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Measuring HIV-related stigma in healthcare settings

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Dissertation for the degree of doctor of Philosophy (PhD)

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NORMATIVE REFERENCES

The following normative documents have been referenced in the dissertation:

1. State Mandatory Education Standard of the Republic of Kazakhstan - Postgraduate Education - Doctorate. Basic Provisions (amendments as of August 23, 2012, No. 1080) - GOSO RK 5.04.034-2011.
2. Interstate Standards: GOST 7.32-2001 (amendments as of 2006) - Report on Scientific Research. Structure and Formatting Rules.
3. Order of the Ministry of Health of the Republic of Kazakhstan dated December 3, 2020, No. 2312020, "On the Approval of Rules for Investigating Cases of HIV Infection among the Population."
4. Order of the Ministry of Health of the Republic of Kazakhstan dated November 27, 2020, "On the Approval of Rules for Mandatory Confidential Medical Examination for HIV Infection."
5. Code of the Republic of Kazakhstan "On the Health of the People and the Healthcare System" dated April 7, 2020.
6. Government Resolution of the Republic of Kazakhstan on the Reorganization of the AIDS and STI Research Center and the National Institute for the Control of Viral Infections (RC SPID and NIKVI) into the Kazakhstan National Center for the Prevention and Control of Viral Infections (KNCDCVI) - No. 565 dated September 14, 2018.
7. Regulations on the Activities of Healthcare Organizations Engaged in HIV Infection Prevention.
8. Political Declaration on HIV/AIDS, 74th Plenary Meeting, June 8, 2021. UNITED NATIONS ORGANIZATION GENERAL ASSEMBLY
9. Law of the Republic of Kazakhstan "On Mandatory Social Health Insurance" - 2017.

DEFINITIONS

In this dissertation, the following terms are used with the corresponding definitions:

Content analysis- a research method to analyze qualitative data (i.e. text) to determine the presence of certain words, themes, and concepts.

Cronbach's alpha – shows the internal consistency of characteristics that describe one object, but is not an indicator of the homogeneity of the object. It calculates a set of commonly used scale reliability measures and also provides information about the relationships between individual items on the scale.

COVID-19- Coronavirus disease is an infectious disease caused by the SARS-CoV-2 virus.

CD4+T- type of T cells that perform the functions of regulating the processes of other immune system cells (T-killers, B-lymphocytes, macrophages), and that recognize antigens and "make the decisions" about starting or stopping the processes of acquired cellular immune response.

Discrimination- an unfair attitude towards different people, which is based on stereotypical ideas about different social groups limiting their rights and freedom.

Etiological agent - a pathogen or a microorganism (including bacteria, viruses, parasites etc.) or other agent, such as a proteinaceous infectious particle (prion), that can cause diseases among humans and animals.

Factor analysis-type of statistical analysis that uses the correlation structure amongst observed variables and latent variables known as factors. The known variables are assumed to depend on fewer unknown variables and random error.

Key populations of HIV- gay men and other men who have sex with men transgender people, sex workers, people who inject drugs and prisoners and other incarcerated people who are considered to be particularly vulnerable to HIV.

Reverse transcriptase- it is the process of forming double-stranded DNA based on the information in single-stranded RNA. This process is called reverse transcription, since the transfer of genetic information occurs in the "reverse" direction relative to transcription.

Stigma- - a feature that is at odds with generally accepted norms or stereotypes attributed to an individual or group and, therefore, undesirable.

Viral load- refers to the amount of virus in the body during an infectious disease process. It is usually determined by the number of viral particles in body fluids, in particular, in plasma (per 1 ml).

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LIST OF ACRONYMS

ART	Antiretroviral Therapy
AIDS	Acquired Immune Deficiency Syndrome
CFA	Confirmatory Factor Analysis
CATPCA	Categorical Principal Analysis
CDC	Centers for Disease Control and prevention
CIF	Comparative Fit Index
EFA	Exploratory Factor Analysis
EECA	Eastern Europe and Central Asia
HIV	Human Immunodeficiency Virus
IDUs	Injecting Drug Users
KS	Kaposi Sarcoma
LGTBQ	Lesbian, Gay, Bisexual, Transgender and Queer
MSM	Men who have Sex with Men
MI	Modification Indices
OIs	Opportunistic Infections
PEP	Post-Exposure Prophylaxis
PLHIV	People living with HIV/AIDS
STDs	Sexually Transmitted Infections
STDs	Sexually Transmitted Diseases
SWs	Sex Workers
RMSEA	Root Mean Square Error of Approximation
UNAIDS	United Nations Aids Programme
WSW	Women who have Sex with Women
WHO	World Health Organization

INTRODUCTION

Relevance of the study

Stigma and discrimination are one of the biggest ongoing challenges faced by people living with HIV (PLHIV) worldwide. Irrational fears of HIV infection and negative attitudes towards PLHIV remain the constant obstacle in fighting the epidemic despite the scientific advances and attempts made over the prevention and treatment of HIV worldwide [1,2]. Stigma and discrimination not only contribute to the spread of the epidemic, but also negatively affect the lives of PLHIV, leading to social exclusion, stress and emotional strain, and denial of the right to social and economic resources [3].

Stigma and discrimination on the part of healthcare workers in medical organizations have a particularly negative impact on the health of PLHIV, their quality of life, and their ability to conduct productive activities. HIV prevention, testing, and treatment services put people's lives at risk. Discriminatory attitudes, non-consensual HIV testing, denial of care and treatment, and breaches of confidentiality have been reported among large numbers of health workers, with a detrimental impact on the lives of PLHIV [4-7]. Negative and judgmental attitudes demonstrated by the healthcare staff create barriers to HIV diagnostics and treatment. Those who experience HIV-related stigma in healthcare are less likely to go through diagnostic measures of HIV, to uptake treatment and to comply with other preventative measures such as condom use, medication adherence, and retention in care [6, p.115]. These measures are the essential steps of the HIV care continuum.

To contribute to the HIV response in any country, one of the most important actions is to conduct regular participatory training for all medical personnel aimed at increasing knowledge about HIV, standard precautions, as well as awareness of stigma and discrimination and their harmful consequences, as well as addressing wrong perceptions and underlying fears among health workers about HIV transmission. Efforts to reduce stigma in some countries have led to significant changes in the attitudes and practices of health care staff, as well as improvements in the quality of care for PLHIV and other key populations such as men who have sex with men (MSM), people drug users, transgender people, and sex workers [8]. The WHO also testifies that "the most effective responses to the HIV epidemic are those that aim to prevent HIV-related stigma and discrimination and protect the human rights of people living with HIV and people at risk [5, p.808]. However, it has been shown that healthcare workers who received limited training on HIV-related stigma were more likely to exhibit stigmatizing behavior toward patients [8, p.422].

A stigma-free healthcare facility is a facility that treats PLHIV and other key populations with respect and compassion and provides high-quality care. In stigma-

free settings, employees can also protect themselves from workplace transmission of HIV by using the Standard Precautions, which WHO defines as a baseline of infection control precautions for all patients. In a stigma-free facility, staff are also confident that they can live with HIV and continue to work.

Patients' perspectives on the issue of HIV-related stigma have been well addressed in several studies, yet, evidence from the perspective of healthcare providers is limited. This problem is specific to Kazakhstan since a limited number of reports and scientific literature are available on the topic and the available ones are based on quantitative measurements of HIV-related stigma among HIV-positive patients. The earlier surveys conducted among people living with HIV (PLHIV) in Kazakhstan suggest that (Stigma Index-2015,2021) healthcare facilities are the most commonly reported settings of experienced stigma and discrimination especially in healthcare centers that provide care to non-HIV related health conditions [9,10]. There is a need for obtaining more detailed data on this issue due to the fact that stigma itself is a complex phenomenon and the addition of qualitative data about the opinions and behaviors of healthcare workers around PLHIV would be more valued for understating the sources of stigma. There is also a scarcity of standardized and validated assessment tools for HIV-related stigma that are available in Kazakh and Russian languages. Therefore, we attempted to address these gaps in HIV-related stigma research in the country by collecting quantitative and qualitative data from healthcare workers of all levels in Almaty.

It is also crucial to have standardized and validated HIV-related stigma assessment tools in Kazakh and Russian to obtain reliable data on the issue. Considering the above, in our work we have tried to fill the gaps in research on HIV-related stigma in the country by collecting quantitative and qualitative data from employees of medical organizations at the level of primary healthcare centers and the Center for AIDS Prevention and Control in Almaty.

Aim

To assess the level of HIV-associated stigma and factors leading to stigma among medical workers of PHC organizations in Almaty based on mixed method research data using an adapted tool to the specific context of the HIV epidemic in the Republic of Kazakhstan.

Objectives:

1. To re-validate an HIV-related stigma assessment tool in Kazakh and Russian languages based on focus group discussions and factor analysis
2. To investigate the level of stigma against people living with HIV (PLHIV) in primary healthcare centers (PHC) in Almaty.
3. To study the factors leading to the stigmatization of PLHIV among PHC workers.

4. To study the opinions and beliefs of PHC workers about HIV, PLHIV, and key populations.

5. To provide recommendations on how to reduce HIV-related stigma in healthcare settings.

Methods

A sequential mixed method design was used to collect quantitative and qualitative data on HIV-related stigma and its attributes. Before conducting surveys on the main sample, the brief HIV-related assessment tool was validated in two study languages (Kazakh, and Russian) and demonstrated good psychometric properties. For the main quantitative surveys healthcare workers of 8 polyclinics in Almaty were randomly chosen including clinical and non-clinical staff. Assessment of stigma was based on a 9-item questionnaire measuring negative opinions (NOs) towards PLHIV and the HIV key populations. The overall percentage of people holding NOs towards PLHIV was treated as an outcome variable and included in logistic regression models. Bivariate analysis was conducted on NOs towards PLHIV and years of work, fear of getting infected with HIV, receiving training on HIV stigma, and basic knowledge on HIV transmission. Statistically significant associations were then adjusted to social demographic data on multiple regression models. In-depth, semi-structured interviews included questions regarding opinions about PLHIV, HIV, and its key populations. The content analysis method was used to explore the qualitative data.

