from this review because of poor quality of evidence, mainly related to measurement bias. Therefore, future studies need to fill these gaps. As has been recommended in previous systematic reviews,[2, 133] it is important to focus on the design of the studies, which includes working to improve the internal validityof the studies and usingvalidated instruments to measure SAD.[2, 133, 134, 136]In addition, there was variability among the measures used in the studies included in the review. This might have been attributed to the absence of standardized measurements. Future studies may fill these gaps as efforts are being made to develop standard tools and instruments to reduce SAD and to monitor these efforts.[6]This, however, will be possible only if the researchers are aware of the recent developments in measurements and scales. Moreover, further study is needed to identify working interventions to reduce internalized stigma and secondary stigma among HCWs.

## 4.10. Conclusion

**Implications for practice:** Moderatequality evidence indicates that training popular opinion leaders is effective in reducing avoidance intent and prejudicial attitude and improving compliance to universal precaution. Very lowquality evidence indicates that interventions addressing both fear-based stigma and social stigma are more effective in reducing fear-based stigmaand extra-precautions when compared to interventions addressing only fear-based stigma.Very low quality evidence indicates that the following are effective in reducing stigma-related outcomes: a) professionallyassisted peergroup interventions, b) modular interactive training and discussions, c) participatory self-guided assessment and

interventions, d) contact strategy with information giving and empowerment, e) workshops comprising didactic lectures. When utilizing the evidence from the current review in policy making and in practice, it is vital to consider the quality of evidence supporting the findings and the limitations of the primary studies reported.

**Implications for research:** Further RCTs are needed to provide evidence that guides interventions to reduce HIV-related stigma and discrimination in healthcare settings. Future trials need to use up-to-date stigma instruments to measure stigma and discrimination. Studies are needed to address internalized stigma and secondary stigma among healthcare providers. Further attempts should be made to standardize measures for stigma and discrimination related to HIV.

# CHAPTER FIVE

# THE DEVELOPMENT OF GUIDELINE RECOMMENDATIONS TO REDUCE HIV-RELATED STIGMA AND DISCRIMINATION IN HEALTHCARE SETTINGS

## 5.1. Chapter overview

This chapter describes the process involved in the development of a guideline to reduce stigma and discrimination (SAD) related to the human immunodeficiency virus (HIV). In addition to a systematic search for literature presented in previous chapters, the development of the guideline as part of this PhD project involved establishment of a guideline panel, determining the scope of the guideline, and assessment and analysis of evidence to develop a tentative list of recommendations. The details of the methodological procedures and the results of this process are described in this chapter.

## 5.2. Abstract

**Concise introduction**

The lack of awareness among healthcare workers (HCWs) of what stigma looks like and why it is damaging; thefear of casual contact stemming from incomplete knowledge about HIV transmission; and the association of HIV with improper or immoral behavior have contributed to the continued presence of SAD inhealthcare settings.

**Objective**

The objective of this project was to develop guideline recommendations to reduce HIV-related SAD.

**Methods**

Experts were invited through e-mails, telephone and personal contacts to establish the guideline panel. The established panel was then consulted through informal and formal meetings to determine the scope of the guideline. A content analysis of the included documents was conducted to develop initial tentative guideline recommendations. Strength and quality of evidence were assigned for each recommendation using a software package developed by Grading of Recommendations, Assessment, Development and Evaluation (GRADE)working group.

**Results**

A multidisciplinary panel consisting of 13 experts was established. The experts stressed the necessity of developing a guideline to reduce HIV-related SAD in healthcare institutions. Some of them mentioned that having such a guideline is one of the institutional and

programmatic performance criteria for their institution and that to date their institutions had not developed one. The panel then determined the scope of the guideline. They suggested that the guideline should target both HCW behaviors and attitudes and institutional practices and programs. Then an initial list of 31tentative recommendations was drafted through acontent analysis of included documents. The initial recommendations were framed under the following themes: structural, information-based and skillsbuilding, contact and empowerment, biomedical, measurement of SAD, and steps to integrate SAD reduction into healthcare settings.

**Conclusion**

Tentative recommendations were drafted based on the best available global evidence. The tentative recommendations were framed under the following themes: structural interventions, information-based andskillsbuilding interventions, contact and empowerment, biomedical interventions, measurement of stigma and discrimination, and steps to integrate SADreduction into healthcare settings. The appropriateness of these recommendations to the local context required further evaluation.

## 5.3. Concise introduction

People living with the human immunodeficiency virus (HIV) are confronted with the physical, psychological and social impacts of the disease.[34, 166-169] Stigma and discrimination (SAD) also called the "third phase of HIV/AIDS", have been one of the challenges facing stakeholders working on the prevention and control of HIV.[170]Stigma and discrmination related to HIV are manifested in various forms such as: differential care or refusal to treat, testing and disclosure of the sero-status of clients without consent, verbal abuses or gossip, marking the files of patients, isolating them and excessive use of precautions.[57, 58]

Lack of awareness among healthcare workers (HCWs) of what stigma is and why it is damaging, fear of casual contact because of incomplete knowledge about HIV transmission and the association of HIV with improper or immoral behavior have contributed to the continued presence of stigma and discrimination in healthcare settings.[2]Institutional factors such as shortages of supplies and lack of training programs, lack of appropriate policies, guidelines, standards and regress systems to address SADalso contributed to the continuation ofSAD-related to HIV.[2]These problems underscore the necessity of guidelines and evidence-informed interventions to tackle SAD and promote uniform practice among healthcare workers.[57, 65, 124, 125]

Cognizant of this, organizations have been working to reduce SAD related to HIV in the last few decades.[171, 172] As part of the approach, countries have responded to HIV-related SAD through changing legislation related to HIV and PLHIV and supportingSADreduction interventions.[173] Part of the global response has been developing resource materials that guide SADreduction interventions. However, some of these materials and toolsare too broad and not context and populationspecific.[7, 129] Although guidelines and best practices developed to reduce SADreduction in healthcare settings contain resources for implementation and monitoring,[6] most of them lack detailed description on their methods of development.[132]Hence, it is difficult to judge whether these guidelines have been systematically developed or not. This poses a challenge in making an informed choice in prioritizing the interventions. To this end, we have developed an evidence-informed guideline to reduce HIV-related SAD in healthcare settings.

## 5.4. Objectives

The objective of this project was to develop guideline recommendations to reduce HIV-related SAD. Specifically, the project aimed

- To establish a guideline panel comprising a multidisciplinary team of experts
- To determine the scope of the guideline
- To draft guideline recommendations

## 5.5. Methods

This section describes methods specific to this chapter, which comprises establishment of the guideline panel, determining the scope of the guideline, and assessment and analyses of evidence and developing a tentative list of recommendations.

### 5.5.1. Establishing the guideline panel

I established a guideline panel that comprised researchers, program managers andHCWsthrough the assistance of the Jimma University HIV Prevention and Control Office (JUHAPCO) coordinator. I requested JUHAPCO coordinator to identify local experts working on HIV and he also identified some experts with experience in systematic reviews and HIV-related research. I asked these experts for their willingness to be part of a guideline panel through e-mail, telephone and personal contacts using an invitation form shown in Appendix 14.

I invited experts who were willing to be part of the panel to a half-day meeting held on July17, 2016 and the guideline panel membership was formally established. I told them the

necessity of declaring conflicts of interests before contributing towards the development of the guideline. I sent all of them a declaration of conflicts of interest form (Appendix 15)in which they declared potential conflicts related to the guideline.

**Roles of the panel members**

Some members of the panel helped me through the provision of information on existing guidelines. All panel members assisted me in determining the scope of the guideline and developing research questions.Since panel membership was based on voluntary contributions, I asked some of the panel members having experience or knowledge of systematic reviews to contribute to the appraisal of documents retrieved through the literature search. In phase 3, all the panel members evaluated the draft guideline using the Guideline Implementability Appraisal (GLIA) v.2.0 checklist.[174] This is described in the following chapter (chapter six).

### 5.5.2. Determining the scope of the guideline

The scope of the guideline was informed through systematic reviews and informal and formal consultationswith experts. I asked the experts whether they knew any existing local guidelines on the reduction of stigma and discrimination.

### 5.5.3. Development of guideline recommendations

I mapped and extracted recommendations and interventions from the review of guidelines, best practice tools and systematic reviews reported in chapter three and a systematic review of primary studies reported in chapter four. The development of the guideline recommendations involved an iterative process of data extraction, appraisal of linked evidence and drafting of tentative recommendations. A content analysis of the body of evidence reported in chapter three and chapter four was undertaken to describe interventions effective in reducing HIV-related stigma and discrimination in a conceptual form.[98]

#### 5.5.3.1. *Content analysis*

I used a content analysis to identify and describe effective interventions to reduce HIV-related stigma and discrimination, and to produce recommendations. The project did not start with an*a-priori* matrix or framework to be tested. Rather, the project tried to develop a framework from the data extracted from the evidence (guidelines, systematic reviews and primary studies) retrieved through systematic reviews. In such circumstances, an inductive content analysis is preferred. Hence, I conducted an inductive approach content analysis.

The advantage of inductive (conventional) content analysis is that knowledge generated is grounded in the actual data and reduces bias that results from preconceived theories.

However, this approach may fail to identify key categories.[99] This limitation was accepted in this project. This is because it was assumed that there were interventions yet to be formally investigated or that had been underreported or investigated with poor design and might not have been identified as effective interventions in the current project.Inductive content analysis includes open coding (generating codes while reading), creating categories and abstraction.[98]

A content analysis of the included units of evidence reported in chapter three and chapter four was carried out. As indicated in chapter three, most of the guidelines, best practices and systematic reviews did not allow us to draw recommendations to develop a list of recommendations. Hence, the details of primary evidence linked to the guidelinerelated documents and systematic reviews were further examined.The primary studies of the reported guidelines, best practices and systematic reviews reported in chapter three were examined only if they are related to interventions targeting HCWs.

In general, the process involved the following steps:

1. Identifying content, unit of analysis and meaning of the content
2. Listing a tentative list of documents
3. Re-analysis of the content (the initial recommendations)which involved condensing and abstracting the contents and developing a content area, codes, categories and themes to assist conceptualization and describing working recommendations.[98]

**Identifying content, unit of analysis and meaning of a content**

I repeatedly read the selected units of evidence to achieve immersion and to obtain the sense of the whole data. I gave attention to the nature of the interventions, the settings in which they were conducted, populations involved and design of the studies.While extracting data from the documents, I considered the following parameters:

a. Content of the intervention,
b. Duration and intensity of the interventions,
c. Mode of delivery (individual or group),
d. Context (healthcare settings,home) and level (individual, interpersonal, organizational) in which the intervention was delivered,
e. Recipients (HCWs, health managers, healthcare institutions, PLHIV and
f. Acceptability of the interventions in the local context.

Then, I described interventions effective in reducing HIV-related SADamong HCWs in a conceptual form.[98]I did not extract interventions that were not specific to HIV-related SAD,

such as, stigma related to mental health, leprosy or other diseases or conditions. In addition, I did not extract interventions that were not relevant to healthcare settings or interventions not related to health professional's professional responsibility to help the patient. For example, I did not consider SADreduction interventions in the general community and in faith-based organizations. Moreover, I did not extract recommendations from studies that utilized single separate items without creating a scale or composite score if invalidated instruments were used to measure stigma and other attitudinal outcomes.

I further assessed data extracted from the primary studies for quality of evidence using the GRADEpro GDT software package. I then developed recommendations based on the nature of the interventions, participants and settings in which the interventions were conducted. However, I did not assign any quality of evidence for recommendations that were not supported by research evidence were not assigned any quality of evidence. Finally, I assigned grades of recommendations for each recommendation. For each recommendation, along with the panel members, I assigned strength and quality of evidence except for interventions not supported by research evidence.

The strength of a recommendation reflects the extent to which one can be confident that the desirable effects of the recommended actions outweigh the undesirable effects.[21, 175, 176]The World Health Organization (WHO) handbook for guideline development provides four criteria to judge the strength of recommendations: a) quality of evidence. b) balance of benefits versus harms, c) values and preferences and d) resource use.[177] In line with these four criteria,the GRADEpro GDT software package has four parameters. These parameters include: a) absence of high quality evidence, b) uncertainty of balance of benefits and harm/burdens, c) uncertainty or different values and preferences, and d) uncertainty that net benefits are worth the costs.[21] Hence, each recommendation was assigned either a "yes" or a "no" score for each of these four parameters. The panel decided on each parameter based on evidence from literature, and clinical, research and programmatic experiences.In the current project, we used the following guide to assign a "yes" or a "no" score for each of the four parameters.

   a. **Absence of high quality evidence:** For any low or verylow-quality evidence, the panel assigned this parametera "yes' score. For recommendations with moderate or high-quality evidence, this parameter was assigned a "no" score.
   b. **Uncertainty of balance of benefits and harms/burdens related to the intervention:** For recommendations or interventions supposed to be associated with

harms, if the harms associated with the interventions outweighed or equaled the benefits, the panel gave the evidence a score of "yes" for this parameter; otherwise, the panel would give it a score of "no".

c. **Uncertainty or different values and preferences:**The guideline panel considered the values and preferences of implementers (health professionals and health managers) related to the intervention were considered. This information was based on the discussion and comments made by the panel. For recommendations considered as a burden for health professionals and health managers, the guideline panelwould assign a "yes" score, otherwise, the recommendation it would assign a "no" score for this parameter. In some of the recommendations, the values and preferences might vary with context.[21] In such cases, the panel made decisions based on the local Ethiopian context.[21]

d. **Uncertainty if net benefits are worth the costs**: This involves balance of the costs for running the suggested interventions with the benefits resulting from the interventions. In this assessment, the guideline panel considered the ease with which the recommendation could be implemented as compared to their benefits. Factors such as existence of a program, and priority goal or plan related to the recommendation in the current system were considered. If the panel decided that the costs outweighed or equaled the net benefits, the panel would the evidence would be assigned a "yes" score for this parameter. Otherwise, the panel would assign the recommendation a "no" score. This criterion might vary from context to context;hence, we considered the local context at Jimma University Medical Centerwhen making decisions, in line with Eisenberg's recommendation 'globalizing evidence, localizing recommendations'.[21, 178]

Eventually, if the recommendation was assigned a "no" score for three or four of the parameters, the panel would assign "strong" evidence for the recommendation. That means the evidence strongly favored the intervention (for a beneficial intervention having a desirable effect) or was strongly against the intervention (for a harmful intervention having undesirable effect). If the evidence was assigned a "no" score for only one or two of the parameters, the panel would assign "weak" or "conditional" evidence for the intervention/recommendation. That means the evidence conditionally favored the intervention (for a beneficial intervention having a desirable effect) or was conditionally

against the intervention (for a harmful intervention having an undesirable effect).Therefore, there would be four options for the strength of a recommendation.[176]

a) Strong evidence in favor of the recommendation means that the desirable consequences of implementing the recommendation clearly outweighed the undesirable consequences.[177, 179]

b) Weak or conditional evidence in favor of the intervention means that the desirable consequences of implementing the recommendation probably outweighed the undesirable consequences.[177, 179]

c) Strong evidence against the intervention or the recommendation means that undesirable consequences of implementing the recommendation clearly outweighed the desirable consequences.[179]

d) Weak evidence against the intervention means that the undesirable consequences of implementing the recommendation probably outweighed the desirable consequences.[179]

Quality of evidence was assigned as high, moderate, low or very low. In line with theGRADE working group's recommendation, the following definitions were adopted to indicate the quality of evidence:

**High quality evidence**: Further research is unlikely to change our effect estimate.[175].

**Moderate quality evidence**: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.[175]

**Low quality**: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.[175]

**Very low quality**: Any estimate of effect is very uncertain.[175]

We worded the recommendations considering the quality and the strength of evidence associated with the recommendations. We worded recommendations having strong evidence for the associated intervention as "must", "should", "need to" and other strong words.[176] On the other hand, we worded recommendations with weak evidence supporting the associated interventions with weak terms such as "may," "might," and similar words.[176]

We excluded most recommendations for further researchto reduce the bulk of the guideline as the purpose of this guideline was mainly to improve practice rather than identifying a research gap. However, if the panel believed that further research had a potential for reducing uncertainty about the effects of the intervention; and further research was deemed good value for the expected costs, we would make a recommendation for further research.[176]In most cases, we made 'in favor of' type recommendations. However, if the panel believed that any

evidence regarding a useless or a harmful intervention was widely practiced, we considered a recommendation against the intervention.[176]

We have also included good practice points in the guideline. We made these statements for areas where providing a GRADE of evidence was not practical, and the panel believed that the statements were necessary. We considered good practice statements in the following situations:[180]

    a) In cases where there was high quality indirect linked evidence supporting the recommended action.

    b) In case where the panel was confident that the net benefit of the recommended action outweighed the risks, and the recommended action was feasible.

    c) If without the message practitioners failed to execute the action and the practice issue needed to be consistent and failure to adhere to the practice is considered as the violation of human rights.

    d) If the panel considered that the collection of further evidence was a wise use of time or impractical.

To date, whether these statements (good practice points) should be presented separately or along with GRADEd recommendations is a matter of contest.[181] Therefore, in the current guideline document, we indicated the good practice statements as 'unGRADEd' and labeledwith a 'good practice point' sub-heading.

*Building a condensed list of recommendations*

After extracting recommendations from all included documents, I created a tentative list of recommendations. From the tentative list of the recommendations, I re-analysed the contents of all recommendations using constant comparison and merged similar recommendations or categorized them to provide a means of describing and understanding of the recommendations.[98]I then grouped subcategories together to create categories and main categories. I made this categorization based on the target population for the interventions, the providers of the interventions, the settings in which the interventions were conducted, and the nature and duration of the interventions. If similar recommendations/interventions reported in two or more documents were assigned a different quality of evidence, I would report the higher quality of evidence.

Then, I substanciated each recommendation with detailed descriptions by referring to the original documents and the primary studies. For guidelines and best practice documents available online, I sought additional resources and practical applications to gain detailed

understanding about the effectiveness of the interventions and the procedures for putting the recommendations into practice. Then, I presented the consolidated list of the recommendations under themes that emerged from the data and literature. I used thefindings of two qualitative syntheses to support the meaningfulness of the interventions for PLHIV. Using these lists of recommendations and their respective descriptions, I finally drafted the guideline.

## 5.6. RESULTS

### 5.6.1. Guideline panel

I establsihed a multidisciplinary guideline panel comprising researchers, health managers and health professionals. The list of panel members is shown in Appendix 16. All the panel members signed and returned the declarations of conflict of interest. None of the members declared a significant conflict of interest to bias the development of the guideline. All the panel members had at present or in the past worked as clinicians and had research experience. Two of the panel members work as coordinators of HIV Prevention and Control Office (HAPCO). Six of the panel members currently work as clinicians,one of whom worked as a HIV treatment coordinator. Four experts were previously involved in HIV-related and stigma research, but they did not have any financial conflicts that affected the outcomes of the current guideline (Appendix 17).All panel members who held managerial positions potentially influenced or were influenced by the decision made during the guideline development. The expertise of the panel members is summarized as follows:

1. A health manager from JUHAPCO with experience in teaching, research and coordination of HIV programs.
2. An internist and HIV treatment coordinator from the HIV and Tuberculosis Clinic at Jimma University Medical Center(JUMC) with experience in teaching, research and treatment provision and coordination of treatment programs for PLHIV.
3. Two experts of Integrated Clinical and Community Mental Health (ICCM) from Jimma University withclinical service, teaching,research and service experience specifically on HIV in JUMC.
4. A specialist in clinical psychiatry with experience in stigma-related research, clinical service provision and teaching in JUMC.
5. A psychologist from Jimma University with research experience relevant to HIV and experience of developing guidelines.

6. An expert nurse from the Infection Prevention and Patient Safety committee ofJUMCwith experiencesin developing guideline and clinical service provision.

7. AHealth Education and Health Promotion expert from Jimma Zonal HAPACO with experiences in organizing HIV programs.

8. An expert of health service management from Jimma University with research, clinical service and teaching experience and on systematic reviews training experience.

9. A health manager from JBI collaborating entity at Jimma University with experiencesin HIV-related research, teaching, management, guideline development, systematic reviews and best practice implementation.

10. A sociologist from Jimma University with experience of working on HIV programs

11. A health manager from the Strategic Plan and Policy Analysis Department in JUMC with experiences of both management and clinical service provision.

12. An expert nurse having HIV-related research, clinical service and training experience in JUMC

### 5.6.2. Determining the scope of the guideline

Through an informal consultation of health managers, health professionals and researchers, I conducted the initial systematic review (the review reported in chapter three). I aked the experts to indicate any guideline they were aware of that addressed stigma and discrimination related to HIV. Through this request, some provided training manuals prepared to reduce SAD at the community level. However, no local guidelines had addressed the reduction of stigma and discrimination in healthcare settings.Then, experts were consulted through their phone contacts, through e-mails,and through Jimma University HIV prevention and control office (JUHAPCO). Experts who were willing to be part of the panel were invited to a half-day meeting.

Ata meeting held on July 17, 2016, I formally established a guideline development panel. At the meeting, I briefly presented preliminary findings of reviews, introduced the guideline development process, including the Delphi technique, and the impact of SAD. After that, the I gave The the time to reflect and discuss further on the importance of the guideline to reduce HIV-related SAD, current policies and contexts of SAD related to HIV. Furthermore, I asked health managers, health professionals and researchers to comment on the importance of such a guideline. The experts informed about the necessity of such guidelines. Some of them mentioned that some external evaluators had considered such guidelines as one of their institutional performance criteria and that to date their institutions could not develop one.At

the meeting, even though the panel stressed the importance of a guideline addressing HIV-related SAD in contexts such as faith-based organizations, schools, media and healthcare settings, when considering the available time for the conduct of the current project, the scope of the guideline was limited to healthcare settings. Based on the consultation process, I developed the following guideline questions.

**Guideline questions**

Which interventions are effective in reducing stigma and discrimination among healthcare workers directed towards PLHIV, people affected by the virus and people associated with the virus?

To address theseguideline questionsI considered the following inclusion criteria.

a. **Population:** HCWs working in healthcare facilities

b. **Intervention:** Interventions designed to reduce SAD in the healthcare facilities were considered. These included training, workshops, and institutional policies and infrastructures

c. **Comparators:** Comparators included usual care or alternative interventions

d. **Outcomes:** The outcomes that were considered when searching and assessing evidencewere fear-based stigma, value-based stigma (shame and blame), discrimination (isolation, labeling, gossiping and use of extra precautions), and internalized stigma

e. **Settings**

**Organizational level**: Interventions that were conducted at the level of the healthcare facility

**Individual level**: Interventions targeting healthcare workers were considered.

The panel called for detailed analysis of existing documents (guidelines and systematic reviews) and their linked primary research evidence to develop recommendations addressing the identified guideline questions.

### 5.6.3. Development of recommendations

*Documents included in the analysis*

In this analysis, I included six guideline-related documents and six systematic reviews previously identified in the initial systematic search as reported in chapter three and the systematic review conducted as part of this PhD study and reported in chapter four.

*Recommendations extracted*

The result of the initial review in chapter three clearly indicated that current guidelines, best practices tools and systematic reviews were less informative and contained limited

information on the quality of the recommendations and conclusions. This posed a challenge in directly adapting the recommendations from existing guideline-related documents. In addition, it was challenging to extract recommendations directly from the systematic reviews.

Therefore, we decided to conduct a detailed content analysis of the documents and linked primary research evidence. This was aimed to facilitate the evaluationof the quality and strength of each recommendation and conclusions found in the systematic reviews and guideline-related documents. Based on the detailed content analyses, I sought to develop a tentative list of recommendations that could be put into practice to reduce HIV-related stigma and discrimination in healthcare settings. In addition, I extracted recommendations from the systematic review reported in chapter four.Based on the detailed content analyses of the content of the guidelines, best practice documents, systematic reviews and the linked/cited research evidence, I initially developed 31 recommendations.

The recommendations were framed under the following themes:

- a) Structural interventions
- b) Information-based approaches
- c) Skillsbuilding approaches
- d) Contact and empowerment approaches
- e) Biomedical approaches
- f) Measurement of stigma and discrimination
- g) Steps to integrate stigmareduction into healthcare settings

As some of these recommendations were later modified, merged or dropped based on consideration and judgment of the guideline panel, the full list is not presented here.

## 5.7. Discussions

This project attempted to develop an evidence-informed guideline to reduce HIV-related stigma and discrimination through a systematic search and analysis of global evidence. This chapter described procedures involved in the development of guideline recommendations. When planning and developing a guideline, health managers are always confronted with the challenges of addressing broad research questions with limited resources and time frames. As a remedy to address this challenge, scholars have developed different options for utilizing a pre-processed research evidence.[120]

The initial purpose of the current project was to utilize existing a pre-processed evidence based on the 6S hierarchy of evidence.[120] Such an approach increases the efficiency of

guideline development processes.[182]Although there were systematic reviews, guidelines andbest practice documents in the field of stigma and discrimination related to HIV, those guidelines, best practice documents and systematic reviews were not presented in a way that they could help in theevaluation of the quality and strength of recommendations. Such information would have been helpful for prioritizing alternative recommendations and in convincing stakeholders about the preferred interventions.

In public health and clinical practice that involves behavioral interventions and behavioral outcomes; it is not always easy to get pooled evidence, such as meta-analyses.[139] The current project is proof of this. This might have been because measures for stigma and discrimination have been under development in the past three decades and standard measures do not exist. Hence, I could not get a clear picture from existing systematic reviews and guidelines, tools and best practices regarding the quality and strength of evidence supporting recommendations/interventions. I, therefore, analyzed the linked primary research evidence to evaluate the quality of the recommendations and findings included in the systematic reviews and guidelines. In addition, I conducted an additional systematic review as reported in chapter four.

The detailed analysis of the primary studies included in the guideline-related documents and systematic reviews and the conduct of an additional systematic review has given us clarity on the quality of the recommendations drawn. After the detailed analysis of the contents, with a focus on the target audience, settings, nature of the interventions (their duration and intensity) and providers of the interventions, I outlined a tentative list of recommendations. Nevertheless, this by itself was not enough for developing the guideline. As I extracted recommendations from multiple documents, we came across redundant and similar recommendations in the list. To avoid such redundancies and to get a complete picture and meaning, I further analyzed the contents using constant comparisons, which enabled meto merge some similar components and describe the interventions with the highest quality of evidence available.Through this approach, I generated a condensed list of recommendations. The incorporation of measures of the quality and strength of evidence with the development of the recommendations based on the available research evidence can be regarded as a strength of this project.

Through these procedures, I drafted initial recommendations that were framed under the following themes: structural, information-based and skillsbuilding, contact and

empowerment, biomedical interventions, measurement of stigma and discrimination, and steps to integrate stigmareduction activities into healthcare settings.

Although SAD in healthcare settings are affected by factors beyond healthcare facilities,[137]the current project focused on SADreduction in healthcare settings, particularly targeting HCWs. I specially focused on activities that can be performed by and are the responsibilities of HCWs. In addition, the recommendations included interventions related to infrastructure and supplies to healthcare facilities. These recommendations, I think, will help to integrate stigma and discrimination programs into the routines of healthcare facilities. However, the appropriateness of these recommendations depends on local factors related to healthcare facilities.[183]Therefore, whether these interventions are feasible for integrating into the current health systems needed further assessment.

While assessing the strength of the recommendations, the guideline panelhas taken local circumstances and policy environment into account. This makes the current guideline relatively more practical as compared to previous guidelines and best practices in that it will enable policy makers to prioritize the recommendations. In general, among the steps to develop guidelines described by Shekelle et al.,[94]I addressed the following four components: identifying and refining the subject area, organizing and running guideline development groups, assessing evidence identified by a systematic literature searches and translating the evidence into recommendations. The last step (evaluation of the evidence after implementation) will be addressed in the next chapter (chapter six).

Since the recommendations were drawn from global literature and not from local studies, their appropriateness to the local context and their acceptability by local implementers is not known. Evidence utilization is successful only if it considers local factors.[178]Hence, this guideline needs to be evaluated by local experts. In the following chapter (chapter six), I will describe how Ifacilitated the evaluation of the draft guideline through a local guideline panel with both rigor and feasibility considerations.

## 5.8. Conclusion

I established a multidisciplinary group and determined the scope of the guideline. The panel decided to develop a guideline to reduce HIV-related stigma and discrimination among HCWs in healthcare settings. I drafted tentative guideline recommendations based on the best available global evidence.I framed the recommendations under the following themes: structural, information-based and skillsbuilding, contact and empowerment, biomedical interventions, measurement of stigma and discrimination, and steps to integrate

stigmareduction activities into healthcare settings. The appropriateness of these recommendations to the local context requiresfurther evaluation.

# CHAPTER SIX

# EVALUATION OF A GUIDELINE DEVELOPED TO REDUCE HIV-RELATED STIGMA AND DISCRIMINATION IN HEALTHCARE SETTINGS AND ESTABLISHING CONSENSUS

## 6.1. Abstract

**Concise introduction**

Developing appropriate guidelines, policies, system changes and appropriate orientation of the rights and responsibilities of healthcare workers and patients is critical to address HIV-related stigma and discrimination (SAD) in healthcare settings. To this end, a multidisciplinary panel developed a guideline to be implemented in healthcare settings.

**Objective**

The objective of this project was to evaluate the appropriateness of the guideline developed to reduce HIV-related SAD to be implemented in the Ethiopian context.

**Methods**

A consensus of the expert panel was established through a Delphi technique. Experts were selected based on history of relevant publications, their relationship with the topic, and institutional positions they hold. After obtaining consent from participants, initial tentative recommendations were distributed to experts through e-mails to be evaluated using the modified guideline implementability appraisal (GLIA) v.2.0 checklist. Percentage agreements were analyzed by creating scores. Based on the comments of the experts, modifications to the recommendations were made and a modified document was sent for further evaluation. Following tworounds of the Delphi survey, a panel meeting was convened. Finally, the guideline was evaluated by external experts.

**Results**

**Firstround survey**

In the firstround of the Delphi survey, all (13) panel members evaluated the guideline. The overall score for the general domain of the modified GLIA checklist was 96.56%. The scores for individual recommendations ranged from 68.33% to 92.76%. Five recommendations received an endorsement of less than 75%.The maximum score was indicated for measurability domain (97.71%) and the minimum score was recorded for flexibility domain (59.77%). A percentage mean score lower than 75% was obtained for two GLIA V.2.0 domains: flexibility and validity domains. During the firstround survey, suggestions for

additional tools and training, and suggestions for improving the clarity of the recommendations were made.

**Secondround survey**

In the secondround of the Delphi survey, only few comments were raised by the expert panel. All the recommendations received endorsement with scores above 75%. A maximum score was attained for the measurability domain (100%). A minimum score was recorded for the flexibility domain (86.88%). During the second panel meeting, detailed discussions were held on the issue of responsibility for implementing the guideline and how some terms should be used.

**Evaluation by external experts**

Out of 13 experts invited to participate in the evaluation, six agreed to evaluate the guideline using the same checklist that internal evaluators used. The external experts gave an overall score of 94.44% to the general domain of GLIA v.2.0. Each recommendation received an endorsement over 75%.

**Conclusion**

The current project evaluated implementability of a guideline developed to reduce HIV-related stigma and discrimination in healthcare settings. The project employed both internal and external evaluation. The Delphi survey was followed by a face-to-face meeting that helped in further clarifications of points.

## 6.2.    Concise introduction

People living with the human immunodeficiency virus (HIV) are confronted with the physical, psychological and social impacts of the disease.[34, 166-169] Stigma and discrimination (SAD),also called the "third phase of HIV/AIDS epidemics", have been among the obstacleschallenging actors working on the prevention and control of HIV.[170]SAD related to HIV are manifested in various forms such as: differential care or refusal to treat, testing and disclosure of the sero-status of clients without consent, verbal abuses or gossip, marking the files of patients, isolating them and excess use of precautions.[57, 58]

The limited awareness of SAD, how they manifest and their consequences, prejudicial and stereotypical attitudes related to gender identity and sexual activity, and fear of HIV transmission are among factors contributing SAD in healthcare facilities.[6] Hence, developing appropriate guidelines, policies, and redress systems and appropriate orientation of the rights and responsibilities of HCWs and patients are critical.[6]Cognizant of this, as described in the previous chapter, we have systematically developed a list of working

recommendations to reduce SAD in healthcare facilities. Systematically developed guidelines are the source of summarized information.[4]Nevertheless, the development of guideline recommendations by itself is not enough. Other factors such as environmental and contextual factors need to be considered before making final decisions on the implementation of the guideline.[184, 185]

Some researchers argue that using a theoretical framework will help to systematically identify and address factors that hinder guideline implementation.[186, 187]Factors such as reviewing, reporting and publishing guidelineshave been found to enhance the implementation of the guidelines.[94]On the other hand, Jordan et al.[4] argue that dissemination should involve an active process apart from the mere publication of guidelines.Moreover, before officially publishing or disseminating a guideline, internal and external evaluation is required to promote the uptake the guideline.[23, 96]In addition to the development of tools to assess the rigor of the guideline development process,[115]researchers have developed tools that help to assess both the rigor and implementability of guidelines.[116]Guideline developers and experts recommend assessing recommendations included in practice guidelines using guideline implementability checklists to make sure that the recommendations are clear and easy to implement.[23, 96]

As described in chapter five, we have developed guideline recommendations based on an analysis of global evidence retrieved through literature searching. Therefore, this project aimed to assess the clarity, acceptability, implementability and relevance of the current guideline using Guideline Implementability Appraisal (GLIA version 2.0) checklist.[174]

## 6.3. Objectives

The objective of this project was to evaluate the appropriateness of the guideline developed to reduce HIV-related SAD to be implemented in the Ethiopian context. Specifically, the project aimed:

- To evaluate the appropriateness of the guideline to the Ethiopian context through a multi-round of Delphi surveys among the guideline panel.
- To evaluate the appropriateness of the guideline through a survey of external experts.
- To make amendments to each recommendation included in the guideline based on the comments of the experts.

## 6.4. Methods

This project assessed the drafted recommendations for feasibility and appropriateness to the Ethiopian context. Consensus of the experts engaged in the evaluation was established through a modified Delphi technique.[106]

### 6.4.1. Rationale for the use of the Delphi technique in this project

The Delphi technique involvesa series of questionnaires that are used to test opinion consensus amongst a group of experts.[102, 105,105]The technique can be conducted by email, online surveys or by post.[102]It is a preferable method of choice when there is little evidence regarding the topic, when participant anonymity is required, and when the cost and practicalities of bringing the participants together is prohibitive.[104] By assuring anonymity, it reduces the effect of dominant individuals and unwillingness to abandon publicly expressed opinions.[107]The Delphi technique also reduces reluctance to mention opinions that are unpopular, disagree with one's associates, modify previously stated positions.[108]

The choice for the specific type of consensus method is determined by the purpose of the study, the availability of scientific evidence in the field, the model of participant interaction, time and costs.[104] The aim of the current project was to translate research evidence into practice through the development of an evidence-informed guideline based on the consensus of experts. The development of a guideline needs a rigorous process to achieve consensus of experts. The Delphi technique is supposed to be more suitable compared to other consensus building methods.[188] This project sought the opinion of experts by keeping their responses anonymous and allowing them to freely express their opinions through e-mail surveys. In addition, the technique gave adequate time to the experts to exhaust options before making decisions. Hence, a modified Delphi technique was selected as a method of establishing consensus.

The Delphi technique is a hybrid of qualitative and quantitative methods.[189]The technique has been used in health disciplines since the 1970s.[105]It has been used by researchers to translate scientific knowledge and professional experience into informed judgment, in order to support effective decision-making.[190]The Delphi technique has been reported to be the most widely used consensus method for developing clinical guidelines.[191-193]Delphi techniques have been used to develop guidelines, to establish consensus on the use of the guidelines and to establish and evaluate how well a clinical practice is conforming to guidelines.[194] In the current project, the Delphi technique was used to establish consensus

on the use of the each of the recommendations that constituted a guideline to reduce HIV-related stigma and discrimination in Ethiopian healthcare settings.

### 6.4.2. Delphi process

The Delphi procedure starts with the selection of experts and is executed in a series of rounds.[104, 107] In a Delphi survey, appropriate selection of experts is essential for ensuring the quality of the data and increasing response rates. There is no standard definition of expert[188] and the definition depends on the specific objective of the research,[188] but in general an expert is someone who has some knowledge of a specific subject.[188, 195] In the current project, experts were people who were knowledgeable of the subject matter by virtue of their role as clinicians with HIV patients, managers for HIV programs or researching on HIV.Experts may be selected based on record of relevant publications, their relationship with the topic and institutional positions they hold.[109] In the current project, the judgment of expertise was made based on their contribution in the field. Hence, researchers with relevant research projects and publications; health service managers and health professionals working on clinical or programmatic areas of HIV were selected as members of the guideline working group and experts for the current Delphi study. Apart from their expertise, the availability and commitments of the experts in the field were considered in selecting the panel members.The snow balling method was used to identifythe experts. Finally, experts who were willing to participate were included in the multi-round survey.

### 6.4.3. Panel size

There is no consensus on the panel size required for Delphi studies.[190, 196] Different Delphi studies have used different sample sizes ranging from as small as five to as large as 2865.[190] In theDelphi technique, sample size does not depend on statistical calculations; rather it depends on the dynamics of arriving at consensus.[197] Some experts in Delphi techniques recommend careful selection of the panel for the specific topic of interest instead of increasing sample size or making the sampling process random.[198] In this project, 13 experts accepted my invitation and participated in the survey.

As a facilitator of the Delphi technique, I set deadlines for each round of the Delphi and I used e-mail reminders for non-responders as an additional mechanism for increasing the response rate. I sent the e-mail reminders three days after the deadline.[109] Respondents were given a three-week period for each round of Delphi.[109] As in other Delphi techniques, the opinion of every group member was reflected in the final group response.[108] The statistical average of the final opinions of the individual members was used to define group opinion.[108]

### 6.4.4. Data collection

After obtaining the list of experts, I made initial contacts to all experts giving them the purpose and procedures involved in the project and requesting them to participate in the development of the guideline. After receiving consent, I sent the expertsinitial tentative recommendationsby e-mail. Experts were asked to comment on each recommendation. I analyzed and summarized both qualitative and quantitative responses.[104, 107]

There are three options to startDelphi roundone. The first option is where Delphi roundone is conducted as a qualitative study using open-ended questions to develop quantitative tools for the successive rounds.[199] In this approach, the firstround is used to identify issues to be addressed in later rounds. The second option is where qualitative data can be collected through focus groups or interviews before the Delphi study and used to inform a quantitative firstround of the Delphi.[188] The third option is where the quantitative firstround is informed through a literature review or clinical practice.[188, 200]The first approach is often used in a classical (original) Delphi.[201] The second and third approaches are usually used in a modified Delphi technique.[201]

In the current project, the tentative recommendations were informed by systematic literature searches and content analysis of the evidence. In this project, the modified Delphi, sometimes called 'e-delphi,'[201] was used. The purpose of the modified Delphi technique in this project was to get a consensus among the guideline panel on the tentative recommendations, and to modify the recommendations based on the responses of the experts. Therefore, the third approach was employed. Hence, experts were asked to rate each tentative recommendation using the Guideline Implementability Appraisal (GLIA V.2.0) checklist.[174]The GLIA checklist has options for both close-ended responses and open-ended responses. Hence, in addition to rating the recommendations, the panelists were asked to provide their suggestions on how to improve the implementations, feasibility and/or wordings of the specific recommendations. Participants were also encouraged to comment on the main guideline using track changes and highlights.The GLIA v.2.0 checklist was modified and used to assess the implementability of the guideline.[174] The GLIA v.2.[174]instrument contains 30 items in ninedomains: global quality, executability, decidability, validity, flexibility, effect on process of care, measurability, novelty and computability.[174] Out of these, the last domain (computability) is used when there is a plan for electronic implementation.[174] Since this will not be part of the current work, the four items in this domainwere not included in the questionnaire.

In this project, a modified GLIA v.2.0 checklist (Appendix 18) was used to assess the implementability of the guideline. The comments provided by the experts were incorporated into the successive round of the Delphi. In the subsequent round of the Delphi, I asked participants whether they would agree with the modified recommendations.[104, 107] I sent additional ideas in each round of the Delphi to the experts in the respective subsequent rounds.[104, 107]

There is no template indicating the exact number of rounds needed for a Delphi study. Such decisions are pragmatically made by the researcher. Hence, the procedure is reiterated until the stability of responses is achieved.[107] Stability of responses is defined as "the consistency of responses between successive rounds of a study."[202(pp.84)] Dajani et al.[202] recommends measuring the level of agreement only if a stable answer is reached. Therefore, they recommend a hierarchical process as depicted in Figure 5.[202] For each recommendation, once stability of the responses is achieved, consensus will be established.[202]

For this project, recommendations having a general agreement of 75% and above were incorporated into the guideline. Recommendations with a rating lower than 75% were considered for modification to be incorporated into the subsequent rounds based on the comments of the respondents. In addition, specific comments given for each recommendation were considered for making modifications, adding or dropping a recommendation. The Delphi series stopped after stability was achieved (a 75% level of agreement) for each recommendation and if no newer comments emerged. The Delphi process is normally expected to achieve both consensus and non-consensus.[203] Therefore, in the current project, recommendations for which experts consistently disagreed were excluded or modified.
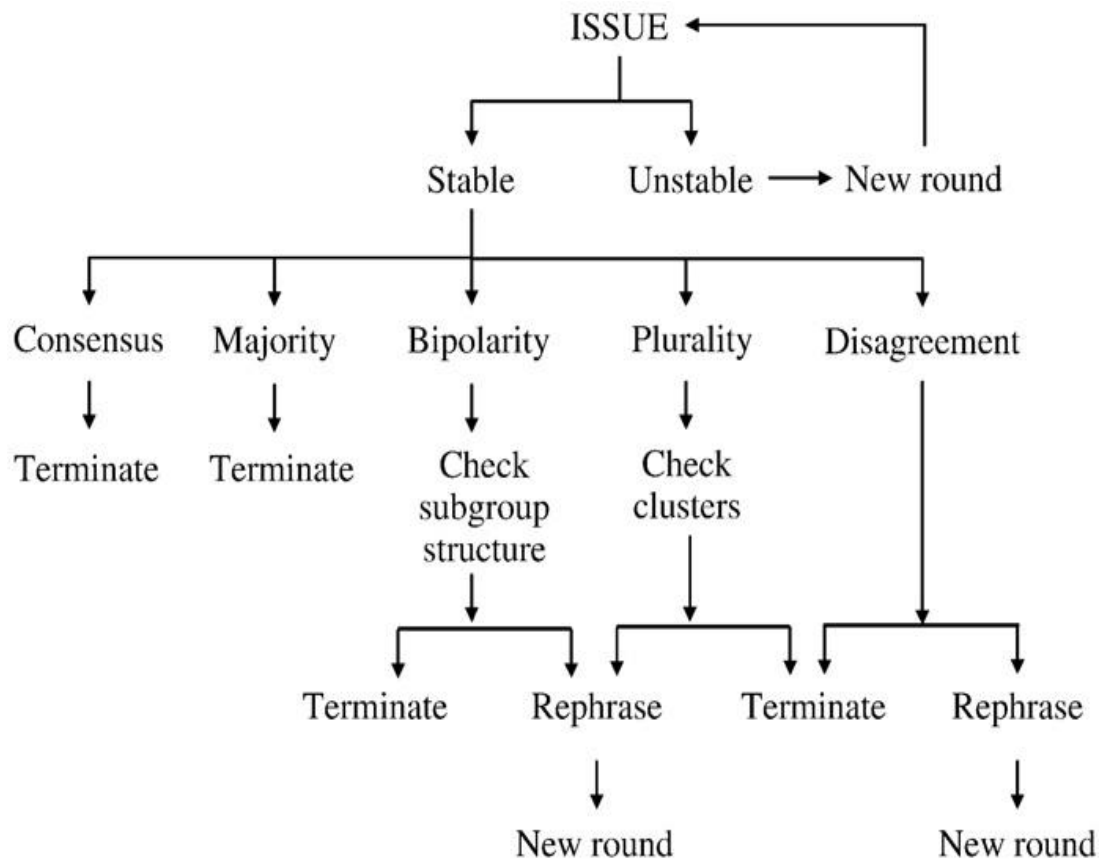
**Figure 5.Hierarchical stopping criteria for Delphi studies**

(Source: Dajani JS, Sincoff MZ, Talley WK. Stability and agreement criteria for the termination of Delphi studies. *Technological forecasting and social change.* 1979;13(1):83-90).[202]Re-used with permission from Elsevier (order number: 4216991240242).


### 6.3.3.4. Data quality control

In Delphi techniques, the opinion of every group member is reflected in the final group response.[108] Since decisions are made based on opinions of groups in the real world, Delphi techniques are believed to provide evidence of face validity.[204] In addition, Delphi is conducted in successive rounds, contributing to concurrent validity of the findings.[205]Researchers also believe that a Delphi technique provides reliable findings, because it achieves interaction among experts and at the same time avoids individual influences.Delphi overlaps both interpretive/qualitative and positivist/quantitative paradigms.Hence, researchers recommend the use of the term 'trustworthiness' to establish rigor in a Delphi study.[206]Theconcept 'trustworthiness' encompasses credibility, transferability, dependability and confirmability.[207]

In Delphi studies, credibility is established by ongoing iteration and feedback given to the experts.[208] Therefore, the very beginning of the Delphi process makes it credible. In this project, dependability was enhanced by including relevant experts in the field.[209] Confirmability is achieved through the collection of thick descriptive data, negative case analysis and arranging for a confirmability audit and establishing referential adequacy.[207] In this project, I kept accurate records of participants' comments and responses in each round. I sent the comments of experts to the panelists in subsequent rounds. In addition, there was a face-to-face meeting prepared for further clarification.The transferability of an evidence is based on the similarity of contextual factors in the settings.[210] Therefore, other researchers and guideline implementers or developerswere advised to take the consideration of the similarities of their respective contexts with the current situation and the current context of JUMC when considering the potential transfer of the evidence into other settings. Contextual factors related to the current guideline are described in detail in chapter seven.

### 6.3.3.5. Data analyses

I conducted qualitative content analysis of the comments and I used the result of the analysis to modify the recommendations. In addition, I conducted the following quantitative analyses:

1. Percentage response rates,

2. Percentage scores for each domain of GLIA V.2.0:the total score for each GLIA domain was calculated by summing up total scores for all panel members. Then, the percentage score was obtained by dividing the total score by the maximum possible score.

3. Percentage agreement for each recommendation was calculated for each round of the Delphi. This information was used to modify recommendations, especially those with endorsement of less than 75%. In the cases where experts did not describe reasons for non-endorsement and for controversial issues, discussions on the recommendations were made through face-to-face meetings amongst the panel.

In this project, I wanted to take into consideration the input of each member of the panel. Instead of taking individual responses as outliers and rejecting them, a mechanism was in place in which they would clarify their opinions, which opens up for further comment by other members of the panel.Moreover, the panel consensus data were complemented with external panel review. For the sake of making final decisions on the guideline recommendations, I conducted key informant interviews with managers and service providers (presented in chapter seven).

### 6.4.5. Ethical considerations

The project has ethical approval both from the Institutional Review Board (IRB) of Jimma Institute of Health (JIH) at Jimma University (RPGC/389/2016) and the University of Adelaide Office of Research Ethics, Compliance and Integrity (ORECI) (approval number H-2016-140). Prior to the data collection, the objective of the research, potential harms and benefits of participating in the project were described to participants. Participants were provided with complaints procedure (Appendix 19)and information sheets (Appendix 20), based on which informed consent was obtained (Appendix 21). Anonymity of responses was assured by not disclosing the identity of participants.

## 6.5. Results

A formal consensus was sought from all the panel members using two rounds of panel surveys and an external panel review. This section describes results of these surveys.

### 6.5.1. Firstround Delphi survey

In the firstround of the Delphi survey, all (13) panel members evaluated the guideline. The overall score for the general domain of the GLIA version 2.0 score was 112 (% of maximum possible score=95.73%). Maximum score was achieved for the measurability domain (96.65%) and the minimum score was recorded for the flexibility domain (59.97%). A percentage mean score lower than 75% was obtained only for two domains: flexibility and validity domains (Table 9).The experts provided comments on how to improve or why modifications were needed for individual recommendations included in the guideline. The comments given were categorized into:

a. **General comments:**Comments that were provided for the entire guideline. These comments were suggestions for additional tools and training that should be part of the guideline

b. **Comments on specific recommendations:** Comments questioning the clarity and feasibility of implementing the recommendations.

**Table 9. Guideline implementability (GLIA V.2.0)domain scores**

| GLIA Domain | Internal evaluation | | | | | | External evaluation | | |
|---|---|---|---|---|---|---|---|---|---|
| | Round 1 | | | Round 2 | | | | | |
| | Mean | SD | %age score | Mean | SD | %age score | Mean | SD | %age score |
| Executability | 21.81 | 3.35 | 83.88 | 15.38 | 0.77 | 96.13 | 10.50 | 1.51 | 87.50 |
| Decidability | 33.1 | 3.36 | 84.89 | 23.85 | 0.38 | 99.38 | 17.25 | 1.54 | 95.83 |
| Validity | 17.48 | 4.77 | 67.23 | 15.85 | 0.554 | 99.06 | 10.50 | 1.93 | 87.5 |
| Flexibility | 23.39 | 4.23 | 59.97 | 20.85 | 0.38 | 86.88 | 9.66 | 1.37 | 53.70 |
| Effect on process of care | 24.71 | 1.04 | 95.04 | 15.77 | 0.44 | 98.56 | 11.33 | 0.89 | 94.44 |
| Measurability | 25.13 | 0.96 | 96.65 | 16.00 | 0.00 | 100 | 10.17 | 0.39 | 84.72 |
| Novelty | 33.44 | 2.14 | 85.74 | 23.08 | 0.49 | 96.08 | 17.00 | 1.41 | 94.44 |

**NB**: GLIA: Guideline Implementability Appraisal, SD: standard deviation, %age score: percentage score

The scores for individual recommendations ranged from 151 (68.33%) to 205(92.76). Six recommendations received an endorsement of lower than 75%. The recommendations with endorsement lowerthan 75% were:

1.  **Counselling and behaviour change programs to address self-stigma (endorsement score=71.04%)**

The most important reasons for the low score for this recommendation was described as lack of detailed description of the recommendations and failure to specify the type of behavioural change programs.

2.  **Group intervention through telephone support for people living with HIV (endorsement score=68.33%)**

The feasibility of this intervention was questioned by the panel. Therefore, this recommendation was brought for panel discussion during the secondround panel meeting.

3.  **Micro-finance and livelihood programs to create economic opportunities (endorsement score=70.14%)**

Concern was raised because participants claimed that it was not the mandate of healthcare institutions to provide microfinance interventions and resource-wise, this recommendation was reported to be not feasible. Therefore, this recommendation was brought for panel discussion during the secondround panel meeting.

4.  **Training programs to gain facilitation skills, processes to collect and analyse data for advocacy (endorsement score = 70.14%)**

This recommendation was rated a low score because of limited description linked with it. The feasibility of the recommendation was also questioned.

5.  **Developing stigma and discriminationreduction policies with employees (endorsement score = 73.76%)**

The panel requested description of this recommendation, specifically by linking with previous research findings.

6.  **Programs, offices and institutions need to advocate temporary special measures such as affirmative action for women and special forums for participation (endorsement score=71.04%)**

The feasibility of this recommendation was questioned as it was perceived by some panel members to be beyond the scope of health institutions.  In addition to the above comments targeting individual recommendations, as mentioned in table 10, the panel suggested that some recommendations should be merged. The main comments made by the panel during

the firstround survey are summarized in Table 10.Based on the firstroundcomments, modifications were made. The secondround survey was then conducted after incorporating comments from the firstround and modificationsto the guideline.

**Table 10. Summary of comments provided during firstround survey**

| S/n | Comments | Actions/resolution |
|---|---|---|
| **General comments** | | |
| 1. | The sequence of applying these recommendations is not clearly documented | This has been indicated at the end of the recommendations incorporating steps in implementation |
| 2. | In the introduction part, the intended audience should also include non-health disciplines such as psychology and sociology who work to improve the psychosocial well-being of PLHIV | Accepted |
| 3. | For most of the recommendations: patient characteristics (co-morbidities) were not mentioned | Most recommendations work for all types of HIV patients regardless of their co-morbidities |
| 4. | Settings such as faith-based organizations may be included as part of the guideline | This is beyond the scope of the current guideline, which is limited to healthcare settings |
| 5. | The guideline should be broad, and the scope should be beyond the health sector | This cannot be addressed within the time frame. After this project is over, we may consider developing guidelines for other settings |
| 6. | Additional tools should be part of the guideline | Accepted and added tools to be posted and tools for monitoring and evaluation |
| 7. | Key population should be defined | Accepted |
| 8. | People associated with the virus should be defined | Accepted |
| 9. | Stigma occurs when those health care workers who are not aware of HIV-related stigma provide services to HIV patients. Therefore, the type and role of service providers needs to be specified. | Brought for discussion by the panel during the second meeting and further explored during key informant interviews |
| **Comments on specific recommendations** | | |
| 10. | RN1.4, RN2.4 and RN3.4 are fragmented and can be better strengthened if they are merged together. | Accepted and merged the recommendations So, RN1.4, RN2.4 and RN3.4 were merged |
| 11. | RN2.1 should be supported with evidence | Accepted, reference and quality of evidence included |
| 12. | RN2.1 and RN2.2 can be merged | Accepted |
| 13. | RN 2.2. is not detailed | Accepted |
| 14. | RN2.3 is not detailed. Group support through telephone is not clear enough. Are you going to call them or text them through SMS? It is not feasible, and the quality of evidence is also very low. Also, it is better to use references | Brought for discussion by the panel during the second meeting |
| 15. | One of the recommendations, micro-finance interventions is not feasible | Brought for discussion by the panel during the second meeting |
| 16. | RN2.4 needs resources | Suggestions will be sought from panel members on whether the allocation of such resources is feasible will be discussed |
| 17. | RN2.6 is not specific | The recommendation was dropped |
| 18. | RN2.6 is difficult to measure unless we put measurement parameters | Accepted |
| 19. | RN3.1 is not detailed | Accepted |
| 20. | RN4.2 is not detailed | Accepted |
| 21. | RN6.2 Needs details | Accepted |
| 22. | RN6.3 needs details | Accepted |
| 23. | RN1.4 is not feasible | Accepted |
| 24. | RN4.1. is not feasible | Accepted |
| 25. | Co-morbid mental illness among HIV clients plays critical role in worsening the stigma towards HIV patient. So, consider mental illness | This will broaden our scope. We may consider another guideline for this. |
| 26. | All recommendation need at least orientation and training | The guideline will be introduced through different methods including orientation and training. And additional methods will be further sought from the panel |
| 27. | RN1.2, RN 6.3 and 6.11 need to be merged or be described using a single recommendation. | Accepted |

**NB**: HIV: Human immunodeficiency virus, PLHIV: People Living with HIV, RN: Recommendation number

### 6.5.2. Secondround Delphi survey

Eight of the 13 (61.5%) panel members responded to the secondround survey using the GLIA V.2.0 checklist. Five panel members did not provide ratings during the secondround Delphi survey. Of these, four of them participated in the secondround panel meeting.In the secondround panel meeting, all the comments in the firstround and secondround were

summarized and discussed. Hence, those members who missed the secondround survey got the opportunity to reflect on their ideas in the meeting. In the secondround, the general domain received an endorsement score of 64/72 (88.89%). Maximum score was attained for the measurability domain (100%). A minimum score was recorded for the flexibility domain (86.88%)(Table9).In the secondround of the Delphi survey, each recommendation received an endorsement of over 75%. Only a few comments were raised by the panel. The summary of the comments and the respective resolutions made following the comments is shown in Table 11.

**Table 11. Summary of comments made during secondround and the respective resolutions**

| S/n | Comments | Actions/resolution |
|-----|----------|--------------------|
| 1. | Details of peereducation intervention is not presented | Accepted |
| 2. | Who is responsible for implementing the recommendations? HAPCO or Hospital? | To be discussed during panel meeting |
| 3. | For RN2.0, include the term expert patients to describe patients involved as service providers. This will match with the context | Accepted |

**NB**: RN: Recommendation number, HAPCO: HIV Prevention and Control Office

The highest percentage mean score was attained for the measurability domain (100%) and the lowest mean score percentage was attained for the flexibility domain (88.88%) (Table 9).All individual recommendations receivedendorsements with scores over75%. Since there were fewcomments given in the secondroundsurvey and the ratings for the recommendations were also high, the panel decided not to haveadditional surveys. Instead, a secondround panel meeting was called to discuss in person the comments made thus far and the modifications made. Further comments were sought from the panel. Major points raised during the meeting are briefly presented below.

**Major points of discussion during the secondround guideline panel meeting**

1. **The responsible body for implementation of the interventions should be clearly specified**:

Based on detailed discussions, the panel resolved that all health professionals, healthcare facility administration and HIV prevention and control offices are responsible for the interventions in the recommendations be included in the guidelines. The panel recommended that training should be provided for those PLHIV who provide psychosocial support, adherence support and peer support for PLHIV.

2. **Whether microfinance intervention can still be part of the guideline:**

The panel decided that HAPCO and healthcare facilities can routinely link patients to support organizations. Nevertheless, they agreed that it is very difficult for them to provide financial interventions, such as microfinance interventions.

**3. Whether telephone support interventions are still feasible for the context:**

The panel resolved with the consensus that in the Ethiopian context, there is no adequate evidence indicating that such interventions are feasible. However, they all agreed that these interventions (phone calls and reminder texts) can be included as alternative methods for the provision of psychosocial support.

**4. Who is responsible for informing the rights and responsibilities to patients?**

The panel resolved with the consensus that all health professionalsshould routinely inform patients about the details of procedures, their rights and responsibilities. In addition, healthcare facility administration and HIV Prevention and Control Office (HAPCO) are responsible to make sure that information is provided to patients on their rights and responsibilities. This information should include the rights that each patient has regardless of his or her sex, disease status, age and other characteristics.

**5. Whether translating the guideline into local language is needed:**

The panel decided that for healthcare professionals, there is no need to translate the guideline into local languages. Nevertheless, the training manual that may be prepared in the future for peer supporters and expert patients (non-professionals)should be translated into local languages.

**6. Arrangement of recommendations**

The panel suggested that the recommendations should be arranged, not under guiding principles, but under major thematic areas as conceptualized in the systematic reviews presented in previous chapters.

**6.5.3. Evaluation by external experts**

Of the 13 experts invited to participate in the evaluation, six agreed to evaluate the guideline using the same checklist that internal evaluators used. The external experts gave an overall score of 51 (94.44%) to the general domain of GLIA. Each recommendation received an endorsement over 75%. The maximum score was recorded for the decidability domain (95.83%) and minimum score was attained for the flexibility domain (53.70%). The external panels did not provide many comments. Major comments made were categorized under general comments, comments specific to individual recommendations and comments related to format of the guideline (Table 12).

**Table 12.Summarised comments from the external panel**

| S/N | Comments | Resolution/actions |
|---|---|---|
| **General comments** | | |
| 1. | Recommendations should be action-oriented rather than descriptive. Some recommendations are not identifiable because of long descriptions | Accepted |
| 2. | Settings in which the guideline is to be implemented is not clearly described | Accepted |
| 3. | The guideline mainly focuses on the provider or user of the guideline and simply highlights the target. The targets must be described in detail in a separate section. | Accepted |
| 4. | Target organizations for the guideline are not mentioned except on the cover page. | Accepted |
| 5. | The required service modifications are not mentioned | Accepted |
| **Comments related to the format of the guideline** | | |
| 6. | Boxes for strategies and recommendations need to be separate | Accepted |
| 7. | Indicators need to be presented clearly for recommendations | Accepted |
| 8. | It is better to put boxes and tables at the end of description rather than putting them in the middle of text descriptions | Accepted |
| **Comments on specific recommendations** | | |
| 9. | RN3.3 does not show how opinion leaders execute their jobs | Accepted |
| 10. | RN43 does not detail how to empower PLHIV | Accepted |
| 11. | For RN61, RN62, RN63 AND RN64, strategies for implementation was not addressed well | Accepted |
| 12. | RN33 does not show logical sequences | Accepted |
| 13. | RN 51 is not detailed | Accepted |
| 14. | No evidence presented for RN61, RN62 | Accepted |

**NB**: PLHIV: People Living with HIV, RN: Recommendation number

## 6.6.    Discussions

This project attempted to evaluate a guidelineto reduce HIV-related stigma and discrimination developed in chapter five, using guideline implementability appraisal (GLIA) version 2.0checklist. The internal evaluation was conducted usingtworounds of the Delphi survey that was followed by a face-to-face meeting of the guideline panel. The Delphi surveyswere complemented by an additional evaluation by external experts.

In the firstround Delphi survey, a percentage mean score lower than 75% was obtained for two domains: flexibility and validity domains of GLIA V2.0 checklist. This indicated that more work was needed withincluding detailed descriptions on areas such as strength and quality of recommendations and detailed justifications of recommendations. Therefore, modifications were made before sending the guideline for the secondround evaluation. The modifications made were: incorporating strength and quality of recommendations for those recommendations for which such data were available.

As the experts involved in the Delphi survey were also members of the guideline working group, it was my expectation that the risk of dropping out from the study would be minimal. Nevertheless, in the secondround,I obtained a response rate of 61.5%, which was lower than

my expectation. This is, however, an expected limitation of Delphi techniques.[105] In addition, it is a common obstacle that guideline developers face when using the GLIA checklists as it is a long instrument and may result in low response rates.[211]However, the instrument provides an opportunity for a comprehensive evaluation of guideline recommendations. It helps to assess both implementability and rigor of recommendations.[211] The other potential reason for delayed responses and low response rates in the current project might be because the experts were occupied with other tasks and that the current project was conducted within a tight schedule. I had made efforts to reduce delays and drop outs by setting deadlines, e-mail and telephone reminders. Such mechanisms have also been used by previous researchers employing Delphi techniques.[109]On the other hand, the same experts who failed to provide responses for the secondround survey participated in a panel meeting where they got an opportunity to reflect on their opinions. In the panel meeting, a summary of the comments and modifications made in all rounds were presented and reflections were made by all participants. Hence, the attrition bias related to drop outs was minimal.

During the external panel survey, the lowest score was recorded for the flexibility domain (53.70%). This was an indication that notifiedme to make the emphasison the quality and strength of recommendations. This was a partially expected response as some recommendations still lacked quality and strength of evidence supporting them. Hence, for such recommendations, I indicatedthem as 'no quality of evidence assigned'. Later, some of such recommendations were assigned as good practice points.

In addition, there was a concern by external reviewers regarding feasibility issues. Some enquired about the commitment of Jimma University Medical Center (JUMC) for availing continuous supply of materials for standard precautions. Therefore, this was later explored in detail during the key informant interviews (this is reported in chapter seven as part of contextualizing the guideline). On the other hand, the response 'not applicable (NA)' for question 18 might have contributed to the low score in the flexibility domain. The question enquires whether the recommendations were made with the consideration of co-morbidities among clients, which was not practical for the current guideline.

In general, except assigninga low endorsement score for the flexibility domain, the external panel endorsed all individual recommendations with scores above 75%.For the current Delphi survey, since some comments were merged, and additional new recommendations were added and dropped iteratively, it was not practical to employstatistical techniques such as weighted kappa, index of predicted association and McNemar chi-square tests.[202, 212-214]

Nevertheless, additional comments were not forthcoming during the secondround and during external expert evaluations. In addition, during the second panel meeting, a detailed discussion was held both on the comments and the modifications made to address the comments.

The current project employed a modified Delphi technique to establish consensus on recommendations based on the best available evidence from systematic reviews. Such techniques have been used by previous researchers to develop guidelines.[101, 215] One of the potential limitations of a modified Delphi approach is the absence of face-to-face engagement with panel members.[101] In the current project, this limitation was minimized by incorporating two panel meeting sessions, one before the start of the Delphi survey and one after the secondround Delphi survey. This has helped to clarify and discuss vague points. However, before implementing the guideline, it is critical to identify contextual and environmental factors to tailor the implementation of the guideline to local context. In the next chapter (chapter seven) I have indicated how I explored details of contextual factors that potentially influence the implementation of the guideline.

## 6.7.    Conclusion

The current project evaluated the implementability of a guideline developed to reduce HIV-related stigma and discrimination in healthcare settings. The project employed both internal and external evaluation. The Delphi survey was followed by a half-day meeting that helped in further clarification of points and addressing some of the limitations of the series of the Delphi surveys.

# CHAPTER SEVEN

## CONTEXTUALIZING THE EVIDENCE: EXPLORATION OF FACILITATORS AND BARRIERS TO THE IMPLEMENTATION OF A GUIDELINE TO REDUCE HIV-RELATED STIGMA AND DISCRIMINATION IN ETHIOPIAN HEALTHCARE SETTINGS

## 7.1. Abstract

**Concise introduction**

Averting stigma and discrimination related to the human immunodeficiency virus (HIV) is one of the priority targets of the Federal Ministry of Health (FMOH) of Ethiopia and HIV prevention and control offices at different levels. Indepth exploration of local factors is needed to integrate a guideline developed to reduce HIV-related stigma and discrimination in healthcare settings.

**Objective**

The objective of this project was to assess expected barriers and facilitators to the implementation of the guideline and identify tailored recommended activities to maximize the uptake of the guideline.

**Methods**

This project employed a descriptive qualitative research. Seven key informant interviews were conducted using a semi-structured guide that was developed based on the framework suggested by the Registered Nurses Association of Ontario (RNAO). The key informant interviews were transcribed and translated into English. After that, the transcriptions were coded and analyzed using Atlas ti version 7.5 software package.

**Results**

Guideline attributes, provider-related factors and the presence of other health-related goals that complement stigma and discrimination (SAD) reduction programs were identified as factors that potentially affect the implementation of the guideline. Guideline attributes mentioned as potential facilitators of implementation were being a new guideline, addressing gaps in practice and evidence, clarifying the scope of the guideline, comprehensiveness and clarity of recommendations, addressing ethical principles and mentioning the rights and responsibilities of clients. The absence of previous guidelines on HIV-related SAD and the lack of HIV service integration and the widely practiced stigmatizing actions increased the demand for a new guideline on HIV-related stigma and discrimination among healthcare

providers. Expert patients, regular health education programs, quality movement, compassionate, respectful, and caring (CRC) and Clean and Safe Health Facility (CASH) initiatives were identified as currently existing opportunities that may be used as agents and platforms for the implementation of the current guideline. Study participants recommended that the guideline should be disseminated through multidisciplinary team (MDT) meetings, gate keepers such as opinion leaders and unit heads, one-to-five networks and mentorship programs, training and workshops and posters. As suggested by study participants, the success of the implementation of the current guideline can be maximized by encouraging internal and external partnership, strengthening teamwork, clarifying steps in implementation, using position holders and opinion leaders as role models, advocacy, and establishing an implementation structure.

**Conclusion**

The current project identified factors related to the nature of the guideline, the policy and practice environment, the health professionals and the commitment of stakeholders that affect the uptake of the guideline. Policy makers should disseminate the guideline through existing opportunities such asMDT meetings, CRC, one-to-five networks, training and workshops. The guideline indicators should be integrated into mentorship, MDT meetings and monitoring and evaluation programs of the hospital. Teamwork and partnership with stakeholders within and outside the hospital should be strengthened to tackle barriers related to the implementation of the guideline. In addition, it is essential to establish implementation structure.

## 7.2. Concise introduction

Ethiopia is one of the 20 countries contributing to 80% of the global burden of the human immunodeficiency virus (HIV). In 2014, there were an estimated 600 thousand people living with HIV (PLHIV) in Ethiopia.[216]Stigma and discrimination (SAD) related to HIV have deterred HIV prevention and control activities in the country.[217] Different international and faith-based organizations have been working to avert stigma and discrimination for decades.[218]Reduction of HIV-related SAD is one of the priority targets of the Federal Ministry of Health (FMOH) of Ethiopia, regional health bureaus and HIV prevention and control offices at different levels.[218]

Despite all these efforts, the country's progress report of 2014 on HIV response shows that stigma still remains a significant issue and an obstacle towards the effectiveness of HIV prevention and control.[218] In a 2014 survey, nearly 60% of adults reported discriminatory

attitudes towards PLHIV.[218] Different studies indicate the persistence of HIV-related stigma among the community,[219, 220] key population groups,[221] and health care providers.[57] Stigma is still a major barrier to linkage to, and retention in care.[222] Stigma and discrimination deteriorate the social and living conditions of PLHIV.[53] As a result of expansion of antiretroviral therapy (ART), the need for psychosocial support among PLHIV in the Ethiopian context is increasing.[223] Furthermore, as part of the comprehensive needs of PLHIV, home-based care activities and adherence support programs are run by volunteers and expert patients in Ethiopia.[70]In the presence of SAD, such activities and programs are less likely to be successful. Therefore, averting SADmust be a priority.

Currently, there are different manuals and guidelines on prevention, care and support related to HIV that are in use in Ethiopia.[224]Although there were no guidelines specifically addressing SAD in healthcare settings, all the manuals acknowledge the impact of SAD.[224]As described in the previous chapters, we have systematically developed a list of working recommendations to reduce HIV-related stigma and discrimination in healthcare settings.

The JBI model of evidence-based healthcare encourages the consideration of local context in the implementation of evidence-based practices. Hence, the transfer, communication, education, dissemination, system integration and implementation components of the model need to be considered.[4] The existence of a synthesized or summarized evidence in the form of systematic reviews and guidelines by itself is not enough for the improvement of policy and practice.[4]

There are various factors that impede the implementation of guidelines.[185] Some guidelines fail because of factors related to the characteristics of the guideline, including the way the guidelines have been written such as the wordings of the recommendations[225]and the ease of understanding, and resource implications.[225] Guidelines may fail if they are not user-friendly or if they are not relevant to the organization.[225] The lack of awareness of the existence of the guidelines or limited familiarity with the content of the guideline among healthcare workers (HCWs) may also negatively affect the implementation of a guideline.[225] In some cases the lack of management support and work overload may impede the successful implementation of guidelines.[225] In addition, organizational factors such as resource limitations may also impede the uptake of guidelines.[225]

This fact underscores the importance of going beyound the mere synthesis of evidence to tailoring the synthesized evidence into local contexts and situations.[4, 67] Hence, local factors

that affect the implementability of the guideline need to be considered.In the preceding chapter, we assessed the clarity, acceptability, implementability and relevance of the current guideline using the Guideline Implementability Appraisal (GLIA) checklist.[174]In addition to the factors assessed using the GLIA checklist, indepth exploration of local factors is needed in order to integrate the guideline into local policy and practice. Therefore, this project aimed to assess expected barriers and facilitators to the implementation of the guideline using key informant interviews and identify tailored recommended activities to maximize the uptake of the guideline.

## 7.3. Objectives

The objective of this project was to assess expected barriers and facilitators towards the implementation of the guideline and identify tailored recommended activities to maximize the uptake of the guideline.

Specifically the project aimed:

1. To identify the potential barriersto the implementation of SADreduction guideline.
2. To determine tailored solutions for the expected barriers to the implementation of the SADreduction guideline.
3. To identify the potential facilitators for the implementation of the SAD reduction guideline.
4. To identify strategies for the implementation of the guideline for better uptake and adherence.

## 7.4. Methods

### 7.4.1. Research design

This project employed adescriptive qualitative research to facilitate an indepth understanding of stakeholders' perceptions of the potential barriers and facilitators to the implementation of a guideline developed to reduce HIV-related stigma and discrimination.

**Researcher's position**

I conducted this project through thecollaboration with key informants (managers and service providers) to obtain adequate information that helped me to modify and tailor the guideline based on the data obtained from the project.  In this project,I acted as research designer, principal investigator, data collector, data analyzer and interpreter. Before conducting the research, I had adequate knowledge of the study participants, study setting and study subject (HIV-related stigma and discrimination). I assured the study participants about the anonymity of their responses. In addition, I hada pre-existing relationship with the study

participants through institutional affiliation and collaboration. These factors potentially enabled me to get detailed information from the participants through creating rapport. While exploringinformation from the perspective of the end users of the guideline, I acted as a facilitator to get the detailed report of the guideline's end users about the factors that would positively or negatively impact the implementation of the guideline. Hence, there was limited possibility of biasing the findings.

## 7.4.2. Study setting

This project was conducted to explore factors that help to contextualize the guideline in Jimma University Medical Centre (JUMC), which is part of Jimma University. Jimma University is located in Jimma, a town located 352 km southwest of Addis Ababa, the capital of Ethiopia. The university provides HIV-related services through the HIV and Tuberculosis Clinic and the Jimma University HIV Prevention and Control Office (JUHAPCO). The HIV and Tuberculosis Clinic is situated in Jimma University Medical Center (JUMC),separatefrom other units of the hospital.[226]

Jimma University Medical Centre provides inpatient and outpatient health services for more than 10 million people living in Southwest Ethiopia. The hospital provides inpatient services in six clinical departments (internal medicine, surgery, gynecology and obstetrics, pediatrics, psychiatry and ophthalmology) and outpatient services in the chronic illness follow-up clinics (diabetes, cardiovascular, asthma, epilepsy, tuberculosis, HIV and psychiatry), dermatology, dentistry and other outpatient services.[226]

The JUHAPCO is situated in Jimma University and was originally founded in 2002. JUHAPCO is supported by the Ethiopian Federal HIV Prevention and Control Office (FHAPCO), Ministry of Education (MOE), Global Fund, Ministry of Health (MOH), Joint program of United Nations Fund for Children and United Nations Fund for Population Agency (UNICEF- UNFPA), Joint Program of Center for Disease Control (CDC) and President's Emergency Plan for AIDS Relief (CDC-PEPFAR) Ethiopia.JUHAPCO provides comprehensive HIV prevention activities like educational programs, outreach activities, training and care and support for HIV/AIDS affected and infected sub groups, including out-of-school youth, in school youth, orphan, vulnerable groups in Jimma University and the surrounding community.In addition, it provides technical support, training and mentorship for the HIV and Tuberculosis Care Clinic and other healthcare facilities in Jimma Zone. The office also provides learning resources for students, staff and researchers.[227]

### 7.4.3. Study population

The key informants who participated in the interviews came from Jimma University, Jimma University Medical Center (JUMC), Jimma University HIV prevention and Control Offices (JUHAPCO), and Jimma Zone HIV Prevention and Control Offices (JZHAPCO).

### 7.4.4. Sample size and sampling procedure

A purposive sample of seven health professionals and health managers participated in the key informant interviews. The participants were selected based on their current roles as clinicians, mentors, trainers and managers related to HIV prevention and control.

### 7.4.5. Data collection

Using semi-structured interviews, participants' perceptions of the potential barriers and facilitators to the implementation of the guideline recommendations were sought. The qualitative research assessed contextual factors related to JUMC. The qualitative data were collected using a semi-structured interview guide that was developed based on the framework suggested by the Registered Nurses Association of Ontario (RNAO).[117]Based on this framework, the expected barriers and facilitators to the implementation of best practice guidelines are generally categorized into: evidence related factors, target audience related factors, resources needed for the implementation, and organizational context in which the guideline is to be implemented.[117] The semi-structured interview addressed these expected areas of barriers and facilitators (Appendix23). The interview guide was translated into local languages (Afan Oromo and Amharic) by the researcher and translated back into English by another person fluent in the languages to check semantic equivalence.

I conducted seven key informant interviews. Participants were provided written information sheets in English, Amharic or Afan Oromo based on their preferences. Then, they signed consent forms to participate in the study. The interviews were conducted at a place and time that was suitable for the participants.Theinitialfindings of the interviews werefurther explored,and the opinions of the key informants were cross-compared.

### 7.4.6. Data processing and analyses

The key informant interviews were recorded, transcribed and translated into English. The data were analyzed using Atlas.ti 7.5 software package for qualitative data analyses. The data were analyzed thematically drawing on the framework suggested by Braun and Clark.[26]The transcriptions were repeatedly read to achieve immersion and obtain the sense of a whole data. Then, outstanding features of the data were systematically coded. The codes were then gathered to themes or patterned responses. After that, findings were organized

thematically based on replication (confirming what other key informants have said), extension (providing additional contextual information that extends findings) and refutation (providing a contrary view to what other key informants said).Finally, the themes were reviewed and defined to generate the final report.

## 7.4.7. Data quality control

While conducting qualitative research, it is recommended to use the term trustworthiness to describe the rigor of the studies.[206] The concept 'trustworthiness' encompasses credibility, transferability, dependability and confirmability.[207]

Credibility, in these key informant interviews, was established by getting indetailed information from experts with relevant expertise and experience. I adopted a well-established semi-structured interview guide to clearly incorporate the concepts under study.[228]Besides that, Iwas already familiar to the culture of the local organization under study and in the current research I assumed a neutral role.[228] Moreover, I attempted to verify the viewpoints of different experts against those of others through constantly reviewing the list of questions and further probing to get details of variations (negative case analyses) and including the opinions of all the participants.[4,210] In this project, dependability was enhanced by including relevant experts in the field.[209]

Confirmability is achieved by the collection of thick descriptive data, negative case analyses and arranging for a confirmability audit and establishing referential adequacy.[207] In this project, accurate records of the responses of the participants were made during the interviews. In addition, unique opinions were further explored to understand how and why they disagreed with the more popular opinions. This was done through preliminary analysis of the data and through revising note books and modifying a list of questions based on the emerging themes.

The transferability of qualitative evidence is based on the similarity ofcontextual factors in the settings.[210]Since most of them are contextually similar to JUMC, the healthcare facilities, especially teaching and referral hospitals in Ethiopia may utilize the information generated in this qualitative research. In addition, the potential transferability of the evidence to other settings should be considered in view of the procedures, settings and context described in this project. Moreover, the data generated in this chapter by itself is predominantly the description of the contextual situation in JUMC from the perspective of factors related to guideline implementation.

### 7.4.8. Ethical considerations

The project received ethical approval from the Human Research Ethics Committee (HREC) of the University of Adelaide(approval number H-2016-140) and from the Institutional Review Board (IRB) of Jimma University Institute of Health (JIH)(RPGC/389/2016). Participants were provided with written information sheets(Appendix 24). Written consent forms (Appendix 25) were obtained before commencing the interviews with the key informants. During the write-up and report writing, participants were not identified by their names, positions or roles; only codes were used.

## 7.5. Results

A total of seven key informants participated in the interviews. The key informants came from Jimma University, JUHAPCO, JUMC and JZHAPCO. The disciplinary backgrounds of the key informants weremedical doctors, nurses, midwives, medical officers and health promotion experts with further specialty training in clinical and public health disciplines.

Using open-coding technique, 119 codes emerged. The codes were then categorized under 97 categories that were grouped under 32subthemes. The subthemes were finally grouped under eight broader themes. Results are presented and described based on the following broader themes.

1. Barriers and facilitators to the implementation of the guideline
2. Dissemination issues
3. Training, supervision and mentoring
4. Implementation issues
5. Monitoring and evaluation issues
6. Integration of the guideline into the hospital routine
7. Sustainability and scaling-up
8. Resource implications

### 7.5.1. Barriers and facilitators to the implementation of the guideline

This project explored factors whose presences facilitate or deter the implementation of the current guideline. Factors are considered as facilitators if their presence promotes the implementation of, or adherence to the guideline. Factors are considered as barriers if they impede implementation of, or adherence to the guideline. The same factor can be both a barrier and a facilitator. If the presence of a factor is a facilitator, its absence is considered as a barrier.Hence, barriers and facilitators are presented together here. The barriers and facilitators identified through the key informant interviews were categorized into:

a. Characteristics of the guideline

b. Existing opportunities and platforms in the policy and practice environment

c. Provider-related factors

### 7.5.1.2. Characteristics of the guideline

The following factors inherent to the guideline were identified as facilitators for the implementation of the current guideline.

a) Addressinga gap in evidence and practice

b) Comprehensiveness, clarity and consistency of recommendations

c) Addressing ethical principles and issues related to patient charter

d) Clarifying the scope of the guideline

e) Indication of the steps required for the implementation

f) The presence of implementation tools

g) Making the guideline appealing and attractive

The following is an elaboration of each facilitator, followed by relevant quotations from the stakeholders. The first facilitator inherent to the guideline was that the guideline addressed gaps in evidence and practice. As reported by the key informants, the fact that the current guideline addressed gaps in evidence and practice is an opportunity to increase the uptake of the guideline. Addressing stigma and discrimination, as one of the priority problems, was mentioned as a facilitating factor for the implementation of the current guideline. Key informants specifically mentionedthe national goals of getting zero new HIV infectionsin the context of persistently prevailing HIV-related stigma.

> *"The stigma attached to HIV has increased. Our current plan is to get zero new infections. For that purpose, we have not provided necessary awareness creation activities for stakeholders. Therefore, this is an opportunity, because it is one of the most priority area of intervention. Stigma is a widespread and a priority problem. So, this by itself is a facilitating condition" KI P6*

The study participants stressed that HIV-related goals cannot be realized without curbing stigma and discrimination related to HIV. Key informants also reported that SAD related to HIV have been overlooked relative to the focus given to the medical therapy of HIV and there is no up-to-date guideline that addresses SAD related to HIV in healthcare settings. In addition, they mentioned these points as opportunities for the implementation of the current guideline.

*"Many organizations did not work on stigma and discrimination in healthcare settings. They were focusing their attention on treatment issues alone. Therefore, the current guideline is very important initiative to fill this gap. We cannot end HIV by drug therapy alone. We need behavioral change. We are still behind from the perspective of tackling stigma and discrimination. Earlier, tuberculosis patients were being stigmatized but now, that has reduced. But stigma and discrimination related to HIV is still a problem. So, we must achieve the same result for HIV-related stigma and discrimination." KI P6*

Mentioning that stigma and discrimination related to HIV and their impacts are widely observed among clients and providers, participants also indicated that the current prevailing gaps in handling clients is attributed to the lack of guidelines. They also indicated that there is a gap in adhering to standard practice in relation to service provision for PLHIV. The absence of previous guidelines on HIV-related SAD, weak HIV service integration, the separate location of the HIV and Tuberculosis Clinic and the widely practiced stigmatizing actions were among the practice gaps reported by study participants. The presence of these gaps places an increased demand for the new guideline to reduce HIV-related stigma and discrimination and this will potentially increase the uptake of the current guideline.

*"As a guideline addressing our current gaps, there are opportunities that increase the uptake of the guideline. People in this locality go somewhere else to get HIV-related services. This is because, the clinic [TB and HIV Clinic] is already separated from other units of the hospital and clients are afraid of going there. Because, if they go there, by default, it will beclear that they are HIV positive. The clinic should have been part of the hospital adjacent to our units. This did not happen because there was no guideline and there was no one concerned about the rights of the clients. If the guideline is implemented, managers will understand the problem. And this may result in full integration of HIV services into other hospital services." KI P5*

The absence of any guideline on HIV-related SAD and the lack of HIV service integration and the widely practiced stigmatizing actions places increased demand for a new guideline on HIV-related stigma and discrimination among healthcare providers. The current guideline, as one of new guidelines, is likely to be accepted and implemented by stakeholders.

*"The other factor that we may take as a facilitating condition is the fact that there is no previous guideline and this guideline is the first of its type in our healthcare*

*facility that addressed stigma and discrimination. So far, we have something on HIV policy, but we do not have any guideline on stigma and discrimination. Since this guideline is new and unique, it will attract the attention of stakeholders and implementers." KI P5*

Secondly, study participants mentioned that the recommendations in the guideline were developed based on currently available global evidence and indicated this as one of the facilitators for effective implementation of the current guideline:

*"...Moreover, the current guideline was based on global up-to-date evidence. This will potentially increase the uptake of the guideline, because it addresses a gap that has never been attempted before. Therefore, I think we are already on the right track." KI P5*

The third potential facilitator mentioned was the clarity, comprehensiveness and consistency of the recommendations included in the current guideline. Study participantsreported that the guideline was clear and at the same time,it had detailed information related to methodological issues in the guideline development. Participants also said that keeping the balance between the clarity and details of the guideline is critical for facilitating the implementation of the guideline.

*"The recommendations are very clear. There is a need to keep the balance between the burden in reading details and the clarity and completeness of the recommendations. If descriptions do not exist, sometimes it is difficult to understand. So, keeping the balance is the key. This was addressed in this guideline. The guideline recommendations are clear and short." KI P7*

The fourth attribute inherent to the guideline reported as a facilitator was addressing ethical principles. Addressing ethical principles was mentioned as one of the factors that enhance the implementation of the guideline because such an action is associated with the improvement of hospital service quality. Participants also reported that current agendas such as patient charter and patient rights are potential opportunities that facilitate the implementation of the current guideline. In addition, mentioning the rights and roles of patients and providers, as participants described, facilitates the entire service provision and therefore, is one of the facilitating factors for the implementation of the current guideline. The other strength of the guideline described by the participants was the indication of services that clients should receive and the environment in which these services should be delivered.

*"What I would like to focus is always professionals forget ethical principles. These principles include: autonomy, maleficence, beneficence and justice. When we take justice, it means that a client irrespective of his or her clinical status should receive appropriate care and services. When we mean beneficence, it means that what the health professional works should benefit the patient. When we say maleficence, it means that the health professional should not harm the patient. When we come to autonomy, it means that the patient has the right to request information, the right to refuse or accept the services. All these principles should guide our attitudes and practices as health professionals. Our health professionals should be guided by these principles.Our current stigma and discriminationreduction guideline has addressed these things. This has a significant role in improving the quality of care we provide. Our knowledge should be in congruent with our professional ethics. Therefore, I think professionals are more likely to accept and implement the guideline as part of their professional ethics." KI P4*

Participants statedthat as one of the guidelines addressing the rights and responsibilities of patients, there is an opportunity for better uptake of the current guideline.

*"The issue of governance and patient's rights are always neglected by healthcare workers. In the future, however, this negligence cannot be tolerated anymore. So, we must work on it. Patients are asking for their rights. The government is also giving priority for these areas. Therefore, this guideline came at the right time and there are many opportunities for the implementation." KI P4*

The fifth guideline attribute potentially affecting the uptake of the guideline was clarification of the scope of the guideline. The need to clarify the scope of the guideline was raised as a precondition for the successful implementation of the guideline. This includes specifying the target users of the guideline and the roles of other stakeholders. The key informants recommended that the scope of the guideline and the roles and responsibilities of stakeholders should be described in detail.

While the guideline was prepared for all disciplines of health, medical and allied health professionals, some participants suggested choosing either of two approaches for the format of the guideline. The first approach suggested was using the same guideline format for all health professionals and determining the roles of each health professional category such as responsibilities of nurses, midwives, laboratory technicians, physicians, etc., and potential stigmatizing actions in each unit and incorporating these actions into the guideline.

111

On the other hand, the preparation of a separate guideline for each health professional category was suggested as another possible alternative though it was also recognised as being time consuming and all participants who presented this option believed that the preferred option was to include all recommendations in the same guideline for all health professionals. The particpants however, recommended the roles of each professional category should be described during the training.

Participants further substantiated the alternative for using the same guideline for all health professional categories, mentioning that most recommendations in the guideline work for all categories of health professionals. In addition, they suggested that a uniform format of the guideline should be used for all health professionals, stating that any guideline related to stigma and discrimination should be the same for all health professionals.

On the other hand, participants suggested that the existence of many new initiatives may be perceived as a burden by the healthcare workers and therefore the guidelines should be integrated. Hence, they recommended that one guideline could be linked with others. Such a linkage can be provided in the guidelines mentioning how the recommendations in one guideline complement those of the other guideline.

> *"Even if the guidelines are prepared separately, they all can be part of their professional practice. We may not need to prepare all guidelines in one hard copy. What we can do is linking one guideline with the other. It would be nice if we mention other related guidelines so that healthcare professionals refer to the other guideline to get comprehensive information. We can revise all other guidelines in this manner so that one supports the other."KI P4*

Study participants also recommended that the guideline should enable HCWs to identify the roles and responsibilities and evaluate their actions.

> *"The guideline should help us evaluate ourselves with stigma lens. Just after reading the guideline, we should be able to examine our roles and responsibilities and think of our individual practices. We should identify and characterize stigmatizing activities that are currently present in our hospital. I hope the current guideline will help us to achieve these objectives" KI P3*

Other factors inherent to the guideline that are expected to facilitate the implementation of the guideline were indicating steps to launch the guideline, the presence of implementation tools and the attractiveness of the guideline. While the presence of implementation tools such as 'PLHIV-friendly healthcare facilities'and the healthcare workers' questionnaires

were raised as facilitators for the implementation of the current guideline, participants suggested preparing guidelines in an attractive way, such as in the form of posters.

> *"The guideline containsclear steps and checklists that give us clear direction about the implementation. I think these steps are practical for our hospital. For instance, it indicates the importance of establishing a committee, assessing the setup and other essential steps. Therefore, these steps and checklists included in the guideline are very essential. They indicate clear direction. In our facility, we have limited guidelines and checklists like this guideline. This has created confusion and lack of consistency in practice. So, whether people come and go, works will be done based on checklists and steps provided in the guideline." KI P5*

### 7.5.1.3. Existing opportunities, platforms and barriers in the policy and practice environment

Key informants identifiedexisting opportunities that could facilitate the implementation of the current guideline. These are the commitment of stakeholders, existing platforms and the complementarities of institutional and programmatic goals with the guideline goals. On the other hand, high patient load is expected to impede the implementation of the current guideline.

#### 7.5.1.3.1. The commitment of stakeholders

Participants reported that the commitment of stakeholders at multiple levels is required for the implementation of a guideline.They also stated that the commitment of the hospital and stakeholders at national level is evidenced in their programmatic and institutional goals. These targets will be realized only if stigma and discrimination attached to the disease is reduced. Reducing stigma and discrimination is also one of the priorities of JUMC and the government of Ethiopia.

> *"Even at national level, there are programs such as health sector transformation plan (HSTP) that support such [stigmareduction] initiatives. For instance, one of the targets at national level is to reduce new HIV infections by 90%. Focus was given for HIV prevention and control. So, they are committed to reduce stigma and discrimination. The current guideline addresses stigma and discrimination, one of the areas of HIV prevention and control activities where significant gaps exist. Therefore, this guideline plays a significant role in the programs." KI P2*

In addition, key informants reported that the presence of different stakeholders that support HIV-related services are opportunities that could potentially increase the attention given to SADreduction programs.

> *"For instance, there are stakeholders that provide support on HIV-related palliative care and sexually transmitted infections (STIs). Furthermore, stigma mitigation is part of a comprehensive care. In addition, there are different training programs on HIV, such as on ART, PMTCT and so on. Therefore, there is an opportunity for these stakeholders to host stigmareduction programs and guidelines. Hence, there is a suitable environment to integrate the guideline into the existing system." KI P4*

From their experience of implementing previous guidelines and standards, participants concluded that JUMC is potentially a favorable environment for the implementation of the current guideline. Stigma and discriminationreduction was identified as one of the main priorities of the hospital. In addition, the current guideline, as stated by the participants, supports the improvement of hospital service quality.

> *"Both the hospital and our partners have aimed to have an HIV-free generation. In addition, the hospital needs to have quality service in each unit. The current guideline can help us as a tool for the improvement of quality of hospital services. The hospital management is also committed. Our managers know that clients are at the center of their hospital. They always have quality of care as their motto."*

### 7.5.1. 3.2. Existing platforms

Opportunities that key informants identified as platforms for the implementation of the current guideline were: the existence of expert patients and associations of PLHIV, the existence of regular health education programs, the existence of mentorship programs and MDTmeetings.

Participants reported that currently expert patients (HIV positive lay health workers) are involved in the care and support of PLHIV with the intention to reduce unnecessary negative interactions from healthcare providers. The expert patients teach the clients about treatment, how to take medications, medication side effects and so on. They also share their life experiences with the clients, so the clients understand that it is possible to live with HIV.

> *"There are a lot of opportunities around us. For instance, there are expert patients. They [expert patients] are needed because clients face stigma. Expert patients are acting as service providers. on the other hand, they are also acting as role models for other clients. The main reason for involving expert patients is to avoid*

*unnecessary negative interactions from healthcare providers. So, as they [clients] are diagnosed with HIV, clients are immediately referred to expert patients. So, the expert patients teach the clients about HIV, about treatment, about how to take medications, about medication side effects and so on. They also share their life experiences to the clients. So, the clients understand that it is possible to live with HIV."KI P1*

The existence of expert patients was cited as an opportunity for the introduction of the current guideline. The involvement of expert patients in stigma and discriminationreduction was identified as one of the critical and practical recommendations. This is because, asmentioned by the study participants, expert patients are better informed and have witnessed or experienced stigma and discrimination. It was also recommended that expert patients needed to be involved in decision-making and being members of committees and boards.

*"The expert patients can help us as agents to promote the implementation of the guideline by informing health professionals and other clients of their rights and responsibilities. In addition, as an issue of governance, expert patients should constitute hospital committee and boards. This is the issue of governance and accountability. So, we must strengthen this." KI P7*

The involvement of the associations of PLHIV was raised by the key informants as one of the potential opportunities for the introduction of the guideline and tracking its implementation. The first strategy suggested to involve the association of PLHIV, was by providing the members of the associationstraining, informing them of their rights and responsibilities so that they will ask for their rights.

*"From our experience, we have involved the associations of PLHIV in different initiatives. There are already established networks of PLHIV. We can also create new networks. We may inform them of this new guideline so that they will track its implementation. Therefore, the main thing is to empower them."KI P4*

Key informants also reported that currently, there is regular health education program in the hospital (JUMC) and that this program may be used as a platform to introduce the current guideline.

*"For instance, currently health education is being provided to address positive living and to enable PLHIV cope with the virus. These include how the patient should take medications, how the patient can cope with social situations and how the clients can*

*keep themselves from other diseases. We can also use such platforms to introduce*
*the guideline." KI P3*

**7.5.1.3.3. Complementarities with institutional and programmatic goals**

Study participants reported that there are institutional and programmatic goals that need the reduction of SAD as a focus. These are already existing programs such as, programs to increase treatment utilization and antiretroviral therapy (ART) adherence, and prevention of mother to child transmission (PMTCT) service utilization. The achievement of the goals of these programs needs stigmareduction as an input.

> *"We have significant loss to follow up among HIV clients. This may be due to the*
> *fear of stigma and discrimination. Therefore, this guideline helps to improve*
> *adherence to ART." KI P3*

Additionally, key informants reported that most of the current priority areas such as Clean and Safe Health Facility (CASH), quality movement, and Compassionate, Respectful, and Caring (CRC) initiatives by the MOH may be successful if stigma is reduced and couldbe facilitators for the implementation of the guideline.

*Compassionate, respectful, and caring (CRC) initiative as an opportunity to introduce the guideline*

Study participants reported that in JUMC, there are various new initiatives. One of these initiatives is the CRC initiative. The study participants reported the commonalities of CRC initiative and stigma reduction guideline. The main agenda of the CRC initiative, as participants stated, is to make health professionals develop compassion and respect towards his/her client. Participants also reported that the CRC initiative has common objectives with those of the current guideline on SADreduction. It facilitates the empowerment of clients and addresses the rights of the clients. The reduction of stigmatizing attitudes and actions towards clients regardless of their disease status,could help HCWs develop compassionate, respectful and caring attitude towards their clients. Therefore, the guideline is expected to complement the achievement of the goals of the CRC initiative by changing the attitudes of health professionals. On the other hand, the achievement of the goals of the CRC initiative could contribute to the success of SADreduction programs. Therefore, the CRC initiative could be taken as an opportunity for the implementation of the current guideline.

> *"The CRC initiative itself describes what is there in the current stigmareduction*
> *guideline. It describes how a health professional should approach clients. So, I think*
> *the current guideline complements the CRC initiative. Therefore, the CRC initiative*

*can be taken as an opportunity for the implementation of the current guideline." KI*
*P2*

***Quality movement and good governance as opportunities for the introduction of the guideline***

The other area of complementarity reported by key informants was 'quality service movement' and good governance. As stated by study participants, good governance improves the engagement of clients living with HIV and the associations of PLHIV in decision-making issues related to care. This is again an opportunity as client engagement is part of the recommendations included in the current stigma guideline.Furthermore, the current stigma and discriminationreduction guideline is expected to contribute towards the improvement of service quality in the hospital.

> *"There is a quality service movement nowadays. This quality service movement*
> *encourages the delivery of patient-centered care. Therefore, our current stigma and*
> *discriminationreduction guideline complements this quality service movement. In*
> *addition, there is an initiative for good governance. This initiative encourages the*
> *engagement of clients and their association in decision-making issues related to*
> *care. This is again an opportunity, because client engagement is part of the*
> *recommendations included in the current stigma and discriminationreduction*
> *guideline." KI P6*

***Clean and Safe Health facility (CASH)***

Study participants reported that JUMC is working to increase adherence to standard precautions as part of CASH program. Infection Prevention and Patient Safety (IPPS) was raised as one of the priority problems of JUMC. One reason for this is, as informed by participants, is because there is little opportunity for staff to receive up-to-date information related to patient care. The current guideline is expected to reduce extra precautions and encourage standard precautions among HCWs. If the guideline is implemented, it will reduce unnecessary over utilization of protective equipment and materials and thereby saves resources. These resources will then be utilized at the right time only when they are needed. As mentioned by the participants, HCWs are currently utilizing extra precaution because of irrational fear of transmission and the absence of a guideline related to stigma and discrimination.

> *"By chance, if staff is assigned to work at the clinic [HIV and TB clinic], they*
> *proceed to work without sufficient orientation. Except the recent progress being*
> *made, there are no adequate reading materials and library services through which*

*they [healthcare workers] improve their practice. So, they [healthcare workers] think as if the virus jumps from the client to the provider. Sometimes, there is a time where they [HCWs] are afraid of greeting them [PLHIV]. If HCWs see something, even patient's saliva, on their shoes, they always bleach their shoes. Others unnecessarily wear masks or wear gloves, sometimes double gloves. This is because they think that HIV positive clients are thought to transmit tuberculosis and HIV all the time. The toilets are separately locked for the staff and clients cannot use them. We observe significant extra precaution in our hospital." KI P2*

Appreciating the recommendations about the standard precautions in the current guideline, participants also stated that standard precautionsare important not only for HIV, but also for each activity of the hospital. Adherence to standard precautions helps to reduce unnecessary wastage of resources and substandard practices by encouraging health professionals undergo uniform practices for all types of clients.

*"Adherence to standard precautions is currently low, because professionals do not use protective materials for HIV negative clients. And for HIV positive clients, they use excessive precautions. This is where the discrimination happens. Therefore, professionals should practice standard precaution for all clients regardless of their status. For instance, clients who were not tested may be positive, but they are still perceived as being HIV negative." KI P3*

Participants also reported that universal precautionsare provider-oriented and resource-intensive method of precautions as they advocate the utilization of precautions for every patient every time to protect healthcare workers from blood-born microorganisms.Standard precautions, as mentioned by study participants, encourage the use of resources only whenever it is necessary to do so. It is aimed to protect both clients and providers from exposure to body fluids. Participants emphasized that standard precautions should be used in the current guideline instead of using universal precautions, claiming that universal precautionsare inclined towards the protection of HCWs compared to protecting the rights and dignity of clients.

*"Universal precautionsare provider-oriented precautions. This is aimed to protect providers_ not clients. Body-substance isolation precautions should also address clients. Currently we are using 'one guideline that operates at two'. It is a single guideline that addresses both the needs of clients and providers. It is a transmission-based precaution. It applies precaution to everyone in the hospital. It assumes that things in the hospital*

*have the potential to transmit infections. Therefore, we advocate standard precaution. So, I suggest that we use the term 'standard precautions' in the guideline. So, 'universal precautions' should be replaced by 'standard precautions'."KI P2*

*PMTCT utilization, ART adherence, loss to follow up and help seeking among PLHIV*

Study participants reported that the reduction of perceived or actual stigma among clients can increase HIV testing rates, ART adherence rates, PMTCT service utilization rates and general healthcare service utilization.In addition, as mentioned by the key informants, the reduction of SADwould help clients to disclose their sero-status, and their hidden behaviors including their feelings. Therefore, tackling SAD is the center of any HIV prevention and control programs and could contribute to the achievement of HIV prevention and control goals.