Study Object: Healthcare workers in clinical and non-clinical settings in Almaty city.

Study Subject: Stigma related to HIV, as well as stigma and discrimination against People Living with HIV (PLWH) in medical organizations

Provisions for defense

1. A tool for assessing HIV-related stigma in medical organizations with good psychometric properties and evidence-based validity in Kazakh and Russian languages.

2. Results of assessing the level of HIV-associated stigma against people living with HIV (PLHIV) in PHC organizations in Almaty.

3. Results of the study of factors leading to the stigmatization of PLHIV among PHC workers.

4. Findings on studying the opinions and beliefs of PHC workers about HIV, PLHIV, and key populations.

5. Recommendations for reducing HIV-related stigma in healthcare settings.

Main study findings

1. Re-validation and adaptation of the HIV-related stigma tool to the Kazakhstani context. The instrument showed good psychometric properties (GFI -0.97, TLI -0.97, RMSEA-0.07, Cronbach's alphas factor 1: $\alpha = 0.66$ Cronbach's alphas factor

2: α = 0.85) and is available in Kazakh and Russian for further assessment of HIV-associated stigma in healthcare facilities.

2. The level of negative attitudes towards PLHIV studied among 448 employees of PHC organizations was high: 87 % (n=387) of the respondents agreed with at least one of the stigmatizing statements on the HIV-stigma scale; around 85% (n=286 out of 335 involved in medical procedures) of the respondents reported some level of fear of contracting HIV during work and almost half of the respondents reported using extra precautions while working with HIV-positive patients (wearing double gloves - 54.3% and avoidance of physical contact - 48.18%). The number of respondents indicating correctly all the body fluids that can transmit HIV was low (n=129, 30%).

3. Longer years of work in healthcare and experience working with PLHIV reduced the level of negative attitudes towards PLHIV and key populations. Logistic regression models showed significant associations between longer work experience and less chance of NOs against PLHIV (AOR = 0.33, 95% CI: 0.12, 0.84, p = 0.02), exposure to an HIV-positive patient during last 12 months and lower levels of Nos (AOR=0.34, 95% CI: 0.18, 0.62, p=0.001), while those who expressed a high fear of contracting HIV reported higher levels NOs about PLHIV (AOR=3.33, 95% CI=1.34;8.2, p=0.01). Knowledge of HIV transmission was associated with older age (Chi2=18.74, p<0.001), longer work experience in health care (Chi2=22.33, p<0.001), observation of an HIV-positive patient during the last year (Chi2=5.84, p=0.01) and with training in infection control and PEP (Chi2=7.90, p=0.004).

4. A study of opinions about PLHIV and key populations among PHC workers showed their general negative attitude and reluctance to provide care to these patient populations if health workers had a choice. The qualitative data revealed the following: 1. Most respondents emphasized the need for more frequent education on HIV-related issues; 2. Respondents were also more likely to believe that HIV is spread mainly through "out of control sexual behavior" or from sex workers to men. 3. General negative attitudes towards key populations at high risk of HIV infection: describing sex workers as "disgusting" and that they would be "ashamed" of acquaintances who would do this; associated non-traditional sexual orientation with some kind of "disorder" and expressed their unwillingness to contact such individuals. On the other hand, respondents showed empathy for IDUs.

5. Our recommendations for reducing stigma in PHC are to apply internationally accepted interventions in different formats and regularly. The scientific literature offers interventions to address HIV-related stigma and discrimination, as well as disseminating knowledge about HIV in a variety of formats such as group discussions, games, role-plays, and interactive modular training on stigma, infection control, and medical ethics. Integration of HIV care services (selective PHC) with

primary health care organizations to provide comprehensive care in line with the WHO recommendation of "transitioning from disease-focused health systems and institutions to health systems designed for and with people is also promising, yet more research is needed to explore the impact of such integration on stigmatization of PLHIV.

Scientific novelty

For the first time:

1. an assessment of HIV-related stigma among medical workers of PHC organizations in Almaty was carried out using a mixed method of research, including the analysis of quantitative and qualitative data.
2. a re-validated and well-structured tool for assessing stigma against PLHIV among healthcare workers, adapted to the specific context of the HIV epidemic in the Republic of Kazakhstan, is obtained.
3. the validity of the Kazakh and Russian versions of the HIV-related stigma assessment tool was proved based on the implementation of several validation and adaptation stages, including a pilot study, focus group discussions and the application of factor analysis.
4. a high level of negative attitudes towards PLHIV (83%), the fear of contracting HIV during medical procedures (85%), and the use of additional precautions when working with PLHIV (wearing double gloves - 54.3% and avoidance of physical contact - 48.18%) among medical workers of PHC organizations were detected.
5. it has been shown that longer years of work in healthcare and an experience of working with HIV positive patients reduces the level of negative attitudes towards PLHIV and key populations. Similar positive relationships were detected between training on infection control and on post exposure prophylaxis and better knowledge on HIV.
6. qualitative research was conducted among a group of healthcare workers in PHC organizations to study the more detailed opinions and beliefs about PLHIV and key populations, which showed their general negative attitude and unwillingness to provide care to key populations if a healthcare worker had a choice. This dictates the need to develop targeted multilateral interventions to address the stigmatization of PLHIV and the increasing prevalence of HIV infection in the Republic of Kazakhstan.

The practical significance of the work

Adapted and validated tool for assessing the level of HIV-associated stigma among healthcare workers is reliable and can be recommended for use in other medical organizations and regions of the Republic of Kazakhstan to obtain data at the country level.

Conducted studies using quantitative and qualitative methods revealed a high level of HIV-associated stigma among health workers of PHC organizations, which

can be an obstacle to accessing and receiving outpatient medical care for people living with HIV, thereby contributing to the spread of HIV infection.

The lower level of stigma among health care workers with more experience and better knowledge about HIV among those who had training on the aspects of HIV indicates the need for further comprehensive training on HIV, including topics such as modes of transmission, standard precautions, emergency first aid and HIV post-exposure prophylaxis, stigma and discrimination.

Personal contribution of the author

All research and the results of the dissertation work were obtained by the doctoral student independently, which indicates her personal contribution to science in the field of Public Health. The reliability of the results formulated in the dissertation, the main provisions to be defended, the results and conclusions are fully confirmed by the results of the scientific literature review, surveys conducted among 448 employees of PHC organizations, in-depth interviews, and statistical analysis of data and their interpretations.

The study is an initiative of the New York State International HIV Education and Research Program, State University of New York, # D43TW010046

Conclusion

Overall, the results of our study support other research that suggests high levels of negative opinions towards PLHIV among medical workers, particularly mid-level medical staff. Associations found between lower levels of negative opinions towards PLHIV and seeing an HIV-positive patient may suggest the positive impact of the potential integration of AIDS care into primary healthcare settings by increasing the contact between healthcare workers and PLHIV. Low levels of HIV knowledge among the mid-level medical staff should also be a priority for any interventions addressing HIV-related stigma and discrimination. We also acknowledge that there could have been changes over the past few years since the frequency of training has increased since 2019. In such a scenario, we recommend replication studies in primary healthcare centers to enable the comparison of changes over the years. Regarding HIV-related stigma and negative opinions, misconceptions, and judgmental opinions found in this study, we think that the quality of the intervention including the type of intervention should be paid more attention to than the quantity of training conducted among medical staff.

Approbation of work

The main results of the dissertation work were tested by presenting research materials and publishing them in the materials of international scientific and practical conferences:

1.18th European AIDS conference. European AIDS Clinical Society. (EACS) October 27-30.2021. London, UK;

2. Interact on HIV research and practice (conference). EECA. 13.12 15.12.2022. Riga, Latvia;

3. 19th European AIDS Conference (EACS 2023), Warsaw, Poland - also invited to act as a panelist for a session on reducing HIV-associated stigma.

4. Asfen 1st International Forum. 5-6.06.2023. Almaty, Kazakhstan.

Information about publications.

The results of the study are published in local and international peer-reviewed journals with an impact factor (Q1):

1. Iskakova B, Nugmanova Z, Murat Yucel R, Gamarel KE, King EJ. Re-validation and cultural adaptation of the brief, standardized assessment tool for measuring HIV-related stigma in healthcare settings in Almaty, Kazakhstan. Plos one. 2022 Nov 2;17(11):e0276770

2. Iskakova B, King EJ. Measuring HIV-related stigma in healthcare settings. Вестник Казахского Национального медицинского университета. 2019(1):563-5.

3. Iskakova B, Nugmanova Zh., King E. "It is usually the prostitutes who spread the disease on purpose so that they are not the only ones infected": attitudes and beliefs about HIV-positive patients in Almaty polyclinics. Mixed method study findings. Abstract booklet- EECAINTERACT,2023.

The structure of the thesis

The work is presented on 124 pages, consists of an introduction, a review of scientific publications on the problem under study, methods, results, discussion, practical recommendations, a list of references and supplementary documents. The work is illustrated with 5 tables, 9 figures. The list of references contains 168 local and international sources.

1 HIV-RELATED STIGMA AS A BARRIER TO OPTIMAL TREATMENT OF HIV AND PREVENTION

1.1 Overview

This chapter consists of several sections in which the literature on the topic, including gaps and limitations, is reviewed. The chapter starts with a summary of HIV history continuing to the epidemiological situation of HIV in the world and in Kazakhstan. The next sessions discuss the social aspects of HIV, focusing on stigma and the definition of HIV-related stigma. This chapter also includes information about HIV-related stigma in healthcare, covering the latest relevant published work from other countries as well as from Kazakhstan. The last parts of the chapter discuss the gaps in the field of HIV-related stigma in healthcare and provide reasoning for the current research.

1.2 Introduction the brief history of Human immunodeficiency virus (HIV)

The history of HIV starts with the unknown epidemic at the time of the 1980s in the United States.[11] The Morbidity and Mortality Weekly Report, published by the Centers for Disease Control and Prevention (CDC) revealed 5 cases of Pneumocystis carinii pneumonia in Los Angeles, California, USA, and later additional cases of P. carinii pneumonia, other opportunistic infections (OIs), and Kaposi sarcoma (KS) in New York City and California [12]. All these cases were detected among homosexual men. These outbreaks led to one of the initial surveillance work and case definitions developed by the CDC called KS/OI [12, p.]. Following this, essential knowledge of the epidemiology of AIDS was established, including the groups at risk and the modes of infection transmission. However, the question of transmission through blood and blood products continued to be debatable in scientific communities for several months.

The first recommendations for Acquired Immune Deficiency Syndrome (AIDS) prevention were released by the US Public Health Service in March of 1983[11, p.2]. Following these recommendations members of risk groups were suggested to limit their number of sex partners and not to donate blood. This also served as a precursor of future condom use promotion programs. However, the etiologic agent was not established yet at the time leading to confusion and fear about HIV in the public. Inadequate knowledge of the infection transmission affected people's attitude toward persons with AIDS negatively resulting in discrimination [13].

The early data on HIV global outbreaks reported by the World Health Organization (WHO) have contributed significantly to a better understanding of the etiology of the infection. Weekly epidemiological records revealed several cases of HIV in European countries among black Africans with no history of drug use or male-

to-male sex transmissions while cases of AIDS in MSM and injecting drug users (IDUs) continued to be reported from other countries [14]. Correspondingly, cases also occurred in recent migrants from Haiti in the USA and designated as a risk group [15]. This designation later led to discrimination against Haitian Americans [15, p.257]. Nevertheless, these AIDS cases in Africans and Haitians suggested another mode of infection transmission as heterosexual contact.

In 1983, HIV-1 was discovered by the French scientists, Luc Montagnier and his team at the Pasteur Institute in Paris. They used T cells of a 33-year-old patient with the symptoms of AIDS such as lymphadenopathy [6, p.118]. Later after the discovery, Professor Montagnier and his team received the Nobel Prize for Medicine in 2008.[16] Another significant event in the field of HIV research occurred in 1985 when a serologic test for HIV became commercially available [17]. The agreement of the scientific communities on HIV being the causative agent of infection and the availability of diagnostic tests were the main features of the early years of HIV research.

1.3 HIV as an etiological agent

HIV and its subtypes are retroviruses that belong to a large family of ribonucleic acid (RNA) lentiviruses [18]. The common characteristics of these viruses include immunosuppression and long incubation periods before the symptoms are apparent. HIV type 1 or HIV-1 is the most common subtype that infects humans and as the molecular epidemiologic data suggests it has links to the simian immunodeficiency virus, called SIVcpz which is common in chimpanzees [18, p.465,19]. HIV-1 itself has four subtypes: M, N, O, and P, and each seems to originate from cross-species transmission events [19, p.708]. Another major human retrovirus known as HIV-2 has more resemblance to the simian immunodeficiency virus (SIV) than to HIV-1 and has two subgroups A and B [19, p.708]. HIV-2 appears to be found mostly in West Africa, with the highest prevalence rates in Guinea-Bissau and Senegal.

A characteristic feature of HIV is the presence of the enzyme reverse transcriptase (RNA-dependent DNA polymerase), providing synthesis of double-stranded DNA on a single-stranded RNA template, followed by integration of DNA into the genome of the host cell.[20] The mature virus has an outer lipid envelope consisting of 72 surface spikes, containing the antigen gp120 that helps in binding the virus to target cells with CD4 receptors [21]. The pathogenesis of HIV is based on several factors such as the function of the virus life cycle, the quantity of the viruses in the infected organism, and the host cellular environment itself [20, p.317]. HIV cannot replicate outside of living host cells and does not have deoxyribonucleic acid (DNA) [22]. The host cells can be entered via viral membrane fusion.

Untreated HIV progresses over time, weakening the immune system eventually and resulting in acquired immunodeficiency syndrome. The clinical symptoms and

biological markers within each stage of the HIV infectious process have allowed us to monitor the disease development using laboratory testing. During the first stage of the infection, known as the acute phase, a rapid multiplication and spread of the virus occurs in the body lasting from 2 to 4 weeks [23]. There is a sudden, sharp drop in the concentration of circulating CD4+T cells and a burst of viral replication. Subsequently, the infected individual develops a typical acute syndrome with symptoms including fever, pharyngitis, headache, lymphadenopathy, and rash in rare cases [23, p.2]. The virus then continues to multiply yet at a lower level. This period is known as an asymptomatic stage and as the name suggests the infected person may exhibit from mild to no clinical symptoms at all. During this stage, the immune system of the host also starts producing antibodies (Ab), which coincides with the decline of the viral load [23, p.2]. The transition period from being infected with HIV to the appearance of Ab (seroconversion) is called the "window period" [24]. Diagnostic tests are unable to detect HIV during the window period. The asymptomatic stage may last from 7 to 10 years making challenging the early diagnosis of the infection. During the next stage, known as AIDS, the viral load rises rapidly with a simultaneous drop in CD4+T cells up to 200 cells/mm3 or below [24, p.76]. This is the final stage of the infectious process when the infected may develop other opportunistic infections and apparent clinical symptoms [23, p.3].

1.4 Epidemiology of HIV Worldwide

HIV and AIDS continue to be a major global health issue regardless of the significant efforts initiated to address the pandemic. This was initially highlighted at the United Nations' Special General Assembly in 2001 and a decision on mobilizing the resources to fight the pandemic was made. In addition, the Millennium Development Goal Six of the Millennium Declaration of 2000 strengthened the global effort to tackle the growing epidemic of HIV [25]. Within the following decades, around 109.8 billion USD was dedicated to infection control initiatives in HIV[26].

The combination of two pandemics such as HIV and COVID-19 has had a significant impact on HIV response globally within the past two years. The COVID-19 pandemic has disrupted health services due to its high contagiosity and has led to economic crises in many countries. This has particularly worsened the situation in already vulnerable regions for accessing HIV services making the window for new HIV infections wider [27]. For example, as the latest record suggests 60% of the poorest countries are now in debt distress, and from 75 to 95 million people globally have resulted in poverty due to COVID-19 and COVID-19-related restrictions [28]. Subsequently, the global HIV response has faced new challenges since the groups of populations that were already vulnerable to contracting HIV now have a higher risk of getting infected or experiencing disruptions in care.

38400 people are living with HIV (PLHIV) in the world now, 1500000 newly infected, and 650000 died from HIV-related conditions [29]. The early epidemic of HIV was detected in central Africa first then more cases of HIV began to appear in southern Africa [1, p.236]. As recent statistics suggest, the Republic of South Africa alone is home to about one-sixth of the world's HIV-infected individuals [29, p.2]. There are various explanations for such high prevalence of HIV in the region including biological factors such as lack of male circumcision and high rates of sexually transmitted infections (STIs), and social factors such as frequent sexual partner change and commercial sex. However, some of these explanations provided have been debatable such as male circumcision playing a significant role in HIV transmission [30-31].

Figure 1 – New HIV infections by region, 2015-2021

Regarding the rest of the world, Eastern Europe and Central Asia, the Middle East, and North Africa including Latin America have seen increases in HIV new

infections over the past decade (Figure 1) [17, p.1044, 32]. The UNAIDS' data revealed rather interesting statistics on HIV prevalence in Asia and the Pacific, the world's most populous regions. According to the latest estimates, new cases are increasing in these regions while in the past, these countries are known for a gradual fall in HIV cases over the past decade [32, p.257]. Most of these statistics are derived from countries such as Malaysia and the Philippines where HIV is predominant in key populations.

1.5 Epidemiology of HIV in Eastern Europe and Central Asia (EECA)

Eastern Europe and Central Asia are one of the regions with increasing new cases of HIV regardless of the effort made over the years. There was a 13 % increase in new HIV infections in these regions between the years 2006-2012 [33]. There is also a 2.5 times increase in mortality rates, unlike other regions where mortality of HIV has been declining [33, p.1]. There were approximately 441300 diagnosed cases of HIV in the EECA region in 2020 (Figure 3) [33, p.1]. These numbers increased in the following years, 160,000 [130,000–180,000] people were diagnosed with HIV in 2021 which is a 48% increase compared to the data from 2010. [34] Mortality from AIDS-related conditions has also risen by 32%, 44,000 [36,000–53,000] of death cases were linked to HIV/ AIDS in the region in 2021 [35]. Studying the underlying causes of such an increase is crucial since HIV treatment coverage and availability of new prevention methods have improved yet have little impact on the new cases.

Several factors were highlighted for such an epidemiological situation of HIV in the region in existing literature. There was a political transition in the early 1990s in the region after the collapse of the Soviet Union that had led to economic crises in many post-Soviet countries. The economy was not the only sector affected by this transition, other sectors such as healthcare were also impacted. The public health system during Soviet times was highly structured and vastly based on the labor force rather than on technology [34, p.170]. After the collapse of the Soviet Union, the public health system was not ready and prepared to meet the transition. Consequently, criminal economies had risen during this period with increasing IDUs and enormous production of opiates and trafficking [35, p.2].