The participants also reported that currently clients are expected to be on ART earlier than before. However, most clients are delaying seeking treatment because of the fear of stigma. Therefore, addressing of SAD is needed to increase HIV testing and help-seeking behaviors of clients. As participants reported, these factors would create the need for the current guideline and therefore provide a favorable situation for the implementation of the current guideline.

> *"The fear of stigma reduces help seeking behavior and disclosure of one's sero-status. These people continue disseminating the infection. Currently, we have significant loss to follow up among HIV positive clients. This may be due to the fear of stigma and discrimination. Therefore, this guideline, in the long run, helps to improve adherence to ART, and in general reduces patients' loss to follow up from care. Therefore, tackling stigma and discrimination is the center of HIV curative and preventive activities." KI P3*

### 7.5.1.3.4. Patient load

As reported by study participants, the implementation of the guideline implies that HCWs should pay attention to the needs of clients. Therefore, the implementation of the guideline has the potential to increase the effect on patient load. Similarly, the presence of high patient load may reduce the time spent by the HCWs with each patient and hence impede the implementation of the guideline. On the other hand, the implementation of this guideline is expected to reduce patient load as clients will be getting treatment from their right locality if stigma is reduced. This is because, if this guideline is implemented, stigma would be reduced, and this would result in clients receiving services from local facilities. Hence,

healthcare facilities in cities and big towns would not be overburdened by clients. Therefore, in the long run, patient load would be reduced.

> *"Because of the fear of stigma and discrimination, clients from Jimma go and seek treatment from other healthcare facilities. And clients from other areas come and receive treatment from Jimma. Even, some clients either avoid getting tested or seeking treatment. Therefore, if we could reduce stigma and discrimination, we can also reduce unnecessary patient loads, because clients will be able to get services at their local facilities." KI P5*

### 7.5.1.4. Provider-related factors

Healthcare worker-related factors that affect the implementation of the guideline are related to the knowledge, awareness and attitude, being occupied by other competing interests, HCWs' motivation and the sense of ownership of the guideline.Unrealistic expectations and limited awareness of the guideline among healthcare workers were amongthe potential barriers reported by the key informants. The key informants emphasized that if HCWs are not aware of these guidelines, they will not be able to implement it. In addition, it is expected that HCWs do not recognize and acknowledge their stigmatizing behaviors. This was raised as a potential barrier to the implementation of the current stigma and discriminationreduction guideline.

> *"There are some professionals who stigmatize HIV. Some of them still do not attend the delivery of a mother who is HIV positive. But, they deny their stigmatizing behaviors. So, it is essential to give them the orientation and the training. If HCWs do not know how to perform what they are expected to do so, they will carry out substandard activities. HCWs may perceive that they are not stigmatizing HIV positive clients and they do not need the guideline. But, we may convince them that the guideline is for every HCW not just for those HCW's who stigmatize PLHIV. So, we must raisethe awareness of HCWs" KI P6*

As elaborated by study participants, unrealistic expectation of HCWs is another potential barrier faced during the implementation. Some healthcare workers expect incentives during training and at times, during implementation. Other potential barriers identified by key informants were that some professionals perceive that the guideline is imposed on them as a commandment. As reported by study participants, this may result because of inadequate awareness or because they are not convinced about the initiatives.

120

*"On the other hand, the challenges that we may face include the difficulty of changing the attitudes of some staff. While we were trying to introduce new initiatives, we have tried onsite training without payment. But health professionals do not want to attend such a training. Especially, if there is no incentive, professionals are not willing to attend it. If they do not have the interest, to what extent can they implement the guideline?" KI P1*

On the other hand, the presence of staff that is available and committed to provide training was raised as a facilitating factor for the implementation of the guideline. In addition, the commitment of HCWs was mentioned as a facilitating factor for the guideline implementation. Specifically, the presence of motivated staffs working in HIV-related services was identified as a factor facilitating the uptake of the guideline.

*"Some HCWs are committed to do the necessary tasks. We conduct mentoring for different units. In some units, where there are committed staffs, tasks are accomplished easily. In other units where there is weak or no commitment of healthcare workers, whatever mentoring you provide them, we observe that the implementation is always weak. When we come to our healthcare facility [JUMC], especially those health professionals who work on HIV treatment and care, they have good motivation and commitment towards their job. Therefore, the commitment of professionals can be one of the facilitating factors in our hospital" KI P5*

Though the impact was claimed to be minimal for the current guideline, participants reported that the implementation of a new guideline may require HCWs to give more time and attention to clients than before. Therefore, it is expected that some professionals may be resistant to the changes needed. Nevertheless, these expected challenges are minimal and HCWs can be convinced of the potential benefit of the guideline.

The other provider-related factor identified by the key informants was the sense of ownership. The sense of ownership for the guideline is one of the key factors that influence the implementation of the guideline. Study participants mentioned that guidelines and initiatives usually fail because of the lack of sense of ownership and they stressed the necessity of working to increase the sense of ownership among HCWs. In addition, they reported that the sense of ownership developed because of the involvement of professionals from the local institution is one of the facilitators for the successful implementation of the current guideline.

*"Always, when guidelines reach health professionals not all of them implement it correctly. Some of these problems occur because of the lack of sense of ownership for the guideline among healthcare workers. From the very beginning, a multidisciplinary group of health professionals has been involved in the development of the current guideline. In my opinion, this has, to some extent induced a feeling of ownership for the current guideline." KI P2*

In addition, key informants reported that the consideration of local factors during the development would potentially increase its implementability.

*"What makes this guideline unique is that it was developed at healthcare facility level. Other guidelines are usually developed at regional, zonal and national levels. The current guideline was prepared by Jimma University in collaboration with the University of Adelaide. Previous guidelines were developed just at national or international level without taking local circumstances into account. The current guideline is unique in that it has assessed local practical situations. It has also sought the experiences of health managers and health professionals." IDI P5*

The key informants also stated that the implementation of previous guidelines failed because the implementation of the guidelines was perceived as the responsibility of only those individuals who received the initial training on the guideline. Thekey informants stressed that the sense of ownership should be built even during the implementation of the guideline.

*"From our experiences, what we have learnt was that there was a perception that the initiative is only the concern of those individuals who have been trained on the topic of interest. For instance, regarding clean and safe health facility (CASH) initiative, we trained two to three professionals from each unit. The objective was that these trained people will orient the remaining staff in their units. Nevertheless, in our case, many staff members perceived that such new practices or initiatives are only the business and concerns of those trained individuals." KI P1*

In general, many of the codes were either barriers or facilitators to the guideline. The barriers and facilitators for the current guideline are summarized in Table 13.

**Table 13. Barriers and facilitators to the implementation of HIV-related stigma and discriminationreduction guideline**

| Sub-themes | Categories | Subcategories | Codes |
|---|---|---|---|
| Characteristics of the guideline | Addressing gap in evidence and practice | The persistence of stigma | Stigma historically overlooked |
| | | | Stigma common among clients |
| | | | Stigma widely observed among HCWs |
| | | Addressing stigma as a priority problem | Absence of guideline |
| | | | Gaps in handling clients |
| | | | Deviation from standard practice |
| | | Supporting recommendations by global evidence | Recommendations developed based on a systematic literature search and panel consensus |
| | Clarifying the scope of the guideline | Specifying the target users | Relating the guideline to specific jobs of HCWs |
| | | Suggested format for different disciplines | Same format versus different format |
| | | | Integration of guidelines |
| | | | Enable HCWs to identify their roles and responsibilities |
| | | Specifying the roles of other stakeholders | |
| | Comprehensiveness, clarity and consistency of the recommendations | Description of methods used to develop recommendations | |
| | | Clarity of recommendations | |
| | | Comprehensiveness of the guideline | |
| | | Balance between clarity and comprehensiveness | |
| | Addressing ethical principles and issues related to patient charter | Having common goals with good governance | |
| | | Addressing issues related to patient charter | |
| | | Mentioning the rights and roles of patients | Services that clients should receive |
| | | | Service environment |
| | Making the guideline appealing and attractive | Preparing the guideline in the form of posters | |
| | Indication of steps required for the implementation | | |
| | The presence of implementation tools | Mentorship tools | |
| | | Evaluation tools | PLHIV-friendly health facility checklist |
| | | | HCW questionnaires |
| Opportunities, barriers and platforms | Commitment of stakeholders | Commitment of hospital management | |
| | | Presence of stakeholders that support HIV programs | |
| | | Stigmareduction as priority of stakeholders | |
| | | HIV as a focus area of policy makers | |
| | | JUMC is a favourable environment | |
| | | Commitment of HCWs | |
| | | Commitment of funders/partners | |
| | Existing platforms | Expert patients | |
| | | Associations of PLHIV | |
| | | Regular health education programs | |
| | | Mentorship programs | |
| | | MDT meeting | |
| | | One-to-five networks | |
| | Complementarities with existing programs | Addressing stigma as a roadway to achieve priority goals | Adherence to ART |
| | | | PMTCT utilization |
| | | | Zero new HIV infections |
| | Complementarities with new programs, initiatives and movements | The CRC initiative | |
| | | Quality movement | |
| | | Emphasis given for good governance | |
| | | CASH | |
| | Patient load | Potential long-term effect on patient load | Stigma reduction leading to the reduction of patient load in the long-run |

| | | | |
|---|---|---|---|
| | | Potential short-term effect on patient load | Implementation as potential time consumer |
| | | High patient load impedes guideline implementation | |
| Provider-related factors | Knowledge and attitude of HCWs | Limited awareness of the guideline | If HCWs are not aware of the guideline, they will not be able to implement it. |
| | | The perception that the guideline is imposed on them | |
| | | Unrealistic expectations | Expecting incentives to attend training and to implement the guideline |
| | | Failure of HCW's to recognize and acknowledge their stigmatizing behaviours | The perception that they do not stigmatize and do not need a guideline |
| | HCWs being occupied by other competing interests | | |
| | Motivation and commitment | Motivation of staff working in HIV and TB clinic | |
| | | Presence of motivated staff to provide training | |
| | Sense of ownership of the guideline | Sense of ownership because of involvement during development | Involvement of professionals from local institution |
| | | Sense of ownership during implementation | Perception that the implementation of the guideline is the responsibility of those individuals who received the initial training |

**NB**: HCWs: Healthcare workers, HIV: Human immunodeficiency virus, PLHIV: People Living with HIV, JUMC: Jimma University Medical Centre, MDT: Multidisciplinary team, ART: Antiretroviral therapy, PMTCT: Prevention of Mother to Child Transmission,CASH: Clean and safe health facility, CRC: Compasionate, respectful and caring, TB: Tuberculosis,

### 7.5.2. Dissemination approaches

As part of effective guideline implementation, the need for effective dissemination was emphasized by the key informants.

> *"If we could not get the guideline accessed by healthcare workers, we cannot get it implemented.Therefore, the guideline should be accessible to all health professionals." KIP5*

Generally, the dissemination strategies identified were categorized into passive and active dissemination strategies. Traditional dissemination strategies such as official letters, publishing the guideline, distributing hard copies and availing the guideline in libraries and websites were identified as passive methods of dissemination. On the other hand, training, short term workshops, peer education, using unit heads as gate keepers, posters and media were identified as active strategies for dissemination. Moreover, study participants reported that the current mentorship program, multidisciplinary team (MDT) meetings and one-to-five networks that exist in the Ethiopian healthcare system may be utilized as active dissemination platforms.

> *"There were times when we introduced guidelines passively through official letters and distributing hard copies. But this was not effective. However, there was a time when we were effective in introducing the guidelines through active methods such as MDT meetings, through our mentorship and training programs." IDI P5*

The first platform suggested for the dissemination of the current guideline was the MDT meeting program. As reported by key informants, currently, health professionals working on different areas related to HIV have aMDT meeting program, where they share different issues related to their practices in the care and support for PLHIV. In these meetings, the healthcare providers discuss all issues related to their practices, their strengths, weaknesses and the challenges faced at work. Key informants suggested that this may be a platform for the dissemination and implementation of the current guideline.

> *"We have different regular meetings such as multidisciplinary team (MDT) meetings. We have also a monthly mentorship program. Therefore, in these programs, we can give emphasis to the implementation of the guideline."KI P4*

The second potential platform for the dissemination of the guideline is mentorship. Mentorship is an onsite training where experienced health professionals teach other junior and less experienced professionals. As reported by the key informants, these programs have brought a radical change in the improvement of the quality of ART services. They also reported that mentorship is an excellent platform for sharing experiences. The mentorship program includes all units in the hospital such as pharmacy and dispensary units, HIV and TB clinic, inpatient and outpatient departments, and so on. Mentors provide technical support to health professionals of different disciplines including nurses, midwives, pharmacy professionals, laboratory technologists, medical doctors and other health professionals. All health professionals have access to this program.It was also reported that mentors can act as role models for the implementation of the current guideline.

> *"Our mentors are all role models in their practice. If you are not a role model in educational status and in your skill, it will be difficult to teach others at worksite. In our hospital, all the mentor nurses, mentor physicians and other health professional mentors are role models. Their training experience, their educational status and other attributes are better than others. Some of them hold managerial positions and some are professionally influential. Therefore, I hope that they will also be role models in implementing the current guideline." KI P4*

Key informantsreported that currently, mentoring is being provided every month using mentoring tools that show whether the HCW has performed all the necessary tasks. Key informants also reported that if SAD areincluded as part of the mentoring system, it can easily be implemented at the grass root level.

The third potential platform suggested by study participants was healthcare team structures. Health professionals have formal and informal teams. Among the current functional team structures are teams such as one-to-five networks. Key informants reported that it is possible to introduce the guideline through this network.

> *"In each unit, there is anetwork called one-to-five network. This is an arrangement where workers are grouped to discuss on different issues at work. So, this platform may be utilized for the introduction of the current guideline." KI P6*

The fourth suggested platform was peer education. As recommended by key informants, peer education may be utilized as a mechanism of dissemination and implementation for the current guideline.

> *"The other potential method for the dissemination of the guideline is peer education. If healthcare professionals found that the topic is attractive and interesting, they often discuss in peers. We can make the guideline appealing and encourage regular discussion of stigma and discrimination. So, the main thing that we require is, to win their attentions." KI P6*

The fifth strategy suggested for guideline dissemination was to use unit heads as gate keepers so that the unit heads can disseminate the guideline to their subordinates. In addition, it was reported that focal persons and health professionals who work on HIV could act as role models to influence other HCWs for the implementation of the guideline as they have adequate knowledge and experience in services related to HIV.

> *"The other strategy is to use unit heads as gate keepers. Then, the unit heads can disseminate the guideline to their subordinates. What we require is, involving them in the training so that they will act as change agents. This may not be necessarily those who are in positions. People who are opinion leaders, who are respected by their colleagues and who have appealing personality can act as role models." KI P7*

As reported by key informants, existing training programs may also be utilized as an opportunity to introduce the current guideline. The provision of orientation and training were identified as main strategies for the dissemination and implementation of the current guideline. A key informant cited previous experiences of JUMC in which it used training to introduce new guidelines effectively.

> *"There was a time when we introduced the updated version of PMTCT guideline, adult ART guideline and Pediatrics HIV treatment guidelines. We introduced the*

*guidelines through refresher trainings, and through mentorship programs. We can*

*use the same approach to introduce the current guideline." KI P4*

Strategies such as e-mails, and other online methods were also suggested as additional alternative methods for the dissemination of the current guideline. Currently, some health professionals can get access to computers and the internets at their work sites. Therefore, soft copies of the guidelines can be availed toHCWs as an additional alternative strategy. The guideline may be disseminated using e-mails and other online platforms. However, this method works only for those professionals who have access to the internet. Participants of the key informant interviews stated that introducing guidelines through passive dissemination methods such as official letters, publishing the guideline and distributing hard copies are not as effective as active methods such as MDT meetings,mentorship and team approaches to introduce and disseminate guidelines.

In addition, it was reported that other activities and systems in the hospitals can act as dissemination avenues. Specifically, key informants suggested that the regular health education program that is being conducted in JUMC should be utilized as a platform to introduce the guideline.

Suggested dissemination strategies are summarized in Table 14.

**Table 14. Suggested dissemination strategies**

| Subthemes | Categories |
|---|---|
| Active dissemination | Short-term training |
| | Peer education |
| | Workshops |
| | Posters at service delivery points |
| | Mentorship |
| | Regular health education programs |
| | One-to-five networks |
| | Using opinion leaders and unit heads as gateways |
| | Multidisciplinary team meetings |
| | Media |
| Passive dissemination | Distributing hard copies |
| | Publication |
| | Availing the guideline in libraries |
| | Availing the guideline through websites |
| | Introducing the guideline through official letters |

## 7.5.3. Training, supervision and mentoring

Mentioning that stigmatizing practices are widely observed in the hospital, study participants recommended that training, mentoring and supervision should be conducted for the successful implementation of the guideline.

> *"There are some professionals who stigmatize HIV and clients living with it. Some of them still do not attend delivery of a mother who is HIV positive. We can improve this by training them. There is a mentorship program. For instance, healthcare workers in the health center support health extension workers. Healthcare workers in Jimma University support healthcare workers in the surrounding hospitals and health centers. So, if they work together in collaboration in filling these knowledge and skills gaps, stigmareduction will be successful." KI P6*

### 7.4.3.1. Current training system

Key informants reported that currently, the Ministry of Health (MOH) of Ethiopia is cascading guidelines through the provision of training of trainers (TOT) to health professionals. The health professionals who have received the training of trainers will go to different places and provide the training for other health professionals. In addition, key informants mentioned that health managers are introduced to the guidelines through workshops.

> *"The trend that is being used by the Ministry of Health so far is as follows. One option is providing training of trainers to health professionals. These professionals who received the training of trainers will go to different places and provide the training of other health professionals. In addition, a one or a two-day workshop is arranged for introducing the guideline to health managers." KI P5*

As elaborated by key informants, there are regular training programs provided by HIV Prevention and Control Office (HAPCO). These training programs include orientation of health professionals on new and updated guidelines. Similar arrangements for the current guideline can be made. Moreover, training programs can be coordinated though JUMC.

### 7.4.3.2. Opportunities for training

Currently, there are opportunities for the provision of training. These include, the availability of suitable training venues in the hospital, the commitment of the hospital administration, the presence of committed stakeholders interested to support works related to HIV and the presence of adequate and committed staff to provide the training.

> *"From my experience, I remember the time when we implemented a nursing standard. The hospital administration recognized that the hospital should focus on quality of care and decided to implement the standard. The standard was prepared by a pool of experts from nursing, public health and medical disciplines. After that, we provided the training for around 400 staffs without any payment. This implies that if there is a devoted person and if there are patients in need of that service, the hospital is always open for that. It is not an easy thing to provide training for 400 nurses within a short period of time, but it happened because of the commitment of the hospital, healthcare workers and committed trainers." KI P1*

Participants also reported that the presence of motivated staff has influenced previous programs positively. Participants reported that the commitment of health professionals in JUMCcan be taken as a facilitating factor.

> *"When we come to our health facility, especially those health professionals who work on HIV treatment and care, they have good motivation and commitment towards their job. This can be taken as one of the conducive factors in our hospital. There are many committed staffs. They accomplish their tasks appropriately; especially those health professionals working on HIV care and treatment programs have excellent commitment towards their job." KI P5*

### 7.5.3.3. Suggested training strategy and training format

Different options were suggested to cascade the training on the current guideline. One method was to train the heads of units so that they will disseminate it to their subordinates through different platforms such as mentorship and one-to-five networks. The other approach was first to train unit heads, then their staff in subsequent rounds.

*"The previous trend was to train department heads so that they will train their staffs. In addition, rigorous training may be provided for each staff based on need turn by turn. Therefore, few staff members can attend the initial training and provide it to the remaining staff." KI P6*

Two options were suggested for the provision of training on the guideline. This is either to prepare a new training program or to integrate the training on the guideline into the current programs such as ART training programs. Further exploration indicated that the provision of a separate training program for the current guideline could potentially increase the attention given towards its implementation compared to integrating it with other training programs.Regarding the timing of the training, participants indicated that previous training programs are being conducted in shifts (rounds) and the same method should be utilized for the current guideline. Key informants proposed training both for those professionals who do not directly work with PLHIV and those who closely work with PLHIV.

*"I can mention two types of healthcare providers here. The first group is a group of those healthcare providers who directly work with HIV positive clients. It is possible to give them a short-term training. This is important because even if they are working on the area, they may not recognize their own stigmatizing actions and attitudes. The second group is a group of healthcare providers who are not directly involved in the direct provision of care and support for HIV positive clients. Still, they have a chance to provide the service for the clients in one way or the other. It is also essential to orient these professionals through short term training on the impact of stigma. In addition, it essential that other non-health professionals are also trained." KI P1*

Some participants suggested that preparation of the training program in different formats for professionals providing care and support to PLHIV and for other health professionals is cost effective.However, all key informants agreed that the guideline and the training format for all disciplines of health, medical and allied health professionals should be uniform provided that there are no budget constrainints for such an arrangement. Participants additionally emphasized the importance of describing the roles of each professional during the training. Participants also stressed the importance of mixing professionals of different disciplines and professionals working in different units to facilitate experience sharing. Regarding whether there is a need to tailor the guideline to the educational level of health professionals, it was suggested that the educational status of health professionals cannot be an obstacle for the implementation of the guideline.

*"Our health professionals are accredited and can provide minimum services such as counseling and testing. I do not think that the educational status of health professionals is an obstacle for the implementation of the guideline. Most of them can deliver minimum counseling and testing. Some of them have been exposed to different types of training related to HIV." KI P5*

### 7.5.4. Implementation issues

The major implementation issues raised were the importance of encouraging partnership, advocacy and teamwork, and clarifying the steps in the launch of the guideline, determining and clarifying the unit in which the guideline is implemented, and implementing the guideline in an innovative way in each unit.

#### 7.5.4.1. Encouraging internal and external partnership

Partnership between stakeholders was identified as one of the centralaspectsin the implementation of the guideline. Study participants reported that partnership resulted in the success of other programs.JUMC, as an organization partnering with different stakeholders working on HIV, is a favorable environment for the implementation of the current guideline. The existence of different partners interested to work and working on HIV is an opportunity that facilitates the implementation of the guideline.

Stakeholders working on HIV can play a crucial role. In addition, in JUMC and the surrounding environment, priority was given towards making partnership with different stakeholders. The current system encourages departments to form partnership and work together. All these factors can be taken as opportunities to implement the guideline. Partnership was also suggested as one of the strategies through which barriers such as resource constraints can be addressed.

#### 7.4.4.2. Strengthening teamwork

Strengthening teamwork was mentioned as a facilitating factor for guideline implementation. Both barriers and facilitators for teamwork were also identified. The negative attitudes of some professionals and communication barriers were mentioned as major barriers towards teamwork.

Key informants also reported that the communication issues between healthcare workers result in limited awareness of their roles and responsibilities which ultimately causesconflicts. And this will negatively affect teamwork.Encouraging effective communications and delineating the rights and responsibilities of different categories of health professionals were recommended as remedies to tackle barriers to teamwork.

*"We must think of the barriers to this team communication. One of these barriers is failure to know one's roles and responsibilities. If people do not know their rights and responsibilities, conflicts may arise. And this will negatively affect teamwork. The main thing is to identify the roles of individuals in a team. For instance, to identify the roles of physicians, nurses, pharmacy technicians and others." KI P4*

Key informants also identified opportunities that encourage teamwork in JUMC. These were: the existence of teamwork guideline, one-to-five network, peer education, MDT meetings and a conducive environment for teamwork.InMDT meetings, health professionals share the challenges they face in their routine activities. In addition, there is a session at which professionals discuss cases and learn from one another. These opportunities may be utilized to increase teamwork and group learning among health professionals. In addition, key informants suggested that MDT meetings may be used to inform the health professionals about the importance of providing client-oriented respectful care.

*"The first thing is that we have one-to-five network. Secondly, we have MDT meetings. So, we can use these opportunities to increase teamwork and group learning among health professionals.In MDT meeting, for instance, they [health professionals] discuss on HIV. So, on these meetings we may emphasize the importance of providing client-oriented respectful care." KI P5*

*"The current system encourages teamwork. Healthcare is always a teamwork. We have a teamwork as a guidance by our institution [JUMC]." KI P2*

Study participants also emphasized the potential roles of unit heads and opinion leaders in building and maintaining team spirit and in strengthening the implementation of the guideline.

*"Unit heads and opinion leaders play substantial role in strengthening team spirit. These may not be necessarily those who are in managerial positions. People who are opinion leaders, who are respected by their colleagues and who have appealing personalities can act as role models. Several times the reason for problems in team spirit comes when heads of units and senior staff are not involved in the agenda." KI P3*

Moreover, key informants reported that currently, the teamwork of professionals who work in the HIV and Tuberculosis Clinic is strong. In addition, the regular activities by the teamwork were identified as potential factors to strengthen timely delivery of supplies.

> *"Inventories of pharmacy and laboratory materials and kits are being done regularly by a team of HCWs who work in HIV and TB Clinic so that PLHIV do not face drug or material shortages. They also take actions before drugs run out of stocks. They do not want to put their clients at risk. Such a strong teamwork should be sustained." KI P1*

Participants also reported that JUMC is a favorable environmentthat encourages both formal and informal ways of learning.

> *"As you know our hospital is a teaching hospital. So, it is a nice environment to learn from each other and to work in teams. There are both formal and informal ways of learning from one another." KI P5*

### 7.5.4.3. Clarifying the steps in the launch of the guideline

Key informants recommendedidentifying a unit in which the implementation should start. With the consideration that stigma occurs everywhere in the hospital, participants recommended that the guideline should be implemented in each unit of the hospital. This is because clients living with the virus get services from different units of the hospital. Nevertheless, key informants suggested that the implementation of the guideline should start at the HIV and TB Clinic.

> *"I suggest that if we start at our HIV and TB Clinic, it will be easier for us for implementation. Those professionals working in this clinic have better experience and knowledge. So, we can use them as role models to influence health professionals in other units." KI P1*

The steps in the implementation presented in the guideline were also mentioned as facilitating factors for implementation.

> *"I think these steps are practical for our hospital. For instance, it indicates the importance of establishing a committee, assessing the institution and other essential steps. These steps and checklists included in the guideline are very essential. They indicate clear direction. In our healthcare facility, we have limited guidelines and checklists like this guideline. This has created confusion and lack of consistency in practice. But if we have a guideline with clear steps and checklists, whether people come and go, works will be done based on the guideline." KI P3*

*7.5.4.4. Position holders and opinion leaders as role models*

Study participants reported that position holders such as unit heads and senior professionals may be used as role models for the implementation of the current guideline.

> *"It is critical to use unit heads as gate keepers. Then, the unit heads can influence their subordinates through both enforcement and by acting as role models. Not only unit heads, other position holders, including the top management, can also act as role models and promote the implementation of the guideline" KI P6*

*7.5.4.5. Advocacy*

Key informants reported that previous initiatives that tried to introduce new guidelines that have got support from stakeholders faced few challenges. Partners that try to implement activities that did not involve other stakeholders have failed. Therefore, collaboration with different stakeholders is critical. Participants also reported that advocacy helps to get attention of decision and policy makers at different levels including zonal, regional and federal levels. The dissemination of the guideline may also be enhanced through advocacy. Key informants also mentioned that the guideline itself is self-advocacy, because it is a priority area. Nevertheless, the importance of advocacy was emphasized as there is still limited awareness among some stakeholders, especially regarding current gaps.

> *"The first factor may be the lack of awareness of different stakeholders from top to bottom. Therefore, all stakeholders need to be aware of stigma, we may need an advocacy. In this advocacy, we must indicate the existing gaps and convince managers. Simple provision of the guideline to healthcare workers, without the management support may not take us where we want to go." KI P6*

Key informants also reported that advocacy is needed for making decisions in resource allocation. Alwaysresources are limited and there are activities that need priority. Therefore, if stigma and discriminationreduction is not a priority by the zone or the region, resources will be shifted to other problems that were given a priority.Specifically, key informants stressed the necessity ofconvincingstakeholders early so that they will includeSAD reduction in their annual plans.

*7.5.4.6. The need for implementation structure*

Study participants suggested that an implementation structure comprising an implementation committee and a focal person who can oversee the implementation is needed. As suggested by study participants, the implementation committee should link the HIV Prevention and Control Office to the hospital. Key informants also suggested that the roles and

responsibilities of everyone in the team should be defined. In addition, they suggested that each unit of the hospital should implement the guideline in an innovative way.

> *"As I mentioned earlier, first we must build a structure for the guideline implementation. We need a focal person who can oversee the implementation. We should have an implementation committee. This committee should link HIV Prevention and Control Office to the hospital. And then, roles and responsibilities of everyone should be demarcated." KI P3*

### 7.5.4.7. Posting reminders and posters

The other method suggested by key informants for increasing adherence to the guideline was using posters for stigma mitigation in each room of the healthcare facilities and posting reminders in each of the rooms. One key informant mentioned an experience of using posters to remind healthcare workers to adhere to guidelines.

> *"For example, as part of increasing adherence to HIV and nutrition guideline, we have used posts that indicate body mass index (BMI) levels cut off points. They identify the BMI levels as green, red and yellow. We can use the same strategy for stigmareduction guideline." KI P5*

## 7.5.5. Monitoring and evaluation

### 7.5.5.1. Current hospital performance evaluation system

Key informants reported that there is routine and regular monitoring and evaluation in JUMC though it was reported to be weak. Study participants also identified problems related to the current monitoring and evaluation such as the lack of organized data and limited utilization of the data to improve practice. The frequency of evaluation of JUMC varies from activity to activity. Some activities are evaluated quarterly; some are evaluated monthly and some are evaluated annually. However, internal monitoring is done even daily. For instance, the quality office conducts an internal daily evaluation of the number of patients seen on the same day of hospital visit.Currently, each hospital in Ethiopia is being evaluated quarterly on areas such as CASH, EHRIG (Ethiopian Hospital Reform Implementation Guideline) standards and Maternal and Child Health (MCH) services. Key informants also reported that performances are indicated using colors.

> *"Yesterday and the day before yesterday entire service evaluation of our hospital was conducted. There are checklists by which we evaluate our activities. These are indicated in different colors, such as green, amber, yellow and red. For those activities indicated by green, we will design strategy by which we can sustain them. For those activities*

*highlighted in red, we will design strategy by which we fill the gaps. During this evaluation, feedback has been given to the institution as the whole, for each unit and to each individual health professional separately." KI P5*

Key informants reported that there is a performance monitoring team in JUMC. This team oversees the appropriate delivery of services. Participants reported that, currently, the performance monitoring team is not as strong as expected because of the differences in the structures within their respective units.

*"In our hospital,* performance monitoring team *is weak. This team is composed of different professionals such as pharmacists, laboratory technologists, internists, gynecologists, and other types of clinicians. So far, they were not strong because of the differences in the structure within their respective units. This year, we hope that we will solve this problem." KI P3*

### 7.5.5.2. HIV-specific monitoring and evaluation

Study participants reported that HIV has relatively better organized monitoring and evaluation system compared to other areas. Different stakeholders are interested in HIV. Key informants reported that there are checklists by which both the health professionals and the facility are evaluated. They also reported that thereareMonitoring and Evaluation (M&E) focal persons andother staff responsible for these activities. Therefore, most of the services related to HIV are being reported as part of the Health Monitoring Information System (HMIS) data.

*"HIV has got huge attention from different stakeholders. Hence, data on HIV that are included in the mentoring check list are being collected. The number of patients on treatment, PMTCT and other related issues are being collected and reported. There is a format by which both the health professional and the facility are evaluated Recently, viral load has been included in the reports." KI P4*

Nevertheless, participants admitted that the followup forguideline implementation is weak. The success of monitoring and evaluation of the implementation of the current guideline depends not only on the data collected but also on the availability of data for monitoring and evaluation. This will be possible only if the data related to stigma and discriminationreduction is linked to institutional HMIS data. Such data is handled by a focal person assigned for this specific purpose.

*"There is a focal person for this data. So, if someone comes from outside, he or she can get the data from this focal person. So, in the case of the current guideline, once*

*it is endorsed and we orient stakeholders about the guideline, we can include it in our auditing and monitoring system. But we must determine whether this data is collected quarterly, monthly or annually." KI P2*

On the other hand, participants reported that there is a weakness both in data generation and utilization. Specially, they mentioned that the current HIV data is not being used for decision-making.

*"Last time, I had an opportunity to attend the presentation on HIV service-related report. My perception was that HIV data is complete. But, what I discovered from the presentation was that it is not being used for decision-making. The data is not well organized. There is no one who analyzes and presents the data for decision makers. There are also some areas that are not being recorded. So, there is weakness both in data generation and utilization. Maybe it has been diluted by HMIS." KI P7*

Training, implementation, monitoring, evaluation, integration and sustainability related to the guideline are summarized in Table 15.

**Table 15. Training, implementation, monitoring and evaluation**

| Broader themes | Subthemes | Categories |
|---|---|---|
| Training, mentorship and supervision | Current training | Workshops to create awareness among managers |
| | | Cascading programs through ToT |
| | Opportunities for training | Suitable training venues in the hospital |
| | | Committed stakeholders |
| | | The presence of committed staff |
| | Suggested training strategy | Cascading through unit heads |
| | | Cascading through ToT |
| | Suggested training format | Integrate into existing training program |
| | | Prepare a new training program |
| | | Training approaches for HCWs based on their level of contact with PLHIV |
| | | Mixing professionals of different disciplines |
| | | Describing the roles of each professional |
| Implementation | Encouraging internal and external partnership | Role of partners in success of guideline implementation |
| | | Attention given to partnership |
| | | Partnership aids to tackle barriers |
| | Strengthening teamwork | Barriers to teamwork (the negative attitude of HCWs and communication barriers) |
| | | Remedies to tackle barriers to teamwork (encouraging effective communication and delineating the rights and responsibilities of different categories of HCWs) |
| | | Utilizing facilitators of teamwork (one-to-five network, peer education, MDT meetings) |
| | | The role of unit heads and opinion leaders in building team spirit |
| | Clarifying steps in implementation | Where to start |
| | | How to start |
| | Using position holders and opinion leaders as role models | Unit heads as potential role models |
| | | Senior professionals as potential role models |
| | | Opinion leaders as potential role models |
| | Advocacy | Advocacy for influencing resource allocation |
| | | Advocacy as a means of dissemination |
| | The need for implementation structure | The need for implementation committee |
| | | Delineating the roles and responsibilities of implementation committee |
| | | The need for implementation focal person |
| | Posting reminders and posters | |
| Monitoring and evaluation | Current hospital performance evaluation system | Frequency of evaluation |
| | | Type of service being evaluated |
| | | Responsible body for monitoring and evaluation |
| | | Type of data being generated |
| | | Problems related to monitoring and evaluation |
| | | Limited data available in a usable format |
| | HIV-specific monitoring and evaluation | Staff responsible for M&E |
| | | Type of data being collected |
| | | Availability of data |
| | Current responsible body for evaluation | External evaluation |
| | | Internal evaluation |

**NB**: ToT: Training of trainers, HCWs: Healthcare workers, PLHIV: People Living with HIV, MDT: multidisciplinary team, HIV: Human immunodeficieicny virus, M&E: Monitoring and Evaluation.

## 7.5.6. Resource implications

Key informants reported that financial resources are needed to conduct training on the guideline, to disseminate the guideline, to implement the guideline and to conduct monitoring and evaluation related to guideline implementation.As reported by the participants, the resource expenditure is mainly needed to conduct training.

*"Yes, we need resources. First, from the start, we should disseminate the guideline. So, we need to print it. When we think of printing it also includes, printing and posting of posters. The other issue that needs resource expenditure is related to training, such as refreshments and per diem. We also need resources to develop the training curriculum. The monitoring of the guideline implementation also requires resources."* KI P5

*"We need easy and user-friendly materials such as hand books for the guideline. This handbook is a short form of the same guideline. This may be a leaf let or another material that has information contained in the guideline. All these things require resource expenditure"* KI P2

Mentioning that health professionals are at different levels of understanding and competence, key informants stressed that there should be a training manual that is understandable to all types of health professionals.As part of dissemination, resources are needed to makethe guidelineavailable online or to avail the guideline and checklists in different formats and in different units. Resources are also needed to use media to advertise the guideline and to conduct dissemination workshops.Participants also stressed that the implementation process by itself requires resources.Though theyreported that there is no need for additional human resources, they emphasized the need for additional material resources.

*"We need audiovisual materials to promote the implementation of the guideline. This may include videos, leaf lets, brochures or posters. It is essential to use these materials. We need these materials for the entire hospital community. For instance, we may present life history of stigma victims and the impact of stigma on clients. "KI P2*

Key informants also stressed that materials for standard precautions should be supplied regularly. The shortages of supplies for personal protection equipments may impede the implementation of the guideline.

*"The thing is, if there is shortage of supplies such as gloves, the health professional should not perform invasive procedures for all patients not just for PLHIV. If there is a shortage of supply, the healthcare worker adhering to standard practice may refuse treating patients and he may be misinterpreted as being negligent. So, finally, he may think that he was misinterpreted just because of his adherence to the*

*guideline. This may lead HCWs to convey wrong messages and may lead him or her to use differential precautions, which is one component of discrimination." KI P7*

Additionally, the commitment of the hospital to ensure continuous supply of materials for standard precautions was reported as one of the opportunities for successful implementation of the guideline. Although resources may be adequate, stock out of materials and supplies may be obstacles to the implementation of the guideline.

In addition, key informants reported that the monitoring and evaluation of the implementation of the guideline needs resources in the form of per diem for mentors and supervisors. However, they also reported that this mentorship, monitoring and evaluation may be conducted along with existing programs and hence may not require additional resources.

## 7.5.7. Integration of the current guideline into the hospital monitoring and evaluation system

Participants reported that the current guideline is compatible with the existing system. They also emphasized that the guideline indicators should be integrated into the hospital indicators to assist towards the sustainable implementation of the guideline. As reported by key informants, currently, most hospital indicators are developed nationally. Key informants alsopointed out that it may be difficult to add additional indicators into the current list of indicators developed at national level. They recommended that until the guideline is scaled up nationwide, indicators related to the current stigma and discriminationreduction guideline can be integrated with institution-level ones.

*"The problem is that these indicators are developed nationally. We have around 197 indicators currently. It may be difficult to add indicators for the current guideline into this list. On the other hand, we have also indicators at our own hospital level. So, until we scale up the guideline nationwide, we can include the indicators into institution-level indicators." KI P3*

Participants identified preconditions for the integration of the guideline into the current monitoring and evaluation system. These preconditions are: deciding the responsible body that owns the evaluation program and indicating the responsibilities of different stakeholders and the frequency of evaluation.As reported by study participants, it is the responsibility of the quality office of the hospital to carry out internal evaluation.Participants also suggested that JUHAPCO should take the role as an external evaluator and the HIV and Tuberculosis Clinic should take the role of internal evaluator. They stressed that both JUHAPCO and the

HIV and TB Clinic should provide reports on activities done related to stigma and discrimination to the planning office of JUMC. As such, the guideline will be integrated into the hospital system.For such integration to be realized, participants suggested that the indicators of the current guideline should be included in institution-level indicators.

> *"As an external evaluator, HAPCO may take the responsibility. And as a unit to provide routine reports related to the implementation of the guideline, I suggest that the HIV and TB Clinic should take the responsibility. So, they can provide similar reports on activities done related to stigma and discrimination. Then they will submit the report to the planning office. And then, the guideline will be integrated into the hospital system." KI P2*

Key informants stressed that there should be mentoring and supervisory visits to monitor and evaluate the implementation of the guideline. They also reported that mentoring can be used as a platform for introducing, implementing and evaluating the guideline. Participants suggested that the person who conducts the supervion and evaluation should have adequate exposure and training. In addition, participants stressed that there should be an outside evaluator. Study participants also suggested that there should be a focal person from the HIV and Tuberculosis Clinic itself who oversees the work and who closely supervises them. It was emphasized that all supervisors need to be trained on the guideline.

> *""Any professional can conduct the evaluation. But this person should be one who provides feedback and who has exposure and training on the guideline. For instance, currently, professionals from the Nursing School are conducting supervision and mentoring for professionals in JUMC and other surrounding healthcare facilities. We can do the same thing for the evaluation and mentorship related to the current guideline."KI P1*

> *"I also suggest that there should be a focal person from the ART unit itself that oversees the work. This is important because he /she closely supervises them. In addition, from the Nursing School, there should be close follow up, otherwise they [health workers] may overlook the work. All those involved in the supervisions and mentorship should first receive training on the guideline" KI P1*

Key informants further stressed that health professionals should have clear tools such as mentoring tools and evaluation checklists to guide them what to do and what to measure. In addition, the need for training manuals, training curriculum and visual aids, such as posters and other advertising materials were stressed. Since health professionals are at different

levels of understanding and competence, the manual should be understandable to all types of health professionals.

### 7.5.7.1. Integrating the guideline into the mentorship system and supervisory visits

Study participants also reported that currently there are focal persons that monitor the implementation of different activities using mentoring and evaluation tools.Mentioning that other guidelines were introduced through mentoring and supervisory visits, key informants emphasized that a responsible body for monitoring and evaluation should be determined in advance.

> *"Other guidelines were introduced effectively through mentoring and supervisory visits. There should be a partner to monitor the implementation. That partner may be from the hospital itself or it may be an external supervisor. We must determine the responsible body first. For instance, Jimma University conducts mentoring program for this hospital." KI P5*

Participants also suggested that the guideline indicators should be integrated into mentoring checklists, key performance indicators (KPI) of the hospital and ultimately into the HMIS of the hospital.Participants reported that there is a uniform reporting system enabled through indicators developed for reporting to regional state health bureau and the ministry of health. They also reported that JUMC can modify indicators developed for institutional level reporting.

> *"Currently, the data being collected from this hospital includes areas such as key performance indicators (KPI). In HMIS, we have one plan, one budget and one report. The idea is that any report provided from and to any organ should be uniform. We have a report that we send to the regional health bureau and the Federal Ministry of Health. We cannot add or reduce indicators developed atregionaland national levels. However, we can add or remove these indicators at the hospital level. We are ready to integrate the indicators related to the current guideline into the indicators of the hospital." KI P3*

In addition, two options were proposed regarding the integration of the guideline indicators. One option was to keep the indicators separately to seek attention and give more focus for it. The other option was to integrate them into ART service evaluation or HIV services evaluation performance indicators.

*7.5.7.2. Data generation for monitoring and evaluation*

Study participants reported that there is Site Improvement through Monitoring (SIM) system in JUMC.Site Improvement though Monitoring system is a system in which performance is evaluated and graded. The evaluators indicate the result of the performance evaluation in colors. These colors include red, yellow, amber and green.

> *"In SIM [*Site Improvement through Monitoring]*, performances are indicated in colors, such as red, yellow, amber and green. For example, our performance is usually green, but our waste management system is still red. This is because our hospital was previously old, and it is currently under construction. These evaluators may use guideline standards as indicators. They evaluate care and treatment, TB and HIV, laboratory and pharmacy and other services." KI P5*

Study participants emphasized that data generation on guideline implementation should not be for the sake of simple external evaluation, but for service improvement. The data generated should be utilized by unit managers and service providers to improve performance.Nevertheless, they admitted that currently there are weaknesses related to the utilization of data for service improvement.

> *"There are problems in making the data ready for service improvement. It needs further work. To tackle this problem, we have hired M&E focal person. Now, information and data management are one of our priority areas. The MOH has also given strong attention for this issue." KI P1*

Key informants suggested that the management should make a request for data and should enforce the focal person to improve data handling process by the HMIS personnel.

> *"Managers should enforce personnel working on HMIS so that they generate appropriate data for decision-making. If they need training, appropriate training must be provided to them. In addition, the management should request for the data. If there is no one in need of the data, the HMIS persons will not handle or report the data appropriately." KI P7*

**7.5.8. Scaling up and sustainability**

Key informants reported that currently, gaps exist in successful implementation and scaling up of guidelines.Describing the challenge associated with the provision of the training for all staff at the same time, they recommended that the training should be provided in rounds. They suggested that the guideline should be scaled up through the provision of training of trainers (ToT) program for unit heads and for few staff.

*"In JUMC, there are more than 1500 staffs. Therefore, it is difficult to provide this training and orientation to all these staff at the same time. The previous trend was to train department heads so that they will train their staffs. On the other hand, a rigorous training may be provided for each staff based on need turn by turn. For instance, in Clean and Safe Health facility (CASH) and* Kaizen continuous quality improvement initiative*, orientationswere provided for unit heads and then the unit heads provided the training for each staff turn by turn." KI P5*

In addition, study participants recommended that the guideline should be implemented first in JUMC and scaled up to other healthcare facilities as an exemplar practice so that JUMC can share experiences to others. Key informants recommended that the university (Jimma University) should take the initiative to introduce the guideline as an exemplary new practice. Specifically, participants recommended that after piloting in JUMC and collecting data on all the challenges related to the implementation, the guideline can be scaled up nationwide incorporating any gaps and challenges. To aid the dissemination, a workshop should be prepared to introduce the guideline to stakeholders at regional and national levels. In addition, professional conferences such as Ethiopian Public Health Association (EPHA), Ethiopian Medical Association (EMA)and others can be used to disseminate the guideline to other places. This option is particularly an opportunity to catch the attention of different partners. Moreover, the university may arrange a workshop and introduce the guideline to different stakeholders. They also suggested asking different Non-Governmental Organizations (NGOs) to prepare a workshop and thereby support the implementation of the guideline.

Moreover, key informants suggested that the guideline should be integrated into a pre-service teaching curriculum for allied health, medical and health science students. The themes generated under resource implications, integration, scaling up and sustainability aresummarized in Table 16.

**Table 16. Resource implementation, integration, sustainability and scale up**

| Broader themes | Subthemes | Categories |
|---|---|---|
| Resource implications | Resources for training | Per diem for trainers and trainee |
| | | Preparation of modules and manuals |
| | | Printing posters, guidelines and handbooks |
| | Resources for dissemination | Printing the guideline |
| | | Publishing |
| | | Arranging media |
| | Resources for implementation | Facilities for standard precaution |
| | | Resource for monitoring, supervising and mentoring |
| Integration | Data collection for monitoring and evaluation | The need to create a culture of utilizing data to improve performance |
| | | Site improvement though monitoring system (SIM) |
| | Tools and checklists | Mentoring checklists |
| | | Monitoring and evaluation checklists |
| | Integrating the guideline with mentorship and supervisory visits | Mentorship as dissemination strategy |
| | | Mentorship to provide an onsite technical support during implementation |
| | | Mentorship for the evaluation of adherence to the guideline. |
| | | Integrating checklists related with stigma into mentoring checklists |
| | Suggested responsible body for supervision and evaluation | Experienced professionals |
| | | A professional who has been trained on the guideline |
| | | The need for internal focal person for evaluation |
| | | Need for an outside evaluator |
| | | The need to enforce and train personnel working on HMIS |
| Scaling up and sustainability | Platform for sharing best practice implementation experience | Professional conferences |
| | | Workshop for policy makers |
| | Initial small-scale implementation at JUMC | Collecting data on implementation experience |

**NB:** HMIS: Health Manangement Infromation Sytem, JUMC: Jimma University Medical Centre.

## 7.6. Discussions

In their theoretical framework for theoryinformed behavior change interventions to implement evidence, French et al.[187] emphasize the need for the identification of barriers,and facilitators and specifically modifiable barriers and specific roles of stakeholders to address the barriers. In the current project, I identified barriers and facilitators tothe implementation of SADreduction guideline, and dissemination, training, implementation, monitoring and evaluation issues related to the guideline.

### 7.6.1. Facilitators and barriers

In line with previous studies,[183]there were factors that were identified both as barriers and facilitators for the implementation of the current guideline. Some scholars argue that using a theoretical framework will help to systematically identify and address factors that impede guideline implementation.[186,187,229]Davidet al.[230]categorized factors affecting implementation of innovations and guidelines into six domains, namely a) characteristics of the guideline, b) characteristics of the health professionals, c) the practice setting, d)

145

incentives, e) regulations and f) patient-related factors.I will describe the six barriers and facilitators identified in the current project as follows:

a) Characteristics of the guideline

In the current research, I identified the following factors inherent to the guideline that potentially impact the uptake of the guideline prepared to reduce HIV-related stigma and discrimination: clarity, comprehensiveness, compatibility with existing practice, initiatives and system, all of which were facilitating factors in the context of the study area. Previous research has indicated that the lack of trialability, the lack of compatibility, the lack of observability and complexity of innovations and guidelines may deter the implementation of guidelines.[230,231]On the other hand, for the current guideline, trialability was identified as a facilitating factor if training is provided for healthcare workers. In addition, the existence of up-to-date recommendations in the guideline was identified as one of the good qualities of the current guideline facilitating its uptake.

The potential positive impact of a guidelineon the clinical process facilitates the uptake of theguideline.[12,183] On the other hand, the lack of expectation of the desirable outcomes of adherence to a guideline may hinder the implementation of the guideline.[12, 225]For the current guideline, key informants indicated that the reduction of stigma and discrimination contributes not only to the success of HIV-related goals, but also other initiatives, such as service quality, CASH and CRC initiatives.

b) Attributes of health professionals

The awareness and motivation of HCWsfacilitates the uptake of a guideline.[12, 183] In line with this, the motivation of the staff in the facility (JUMC)was raised as a facilitator for the implementation of the current guideline. The motivation of health professionals, especially those working in the HIV and TuberculosisClinic, was identified as a facilitating factor for the dissemination and implementation of the current guideline.

On the other hand, key informants reported that provider-related factors such as provider attitudes and awareness of the guideline negatively impact the implementability of the guideline. Unrealistic expectations or limited awareness of the guideline among healthcare workers potentially hinder the uptake of the current guideline. In agreement with this, previous research indicated that the lack of awareness of the existence of the guideline and limited familiarity of the content of the guidelines or disagreement with the recommendations may negatively affect the implementation of guidelines.[183]As a remedy for this, key informants of the current study suggested that the guideline should

bedisseminated through existing opportunities and platforms such as MDT meetings, one-to-five networks, and existing training and mentorship programs.