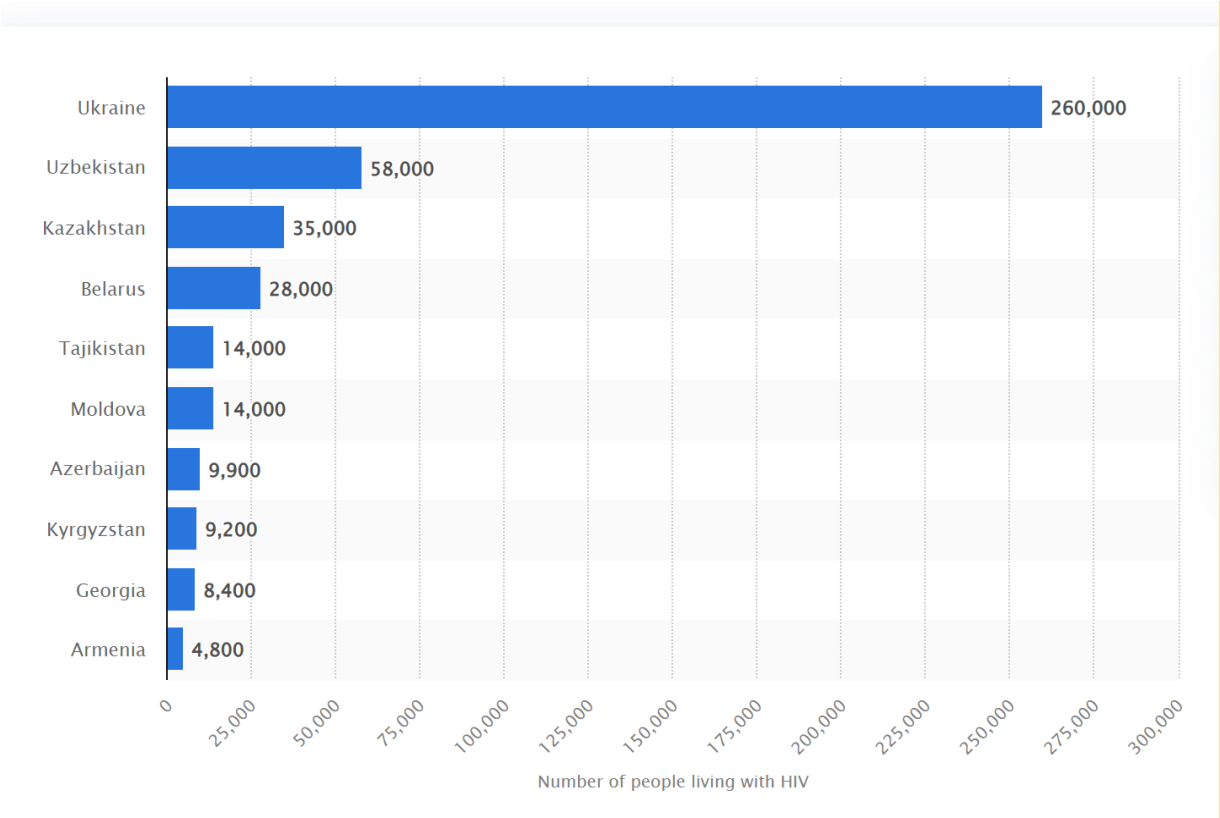

Figure 2 – Number of HIV-infected persons in selected countries of Eastern Europe and Central Asia in 2020

The IDUs were the initial risk group of HIV in the region, yet, the latest epidemiological investigations revealed that IDUs accounted for only one-third of new HIV infections in Eastern Europe and unprotected heterosexual contact became the leading transmission mode of HIV in these regions [36-40]. In Central Asia, new cases of HIV have risen primarily among key populations including IDUs, men who have sex with men (MSM), migrant workers, and female sex workers (SW). The IDUs remain the group with the highest prevalence of HIV in Central Asia particularly in the areas along major drug trafficking routes [37, p.3, 38, p.708]. Sexual mode of HIV transmission has also risen in the region, for example, new HIV cases contracted from heterosexual contact were higher than drug injection in 2011 in Kazakhstan (50.7% to 47% correspondingly) [37, p.3].

1.6 HIV in Kazakhstan

The epidemic of HIV infection in Kazakhstan started in 1997 when the first HIV cases were diagnosed in the Eastern part of the country [37]. This time coincides with existing high epidemics of HIV among IDUs in Ukraine and Russia. The later epidemiological investigations suggest the infection spread extensively among IDUs reaching 90% of the diagnosed HIV cases (n=1800) by December 2002 [41]. HIV prevalence was the highest in Karaganda, Shymkent (South Kazakhstan), and Pavlodar

at that period. The infection transitioned from IDUs to heterosexual mode ten years after the first outbreak and expanded to other cities such as Almaty and Mangystau [41, p.770].

Kazakhstan has taken a rather promising approach to tackling HIV among other Central Asian countries. In 2011, the Republic of Kazakhstan approved the State Health Development Program "Salamatty Kazakhstan" for 2011-2015, which replaced several sectoral programs to combat specific types of diseases, including two HIV indicators: the first is to maintain HIV prevalence among the general population aged 15-49 at the level of 0.2-0.6% by 2015 and the second - keep HIV prevalence among prisoners at < 5% [41, p.772]. Several interventions were conducted on a national level such as: "friendly" cabinets for diagnostics, treatment, and prevention of sexually transmitted diseases; preventive programs, the purchase of condoms and publication of prevention programs among prisoners that are funded by the state budget; and provision of syringes and needles to IDUs [42]. Antiretroviral therapy (ART) has been fully covered by the state budget since 2009 in Kazakhstan. Medical care including diagnostics of HIV is free for Kazakhstani citizens at AIDS centers. The ART treatment was based on CD4 count for anyone who tested positive for HIV in 2015. However, in recent times, the country has committed to the "test and treat" approach which is about providing ART to all PLHIV regardless of their clinical indicators.

The number of PLHIV in Kazakhstan based on Spectrum estimates (2019) is 31,378, and the infection is still predominant among key populations: IDUs, SWs, and MSM [43-45]. For example, HIV prevalence in the age group of 15-49 years in the general public is 0.25% and the HIV prevalence among key populations is: IDUs - 7.9%; SW - 1.4%; MSM - 6.5%. The highest HIV prevalence rates are documented in Pavlodar, Karaganda, Almaty, North Kazakhstan, Kostanay, and East Kazakhstan regions. As of December 31, 2019, 21,951 people living with HIV, including 409 children under 14 years of age, were registered with AIDS prevention and control centers [45, p17]. Among PLHIV, 82% of them are aware of their status; 68% of the diagnosed HIV patients are on ART; and 78% have achieved viral suppression [45, p.17]. These numbers may indicate improvement yet they remain below the global goal of "90-90-90" needed to end the HIV epidemic.

1.7 Social aspects of stigma as a barrier to optimal HIV care

HIV has both biomedical and social implications that need to be considered in studying the infection. The focus on biomedical aspects requires a more individualistic approach such as adopting prevention technologies to change individuals' behaviors that may lead to HIV transmission. The social aspect of the infection, on the other hand, is concentrated on how the infected interact within communities and networks and in what manner they are treated by others [46]. Recent literature argues that HIV-related

disclosure and policies are predominantly focused on biomedical approaches, specifically on HIV treatment [46, p.790,47]. The importance of biomedicine in HIV management is evident, yet neglecting its social aspects serves as a barrier to getting people involved in HIV treatment [46, p.789].

There has been a social transformation in communities and networks that have allowed different members of such communities to be open about their sexuality and drug abuse. However, this transition is not homogenous across the globe, with some countries still practicing discriminative laws and regulations against HIV key populations including the negative attitudes in the general public. Practice shows that a partnership between government, public health, research, and affected communities can be one of the most effective HIV prevention strategies. Countries such as Switzerland, Australia, Thailand, Brazil, Uganda, and Zimbabwe can be an example of such strategies where community-led prevention programs and health promotion work is based on biomedical research and funded by the governments ("Social Public Health") [48]. Individualistic prevention interventions such as the adoption of condom use, partner reduction, and a delayed sexual debut have also shown a significant impact on reducing HIV transmission, however, more focus is required now on a community level [45, p.25]. Particularly, an informal interpersonal talk about HIV/AIDS is suggested to have a positive impact on HIV management.

Apart from the social aspects of HIV, its cultural aspects are also noted to be important to address. Cultural factors that affect HIV include inability of women to negotiate safer sex with their partners; different marital traditions (for example, having a polygamous husband experienced in some African cultures, early marriages, multiple sexual partners); harmful traditional practices (widowhood-related rituals, "sexual cleansing" and female genital cutting); gender-based violence; stigma and taboo related to sex and sexual activities; and religious beliefs (beliefs about premarital sex, about contraception and sexuality) [49-53].

HIV is a highly stigmatized disease due to its main transmission mode through unprotected sexual intercourse leading to cultural and moral judgments in many societies. Stigma related to HIV has a shameful history from the early start of the HIV pandemic. Disclosure of one's HIV-positive status has been shown to impact friendships and other interpersonal relationships. For example, a study conducted in early 2000 in Nigeria revealed the following findings: 64.5% of the respondents agreed that it was not safe to have a close relationship with PLHIV; 96% agreed that PLHIV cannot live in a hostel due to high HIV risk, and almost all agreed it was not safe to eat from the same dishes with HIV infected individuals [53, p.48]. This study was conducted among students and one might argue the representatives of such a sample, however, studies conducted in later times in different contexts demonstrated similar findings [54].

Disclosure to family members can also be a traumatic experience for PLHIV due to rejections. This is particularly difficult for the one who considers family as the main source of comfort. Earlier studies show that in more traditional settings such as India, husbands may abandon their wives after infecting them with HIV [55]. Another study conducted in Sagamu, Nigeria, has revealed that up to 10% of those who disclosed their HIV-positive status to their family members have experienced domestic violence [56]. HIV-negative fathers also seem to lack compassion and support for their symptomatic HIV-positive children in one study. The reasons for such a finding as the study investigates further seem to be the fear of contracting HIV, reluctance to provide financial support for a "dying" child and doubt about biological paternity [56, p.176]. A similar study conducted in China in the early 2000s showed that 17% of the family members of PLHIV preferred to use separate utensils and dishes [57].