Evidence should be tailored to local context.[4,67]In the current guideline, I tried to build the sense of ownership among local stakeholders and tailor the guideline to local context. In line with this, previous researchers indicated that guidelines developed by end-users or by consensus methods increased clinicians' ownership of the guideline and were associated with increased compliance.[232] In addition, the involvement of health professionals from local institutions in designing implementation and dissemination strategies facilitates the uptake of a guideline.[232]

    c)  The practice setting

In this project, I identified factors in the policy and practice environment (practice settings) that affect the implementation of the guideline. The implementation of a guideline depends on the ability of multiple stakeholders to plan and execute the various steps needed to implement the guideline.[9]Global evidence indicates that the lack of management support hampers guideline implementability.[12, 225]For the current guideline, as reported by key informants, the management of Jimma University and the JUMCis committed to support and facilitate the implementation of the guideline as it contributes to priority goals of the hospital. In addition, the existence of training programs and venues and committed stakeholders were identified as facilitators. In line with this, previous stigma and discriminationreduction guidelines emphasized the necessity of convincing stakeholders during the implementation of SADreduction programs.[130]

Organizational factors such as resource limitations may hamper the implementation of guidelines.[8] For the current stigma and discriminationreduction guideline, the continuous supply of materials for standard precaution consumes resources. The current study revealed that the hospital is committed to providing these materials continuously. In addition, in the long run, stigma and discriminationreduction will also contribute to the reduction of extra-precaution which will in turn reduce unnecessary wastage of resources.

Work overload is one of the factors that commonly impedesadherence to guidelines.[12, 225] The same concern was raised in the current project. On the other hand, stigmareduction, as study participants raised, in the long run can contribute to the reduction of unnecessary work load that result from clients overloading facilities in large towns and cities. Such patient load is related to patients seeking healthcare services from facilities that are far from their home

surroundings to hide their sero-status from the residents of their locality, this is specifically caused because of higher levels of SAD.

d) Incentives

Limited structural support such as financial disincentives may negatively affect the implementation of a guideline.[12, 225]Among the provider-related factors potentially expected to hinder the implementation of the current guideline identified were unrealistic expectations of incentives during training and implementation of the guideline. On the other hand, the management of the university and the hospital is committed to support and facilitate the implementation of the guideline as it contributes to priority goals of the hospital. In addition, HCWsworking on HIV are relatively more compensated when compared to other healthcare workers.

e) Regulations

The regulation of guideline implementation by accreditation or licensing bodies facilitates the implementation of a guideline.[230] Currently, there arementoring, monitoring and evaluation systems in the Ethiopian context that are relatively stronger in HIV-related practices. The fact that stigma is a human rights issue was raised as a facilitator for the implementation of the current guideline.[41]The current study also indicated, as one of the guidelines addressing ethical and governance issues, there is an opportunity for better uptake of the current guideline. Therefore, it is possible to integrate stigma and discriminationreduction guideline into the regulation, monitoring and evaluation systems of healthcare facilities. Moreover, key informants reported that the guideline is can potentially be utilized as a teaching material for allied health, medical and health science students, in which case it will also be incorporated as part of the professional accreditation system.

f) Patient-related factors

The presence of empowered and educated patients that ask for the right information and demand for standard practice facilitates the uptake of a guideline.[230] The existence of expert HIV positive clients was presented as one facilitating condition for the empowerment of other patients. In addition, the guideline informs the rights and responsibilities of clients empowering them with adequate information.

Similar to what has been elaborated above, according to the framework suggested by RNAO,[117] the expected barriers and facilitators for the implementation of best practice guidelines can generally be categorized into: evidence (guideline) related factors, target audience (provider) related factors, and organizational context (practice settings) in which

the guideline is to be implemented and resources needed for the implementation.[117] Most of these components overlap with the framework suggested by David et al,[230]but regulation and incentive components were not emphasized by RNAO.[117]As described above, the factors identified as barriers and facilitators can be conceptualized using the conceptual framework developed by Dave et al.[230] and RNAO.[117]

**7.6.2. Dissemination**

When implementing new guidelines or improving adherence to guidelines, one of the practical challenges is bringing about changes in health professional behavior. Drawing on the diffusion of innovation theory, trans-theoretical model of behavior changes, health education theory, social influence theory, and social ecology, and evidence from systematic literature reviews on the effectiveness of behavior change strategies, Moulding et al.[233] developed a dissemination and implementation framework for guidelines. Their framework underscored that there is a need to assess the readiness of practitioners for the implementation of guidelines, of barriers to change and the levels at which the interventions should be targeted.The current project sought the readiness and commitment of relevant stakeholders, including health professionals to implement the newly developed guideline.

In their review reported in 2013, McCormack et al.[234] found that multi-component dissemination strategies are more effective at improving guideline adherence compared to single dissemination strategies. However, there is no sufficient evidence to recommend one method over the other. Though different dissemination mechanisms have been used by policy makers and guideline developers, preferable methods depend on local circumstances.[234]

In the current project, though different alternatives were suggested, no specific combinations were suggested for dissemination. However, study participants categorized the dissemination strategies into active and passive methods.Orientation workshops, training, one-to-five networks, MDT meetings of health professionals workingon care and support of PLHIV and mentorship programs were suggested as preferable and active mechanisms of dissemination.

On the other hand, distribution of hard copies, publishing and availing the guideline in libraries and websites were identified as passive mechanisms of dissemination, but as potential strategies to substantiate other mechanisms.In agreement with these findings, Grimshaw et al.[235] reported that there is moderate quality of evidence indicating that the distribution of educational materials to healthcare workers improves patient outcomes.

In agreement with our findings, Prior et al.[232]reported that multifaceted interventions, interactive education and clinical reminder systems are effective guideline implementation strategies. On the other hand, they reported that passive education and information dissemination methods such as conferences, websites and didactic lectures were not effective in guideline implementation. Additionally, other researchers have identified factors that enhance the implementation of guidelines such as reviewing, reporting and publishing guidelines.[94] In the current study, key informants recommended that distribution of guideline both in hard copies and soft copies can be taken as alternative strategies for dissemination. The dissemination mechanisms that are effective in one setting may not work in other settings.Although health professionals in the current study context have access to computers, not all of them do. In addition, Internet availability is limited.Therefore, preference of active dissemination strategies over passive ones is logical.

## 7.6.3. Implementation

Apart from dissemination, guideline development organizations utilize different mechanisms to promote intervention of guidelines.These include: online reminders, educational outreach, interactive educational techniques and multifaceted interventions.[179]In the current study, the suggested mechanisms for effective implementation were provision of short-term training and workshops, using posters at service delivery points, using expert patients and integrating the guideline into mentorship and MDT programs.

In the current project, posting reminders was suggested as a mechanism for increasing the adherence to the guideline. In agreement with this, Grimshaw et al. found a moderate quality of evidence indicating that reminders lead to improvement in patient care.[235]

Participatory educational interventions increase the uptake of guidelines by end users.[233] Similarly, in the current project, key informants reported the uptake of the guideline can be potentially improved through training and mentorship programs.Practice facilitation is among the mechanisms for enhancing the implementation of practice guidelines. Doughertyet al. define outreach or practice facilitation as "…a multifaceted approach that involves skilled individuals who enable others, through a range of intervention components and approaches, to address the challenges in implementing evidence-based care guidelines within the primary care."[236(pp.63)]Baskerville et al.[237] found that primary care facilitators were more likely to adopt evidence-based guidelines through practice facilitation.In line with this evidence, key informants of the current project suggested mentorship as a mechanism for dissemination, implementation, monitoring and evaluation of the current guideline. In the

field of HIV, mentorship programs have been successful in facilitating the dissemination of new and evidence-based practices.[238]

Determining leaders is critical for the implementation of a guideline.[179] The current study also found determining the implementation structure and afocal person as critical points for effective guideline implementation.The accuracy, and timeliness of organizational and inter-organizational information systems affect the implementation of a guideline.[9]In the current project, key informants suggested that guideline indicatorsshould be integrated into the monitoring and evaluation system of the hospital (JUMC). In addition, key informants identified delineating roles and responsibilities and strengthening teamwork among the necessary factors for the implementation of the guideline.As suggested by the key informants of the current project, partnership within and outside the organization can also be utilized to tackle barriers during the implementation of the current guideline.

The current MDT meetings of expertsand one-to-five networks of health professionals were suggested as a platform for dissemination, implementation and evaluation of the current guideline. In line with this, Grimshaw et al. reported that there is low-quality evidence indicating that educational meetings improve patient care. [235]

The existence of expert HIV patients in JUMCwas suggested as a potential platform to enhance adherence to the current guideline. Similarly, Grimshaw et al.[235] found moderate quality evidence supporting patient-mediated interventions to improve professional performance.

The integration of a guideline into routine records increases the uptake of, or the adoption of the guideline.[233]In the current project, we found that continuous monitoring, evaluation and mentorship programs are critical in the integration of the guideline into the system of the hospital. Key informants recommended that checklists and monitoring and evaluation tools should be integrated into mentorship, Health Management Information Systems (HMIS) and Key Performance Indicators (KPI) of the hospital. In line with these findings, Grimshaw et al.[235] found a moderate quality of evidence indicating that audit and feedback improves patient care.

## 7.7. Conclusion

For the current guideline, I sought experts' perceptions both on the facilitators and barriers to the implementation of the current guideline on the reduction of stigma and discrimination related to HIV. Therefore, it is critical to consider all potential barriers, facilitators and suggested remedies for the barriers during the implementation of the guideline.The current

project identified factors related to the nature of the guideline, the policy and practice environment, the health professionals and the commitment of stakeholders that potentially impact the uptake of the guideline.Policy makers should disseminate the guideline through existing opportunities such as MDT meetings, one-to-five networks, and training and workshops. Multidisciplinary team meetings, mentorship programs, and one-to-five networks can be used both as a mechanism of dissemination and implementation for the current guideline. Teamwork and partnership with stakeholders in and outside the hospital should be strengthened to tackle barriers related to the implementation of the guideline. In addition, it is essential to establish an implementation structure comprising an implementation committee and implementation focal person.

The current guideline indicators should be integrated into mentorship, MDT meetings and evaluation programs of the hospital. Facility managers and unit heads should make sure that the data collected for monitoring and evaluation is being utilized to improve performance. Moreover, as the guideline is being implemented in JUMC, data on implementation experiences should be collected to assist the scale up of the guideline throughout the country.

## CHAPTER EIGHT

## REDUCING HIV-RELATED STIGMA AND DISCRIMINATION IN HEALTHCARE SETTINGS: AGUIDELINE TO INFORM POLICY AND PRACTICE

## Unit one: Introduction

### 8.1.1. Overview

This guideline was prepared to aid stigma and discriminationreduction activities in Ethiopian healthcare settings. The document is presented in four units. Unit one introduces the significance of developing the current guideline, by describing the background, context, nature of stigma and discrimination, how stigma affects clients and health professionals, and purpose and scope of the guideline. Unit two describes the process through which the guideline recommendations were developed. Unit three presents the guideline recommendations. Unit four describes implementation, monitoring and evaluation issues related to the guideline.

### 8.1.2. Background

Infection by the human Immunodeficiency virus (HIV) often results in stigma and fear for those living with the infection, as well as those caring for them, and may affect the entire family.[239, 240]Stigma attached to HIV often results in loss of socio-economic status, employment, income, housing, health care and mobility.[240, 241]As a result of their health service utilization, people living with HIV (PLHIV) may face discrimination, rejection and insults.[239]Therefore, stigma related to HIV negatively impacts adherence to, and uptake of services.[45, 52, 68, 239, 242] If not addressed, stigma contributes to continued transmission of the virus.

### 8.1.3. Context of the guideline

There is a global commitment to end the epidemics of the universal precautions, HIV/AIDS human immunodeficiency virus and acquired immunodeficiencysyndrome (HIV/AIDS) by the year 2030.[39]However, this commitment cannot be realized without curbing stigma and discrimination (SAD) related to HIV and AIDS.[41]For centuries, SAD have resulted in lower uptake of preventive services, testing and counseling services, delayed seeking or avoidance of care, treatment and support services.[129]To this end, the World Health Organization (WHO) and the Joint United Nations Program on HIV/AIDS (UNAIDS) have set a 'zero discrimination' agenda as part of their commitment.[243]

In Ethiopia, like in many other countries, SAD have deterred HIV prevention and control activities.[217, 218]Stigma related to HIV has been documented among the community,[219, 220] key population groups,[221] and health care providers.[57, 124] Stigma acts as a barrier to linkage to, and retention in care.[222]Research has also indicated that stigma deteriorates the social and living conditions of PLHIV.[53]The government of Ethiopia is committed to achieving universal health coverage for all its citizens and zero discrimination to healthcare in healthcare facilities. Among the efforts in improving access to quality healthcare services, few are setting the national healthcare quality strategy and Compassionate, Respectful, and Caring (CRC) initiatives.[244]

In addition, Ethiopia has a law that protects PLHIV against stigma and discrimination.[245]The Federal ministry of Health (FMOH), the Federal HIV Prevention and Control Office (FHAPCO) and other partners working on HIV have put stigma and discriminationreduction among their priority target areas.[218]Previous Ethiopian-based research hasindicated that the absence of, or the lack of awareness of policies, guidelines and protocols that protect PLHIV from SADis associated with higher levels of SAD among HCWs and hence researchers have recommended the development of policies, guidelines and protocols that protect PLHIV from SAD.[57, 124, 125]However, there is no guideline developed based on research evidence to help to reduce SAD in healthcare settings. This guideline document, therefore, aims to fill this gap.

### 8.1.4. Stigmarelated to HIV in healthcare settings

HIV-related stigma is defined as 'prejudice, discounting, discrediting and discrimination directed at people perceived to have HIV or AIDS and individuals, groups and communities with which they are associated'.[16(pp.1107)]Stigma related to HIV can be disaggregated into domains such as drivers, facilitators, manifestations, and intersectional stigma.[2]

Drivers or individual-level factors that are associated with stigma and discrimination are lack of awareness of SAD, how they manifest and their consequences, prejudicial and stereotypical attitudes related to gender identity, sexual activity and fear of HIV transmission stemming from limited knowledge.[2]The fear of HIV infection among healthcare workers is related to incomplete knowledge on the modes of transmission, limited availability of materials for standard precaution or over-estimation of the risk of acquiring the virus through occupational exposure.[24]Socially-driven stigma results from the values held by people linking PLHIV as participating in socially stigmatizedbehaviours such as promiscuity. Stigma also results from prejudices related to sexual orientation or gender.[130]

154

Facilitators are institutional or societal factors that affect the occurrence of stigma and discrimination. Institutional factors that contribute to stigma and discrimination include shortage of supplies and lack of training programs and lack of appropriate policies, standards and regress system to address stigma and discrimination.[2]

Manifestations are the immediate consequences of stigma such as discrimination or expected stigma. In healthcare facilities, stigma related to HIV is manifested as:

- Denial of care[58, 125, 172]

- Provision of substandard care[125, 172]

- Making a health service conditional (e.g. registering as an antiretroviral (ART) customer in the facility,[57] bringing along the sexual partner[57, 172]

- Premature discharge[172]

- Poor follow-up[125]

- HIV testing without consent[172]

- Breaches of confidentiality (e.g. disclosure without consent and marking files)[57, 125, 154, 172]

- Using excessive protective barriers to prevent infection[57, 125, 172]

- Compulsory or forced treatment[172]

- Segregation of clients or marking the files of clients who are HIV positive[13]

- Unnecessarily referring the client to other institutions[172]

- Stigmatizing words (gossip and labelling) and actions[57, 172] and blaming those infected by HIV.[58]

Layered or intersecting stigma is a double stigma faced as a result of HIV status, gender, profession, poverty or sexual orientation.[2]

**8.1.5. Impact of stigma and discrimination in healthcare settings**

Stigma and discrimination affect clients living with the virus in different ways. Those who are stigmatized, or fear being stigmatized may behave as follows:

- Fear taking an HIV test and delay getting tested until they are desperately ill, well beyond the optimal stage for ART.[7, 54]

- Avoid going to healthcare facilities for HIV and other health-related services [7]

- Avoid going to a healthcare facility for delivery or drop out of a prevention of mother-to-child transmission (MTCT) program for fear of disrespectful care from healthcare facility staff [53]

- Do not disclose important information to healthcare facility staff for a proper diagnosis or course of treatment[53]

- The complication related to not being treated has an impact of increased transmission of the disease that negatively affects the country's development at large.[7, 54]

- Travel outside of their communities to access antiretroviral therapy (ART) in secret or hide their use of ART and, thus, take inconsistent doses of the medication.[246]

- Avoid disclosing their sero-status to sexual partners or avoid insisting on safer sex[7]

- May not access information and services needed to help them prevent getting HIV.[7]

In addition, HCWsdelay, deny or avoid care, or provide substandard care for PLHIV.[125]Stigma and discrimination also affects HCWs. Healthcare facility staff living with HIV may also face gossip or exclusion by other healthcare facility staff, discrimination at work if there are no policies in place to protect their rights, and hostility from clients. They often hide their HIV status, avoid discussing their situation with others, and suffer in silence. Because of the fear of being stigmatized, or even losing their jobs, healthcare facility staff may avoid testing for HIV and access treatment either late or not at all. They may become seriously ill or die, causing further strain on an overburdened healthcare system. In addition, healthcare providers may even avoid getting tested or getting post exposure prophylaxis after sudden occupational exposure because of the fear of stigma and discrimination. Moreover, in some circumstances, healthcare workers face secondary stigma simply as a result of their association with PLHIV.[161, 162]

## 8.1.6. The purpose of the current guideline

The purpose of this guideline is to help HIV prevention and control office coordinators, health professionals, counselors (social and psychological aspect) and health managers (including facility administrators) to plan SADreduction interventions.The implementation of the guideline may contribute to the following goals:

1. To reduce stigmatizing attitudes and actions of HCWs towards PLHIV, their families, care givers and key population groups.

2. To reduce stigmatizing policies and procedures towards people living or affected by HIV in healthcare facilities.

3. To reduce experienced, perceived or felt stigma faced by people living or affected by HIV.

The fulfillment of the above objectives will, in the long run, help to ensure that all people living with, and affected by the virus have access to comprehensive care and support services. It may also contribute to the promotion of the psychological wellbeing of people affected by HIV. In addition, it may enhance the capacity of HCWs to act as role models in reducing SAD.

### 8.1.7. Scope of the guideline

*Target audience of the guideline*

This guideline includes evidence-informed recommendations to reduce SAD related to HIV among HCWs, PLHIV and their families. It includes the summary and grading of the evidence and discussion of implementation issues.The guideline is mainly intended for facility administrators and other personnel who play a role in ensuring that policies, procedures and available supplies to promote a safe workplace for staff, and the delivery of highquality services. This guideline may be utilized by HIV prevention and control offices, hospitals, health centers and other governmental and non-governmental organizations.

The guideline is intended for health professionals from different disciplines including, Nurses, Medical Doctors, Laboratory Technicians, Medical Anthropologists, Medical Sociologists, Psychologists and Psychiatrists, Health Promotion experts, Midwives, Pharmacists, Health Extension Workers and community volunteers. Professionals and non-professionals other than those in health disciplines working in healthcare facilities or working on psycho social aspects of HIV can also utilize the guideline recommendations. In addition, social support groups /home-based care volunteers may utilize the guideline. Furthermore, patient advocates, faith-based organizations and non-governmental organizations (NGOs) involved in providing supportto facilitate healthcare services for PLHIV may use the guideline.Others interested to respond to stigma and discrimination within healthcare settings may also find the recommendations and tools in this guideline useful. Alhough the guideline was mainly developed to improve services delivered to PLHIV in healthcare settings, it may also be utilized for teaching purposes.

*What are the contents of the guideline?*

The guideline addresses interventions to reduce HIV-related SAD among HCWs. It contains draft recommendations and information about implementing the guideline. This guideline does not replace, but complements and supports HIV-related guidelines that already exist. This guideline may complement HIV disclosure guidelines, greater involvement of people living with HIV/AIDS (GIPA) guidelines,Consolidated guideline on sexual and reproductive

health and rights of women living with HIV, guidelines on intimate partner violence, ART guidelines, Voluntary Counseling and Testing (VCT) guidelines, Provider Initiated Counseling and Testing (PIHCT) guidelines, guidelines for improving entry into and retention in care for PLHIV, prevention of mother to child transmission (PMTCT) guidelines andInfection Prevention and Patient Safety (IPPS)guidelines.

*Areas not covered in this guideline*

1. Interventions related to law enforcement in the community.
2. Treatment of mental illnesses among PLHIV.
3. Drug therapy of any minor or major psychological or psychiatric disorders.

## Unit two: Process of developing the guideline

### 8.2.1. Summary of the guideline development process:

Activities involved in the guideline development are summarized as follows.

1. Establishment of the guideline panel and declaration of conflicts of interest. The members of the panel and the summarized declaration of conflict of interest is appended (Appendices 16 and 17).

2. A systematic literature search that identified interventions to reduce SAD towards PLHIV by HCWs. The result of the review clearly indicated that current guidelines and systematic reviews were less informative and contained limited information on the quality of the recommendations and conclusions. Therefore, a decision was made to re-trace the linked primary research evidence. Details of the search strategy and search results are shown in Appendices 1 and 2. In addition, an additional systematic review of quantitative evidence was conducted. Search strategies and search results of the systematic review of quantitative evidence are shown inAppendices 6 and 7.

3. A guideline panel meeting was convened to determine research questions. On July 17, 2016, a guideline panel convened a meeting and discussed the results of the initial search and determined research questions and scope of the guideline. The research questions considered during the development of the guideline are indicated in section 8.2.2 of this chapter.

4. An iterative activity including data extraction, appraisal of linked evidence and drafting tentative recommendations was carried out. The recommendations in this guideline were mainly derived from six guidelines and best practice documents and six systematic reviews[2, 133, 134, 140, 163](including the systematic review reported in chapter four) and their linked primary studies. The guidelines and best practice

documents were published by the Department for International Development (DFID),[247]Physicians for Human Rights (PHR),[128]United States Aid for International Development (USAID)[6, 7] and Tanzanian Commission of AIDS (TCA).[130]A detailed content analysis of the documents and linked primary research evidence was carried out.Using the GRADE profile software package,[86] summaries of findings tables were generated along with the quality of evidence (Appendix 28).

5. Recommendations were drafted with the considerations for the nature of the interventions, target audience and quality of evidence. The strengths of recommendations were included in the recommendations through considerations of the balances between the potential costs and the benefits of the interventions. In addition to consideration of locally visible policy and practice and consultation of local experts, patient values and preferences reported in previous local [125] and international studies[135, 137] were considered.For practice areas where providing a GRADE of evidence was not practical, good practice points were provided.[180]

6. Internal evaluation of the guideline was conducted using tworounds of the Delphi survey.[106] During this evaluation, the tentative lists of recommendations were tested for feasibility and appropriateness to the Ethiopian context. Followingtwo rounds of the Delphi survey, the panel convened its second meeting to discuss the comments from the first and second round and modifications made based on the comments. In the meeting, the panel discussed the feasibility of tailoring some recommendations to the local context.

7. External evaluation and key informant interviews to further identify and describe the barriers and facilitators to implement the guideline were conducted. Experts were invited to comment on the guideline. Based on the result of the external evaluation and key informant interviews, the guideline was revised.

8. Revision of the guideline and write-up of the final draft were undertaken.

### 8.2.2. Key issues and questions considered

While drafting this guideline, we considered the following research questions.

Which interventions are effective in reducing SAD among HCWs directed towards PLHIV, people affected by the virus and people associated with the virus? To address this research question, the following inclusion criteria were considered:

a. **Population:** Healthcare workers including health professionals and administrative staff working in healthcare facilities.

b. **Intervention:** Interventions designed to reduce SAD in the healthcare facilities. These included training, workshops, and institutional policies and infrastructures.

c. **Comparators:** Usual care or no interventions and alternative interventions.

d. **Outcomes:** Fear-based stigma, value-based stigma (shame, blame) and discrimination (isolation, labeling, gossiping and use of extra precautions).

e. **Settings**

**Organizational level**: Interventions conducted at the level of healthcare facilities.

**Individual level**: Interventions targeting HCWs.

The guideline panel considered the content, duration, intensity, mode of delivery and the provider of the interventions.

## Unit three: Recommendations

The recommendations in this guideline are presented under four themes:

A.    Structural interventions

B.    Information-based and skillsbuilding approaches

C.    Contact and empowerment approaches

D.    Recommendations for research

### A. Structural interventions

This theme encompasses interventions related to organizational programs and policies.

#### 1.  Organizational policy revision and development

Stigma and discrimination related to HIV are fueled by organizational factors termed as facilitators. Among common facilitators of stigma are the absence of policies and guidelines that support PLHIV or the presence of discriminatory policies in healthcare facilities that affects the rights of PLHIV.[2] This indicates that healthcare facility practices, standards, policies and guidelines should be examined and revised with the consideration of the rights of PLHIV.[7]Healthcare facility managers should create a safe environment both for their workers and for their clients. Creating a safe environment includes ensuring that the following activities are undertaken.

1. Healthcare facilities should have institutional anti-stigma and discrimination policies. It is recommended that facility administrators develop SADreduction policies with their employees so that they have the ownership of the policies. This is an effective way to support the desired behavior change.[155]

2. Having standard operating procedures (SOPs) and redress-and-reward systems to ensure enforcement of policies and SOPs.[125]

3. Making the facility accessible and safe for all patients, providing private spaces for patient consultations, examinations, and counselling.[132]

4. Ensuring appropriate infrastructure and supplies are in place to protect staff, as necessary. Healthcare facilities should ensure the availability of sufficient stocks of necessary materials such as drugs, gloves, syringes, needle disposal bins, and hand washing stations to enable HCWs to provide quality care and practice effective infection prevention and control.[132]

5. Providing appropriate training on universal precautions, HIV/AIDS, SAD and addressing the three actionable drivers of SAD.[7]

6. Using appropriate words to identify HIV and PLHIV.Therefore, programs and institutions should use non-stereotypical images and concepts of PLHIV. There should be a system to review all the written or visual communication materials and approaches with a stigma lens.[7]

To realize the above practices in healthcare facilities, there should be supportive policy and guideline.

***Recommendation1: Healthcare institutions or programs should review and/or develop institutional policies and practices with their employees.[7, 154, 155] [Very low quality, strong evidence]***

Facility managers can utilize internationally tested tools, such as "PLHIV-friendly" checklist[6, 7, 155, 247] (Appendix 27) to review facility-specific information related to SAD. This helps facility administrators to identify gaps in institutional policies and guidelines.[6]The details of the measurements and indicators are provided in the monitoring and evaluation section (section 8.4 of this chapter).

**2. Dissemination of policies and procedures related to stigma and discrimination**

Ethiopian studies have indicated that health professionals describe the absence or the lack of awareness of policies and guidelines that protect PLHIV in healthcare facilities and the absence of, or the lack of guidelines and protocols are associated with higher levels of SAD among HCWs.[57, 124]This underscores the necessity of increasing awareness of, and dissemination of the existing policies, procedures, and guidelines.

***Recommendation 2: Information about and/or enforcement of policies and procedures that protect PLHIV should be disseminated to HCWs and their clients [133, 138, 154, 155, 248][Very low-quality, strong evidence]***

Such information may be provided through training, workshops and the distribution of hard copy documents for each health professional and at each service delivery point. In addition, simplified patient versions of the policies and procedures should be provided to clients.

3. **Putting in place a mechanism to address complaints**

*Recommendation 3: Healthcare facilities should put in place standard operating procedures (SOP's) and a code of conduct related to stigma in healthcare institutions. Healthcare institutions should create a system of lodging and dealing with complaints in healthcare facilities.[6, 7, 154, 155][Very low quality, strong evidence]*

The rights of patients, mentioned in guideline for the management of Ethiopian federal hospitals, should be executed.[249] Healthcare workers must comply with the legal norms and standards enshrined in human rights instruments and the national law[245] and HIV AIDS policy.[250] Healthcare workers should use non-stereotypical terms and concepts of PLHIV. There should be a system to review all communication materials and approaches with a stigma lens.[7]Where healthcare providers fail to comply with rules and standard operating procedures, the facility managers should act in accordance with the rules and procedures provided by the healthcare facility and possibly the law. In order to ensure that health services are being provided in accordance with the law, standards and the rights of clients, there should be a standard procedure that creates a system of lodging of grievances by patients.[7]The development of code of a conduct will facilitate such an accountability among healthcare workers.[6, 154] Therefore, healthcare workers should be provided with an opportunity to develop a code of conduct as indicated in the implementation section of this guideline document (section 8.4).

4. **Involvement of PLHIV in developing standards**

The development of standard operating procedures is expected to reduce SAD. These standards and procedures should not be biased and should include the perspectives of PLHIV. Clients living with HIV should be involved in the procedure to note bias in SOPs and unintentional negative attitudes of HCWs to reduce institutional SAD.[248]

*Good practice point 1: There should be a partnership between HCWs and HIV infected patients during developing SOPs.*

5. **Adequate supplies and infrastructures must be available in healthcare institutions**:

Healthcareworkers should practice standard precautions at all times regardless of the sero-status of the clients.[155]The intention of healthcare professionals to avoid providing services

162

to PLHIV, and the utilization of PLHIV-specific extra precautions have been raised as a concern by PLHIV in previous qualitative research.[125, 137] There is a negative correlation between avoidance intent and adherence to universal precautions.[146]The shortage of materials for standard precaution encourages differential use of these scarce supplies specifically for PLHIV.[132] Therefore, having the proper tools to care for patients regardless of their disease status decreases HCWs' fear of contracting the disease and being stigmatized for being associated with PLHIV.[2, 7, 132, 155, 247] Appropriate and timely follow up is critical so that these supplies and stocks do not run not.

*Recommendation 4: Healthcare facilities must provide adequate stocks of gloves, drugs, syringes, needle disposal bins, and hand washing stations that enable HCWs to provide quality care and practice universal precautions. [Low quality, strong evidence]*

6. **Accountability for confidentiality, informed consent and non-discrimination**

In previous researches, PLHIV raised concerns about breaches of confidentiality, denial of care and the provision of substandard care by HCWs.[125] Patients should not be denied of care or be provided substandard care based on their disease status. Clients should not be tested for HIV without their knowledge or after refusal of the test. Patient's sero-status should not be disclosed to the third body without the knowledge and consent of the patient. Segregating patients within the healthcare facility and using distinguishing marks such as writing "HIV+" on patient's chart should be prohibited.[132, 155]

*Good practice point 2: Procedures and policies in healthcare facilities should ensure the rights of patients to confidentiality, informed consent and non-discrimination.[155]*

All clients should have access to treatment, regardless of their sero-status.[155] Ensuring accountability for the rights of patients to confidentiality, informed consent and non-discrimination involves establishing institutional reporting mechanisms that allow clients to report and seek redress if SAD occur (i.ewhen HCWs intentionally or unintentionally discriminate clients). In addition, HCWs should be transparent, open to scrutiny, and accountable to the clients they serve, for example, by providing information to them on the details of the procedures being performed.[7]In addition, healthcare facilities should support PLHIV and key affected populations to secure and claim their rights and support from the healthcare facility administration.

**How:**

The rights of clients to confidentiality, informed consent and non-discrimination should be assured through the following mechanisms:

- Developing effective systems of lodging and dealing with complaints.
- Providing adequate information to clients on their rights.
- Building capacities related to knowledge of rights, gender, documenting violations and presenting and defending complaints through training.
- Advocating for policy change (especially around human rights, compulsory testing and breaches of confidentiality).
- Provision of training or orientations to healthcare staff on issues of confidentiality, informed consent, and sensitivity toward PLHIV and key affected populations to ensure that mechanisms to redress human rights violations will be non-stigmatizing and non-discriminatory so that they do not discriminate and breachthe confidentiality of clients.[7]

*Good practice point 3: Policies and programmes to reduce stigma and discrimination must be directed at all HCWs.[132, 155, 247]*

Healthcare workers from each department, regardless of whether they have close contact with clients living with HIV should be educated and trained to have accurate knowledge of HIV, patient's rights, and how to approach clients. This is because the HIV and Tuberculosis Clinic is not expected to provide comprehensive care, such as delivery services, surgical services, ophthalmic and dental care and other services for PLHIV.[155, 247] Therefore, clients living with HIV access theseservices from other units of the hospital. In order to avoid or reduce stigma and discrimination in all units and provide non-discriminatory services to PLHIV in all units of the hospital, SADreduction activities should target all HCWs.[132]

<div align="center"><b>Structural interventions</b></div>

1. **Healthcare institutions should review and/or develop institutional policies and practices with employees. [Very lowquality, strong evidence]**
2. **Information about and/or enforcement of policies and procedures that protect PLHIV should be disseminated to HCWs and their clients [Very lowquality, strong evidence]**
3. **Healthcare facilities should put in place SOP and code of conduct related to SAD in the healthcare institutions. [Very lowquality, strong evidence]**
4. **There should be a partnership between HCWs and PLHIV in developing SOPs. [Ungraded]**
5. **Healthcare facilities must provide adequate materials for standard precaution. [Lowquality, strong evidence]**

6. **Procedures and policies in healthcare facilities should ensure the rights of patients to confidentiality, informed consent and non-discrimination. [Ungraded]**

7. **Policies and programmes to reduce SAD must be directed at all HCWs. [Ungraded]**

B. **Information and skillsbuilding approaches**

1. **Participatory educational programs that encourage dialogue**

The lack of knowledge of what contributes to SAD and prejudicial attitudes towards PLHIV are major drivers of SAD.[58] There is a need to provide participatory programs that affect both the cognitive and affective domains of HCWs' attitudes.[137] Participatory training programs create an opportunity to reflect on sensitive and taboo topics and can contribute to the reduction of prejudices.[7, 137] Such open discussions help in the identification of SAD through the encouragement of discussions of the values and personal feelings of the HCWs.[7, 130, 152] Healthcare providers should be provided with adequate time and space to reflecton their values, prejudices and attitudes.[130]

*Recommendation 5: Multifaceted educational programs that encourage discussion of values and personal feelings about PLHIV should be provided to HCWs to improve their attitudes towards PLHIV. [Very low-quality, strong evidence]*

For instance, a Chinese study used a multifaceted educational program comprisingdidactic lectureson HIV epidemiology, natural history, transmission routes and clinical care, combined with activities that encourage discussion of participants' values and personal feelings about HIV. The intervention was effective in improving empathy and general attitudes towards PLHIV, and reducing avoidance attitude among HCWs.[152]

2. **Combination of participatory educational programs with contact strategies**

*Recommendation 6: Stigmareduction interventions for HCWs should include a combination of participatory approaches that encourage discussions, intersection and critical thinking and contact strategies to reduce value-based stigma.[7, 154] [Very low-quality, strong evidence]*

Healthcare workers should be provided with adequate training on standard precautions, HIV, SAD so that the actionable drivers of SAD canbe addressed. Participatory educations of HCWs may include interactive workshops comprising reflection exercises, role-play, and

discussions preferably facilitated or co-facilitated by PLHIV.[2, 154, 155, 251]Such an intervention may be arranged in a modular form and should be complemented by contact strategy (interaction with PLHIV).[156] For instance, an Egyptian study used an interactive training and discussion that focused on HIV-related stigma, infection control and medical ethics using five modules. The intervention was complemented by interaction with PLHIV. The study reported a significantly lower levels value-based stigma and fear-based stigma among HCWs assigned to the intervention when compared to that ofHCWs in control healthcare facilities.[156]

3. **Combination of participatory education with supportive work environment**

The practice of standard precaution will only be realized if there is an enabling environment (adequate supplies, and adequate knowledge and skills of HCWs).[154, 155]Appropriate education combined with an infrastructure for standard precaution reduces irrational fear of acquiring infection through casual contact.[154, 155] For instance, in Vietnam and in India, training, participatory hospital policy development and provision of material supplies used in combination, was found to be effective in reducing fear-based stigma and extraprecautions when handling PLHIV in healthcare facilities.[2, 13, 155]

*Recommendation 7: Healthcare institutions and stigmareduction programs should provide the necessary skills (training) and supportive work environments in healthcare facilities.[7, 155][Very low-quality, strong evidence]*

The training program should encompass topics such as care provision for PLHIV, SAD related to HIV and human rights. The training should be complemented with supplies for standard precautions to prevent transmission of infection. This will enable HCWs to provide services or conduct their work in a non-stigmatizing and non-discriminatory manner.

**How:**

This can be achieved through involving all staff in stigmareduction exercises, and in training and policy development to create a stigma-free environment at all levels. Healthcare facility managers should ensure that the healthcare environment encourages respect for patients' rights among both HCWs and patients. In addition, structural barriers should be addressed. All the necessary supplies including hand washing facilities, gloves and other materials should be continuously supplied. Therefore, along with the provision of participatory educational interventions, health care facilities need to ensure that their staff are provided with the necessary skills and supportive work environment.[7, 252]

#### 4. Peer education of HCWs

*Recommendation 8: Professionallyassisted peergroup education of HCWs should be undertaken to reduce client contact stigma in healthcare facilities.*[2, 160, 253] *[Very lowquality, strong evidence]*

Professionallyassisted peer education programs should be conducted as a mechanism for stigmareduction in healthcare facilities. Peer education sessions should address topics such as HIV transmission, the importance of counseling and education of families, patients' dignity, confidentiality and standard precaution. The peer education sessions should be conducted in small groups of 10 to 12 HCWs using participatory activities such as role-play.[160]

For example, an eight-sessions peer education intervention was conducted among HCWs in Chile. The sessions covered a) the importance of community HIV prevention, b) standard precautions, c) HIV testing d) providing care that respects dignity and confidentiality, e) human sexuality, transmission of sexually transmitted infections (STIs); (f) partner communication and HIV prevention; (g) counselling about HIV infection; and (h) teaching HIV prevention to clients and families. The sessions encompassed participatory learning activities such as role-play. The intervention resulted in a significant decrement in client contact stigma among HCWs.[160]

#### 5. Identifying and training popular opinion leaders

*Recommendation 9: Stigmareduction programs should identify and train popular opinion leaders*[2, 254] *[Moderate-quality, strong evidence]*

Programs working to reduce prejudicial attitude and avoidance intent among HCWs should identify and train popular opinion leaders. The popular opinion leaders should be trained standard precaution and occupational safety and SAD using participatory learning activities such as group discussion, games, and roleplays.[2, 254] Such an intervention will facilitate the transfer of knowledge and skills among HCWs.

**How:**

Opinion leaders need to be strengthened to lead a stigmareduction, beginning with support to increase their own understanding of SAD and the benefits of reducing SAD, to improve knowledge and overcome irrational fear of HIV transmission, and to deal with their own socially driven stigma toward PLHIV. Once equipped with knowledge and understanding, opinion leaders are more likely to welcome partnerships with PLHIV to tackle SAD and to become role models for non-stigmatizing attitudes and behavior.[7]Opinion leaders can be

identified and trained so that they can influence others by becoming role models. Efforts to address these objectives can be accomplished in the following two ways.[7]

a) Technically supporting the opinion leaders to become role models in their practice towards the reduction of SAD.

b) Supporting the opinion leaders in the process of planning to reduce SAD.

For instance, a stigmareduction program in Chinese healthcare facilities identified and trained popular opinion leaders on compliance to universal precaution procedures and ensuring occupational safety, (2) reducing stigma and improving the provider-patient relationship, (3) making efforts to care for patients, and (4) overcoming difficulties and building up a better healthcare facility environment. The popular opinion leaders were engaged in informal communications with their co-workers. The popular opinion leaders had a three-sessions re-union activity where they revised their informal communication activities, problem-solving skills, group solidarity and skillsbuilding activities through interactive games. The study reported a significantly higher reductions in prejudicial attitudes and avoidance intent among hospitals assigned to intervention groups when compared to that of control hospitals.[254]

**Information-based approaches**

1. **Multifaceted educational programs that encourage discussions of values and personal feelings about PLHIV should be provided to HCWs to improve their attitudes towards PLHIV. [Very lowquality, strong evidence]**

2. **Stigmareduction interventions for HCWs should include a combination of participatory approaches that encourage discussions, intersection and critical thinking and contact strategy to reduce value-based stigma. [Very lowquality, strong evidence]**

3. **Healthcare institutions should provide the necessary skills (training) and supportive work environments in healthcare facilities. [Very lowquality, strong evidence]**

4. **Professionally assisted peergroup education of HCWs should be used to reduce client contact stigma in healthcare facilities. [Very low-quality, strong evidence]**

5. **Stigmareduction programs should identify and train popular opinion leaders. [Very low-quality, strong evidence]**

### C. Empowerment of PLHIV and contact strategies

Healthcare facilities and stigmareduction programs can empower PLHIV through involving them in planning stigmareduction activities and through the provision of training on the reduction of SAD. Clients living with HIV should be provided comprehensive information about their rights and the available treatment options. Clients living with HIV should be provided comprehensive services and when necessary they should be linked to existing community services outside healthcare facilities.[132]Healthcare facilities should empower PLHIV through the following methods:

1. **Active and full involvement of PLHIV**: Ensuring that mechanisms exist to support the full, active, meaningful participation of PLHIV and key affected populations in all phases. The process for their involvement should address barriers that could affect participation such as attitudes, methods, resources, logistics and language barriers. The Greater involvement of People Living with or affected by HIV/AIDS (GIPA) principle is one example of how this can be done. [255, 256]

2. **Informing patients of their rights**: Patients may not be aware of their health-relatedrights, or what to do if their rights have been violated. Healthcare workers should ensure that information on the rights and complaint processes are prominently located in the healthcare facilities in which they work, that they themselves can talk to patients about their rights, and participate and lead in community efforts to educate people about their rights.

3. **Providing comprehensive information**: For patients to be empowered to make healthcare decisions, HCWs should providethem with comprehensive information about their health and available treatment options in a manner that is easily understood and empathetic.[132]

### 1. Empowerment through active and full involvement of PLHIV

Active involvement of PLHIV can be used as a contact strategy to reduce HIV-related SAD. Contact strategies are among effective mechanisms to reduce HIV-related SAD.[257] Specific approaches that have been used as contact strategies include:

1. Using PLHIV and key population members in SADreduction programs, as workshop facilitators or as patient advocates.[7]

2. Bringing HCWs and PLHIV or key population groups to work together.[158]

3. Using PLHIV or key population groups as service providers or as expert patients.[258]

4. Strengthening existing networks and supporting development of new ones, where appropriate.

### a) Empowering PLHIV through involving them in training and workshops

***Recommendation 10: A testimony of PLHIV or PLHIV advocates should be combined with participatory educational interventions for HCWs to reduce both value-based and fear-based stigma among HCWs. [Very lowquality, strong evidence]***

Participatory educational programs combined with the testimony of HIV positive clients act as contact strategies in reducing SAD towards PLHIV. Previous projects utilizing the combination of participatory education and testimony of PLHIV have improved the attitudes of HCWs towards keeping the sero-status of clients confidential and to respect the patient's right to HIV testing and to correctly practice universal precautions in China, India and Vietnam.[2, 133, 154, 155, 251]

### b) Contact strategy and empowerment through involvement in joint planning with HCWs

***Recommendation 11: People Living with HIV need to be actively involved in developing and implementing SAD reduction efforts by empowering them with adequate information.[2, 158, 248] [Very low-quality, strong evidence]***

Negative self-perceptions and perceived workplace stigma prevents PLHIV from seeking and adhering to treatments at healthcare facilities. Negative self-perceptions and internalized stigma among PLHIV are also associated with higher rates of depression.[259]

Programs that combined contact strategy (bringing HCWs and PLHIV together) and comprehensive information provision for PLHIV have been effective in reducing the perception of stigma among clients living with HIV and its negative impact. For instance, a multi-country program reduced perceived stigma and negative self-perception, and improved self-esteem among PLHIV through a joint workshop of PLHIV and HCWs that enabled sharing information, and contact between PLHIV and healthcare workers.[158]Therefore, programs intended to reduce SAD should use a combination of contact strategy (bringing HCWs and PLHIV together) and information provision to reduce stigma and improve self-perception and self-esteem among PLHIV.[2, 158]

Expert patients can potentially mobilize other clients towards stigmareduction and healthcare utilization.[130] Currently expert patients work in Ethiopian healthcare facilities as adherence supporters, case managers and counsellors. Hence, they can participate in joint

planning with HCWs to address PLHIV-related concerns.[10] These expert patients can also be members of different committees in the hospital to address the voices of PLHIV during the development of policies and programs.

### c) People living with HIV as service providers

**Recommendation 12: People living with HIV should be provided training to act as service providers and peer mentors for other PLHIV. [Moderate quality, strong evidence]**

People living with HIV should be provided training to act as service providers and peer mentors for other PLHIV to encourage them to seek and adhere to treatment.[258] Currently, they are working as adherence supporters, case managers and expert patients.[10]

Training PLHIV to provide psycho social interventions was effective in reducing internalized stigma and avoidance coping. For instance, in India, women living with HIV were trained to become accredited social health activists (ASHA) for assisting PLHIV to cope with difficulties and challenges they face in seeking healthcare services. The training sessions delivered to ASHAs included:a) HIV and dealing with the illness; b) learning about ART and ways to overcome barriers; c) parenting and maintaining a healthy home environment; d) how to improve coping, reduce stigma and care for family members; e) basics of good nutrition and easy cooking tips; and f) benefits of engagement in a life skills class. The ASHA intervention reduced internalized stigma and avoidance coping.[140, 260]

### d) Strengthening existing networks and supporting development of new ones where appropriate.

Networks provide a critical support system and strengthen PLHIV to challenge SAD as it happens, and supports them in demanding the right to live free of SAD. Networks also offer the organizational structure for empowerment and capacity strengthening, addressing self-stigma, building self-worth, and nurturing resiliency. Therefore, strengthening self-support groups such as women support groups and PLHIV support groups is very essential.[7]

Empowering PLHIV to identify problems, implement and evaluate actions taken to address these problems is critical.[132] For instance, an empowerment program in which Thai women living with HIV met together and worked with facilitators to identify their needs, design action plans, implement and evaluate their actions was effective in improving their coping ability and quality of life.[140, 261, 262]Although healthcare facilities may not have the capacity to provide financial support to networks of PLHIV, they can support them by providing them

training and linking them to other external organizations that provide social support for PLHIV.

**Empowerment of PLHIV and contact strategies**

1. **A testimony of PLHIV or PLHIV advocates should be combined with participatory educational interventions for HCWs to reduce both value-based and fear-based stigma among HCWs [Very lowquality, strong evidence]**

2. **PLHIV should be actively involved in developing and implementing SADreduction efforts by empowering them with adequate information. [Very lowquality, strong evidence]**

3. **PLHIV should be provided training to act as service providers and peer mentors for other PLHIV. [Moderate quality, strong evidence]**

All of the above recommendations are conceptualized and described using a framework shown in Figure 6.

Framework for addressing stigma and discrimination in Healthcare settings(Adapted from Jain,2012)

| Levels /targets of intervention | Manifestations of stigma | Determinants/Actionable drivers and facilitators | Candidate Interventions |
|---|---|---|---|
| Institutional | • Segregation of clients Marking files<br>• Physical isolation of service points | • Lack of supportive policies and SOPs,<br>• Lack of timely delivery of supplies and<br>• Weak /absence of routine training and supervision programs | **Structural**<br>• Organizational SOPs, policies,<br>• Strong training and supervision programs<br>• Reporting and redress system<br>• Availing supplies |
| HCWs | • Blame,<br>• Denial of care,<br>• Substandard care,<br>• Breaches of confidentiality<br>• Secondary stigma | • Irrational fear,<br>• Prejudices,<br>• Limited knowledge of S&D | • **Information**<br>• **skills-building approaches**<br>• structural approaches |
| PLHIV | Internalized stigma, self isolation, avoidant coping | Actual or anticipated stigma from others | **Empowerment** and **psychosocial support** |
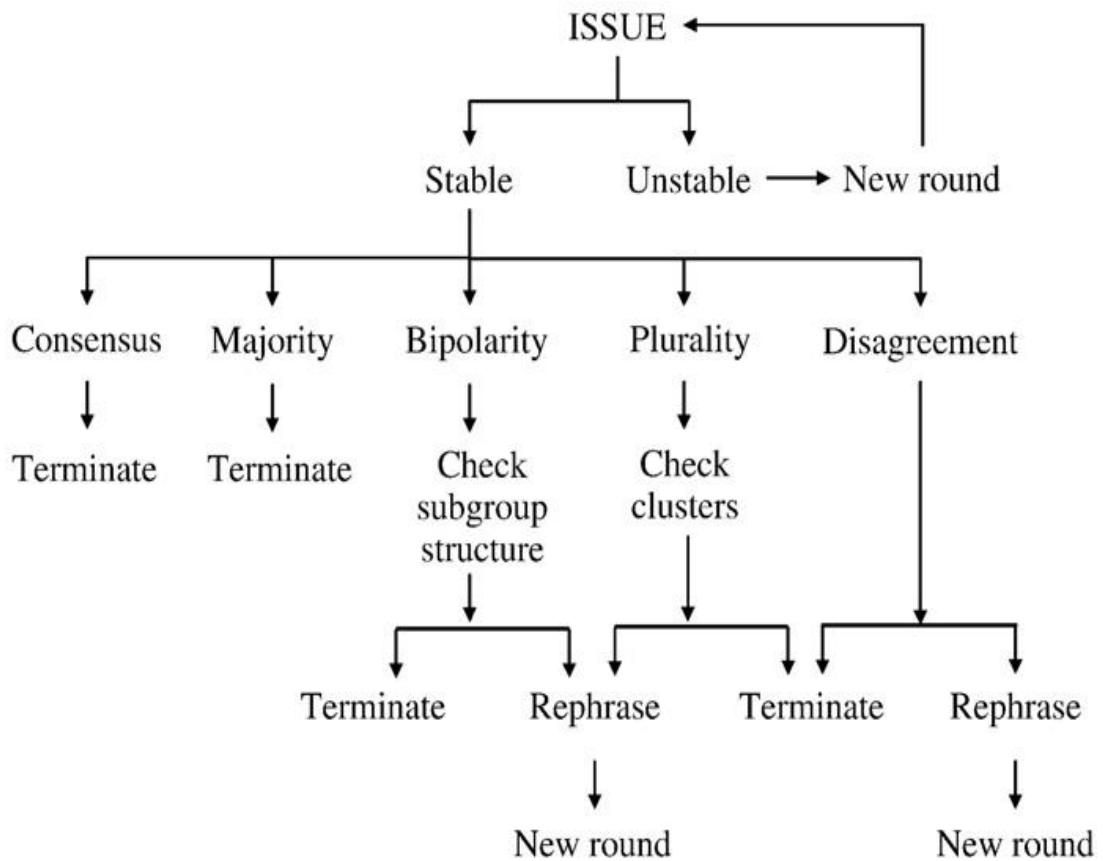


**Figure 6. Framework for addressing stigma and discrimination in healthcare facilities (adapted from Jain, 2012[3])**

### D. Recommendations for further research

The current evidence of effectiveness of stigma-reduction interventions is limited in quality. Hence, further research, specifically randomized controlled trial, is needed. Future trials

should use validated scales of measurement for stigma to determine the effectiveness of the interventions.Future researce should also compare one type of intervention with another type of interventions.