The workplace is another place where PLHIV often get discriminated against for their HIV-positive statuses. Furthermore, PLHIV seem to feel discriminated against and are most likely to deny receiving care when the workplaces provide such medical care for their conditions. For example, a South African company with about 2000 HIV-positive employees experimented in 2003 with providing HIV care to which only 200 of them got registered and only one person openly disclosed his HIV-positive status [58]. Similar cases were documented in Nigeria, PLHIV losing jobs, being excluded from school, and isolation from relatives and friends after disclosing their HIV statuses [53, p.50].

1.8 Conceptual framework for “stigma”

Stigma is a complex phenomenon that does not have an unitary definition. It is important to discuss the concept of stigma first for better understanding and further judgment. Most of the literature use the definition provided by Erving Goffman (1963), who defined stigma as an action of “profoundly discrediting” when societies reduce someone “from a whole and usual person to a tainted, discounted one” [54, p.68]. There is a need for distinguishing the terms “discrediting” when others demonstrate stigma and “discreditable” when a person is considered as dishonorable. Furthermore, how people view themselves may differ from the view of others. For example, an HIV positive individual might expect to get stigmatized or discriminated against in certain settings due to their low self-esteem and fear of prejudice. Goffman differentiated these types of stigma as virtual and actual stigma that may impact one’s social identity negatively leading to social isolation [59]. Discrimination itself arises out of any point of difference that can be consistently labeled: for example, physical deformity or disfigurement, racial differences or any other factors that set up the person as different to the perceived norm [54, p.69]. In this case the norm is generally defined in terms of who is powerful in the community. Other authors further provided a distinction

between prejudice and discrimination as the former being about judgment against a group or individuals while the latter is an act or behavior [60].

The modern definition of stigma focuses on two types of stigma, enacted stigma that include obvious expressions of discrimination and exclusion from communities and felt stigma that comprises the perception of others' negative thoughts and discrediting behaviors [61]. A systematic review conducted on the concept of HIV-related stigma proposed the following definition: "HIV-related stigma is the collection of adverse attitudes, beliefs and actions of others against people living with or affected by HIV, which may result in deleterious internalized beliefs or actions taken by persons living with or affected by HIV infection that may result in negative health outcomes" [60, p.1572]. Three dimensions of HIV stigma can be distinguished following the literature that include: *perceived* stigma (sensed stigma by PLHIV within certain communities), *experienced* stigma (experience of discrimination and prejudice due to one's HIV positive status), *anticipated* stigma (assumption of being treated negatively), and *internalized* stigma (assenting to societies' negative characterizations and applying them to oneself) [62].

Fear of infection, inadequate knowledge and religious-cultural beliefs are the known contributors of stigma related to PLHIV. Furthermore, Goffman argues that stigma and discrimination are not inherent to humans. It is rather a consequence of social interactions where a person who displays "different" behaviors, has certain physical traits, or belongs to a certain social group is labeled and stereotyped [60, p.1578]. A person growing up adapts such discriminatory behaviors discrediting the stigmatized and leading to "status loss". These behaviors were also often reported as ''the observable evidence of stigma" [63].

Religious beliefs can be judgmental towards PLHIV due to moral aspects associated with HIV and its transmission. It has been attempted by the religious communities in the past to label HIV as God's punishment for those who sin, particularly those who are drug users, prostitutes and homosexuals [51, p.167]. Existing research on HIV stigma also suggests that those who identify themselves as more religious have more stigmatizing and negative attitudes towards PLHIV than those who are less or not religious [64]. However, the role of religiosity was significant in coping with HIV status and adherence to ART among PLHIV.

A judgmental attitude towards PLHIV does not only derive from strong religious beliefs but rather it is intersected within "religion", "culture", "power" and "morality". Negative attitudes towards PLHIV are also distinguished between those "innocent" who contracted the infection via organ blood transfusions and those who almost "deserved" contracting HIV via "promiscuous" behaviors or drug use [65]. Interestingly, women seem to be blamed more for transmitting HIV by men in the literature. There is racial difference of stigmatizing attitudes documented in ethnically

diverse settings. For example, black PLHIV seem to be more stigmatized than other races in the USA. HIV-related stigma often attaches itself to existing stigmatizing frameworks associated with sexual behaviors and sexual identities [61, p.243]. Studies have demonstrated in the past that people preferred PLHIV to be easily identifiable so as to separate them from the general population and exclude them from schools, work and other social institutions [59, p.1337].

1.9 Consequences of stigma

The general impact of stigma and discrimination of HIV is that it lowers the willingness of those who are newly infected to interact with others including medical workers. Consequently, it disrupts the efforts made for disease management and prevention. To study it more, one should remember that the consequences of HIV-related stigma depend on the types of stigma, discussed earlier since different dimensions of stigma might affect psychosocial life and general health in distinct ways. For example, internalized stigma may lead to poor psychological well-being and depression while anticipated stigma is associated with poor use of healthcare services including low adherence to ART among PLHIV [66]. Furthermore, anticipated and internalized stigma seem to lead to lower ART adherence than experienced stigma as one meta-analysis shows [67]. Instead, experienced stigma is associated with poor physical health which can be explained by chronic stress [68]. Furthermore, one dimension of HIV-related stigma may mediate the effect of another dimension. A study conducted by Kay et al. suggests that the association between perceived stigma and health outcomes (physical and mental) may well be mediated by the existence of internalized stigma [62, p.259].

The impact of HIV-related stigma on mental health is well documented in the literature. Early descriptions of HIV-related stigma emphasize its deviation from social norms and cognitive self-affirmations of worthiness among those who are HIV-positive [66, p.14]. An experience or an anticipation of stigma may lead to feelings of rejection and social isolation. Accordingly, more evidence is being built on the associations between HIV-related stigma and mental health problems. A study conducted in Nambia has revealed the association between higher rates of felt stigma and high depression, anxiety, and poor self-perceived physical health [69]. This finding also may suggest that higher felt stigma can adversely impact the transmission of HIV since stigmatization leads to an unwillingness to disclose one's HIV-positive status and condom use. Another study suggests that the association between experienced stigma and poor mental health is mediated by internalized stigma [62, p.259].

HIV-related stigma seems to have a negative impact on a biological level too. For example, Grov C. and colleagues' review suggested that chronic depression and stress caused by HIV-related stigma leads to deterioration of the illness in terms of CD-

4 lymphocytes and high viral load, increasing the risks of poor clinical outcomes and mortality [70]. Correspondingly, the combination of felt stigma and depression can be linked to decreased adherence to treatment and increased risk of sexually transmitted infections (STIs) other than HIV.

In the following Figure 3, the types of HIV-related stigma and its consequences are summarized. External HIV-related stigma, as the literature suggests, is the attitudes perceived by the PLHIV from others and includes discrimination, rejection, stereotyping, judgmental negative views, etc. Internal stigma, on the other hand, self-affirmed negative feelings of PLHIV, and expectations of being treated badly due to their HIV-positive status.

Internalized stigma is also an important factor in how HIV may affect one's quality of life and health. Self-imposed isolation from others and overall adjustments are common among PLHIV after HIV diagnoses and seem to affect treatment adherence adversely [68, p.1785]. Figure 4 demonstrates the study results on HIV stigma conducted among PLHIV in Kazakhstan [71]. As these results suggest, the most frequent consequence of one's HIV-positive status was rejections in healthcare services, loss of employment, and being forced to change accommodation due to the HIV-positive status being revealed. The signs of self-isolation were alarmingly high among female respondents and in this study [72]. Furthermore, SWs were worried about unwanted disclosure of their HIV status to their families and friends (48.6%), they were more likely to be concerned about being treated badly by health professionals (40.0%) and were less likely to cope with their HIV diagnoses (48.6%). Internalized stigma is also linked to late uptake of the ART treatment since only around 17% of respondents in this study started treatment on the same day they were diagnosed with HIV.

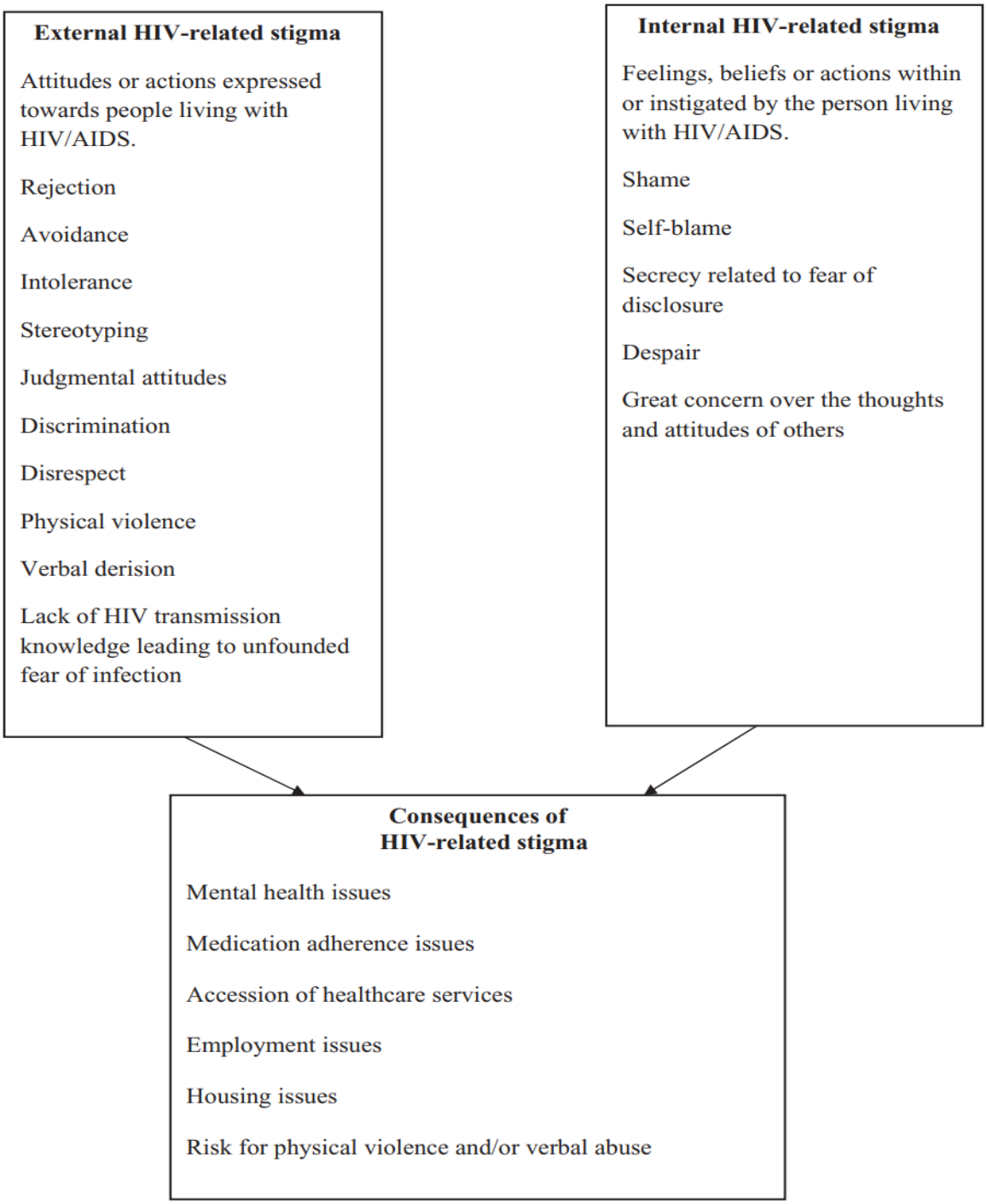

Figure 3 – Types of HIV-related stigma and its consequences

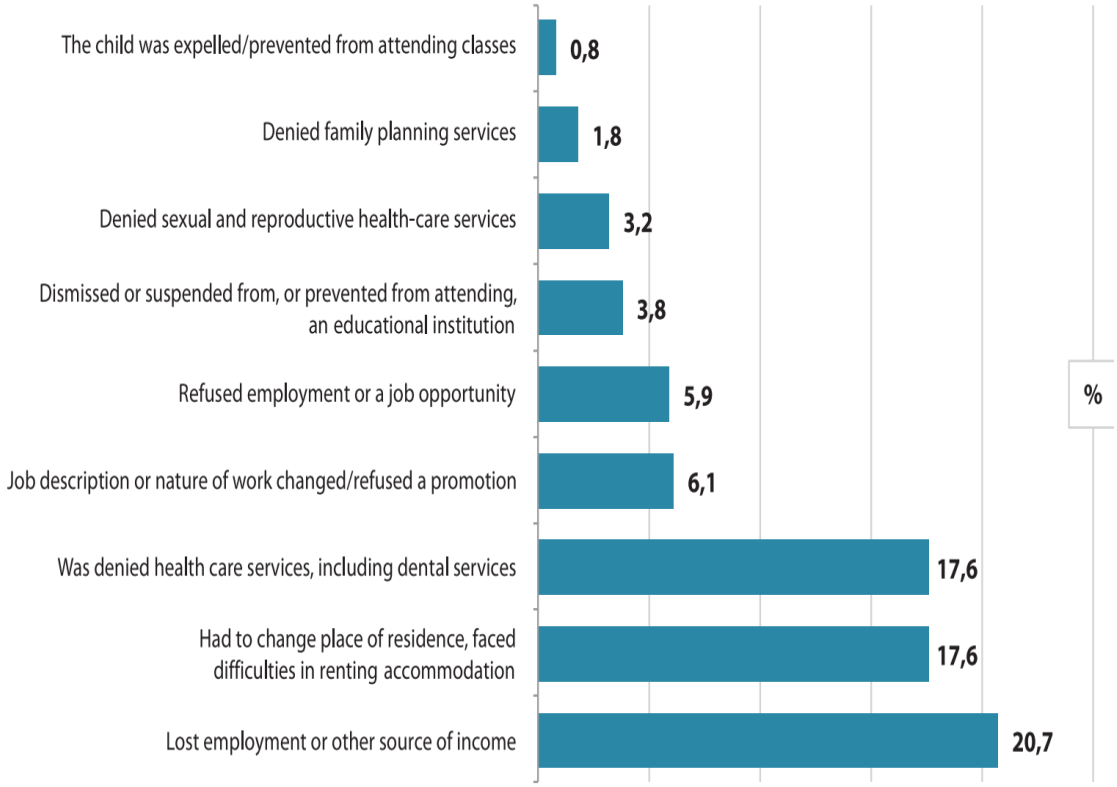

Figure 4 – Stigma and discrimination against PLHIV in organizations and agencies within the previous 12 months in Kazakhstan

1.10 Double stigma

HIV-related stigma is commonly layered upon other stigmas related to homosexuality, drug use, and commercial sex work. In other words, the HIV key population seems to experience double stigma due to their HIV-positive status and the already stigmatized practices they are associated with. Stigma was manifested in the form of blackmail, harassment, and discrimination towards transgender respondents with HIV in a study conducted in Indonesia [73]. Interestingly, respondents who identified themselves as women who have sex with women (WSW) and bisexual respondents did not report any discrimination and stigma besides a single verbal case. Verbal abuse, gossip, and harassment (physical, and verbal) are also commonly reported as a form of stigma by SWs. Harassment towards one's drug addiction is also common, yet some studies argue that IDUs receive more empathy than those who practice commercial sex, for example, due to the former being considered a disease and the latter as a choice or a lifestyle [65, p.26].

Differentiating HIV-related stigma from other so-existent stigmas can be challenging. A study conducted in the USA suggests that Black and Hispanic men who have sex with men may be unable to identify themselves as gay due to cultural pressure and stigma attached to such groups [74]. Such pressure may also derive from families

and close friends due to negative beliefs about MSM. Cases of extreme violence have been reported towards people who identify themselves as homosexuals in certain contexts [65, p.32]. It is discouraging therefore to be open about sexuality or testing for HIV in such settings due to such threats as death. In fact, PLHIV seem to be more afraid of the stigma associated with HIV than the disease itself [65, p.34, 74, p.3].

1.11 Stigma in Healthcare

As discussed earlier, HIV-related stigma may have a negative psychosocial impact on individuals that includes self-isolation and fears of being treated poorly [59, p.1339]. This may itself lead to unwillingness to disclose one's HIV-positive status and poor engagement in professional medical care. Delays in medical care, low levels of treatment adherence, and increased practice of risky behaviors are also commonly reported by the stigmatized HIV-positive patients [62, p.260]. For example, one of the primary prevention methods of HIV condom use has become challenging in some settings due to the rejection of those who initiate its use. Therefore, due to its implications, people may find negotiating condom use hard and eventually stop using it after several attempts. Furthermore, even the concept of being faithful is stigmatized in some settings and this phenomenon is higher among men compared to women [53, p.48]. These risky behaviors derived from stigma may play a significant role in infection transmission and serve as a great barrier to getting people involved in treatment.

HIV-related stigma in the healthcare setting is common according to the literature from across the globe. The manifestation of it, however, may differ through sociocultural and socio-ecological contexts [59, p.1338]. According to the UNAIDS's reports stigma and discrimination against PLHIV are manifested by withheld treatment, HIV testing without consent, lack of confidentiality, avoidance or non-attendance of medical staff to procedures related to PLHIV and denials in medical services including medicine for HIV- and non-HIV related conditions [75]. A large-scale survey conducted in the early 2000s in Nigeria showed that 1 in 10 medical staff admitted to refusing to provide care to HIV-positive patients or denied hospitalization. Up to 20% of them agreed that PLHIV behaved immorally and deserved the disease [76]. Other studies are consistent with high levels of stigma manifested in fear of infection transmission and unwillingness to provide care for patients with HIV and AIDS [59, p.1340].

Studies conducted in the developed world also demonstrate high levels of HIV-related stigma. A systematic review from the USA analyzed six articles on healthcare providers' attitudes and beliefs about HIV and revealed the following: negative beliefs about PLHIV were high among male, white, and primary care physicians with no

training on HIV within the last 12 months [77]. Some studies suggest that the reason for such stigmatizing beliefs is rooted in stereotypes such as PLHIV being always poor, practicing a promiscuous sexual lifestyle, and engaging in highly risky sexual activities [65, p.160]. These stereotypes may have been a result of the historical way of portraying HIV as something deadly and extremely negative. HIV-related policies seem to have a positive impact on HIV since the healthcare settings where such policies are reinforced are more tolerant of HIV-positive patients.

Other studies conducted on studying the sources of such stigma levels in healthcare suggest that fear of infection that derives from inadequate or outdated knowledge of HIV -transmission is one of the main contributors to HIV-related stigma. Providers' fear of contracting HIV may lead to anxiety, reduced quality of care, or even denials in providing care according to the literature [78]. Interestingly, this fear was the highest among the group of medical workers who had low or no knowledge of post-exposure prophylaxis. The studies examining the education level of healthcare workers on HIV among non-HIV specialty doctors also reported significant gaps [59, p.1338]. However, one might argue that it is expected due to the lack of contact with HIV and HIV-positive patients in their daily work activities.