## Unit four: Implementation, monitoring and evaluation

This section describes how the guideline should be put into practice and how stigma and discrimination reduction activities should be evaluated and monitored.

### 8.4.1. Putting this guideline into practice

The recommended interventions may be arranged in healthcare institutions and organizations working on HIV prevention and control and care and support for PLHIV. The recommendations may be organized and planned at healthcare facility, district, zonal, and regional coordination offices and national coordination offices. There are resources that facilitate the implementation of this guideline.These resources have been tested in different countries and found to be effective. These include: tool kits and training manuals,[24, 263]and tools for assessment, monitoring and evaluation.[6, 264]The following implementation tools may be utilized to implement SADreduction programs.

Tool 1: Checklist for a stigma-free facility environment and policies[264](Appendix 27)

Tool 2: Checklist for discrimination-free healthcare facilities (for posting on service delivery points) adopted fromUNAIDS/WHOagenda for discrimination-free healthcare facilities[243] (Appendix 28).

Tool 3: Checkpoint for service providers (Appendix 29): This tool was developed by the current guideline developers with the considerations of the manifestations of stigma to alert HCWs and let them examine the appropriateness of their practices.

Tool kits: There are training guides for stigma-free facilities for different types of audiences with different options. These tools are found in the stigma package of the Health Policy Program (HPP).[6]

The following steps are suggested for promoting a stigma-free healthcare facilities.[6,154] The steps were adapted from the Health Policy Program (HPP).[6]

1. Set up or identify stigma action group
2. Assess the healthcare facility for the levels of SAD
3. Review current policies and practices
4. Get ideas from the community and local organizations
5. Develop and launch a code of conduct
6. Mainstream stigma-free norms and practices

7. Monitor progress

1. **Set up or identify a stigma action group**

An implementation structure comprising an implementation committee and an implementation focal person should be established. Senior managers, opinion leaders, unit heads, clinical staff, nonclinical staff, and service users should be involved in the implementation committee. The group will be responsible for developing and implementing stigma-related activities in the healthcare facility and monitoring the progress. Unit heads, clinical mentors, senior staffs and opinion leaders may be used as role models for stigmareduction activities.

2. **Assess the healthcare facility**

Assess the levels of SAD within the healthcare facility using healthcare workers' questionnaire to get the most complete and up-to-dated information about knowledge, attitudes, and practices in the healthcare facility.[6]The implementers and organizers of stigmareduction or the stigmareduction action group should use the checklist for a stigma-free facility environment and policies to get adequate and up-to-date information about the extent to which the healthcare facility supports and delivers stigma-free services (Appendix 27).[6] The results of this assessment should be shared with staff.

3. **Review current policies and practices**

In meetings or other regular activities, adequate time should be allocated to discuss policies and practices related to HIV-related SAD. Each department or unit could develop its own ideas on new policies or guidelines to counteract SAD. Regular multidisciplinary team (MDT) meetings of HCWs working on care and support services should also raise SAD as part of their meeting agenda. In addition, discussion of stigma and client's rights should be included in one-to-five networks of HCWs.

4. **Get ideas from the community and local organizations**

The ideas of the community and local organizations, including associations of PLHIV, NGOs working on care and support of PLHIV should also be gathered. These stakeholders should be encouraged to contribute their perspectives on SAD. Meetings with these stakeholders should be held to discuss the efforts to create a stigma-free healthcare facility. In addition, partnership with relevant stakeholders should be strengthened to get their support for stigmareduction programs.

5. **Develop and launch a code of conduct**

A code of conduct should be developed in a participatory manner with healthcare facility staff. The code of conduct or practice is a set of agreed principles and behaviors in areas such as patient confidentiality, patient rights and respect, and quality of care. Clients (specifically expert patients) should also be involved in the development of the code of conduct or should provide feedback on the code of conduct.The staff's, client's and community's awareness of the code of conduct should be increased through meetings and by posting the code of conduct at service delivery points. Once launched, the code of conduct should be peer-influenced and displayed in service areas and staff rooms, and be promoted to let staff members know what it means for their work.[6]

6. **Mainstream stigma-free norms and practices**

An action plan should be developed to implement the code of conduct and any other SAD reduction activities needed for a stigma-free healthcare facility. In developing the action plan, it is imperative to emphasize the sustainability of the stigmareduction activities. Therefore, SAD reduction should be included in regular MDT meetings, and in mentorship programs related to HIV care and support services.[6] Stigmareduction programs can be complemented and can complement initiatives such as CRC initiatives, clean and safe health facility (CASH) and Citizen's Charter. In addition, one-to-five networks in the healthcare facility may be used to disseminate and monitor the implementation of stigmareduction activities.

7. **Monitor progress**

The code of conduct should be assessed, reviewed regularly and modified if necessary. Success stories and challenges should be documented.[6] The monitoring and evaluation may be integrated into the hospital performance monitoring and evaluation and into MDT meetings and mentorship programs.Healthcare facility policies, regulations and practice and HCW behaviors for change should be monitored and assessed the using indicators shown in section 4.2.

### 8.4.2. Monitoring and Evaluation

The effects of SADreduction efforts should be monitored and evaluated both at individual healthcare provider level and at organizational level. The HCW survey questionnaire may be utilized to monitor changes at individual healthcare provider level. This tool is found in the stigmareduction package of HPP.[6] There is a manual showing how to utilize this questionnaire.[18] This questionnaire has been field-tested in many countries. Additionally, stigma among PLHIV can be monitored using the PLHIV stigma index.[220]

Furthermore, facility-based policy indicators can be used to monitor and evaluate the institution's stigmareduction efforts. These indicators have been extracted from SAD indicator registries.[265]Details of how to use each indicator are provided as follows:

*Indicators*

**Indicator 1: Healthcarefacility staff: Institutional policies**

The first indicator (ID:1079) measures the percentage of healthcare facility staff who report that their facility has written guidelines to protect PLHIV from discrimination.It measures the awareness of healthcare facility staff about written guidelines in their facility to protect PLHIV from discrimination.

**Numerator**: Number of healthcare facility staff who reportyes

**Denominator**: Number of all healthcare facility staff who answer the statement

**Calculation**: Numerator/ denominator

This indicator is constructed from the response to the following question:

My healthcare facility has written guidelines to protect PLHIV from discrimination (yes, no, don't know).

**Indicator 2: Healthcare facility staff: Enforcement of institutional policies**

This indicator (ID:1080) measures the percentage of healthcare facility staff who report that they will get into trouble at work if they discriminate against PLHIV.It measures whether healthcare facility staff perceives that there are negative consequences for staff that discriminate against PLHIV in their healthcare setting.

Numerator: Number of healthcare facility staff who report yes

Denominator: All healthcare facility staff who answer the statement

Calculation: Numerator / denominator

This indicator is constructed from the response to the following question:

I will get into trouble at work if I discriminate against PLHIV (yes, no, don't know).

**Indicator 3: Healthcare facility staff: Fear of HIV infection**

This indicator (ID:1081) measures the percentage of healthcare facility staff who worry about getting HIV when providing care or services to PLHIV. Itmeasures HIV infection worry among healthcare facility staff when performing certain work-related activities – both non-invasive procedures (with no risk of infection) and invasive procedures (with some risk of infection).

**Numerator**: Number of healthcare facility staff who report worry to any of the three statements.

**Denominator**: Number of all healthcare facility staff who answer at least one of the three statements. If a respondent responds non-applicable or was missing to all three statements, they should be excluded from the denominator.

**Calculation**: Numerator / denominator

This indicator is constructed from the responses to the following set of prompted questions: How worried would you be of getting HIV if you did the following? Would you be 1. very worried, 2. worried, 3. a little worried, 4. not worried? (If any of the following is not one of your job responsibilities, please select "Not applicable").

1. Touched the clothing of a patient living with HIV

2. Dressed the wounds of a patient living with HIV

3. Drew blood from a patient living with HIV

**Indicator 4: Healthcarefacility staff: Attitudes and opinions**

Percent of healthcare facility staff that hold stigmatizing views about PLHIV. This indicator (ID:1082) measures value-driven stigma (stereotyping and prejudices) that healthcare facility staff have towards PLHIV.

**Numerator**: Number of healthcare facility staff who agree with any of the first three statements or disagree with the fourth statement.

**Denominator**: Number of all healthcare facility staff who answer at least one statement

**Calculation**: Numerator / denominator

This indicator is constructed from the responses to the following set of prompted questions: Do you strongly agree, agree, disagree or strongly disagree with the following statements?

1. Most people living with HIV do not care if they infect other people.
2. People get infected with HIV because they engage in irresponsible behaviors.
3. People living with HIV should feel ashamed of themselves.
4. Women living with HIV should be allowed to have babies if they wish.

**Indicator 5: Healthcare facility staff: Observed enacted stigma**

Percent of healthcare facility staff who have observed unjust treatment of PLHIV in their facility.This indicator (ID:1083) measures healthcare facility staff's observation of enacted stigma towards a patient living with HIV in a healthcare setting.

**Numerator:** Among healthcare facility who report observing a patient living in their facility within the past 12 months, number of healthcare facility staff who reported 'yes' to either question.

**Denominator:** Number of all healthcare facility staff who report observing a patient living in their facility within the past 12 months.

**Calculation:** Numerator / denominator

This indicator is constructed from the responses to the following set of prompted questions: In the past 12 months, have you observed the following actovities in your healthcare facility?

1. Healthcare workers unwilling to care for a patient living with or thought to be living with HIV

2. Healthcare workers providing poorer quality of care to a patient living with or thought to be living with HIV.

**Indicator 6: Healthcare facility staff: Unnecessary precautions and measures**

Percent of healthcare facility staff who use unnecessary precautions when providing care or services to a patient living with HIV. This indicator (ID:1084) measures healthcare facility staffs' use of unnecessary precautions or measures when providing care or services to a patient living with HIV. It measures personally enacted stigma.

**Numerator:** Number of healthcare facility staff who report 'yes' to eitherquestion

**Denominator:** Number of all healthcare facility staff who respond to at least one of the two statements

**Calculation:** Numerator / Denominator

This indicator is constructed from the responses to the following set of prompted questions: Do you typically use any of the following measures when providing care or services for a patient living with HIV?

1. Avoid physical contact

2. Wear double gloves

**Indicator 7: Healthcare facility staff needs and support**

Percent of healthcare facility staff who report an unsupportive working environment to protect staff from work related HIV exposure. From the perspective of healthcare facility staff, the indicator (ID:1085) measures institutional drivers of HIV-relatedSAD. It measures if healthcare facility staff perceives that there are adequate supplies (e.g. gloves), and protocols and standards to reduce their risk of HIV infection in their healthcare facility.

Numerator: Number of healthcare facility staff interviewed who disagree with at least one statement

**Denominator**:Number of all healthcare facility staff who answer at least one statement

**Calculation:** Numerator / denominator

**Items**:

Do you strongly agree, agree, disagree or strongly disagree with the following statements?

1. There are adequate supplies in my facility that reduce my risk of becoming infected with HIV.

2. There are standardized procedures/protocols in my healthcare facility that reduce my risk ofbecoming infected with HIV.

All the above indicators are facility-level policy indicators. The assessment for these indicators may be conducted through facility–based surveys of healthcare facility staff such as service provision assessments and quality assurance assessments. All the above indicators should be measured every two years.

# CHAPTER NINE

## DISCUSSION, CONCLUSION AND RECOMMENDATIONS

### 9.1. Chapter overview

This chapter presents the discussionrelated to the overall PhD project. It also highlights challenges that I encountered, actions I took and justifications for the alternative resolutions. The chapter finally draws conclusions and recommendations from the process involved and the results of the project.

### 9.2. Discussion

The translation of research evidence into practice requires the appraisal of available research and generation of evidence-based recommendations that are often presented in the form of guidelines.[266] These guidelines should be systematically developed and adapted to the local context.[266]

The overall aim of the current project was to develop an evidence-informed guideline to reduce HIV-related SAD in the Ethiopian healthcare settings. The guideline development process included the consideration of both globally available research evidence and contextual factors. I attempted to get an understanding of the recommended mechanisms for the implementation of the guideline from the perspective of stakeholders. The stakeholders gave invaluable information from their past experiences in implementing guidelines, their day-to-day experiences and the considerations of the current local policy environment.

The rigor of the body of evidence from which recommendations were adapted and/or extracted,was appraised. We used the Appraisal of Guideline Research and Evaluation (AGREE) checklist[115]to assess the methodological quality of previous guidelines, and the JBI critical appraisal checklist to appraise the methodological quality of systematic reviews. Alhough, the project initially aimed to adapt and/or extract recommendations from existing guidelines and systematic reviews, this was not practical because of the limited transparency in the existing documents. In addition to detailed analyses of the primary research evidence linked to the systematic reviews, guidelines and best practice documents, an additional systematic review was conducted. Hence, the quality of primary studies was assessed using checklists from JBI. During the development of the guideline recommendations,we also rated the quality and strength of evidence supporting recommendations using the GRADEapproach.[86]

Although the above activities helped to ensure that there was a transparent reporting of the quality and strength of evidence, they do not guarantee the implementability of the evidence

across settings and contexts. Therefore, assessing barriers to, and facilitators of guideline implementation has been indicated as one of the critical components aiding the adaptation and implementation of guidelines.[183]I therefore conducted both an internal and external evaluation of the guideline using the Guideline Implementability Appraisal (GLIA) checklist[116] to identify potential barriers and tailored interventions to tackle these barriers. Nevertheless, the GLIA checklist does not allow a researcher to create a dialogue and to get rich data on end users' perceptions of the guideline.[211]In addition, the GLIA checklist is too long, and it was challenging to get responses using this checklist. However, I was able to get adequate insights in order to iteratively work on the guideline using the checklist.

To tackle the limitation of this tool, Iconducted key informant interviews with health professionals and health managers to identify local factors that affect the implementation of the guideline.This key informant interview data enabled me to determine important contextual factors that may impact the implementation of the guideline. Some of the factors explored in the current project may also be extrapolated to other guidelines. These factors include provider-related factors such as motivation, teamwork, knowledge and attitude, and local platforms such as one-to-five networks and mentorship programs that may also improve the uptake of other guidelines.

Michie et al.[267] have produced 12 domains that explain behavior change necessary for guideline implementation.Among the domains identified by Michie et al.,[267]I identified knowledge, skills, anticipated outcomes, environmental and contextual factors that are potentially expected to affect the implementation of the cuurent guideline.

As a limitation, most of the recommendations included in the current guideline were drawn from low and very lowquality evidence. The only option available in such circumstances was either to withdraw the guideline topic or develop recommendations using an explicit methodology.[101]The guideline panel, chose the latter, because guidelines are most needed in areas where there are only limited or no evidence avaliable. This is because uncertainties are expected to be more common in areas where there is limited or no evidence avaliable.[101]

Clinicians and policy makers usually do not have time to thoroughly appraise evidence and produce appropriate recommendations or decisions.[268]They need evidence in the form of a summary such as guidelines and evidence summaries.[119]The GRADE recommends that guideline panels make recommendations although their confidence estimates are low and/or there is a balance between desirable and undesirable consequences.[269]In addition, addressing stigma is not only a priority issue, but also a human rights issue.[7] Moreover, the guideline

panel believed that the guideline addresses equity and improves quality of care and adherence to the implementation of the required practice.Therefore, we developed the guideline recommendations based on evidence from systematic reviews using a modified Delphi technique. This is in line with the definition of a guideline given by Institute of Medicine (IOM) which emphasizes the importance of systematic reviews to develop guidelines.[14]

While putting the current guideline into practice, it is imperative to consider the quality of the recommendations. The quality of evidence available to date is limited. This was the main reason that most findings from the reviews from which guideline recommendations were drawn were assigned low or very lowquality evidence. Nevertheless, the panel thoroughly considered the problem as well as feasibility and preference issues. Hence, the panel was urged to make recommendations inspite of the very low-quality available.

Therefore, in this project I attempted to integrate research-based and consensus-based recommendations using a formal consensus method (a modified Delphi approach). Previous researches such as Zhang et al.[215] and Rayner et al.[270] used a similar procedure to develop evidence-basedand expertconsensus guidelines.Rycroft also employed a similar method, but utilized a nominal group technique in place of Delphi technique.[271]The involvement of stakeholders and local end users of the guideline has created a sense of ownership for the current guideline. On the other hand, the dearth of high quality research evidence that guides decision on choice of alternative interventions implies that further research with better quality designs such as RCTs is required. Particularly, future research should use validated instruments to measure SAD related to HIV.

The recommendations in the current guideline were mainly developed based on the principle of Eisenberg's summary called 'globalize evidence, localize decisions'.[178]For the current project, this was realized through the consideration of the best available effective interventions, and analysis of contextual and environmental factors specific to JUMC. Therefore, it is recommended that policy makers who want to adapt the guideline to other contexts need to assess their specific local and environmental factors in order to adapt such recommendations to their own settings. The factors that need to be considered may include: prevalence of HIV, HIV-related SAD, the ease of implementing the recommendations in their specific localities, values and preferences of local stakeholders, and considerations of equity and costs to their institutions and the society. These factors may lead to differences in decisions.[269, 272-274]

While it is essential to consider the limitations of the body of evidence from which the recommendations were drawn, it is equally important to note the scope of the current guideline. The current guideline does not address interventions related to national legislation,which in most intances, is beyond the scope of healthcare facilities. The current guideline is limited in focus in developingspecific recommendations and ensuring accountability in healthcare settings. It was the panel's belief that limiting the scope and adapting the guideline to the specific context and addressing the roles and responsibilities in the specific settings is far more important than compromising the strength of the interventions by intermingling them with recommendations of various settings in a single document.

Nevertheless, HIV-related SADare also affected by social, cultural and political factors beyond the healthcare facility.[137]Hence, national stakeholders and program managers working on such areas need to refer to other sources. Although the body of knowledge is limited and most of the factors are determined by the political commitment of the countries, it is still valid to include such components in national planning.

The utilization of knowledge to action cycle (KTA) published by Graham et al.[67] has been suggested by researchers to improve guideline implementability.[211]In general, the current guideline development project addressed few components of the KTA cycle.[67] These wereidentification of the problem, adapting knowledge to local context, assessing barriers to knowledge use and tailoring and implementing interventions to the identified barriers.[67]The other component of the KTA cycle (knowledge monitoring, knowledge evaluation and sustaining knowledge), that is also part of the phase 3 of the CAN implement guideline adaptation framework,[23] can be realized through the utilization of the monitoring and evaluation tools linked with the current guideline and detailed information collected on monitoring and evaluation aspects of the guideline during the key informant interviews. Hence, the next step is embedding this guideline into healthcare and professional education systems. As recommended in the previous chapter, integration of the indicators into hospital key performance indicators (KPI), Health Management Information Systems (HMIS) and mentorship system is vital.

In addition to the validity, reliability, clinical appropriateness, clinical flexibility, clarity and development through a multidisciplinary team engagement process, documenting the process involved in the development of the guideline have been reported as important attributes of good practice guideline development by IOM.[9] The current guideline

development project was conducted through the involvement of a multidisciplinary team of experts. As indicated in the earlier chapters, procedures involved in the development of the guideline were transparently reported.

In general, this project attempted to develop an evidence-informed guideline. The guideline is the first of its type in the specified locality in that it has considered the best available evidence and local factors simultaneously. The guideline should be implemented in JUMC based on contextual information obtained from the key informant interviews. Werecommend that the guideline be implemented based on the procedure shown in Figure 7.
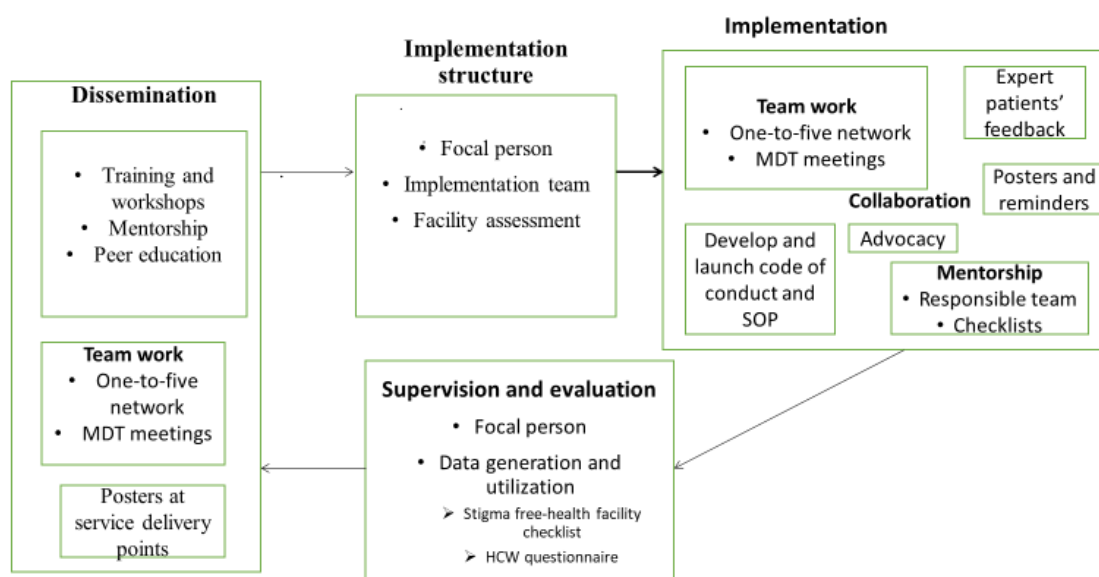


**Figure 7. Suggested implementation procedure for the guideline**

While it is not always easy to implement guidelines in low resource settings, practice guidelines may not only help to improve client outcomes, but be used as a roadmap to define health service goals.[275]In the context of difficult gaps in guideline development, adaptation and implementation, the current guideline may generate interest from other researchers, policy makers, and professional associations to initiate such a system of systematic development of guidelines nationally and locally.

## 9.3. Conclusion

The current guideline development project integrated research-based and consensus-based recommendations using a formal consensus method. Although the guideline recommendations were developed based on low/very lowquality evidence, the project sought both opinions of experts and global evidence to develop an evidence-informed

guideline. The involvement of endusers and local stakeholders willpotentially raise the sense of ownership for the current guideline. Further highquality researches such as RCTs utilizing validated instruments may fill the current dearth of high quality research in HIV-related SAD. The utilization of both the GLIA checklist and key informant interviews provided detailed information for contextualizing the guideline. While there are tools to evaluate guidelines, guideline developers and policy makers should consider the limitations of currently available checklists to evaluate and test the appropriateness of guidelines. The current project provided practical mechanisms to disseminate, implement, monitor and evaluate the guideline based on information collected both using the GLIA checklist and key informant interviews.

## 9.4. Recommendations

This PhD project sought to develop a guideline to reduce HIV-related stigma and discrimination in healthcare settings through the iterative consultation of local multidisciplinary experts. Potential barriers and facilitators to implement the guideline were identified. In addition, issues related to training, dissemination, monitoring, evaluation and sustainability were described. I recommend that policy makers and practitioners employ the tips suggested by the experts for the implementation of the guideline.Policy makers in other countries and settings should assess their facilities and the transferability of the evidence before adapting the current guideline to their own contexts. Given that the evidence addressing SAD to date is limited, it is imperative data related to SADreduction activities is collected not only to improve services but also to provide an evidence base. Moreover, further research evidence addressing SAD related to HIV, such as high quality RCTs, is needed.

# REFERENCES

1.	Holzemer WL, Uys LR, Chirwa ML, Greeff M, Makoae LN, Kohi TW, et al. Validation of the HIV/AIDS Stigma Instrument—PLWA (HASI-P). AIDS care. 2007;19(8):1002-12.
2.	Stangl AL, Lloyd JK, Brady LM, Holland CE, Baral S. A systematic review of interventions to reduce HIV-related stigma and discrimination from 2002 to 2013: how far have we come? Journal of the International AIDS Society. 2013;16(3 Suppl 2):18734.
3.	Jain A, Nyblade L. Scaling up policies, interventions, and measurement for stigma-free HIV prevention, care and treatment services. Washington, DC: The Health Policy Project. 2012.
4.	Jordan; Z, Lockwood; C, Aromataris; E, Munn Z. The updated JBI model for evidence-based healthcare.: The Joanna Briggs Institute; 2016.
5.	Tshabalala J, Visser M. Developing a cognitive behavioural therapy model to assist women to deal with HIV and stigma. South African Journal of Psychology. 2011;41(1):17-28.
6.	Carr D, R. Kidd, and L. Nyblade. Achieving a Stigma-free Health Facility and HIV Services: Resources for Administrators. Washington, DC: Futures Group, Health Policy Project; 2015.
7.	USAID. Health Policy Initiative. Programmatic Guidance for Reducing HIV and Key Population Stigma and Discrimination: For the Greater Mekong Region Countries of Thailand, Lao PDR and Myanmar. Bangkok, Thailand: USAID; 2012.
8.	UNAIDS. World AIDS Campaign 2002–2003: A conceptual framework and basis for action: HIV/AIDS stigma and discrimination.  2002 [10/10/2016]; Available from: http://data.unaids.org/Publications/IRC-pub02/jc891-wac_framework_en.pdf.
9.	Field MJ, Lohr KN. Clinical practice guidelines: directions for a new program: National Academies Press; 1990.
10.	Hussen SA, Tsegaye M, Argaw MG, Andes K, Gilliard D, del Rio C. Spirituality, social capital and service: Factors promoting resilience among Expert Patients living with HIV in Ethiopia. Global public health. 2014 02/13;9(3):286-98.
11.	Naidoo JR, Uys LR, Greeff M, Holzemer WL, Makoae L, Dlamini P, et al. Urban and rural differences in HIV/AIDS stigma in five African countries. African Journal of AIDS Research. 2007;6(1):17-23.
12.	Legare F, Ratte S, Gravel K, Graham ID. Barriers and facilitators to implementing shared decision making in clinical practice: Update of a systematic review of health professionals' perceptions. Patient Educ Couns. 2008;73.
13.	Pulerwitz J, Oanh KT, Akinwolemiwa D, Ashburn K, Nyblade L. Improving hospital-based quality of care by reducing HIV-related stigma: evaluation results from Vietnam. AIDS and behavior. 2015 Feb;19(2):246-56.
14.	Greenfield S, Steinberg E, Auerbach A, Avorn J, Galvin R, Gibbons R, et al. Clinical practice guidelines we can trust. Washington, DC: Institute of Medicine; 2011.
15.	Fervers B, Burgers J, Voellinger R, Brouwers M, Browman G, Graham I, et al. Guideline adaptation: an approach to enhance efficiency in guideline development and improve utilisation. BMJ quality & safety. 2011:qshc. 2010.043257.
16.	Herek GM. AIDS and Stigma. American Behavioral Scientist. 1999 April 1, 1999;42(7):1106-16.
17.	UNAIDS. UNAIDS terminology guidelines.: Joint United NationsProgramme on HIV/AIDS Geneva, Switzerland; 2015.
18.	Jain; A, Carr; D, Nyblade L. Measuring HIV Stigma and Discrimination Among Health Facility Staff: Standardized Brief Questionnaire User Guide. Washington, DC: Futures Group, Health Policy Project.; 2015.
19.	Lakshmi M. Impact of psycho education on stigma and quality of life in people living with HIV AIDS. 2016.
20.	BHIVA. Standards for psychological support for adults living with HIV. 2011.
21.	Andrews JC, Schunemann HJ, Oxman AD, Pottie K, Meerpohl JJ, Coello PA, et al. GRADE guidelines: 15. Going from evidence to recommendation-determinants of a recommendation's direction and strength. J Clin Epidemiol. 2013 Jul;66(7):726-35.
22.	Earnshaw VA, Bogart LM, Dovidio JF, Williams DR. Stigma and racial/ethnic HIV disparities: moving toward resilience. American Psychologist. 2013;68(4):225.
23.	Harrison M, Van Den Hoek J. CAN-IMPLEMENT: A guideline adaptation and implementation planning resource. Kingston, Ontario: Queen's University School of Nursing and Canadian Partnership Against Cancer. 2012.

24.     Kidd R, Prasad N, Avula J, Tajuddin M. Reducing HIV stigma and gender-based violence: toolkit for health care providers in India. 2007.
25.     Atkins D, Eccles M, Flottorp S, Guyatt GH, Henry D, Hill S, et al. Systems for grading the quality of evidence and the strength of recommendations I: critical appraisal of existing approaches The GRADE Working Group. BMC health services research. 2004;4(1):38.
26.     Braun V, Clarke V. Using thematic analysis in psychology. Qualitative Research in Psychology. 2006 2006/01/01;3(2):77-101.
27.     Perez IR, Bano JR, Ruz ML, del Arco Jimenez A, Prados MC, Liano JP, et al. Health-related quality of life of patients with HIV: impact of sociodemographic, clinical and psychosocial factors. Quality of Life Research. 2005;14(5):1301-10.
28.     Bastardo Y, Kimberlin C. Relationship between quality of life, social support and disease-related factors in HIV-infected persons in Venezuela. Aids Care. 2000;12(5):673-84.
29.     Venkat Narayan KM, Miotti PG, Anand NP, Kline LM, Harmston C, Gulakowski RI, et al. HIV and Noncommunicable Disease Comorbidities in the Era of Antiretroviral Therapy: A Vital Agenda for Research in Low- and Middle-Income Country Settings. JAIDS Journal of Acquired Immune Deficiency Syndromes. 2014;67:S2-S7.
30.     Teplin LA, Elkington KS, McClelland GM, Abram KM, Mericle AA, Washburn JJ. Major mental disorders, substance use disorders, comorbidity, and HIV-AIDS risk behaviors in juvenile detainees. Psychiatric Services. 2014.
31.     Chibanda D, Benjamin L, Weiss HA, Abas M. Mental, Neurological, and Substance Use Disorders in People Living With HIV/AIDS in Low- and Middle-Income Countries. JAIDS Journal of Acquired Immune Deficiency Syndromes. 2014;67:S54-S67.
32.     Soboka M, Tesfaye M, Feyissa GT, Hanlon C. Khat use in people living with HIV: a facility-based cross-sectional survey from South West Ethiopia. BMC psychiatry. 2015;15(1):69.
33.     Soboka M, Tesfaye M, Feyissa GT, Hanlon C. Alcohol use disorders and associated factors among people living with HIV who are attending services in south west Ethiopia. BMC research notes. 2014;7(1):828.
34.     Catalan J, Harding R, Sibley E, Clucas C, Croome N, Sherr L. HIV infection and mental health: Suicidal behaviour – Systematic review. Psychology, Health & Medicine. 2011 2011/10/01;16(5):588-611.
35.     Clucas C, Sibley E, Harding R, Liu L, Catalan J, Sherr L. A systematic review of Interventions for anxiety in people with HIV. Psychology, Health & Medicine. 2011 2011/10/01;16(5):528-47.
36.     Ortblad KF, Lozano R, Murray CJ. The burden of HIV: insights from the Global Burden of Disease Study 2010. AIDS (London, England). 2013 Aug 24;27(13):2003-17.
37.     UNAIDS. AIDS by the numbers 2015.  2015 [cited 01/03/2016
 01/03/2016
]; Available from: http://www.unaids.org/en/resources/documents/2015/AIDS_by_the_numbers_2015.
38.     Joint United Nations Programme on HIV/AIDS. Global AIDS update 2016.  Geneva, Switzerland2016.
39.     UNAIDS. UNAIDS Strategy 2016–2021 UNAIDS; 2016 [cited 01/03/2016
 01/03/2016
]; Available from: http://www.unaids.org/en/aboutunaids/unaidsstrategygoalsby2015.
40.     Pulerwitz J, Bongaarts J. Tackling stigma: fundamental to an AIDS-free future. The Lancet Global Health. 2014 6//;2(6):e311-e2.
41.     UNAIDS. HIV-related stigma and human rights violations: case studies of successful programmes. 2005 [24/03/2015]; Available from: http://data.unaids.org/publications/irc-pub06/JC999-HumRightsViol_en.pdf.
42.     UNAIDS. Reduction of HIV-related stigma and discrimination.  2014 [10/02/2015]; Available from: http://www.unaids.org/en/resources/documents/2014/UNFPA%20brochure.
43.     Hutchinson P, Mahlalela X. Utilization of voluntary counseling and testing services in the Eastern Cape, South Africa. AIDS Care. 2006 Jul;18(5):446-55.
44.     Mahajan AP, Sayles JN, Patel VA, Remien RH, Sawires SR, Ortiz DJ, et al. Stigma in the HIV/AIDS epidemic: a review of the literature and recommendations for the way forward. AIDS (London, England). 2008 Aug;22 Suppl 2:S67-79.
45.     Turan JM, Nyblade L. HIV-related stigma as a barrier to achievement of global PMTCT and maternal health goals: a review of the evidence. AIDS and behavior. 2013 Sep;17(7):2528-39.
46.     UNAIDS. Reduction of HIV-related stigma and discrimination.  2014 [10/02/2015]; Available from: http://www.unaids.org/en/resources/documents/2014/UNFPA%20brochure.
47.     Endeshaw M, Walson J, Rawlins S, Dessie A, Alemu S, Andrews N, et al. Stigma in Ethiopia: association with depressive symptoms in people with HIV. AIDS Care. 2014;26(8):935-9.

48.	Jurgensen M, Sandoy IF, Michelo C, Fylkesnes K. Effects of home-based Voluntary Counselling and Testing on HIV-related stigma: Findings from a cluster-randomized trial in Zambia. Social Science and Medicine. 2013;81:18-25.

49.	Cremers AL, de Laat MM, Kapata N, Gerrets R, Klipstein-Grobusch K, Grobusch MP. Assessing the consequences of stigma for tuberculosis patients in urban Zambia. PloS one. 2015;10(3):e0119861.

50.	Oshi DC, Oshi SN, Alobu IN, Ukwaja KN. Gender-related factors influencing women's health seeking for tuberculosis care in Ebonyi State, Nigeria. J Biosoc Sci. 2016 Jan;48(1):37-50.

51.	Churcher S. Stigma related to HIV and AIDS as a barrier to accessing health care in Thailand: a review of recent literature2013.

52.	Sayles JN, Wong MD, Kinsler JJ, Martins D, Cunningham WE. The association of stigma with self-reported access to medical care and antiretroviral therapy adherence in persons living with HIV/AIDS. Journal of general internal medicine. 2009;24(10):1101-8.

53.	Vanable PA, Carey MP, Blair DC, Littlewood RA. Impact of HIV-related stigma on health behaviors and psychological adjustment among HIV-positive men and women. AIDS and behavior. 2006;10(5):473-82.

54.	Katz IT, Ryu AE, Onuegbu AG, Psaros C, Weiser SD, Bangsberg DR, et al. Impact of HIV-related stigma on treatment adherence: systematic review and meta-synthesis. Journal of the International AIDS Society. 2013;16(3 Suppl 2):18640.

55.	Logie C, Gadalla TM. Meta-analysis of health and demographic correlates of stigma towards people living with HIV. AIDS Care. 2009 Jun;21(6):742-53.

56.	Quinn DM, Chaudoir SR. Living with a concealable stigmatized identity: the impact of anticipated stigma, centrality, salience, and cultural stigma on psychological distress and health. Journal of personality and social psychology. 2009;97(4):634.

57.	Feyissa GT, Abebe L, Girma E, Woldie M. Stigma and discrimination against people living with HIV by healthcare providers, Southwest Ethiopia. BMC Public Health. 2012;12:522.

58.	Nyblade L, Stangl A, Weiss E, Ashburn K. Combating HIV stigma in health care settings: what works? Journal of the International AIDS Society. 2009 08/06
03/31/received
08/06/accepted;12:15-.

59.	Stutterheim SE, Sicking L, Brands R, Baas I, Roberts H, Brakel WHv, et al. Patient and Provider Perspectives on HIV and HIV-Related Stigma in Dutch Health Care Settings. AIDS PATIENT CARE and STDs. 2014;28(12).

60.	UNAIDS. Political Declaration on HIV/AIDS: Intensifying our efforts to eliminate HIV/AIDS (UN Resolution 65/277). June 2011. United Nations: New York.  2011 [19/02/2015]; Available from: http://www.unaids.org/en/aboutunaids/unitednationsdeclarationsandgoals/2011highlevelmeetingonaids.

61.	Mburu G, Ram M, Skovdal M, Bitira D, Hodgson I, Mwai GW, et al. Resisting and challenging stigma in Uganda: the role of support groups of people living with HIV. Journal of the International AIDS Society. 2013;16(3 Suppl 2):18636.

62.	Neema S, Atuyambe LM, Otolok-Tanga E, Twijukye C, Kambugu A, Thayer L, et al. Using a clinic based creativity initiative to reduce HIV related stigma at the Infectious Diseases Institute, Mulago National Referral Hospital, Uganda. African health sciences. 2012 Jun;12(2):231-9.

63.	Uthman OA, Magidson JF, Safren SA, Nachega JB. Depression and adherence to antiretroviral therapy in low-, middle- and high-income countries: a systematic review and meta-analysis. Curr HIV/AIDS Rep. 2014 Sep;11(3):291-307.

64.	Jessica Ogden LN. Common at its Core: HIV-Related Stigma Across Contexts. 2005.

65.	Bos AE, Schaalma HP, Pryor JB. Reducing AIDS-related stigma in developing countries: the importance of theory- and evidence-based interventions. Psychol Health Med. 2008 Aug;13(4):450-60.

66.	Harrison MB, van den Hoek J. for the Canadian Guideline Adaptation Study Group. CAN-IMPLEMENT©: A Guideline Adaptation and Implementation Planning Resource. Queen's University School of Nursing and Canadian Partnership Against Cancer,. June 2011;2015(14/04/2015).

67.	Graham ID, Logan J, Harrison MB, Straus SE, Tetroe J, Caswell W, et al. Lost in knowledge translation: Time for a map? Journal of Continuing Education in the Health Professions. 2006;26(1):13-24.

68.	Gourlay A, Birdthistle I, Mburu G, Iorpenda K, Wringe A. Barriers and facilitating factors to the uptake of antiretroviral drugs for prevention of mother-to-child transmission of HIV in sub-Saharan Africa: a systematic review. Journal of the International AIDS Society. 2013;16:18588.

69.	Grade Working Group. Grading quality of evidence and strength of recommendations. BMJ : British Medical Journal. 2004 03/05/accepted;328(7454):1490-.

70.		Maes K. "Volunteers Are Not Paid Because They Are Priceless": Community Health Worker Capacities and Values in an AIDS Treatment Intervention in Urban Ethiopia. Medical Anthropology Quarterly. 2014:n/a-n/a.

71.		Sackett DL, Rosenberg WMC, Gray JAM, Haynes RB, Richardson WS. Evidence based medicine: what it is and what it isn't1996.

72.		French P. The development of evidence-based nursing. Journal of advanced nursing. 1999;29(1):72-8.

73.		Jenicek M. Epidemiology, evidenced-based medicine, and evidence-based public health. Journal of epidemiology. 1997;7(4):187-97.

74.		Webb SA. Some considerations on the validity of evidence-based practice in social work. British journal of social work. 2001;31(1):57-79.

75.		Kohatsu ND, Robinson JG, Torner JC. Evidence-based public health: an evolving concept. American journal of preventive medicine. 2004;27(5):417-21.

76.		Dawes M, Summerskill W, Glasziou P, Cartabellotta A, Martin J, Hopayian K, et al. Sicily statement on evidence-based practice. BMC medical education. 2005 Jan 05;5(1):1.

77.		Nevo I, Slonim-Nevo V. The myth of evidence-based practice: Towards evidence-informed practice. British Journal of Social Work. 2011:bcq149.

78.		Pearson A, Wiechula R, Court A, Lockwood C. The JBI model of evidence-based healthcare. International Journal of Evidence-Based Healthcare. 2005;3(8):207-15.

79.		Lockwood C, Aromataris E, Munn Z. Translating Evidence into Policy and Practice. Nursing Clinics of North America. 2014 12//;49(4):555-66.

80.		Aromataris E, Pearson A. The systematic review: an overview. AJN The American Journal of Nursing. 2014;114(3):53-8.

81.		Lockwood C, Oh EG. Systematic reviews: Guidelines, tools and checklists for authors. Nursing & health sciences. 2017;19(3):273-7.

82.		Stern C, Jordan Z, McArthur A. Developing the review question and inclusion criteria. AJN The American Journal of Nursing. 2014;114(4):53-6.

83.		Munn Z, Tufanaru C, Aromataris E. JBI's systematic reviews: data extraction and synthesis. AJN The American Journal of Nursing. 2014;114(7):49-54.

84.		Robertson-Malt S. JBI's Systematic Reviews: Presenting and Interpreting Findings. AJN The American Journal of Nursing. 2014;114(8):49-54.

85.		Liberati A, Altman DG, Tetzlaff J, Mulrow C, Gøtzsche PC, Ioannidis JP, et al. The PRISMA statement for reporting systematic reviews and meta-analyses of studies that evaluate health care interventions: explanation and elaboration. PLoS medicine. 2009;6(7):e1000100.

86.		GRADEpro G. GRADEpro Guideline Development Tool [Software]. McMaster University. 2015.

87.		Straus SE, Tetroe J, Graham I. Defining knowledge translation. Canadian Medical Association Journal. 2009;181(3-4):165-8.

88.		Pearson A, Jordan Z, Munn Z. Translational science and evidence-based healthcare: a clarification and reconceptualization of how knowledge is generated and used in healthcare. Nursing research and practice. 2012;2012.

89.		Glasgow RE, Emmons KM. How can we increase translation of research into practice? Types of evidence needed. Annu Rev Public Health. 2007;28:413-33.

90.		Green LW. From Research to "Best Practices" in Other Settings and Populations. American Journal of Health Behavior. 2001;25(3):165-78.

91.		Rosenfeld RM, Shiffman RN, Robertson P. Clinical practice guideline development manual: a quality-driven approach for translating evidence into action. Otolaryngology—Head and Neck Surgery. 2013;148(1_suppl):S1-S55.

92.		Munteanu MC, Jordan JC. A view into clinical practice guidelines: who uses them, who doesn't and possibly, why. Qualitative Research in Medicine & Healthcare. 2017;1(2).

93.		Woolf SH, Grol R, Hutchinson A, Eccles M, Grimshaw J. Potential benefits, limitations, and harms of clinical guidelines. British Medical Journal. 1999;318(7182):527.

94.		Shekelle P, Woolf S, Grimshaw JM, Schünemann HJ, Eccles MP. Developing clinical practice guidelines: reviewing, reporting, and publishing guidelines; updating guidelines; and the emerging issues of enhancing guideline implementability and accounting for comorbid conditions in guideline development. Implementation Science. 2012;7(1):62.

95.		Qaseem A, Forland F, Macbeth F, Ollenschläger G, Phillips S, van der Wees P. Guidelines International Network: Toward International Standards for Clinical Practice Guidelines. Annals of Internal Medicine. 2012;156(7):525-31.

96.     NICE. Developing NICE guidelines: the manual. National Instutites for Health and Clinical Excellence. ; 2014; Available from: https://www.nice.org.uk/process/pmg20/chapter/introduction-and-overview.

97.     Cole FL. Content analysis: process and application. Clin Nurse Spec. 1988 Spring;2(1):53-7.

98.     Elo S, Kyngas H. The qualitative content analysis process. Journal of advanced nursing. 2008 Apr;62(1):107-15.

99.     Hsieh HF, Shannon SE. Three approaches to qualitative content analysis. Qual Health Res. 2005 Nov;15(9):1277-88.

100.    Woolf S, Schünemann HJ, Eccles MP, Grimshaw JM, Shekelle P. Developing clinical practice guidelines: types of evidence and outcomes; values and economics, synthesis, grading, and presentation and deriving recommendations. Implementation Science. 2012;7(1):61.

101.    Loblaw DA, Prestrud AA, Somerfield MR, Oliver TK, Brouwers MC, Nam RK, et al. American Society of Clinical Oncology Clinical Practice Guidelines: Formal Systematic Review–Based Consensus Methodology. Journal of Clinical Oncology. 2012;30(25):3136-40.

102.    Nair R, Aggarwal R, Khanna D. Methods of formal consensus in classification/diagnostic criteria and guideline development. Semin Arthritis Rheum. 2011 Oct;41(2):95-105.

103.    Black N, Murphy M, Lamping D, McKee M, Sanderson C, Askham J, et al. Consensus development methods: a review of best practice in creating clinical guidelines. J Health Serv Res Policy. 1999 Oct;4(4):236-48.

104.    James D, Warren-Forward H. Research methods for formal consensus development. Nurse researcher. 2015 Jan;22(3):35-40.

105.    Vernon W. The Delphi technique: A review. International Journal of Therapy & Rehabilitation. 2009;16(2):69-76 8p.

106.    Dalkey N, Helmer O. An experimental application of the Delphi method to the use of experts. Management science. 1963;9(3):458-67.

107.    von der Gracht HA. Consensus measurement in Delphi studies: Review and implications for future quality assurance. Technological Forecasting and Social Change. 2012 10//;79(8):1525-36.

108.    Yousuf MI. Using experts' opinions through Delphi technique. Practical assessment, research & evaluation. 2007;12(4):1-8.

109.    Hsu C-C, Sandford BA. Minimizing non-response in the Delphi process: How to respond to non-response. Practical Assessment, Research & Evaluation. 2007;12(17):62-78.

110.    Collaboration A. The ADAPTE process: resource toolkit for guideline adaptation. Guidelines International Network [Internett]. 2009.

111.    Amer YS, Elzalabany MM, Omar TI, Ibrahim AG, Dowidar NL. The 'Adapted ADAPTE': an approach to improve utilization of the ADAPTE guideline adaptation resource toolkit in the Alexandria Center for Evidence-Based Clinical Practice Guidelines. Journal of evaluation in clinical practice. 2015;21(6):1095-106.

112.    Rycroft-Malone J, Seers K, Chandler J, Hawkes CA, Crichton N, Allen C, et al. The role of evidence, context, and facilitation in an implementation trial: implications for the development of the PARIHS framework. Implementation Science. 2013;8(1):28.

113.    Gagliardi AR, Brouwers MC, Palda VA, Lemieux-Charles L, Grimshaw JM. How can we improve guideline use? A conceptual framework of implementability. Implementation Science. [journal article]. 2011;6(1):26.

114.    Gagliardi AR, Brouwers MC. Integrating guideline development and implementation: analysis of guideline development manual instructions for generating implementation advice. Implementation science. 2012;7(1):67.

115.    NCCMT. Critically appraising practice guidelines: The AGREE II instrument. Hamilton, ON: McMaster University. (Updated 01 November, 2013).  2011 [17/02/2015]; Available from: http://www.nccmt.ca/registry/view/eng/100.html.

116.    Shiffman RN, Dixon J, Brandt C, Essaihi A, Hsiao A, Michel G, et al. The GuideLine Implementability Appraisal (GLIA): development of an instrument to identify obstacles to guideline implementation. BMC Med Inform Decis Mak. 2005;5.

117.    RNAO. Toolkit: Implementation of Best Practice Guidelines (2nd ed.).Toronto, ON: Registered Nurses' Association of Ontario.  2012 [cited 2016 11/03/2016]; Available from: http://rnao.ca/bpg/resources/toolkit-implementation-best-practice-guidelines-second-edition.

118.    Bastian H, Glasziou P, Chalmers I. Seventy-five trials and eleven systematic reviews a day: how will we ever keep up? PLoS Med. 2010;7(9):e1000326.

119.     Munn Z, Lockwood C, Moola S. The development and use of evidence summaries for point of care information systems: a streamlined rapid review approach. Worldviews on Evidence-Based Nursing. 2015;12(3):131-8.

120.     Dicenso A, Bayley L, Haynes RB. Accessing pre-appraised evidence: fine-tuning the 5S model into a 6S model. Evid Based Nurs. 2009 Oct;12(4):99-101.

121.     Robeson P, Dobbins M, DeCorby K, Tirilis D. Facilitating access to pre-processed research evidence in public health. BMC public health. 2010;10(1):95.

122.     DiCenso A, Bayley L, Haynes RB. Accessing pre-appraised evidence: fine-tuning the 5S model into a 6S model. Evidence based nursing. 2009;12(4):99-101.

123.     Stangl AL, Grossman CI. Global Action to reduce HIV stigma and discrimination. Journal of the International AIDS Society. 2013 11/13;16(3Suppl 2):18934.

124.     Salih MH, Tessema GA, Cherkos EA, Ferede AJ, Zelalem Anlay D. Stigma towards People Living on HIV/AIDS and Associated Factors among Nurses' Working in Amhara Region Referral Hospitals, Northwest Ethiopia: A Cross-Sectional Study. Advances in Nursing. 2017;2017.

125.     Wodajo BS, Thupayagale-Tshweneagae G, Akpor OA. Stigma and discrimination within the Ethiopian health care settings: Views of inpatients living with human immunodeficiency virus and acquired immune deficiency syndrome. African journal of primary health care & family medicine. 2017 07/31
09/10/received
05/07/accepted;9(1):1314.

126.     Moher D, Liberati A, Tetzlaff J, Altman DG, Group P. Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. PLoS medicine. 2009;6(7):e1000097.

127.     DFID. Taking Action Against HIV Stigma and Discrimination: Guidance and supporting resources. 2007 [16/02/2015]; Available from: http://www.icrw.org/files/publications/DFID-Taking-Action-Against-HIV-Stigma-and-Discrimination.pdf.

128.     Peugh L, Friedman E. Ensuring Equality: A Guide to Addressing and Eliminating Stigma and Discrimination in the Health Sector. Physicians for Human Rights Cambridge, MA and Washington, DC; 2011.

129.     UNAIDS. Reducing HIV stigma and discrimination: A critical part of national AIDS programmes: A resource for national stakeholders in the HIV response: Joint United nations programme on HIV/AIDS (UNAIDS); 2007.

130.     Tanzania Commision for AIDS. National Guide on the Integration of Stigma and Discrimination Reduction in HIV Programs. February 2009.

131.     Brouwers MC, Kerkvliet K, Spithoff K, Consortium ANS. The AGREE Reporting Checklist: a tool to improve reporting of clinical practice guidelines. BMJ (Clinical research ed). 2016;352:i1152.

132.     PHR. Guide to Reducing Stigma and Discrimination in the Health Sector.  2011 [cited 2016 01/11/2016]; Available from: http://physiciansforhumanrights.org/library/other/stigma-reduction-guide.html.

133.     Sengupta S, Banks B, Jonas D, Miles MS, Smith GC. HIV interventions to reduce HIV/AIDS stigma: a systematic review. AIDS and behavior. 2011 Aug;15(6):1075-87.

134.     Loutfy M, Tharao W, Logie C, Aden MA, Chambers LA, Wu W, et al. Systematic review of stigma reducing interventions for African/Black diasporic women. Journal of the International AIDS Society. 2015;18:19835.

135.     Paudel V, Baral KP. Women living with HIV/AIDS (WLHA), battling stigma, discrimination and denial and the role of support groups as a coping strategy: a review of literature. Reproductive health. 2015 Jun 02;12:53.

136.     Brown L, Macintyre K, Trujillo L. Interventions to reduce HIV/AIDS stigma: what have we learned? AIDS education and prevention. 2003;15(1):49-69.

137.     Chambers LA, Rueda S, Baker DN, Wilson MG, Deutsch R, Raeifar E, et al. Stigma, HIV and health: a qualitative synthesis. BMC Public Health. [journal article]. 2015;15(1):848.

138.     Pulerwitz J, Michaelis A, Weiss E, Brown L, Mahendra V. Reducing HIV-related stigma: lessons learned from Horizons research and programs. Public Health Reports. 2010:272-81.

139.     Jackson N, Waters E. The challenges of systematically reviewing public health interventions. J Public Health (Oxf). 2004 Sep;26(3):303-7.

140.     Sikkema KJ, Dennis AC, Watt MH, Choi KW, Yemeke TT, Joska JA. Improving mental health among people living with HIV: a review of intervention trials in low-and middle-income countries. Global Mental Health. 2015;2:e19.

141.     Montgomery P, Underhill K, Gardner F, Operario D, Mayo-Wilson E. The Oxford Implementation Index: a new tool for incorporating implementation data into systematic reviews and meta-analyses. Journal of clinical epidemiology. 2013;66(8):874-82.

142.    Armstrong R, Waters E, Jackson N. Systematic reviews of health promotion and public health interventions. Melbourne: University of Melbourne. 2007.

143.    The Joanna Briggs Institute. The Joanna Briggs Institute Critical Appraisal Tools for Use in JBI Systematic Reviews Checklist for Analytical Cross Sectional Studies. North Adelaide, Australia The Joanna Briggs Institute; 2017.

144.    Porritt K, Gomersall J, Lockwood C. JBI's systematic reviews: study selection and critical appraisal. AJN The American Journal of Nursing. 2014;114(6):47-52.

145.    Li L, Wu Z, Liang L-J, Lin C, Guan J, Jia M, et al. Reducing HIV-related stigma in health care settings: a randomized controlled trial in China. American journal of public health. 2013;103(2):286-92.

146.    Li L, Liang L-J, Lin C, Wu Z. Addressing HIV stigma in protected medical settings. AIDS care. 2015;27(12):1439-42.

147.    Li L, Lin C, Guan J, Wu Z. Implementing a stigma reduction intervention in healthcare settings. Journal of the International AIDS Society. 2013 Nov 13;16(3 Suppl 2):18710.

148.    Li L, Guan J, Liang LJ, Lin C, Wu Z. Popular Opinion Leader intervention for HIV stigma reduction in health care settings. AIDS Educ Prev. 2013 Aug;25(4):327-35.

149.    Chi P, Li X. Impact of parental HIV/AIDS on children's psychological well-being: a systematic review of global literature. AIDS and behavior. 2013 Sep;17(7):2554-74.

150.    Li L, Lin C, Guan J. Using standardized patients to evaluate hospital-based intervention outcomes. Int J Epidemiol. 2014 Jun;43(3):897-903.

151.    Li L, Liang LJ, Wu Z, Lin C, Guan J. Assessing outcomes of a stigma-reduction intervention with venue-based analysis. Soc Psychiatry Psychiatr Epidemiol. 2014 Jun;49(6):991-9.

152.    Williams AB, Wang H, Burgess J, Wu C, Gong Y, Li Y. Effectiveness of an HIV/AIDS educational programme for Chinese nurses. Journal of advanced nursing. 2006;53(6):710-20.

153.    Norr KF, Norr JL, Kaponda CP, Kachingwe SI, Mbweza EM. Short-term effects of a peer group intervention for HIV prevention among trainee teachers in Malawi. African Journal of AIDS Research. 2007;6(3):239-49.

154.    Mahendra V, Gilborn L, Bitra G, Samson L, Mudoi R, Jadav S, et al. Reducing stigma and discrimination in hospitals: Positive findings from India.  Washington, DC: Population Council2006.

155.    Oanh KTH, Ashburn K, Pulerwitz J, Ogden J, Nyblade L. Improving hospital-based quality of care in Vietnam by reducing HIV-related stigma and discrimination. 2008.

156.    Lohiniva AL, Benkirane M, Numair T, Mahdy A, Saleh H, Zahran A, et al. HIV stigma intervention in a low-HIV prevalence setting: a pilot study in an Egyptian healthcare facility. AIDS Care. 2016;28(5):644-52.

157.    Zachariah GS. AIDS Fear in Health Care Workers: The Development of an Educational Program to Decrease the Fear1998.

158.    Uys L, Chirwa M, Kohi T, Greeff M, Naidoo J, Makoae L, et al. Evaluation of a Health Setting-Based Stigma Intervention in Five African Countries. AIDS Patient Care and STDs. 2009;23(12):1059-66.

159.    Varas-Díaz N, Neilands TB, Rodríguez-Madera SL, Padilla M. The role of emotions in the reduction of HIV/AIDS stigma among physicians in training. AIDS Care. 2016;28(3):376-83.

160.    Norr KF, Ferrer L, Cianelli R, Crittenden KS, Irarrázabal L, Cabieses B, et al. Peer group intervention for HIV prevention among health workers in Chile. Journal of the Association of Nurses in AIDS Care. 2012;23(1):73-86.

161.    Ha PN, Chuc NTK, Hien HT, Larsson M, Pharris A. HIV-related stigma: Impact on healthcare workers in Vietnam. Global public health. 2013;8(sup1):S61-S74.

162.    Uebel KE, Nash J, Avalos A. Caring for the caregivers: models of HIV/AIDS care and treatment provision for health care workers in Southern Africa. The Journal of infectious diseases. 2007;196(Supplement_3):S500-S4.

163.    Bateganya M, Amanyeiwe U, Roxo U, Dong M. The Impact of Support Groups for People Living with HIV on Clinical Outcomes: a systematic review of the literature. Journal of acquired immune deficiency syndromes (1999). 2015;68(0 3):S368.

164.    Millard T, Elliott J, Girdler S. Self-management education programs for people living with HIV/AIDS: a systematic review. AIDS Patient Care STDS. 2013 Feb;27(2):103-13.

165.    Mak WW, Mo PK, Ma GY, Lam MY. Meta-analysis and systematic review of studies on the effectiveness of HIV stigma reduction programs. Social Science & Medicine. 2017;188:30-40.

166.    Halkitis PN, Krause KD, Vieira DL. Mental Health, Psychosocial Challenges and Resilience in Older Adults Living with HIV.  HIV and Aging: Karger Publishers; 2016. p. 187-203.

167.    Chibanda D, Benjamin L, Weiss HA, Abas M. Mental, neurological, and substance use disorders in people living with HIV/AIDS in low- and middle-income countries. Journal of acquired immune deficiency syndromes (1999). 2014 Sep 1;67 Suppl 1:S54-67.

168.    Phillips KD, Moneyham L, Thomas SP, Gunther M, Vyavaharkar M. Social context of rural women with HIV/AIDS. Issues in mental health nursing. 2011;32(6):374-81.
169.    Rao D, Kekwaletswe TC, Hosek S, Martinez J, Rodriguez F. Stigma and social barriers to medication adherence with urban youth living with HIV. AIDS Care. 2007 2007/01/01;19(1):28-33.
170.    Parker R, Aggleton P. HIV and AIDS-related stigma and discrimination: a conceptual framework and implications for action. Social science & medicine. 2003;57(1):13-24.
171.    Annie Michaelis P, Vaishali Mahendra M. Reducing HIV-Related Stigma: Lessons Learned from Horizons Research and Programs. Public Health Reports. 2010;125.
172.    Mboya-Brown; R, Nyblade; L, Reeves M, Maclinnis R. Scaling up Stigma Reduction in Health Facilities: Outcomes of a Health Policy Project Expert Consultation. HPP; 2015.
173.    Tanzania Commision for AIDS. National Multi-Sectoral HIV and AIDS Stigma and Discrimination Strategy, 2013-2017, Tanzania.  2013 [10/02/2015]; Available from: http://www.healthpolicyinitiative.com/index.cfm?id=publications&get=pubID&pubID=1516.
174.    Kashyap N, Dixon J, Michel G, Brandt C. GuideLine Implementability Appraisal v. 2.0.  New Haven, CT: Yale University: Yale Center for Medical Informatics; 2005 [30/04/2015]; Available from: http://gem.med.yale.edu/glia/doc/GLIA_v2.pdf.
175.    Atkins D, Best D, Briss PA, Eccles M, Falck-Ytter Y, Flottorp S, et al. Grading quality of evidence and strength of recommendations. BMJ (Clinical research ed). 2004 Jun 19;328(7454):1490.
176.    Measure DHS. National Survey Finds 19 Percent of the Swazi Population Age 2 and Older Has HIV; Other Health Indicators Show Improvements.
177.    WHO handbook for guideline development: World Health Organization; 2014.
178.    Eisenberg JM. Globalize the evidence, localize the decision: evidence-based medicine and international diversity. Health affairs. 2002;21(3):166-8.
179.    SIGN. Scottish Intercollegiate Guideline Network. SIGN 50: A guideline developers' handbook. Section 6. .  2014 [17/03/2016]; Available from: http://www.sign.ac.uk/guidelines/fulltext/50/section6.html.
180.    Guyatt GH, Schünemann HJ, Djulbegovic B, Akl EA. Guideline panels should not GRADE good practice statements. Journal of clinical epidemiology. 2015;68(5):597-600.
181.    Guyatt GH, Alonso-Coello P, Schünemann HJ, Djulbegovic B, Nothacker M, Lange S, et al. Guideline panels should seldom make good practice statements: guidance from the GRADE Working Group. Journal of Clinical Epidemiology. 2016 2016/12/01/;80:3-7.
182.    Rosenfeld RM, Shiffman RN. Clinical practice guidelines: a manual for developing evidence-based guidelines to facilitate performance measurement and quality improvement. Otolaryngology--Head and Neck Surgery. 2006;135(4 suppl):S1-S28.
183.    Harrison MB, Légaré F, Graham ID, Fervers B. Adapting clinical practice guidelines to local context and assessing barriers to their use. Canadian Medical Association Journal. 2010;182(2):E78-E84.
184.    Ciliska D, Thomas H, Buffett C. An introduction to evidence-informed public health and a compendium of critical appraisal tools for public health practice. National Collaborating Centre for Methods and Tools. 2008.
185.    Francke AL, Smit MC, de Veer AJE, Mistiaen P. Factors influencing the implementation of clinical guidelines for health care professionals: A systematic meta-review. BMC Med Inform Decis Mak. 2008;8.
186.    Ceccato NE, Ferris LE, Manuel D, Grimshaw JM. Adopting health behavior change theory throughout the clinical practice guideline process. Journal of Continuing Education in the Health Professions. 2007;27(4):201-7.
187.    French SD, Green SE, O'Connor DA, McKenzie JE, Francis JJ, Michie S, et al. Developing theory-informed behaviour change interventions to implement evidence into practice: a systematic approach using the Theoretical Domains Framework. Implementation Science. [journal article]. 2012;7(1):38.
188.    McMillan SS, King M, Tully MP. How to use the nominal group and Delphi techniques. Int J Clin Pharm. 2016 Feb 5.
189.    Franklin KK, Hart JK. Idea Generation and Exploration: Benefits and Limitations of the Policy Delphi Research Method. Innovative Higher Education. [journal article]. 2006;31(4):237-46.
190.    Akins RB, Tolson H, Cole BR. Stability of response characteristics of a Delphi panel: application of bootstrap data expansion. BMC Med Res Methodol. 2005;5:37.
191.    Brosseau L, Wells GA, Pugh AG, Smith CA, Rahman P, Alvarez Gallardo IC, et al. Ottawa Panel evidence-based clinical practice guidelines for therapeutic exercise in the management of hip osteoarthritis. Clin Rehabil. 2015 Sep 23.
192.    Murphy MK, Black NA, Lamping DL, McKee CM, Sanderson CF, Askham J, et al. Consensus development methods, and their use in clinical guideline development. Health Technol Assess. 1998;2(3):i-iv, 1-88.

193.	van der Linde H, Hofstad CJ, van Limbeek J, Postema K, Geertzen JH. Use of the Delphi Technique for developing national clinical guidelines for prescription of lower-limb prostheses. J Rehabil Res Dev. 2005 Sep-Oct;42(5):693-704.
194.	Thangaratinam S, Redman CW. The delphi technique. The obstetrician & gynaecologist. 2005;7(2):120-5.
195.	Green B, Jones M, Hughes D, Williams A. Applying the Delphi technique in a study of GPs' information requirements. Health & social care in the community. 1999;7(3):198-205.
196.	Williams PL, Webb C. The Delphi technique: a methodological discussion. Journal of advanced nursing. 1994 Jan;19(1):180-6.
197.	Okoli C, Pawlowski SD. The Delphi method as a research tool: an example, design considerations and applications. Information & management. 2004;42(1):15-29.
198.	Loo R. The Delphi method: a powerful tool for strategic management. Policing: An International Journal of Police Strategies & Management. 2002;25(4):762-9.
199.	Hsu C-C, Sandford BA. The Delphi technique: making sense of consensus. Practical assessment, research & evaluation. 2007;12(10):1-8.
200.	Fleuren M, Wiefferink K, Paulussen T. Determinants of innovation within health care organizations: literature review and Delphi study. International journal for quality in health care : journal of the International Society for Quality in Health Care. 2004 Apr;16(2):107-23.
201.	Goodman CM. The Delphi technique: a critique. Journal of advanced nursing. 1987;12(6):729-34.
202.	Dajani JS, Sincoff MZ, Talley WK. Stability and agreement criteria for the termination of Delphi studies. Technological forecasting and social change. 1979;13(1):83-90.
203.	Du Plessis E, Human SP. The art of the Delphi technique: highlighting its scientific merit. Health SA Gesondheid. 2007;12(4).
204.	Murry JW, Hammons JO. Delphi: A versatile methodology for conducting qualitative research. The Review of Higher Education. 1995;18(4):423.
205.	Sharkey SB, Sharples AY. An approach to consensus building using the Delphi technique: developing a learning resource in mental health. Nurse education today. 2001;21(5):398-408.
206.	Day J, Bobeva M. A Generic Toolkit for the Successful Management of Delphi Studies. Electronic Journal of Business Research Methods. [Article]. 2005;3(2):103-16.
207.	Egon GG. ERIC/ECTJ Annual Review Paper: Criteria for Assessing the Trustworthiness of Naturalistic Inquiries. Educational Communication and Technology. 1981;29(2):75-91.
208.	Engels TC, Kennedy HP. Enhancing a Delphi study on family-focused prevention. Technological forecasting and social change. 2007;74(4):433-51.
209.	Cornick P. Nitric oxide education survey–Use of a Delphi survey to produce guidelines for training neonatal nurses to work with inhaled nitric oxide. Journal of Neonatal Nursing. 2006;12(2):62-8.
210.	Guba EG. CRITERIA FOR ASSESSING THE TRUSTWORTHINESS OF NATURALISTIC INQUIRIES. Ectj-Educational Communication and Technology Journal. 1981;29(2):75-91.
211.	Kastner M, Estey E, Bhattacharyya O. Better guidelines for better care: enhancing the implementability of clinical practice guidelines. Expert Review of Pharmacoeconomics & Outcomes Research. 2011;11(3):315-24.
212.	Chaffin WW, Talley WK. Individual stability in Delphi studies. Technological Forecasting and Social Change. 1980;16(1):67-73.
213.	Yang YN. Testing the Stability of Experts' Opinions between Successive Rounds of Delphi Studies. 2003.
214.	Kalaian SA, Kasim RM. Terminating sequential Delphi survey data collection. Practical Assessment, Research & Evaluation. 2012;17(5):1-10.
215.	Zhang W, Moskowitz R, Nuki G, Abramson S, Altman R, Arden N, et al. OARSI recommendations for the management of hip and knee osteoarthritis, Part II: OARSI evidence-based, expert consensus guidelines. Osteoarthritis and cartilage. 2008;16(2):137-62.
216.	How AIDS changed everything: 15 years, 15 lessons of hope from AIDS response.  Geneva, Switzerland: joint United nations on HIV/AIDS; 2015 [cited 01/02/2017]; Available from: http://www.unaids.org/sites/default/files/media_asset/MDG6Report_en.pdf
217.	Yared Mekonnen, Rachel Sanders, Senait Tibebu, Emmart. P. Equity and Access to ART in Ethiopia.  2010 [16/02/15]; Available from: http://www.healthpolicyinitiative.com/Publications/Documents/1262_1_Ethiopia_ART_Equity_FINAL_acc.pdf.
218.	CSA. Ethiopia Mini Demographic and Health Survey
July 2014.

219.    Girma E, Gebretsadik LA, Kaufman MR, Rimal RN, Morankar SN, Limaye RJ. Stigma against people with HIV/AIDS in rural Ethiopia, 2005 to 2011: signs and predictors of improvement. AIDS and behavior. 2014 Jun;18(6):1046-53.

220.    NEP+. The People Living with HIV stigma index: Summary of the findings.  Addis Ababa: Network of Networks of HIV Positives in Ethiopia (NEP+); July 2011 [14/04/2015]; Available from: http://www.stigmaindex.org/ethiopia.

221.    Getnet MK, Damen HM. Level of stigma among female sex workers: comparison of two surveys of HIV behavioral data, Ethiopia. African health sciences. 2011 Dec;11(4):543-9.

222.    Kulkarni S, Hoffman S, Gadisa T, Melaku Z, Fantehun M, Yigzaw M, et al. Identifying Perceived Barriers along the HIV Care Continuum: Findings from Providers, Peer Educators, and Observations of Provider-Patient Interactions in Ethiopia. J Int Assoc Provid AIDS Care. 2015 Jul 14.

223.    Woldie M, Sudhakar M, Feyissa GT. Community home based care for people living with HIV: an overview of client needs, actors and services provided in Ethiopia. Journal of AIDS and HIV Research. 2015;7(9):97-108.

224.    FHAPCO. Ethiopia Federal HIV prevention and control office (FHAPCO) [10/02/2015]; Available from: http://www.hapco.gov.et/index.php/resource-center/guidelines/category/6-prevention

225.    Michie S, Lester K. Words matter: increasing the implementation of clinical guidelines. Qual Saf Health Care. 2005;14.

226.    Jimma University Official website [September 20, 2017]; Available from: https://www.ju.edu.et/.

227.    FHAPCO. Country progress report on the HIV response, 2014. Addis Ababa: FHAPCO; 2014.

228.    Shenton AK. Strategies for ensuring trustworthiness in qualitative research projects. Education for information. 2004;22(2):63-75.

229.    Matthew-Maich N, Ploeg J, Dobbins M, Jack S. Supporting the uptake of nursing guidelines: what you really need to know to move nursing guidelines into practice. Worldviews on Evidence-Based Nursing. 2013;10(2):104-15.

230.    Davis DA, Taylor-Vaisey A. Translating guidelines into practice: a systematic review of theoretic concepts, practical experience and research evidence in the adoption of clinical practice guidelines. Canadian Medical Association Journal. 1997;157(4):408-16.

231.    Légaré F, Ratté S, Gravel K, Graham ID. Barriers and facilitators to implementing shared decision-making in clinical practice: update of a systematic review of health professionals' perceptions. Patient education and counseling. 2008;73(3):526-35.

232.    Prior M, Guerin M, Grimmer-Somers K. The effectiveness of clinical guideline implementation strategies–a synthesis of systematic review findings. Journal of evaluation in clinical practice. 2008;14(5):888-97.

233.    Moulding NT, Silagy C, Weller D. A framework for effective management of change in clinical practice: dissemination and implementation of clinical practice guidelines. Quality and Safety in Health Care. 1999;8(3):177-83.

234.    McCormack L, Sheridan S, Lewis M, Boudewyns V, Melvin CL, Kistler C, et al. Communication and dissemination strategies to facilitate the use of health-related evidence. 2013.

235.    Grimshaw JM, Thomas RE, MacLennan G, Fraser C, Ramsay CR, Vale L, et al. Effectiveness and efficiency of guideline dissemination and implementation strategies. Health Technol Assess. 2004;8.

236.    Dogherty EJ, Harrison M, Graham I, Keeping-Burke L. Examining the use of facilitation within guideline dissemination and implementation studies in nursing. International journal of evidence-based healthcare. 2014;12(2):105-27.

237.    Baskerville NB, Liddy C, Hogg W. Systematic review and meta-analysis of practice facilitation within primary care settings. The Annals of Family Medicine. 2012;10(1):63-74.

238.    Naikoba S, Senjovu KD, Mugabe P, McCarthy CF, Riley PL, Kadengye DT, et al. Improved HIV and TB Knowledge and Competence Among Mid-level Providers in a Cluster-Randomized Trial of One-on-One Mentorship for Task Shifting. Journal of acquired immune deficiency syndromes (1999). 2017 Aug 15;75(5):e120-e7.

239.    Saki M, Kermanshahi SMK, Mohammadi E, Mohraz M. Perception of patients with HIV/AIDS from stigma and discrimination. Iranian Red Crescent Medical Journal. 2015;17(6).

240.    McHenry MS, Nyandiko WM, Scanlon ML, Fischer LJ, McAteer CI, Aluoch J, et al. HIV Stigma: Perspectives from Kenyan Child Caregivers and Adolescents Living with HIV. Journal of the International Association of Providers of AIDS Care (JIAPAC). 2017;16(3):215-25.

241.    Wagener MN, Roelofs PDDM, Miedema HS, Brandjes DPM, Dahmen R, van Gorp ECM. The development of a multidisciplinary, evidence-based guideline for "HIV and employment". AIDS Care. 2015;27(2):133-41.

242.    Mbonu NC, Van den Borne B, De Vries NK. A model for understanding the relationship between stigma and healthcare-seeking behaviour among people living with HIV/AIDS in sub-Saharan Africa. African Journal of AIDS Research. 2009;8(2):201-12.

243.    UNAIDS. Agenda for Zero Discrimination in Healthcare Settings.  2017 [cited 2017 March 12]; Available from: http://www.unaids.org/sites/default/files/media_asset/2017ZeroDiscriminationHealthCare.pdf.

244.    FMOH. Ethiopian National Health Care Quality Strategy (2016-2020): Transforming the Quality of Health Care in Ethiopia

245.    FDRE. Legislation and policies.  Ethiopian Federal Civil Servants Proclamation No 515/2006 Addis Ababa: Negarith Gazeta; 19 February 2007.

246.    Feyissa G, Woldie M. Validation of an HIV-related stigma scale among health care providers in a resource-poor Ethiopian setting. 2012.

247.    Carr D, Nyblade L. Taking Action Against HIV Stigma and Discrimination: Guidance and supporting resources.  2007 [16/02/2015]; Available from: http://www.icrw.org/files/publications/DFID-Taking-Action-Against-HIV-Stigma-and-Discrimination.pdf.

248.    Mukolo A, Torres I, Bechtel RM, Sidat M, Vergara AE. Consensus on context-specific strategies for reducing the stigma of human immunodeficiency virus/acquired immunodeficiency syndrome in Zambezia Province, Mozambique. SAHARA-J:. 2013;10(3-4):119-30.

249.    Federal Democratic Republic of Ethiopia Ministry of Education (MOE) and Federal Democratic Republic of Ethiopia

Ministry of Health (MOH). Guideline for the Management of Federal Hospitals in Ethiopia. Addis Ababa, Ethiopia2015.

250.    Policy on HIV/AIDS of the Federal Democratic Republic of Ethiopia. Addis Ababa Ethiopia1998.

251.    Wu S, Li L, Wu Z, Liang L-J, Cao H, Yan Z, et al. A brief HIV stigma reduction intervention for service providers in China. AIDS patient care and STDs. 2008;22(6):513-20.

252.    Li L, Liang LJ, Lin C, Wu Z. Addressing HIV stigma in protected medical settings. AIDS Care. 2015;27(12):1439-42.

253.    Kaponda CP, Jere DL, Chimango JL, Chimwaza AF, Crittenden KS, Kachingwe SI, et al. Impacts of a peer-group intervention on HIV-related knowledge, attitudes, and personal behaviors for urban hospital workers in Malawi. Journal of the Association of Nurses in AIDS Care. 2009;20(3):230-42.

254.    Li L, Guan J, Liang L-J, Lin C, Wu Z. Popular opinion leader intervention for HIV stigma reduction in health care settings. AIDS Education and Prevention. 2013;25(4):327-35.

255.    Travers R, Wilson MG, Flicker S, Guta A, Bereket T, McKay C, et al. The greater involvement of people living with AIDS principle: Theory versus practice in Ontario's HIV/AIDS community-based research sector. AIDS care. 2008;20(6):615-24.

256.    Van Roey J. From principle to practice: greater involvement of people living with or affected by HIV/AIDS (GIPA). 1999.

257.    Attell BK. Social contact theory: A framework for understanding AIDS-related stigma. The Journal of Public and Professional Sociology. 2013;5(1):1.

258.    Rotheram-Borus MJ, Richter LM, Van Heerden A, Van Rooyen H, Tomlinson M, Harwood JM, et al. A cluster randomized controlled trial evaluating the efficacy of peer mentors to support South African women living with HIV and their infants. PloS one. 2014;9(1):e84867.

259.    Rueda S, Mitra S, Chen S, Gogolishvili D, Globerman J, Chambers L, et al. Examining the associations between HIV-related stigma and health outcomes in people living with HIV/AIDS: a series of meta-analyses. BMJ open. 2016;6(7):e011453.

260.    Nyamathi A, Ekstrand M, Salem BE, Sinha S, Ganguly KK, Leake B. Impact of Asha intervention on stigma among rural Indian women with AIDS. Western journal of nursing research. 2013:0193945913482050.

261.    Jirapaet V. Effects of an empowerment program on coping, quality of life, and the maternal role adaptation of Thai HIV-infected mothers. Journal of the Association of Nurses in AIDS Care. 2000;11(4):34-45.

262.    Bernardin KN, Toews DN, Restall GJ, Vuongphan L. Self-management interventions for people living with human immunodeficiency virus: A scoping review Étude de la portée des interventions axées sur l'autogestion pour les personnes atteintes du VIH. Canadian Journal of Occupational Therapy. 2013;80(5):314-27.

263.    Kidd R, Clay S. Understanding and challenging HIV stigma. Toolkit for action. Adapted version for use in Cambodia.

264.    Horizons S. Population Council: The PLHA-friendly achievement checklist: a self-assessment tool for hospitals and other medical institutions caring for people living with HIV/AIDS (PLHA). New York. 2003.

265.    WHO, UNICEF, the Global Fund to Fight AIDS, Tuberculosis and Malaria, the U.S. President's Emergency Plan for AIDS Relief (PEPFAR), and the UNAIDS Indicator Registry. 2014 [01/02/2017]; Available from: http://www.indicatorregistry.org/?q=node/749.

266.    Bosch-Capblanch X, Lavis JN, Lewin S, Atun R, Røttingen J-A, Dröschel D, et al. Guidance for evidence-informed policies about health systems: rationale for and challenges of guidance development. PLoS Med. 2012;9(3):e1001185.

267.    Michie S, Johnston M, Abraham C, Lawton R, Parker D, Walker A. Making psychological theory useful for implementing evidence based practice: a consensus approach. Quality Safety in Health Care. 2005;14.

268.    Petitti DB, Teutsch SM, Barton MB, Sawaya GF, Ockene JK, DeWitt T. Update on the methods of the US Preventive Services Task Force: insufficient evidence. Annals of internal medicine. 2009;150(3):199-205.

269.    Andrews J, Guyatt G, Oxman AD, Alderson P, Dahm P, Falck-Ytter Y, et al. GRADE guidelines: 14. Going from evidence to recommendations: the significance and presentation of recommendations. Journal of Clinical Epidemiology.66(7):719-25.

270.    Rayner L, Price A, Hotopf M, Higginson IJ. The development of evidence-based European guidelines on the management of depression in palliative cancer care. European Journal of Cancer. 2011;47(5):702-12.

271.    Rycroft-Malone J. Formal consensus: the development of a national clinical guideline. Quality in Health Care : QHC. 2001;10(4):238-44.

272.    Andrews JC, Schünemann HJ, Oxman AD, Pottie K, Meerpohl JJ, Coello PA, et al. GRADE guidelines: 15. Going from evidence to recommendation—determinants of a recommendation's direction and strength. Journal of clinical epidemiology. 2013;66(7):726-35.

273.    Schunemann HJ, Fretheim A, Oxman AD. Improving the use of research evidence in guideline development: 13. Applicability, transferability and adaptation. Health Research Policy and Systems. 2006;4.

274.    Schünemann HJ, Fretheim A, Oxman AD. Improving the Use of Research Evidence in Guideline Development: 10. Integrating values and consumer involvement.  Health Res Policy Syst2006.

275.    Olayemi E, Asare EV, Kuma AABA. Guidelines in lower-middle income countries. British Journal of Haematology. 2017;177(6):846-54.

276.    Baskaran C. Practical Strategies for Educating Nurses in India to Improve Care of Patients with HIV and AIDS. 2014.

277.    Church K, Wringe A, Fakudze P, Kikuvi J, Simelane D, Mayhew SH. Are integrated HIV services less stigmatizing than stand-alone models of care? A comparative case study from Swaziland. Journal of the International AIDS Society. 2013 Jan 11;16:17981.

278.    Bennett C, Weale A. HIV and AIDS awareness: an evaluation of a short training programme for midwives. Journal of advanced nursing. 1997;26(2):273-82.

279.    Ezedinachi EN, Ross MW, Meremiku M, Essien EJ, Edem CB, Ekure E, et al. The impact of an intervention to change health workers' HIV/AIDS attitudes and knowledge in Nigeria: a controlled trial. Public Health. 2002 Mar;116(2):106-12.

280.    Geibel S, Hossain SMI, Pulerwitz J, Sultana N, Hossain T, Roy S, et al. Stigma Reduction Training Improves Healthcare Provider Attitudes Toward, and Experiences of, Young Marginalized People in Bangladesh. Journal of Adolescent Health. 2017;60:S35-S44.

281.    McKenzie AG. An HIV Educational Tool to Increase Non-HIV Provider Knowledge on the Approach and Management of HIV Patients: Brandman University; 2017.

282.    Pisal H, Sutar S, Sastry J, Kapadia-Kundu N, Joshi A, Joshi M, et al. Nurses' health education program in India increases HIV knowledge and reduces fear. Journal of the Association of Nurses in AIDS Care. 2007;18(6):32-43.

283.    Pratt R, Pellowe C, Juvekar S, Potdar N, Weston A, Joykutty A, et al. Kaleidoscope: a 5-year action research project to develop nursing confidence in caring for patients with HIV disease in west India. International nursing review. 2001;48(3):164-73.

284.    Robiner WN, Parker SA, Ohnsorg TJ, Strike B. HIV/AIDS training and continuing education for psychologists. Professional Psychology: Research and Practice. 1993;24(1):35.

285.    Santana RT, Monzon OT, Mandel J, Hall TL, Hearst N. AIDS education for hospital workers in Manila: effects on knowledge, attitudes, and infection control practices. AIDS (London, England). 1992;6(11):1359-64.

286.    Stewart KE, DiClemente RJ, Ross D. Adolescents and HIV: theory-based approaches to education of nurses. Journal of advanced nursing. 1999;30(3):687-96.

287.    Wang D, Operario D, Hong Q, Zhang H, Coates TJ. Intervention to train physicians in rural China on HIV/STI knowledge and risk reduction counseling: preliminary findings. AIDS care. 2009;21(4):468-72.

288.    Wu S, Li L, Wu Z, Liang LJ, Cao H, Yan Z, et al. A brief HIV stigma reduction intervention for service providers in China. AIDS Patient Care STDS. 2008 Jun;22(6):513-20.

289.    Wu Z, Detels R, Ji G, Xu C, Rou K, Ding H, et al. Diffusion of HIV/AIDS knowledge, positive attitudes, and behaviors through training of health professionals in China. AIDS Education and Prevention. 2002;14(5):379-90.

290.    Lohiniva A-L, Benkirane M, Numair T, Mahdy A, Saleh H, Zahran A, et al. HIV stigma intervention in a low-HIV prevalence setting: a pilot study in an Egyptian healthcare facility. AIDS care. 2016;28(5):644-52.

# APPENDICES

**Appendix 1: Search strategy**
CINAHL

Last search date =23/07/2016

1. (MH "HIV-Infected Patients+") OR (MH "HIV-AIDS Nursing") OR (MH "HIV Infections+") OR (MH "HIV Education") OR (MH "HIV-1") OR "HIV" OR (MH "AIDS Serodiagnosis") =68090
2. (MH "AIDS Serodiagnosis") OR (MH "AIDS Patients") OR (MH "Attitude to AIDS") OR (MH "HIV-AIDS Nursing") =8,427
3. (MH "Acquired Immunodeficiency Syndrome") OR (MH "Human Immunodeficiency Virus+") =15633
4. (MH "Discrimination") OR (MH "Prejudice") OR (MH "Stigma") OR (MH "Stereotyping") OR (MH "Homophobia") OR "prejudices" OR "Stigma" OR "prejudice" =21890
5. MM "Psychological Well-Being" OR (MH "Adaptation, Psychological")
6. (MH "Systematic Review") OR (MH "Scoping Review") OR (MH "Cochrane Library") =32980
7. (MH "Meta Analysis") OR (MH "Meta Synthesis")=18924
8. TI (review OR meta-analysis OR Syntheses OR overview) =92538
9. (MH "Social Work Practice") OR (MH "Policy Making") OR (MH "Public Policy") OR "guideline" OR (MH "Guideline Adherence") =35733
10. TI (guideline OR guidance OR consensus) =12193
11. 1 OR 2 OR 3 =68812
12. 4 OR 5 =41074
13. 6 OR 7 OR 8 OR 9 OR 10 =153325
14. 11 AND 12 AND 13 =178
15. Limit 20 by [English Language] AND Exclude MEDLINE AND limit to humans=32

Cochrane

Last search date: 31/10/2016

ID      Search  Hits

#1      MeSH descriptor: [HIV] explode all trees          2934

#2      MeSH descriptor: [Acquired Immunodeficiency Syndrome] explode all trees      1266

#3      MeSH descriptor: [Social Stigma] explode all trees          101

#4      MeSH descriptor: [Adaptation, Psychological] explode all trees   4684

#5      MeSH descriptor: [Resilience, Psychological] explode all trees     109

#6      MeSH descriptor: [Self Concept] explode all trees          5644

#7      MeSH descriptor: [Stereotyping] explode all trees          329

#8      MeSH descriptor: [Quality of Life] explode all trees       19272

#9      #1 or #2          3925

#10     #3 or #4 or #5 or #6 or #7 or #8 or #9  (Word variations have been searched)      31865

#11     #9 and #10 in Other Reviews     145

[Other reviews=111 AND Cochrane reviews=34]

EMBASE

1. 'human immunodeficiency syndrome virus'/exp OR 'acquired immune deficiency syndrome'/exp OR 'human immune deficiency syndrome':ab,ti =134,876
2. 'acquired immunodeficiency syndrome':ab,ti OR 'human immunodeficiency virus':ab,ti OR 'human immune deficiency virus' OR 'acquired immune-deficiency syndrome':ab,ti OR 'acquired immune-deficiency syndrome':ab,ti OR 'human immune-deficiency virus':ab,ti =85561
3. 'social stigma'/exp OR 'social discrimination'/exp OR 'stereotype'/exp =27930
4. 'coping behavior'/exp OR 'psychological wellbeing'/exp =56879
5. 1 OR 2=202,289
6. 3 OR 4=84,052
7. 5 AND 6 =1457
8. Guideline OR (Practice AND guideline) OR Guidance OR 'consensus'/exp OR 'practice guideline':ab,ti OR guidance:ab,ti OR consensus:ab,ti=576722
9. 7 AND 8=265
10. 7 AND [Cochrane review]/lim OR [Systematic review]/lim OR [meta-analysis]/lim=34
11. 8 OR 9=76
12. 5 AND[humans]/lim AND[English]/lim AND [embase]/lim=62

PSYCINFO

1. Exp HIV/ =37587
2. (Human immune deficiency syndrome OR acquired immune deficiency syndrome).sh,ti,ab = 2873
3. exp "AIDS (ATTITUDES TOWARD)"/ OR exp AIDS/ =15188
4. exp Social Stigma/ or exp Stereotyping/ or exp Prejudice/ or exp discrimination/ or exp Violence/ or exp Domestic Violence/ or exp Workplace Violence/ =132135
5. exp Social Discrimination/ or exp Stigma/ or exp "AIDS (Attitudes Toward)"/ or exp "Physical Illness (Attitudes Toward)"/ =21519
6. (Stigma* OR discrimination OR prejudice* OR labeling OR stereotyp* OR disclosure).sh,ti,ab =149852
7. Exp Quality of Life/ OR exp Social Support/ OR exp Coping Behavior/ OR exp Emotional Adjustment/ =120046
8. (coping OR cope OR self-management OR bereave* OR (quality of life)).ti,ab.=141846
9. judgment/ OR Stereotyped Attitudes/ OR Blame/ OR exp guilt/ OR shame/ or embarrassment/=39895
10. 1 OR 2 OR 3 =38247
11. 4 OR 5 OR 6 OR 7 OR 8 9 = 439223
12. 10 AND 11=8911
13. (Systematic review OR Meta analyses OR Research syntheses).sh,ti,ab =21218
14. (Guideline or practice guideline OR consensus).sh,ti,ab =27669
15. exp TREATMENT GUIDELINES/ or exp Evidence Based Practice/ =19286
16. 14 OR 15 OR 16=64818
17. 16 AND 17=135
18. Limit 18 to (human and English language) =132

PubMed

1   "Acquired Immunodeficiency Syndrome"[Mesh] OR "HIV"[Mesh] OR "HIV Infections"[Mesh] =280056

2   "acquired immune deficiency syndrome"[tw] OR "acquired immunodeficiency syndrome" [tw] OR "Human immunodeficiency virus" [tw] OR "Human immune deficiency virus" [tw] OR "acquired immuno-deficiency syndrome" [tw] OR "acquired immune-deficiency syndrome" [tw] OR "human immune-deficiency virus" [tw] OR "human immune-deficiency virus" [tw] OR HIV[tw] OR hiv-1*[tw] OR hiv-2*[tw] OR hiv1[tw] OR hiv2[tw] OR HIV infect*[tw] OR HIV/AIDS[tw]=356252

3   (("Social Stigma"[Mesh]) OR ("Discrimination (Psychology)"[Mesh] OR "Social Discrimination"[Mesh] )) OR "Prejudice"[Mesh] =496805

4   Stigma* [tiab] OR discrimination [tiab] OR prejudice [tiab] =118630

5   Disclosure [MESH] OR Truth Disclosure [Mesh] OR Self Disclosure [Mesh] =35010

6   "Resilience, Psychological"[Mesh] OR "Adaptation, Psychological"[Mesh] OR "Emotional Adjustment"[Mesh] OR "Stress, Psychological"[Mesh] OR "Self-efficacy"[Mesh] OR "Self-concept"[Mesh] OR "Self-psychology"[Mesh] OR "Self-Care"[Mesh] =322879

7   1 OR 2=360985

8   3 OR 4 OR 5 OR 6 = 488093

9   8 AND 9=15727

10  10 AND ((Practice Guideline[ptyp] OR Meta-Analysis[ptyp] OR Review[ptyp] OR Guideline[ptyp] OR Scientific Integrity Review[ptyp] OR systematic[sb] OR Consensus Development Conference[ptyp]) AND "humans"[MeSH Terms] AND English[lang]) AND subject AIDS=1291

## Appendix 2: Search results

| Database/websites | Search strategy | Last date checked | Number of records |
|---|---|---|---|
| PubMed | Comprehensive search | 17/06/2016 and updated on 17/07/2016 | 1291 |
| EMBASE | Comprehensive search | 18/06/2016 | 62 |
| PsycINFO | Comprehensive search | 20/06/2016 | 132 |
| CINAHL | Comprehensive search | 23/06/2016 and updated on 23/07/2016 | 32 |
| Cochrane (DARE=7, CDSR=6) | Comprehensive search | 20/07/2016 and update on 31/10/2016 | 62 |
| British HIV Association (BHVIVA) website | Checking for guidelines, standards and position statements | 26/06/2016 | 3 |
| HIV and AIDS clearinghouse | Check for toolkits and guidelines under subject stigma and discrimination | 26/06/2016 | 42 |
| NGC (National Guideline Clearinghouse) | Checked guidelines | 25/06/2016 | 4 |
| AIDSINFO | Checked guidelines | 26/06/2016 | 0 |
| HIV insite | Checked for guidelines | 26/06/2016 | 0 |
| USAID development experience clearinghouse | "Stigma" in USAID Policy Document OR Handbook/Manual under HIV/AIDS | 26/06/2016 | 8 |
| UNAIDS | Website check | 25/06/2016 | 3 |
| WHO guidelines | Website check | 25/06/2016 | 5 |
| CDC Guidelines and recommendations | Website check | 26/06/2016 | 0 |
| international guideline library (GIN library | (evidence report OR guideline OR guideline clearing report OR implementation tool OR guideline methodology) HIV, excluding WHO guidelines and HIVinsite | 26/06/2016 | 3 |
| Health policy project website | Publications | 23/06/206 | 1 |
| Physicians for human rights | Search "stigma" "discrimination" | 23/06/2016 | 1 |
| ICRW | HIV/AIDS stigma and discrimination publications | 23/06/2016 | 12 |
| Others (FHAPCO website, request from officials, references of references, google scholar) | | | 5 |
| Total | | | 1666 |
| Duplicates | | | 62 |
| Net | | | 1604 |

# Appendix 3: JBI critical appraisal checklist for systematic reviews and research syntheses

Reviewer_____Date_____

Author_____Year_____Record Number _____

|  | Yes | No | Unclear | Not applicable |
|---|---|---|---|---|
| 1. Is the review question clearly and explicitly stated? | □ | □ | □ | □ |
| 2. Were the inclusion criteria appropriate for the review question? | □ | □ | □ | □ |
| 3. Was the search strategy appropriate? | □ | □ | □ | □ |
| 4. Were the sources and resources used to search for studies adequate? | □ | □ | □ | □ |
| 5. Were the criteria for appraising studies appropriate? | □ | □ | □ | □ |
| 6. Was critical appraisal conducted by two or more reviewers independently? | □ | □ | □ | □ |
| 7. Were there methods to minimize errors in data extraction? | □ | □ | □ | □ |
| 8. Were the methods used to combine studies appropriate? | □ | □ | □ | □ |
| 9. Was the likelihood of publication bias assessed? | □ | □ | □ | □ |
| 10. Were recommendations for policy and/or practice supported by the reported data? | □ | □ | □ | □ |
| 11. Were the specific directives for new research appropriate? | □ | □ | □ | □ |

Overall appraisal:     Include     □          Exclude     □          Seek further info □

Comments (Including reason for exclusion)

_____

_____

_____

## Appendix 4: Results of AGREE II reporting criteria checklist

| S/n | Item | USAID,2012[7] | Carr, 2015[6] | PHR,2011 | UNAIDS,2007[129] | Carr, 2007[127] | TCA,2009[130] |
|---|---|---|---|---|---|---|---|
| 1. | The overall objective(s) of the guideline is (are) specifically described. The specific benefit from the guidelines are specific to the health topic | Yes | Yes | Yes | Yes | Yes | Yes |
| 2. | The health question(s) covered by the guideline is (are) specifically described. | No | No | No | No | No | No |
| 3. | The population (patients, public, etc.) to whom the guideline is meant to apply is specifically described. | Yes | Yes | Yes | Yes | Yes | Yes |
| 4. | The guideline development group (their discipline, roles and institutions) was clearly described | NC | NC | Yes | NC | Yes | Yes |
| 5. | The views and preferences of the target population (patients, public, etc.) have been sought | NC | NC | NC | NC | NC | NC |
| 6. | The target users of the guideline are clearly defined. | No | Yes | Yes | No | No | No |
| 7. | Search methods used to locate evidence were clearly reported. | No | No | No | No | No | No |
| 8. | The criteria for selecting the evidence are clearly described. | No | No | No | No | No | No |
| 9. | The strengths and limitations of the body of evidence are clearly described. | No | No | No | No | No | No |
| 10. | The methods for formulating the recommendations are clearly described. | No | No | No | No | No | No |
| 11. | The health benefits, side effects, and risks have been reported | No | No | No | No | No | No |
| 12. | The links between the recommendations and the supporting evidence were clearly described. | No | No | No | No | No | No |
| 13. | The methodology to conduct external review was reported | No | No | No | No | No | No |
| 14. | A procedure for updating the guideline is provided. | No | No | No | No | No | No |
| 15. | The recommendations are specific and unambiguous. | No | Yes | Yes | No | No | No |
| 16. | The different options for management of the condition or health issue are clearly presented | NA | NA | NA | NA | NA | NA |
| 17. | Key recommendations are easily identifiable. | No | Yes | Yes | Yes | Yes | Yes |
| 18. | The guideline describes facilitators and barriers to its application. | No | No | No | No | No | No |

| 19. | The guideline provides advice and/or tools on how the recommendations can be put into practice. | Yes | Yes | Yes | Yes | Yes | Yes |
|---|---|---|---|---|---|---|---|
| 20. | The potential resource implications of applying the recommendations have been described. | No | No | Yes | No | No | No |
| 21. | The guideline presents monitoring and/or auditing criteria. | Yes | Yes | Yes | Yes | Yes | Yes |
| 22. | The influence of the funding body on the guideline was described. | No | No | No | No | No | No |
| 23. | Competing interests of guideline development group members have been recorded and addressed. | NC | NC | NC | NC | NC | NC |
| 24. | Total yes scores | 4 | 7 | 10 | 5 | 6 | 6 |

NB: NA: Not applicable, NC: Not clear, PHR: Physicians for Human Rights, TCA: Tanzanian Commission of AIDS, USAID: United States Aid for International Development.

## Appendix 5: Critical appraisal results for systematic reviews

| S/N | Criterion | Stangl,2013[2] | Sengupta,2011[13][3] | Loutfy,2015[13][4] | Paudel,2015[13][5] | Brown,2003[13][6] | Chamber,2015[13][7] |
|---|---|---|---|---|---|---|---|
| 1 | Were review questions clearly stated? | Yes | Yes | Yes | Yes | Yes | Yes |
| 2 | Were inclusion criteria appropriate for the RQ? | Yes | Yes | Yes | Yes | Yes | Yes |
| 3 | Was search strategy appropriate? | Yes | Yes | Yes | Yes | UC | Yes |
| 4 | Were the sources and resources used to search for studies adequate? | Yes | Yes | Yes | Yes | No | Yes |
| 5 | Were the criteria for appraising studies appropriate? | Yes | Yes | Yes | Yes | UC | UC |
| 6 | Was critical appraisal conducted by two or more reviewers independently? | Yes | Yes | Yes | Yes | UC | UC |
| 7 | Were there methods to minimize errors in data extraction? | Yes | Yes | Yes | Yes | UC | Yes |
| 8 | Were the methods used to combine studies appropriate? | NA | NA | NA | NA | NA | NA |
| 9 | Was the likelihood of publication bias assessed? | UC | UC | UC | UC | UC | UC |
| 10 | Were recommendations for policy and/or practice supported by the reported data? | Yes | Yes | Yes | Yes | Yes | Yes |
| 11 | Were the specific directives for new research appropriate? | Yes | Yes | Yes | Yes | Yes | Yes |
| | Total Yes | 9 | 9 | 9 | 9 | 4 | 7 |

NB: NA: Not applicable, UC: Unclear.