HIV-related stigma in healthcare may operate on a personal level (e.g., personal beliefs, attitudes), clinical level (e.g., the type of a clinic or location), and on policy level (e.g., HIV-related policies in healthcare settings) [68, p.1785]. Factors affecting individual-level HIV-related stigma in healthcare include older age, lower levels of knowledge of HIV, and perceived religiousness. Furthermore, professional categories within the medical field seem to affect stigma since higher levels of stigma were seen among nursing staff and clinicians compared to physicians and social workers in some literature [59, p.1337]. This could be explained by the education level of physicians compared to nurses while in the case of social workers, they may have more contact with HIV-positive patients, hence, they are more tolerant. However, it may also vary within different care types provided, for example, obstetric nurses were seen to have more positive attitudes and more caring to HIV-positive women in the study conducted in the USA [78, p.118]. Other factors that may be associated with HIV-related stigma in healthcare include rural areas and access to protective measures from contracting HIV at work and post-exposure prophylaxis (PEP) [79].

Manifestation of stigma in healthcare may differ depending on the type of care provided and location. It includes judgmental language used in interactions with patients; blaming and humiliation of the patient due to their HIV positive patients; moral disapproval; assumptions about the way the patient contracted HIV; inappropriate behaviors at work (i.e., physical distancing from the patient and avoiding any possible contact with the patient); unnecessary precautions that derive from fear of HIV transmission such as wearing double gloves and burning bed sheets after HIV

positive patients' discharge; and inappropriate emotional reactions such as irritation and anger [80]. A qualitative study conducted among rural healthcare workers revealed the following HIV-related stigma-related themes: stigma from referral sources, stigma from physicians, and stigma perceived by clients [71, p.15]. At the referral stage, PLHIV reported stigma in the form of indifference and lack of acceptance due to one's HIV status or drug use history. Stigma at the physician level was mostly related to the reluctance of refusals to provide care to HIV-positive patients in the study. Interestingly, primary care providers were likely to refer HIV-positive patients to specialists to avoid contact with them [81]. However, as this study suggests even specialists such as infectious diseases clinicians exhibit stigma towards PLHIV in rural areas.

1.12 HIV-related stigma in healthcare settings in Kazakhstan

HIV care in Kazakhstan, as in many other post-soviet countries, is organized on a vertical system; there are a number of AIDS centers that provide HIV-related care to PLHIV, and non-HIV-related care is provided in primary healthcare settings. HIV-related care in AIDS centers includes diagnostic measures (laboratory analysis), clinical treatment prevention, and epidemiological monitoring of HIV. The biggest AIDS centers are located in cities such as Almaty, Shymkent, and the capital city Astana [82]. ART treatment and testing for HIV is free of charge for Kazakhstan citizens. Furthermore, now, starting from May 2017, all confirmed cases of HIV regardless of CD4 count are eligible for ART treatment in the country.[83] The medical staff of these centers are specialized in infectious diseases and more experienced with HIV than in other settings such as primary healthcare. Studying HIV-related stigma in both primary and HIV-specialized centers is equally important. Stigma and discrimination experienced in one type of healthcare, or another may lead to a general distortion of trust in medical care and willingness to receive HIV care among PLHIV [59, p.1335].

The literature on addressing HIV-related stigma in healthcare settings in Kazakhstan is limited on many levels. First, the existing literature, to the best of our knowledge, assesses HIV-related stigma in healthcare from the perspective of HIV patients only [84-86]. Secondly, there is no study addressing the level of stigma by the type of healthcare. Primary healthcare centers are one of the first settings where PLHIV may refer, however little is known about the attitudes of the medical staff towards HIV and PLHIV in such settings. Finally, the surveys conducted on stigma among PLHIV do not report any validation of the instruments used for assessing such a complex phenomenon as stigma. Therefore, the translation and validation of the assessment tools are important aspects of HIV-related research.

As the reports from “Stigma index-2015” suggest the majority of PLHIV in Kazakhstan experience discrimination in healthcare settings [71, p.22]. Figure 5 demonstrates HIV-related stigma experienced in different settings with the highest levels in healthcare (both with some signs of discrimination up to 6% and strong discrimination up to 12.4%) followed by government officials and family members. The most reported manifestation of stigma in this survey was the denial of medical care including dental care (17.6%). This level of reports on stigma was higher with older age and among men as the study concludes. However, one can argue that healthcare staff is one of the few people PLHIV may interact with often compared to other groups, hence they may experience and report higher levels of stigma from such groups.

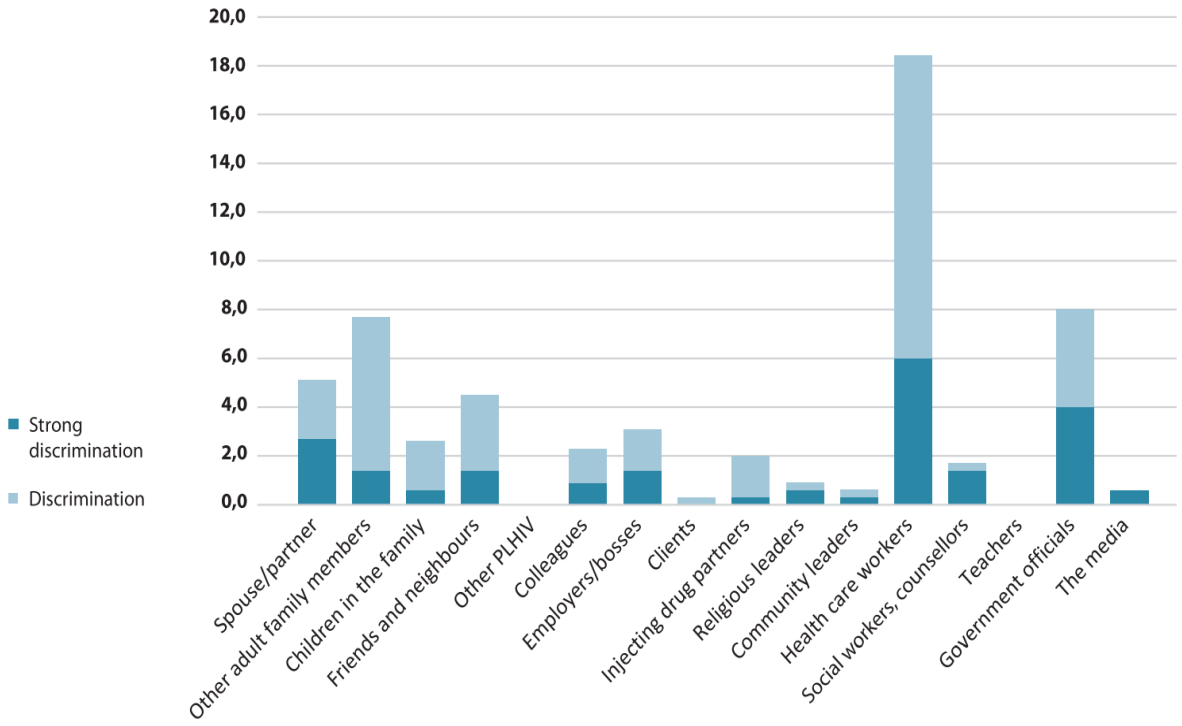

Figure 5 – Discrimination in connection with HIV status disclosure in Kazakhstan

Discrimination and stigma towards PLHIV seem to remain high in healthcare settings in Kazakhstan. The Stigma Index conducted in 2020 demonstrated that PLHIV were discriminated against in the form of disclosure of their without consent (5.2%), recommendations made by the healthcare staff on not having sex due to their HIV status (5.0%), avoidance of physical contact (4.6%) and being gossiped about due to their HIV status (4.8%) [45, p.37]. Stigma towards PLHIV seems to be the highest among MSM and FSW within both years when the stigma index is conducted. For example, denials in healthcare were the highest among MSM and FSWs compared to other key populations in the Stigma Index -2020 (8.1% among MSM and 23.3% among

SWs). These groups also were more often advised not to have sex (12.2% among MSM and 26.7% among SWs) and were gossiped about in healthcare (12.2% among MSM and 30% among SWs).

Testing for HIV without consent is one way of assessing discrimination against PLHIV in healthcare. The Stigma Index conducted in 2020 suggests around 23% of female respondents and 19% of male respondents experienced HIV testing without their knowledge and approval. Furthermore, they were forced to take HIV testing without their consent as the survey shows (1.44% of women and 3.07% of men). This practice was the highest among sex workers (20%) and injective drug users (25%).

Reproductive health is another area of medical care where PLHIV, especially women, seem to be the most discriminated against. The experience of denials to sexual and reproductive health services was reported by 3.2% of PLHIV in the stigma index-2015 report. Particularly, PLHIV were more likely to be denied in counseling on reproductive options (34.4%), advised not to have children by medical workers (21.3%) or encouraged to terminate pregnancy (8.5%), and forced to use contraception methods as an exchange for an ART (8.5%) [45, p.37].

Discrimination against reproductive health remains to be high as well despite the efforts made on state and civil levels. The stigma index conducted in 2020 suggests that 6% (n=69) of the respondents were advised not to have children, 3% (n=33) of the respondents were forced to use contraception to receive ART, 2.2% (n=25) of the respondents were forced to undergo sterilization 9 of them were sterilized without their knowledge [45, p.38]. Furthermore, some manifestations of stigma seem to have risen over the years. For example, if recommendations on termination of pregnancy were reported by 8.5% of respondents in 2015, in 2020 this number almost doubled (14.6%). More information was obtained in the 2020 Stigma index that includes pressures on particular types of contraception for women (9.7%), forced method of feeding a child (9.1%), forced mode of delivery (7.4%), and forced ART uptake during pregnancy (6.8%) [45, p.38].

Other manifestations of stigma in such settings include verbal insults (7.3%), denied healthcare services (6.5%), and advice on not having sexual intercourse due to one's HIV-positive status (4.9%) [45, p.40]. The consequence of such high levels of HIV stigma can lead to unwillingness to disclose HIV status. For example, in the survey conducted among PLHIV in Kazakhstan, only half of the respondents reported that they disclosed their status in non-HIV-related healthcare settings (41.4%). These numbers seem to be lower in KP groups since only 16% of MSM admitted disclosing their HIV status in such settings. In this survey, around 30% of the respondents reported that they are not sure if their status will be kept confidential, which may indicate low levels of trust in healthcare workers.