## Appendix 6: Search strategy to locate primary studies
### CINAHL

1. Last search date =23/07/2016
2. (MH "HIV-Infected Patients+") OR (MH "HIV-AIDS Nursing") OR (MH "HIV Infections+") OR (MH "HIV Education") OR (MH "HIV-1") OR "HIV" OR (MH "AIDS Serodiagnosis") =70307
3. (MH "AIDS Serodiagnosis") OR (MH "AIDS Patients") OR (MH "Attitude to AIDS") OR (MH "HIV-AIDS Nursing") =8597
4. (MH "Acquired Immunodeficiency Syndrome") OR (MH "Human Immunodeficiency Virus+") =15866
5. (MH "Discrimination") OR (MH "Prejudice") OR (MH "Stigma") OR (MH "Stereotyping") OR (MH "Homophobia") OR "prejudices" OR "Stigma" OR "prejudice" =23174
6. MM "Psychological Well-Being" OR (MH "Adaptation, Psychological") =20672
7. 1 OR 2 OR 3 =71029
8. 4 OR 5 =43308
9. 6 AND 7=4363
10. Limit 8 by [English Language] AND [Exclude MEDLINE AND limit to humans=777

### Cochrane
Last search date: 20/05/17

| ID | Search | Hits |
|---|---|---|
| #1 | MeSH descriptor: [HIV] explode all trees | 2943 |
| #2 | MeSH descriptor: [Acquired Immunodeficiency Syndrome] explode all trees | 1267 |
| #3 | MeSH descriptor: [Social Stigma] explode all trees | 113 |
| #4 | MeSH descriptor: [Adaptation, Psychological] explode all trees | 4750 |
| #5 | MeSH descriptor: [Resilience, Psychological] explode all trees | 123 |
| #6 | MeSH descriptor: [Stereotyping] explode all trees | 335 |
| #7 | MeSH descriptor: [Self Concept] explode all trees | 5760 |
| #8 | MeSH descriptor: [Quality of Life] explode all trees | 19694 |
| #9 | #1 or #2 | 3935 |
| #10 | #3 or #4 or #5 or #6 or #7 or #8 | 28673 |
| #11 | #9 and #10 in Trials | 142 |

### EMBASE
Last search date: 18/06/2017

13. 'human immunodeficiency syndrome virus'/exp OR 'acquired immune deficiency syndrome'/exp OR 'human immune deficiency syndrome': ab,ti =135, 583
14. 'acquired immunodeficiency syndrome': ab,ti OR 'human immunodeficiency virus':ab,ti OR 'human immune deficiency virus' OR 'acquired immune-deficiency syndrome':ab,ti OR 'acquired immune-deficiency syndrome':ab,ti OR 'human immune-deficiency virus':ab,ti =95,815
15. 'social stigma'/exp OR 'social discrimination'/exp OR 'stereotype'/exp =29,168
16. 'prejudice'/exp OR 'prejudice':ab,ti=5032
17. 1 OR 2=205,768
18. 3 OR 4=33,762
19. 5 AND 6 =1004
20. #7 AND [EMBASE]/lim NOT [Medline]/lim=301
21. #8 AND ('clinical article'/de OR 'clinical trial'/de OR 'comparative study'/de OR 'controlled study'/de OR 'evidence based medicine'/de OR 'evidence based practice'/de OR 'human'/de OR 'pilot study'/de OR 'randomized controlled trial'/de) =274
22. #9 AND ('clinical article'/de OR 'clinical trial'/de OR 'comparative study'/de OR 'controlled study'/de OR 'evidence based medicine'/de OR 'evidence based practice'/de OR 'human'/de OR 'pilot study'/de OR 'randomized controlled trial'/de) AND [humans]/lim AND [English]/lim=266

### PsycINFO

Last search date: 20/05/2017
1. Exp HIV/ =38093
2. (Human immune deficiency syndrome OR acquired immune deficiency syndrome).sh,ti,ab = 2877

3. exp "AIDS (ATTITUDES TOWARD)"/ OR exp AIDS/ =15258
4. exp Social Stigma/ or exp Stereotyping/ or exp Prejudice/ or exp discrimination/ or exp Violence/ or exp Domestic Violence/ or exp Workplace Violence/ =133991
5. exp Social Discrimination/ or exp Stigma/ or exp "AIDS (Attitudes Toward)"/ or exp "Physical Illness (Attitudes Toward)"/ =21977
6. (Stigma* OR discrimination OR prejudice* OR labeling OR stereotyp* OR disclosure).sh,ti,ab =152385
7. Exp Quality of Life/ OR exp Social Support/ OR exp Coping Behavior/ OR exp Emotional Adjustment/ =121878
8. (coping OR cope OR self-management OR bereave* OR (quality of life)).ti,ab.=144748
9. judgment/ OR Stereotyped Attitudes/ OR Blame/ OR exp guilt/ OR shame/ or embarrassment/=40426
10. 1 OR 2 OR 3 =38756
11. 4 OR 5 OR 6 OR 7 OR 8 9 = 448676
12. 10 AND 11=10101
13. Limit 12 to (human and english language) =9737
14. Limit 13 to ("0300 clinical trial" OR "0410 experimental replication" OR "1900 scientific simulation" OR "2100 treatment outcome")=216

**ProQuest Dissertations and Theses**
1. ti(hiv 1) OR ti(hiv 2) OR ti(hiv) OR ti(acquired immunodeficiency syndrome) OR ti(human immunodeficiency virus)=9776
2. su(hiv 1) OR su(hiv 2) OR su(hiv) OR su(acquired immunodeficiency syndrome) OR su(human immunodeficiency virus)=7383
3. su(stigma hiv) OR diskw(Stigma) OR ti(stigma) OR su(hiv stigma) OR ti(discrimination) OR su(prejudice) OR ti(prejudice) OR su(aids attitude)=8626
4. 1 OR 2=11,326
5. 3 AND 4=283
6. 5 AND ENGLISH=279

**PubMed**
Last search date: 20/05/2017
1. "Acquired Immunodeficiency Syndrome"[Mesh] OR "HIV"[Mesh] OR "HIV Infections"[Mesh]=281060
2. "acquired immune deficiency syndrome"[tw] OR "acquired immunodeficiency syndrome" [tw] OR "Human immunodeficiency virus" [tw] OR "Human immune deficiency virus" [tw] OR "acquired immuno-deficiency syndrome" [tw] OR "acquired immune-deficiency syndrome" [tw] OR "human immune-deficiency virus" [tw] OR "human immune-deficiency virus" [tw] OR HIV[tw] OR hiv-1*[tw] OR hiv-2*[tw] OR hiv1[tw] OR hiv2[tw] OR HIV infect*[tw] OR HIV/AIDS[tw=358968
3. (("Social Stigma"[Mesh]) OR ("Discrimination (Psychology)"[Mesh] OR "Social Discrimination" [Mesh])) OR "Prejudice"[Mesh]=50181
4. Stigma* [tiab] OR discrimination [tiab] OR prejudice [tiab] =120425
5. Disclosure [MESH] OR Truth Disclosure [Mesh] OR Self Disclosure [Mesh] =35243
6. "Resilience, Psychological"[Mesh] OR "Adaptation, Psychological"[Mesh] OR "Emotional Adjustment"[Mesh] OR "Stress, Psychological"[Mesh] OR "Self-efficacy"[Mesh] OR "Self-concept"[Mesh] OR "Self-psychology"[Mesh] OR "Self-Care"[Mesh] =325427
7. 1 OR 2=363703
8. 3 OR 4 OR 5 OR 6=492714
9. 7 AND 8=15878
10. 9 AND (Comparative Study[ptyp] OR Evaluation Studies[ptyp] OR Pragmatic Clinical Trial[ptyp] OR Randomized Controlled Trial[ptyp] OR Clinical Trial[ptyp])=1253
11. 10 AND humans AND English AND AIDS=1215

**Appendix 7: Search results for search conducted to locate primary studies**

| Database/websites | Search strategy | Last date checked | Number of records |
|---|---|---|---|
| PubMed | Comprehensive search | 20/05/2017 | 1215 |
| EMBASE | Comprehensive search | 18/06/2017 | 266 |
| PsycINFO | Comprehensive search | 20/05/2017 | 216 |
| CINAHL | Comprehensive search | 23/04/2017 | 777 |
| Cochrane | Comprehensive search | 20/04/2017 | 142 |
| HIV and AIDS clearinghouse | Check for toolkits and guidelines under subject stigma and discrimination | 26/04/2017 | 5 |
| USAID development experience clearinghouse | "Stigma" in USAID evaluation under HIV/AIDS | 26/04/2017 | 1 |
| ICRW | HIV/AIDS stigma and discrimination publications | 23/04/2017 | 3 |
| ProQuest Dissertation and Theses | comprehensive search | 21/06/2017 | 279 |
| Other sources (reference of references) | | | 18 |
| Total | | | 2,927 |
| Duplicates | | | 71 |
| Net | | | 2,856 |

**Appendix 8: JBI critical appraisal checklist for randomized controlled trials**

Reviewer_____ Date_____
Author_____ Year_____ Record Number_____

| | Yes | No | Unclear | NA |
|---|---|---|---|---|
| 1. Was true randomization used for assignment of participants to treatment groups? | □ | □ | □ | □ |
| 2. Was allocation to treatment groups concealed? | □ | □ | □ | □ |
| 3. Were treatment groups similar at the baseline? | □ | □ | □ | □ |
| 4. Were participants blind to treatment assignment? | □ | □ | □ | □ |
| 5. Were those delivering treatment blind to treatment assignment? | □ | □ | □ | □ |
| 6. Were outcomes assessors blind to treatment assignment? | □ | □ | □ | □ |
| 7. Were treatments groups treated identically other than the intervention of interest? | □ | □ | □ | □ |
| 8. Was follow-up complete, and if not, were strategies to address incomplete follow-up utilized? | □ | □ | □ | □ |
| 9. Were participants analyzed in the groups to which they were randomized? | □ | □ | □ | □ |
| 10. Were outcomes measured in the same way for treatment groups? | □ | □ | □ | □ |
| 11. Were outcomes measured in a reliable way? | □ | □ | □ | □ |
| 12. Was appropriate statistical analysis used? | □ | □ | □ | □ |
| 13. Was the trial design appropriate, and any deviations from the standard RCT design (individual randomization, parallel groups) accounted for in the conduct and analysis of the trial? | □ | □ | □ | □ |

Overall appraisal:     Include     □          Exclude     □          Seek further info □
Comments (Including reason for exclusion)

_____

_____

_____

## Appendix 9: JBI critical appraisal checklist for quasi-experimental studies (non-randomized experimental studies)

Reviewer_____Date_____
Author_____Year_____Record Number

| | | Yes | No | Unclear | Not applicable |
|---|---|---|---|---|---|
| 1. | Is it clear in the study what is the 'cause' and what is the 'effect' (i.e. there is no confusion about which variable comes first)? | □ | □ | □ | □ |
| 2. | Were the participants included in any comparisons similar? | □ | □ | □ | □ |
| 3. | Were the participants included in any comparisons receiving similar treatment/care, other than the exposure or intervention of interest? | □ | □ | □ | □ |
| 4. | Was there a control group? | □ | □ | □ | □ |
| 5. | Were there multiple measurements of the outcome both pre-and post the intervention/exposure? | □ | □ | □ | □ |
| 6. | Was follow up complete and if not, were differences between groups in terms of their follow up adequately described and analysed? | □ | □ | □ | □ |
| 7. | Were the outcomes of participants included in any comparisons measured in the same way? | □ | □ | □ | □ |
| 8. | Were outcomes measured in a reliable way? | □ | □ | □ | □ |
| 9. | Was appropriate statistical analysis used? | □ | □ | □ | □ |

Overall appraisal:     Include   □          Exclude   □          Seek further info □

Comments (Including reason for exclusion)

_____

_____

_____

**Appendix 10: JBI critical appraisal checklist for analytical cross-sectional Studies**

Reviewer_____Date_____

Author_____Year_____Record Number____

|  | Yes | No | Unclear | Not applicable |
|---|---|---|---|---|
| 1. Were the criteria for inclusion in the sample clearly defined? | □ | □ | □ | □ |
| 2. Were the study subjects and the setting described in detail? | □ | □ | □ | □ |
| 3. Was the exposure measured in a valid and reliable way? | □ | □ | □ | □ |
| 4. Were objective, standard criteria used for measurement of the condition? | □ | □ | □ | □ |
| 5. Were confounding factors identified? | □ | □ | □ | □ |
| 6. Were strategies to deal with confounding factors stated? | □ | □ | □ | □ |
| 7. Were the outcomes measured in a valid and reliable way? | □ | □ | □ | □ |
| 8. Was appropriate statistical analysis used? | □ | □ | □ | □ |

Overall appraisal:     Include    □           Exclude    □           Seek further info □
Comments (Including reason for exclusion)

# Appendix 11: JBI critical appraisal checklist for case Series

Reviewer_____Date_____

Author_____Year_____Record Number_____

|  | Yes | No | Unclear | Not applicable |
|---|---|---|---|---|
| 1. Were there clear criteria for inclusion in the case series? | □ | □ | □ | □ |
| 2. Was the condition measured in a standard, reliable way for all participants included in the case series? | □ | □ | □ | □ |
| 3. Were valid methods used for identification of the condition for all participants included in the case series? | □ | □ | □ | □ |
| 4. Did the case series have consecutive inclusion of participants? | □ | □ | □ | □ |
| 5. Did the case series have complete inclusion of participants? | □ | □ | □ | □ |
| 6. Was there clear reporting of the demographics of the participants in the study? | □ | □ | □ | □ |
| 7. Was there clear reporting of clinical information of the participants? | □ | □ | □ | □ |
| 8. Were the outcomes or follow up results of cases clearly reported? | □ | □ | □ | □ |
| 9. Was there clear reporting of the presenting site(s)/clinic(s) demographic information? | □ | □ | □ | □ |
| 10. Was statistical analysis appropriate? | □ | □ | □ | □ |

Overall appraisal:      Include    □            Exclude    □            Seek further info □

Comments (Including reason for exclusion)

_____

_____

_____

**Appendix 12: JBI Data Extraction form for experimental/observational studies**

## JBI Data Extraction Form for Experimental / Observational Studies

Reviewer _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ Date _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

Author _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ Year _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

Journal _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ Record Number _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

**Study Method**

RCT ☐          Quasi-RCT ☐          Longitudinal ☐

Retrospective ☐          Observational ☐          Other ☐

**Participants**

Setting

Population

**Sample size**

Group A _____          Group B _____

**Interventions**

Intervention A

Intervention B

Authors Conclusions:

Reviewers Conclusions:

216

**Study results**

**Dichotomous data**

| Outcome | Intervention (    )<br>number / total number | Intervention (    )<br>number / total number |
|---|---|---|
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

**Continuous data**

| Outcome | Intervention (    )<br>number / total number | Intervention (    )<br>number / total number |
|---|---|---|
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

## JBI Data Extraction Form for Experimental / Observational Studies

Reviewer _____ Date _____

Author _____ Year _____

Journal _____ Record Number _____

**Study Method**

RCT ☐                    Quasi-RCT ☐                    Longitudinal ☐

Retrospective ☐          Observational ☐                Other ☐

**Participants**

Setting
_____

Population
_____

**Sample size**

Group A _____          Group B _____

**Interventions**

Intervention  A
_____

Intervention  B
_____
_____

Authors Conclusions:
_____
_____
_____

Reviewers Conclusions:
_____
_____
_____

**Study results**

**Dichotomous data**

| Outcome | Intervention (   )<br>number / total number | Intervention (   )<br>number / total number |
|---|---|---|
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

**Continuous data**

| Outcome | Intervention (   )<br>number / total number | Intervention (   )<br>number / total number |
|---|---|---|
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

# Appendix 13: Studies excluded and reasons for their exclusion

| S/n | Study | Reason for exclusion |
|---|---|---|
| 1. | Baskan,2014 [276] | Attitude of nurses toward PLWHAs was not assessed at the pre-test as the AIDS Attitude Scale was introduced only at 12 months follow-up |
| 2. | Church 2013 [277] | Client outcome, instead of HCW outcome, was measured, and the measured outcomes had measurement bias |
| 3. | Bennet 1997 [278] | Measurement bias (composite scores not created; scale mean scores were not reported), poor fidelity of the intervention and small sample size |
| 4. | Ezedinachi 2002 [279] | No measurement scale was created to measure stigma. Single items were used to assess the impact of the intervention. Clear comparison data is not available in the form of mean score and SD. |
| 5. | Giebel 2017 [280] | Did not create composite score or scale to measure stigma |
| 6. | Kaponda [253] | Differences in HCW characteristics in the baseline and post-intervention, measurement bias (several attitudes measured with only two items, affecting reliability of those measures) stigma items were not developed specifically for health professionals |
| 7. | Neema 2012 [62] | Measurement bias, individual separate items (instead of composite scales) were used to measure attitude. Participants of the pre-test are different from those of post-test. |
| 8. | McKanzie, 2017 [281] | Measurement bias (items were reported separately, no composite score or scale was reported). |
| 9. | Pisal 2007 [282] | Measurement bias (items were reported separately, no composite score or scale was reported). |
| 10. | Pratt 2001 [283] | Did not report outcomes quantitatively. |
| 11. | Robiner 1994 [284] | More intervention groups reported having attended training and more contact with PLHIV than control groups. This poses difficulty in assessing the effect of the intervention (one-day training). The study was planned and implemented only after the intervention (continuing education conference) had already occurred. Pre-test measures were not taken. The intervention's fidelity was not assured. The size and characteristics (geographically heterogenous) of the sample had limitations. Adequate description was not given on how anxiety was measured |
| 12. | Santana 1992 [285] | Lacks details of measurement scales for attitude |
| 13. | Stewart 1999 [286] | The hypotheses were not aimed to compare attitude, but comfort and intent to perform preventive measures (in performing assessment) the treatment arms. Incomplete data (n1 and n2, SD were not reported) |
| 14. | Wang 2009 [287] | Measurement bias (Physician stigma knowledge was reported) not actual stigma. No scale was described to measure patient stigma |
| 15. | Wu 2008 [288] | Measurement bias (stigma measured and reported separately by three separate items) |
| 16. | Wu 2002 [289] | Measurement bias (empathy was measured by a single item) |

## Appendix 14: Invitation for panel membership

Dear colleague,

Through the assistance of the university of Adelaide and Joanna Briggs Institute, we are developing an evidence-informed guideline to reduce HIV-related stigma and discrimination in healthcare settings. This project will constitute part of the requirements for the Doctor of Philosophy of Garumma Tolu Feyissa.

Therefore; we would like to involve experts in the field. Hence, we are planning to establish a guideline panel composed of experts (researchers, health professionals and health managers). Therefore, we are planning to include you, because you have research experience and/or experience in managing HIV related programs or working with HIV clients. Your role as a guideline working group may include:

1. Appraisal of documents: some, but not all of you, may be involved in this process based on your availability.

2. Selection of body of evidence: You will be provided with a summary of documents and be asked to select them to be included in developing guidelines.

3. Responding to the iterative round of Delphi surveys: This will involve multiple round surveys that ask you whether you accept recommendations to be included in a guideline.

In each round, you will be presented with the summary of responses from previous rounds. To respond to each round of the survey, which will be sent through e-mail, you will be given a maximum of two weeks. The success of the Delphi survey depends on the timely responses provided by the panel selected from the range of backgrounds. Therefore, all the members of the guideline panel are recommended to respond to these surveys.

At the end of the project, based on your consent, your names may be published with the guideline.Each panel member is expected to declare any potential conflict of interest. The form for this declaration will be sent you through an e-mail once you agree to participate. We, therefore, warmly invite you to be part of the panel.


Kind regards

The researchers (Garumma Tolu Feyissa, Craig Lockwood, Zachary Munn and Mirkuzie Woldie)

## Annex 15: Declaration of conflict of interest

The following questions are designed to allow participants to declare real or apparent conflicts of interest. Conflicts of interest include the panel member's participation in the development or the endorsement of guidelines that are to be reviewed for this project. Conflicts of interest may include relationships with pharmaceutical companies or other companies whose services are related to the current guideline. Financial interests that require declaration may include honoraria, consultancies, employment, and stock ownership. The purpose of the disclosure is to have participants declare any potential conflict of interests to any of the guidelines that are under consideration.

| 1. Participation in guideline development | | |
|---|---|---|
| Have you ever been involved in developing the guidelines (as a member of the committee)?  If yes, identify the guideline | Yes | No |
| If yes, identify the guideline and describe your involvement | | |
| Title of the guideline | | |
| Describe your involvement | | |
| **2. Guideline endorsement** | | |
| Have you participated in the process of endorsing guideline? If yes, identify the guideline | Yes | No |
| If yes, identify the guideline and describe your involvement | | |
| Title of the guideline | | |
| Describe your involvement | | |
| **3. Employment** | | |
| Are you or have you been employed by a guideline developer or an entity with commercial interest? | Yes | No |
| If yes, please describe. | | |
| **4. Ownership interests** | | |
| Do you have ownership interests, which are not publicly traded, which has commercial interest in any of the guidelines under consideration? | Yes | No |
| If yes, please describe | | |
| **5. Partnership interests** | | |
| Do you have any partnership interests in any of the entity that has commercial interest with the guidelines under consideration? | Yes | No |
| If yes, please describe. | | |
| **6. Research funding** | | |
| Are you currently receiving or have received funding from an entity that has commercial interest in any of the guidelines under consideration? | Yes | No |
| If yes, please describe. | | |
| **7. Honoraria** | | |
| Have you been paid honoraria or received gifts from a guideline developer or an entity having commercial interests in any of the guideline under consideration or from the developers of any guideline under consideration? | Yes | No |

| | | |
|---|---|---|
| If yes, please describe. | | |
| **8.    Consultancy** | | |
| Have you ever served as a consultant for any entity engaged in developing a guideline or had a commercial interest in any of the guidelines under consideration? | | |
| If yes, please describe. | | |
| 9.    Other potential conflicts of interests | | |
| If yes, please describe. | | |

Name _____

Signature_____

Date_____

**Appendix 16: Panel members**

The guideline was developed by a panel composed of multidisciplinary team including public health experts, internists, mental health professionals, psychiatrists, nurses, health promotion experts, sociologists, health service management experts, methodologists and practitioners, health managers and researchers.

1. Mr. Garumma Feyissa (MPH, HE/HEP, and PhD candidate in Evidence-based healthcare) facilitator
2. Professor Mirkuzie Woldie (MD, MPH, HSM, V/president of JU institute of Health sciences) professor of health policy and health services management
3. Mr. Fikru Tafesse (HAPCO coordinator (MPH, HSM)
4. Dr. Daniel Yilma (Internist, JUMC treatment coordinator and CDC focal person)
5. Mr. Sena Belina (MSc, Maternity Nursing)
6. Mr. Matiwos Soboka (MSc, ICCM), Assistant professor
7. Dr. Elias Tesfaye (MD, Consultant psychiatrist)
8. Mr. Gebeyehu Tsega (MPH, HSM)
9. Mr. Mulugeta Misgana (MSc, Maternity Nursing, Clean and safe health facility(CASH) focal person)
10. Mr. Shemeles Legesse (Nurse Midwife, MPH HSM) the then director for Strategic Plan and policy analysis of JUMC and current chief administrative and development director of JUMC
11. Mr. Berhanu Nigussie (Psychologist, PhD candidate)
12. Mr. Habtamu Kerebih (MSc, ICCM)
13. Mr. Dereje Wonde (MA Sociology)
14. Mr. Teshome Shiferaw (MPH, Jimma Zone HAPCO coordinator)

## Appendix 17: Summary of declaration of conflict of interest

Two of the panel members (FT and TS) worked as HIV prevention and control coordinators. One of the panel members worked as HIV treatment coordinator. Three of the panel members (GF, MW and BN) have previously been involved in guideline development, but for unrelated topics.Two of the panel members (DY and MM) have been involved in the development of an infection prevention and hospital safety guideline for the same hospital. Five (FT, DY, TS, GF and SB) of the panel members have been providing short-term training on PMTCT, ART PIHCT, STI and other HIV-related topics. Three of the panel members had publications on HIV topics, including HIV-related stigma (MW, GF and MS). One panel member (ET) had a research experience on mental health stigma. None of the members declared a significant conflict of interest that potentially biases the development of the guideline.

**The University of Adelaide,**

**Faculty of Health Sciences**

**School of Public Health, Joanna Briggs Institute**

**Introduction**

Through the technical assistance of researchers at Joanna Briggs Institute, the University of Adelaide, a guideline working group based in Jimma University has drafted recommendations that will be part of an evidence-informed guideline for reducing HIV-related stigma and promoting positive coping among people living with HIV and their families.

The purpose of the current phase of the project is to investigate the implementability of the recommendations. Therefore, we are seeking the opinions of experts. For each of the questions we have outlined questions for which you have the following alternatives: yes (1), no (N), not applicable (NA) or not sure (NS). If your responses are either no, not applicable or not sure, please provide your reasons. The description for each recommendation indicated by codes (RN1.1, RN1.2…) is found in the main document.

## I.      Global considerations (entire guideline)

| S/n | Question | Y | N | NA | NS | comments |
|---|---|---|---|---|---|---|
| 1. | Does the guideline clearly define the target patient population? | | | | | |
| 2. | Does the guideline clearly define its intended audience (i.e., types of providers)? | | | | | |
| 3. | Are the settings in which the guideline is to be used clearly described? | | | | | |
| 4. | Do the organization(s) and author(s) who developed the guideline have credibility with the intended audience of the guideline? | | | | | |
| 5. | Does the guideline suggest strategies for implementation or tools for application e.g., a summary document, a quick reference guide, educational tools, patients' leaflets, online resources or computer software? | | | | | |
| 6. | Is it clear in what sequence the recommendations should be applied? | | | | | |
| 7. | Is the guideline internally consistent, i.e., without contradictions between recommendations or between text recommendations and flowcharts, summaries, patient education materials, etc.? | | | | | |
| 8. | Are all recommendations easily identifiable, e.g., summarized in a box, bold text, underlined, etc.? | | | | | |
| 9. | Are all recommendations (and their discussions) concise? (Longwinded explanations impair implementability.) | | | | | |

Additional comments:

## Executability

| Questions | Recommendation identification | Y | N | NA | NS | Comments |
|---|---|---|---|---|---|---|
| 10. Is the recommended action (what to do) stated specifically and unambiguously? That is, would members of the intended audience execute the action in a consistent way? In situations where two or more options are offered, the executability criterion is met if the user would select an action only from the choices offered. | RN1.1 | | | | | |
| | RN1.2 | | | | | |
| | RN1.3 | | | | | |
| | RN1.4 | | | | | |
| | RN2.1 | | | | | |
| | RN2.2 | | | | | |
| | RN2.3 | | | | | |
| | RN2.4 | | | | | |
| | RN2.5 | | | | | |
| | RN2.6 | | | | | |
| | RN3.1 | | | | | |
| | RN3.2 | | | | | |
| | RN3.3 | | | | | |
| | RN3.4 | | | | | |
| | RN4.1 | | | | | |
| | RN4.2 | | | | | |
| | RN4.3 | | | | | |
| | RN4.4 | | | | | |
| | RN4.5 | | | | | |
| | RN5.1 | | | | | |
| | RN6.1 | | | | | |
| | RN6.2 | | | | | |
| | RN6.3 | | | | | |
| | RN6.4 | | | | | |
| | RN6.5 | | | | | |
| | RN6.6 | | | | | |
| | RN6.7 | | | | | |
| | RN6.8 | | | | | |
| | RN6.9 | | | | | |
| | RN6.10 | | | | | |
| | RN6.11 | | | | | |
| 11. Is sufficient detail provided or referenced (about how to do it) to allow the intended audience to perform the recommended action, given their likely baseline knowledge and skills? | RN1.1 | | | | | |
| | RN1.2 | | | | | |
| | RN1.3 | | | | | |
| | RN1.4 | | | | | |
| | RN2.1 | | | | | |
| | RN2.2 | | | | | |
| | RN2.3 | | | | | |
| | RN2.4 | | | | | |
| | RN2.5 | | | | | |
| | RN2.6 | | | | | |
| | RN3.1 | | | | | |
| | RN3.2 | | | | | |
| | RN3.3 | | | | | |
| | RN3.4 | | | | | |
| | RN4.1 | | | | | |
| | RN4.2 | | | | | |
| | RN4.3 | | | | | |
| | RN4.4 | | | | | |
| | RN4.5 | | | | | |
| | RN5.1 | | | | | |
| | RN6.1 | | | | | |
| | RN6.2 | | | | | |
| | RN6.3 | | | | | |

| | Recommendation identification | | | | | |
|---|---|---|---|---|---|---|
| | RN6.4 | | | | | |
| | RN6.5 | | | | | |
| | RN6.7 | | | | | |
| | RN6.8 | | | | | |
| | RN6.9 | | | | | |
| | RN6.10 | | | | | |
| | RN6.11 | | | | | |

<div align="center">Additional comments:</div>

## Decidability

| Questions | Recommendation identification | Y | N | NA | NS | Comments |
|---|---|---|---|---|---|---|
| 12. Would the guideline's intended audience consistently determine whether each condition in the recommendation has been satisfied? That is, is each and every condition described clearly enough so that reasonable practitioners would agree when the recommendation should be applied? | RN1.1 | | | | | |
| | RN1.2 | | | | | |
| | RN1.3 | | | | | |
| | RN1.4 | | | | | |
| | RN2.1 | | | | | |
| | RN2.2 | | | | | |
| | RN2.3 | | | | | |
| | RN2.4 | | | | | |
| | RN2.5 | | | | | |
| | RN2.6 | | | | | |
| | RN3.1 | | | | | |
| | RN3.2 | | | | | |
| | RN3.3 | | | | | |
| | RN3.4 | | | | | |
| | RN4.1 | | | | | |
| | RN4.2 | | | | | |
| | RN4.3 | | | | | |
| | RN4.4 | | | | | |
| | RN4.5 | | | | | |
| | RN5.1 | | | | | |
| | RN6.1 | | | | | |
| | RN6.2 | | | | | |
| | RN6.3 | | | | | |
| | RN6.4 | | | | | |
| | RN6.5 | | | | | |
| | RN6.6 | | | | | |
| | RN6.7 | | | | | |
| | RN6.8 | | | | | |
| | RN6.9 | | | | | |
| | RN6.10 | | | | | |
| | RN6.11 | | | | | |
| 13. Are all reasonable combinations of conditions accounted for, i.e., is the recommendation comprehensive? | RN1.1 | | | | | |
| | RN1.2 | | | | | |
| | RN1.3 | | | | | |
| | RN1.4 | | | | | |
| | RN2.1 | | | | | |
| | RN2.2 | | | | | |
| | RN2.3 | | | | | |
| | RN2.4 | | | | | |
| | RN2.5 | | | | | |
| | RN2.6 | | | | | |
| | RN3.1 | | | | | |
| | RN3.2 | | | | | |
| | RN3.3 | | | | | |
| | RN3.4 | | | | | |
| | RN4.1 | | | | | |
| | RN4.2 | | | | | |
| | RN4.3 | | | | | |
| | RN4.4 | | | | | |
| | RN4.5 | | | | | |
| | RN5.1 | | | | | |
| | RN6.1 | | | | | |
| | RN6.2 | | | | | |
| | RN6.3 | | | | | |
| | RN6.4 | | | | | |
| | RN6.5 | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | RN6.6 | | | | |
| | | RN6.7 | | | | |
| | | RN6.8 | | | | |
| | | RN6.9 | | | | |
| | | RN6.10 | | | | |
| | | RN6.11 | | | | |
| 14. | If this recommendation contains more than one condition, is the logical relationship (ANDs and ORs) between conditions clear? | RN1.1 | | | | |
| | | RN1.2 | | | | |
| | | RN1.3 | | | | |
| | | RN1.4 | | | | |
| | | RN2.1 | | | | |
| | | RN2.2 | | | | |
| | | RN2.3 | | | | |
| | | RN2.4 | | | | |
| | | RN2.5 | | | | |
| | | RN2.6 | | | | |
| | | RN3.1 | | | | |
| | | RN3.2 | | | | |
| | | RN3.3 | | | | |
| | | RN3.4 | | | | |
| | | RN4.1 | | | | |
| | | RN4.2 | | | | |
| | | RN4.3 | | | | |
| | | RN4.4 | | | | |
| | | RN4.5 | | | | |
| | | RN5.1 | | | | |
| | | RN6.1 | | | | |
| | | RN6.2 | | | | |
| | | RN6.3 | | | | |
| | | RN6.4 | | | | |
| | | RN6.5 | | | | |
| | | RN6.6 | | | | |
| | | RN6.7 | | | | |
| | | RN6.8 | | | | |
| | | RN6.9 | | | | |
| | | RN6.10 | | | | |
| | | RN6.11 | | | | |

Additional comments:

## II. Validity

| Question | Recommendation identification | Y | N | NA | NS | Comments |
|---|---|---|---|---|---|---|
| 15. Is the justification for the recommendation stated explicitly? | RN1.1 | | | | | |
| | RN1.2 | | | | | |
| | RN1.3 | | | | | |
| | RN1.4 | | | | | |
| | RN2.1 | | | | | |
| | RN2.2 | | | | | |
| | RN2.3 | | | | | |
| | RN2.5 | | | | | |
| | RN2.6 | | | | | |
| | RN3.1 | | | | | |
| | RN3.2 | | | | | |
| | RN3.3 | | | | | |
| | RN3.4 | | | | | |
| | RN4.1 | | | | | |
| | RN4.2 | | | | | |
| | RN4.3 | | | | | |
| | RN4.4 | | | | | |
| | RN4.5 | | | | | |
| | RN5.1 | | | | | |
| | RN6.1 | | | | | |
| | RN6.2 | | | | | |
| | RN6.3 | | | | | |
| | RN6.4 | | | | | |
| | RN6.5 | | | | | |
| | RN6.6 | | | | | |
| | RN6.7 | | | | | |
| | RN6.8 | | | | | |
| | RN6.9 | | | | | |
| | RN6.10 | | | | | |
| | RN6.11 | | | | | |
| 16. Is the quality of evidence that supports the recommendation stated explicitly? | RN1.1 | | | | | |
| | RN1.2 | | | | | |
| | RN1.3 | | | | | |
| | RN1.4 | | | | | |
| | RN2.1 | | | | | |
| | RN2.3 | | | | | |
| | RN2.4 | | | | | |
| | RN2.5 | | | | | |
| | RN2.6 | | | | | |
| | RN3.1 | | | | | |
| | RN3.2 | | | | | |
| | RN3.3 | | | | | |
| | RN3.4 | | | | | |
| | RN4.1 | | | | | |
| | RN4.2 | | | | | |
| | RN4.3 | | | | | |
| | RN4.4 | | | | | |
| | RN4.5 | | | | | |
| | RN5.1 | | | | | |
| | RN6.1 | | | | | |
| | RN6.2 | | | | | |
| | RN6.3 | | | | | |
| | RN6.4 | | | | | |
| | RN6.5 | | | | | |
| | RN6.7 | | | | | |
| | RN6.8 | | | | | |
| | RN6.9 | | | | | |
| | RN6.10 | | | | | |
| | RN6.11 | | | | | |

Additional comments:

## III. Flexibility

| Questions | Recommendation identification | | Y | N | NA | NS | Comments |
|---|---|---|---|---|---|---|---|
| 17. Is the strength of each recommendation stated explicitly? Note: Strength of recommendation reflects anticipated level of adherence and is different from quality of evidence (Q16). Potential statements to satisfy this criterion might include "Strong recommendation", "Standard", Clinical option", etc. | RN1.1 | | | | | | |
| | RN1.2 | | | | | | |
| | RN1.3 | | | | | | |
| | RN1.4 | | | | | | |
| | RN2.1 | | | | | | |
| | RN2.2 | | | | | | |
| | RN2.3 | | | | | | |
| | RN2.4 | | | | | | |
| | RN2.5 | | | | | | |
| | RN2.6 | | | | | | |
| | RN3.1 | | | | | | |
| | RN3.2 | | | | | | |
| | RN3.4 | | | | | | |
| | RN4.1 | | | | | | |
| | RN4.2 | | | | | | |
| | RN4.3 | | | | | | |
| | RN4.4 | | | | | | |
| | RN4.5 | | | | | | |
| | RN5.1 | | | | | | |
| | RN6.1 | | | | | | |
| | RN6.2 | | | | | | |
| | RN6.3 | | | | | | |
| | RN6.4 | | | | | | |
| | RN6.5 | | | | | | |
| | RN6.6 | | | | | | |
| | RN6.7 | | | | | | |
| | RN6.8 | | | | | | |
| | RN6.9 | | | | | | |
| | RN6.10 | | | | | | |
| | RN6.11 | | | | | | |
| 18. Does the recommendation specify patient characteristics (such as coincident drug therapy and common co-morbid conditions) that require or permit individualization? | RN1.1 | | | | | | |
| | RN1.2 | | | | | | |
| | RN1.3 | | | | | | |
| | RN1.4 | | | | | | |
| | RN2.1 | | | | | | |
| | RN2.2 | | | | | | |
| | RN2.3 | | | | | | |
| | RN2.4 | | | | | | |
| | RN2.5 | | | | | | |
| | RN2.6 | | | | | | |
| | RN3.1 | | | | | | |
| | RN3.2 | | | | | | |
| | RN3.4 | | | | | | |
| | RN4.1 | | | | | | |
| | RN4.2 | | | | | | |
| | RN4.3 | | | | | | |
| | RN4.4 | | | | | | |
| | RN4.5 | | | | | | |
| | RN5.1 | | | | | | |
| | RN6.1 | | | | | | |
| | RN6.2 | | | | | | |
| | RN6.3 | | | | | | |
| | RN6.4 | | | | | | |
| | RN6.5 | | | | | | |
| | RN6.6 | | | | | | |
| | RN6.7 | | | | | | |
| | RN6.8 | | | | | | |
| | RN6.9 | | | | | | |
| | RN6.10 | | | | | | |
| | RN6.11 | | | | | | |
| 19. Does the recommendation specify practice characteristics (such as location and availability of support services) that require or permit modification? | RN1.1 | | | | | | |
| | RN1.2 | | | | | | |
| | RN1.3 | | | | | | |
| | RN1.4 | | | | | | |
| | RN2.1 | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | RN2.2 | | | | | |
| | RN2.3 | | | | | |
| | RN2.4 | | | | | |
| | RN2.5 | | | | | |
| | RN2.6 | | | | | |
| | RN3.1 | | | | | |
| | RN3.2 | | | | | |
| | RN3.3 | | | | | |
| | RN3.4 | | | | | |
| | RN2.1 | | | | | |
| | RN2.2 | | | | | |
| | RN2.3 | | | | | |
| | RN2.4 | | | | | |
| | RN2.5 | | | | | |
| | RN2.6 | | | | | |
| | RN3.1 | | | | | |
| | RN3.2 | | | | | |
| | RN3.3 | | | | | |
| | RN3.4 | | | | | |
| | RN4.1 | | | | | |
| | RN4.2 | | | | | |
| | RN4.3 | | | | | |
| | RN4.4 | | | | | |
| | RN4.5 | | | | | |
| | RN5.1 | | | | | |
| | RN6.1 | | | | | |
| | RN6.2 | | | | | |
| | RN6.3 | | | | | |
| | RN6.4 | | | | | |
| | RN6.5 | | | | | |
| | RN6.6 | | | | | |
| | RN6.7 | | | | | |
| | RN6.8 | | | | | |
| | RN6.9 | | | | | |
| | RN6.10 | | | | | |
| | RN6.11 | | | | | |

Additional comments:

## IV. Effect on process of care

| Questions | Recommendation identification | Y | N | NA | NS | Comments |
|---|---|---|---|---|---|---|
| 20. Can the recommendation be carried out without substantial disruption in current workflow? | RN1.1 | | | | | |
| | RN1.2 | | | | | |
| | RN1.3 | | | | | |
| | RN1.4 | | | | | |
| | RN2.1 | | | | | |
| | RN2.2 | | | | | |
| | RN2.3 | | | | | |
| | RN2.4 | | | | | |
| | RN2.5 | | | | | |
| | RN2.6 | | | | | |
| | RN3.1 | | | | | |
| | RN3.2 | | | | | |
| | RN3.3 | | | | | |
| | RN3.4 | | | | | |
| | RN4.1 | | | | | |
| | RN4.2 | | | | | |
| | RN4.3 | | | | | |
| | RN4.4 | | | | | |
| | RN4.5 | | | | | |
| | RN5.1 | | | | | |
| | RN6.1 | | | | | |
| | RN6.2 | | | | | |
| | RN6.3 | | | | | |
| | RN6.4 | | | | | |
| | RN6.5 | | | | | |
| | RN6.6 | | | | | |
| | RN6.7 | | | | | |
| | RN6.8 | | | | | |
| | RN6.9 | | | | | |
| | RN6.10 | | | | | |
| | RN6.11 | | | | | |
| 21. Can the recommendation be pilot tested without substantial resource commitment? For example, buying and installing expensive equipment to comply with a recommendation is not easily reversible. | RN1.1 | | | | | |
| | RN1.2 | | | | | |
| | RN1.3 | | | | | |
| | RN1.4 | | | | | |
| | RN2.1 | | | | | |
| | RN2.2 | | | | | |
| | RN2.3 | | | | | |
| | RN2.4 | | | | | |
| | RN2.5 | | | | | |
| | RN2.6 | | | | | |
| | RN3.1 | | | | | |
| | RN3.2 | | | | | |
| | RN3.3 | | | | | |
| | RN3.4 | | | | | |
| | RN4.1 | | | | | |
| | RN4.2 | | | | | |
| | RN4.3 | | | | | |
| | RN4.4 | | | | | |
| | RN5.1 | | | | | |
| | RN6.1 | | | | | |
| | RN6.2 | | | | | |
| | RN6.3 | | | | | |
| | RN6.4 | | | | | |
| | RN6.5 | | | | | |
| | RN6.6 | | | | | |
| | RN6.7 | | | | | |
| | RN6.8 | | | | | |
| | RN6.9 | | | | | |
| | RN6.10 | | | | | |
| | RN6.11 | | | | | |

Additional comments:

# V.    Measurability

| Questions | Recommendation identification | Y | N | NA | NS | Comments |
|---|---|---|---|---|---|---|
| 22. Can adherence to this recommendation be measured? Measurement of adherence requires attention to both the actions performed and the circumstances under which the actions are performed. | RN1.1 | | | | | |
| | RN1.2 | | | | | |
| | RN1.3 | | | | | |
| | RN1.4 | | | | | |
| | RN2.1 | | | | | |
| | RN2.2 | | | | | |
| | RN2.3 | | | | | |
| | RN2.4 | | | | | |
| | RN2.5 | | | | | |
| | RN2.6 | | | | | |
| | RN3.1 | | | | | |
| | RN3.2 | | | | | |
| | RN3.3 | | | | | |
| | RN3.4 | | | | | |
| | RN4.1 | | | | | |
| | RN4.2 | | | | | |
| | RN4.3 | | | | | |
| | RB4.4 | | | | | |
| | RN4.5 | | | | | |
| | RN5.1 | | | | | |
| | RN6.1 | | | | | |
| | RN6.2 | | | | | |
| | RN6.3 | | | | | |
| | RN6.4 | | | | | |
| | RN6.5 | | | | | |
| | RN6.6 | | | | | |
| | RN6.7 | | | | | |
| | RN6.8 | | | | | |
| | RN6.9 | | | | | |
| | RN6.10 | | | | | |
| | RN6.11 | | | | | |
| 23. Can outcomes of this recommendation be measured? Outcomes include such things as changes in health status, mortality, costs, and satisfaction. | RN1.1 | | | | | |
| | RN1.2 | | | | | |
| | RN1.3 | | | | | |
| | RN1.4 | | | | | |
| | RN2.1 | | | | | |
| | RN2.2 | | | | | |
| | RN2.3 | | | | | |
| | RN2.4 | | | | | |
| | RN2.5 | | | | | |
| | RN2.6 | | | | | |
| | RN3.1 | | | | | |
| | RN3.2 | | | | | |
| | RN3.3 | | | | | |
| | RN3.4 | | | | | |
| | RN4.1 | | | | | |
| | RN4.2 | | | | | |
| | RN4.3 | | | | | |
| | RN4.4 | | | | | |
| | RN5.1 | | | | | |
| | RN6.1 | | | | | |
| | RN6.2 | | | | | |
| | RN6.3 | | | | | |
| | RN6.4 | | | | | |
| | RN6.5 | | | | | |
| | RN6.6 | | | | | |
| | RN6.7 | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| | RN6.8 | | | | |
| | RN6.9 | | | | |
| | RN6.10 | | | | |
| | RN6.11 | | | | |

Additional comments:

## VI.    Novelty / innovation

| Questions | Recommendation identification | Y | N | NA | NS | Comments |
|---|---|---|---|---|---|---|
| 24.  Can the recommendation be performed by the guideline's intended users without the acquisition of new competence (knowledge, skills)? | RN1.1 | | | | | |
| | RN1.2 | | | | | |
| | RN1.3 | | | | | |
| | RN1.4 | | | | | |
| | RN2.1 | | | | | |
| | RN2.2 | | | | | |
| | RN2.3 | | | | | |
| | RN2.4 | | | | | |
| | RN2.5 | | | | | |
| | RN2.6 | | | | | |
| | RN3.1 | | | | | |
| | RN3.2 | | | | | |
| | RN3.4 | | | | | |
| | RN4.1 | | | | | |
| | RN4.2 | | | | | |
| | RN4.3 | | | | | |
| | RN5.1 | | | | | |
| | RN6.1 | | | | | |
| | RN6.2 | | | | | |
| | RN6.3 | | | | | |
| | RN6.4 | | | | | |
| | RN6.5 | | | | | |
| | RN6.6 | | | | | |
| | RN6.7 | | | | | |
| | RN6.8 | | | | | |
| | RN6.9 | | | | | |
| | RN6.10 | | | | | |
| | RN6.11 | | | | | |
| 25.  Is the recommendation compatible with existing attitudes and beliefs of the guideline's intended users? | RN1.1 | | | | | |
| | RN1.2 | | | | | |
| | RN1.3 | | | | | |
| | RN1.4 | | | | | |
| | RN2.1 | | | | | |
| | RN2.2 | | | | | |
| | RN2.3 | | | | | |
| | RN2.4 | | | | | |
| | RN2.5 | | | | | |
| | RN2.6 | | | | | |
| | RN3.1 | | | | | |
| | RN3.2 | | | | | |
| | RN3.3 | | | | | |
| | RN3.4 | | | | | |
| | RN4.1 | | | | | |
| | RN4.2 | | | | | |
| | RN4.3 | | | | | |
| | RN4.4 | | | | | |
| | RN4.5 | | | | | |
| | RN5.1 | | | | | |
| | RN6.1 | | | | | |
| | RN6.2 | | | | | |
| | RN6.3 | | | | | |
| | RN6.4 | | | | | |
| | RN6.5 | | | | | |
| | RN6.6 | | | | | |
| | RN6.7 | | | | | |
| | RN6.8 | | | | | |
| | RN6.9 | | | | | |
| | RN6.10 | | | | | |
| | RN6.11 | | | | | |
| | RN1.1 | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 26. Is the recommendation consistent with patient expectations? In general, patients expect their concerns to be taken seriously, benefits of interventions to exceed risks, and adverse outcomes to fall within an acceptable range. | RN1.2 | | | | | |
| | RN1.3 | | | | | |
| | RN1.4 | | | | | |
| | RN2.1 | | | | | |
| | RN2.2 | | | | | |
| | RN2.3 | | | | | |
| | RN2.4 | | | | | |
| | RN2.5 | | | | | |
| | RN2.6 | | | | | |
| | RN3.1 | | | | | |
| | RN3.2 | | | | | |
| | RN3.3 | | | | | |
| | RN3.4 | | | | | |
| | RN4.1 | | | | | |
| | RN4.2 | | | | | |
| | RN4.3 | | | | | |
| | RN4.4 | | | | | |
| | RN5.1 | | | | | |
| | RN6.1 | | | | | |
| | RN6.2 | | | | | |
| | RN6.3 | | | | | |
| | RN6.4 | | | | | |
| | RN6.5 | | | | | |
| | RN6.6 | | | | | |
| | RN6.7 | | | | | |
| | RN6.8 | | | | | |
| | RN6.9 | | | | | |
| | RN6.10 | | | | | |
| | RN6.11 | | | | | |

Additional comments:

## Further comments

| Barrier | Specific | Suggested remedy | Resolution |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

**Appendix 19: Contact information (Delphi survey)**

*This document is for people who are participants in a research project.*

**Contacts for Information on Project and Independent Complaints Procedure**
The following study has been reviewed and approved by the University of Adelaide

Human Research Ethics Committee:

| Project Title: | Reducing HIV related stigma and discrimination in healthcare settings: towards the development of an evidence-informed guideline |
|---|---|
| Approval Number: | **H-2016-140** |

The Human Research Ethics Committee monitors all the research projects, which it has approved. The committee considers it important that people participating in approved projects have an independent and confidential reporting mechanism, which they can use if they have any worries or complaints about that research.

This research project will be conducted according to the NHMRC National Statement on Ethical Conduct in Human Research (see http://www.nhmrc.gov.au/publications/synopses/e72syn.htm)

1.  If you have questions or problems associated with the practical aspects of your participation in the project, or wish to raise a concern or complaint about the project, then you should consult the principal supervisor:

| Name: | **Associate professor Craig Lockwood** |
|---|---|
| e-mail: | craig.lockwood@adelaide.edu.au |

2.  If you wish to discuss with an independent person matters related to:

   *  making a complaint, or
   *  raising concerns on the conduct of the project, or
   *  the University policy on research involving human participants, or
   *  your rights as a participant,

   contact the Human Research Ethics Committee's Secretariat on phone (08) 8313 6028 or by email to hrec@adelaide.edu.au

**Project Title:** Developing/adapting and implementing an evidence-informed guideline to reduce HIV-related stigma and discrimination in healthcare settings

THE UNIVERSITY
of ADELAIDE

**Human Research Ethics Committee Approval Number: H-2016-140**

**Principal Supervisor: Craig Lockwood**

**Student Researcher: Garumma Tolu Feyissa**

**Student's Degree: PhD**

Dear Participant,

You are invited to participate in the research project described below.

**What is the project about?**

The purpose of this project is to develop a guideline to reduce HIV-related stigma and discrimination in healthcare settings. Based on systematic literature searches, we have outlined some recommendations that may be included in the guideline. Before disseminating the guideline, testing the practical appropriateness and clarity of the recommendations is imperative. In this project, therefore, we will collect the input from experts. The expert panel consists of health managers, health professionals and researchers.

As one member of the panel, we seek your input. We will be collecting opinions from experts on the draft recommendations through a series of e-mail surveys.

**Who is undertaking the project?**

This research will form the basis for the degree of *Doctor of Philosophy for* Mr. Garumma Tolu Feyissa at the University of Adelaide under the supervision of Associate professor Craig Lockwood and Associate Professor Zachary Munn, both from the University of Adelaide in Australia. The researchers involved in this project are all affiliated to Joanna Briggs Institute. The institute has been providing global support for evidence-based healthcare through training and developing methodologies for knowledge syntheses, transfer and utilization.

**Why am I being invited to participate?**

This project seeks to develop an evidence-informed guideline to reduce HIV-related stigma and discrimination in healthcare settings. The input from experts is essential to develop practical and feasible recommendations. Health managers, health professionals, and researchers are supposed to be knowledgeable of how health services should be designed to reduce HIV-related stigma and discrimination in healthcare settings. Being one of the potential stakeholders to provide us information on working recommendations, you were

selected to participate in the project. Before disseminating the guideline, the researchers would like to tailor the interventions taking local circumstances into consideration. Therefore, this project will seek opinions of experts on the draft recommendations outlined. Based on the consensus of the panel, we will develop practical recommendations that will be included in the guideline.

**What will I be asked to do?**

As a participant in this project, you will be asked to comment on the list of recommendations provided to you through e-mail on recommendations to be included in a guideline to reduce HIV-related stigma and discrimination in healthcare settings. The project involves asking participants for their opinions through a series of e-mail surveys. Participants are expected to respond to e-mails within a deadline of two weeks.

**How much time will the project take?**

The time needed to read through and comment on the recommendations may vary depending on individual circumstances. We guess that it will take one to two hours to respond to the questionnaires in each round. There will be multiple rounds of e-mail surveys. We expect two to three rounds of these survey.

**Are there any risks associated with participating in this project?**

Participating in this project does not pose any risks to the participants. However, it may consume your time and may remind you of old memories.

**What are the benefits of the research project?**

This project may not have immediate benefit as an individual for you. Nevertheless, it may help to develop and implement a guideline to reduce HIV-related stigma and discrimination in healthcare settings. This may reduce stigma related to HIV and thereby the services provided to HIV patients and their health service utilization in the long run. The guideline developed in this project may be used by health professionals and health managers (HIV prevention and control offices or health departments at different levels) and nongovernmental organizations.

**Can I withdraw from the project?**

Your participation is important for the success of this project. However, participation in this project is completely voluntary. If you agree to participate, you can withdraw from the panel at any time. Your non-participation or interrupting the interview will not affect your employment or your treatment.

**What will happen to my information?**

The information you provide will be kept confidential. However, the information provided by you will be provided as a summary to all the members of the panel. In that summary, the specific information that each person has provided will not be identified individually, but as a group input. Only the research team will access the specific information that you provide us. The final version of the report will be communicated to relevant stakeholders, the university of Adelaide (as a PhD dissertation), in conferences and peer-reviewed journals. The results of the study will be used to prepare the final version of a guideline used to reduce HIV-related stigma and discrimination in healthcare settings. Based on your consent, your name may be published in the final guideline.

**Who do I contact if I have questions about the project?**

If you have questions or problems associated with the practical aspects of your participation in the project, or wish to raise a concern or complaint about the project, then you should consult the project coordinator (Mr. Garumma Tolu Feyissa) through an e-mail address garumma.feyissa@adelaide.edu.au or phone call +251 931523749 or skype garumma.tolu.feyissa.

**What if I have a complaint or any concerns?**

The study has been approved by the Human Research Ethics Committee at the University of Adelaide (approval number H-2016-140) and by the Ethical review board of Jimma University College of Health Sciences. If you have questions or problems associated with the practical aspects of your participation in the project or wish to raise a concern or complaint about the project, then you should consult the Principal Investigator. Contact the chair of the Ethical review board of Jimma University College of Health Sciences (professor Mirkuzie Woldie) on phone +251 91780 4051 or by e-mail mirkuzie@yahoo.com.You can also contact the Human Research Ethics Committee's Secretariat of the University of Adelaide on phone +61 8 8313 6028 or by email to hrec@adelaide.edu.au. If you wish to speak with an independent person regarding concerns or a complaint, the University's policy on research involving human participants, or your rights as a participant. Any complaint or concern will be treated in confidence and fully investigated. You will be informed of the outcome.

**If I want to participate, what do I do?**

If you want to participate in the project, please return the signed consent form to the researcher (Mr. Garumma Tolu Feyissa).

Yours sincerely,

Garumma Tolu Feyissa (Assistant Professor)

Craig Lockwood (Associate Professor)

Zachary Munn (Associate Professor)

Mirkuzie Woldie (Professor)

**Appendix 21: Consent form for Delphi panel and external panel**

1. I have read the attached Information Sheet and agree to take part in the following research project:

| **Title:** | Reducing HIV related stigma and discrimination in healthcare settings: towards the development |
|---|---|
| **Ethics Approval Number:** | **H-2016-140** |

2. I have had the project, so far as it affects me, fully explained to my satisfaction by the research worker. My consent is given freely.

3. Although I understand the purpose of the research project it has also been explained that involvement may not be of any benefit to me.

4. I have been informed that, while information gained during the study may be published, I will not be identified, and my personal results will not be divulged.

5. I understand that I am free to withdraw from the project at any time.

6. I am aware that I should keep a copy of this Consent Form, when completed, and the attached Information Sheet.

**Participant to complete:**

Name: _____ Signature: _____ Date:

_____

# Appendix 22: Participant Information Sheet (External Experts)

**PROJECT TITLE:** Developing/adapting and implementing an evidence-informed guideline to reduce HIV-related stigma and discrimination in healthcare settings

**Human Research Ethics Committee Approval Number: H-2016-140**
**Principal Supervisor: Craig Lockwood**
**Student Researcher: Garumma Tolu Feyissa**
**Student's Degree: PhD**

Dear Participant,

You are invited to participate in the research project described below.

## What is the project about?

Through the assistance of researchers at Joanna Briggs Institute (the University of Adelaide), a guideline working group has drafted recommendations that will be part of an evidence-informed guideline for reducing HIV-related stigma and promoting positive coping among people living with HIV and their families. The recommendations were drafted through multiple phases including systematic literature searches and expert consultation.

In this phase of the project, we will gather opinions of external experts through e-mails to test the implementability of the guideline recommendations.

## Who is undertaking the project?

This research will form the basis for the degree of *Doctor of Philosophy for* Mr. Garumma Tolu Feyissa at the University of Adelaide under the supervision of Associate Professor Craig Lockwood and Associate Professor Zachary Munn, both from the University of Adelaide. The researchers involved in this project are all affiliated to Joanna Briggs Institute. The institute has been providing global support for evidence-based healthcare through training and developing methodologies for knowledge syntheses, transfer and utilization.

## Why am I being invited to participate?

This project seeks to develop an evidence-informed guideline to reduce HIV-related stigma and discrimination in healthcare settings. The input from experts is essential in order to develop practical and feasible recommendations. Being one of the potential stakeholders to provide us information on working recommendations, you were selected to participate in the

project. The input we receive from stakeholders having adequate knowledge and experience of local context will help us to draft recommendations tailored to the local context.

**What will I be asked to do?**

As a participant in this project, you will be asked to comment on the list of recommendations to be included in a guideline to reduce HIV-related stigma and discrimination in healthcare settings. The project involves asking participants for their opinions through e-mails.

**How much time will the project take?**

The time needed to read through and comment on the recommendations may vary depending on individual circumstances. We estimate that it will take you one to two hours to respond to the questionnaire.

**Are there any risks associated with participating in this project?**

Participating in this project does not pose any risks to the participants. However, it may consume your time and may be reminded of old memories.

**What are the benefits of the research project?**

This project may not have immediate benefit as an individual for you. Nevertheless, it may help us to develop and implement a guideline to reduce HIV-related stigma and discrimination in healthcare settings. This may reduce stigma related to HIV and thereby the services provided to HIV patients and their health service utilization in the long run.

**Can I withdraw from the project?**

Your participation is highly important for the success of this project. However, participation in this project is completely voluntary. If you agree to participate, you can withdraw from the panel at any time. Your non-participation or interrupting the interview will not affect your employment or your treatment.

**What will happen to my information?**

The information you provide will be kept confidential. However, the information provided by you will be included in reports that may be published or presented in conferences as a summary. In that summary, the specific information that each person has provided will not be identified individually. Only the research team will access the information that you provide us. The information you provide us will be kept privately. The final version of the report will be communicated to relevant stakeholders, the University of Adelaide (as a PhD dissertation), in conferences and peer-reviewed journals. The results of the study will be used to prepare the final version of a guideline used to reduce HIV-related stigma.

**Who do I contact if I have questions about the project?**

If you have questions or problems associated with the practical aspects of your participation in the project, or wish to raise a concern or complaint about the project, then you should consult the principal supervisor (Associate Professor Craig Lockwood) through an e-mail address craig.lockwood@adelaide.edu.au

**What if I have a complaint or any concerns?**

The study has been approved by the Human Research Ethics Committee at the University of Adelaide (approval number H-2015-xxx). If you have questions or problems associated with the practical aspects of your participation in the project, or wish to raise a concern or complaint about the project, then you should consult the Principal Investigator. Contact the Human Research Ethics Committee's Secretariat on phone +61 8 8313 6028 or by email to hrec@adelaide.edu.au. If you wish to speak with an independent person regarding concerns or a complaint, the University's policy on research involving human participants, or your rights as a participant. Any complaint or concern will be treated in confidence and fully investigated. You will be informed of the outcome.

**If I want to participate, what do I do?**

If you want to participate in the project, please return the signed consent form to the student researcher (Mr. Garumma Tolu Feyissa).

Yours sincerely,

Garumma Tolu Feyissa (Assistant professor)

Craig Lockwood (Associate Professor)

Zachary Munn (Associate Professor)

Mirkuzie Woldie (Professor)

**Appendix 23: Semi-structured interview guide for health professionals and health managers**

**The University of Adelaide,**

**Faculty of Health Sciences**

 **School of Public Health, Joanna Briggs Institute**

**Semi-structured interview guide**

**Introduction**

A guideline working group has developed an evidence-informed guideline for reducing HIV-related stigma and discrimination in healthcare settings. This guideline represents an appropriate means to reduce HIV-related stigma and improve quality of services delivered to people living with, and affected by HIV.

Before disseminating the guideline in the form of publications and conference presentations, we would like to assess facilitators and barriers for the implementation of the guideline recommendations in Ethiopian healthcare settings. As a health professional or a health manger working with HIV patients, we believe that you will provide us detailed information on barriers and facilitators towards the implementation of the guideline recommendations. Our interview may take 30 min to one hour. Is the environment where you are sitting right now suitable? Do you need to make more adjustments so that there will be no disturbance during our discussion? If you are comfortable, we can continue our discussion now.

      **A. Questions related to the nature of the evidence**

1. Have you read the document (guideline)?

2. Are the recommendations included in this guideline clear and easy to understand? If not, how might you make them so?

3. How might the guideline be made accessible to health professionals and health managers (facility heads, department heads, zonal and district health department heads)? Can it be built into current documentations?

4. How can the recommendations included in this guideline be implemented?

5. What might prompt the implementation of the guideline recommendations? What are the obstacles and facilitating factors for the implementation?

6. Are additional tools needed? Are the tools suggested clear and easy?

      **B. Questions related to potential adopters**

1. Are the schedules of health professionals flexible to allow them attendance at meetings and education sessions?

2. Have health professionals in your facility ever been exposed to evidence-based practice? If so, what has their previous experiences been? What went well? What did not go well? What can we learn from previous experiences? How can we modify the implementation approach?

3. Do health professionals in your department work together as a team? How might that team work be improved?

4. Do department heads or senior health professionals play role model in implementing the new recommendations?

5. How is staff education on new protocols and guidelines delivered currently? How well does it work? If it works could the education needed to implement the current guideline recommendations be provided in this format? If not, is there another approach to education that might work with health professionals in your unit?

6. Is there any specific format that you recommend for the category of health professionals? (Nurses, health officers, medical doctors, clinical psychologists, psychiatrists, laboratory technicians, etc.)

## C. Resources

1. What resource constraints do you expect? (Probe: time, human, material, financial)? How can these resource constraints be tackled for the implementation of the guideline recommendations?

## D. Environmental factors

1. What other competing interests of the organization impede the implementation of the recommendations?

2. What are the corporate priorities? Does the implementation of these guideline recommendations complement the strategic goals for HIV control and prevention? What impact does it have on infection preventions and patient safety?

3. What is the patient load of the facility? Does this impede the implementation of the recommendations?

4. Are there adequate facilities for meetings and educational sessions (rooms, time, and motivated staff)?

## E. Audit and evaluation

1. What types of data are already being monitored in the organization (hospital and JU and Jimma zone HAPCO)? Can you obtain access to that data?
2. Is there any regular audit for practice in this health facility?
3. Has ever current practice been evaluated? If yes, when? By whom?
4. Will evaluation require further resource support? Who can do the audit?

**Appendix 24 Participant information sheet (in depth interview)**

**Project Title:** Developing/adapting and implementing an evidence-informed guideline to reduce HIV-related stigma and discrimination in healthcare settings

**Human Research Ethics Committee Approval Number: H-2016-140**

**Principal Investigator: Craig Lockwood**

**Student Researcher: Garumma Tolu Feyissa**

**Student's Degree: PhD**

Dear Participant,

You are invited to participate in the research project described below.

**What is the project about?**

Through the assistance of researchers at Joanna Briggs Institute, the University of Adelaide, a guideline working group has drafted recommendations that will be part of an evidence-informed guideline for reducing HIV-related stigma and discrimination in healthcare settings.

In previous phases of this research, we have consulted an expert panel to comment on recommendations drafted through systematic literature searches and have made changes to the recommendations. In this phase, we are seeking indetailed information from health professionals on barriers and facilitators to the implementation of these recommendations. Therefore, we will collect the opinions of health professionals about the feasibility of application of the recommendations through indepth interviews.

**Who is undertaking the project?**

This research will form the basis for the degree of *Doctor of Philosophy*forMr. Garumma Tolu Feyissa at the University of Adelaide under the supervision of Associate professor Craig Lockwood andAssociate Professor Zachary Munnfrom the University of Adelaide and professor Mirkuzie Woldie from Jimma University. The researchers involved in this project are all affiliated to Joanna Briggs Institute (JBI) and JBI collaborating center (JBC) at Jimma University. The JBI has been providing global support for evidence-based healthcare through training and developing methodologies for knowledge syntheses, transfer and utilization.

**Why am I being invited to participate?**

This project investigates the feasibility of application of the recommendations to reduce HIV-related stigma and discrimination in healthcare settings. Being one of the potential

stakeholders to provide us information on the feasibility of implementation of the guidelines, you are now invited to participate in this final phase.

**What will I be asked to do?**

As a participant in this project, you will be asked about the barriers and facilitators towards implementing a guideline to reduce HIV-related stigma and promote positive coping among people living with and affected by HIV. The project involves asking participants indepth questions that may take 30 minutes to one hour about the guideline recommendations. In order not to miss the information you provide us the researcher will use an audio-recording. However, if you do not want your voice to be recorded, the interview may continue without recording your voice, and the information you provide us will be written down in a note book. After the interview, the interviewer may contact you for further clarifications. The interview will be conducted in a time that is comfortable for you.

**How much time will the project take?**

The interview may take from 30 minutes to one hour.

**Are there any risks associated with participating in this project?**

Participating in this project does not pose any risks to the participants. However, it may consume your time and may remind you of old memories.

**What are the benefits of the research project?**

This project may not have immediate benefit as an individual for you. Nevertheless, it may help to develop practical recommendations to reduce HIV-related stigma and discrimination in healthcare settings. This may reduce stigma related to HIV and thereby the services provided to HIV patients and their health service utilization in the long run. Recommendations tailored to the local context based on inputs from experts are expected to be feasible and practical for implementation. Developing these evidence-informed recommendations will play imperative role in improving the quality of health services delivered for HIV positive patients.

**Can I withdraw from the project?**

Your participation is highly important for the success of this research. However, participation in this research is completely voluntary. If you agree to participate, you can withdraw from the study at any time. Your non-participation or interrupting the interview will not affect your employment or your treatment.

**What will happen to my information?**

The information you provide will be kept confidential. After the interview is over, the audio-records will be changed into a written form, in which you are only identified by codes, not names. The voice records will then be deleted after the transcription is over. Only the research team will access the voice records and written forms of the voice records. The records and transcripts will be kept privately. Your name will not be identified in the final report. Any clues that identify you personally will be removed from the final report. The final version of the report will be communicated to relevant stakeholders, the university of Adelaide (as a PhD dissertation), in conferences and peer-reviewed journals. The results of the study will be used to prepare the final version of a guideline used to reduce HIV-stigma.

**Who do I contact if I have questions about the project?**

If you have questions or problems associated with the practical aspects of your participation in the project, or wish to raise a concern or complaint about the project, then you should consult the principal supervisor (Associate Professor Craig Lockwood) through an e-mail address craig.lockwood@adelaide.edu.au.

**What if I have a complaint or any concerns?**

The study has been approved by the Human Research Ethics Committee at the University of Adelaide (approval number: H-2016-140). If you have questions or problems associated with the practical aspects of your participation in the project or wish to raise a concern or complaint about the project, then you should consult the Principal Investigator. Contact the Human Research Ethics Committee's Secretariat on phone +61 8 8313 6028 or by email to hrec@adelaide.edu.au. If you wish to speak with an independent person regarding concerns or a complaint, the University's policy on research involving human participants, or your rights as a participant. Any complaint or concern will be treated in confidence and fully investigated. You will be informed of the outcome.

**If I want to participate, what do I do?**

If you want to participate in the project, please return the signed consent form to the researcher (Mr. Garumma Tolu Feyissa) and arrange a place and time for interview.

Yours sincerely,

Garumma Tolu Feyissa (Assistant professor)

Craig Lockwood (Associate professor)

Zachary Munn (Associate professor)

Mirkuzie Woldie (Professor)

**Appendix 25: Consent form for participants of in depth interview**

THE UNIVERSITY
*of* ADELAIDE

| **Title:** | Reducing HIV related stigma and discrimination in healthcare settings: towards the development of an evidence-informed guideline |
|---|---|
| **Ethics Approval Number:** | **H-2016-140** |

1. I have had the project, so far as it affects me, fully explained to my satisfaction by the research worker. My consent is given freely.

2. Although I understand the purpose of the research project it has also been explained that involvement may not be of any benefit to me.

3. I have been informed that, while information gained during the study may be published, I will not be identified, and my personal results will not be divulged.

4. I understand that I am free to withdraw from the project at any time.

5. I agree to the interview being audio/video recorded.          Yes ☐      No ☐

6. I am aware that I should keep a copy of this Consent Form, when completed, and the attached Information Sheet.

**Participant to complete:**

Name: _____ Signature: _____ Date: _____

**Researcher/Witness to complete:**

I have described the nature of the research to

_____

*(print name of participant)*

and in my opinion, she/he understood the explanation.

Signature: _____Position: _____Date: _____

# Appendix 26: Quality and strength of evidence

1. **Interventions to reduce stigmatizing attitudes and actions of healthcare workers**

    *1.1.Peer education of healthcare workers*

---

**Peer education of HCWs for stigma**

---

**Question:** Should Peer education of HCWs be used in stigma?
**Settings:** healthcare setting
**Bibliography:**
1. Norr KF, Ferrer L, Cianelli R, Crittenden KS, Irarrázabal L, Cabieses B, et al.Peer group intervention for HIV prevention among health workers in Chile. Journal of the Association of Nurses in AIDS Care. 2012;23(1):73-86.
**Settings:** healthcare setting
**Intervention:** Peer education of HCWs

| Outcomes | Illustrative comparative risks* (95% CI) | | Relative effect (95% CI) | No of Participants (studies) | Quality of the evidence (GRADE) | Comments |
|---|---|---|---|---|---|---|
| | Assumed risk | Corresponding risk | | | | |
| | **Control** | **Peer education of HCWs** | | | | |
| **Public contact stigma** Scale from: 1 to 3. | The mean public contact stigma in the control groups was **1.11** | The mean public contact stigma in the intervention groups was **0.07 lower** (0.12 to 0.02 lower) | | 927 (1 study) | ⊕⊕⊖⊖ **low** | |
| **client contact stigma** Scale from: 1 to 4. Follow-up: mean 3 months | The mean client contact stigma in the control groups was **1.81** | The mean client contact stigma in the intervention groups was **0.28 lower** (0.37 to 0.19 lower) | | 555 (1 study) | ⊕⊕⊖⊖ **low** | |

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).
**CI:** Confidence interval;

GRADE Working Group grades of evidence
**High quality:** Further research is very unlikely to change our confidence in the estimate of effect.
**Moderate quality:** Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
**Low quality:** Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
**Very low quality:** We are very uncertain about the estimate.

1 No control group and the sample sizes at the baseline and post intervention survey are different, hence downgraded two levels for risk of bias
2 Wide and statistically non-significant confidence interval

*Statement of evidence*

Norr et al. 2012[153]used professionally assisted peer education intervention and found a significantly lower scores of public contact stigma (MD=-0.0795% CI-0.12 to -0.02) among HCWs who received professionally assisted peer education intervention compared to that of HCWs in the control group [Low-quality evidence]. In addition, professionally assisted peer education intervention resulted in a significantly lower client contact stigma (MD=-0.28(95% CI-0.37 to -0.19).

*Considerations*

A recent synthesis of qualitative studies reported that emotional reactions and fear management activities that health professionals take, had negative impact on PLHIV.[137] The current team work structures in Ethiopian health facilities including one-to-five structures, HIV mentorship programs and regular multidisciplinary team meetings, and new initiatives

in Ethiopian healthcare facilities such as compassionate, respectful and caring initiatives, are conducive opportunities to establish and reinforce peer education system. This creates more feasible structural environment to implement the intervention. The quality of evidence in the study was graded as low-quality evidence. Taking these factors into consideration, the evidence was taken as low- quality, strong evidence.

## 1.2.Participatory education programs
### 1.2.1. *Multi-faceted educational program*

**Question:** Should A 5-day workshop comprising didactic lecture be used for Stigma?
**Settings:** Healthcare setting
**Bibliography:** Williams AB, Wang H, Burgess J, Wu C, Gong Y, Li Y. Effectiveness of an HIV/AIDS educational program for Chinese nurses. Journal of advanced nursing. 2006;53(6):710-720.

**A 5-day workshop comprising didactic lecture for Stigma**

**Patient or population:** patients with Stigma
**Settings:** Healthcare setting
**Intervention:** A 5-day workshop comprising didactic lecture

| Outcomes | Illustrative comparative risks* (95% CI) | | Relative effect (95% CI) | No of Participants (studies) | Quality of the evidence (GRADE) | Comments |
|---|---|---|---|---|---|---|
| | Assumed risk | Corresponding risk | | | | |
| | **Control** | **A 5-day workshop comprising didactic lecture** | | | | |
| **Empathy** Scale from: 1 to 6. Follow-up: mean 5 days | The mean empathy in the control groups was **4.1** | The mean empathy in the intervention groups was**0.2 higher**(CI not given) | | 360 (1 study) | ⊕⊖⊖⊖ **very low**[1,2] | |
| **Avoidance attitude** Scale from: 1 to 6. Follow-up: mean 5 days | The mean avoidance attitude in the control groups was **3.5** | The mean avoidance attitude in the intervention groups was**0.4 lower**(CI not given) | | 360 (1 study) | ⊕⊖⊖⊖ **very low**[1,2] | |
| **General attitude towards PLHIV** Scale from: 5 to 15. Follow-up: mean 5 days | The mean general attitude towards PLHIV in the control groups was **3.5** | The mean general attitude towards PLHIV in the intervention groups was**0.6 higher**(CI not given) | | 360 (1 study) | ⊕⊖⊖⊖ **very low**[1,2] | |
| **Nurses' willingness to care for PLHIV** Scale from: 0 to 130. Follow-up: mean 5 days | The mean nurses' willingness to care for PLHIV in the control groups was **97** | The mean nurses' willingness to care for PLHIV in theintervention groups was**13higher**(CI not given) | | 360 (1 study) | ⊕⊖⊖⊖ **very low**[1,2] | |

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).
**CI:** Confidence interval;

GRADE Working Group grades of evidence
**High quality:** Further research is very unlikely to change our confidence in the estimate of effect.
**Moderate quality:** Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
**Low quality:** Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
**Very low quality:** We are very uncertain about the estimate.

[1] No enough information on how lost participants were handled was given. 9% did not provide responses to all questions
[2] No control group

*Evidence statement*

One study conducted in China (Williams et al.2006[152]) used a 5-day multifaceted educational program comprising didactic lectures on HIV/AIDS epidemiology, natural history, transmission routes and clinical care combined with activities that provoke discussion of participants' values and personal feelings about HIV/AIDS. The intervention resulted in significant improvement in empathy (mean difference (MD) 0.2 higher); reduction in avoidance attitude (MD 0.4 lower) and improvement in general attitude towards PLHIV (MD 0.6 higher) and willingness to care for PLHIV (MD 13 higher). [Very low quality of evidence]The findings from the study was assigned a very low-quality evidence.

*Considerations*

The intention of health professionals to avoid providing services to PLHIV and the utilization of PLHIV-specific extra precautions has been raised as a concern by PLHIV in previous qualitative researches.[125, 137]Moreover, currently, HAPCO has training programs and venues and there are adequate motivated staff in Jimma University that are willing to provide trainings and workshops. In addition, Jimma University Teaching Hospital has motivated staff, and suitable training venues and committed administration that supports in service training and workshops.With these considerations, multi-faceted educational programs containing didactive lectures, was assigned as very low-quality, strong evidence.

### 1.2.2. *Participatory education programs, provision of supplies and materials and Participatory hospital policy development*

**Participatory self-guided assessment and intervention for Stigma**

**Question:** Should Participatory self-guided assessment and intervention be used for Stigma?
**Settings:** Healthcare setting
**Bibliography:**
1. Mahendra V, Gilborn L, Bitra G, Samson L, Mudoi R, Jadav S, et al. Reducing stigma and discrimination in hospitals: Positive findings from India. Washington, DC: Population Council; 2006
2. UNAIDS. Reducing HIV stigma and discrimination: A critical part of national AIDS programs: A resource for national stakeholders in the HIV response: Joint United nations program on HIV/AIDS (UNAIDS); 2007.

| Outcomes | Illustrative comparative risks* (95% CI) | | Relative effect (95% CI) | No of Participants (studies) | Quality of the evidence (GRADE) | Comments |
|---|---|---|---|---|---|---|
| | Assumed risk | Corresponding risk | | | | |
| | **Control** | **Participatory self-guided assessment and intervention** | | | | |
| **Stigma index (attitude towards PLIV and healthcare related practices)** Scale from: 21 to 63 Follow-up: mean 6 months | The mean stigma index (attitude towards PLIV and healthcare related practices) in the control groups was **42.79** | The mean stigma index (attitude towards PLIV and healthcare related practices) in the intervention groups was **4.72 higher**(CI not given) | | 1769 (1 study) | ⊕⊝⊝⊝ **very low**[1,2] | |
| **Use of glove when drawing blood if sero-status is unknown** Follow-up: mean 6 months | **Study population** | | **RR 7.81** (3.64 to 16.76) | 269 (1 study) | ⊕⊝⊝⊝ **very low**[1,2] | |
| | **642 per 1000** | **1000 per 1000** (1000 to 1000) | | | | |

256

| Sought informed consent before HIV test Follow-up: mean 6 months | Study population | | RR 2.14 (1.17 to 3.91) | 177 (1 study) | ⊕⊖⊖⊖ very low[1,2] |
|---|---|---|---|---|---|
| | 403 per 1000 | 862 per 1000 (471 to 1000) | | | |
| | Moderate | | | | |

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).
**CI:** Confidence interval; **RR:** Risk ratio;

GRADE Working Group grades of evidence
**High quality:** Further research is very unlikely to change our confidence in the estimate of effect.
**Moderate quality:** Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
**Low quality:** Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
**Very low quality:** We are very uncertain about the estimate.

[1] No control group
[2] The hospitals were conveniently selected. A cross sectional sample of providers was taken from the selected hospitals.

### 1.2.3. Addressing 'fear-based' stigma (stemming from lack of knowledge) compared to addressing both fear-based and social stigma (stemming from moral judgments). for Hospital staff

**Patient or population:** Hospital staff
**Settings:** Hospital
**Intervention:** Addressing 'fear-based' stigma (stemming from lack of knowledge)
**Comparison:** addressing both fear-based and social stigma (stemming from moral judgments).

Bibliography:
Pulerwitz J, Oanh KT, Akinwolemiwa D, Ashburn K, Nyblade L. Improving hospital-based quality of care by reducing HIV-related stigma: evaluation results from Vietnam. AIDS and behavior. Feb 2015;19(2):246-256.

| Outcomes | Illustrative comparative risks* (95% CI) | | Relative effect (95% CI) | No of Participants (studies) | Quality of the evidence (GRADE) | Comments |
|---|---|---|---|---|---|---|
| | Assumed risk | Corresponding risk | | | | |
| | Addressing both fear-based and social stigma (stemming from moral judgments). | Addressing 'fear-based' stigma (stemming from lack of knowledge) | | | | |
| Fear-based stigma Scale from: 4 to 12. Follow-up: mean 6 months | The mean fear-based stigma in the control groups was **5.1** | The mean fear-based stigma in the intervention groups was**0.37 lower** (0.54 to 0.21 lower) | | 797 (1 study) | ⊕⊖⊖⊖ very low[1] | |
| Social stigma Scale. Scale from: 5 to 15. Follow-up: mean 6 months | The mean social stigma in the control groups was **7.4** | The mean social stigma in the intervention groups was**0.14 lower** (0.43 lower to 0.15 higher) | | 797 (1 study) | ⊕⊖⊖⊖ very low[1] | |
| Overusing any form of barrier protection scale Follow-up: mean 6 months | Study population | | OR 0.54 (0.31 to 0.91) | 797 (1 study) | ⊕⊖⊖⊖ very low[1] | |
| | 168 per 1000 | 98 per 1000 (59 to 155) | | | | |
| Signs on bed indicating HIV status Follow-up: mean 6 months | Study population | | OR 0.25 (0.07 to 0.87) | 797 (1 study) | ⊕⊖⊖⊖ very low[1] | |
| | 851 per 1000 | 587 per 1000 (285 to 832) | | | | |
| Marked files indicating HIV status Follow-up: mean 6 months | Study population | | OR 0.54 (0.29 to 1) | 797 (1 study) | ⊕⊖⊖⊖ very low[1] | |
| | 98 per 1000 | 55 per 1000 (30 to 98) | | | | |

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).
**CI:** Confidence interval; **OR:** Odds ratio;

GRADE Working Group grades of evidence
**High quality:** Further research is very unlikely to change our confidence in the estimate of effect.
**Moderate quality:** Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
**Low quality:** Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
**Very low quality:** We are very uncertain about the estimate.

[1] Cross-sectional nature of data collection, Facility characteristics were not considered

*Statement of evidence*

Two pre-post studies (Pulewitz et al. 2015[13] and Mahendra et al.2006[154]) utilized a combination of staff training, participatory policy development, and the provision of materials and supplies. In both studies, the interventions were combined with the testimony of PLHIV or PLHIV advocates. The studies resulted in significant reductions in discriminatory actions of healthcare workers (marking files, overuse of barriers when handling PLHIV) six months after the intervention. In both studies, there was very low-quality of evidence in support of the intervention.

*Consideration*

From the synthesis of qualitative studies, it was found that the overuse of any form of barrier or segregation of PLHIV files was found a critical stigmatizing action that clients want to be tackled.[137] Lack of confidentiality was raised as a concern by PLHIV in qualitative studies.[125, 137]

In addition, in an Ethiopian based qualitative research, PLHIV recommended that healthcare providers be provided with training.[125]Moreover, currently there are training programs on HIV related topics supported by various partners. Therefore, training programs for stigma reduction can be integrated into such programs. Taking these considerations into action, the evidence in support of these interventions was assigned as strong, very low-quality of evidence.

### 1.2.4. Participatory education program with the testimony of PLHIV or PLHIV advocates

### 1.2.4.1. Modular interactive training and discussion

**Interactive training and discussion focusing on HIV-related stigma, infection control and medical ethics and contact with PLHIV for Value based stigma and fear based stigma**

**Question:** Should interactive training and discussion focusing on HIV-related stigma, infection control and medical ethics and contact with PLHIV be used for Value based stigma and fear based stigma?
**Bibliography:**
Lohiniva A-L, Benkirane M, Numair T, Mahdy A, Saleh H, Zahran A, et al. HIV stigma intervention in a low-HIV prevalence setting: a pilot study in an Egyptian healthcare facility. AIDS care. 2016;28(5):644-652.

| Outcomes | Illustrative comparative risks* (95% CI) | | Relative effect (95% CI) | No of Participants (studies) | Quality of the evidence (GRADE) | Comments |
|---|---|---|---|---|---|---|
| | Assumed risk | Corresponding risk | | | | |
| | **Control** | **Interactive training and discussion focusing on HIV-related stigma, infection control and medical ethics and contact with PLHIV** | | | | |
| **Fear-based stigma** Follow-up: 3months Scale from: 1 to 10 | The mean fear-based stigma in the control groups was**3.2** | The mean fear-based stigma in the intervention groups was**2.1 lower** (CI not given) | | 347 (1 study) | ⊕⊖⊖⊖ **very low**[1] | |
| **Value-based stigma** Follow-up: 3 months Scale from: 1 to 10 | The mean value-based stigma in the control groups was **3.8** | The mean value-based stigma in the intervention groups was**1.7 lower**(CI not given) | | 347 (1 study) | ⊕⊖⊖⊖ **very low**[1,2] | |

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

**CI:** Confidence interval;

GRADE Working Group grades of evidence
**High quality:** Further research is very unlikely to change our confidence in the estimate of effect.
**Moderate quality:** Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
**Low quality:** Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
**Very low quality:** We are very uncertain about the estimate.

[1] One control hospital and one experimental hospital was used (Conveniently selected)
[2] Groups had different scores in fear-based stigma at baseline

*Evidence statement*

Three studies (two observational studies (Pulewitz et al.2015[13] Mahendra et al. 2006[154] and Lohiniva et al.2016[290]) used the testimonies of PLHIV or PLHIV advocates as a component of their participatory educational interventions. The studies demonstrated significant reductions in stigma scores and significant improvement in the practice of universal precaution and respect for client's confidentiality six months after the intervention (Mahendra et al.2006[154]). Interventions having contact-based approach components also resulted in significant reductions in fear-based and value-based stigma (Lohiniva et al. 2016[290] and Pulewitz et al. 2015[13]) and value-based stigma (Lohiniva et al. 2016[290]) The quality of evidence supporting the intervention in the three studies was very low.

*Considerations*

A recent synthesis of qualitative studies reported that emotional reactions and fear management activities that health professionals take had negative impact on PLHIV. The use of extra-precaution specifically when handling PLHIV was a concern for PLHIV.[137] In addition, standard precaution is one of the requirements of hospitals.Moreover, currently, HAPCO has training programs and venues and there are adequate motivated staff in Jimma University that are willing to provide trainings and workshops. In addition, Jimma University Medical Center (JUMC) has motivated staffs, and suitable training venues and committed administration that supports in service training and workshops. The existence of expert patients is also an opportunity that helps to realize the contact strategy provided along with the modular training.With the above considerations, participatory education program with the testimony of PLHIV or PLHIV advocates or a contact strategy component, was assigned as strong, very low-quality evidence.

### 1.3.Identifying and training popular opinion leaders

**Training popular opinion leaders for stigma**

**Question:** Should Training popular opinion leaders be used for stigma?
**Settings:** Healthcare settings
**Bibliography:**
1. Li L, Guan J, Liang L-J, Lin C, Wu Z. Popular opinion leader intervention for HIV stigma-reduction in health care settings. AIDS Education and Prevention. 2013;25(4):327-335.

| Outcomes | Illustrative comparative risks* (95% CI) | | Relative effect (95% CI) | No of Participants (studies) | Quality of the evidence (GRADE) | Comments |
|---|---|---|---|---|---|---|
| | Assumed risk | Corresponding risk | | | | |
| | **Control** | **Training popular opinion leaders** | | | | |
| **Avoidance intent** Scale from: 8 to 39. Follow-up: mean 12 months | The mean avoidance intent in the control groups was **18.65** | The mean avoidance intent in the intervention groups was **1.87 lower** (2.05 to 1.69 lower) | | 1760 (1 study) | ⊕⊕⊕⊖ **moderate**[1] | |
| **Prejudicial attitude** Follow-up: mean 12 months | The mean prejudicial attitude in the control groups was not reported | The mean prejudicial attitude in the intervention groups was **3.77lower** (5.4 to 2.09 lower) | | 40 (1 study) | ⊕⊕⊕⊖ **moderate**[2] | |
| **Compliance to UP** Scale from: 3 to 39. Follow-up: mean 12 months | The mean compliance to UP in the control groups was **32.88** | The mean compliance to UP in the intervention groups was **1.65 lower** (1.89 to 1.41 lower) | | 1760 (1 study) | ⊕⊕⊕⊖ **moderate**[1,2] | |

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).
**CI:** Confidence interval;

GRADE Working Group grades of evidence
**High quality:** Further research is very unlikely to change our confidence in the estimate of effect.
**Moderate quality:** Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
**Low quality:** Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to

change the estimate.
**Very low quality:** We are very uncertain about the estimate.

---

[1] The hospitals were randomized into intervention and control groups. A matched-pair design was applied to optimize the randomization. However, method of the selection of the pairs was not clear.
[2] No explanation was given about blinding of allocators

**NB**: UP: Universal precaution

*Evidence statement*

One RCT (Li et al.2013[254]) identified and trained popular opinion leaders to reduce stigma and discrimination in healthcare facilities. The trial found significant reduction in avoidance intent (MD=-1.87(95% CI -2.05 to -1.69 lower) and prejudicial attitude (MD=-3.78 (95% CI -5.4 to -2.09) and increment in compliance to universal precaution (MD=-1.65 (95% CI -.89 to -1.41)) 12 months after the intervention. The evidence from this trail was assigned as moderate-quality evidence.

*Considerations*

Prejudicial attitudes have been raised as concerns by PLHIV in a previous qualitative reviews[137] The intention of healthcare professionals to avoid providing services to PLHIV and the utilization of PLHIV-specific extra precautions has been raised as a concern by PLHIV in previous qualitative researches.[125, 137]

The current teamwork structures in Jimma University Medical Center (JUMC), including one-to-five structures, HIV mentorship program and regular Multidisciplinary Team (MDT) meetings and new initiatives in healthcare facilities such as compassionate, respectful and caring (CRC) initiatives create a conducive environment to establish and reinforce this intervention. With these considerations, identifying and training popular opinion leaders was assigned as moderate-quality, strong evidence.

## 2. Interventions to reduce perceived/felt stigma and increase coping among PLHIV
## 2.1.Participatory planning (Contact strategy)

**Question:** Should Contact strategy with information giving and empowerment be used for HIV-related stigma?
**Settings:** Healthcare settings
**Bibliography:**
Uys L, Chirwa M, Kohi T, Greeff M, Naidoo J, Makoae L, et al. Evaluation of a Health Setting-Based Stigma Intervention in Five African Countries. AIDS Patient Care and STDs. 2009;23(12):1059-1066.

**Contact strategy with information giving and empowerment for HIV-related stigma**

**Patient or population:** patients with HIV-related stigma and HCWs (nurses)
**Settings:** Healthcare settings
**Intervention:** Contact strategy with information giving and empowerment

| Outcomes | Illustrative comparative risks* (95% CI) | | Relative effect (95% CI) | No of Participants (studies) | Quality of the evidence (GRADE) | Comments |
|---|---|---|---|---|---|---|
| | Assumed risk | Corresponding risk | | | | |
| | **Control** | **Contact strategy with information giving and empowerment** | | | | |
| **PLHIV self-esteem** Scale from: 10 to 40 Follow-up: mean 1 months | The mean PLHIV self-esteem in the control groups was **19.46** | The mean PLHIV self-esteem in the intervention groups was **2.12 higher** (0.18 to 4.06 higher) | | 82 (1 study) | ⊕⊖⊖⊖ **very low**[1,2,3] | |
| **PLHIV Workplace stigma** Scale: Not described Follow-up: mean 1 months | The mean PLHIV workplace stigma in the control groups was **0.46** | The mean PLHIV workplace stigma in the intervention groups was **0.31 lower** (0.61 to 0.01 lower) | | 82 (1 study) | ⊕⊖⊖⊖ **very low**[1,2,3] | |
| **Total stigma score** Scale: Not described Follow-up: mean 1 months | The mean total stigma score in the control groups was **0.42** | The mean total stigma score in the intervention groups was **0.17 lower** (0.35 lower to 0.01 higher) | | 82 (1 study) | ⊕⊖⊖⊖ **very low**[1,2,3,4] | |
| **Self-perception** Scale: Not described Follow-up: mean 1 months | The mean self-perception in the control groups was **0.82** | The mean self-perception in the intervention groups was **0.46 lower** (0.81 to 0.11 lower) | | 82 (1 study) | ⊕⊖⊖⊖ **very low**[1,2,3] | |
| **Nurses' stigmatizing behaviour** Scale: Not described Follow-up: mean 1 months | The mean nurses' stigmatizing behaviour in the control groups was **0.46** | The mean nurses' stigmatizing behaviour in the intervention groups was **0.07 higher** (0.04 lower to 0.18 higher) | | 86 (1 study) | ⊕⊖⊖⊖ **very low**[10,11,12] | |

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).
**CI:** Confidence interval;

GRADE Working Group grades of evidence
**High quality:** Further research is very unlikely to change our confidence in the estimate of effect.
**Moderate quality:** Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
**Low quality:** Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
**Very low quality:** We are very uncertain about the estimate.

[1] No control group. The intervention sites were conveniently chosen by researchers based on accessibility and willingness to participate.
[2] Five unique case studies were combined, which might have masked differences among the settings
[3] case series
[4] Wider confidence interval

*Evidence statement*

A multi-country observational study (Uys et al.2009[158]) used a contact strategy which included information giving, empowering PLHIV and bringing PLHIV and healthcare workers together to plan together.The study found increased self-esteem (MD=2.12 (95% CI 0.18 to 4.06) and reduced negative self-perception (MD=-0.46 (95% CI -0.81 to -0.11) and total stigma score (MD=-0.17

(95% CI -0.35 lower to 0.01) among PLHIV one month after the intervention. Overall, the quality of evidence is very low.

*Considerations*

Currently expert patients work in Ethiopian healthcare facilities as adherence supporters and counsellors. Hence, they can bring other clients together to plan with HCWs to address PLHIV related concerns. In addition, the self-perception and perceived workplace stigma is critical for PLHIV to attend and adhere to treatments at health facilities. Negative self-perception and internalized stigma is also associated with higher rates of depression.[259]With these considerations, empowering PLHIV to come together to plan with HCWs in reducing perceived stigma among PLHIV is very low-quality, strong evidence.

# Appendix 27: Facility assessment checklist (PLHIV Friendly checklist for healthcare facilities)

Name of Hospital: _____

Report Months: _____

No of stigma and discrimination related complaints from the PLHIV: _____

**Assessment of quality of care**

| PLHIV friendly checklist | | | Yes /No | Remarks |
|---|---|---|---|---|
| **I.** | **Access to care services** | | | |
| a. | Practice | | | |
| 1 | | Treatment and care for PLHIV (or patients awaiting results of an HIV test) was denied, delayed, or referred elsewhere for services available within the hospital | | |
| 2 | | Treatment and care for PLHIV was of the same quality as the treatment and care provided to other patients | | |
| 3 | | PLHIV are not segregated or isolated | | |
| 4 | | The hospital actively links PLHIV to sources of existing Palliative Care social support in their own communities such as NGOs, PLHIV networks and other social support services | | |
| b. | Training | | | |
| 1. | | All staff have received training in "Patients' right and the right of PLHIV to equal care and confidentiality" during the last 6 months | | |
| C. Quality Assurance | | | | |
| 1. | | An accessible patient grievance cell, which registers and addresses patient complaints, is in place and opened daily | | |
| 2. | | The existence of the grievance cell is posted in each ward and in all patient waiting areas | | |
| 3. | | Timely action was taken against perpetrators of stigma and discrimination of PLHIV | | |
| d. Policy | | | | |
| 1 | | A hospital policy is in place that guarantees all the above | | |
| 2. | | Hospital policy on access and right to care is posted in all departments and patient waiting areas | | |
| 3. | | All hospital staff are aware of the policy | | |
| **II. TESTING AND COUNSELLING** | | | | |
| a. Practice | | | | |
| 1. | | All HIV tests were voluntary | | |
| 2. | | All HIV tests were done after pre-test counselling by a trained counsellor and taking informed consent | | |
| 3. | | All test results were communicated to the patient during post-test counselling by a trained counsellor | | |
| b. Training | | | | |
| 1. | | HIV test counsellors are trained and have received refresher training during the last one year | | |
| 2. | | All hospital staff have been trained in principles and procedures of voluntary testing and counselling | | |
| c. Quality Assurance | | | | |
| 3. | | Criteria for assessing quality of pre-and post-counselling, and follow up counselling has been defined and all relevant hospital staff are aware of the criteria | | |
| 4. | | There is a system to ensure that the counselling needs the defined criteria of quality | | |
| d. Policy | | | | |
| 1. | | A hospital policy that guarantees all the above is in place | | |
| 2. | | Hospital policy on testing and counselling is displayed in all departments and patient waiting areas | | |
| 3. | | All hospital staff providing services to PLHIV are aware of this Policy | | |
| **III. CONFIDENTIALITY** | | | | |
| a. Practice | | | | |
| 1. | | Information about HIV status was communicated only to the patient and treating doctor | | |
| 2. | | PLHIV have been encouraged to and supported to disclose status to the spouse and other family members | | |
| 3. | | PLHIV beds, wards, and files are not labelled in way to their HIV status to other patients or staff | | |
| 4. | | The discharge sheet and other patient documents do not mention HIV positive status | | |
| b. Training | | | | |
| 1. | | All hospital staff have received trained in the principles of and patients' rights to confidentiality during the last 6 months | | |
| c. Quality Assurance | | | | |
| 1. | | There is a system to monitor the management of information systems to ensure that it adequately protects confidentiality | | |

| | | | | |
|---|---|---|---|---|
| | | **d. Policy** | | |
| | 1. | A hospital policy guarantees all the above is in place | | |
| | 2. | Hospital policy on testing and counselling is displayed in all departments and patient waiting areas | | |
| | 3. | All hospital staff are aware of this policy | | |
| **IV. INFECTION CONTROL** | | | | |
| | | **a. Practice** | | |
| | 1. | Standard Precautions are practiced by all hospital staff irrespective of the known HIV status of the patients | | |
| | 2. | Waste management guidelines are practices always by all the staff | | |
| | 3. | All needle prick injuries and other exposures to infected body fluids are recorded within an hour of exposure | | |
| | 4. | All staff are aware of the procedure of accessing PEP always | | |
| | 5. | All staff were provided with free hepatitis vaccines and post exposure prophylaxis (PEP) as and when necessary | | |
| | | **b. Training** | | |
| | 1. | All staff have been trained in infection control (including universal precautions), waste management, and PEP during the last 6 months | | |
| | | **c. Quality Assurance** | | |
| | 1. | Essential supplies for standard precautions and infection control are available always to all staff | | |
| | 2. | PEP drugs are available and accessible to all staff always | | |
| | 3. | An infection control team is in place and meets every month to monitor infection control practices and supplies | | |
| | 4. | Information, education and communication (IEC) materials on infection control procedures are posted in all wards, operation theatres and staff areas | | |
| | 5. | PEP guidelines have been posted in all wards, operation theatres and staff areas | | |
| | | **d. Policy** | | |
| | 1. | Hospital policy that guarantees all the above and a safe working environment for all hospital staff is in place | | |
| | 2. | Hospital policy on infection control and staff safety is placed in all departments and patient waiting areas | | |
| **V. QUALITY OF CARE** | | | | |
| | | **a. Practice** | | |
| | 1. | PLHIV were provided the highest standard of clinical management and care available at the hospital | | |
| | 2. | All pregnant women were offered, though not compelled to accept, HIV testing, antiretroviral (ARV) treatment to reduce likelihood of mother-to-child transmission of HIV during delivery (if possible) and advice on infant feeding | | |
| | 3. | Testing of pregnant women was voluntary and confidential and was accompanied by pre- and post-test counselling | | |
| | 4. | PLHIV were offered, or referred services that offer advice on nutrition and health promoting lifestyles | | |
| | 5. | All HIV positive pregnant women and their babies were referred to the ART centre | | |
| | | **b. Training** | | |
| | 1. | All clinical staff have received training in management of opportunistic infections and broad principles of management of HIV infection | | |
| | | **c. Quality Assurance** | | |
| | 1. | ART and/or essential drugs for reducing mother-to-child transmission and treating opportunistic infections) OIs) have been available all the time and have been administered whenever needed | | |
| | 2. | The clinicians involved in management of HIV infection have been tracking advances in clinical management of HIV and AIDS | | |
| | 3. | Guidelines for management of opportunistic infections and other diseases for PLHIV (including those on ART) are available in each department | | |
| | | **d. Policy** | | |
| | 1. | A hospital policy that guarantees all the above is in place | | |
| | 2. | All hospital staff are aware of such a policy and have access to it | | |

**Appendix 28: Discrimination free checklist short version for post on service points (adapted from UNAIDS/WHO agenda for stigma free healthcare facilities**

## Discrimination-free Healthcare facility checklist

1. Provide timely quality healthcare for all clients
2. Prohibit mandatory testing or coercive practices
3. Respect patient privacy and confidentiality
4. Link marginalized clients to additional service providers, peer support networks, community based and legal services where necessary
5. Employ providers who inform clients their rights and provide quality non-judgemental care
6. Put in place redressal system
7. Ensure participation of affected communities in the development of anti stigma policies and programs

# Appendix 29: Reminders for health professionals
**Checkpoints-a poster at service delivery point**

As a disciplined health professional are you free from the following actions?

1. Denial of care,
2. Provision of substandard care
3. Making a health service conditional (for example, registering as ART customer in the facility, bringing sexual partner,
4. Premature discharge,
5. Poor follow up
6. HIV testing without consent,
7. Breach of confidentiality (example, disclosure without consent, marking files),
8. Using excessive protective barriers to prevent infection,
9. Compulsory or forced treatment,
10. Segregation of clients or marking the files of clients who are HIV positive,
11. Unnecessarily referring the client to other institutions,
12. Stigmatizing words (gossip and labelling) and actions and
13. Blaming those infected by HIV.