Healthcare centers that provide non-HIV-related care seem to have higher discrimination toward female HIV-positive patients. In a survey conducted in 2020 in Kazakhstan, stigma towards PLHIV was reported among women almost 2 times higher than among male respondents [45, p22]. Similar statistics were seen among SWs. Stigma was manifested among FSWs in the form of denials in care (23.1%), denials in dental care (26.9%), advice on not having sexual intercourse due to one's HIV-positive status (26.9%), gossiped about (46.2%), verbal insults (yelling, calling names, curses) (23.1%), physical violence (23.1%), avoidance of physical contact (38.5%), disclosure of one's HIV status without consent (30,8%). Contrary to these findings, some studies show lower levels of stigma in primary healthcare services [87]. However, these studies are conducted in areas with a high prevalence of HIV which may lead to more encounters with HIV patients and increased tolerance.

2 METHODS

Aim. To investigate HIV-related stigma from the perspective of healthcare providers in Almaty primary healthcare settings.

Objectives of the study

1. To validate the brief HIV-related stigma assessment tool in Kazakh and Russian languages and adjust it to Kazakhstani context.
2. To explore the level of stigma towards PLHIV in primary healthcare settings in Almaty
3. To investigate the factors leading to stigmatizing attitudes within primary healthcare workers in Almaty
4. To explore the opinions and beliefs about HIV and PLHIV with the help of in-depth interviews
5. To provide recommendations on lowering stigma in primary healthcare settings in Almaty

2.1 Overview

This chapter describes the methods used to collect data for both quantitative and qualitative parts of the study. First, we provide a brief description of the study area and study population. We then discuss the study design, data collection methods of both qualitative and qualitative parts of the study, and statistical analysis applied within the mixed method research. We also provide information about the ethical aspects of the study and how we handled such aspects to conduct ethical research in the field of HIV and stigma.

2.2 Study area and study population

The current study was conducted in Almaty, the largest city in Kazakhstan which is located in the south-eastern part of the country. Almaty is the major financial, cultural, and commercial center of Kazakhstan with an estimated population of 2 mln and over. The city is divided into 8 administrative regions that include Alatau, Almaty, Auzeov, Bostandyk, Zhetysu, Medeu, Nauryzbai, and Turksib districts (Figure 6).

Almaty is one of the cities in Kazakhstan with the highest prevalence of HIV after the Eastern Kazakhstan region, Karaganda, and Pavlodar. There has been a transition in the way HIV is transmitted in Kazakhstan; the prevalence of HIV was the highest among IDUs at the beginning of the epidemic while according to the latest report, there is a significant increase in HIV among heterosexual contacts [88]. The highest prevalence within Almaty is seen in the Turksib, Zhetysu, and Almaly districts (Figure 6).

HIV care in the country is provided in AIDS centers and free of charge in Kazakhstan. The healthcare system in the country operates on governmental and non-governmental levels. The governmental sector includes healthcare settings, research centers, and educational organizations in healthcare that are financed by the state budget. Non-governmental organizations include healthcare and research centers that are operated and financed by private owners [78, p.118]. Every citizen in the country has access to free medical care which is also known as the guaranteed volume of free medical care (GOBMP) [88, p.5,89]. This type of medical care is also provided to individuals permanently residing in the country and foreigners at the expense of the government's budget. It covers treatment and medical rehabilitation of tuberculosis, medical care for diseases that occur in emergencies, and forensic medical examination. Starting from January 1, 2020, the system of compulsory social health insurance has been in force for the citizens of Kazakhstan [90]. Following this system, patients have a right to choose the healthcare centers they want to receive care.

Primary health care is generally regarded as the most cost-effective and inclusive way of universal coverage worldwide. These centers are designed to provide from disease prevention to treatment, rehabilitation, palliative and other health needs. There are 65 primary healthcare settings (polyclinics) in Almaty located evenly within 8 districts. The general public including PLHIV is able to access the needed medical care in polyclinics within insurance or payment-based systems. According to the latest estimates, there are 32402 medical doctors and 73812 nursing staff of various specialties who work in primary healthcare centers in Kazakhstan [91].

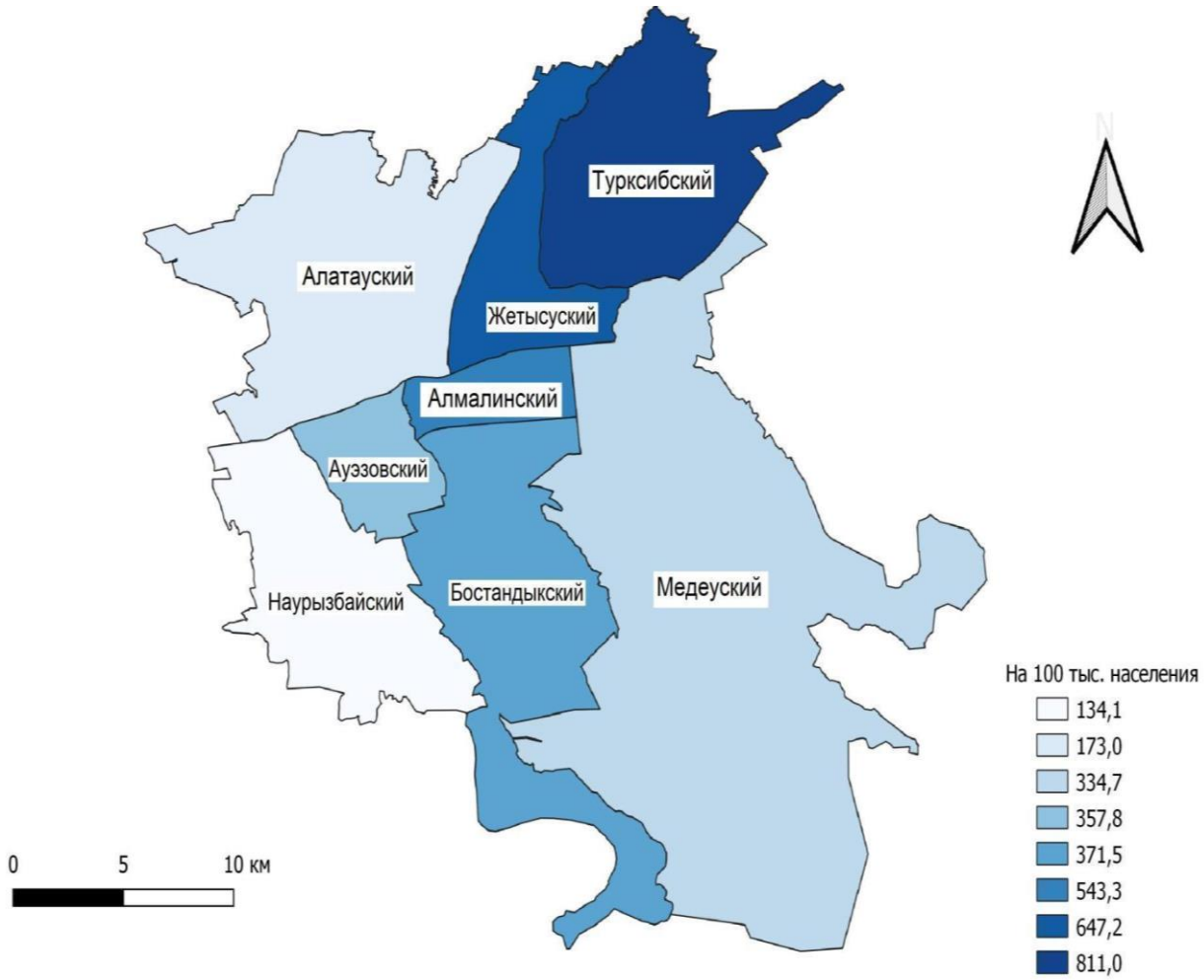

Figure 6 – HIV prevalence by region in Almaty, 01.01.2023

This study was based on randomly selected 8 polyclinics in Almaty. The administration of each healthcare center was first approached by the investigators to explain the aim and methods of the project. After receiving the approvals from the head administration, clinical and non-clinical staff of the chosen primary healthcare centers were invited to participate in the study on a voluntary basis. Healthcare workers were informed that they could participate at any time available throughout the data collection period in each facility. This way the investigators were able to meet the challenging workload and differences within work hours of the medical staff.

2.3 Study design

This study was based on a mixed method study design that includes quantitative and qualitative methods of data collection and analysis. A mixed-methods design has numerous benefits to explain the research more meaningfully. It offers flexibility for the methodology of research, a logical basis, and an in-depth understanding of the question under investigation [92]. The quantitative part allows to conduct studies on wider samples making it possible to infer the findings to the population. The qualitative

part, on the other hand, provides an opportunity for a deeper understanding of the research question enabling the new information to be unveiled during conversations. Therefore, it is important that the participants feel secure and connected during the qualitative data collection. Quantitative data can be converged with qualitative data and vice versa. This method is known as triangulation, where the same question can be investigated from different sources using different types of analysis [92, p.28].

The choice of mixed-method research for the current study was based on many factors. First, stigma itself is a complex phenomenon that cannot be measured by single-item questionnaires. Attitudes and beliefs are better measured when quantitative data are complemented with qualitative interviews and discussions. Secondly, there is no study, to our best knowledge, that presents the data of mixed-method research on HIV-related stigma levels in Kazakhstan. Finally, PLHIV may interact with healthcare workers more than with any other groups willingly or unwillingly, hence richer data may be obtained by applying both methods, particularly among these groups.

2.4 Data collection

The mixed design applied in the current study included focus group discussions (FGDs), in-depth interviews, and quantitative surveys. The flow of the data collection methods is demonstrated in Figure 7.

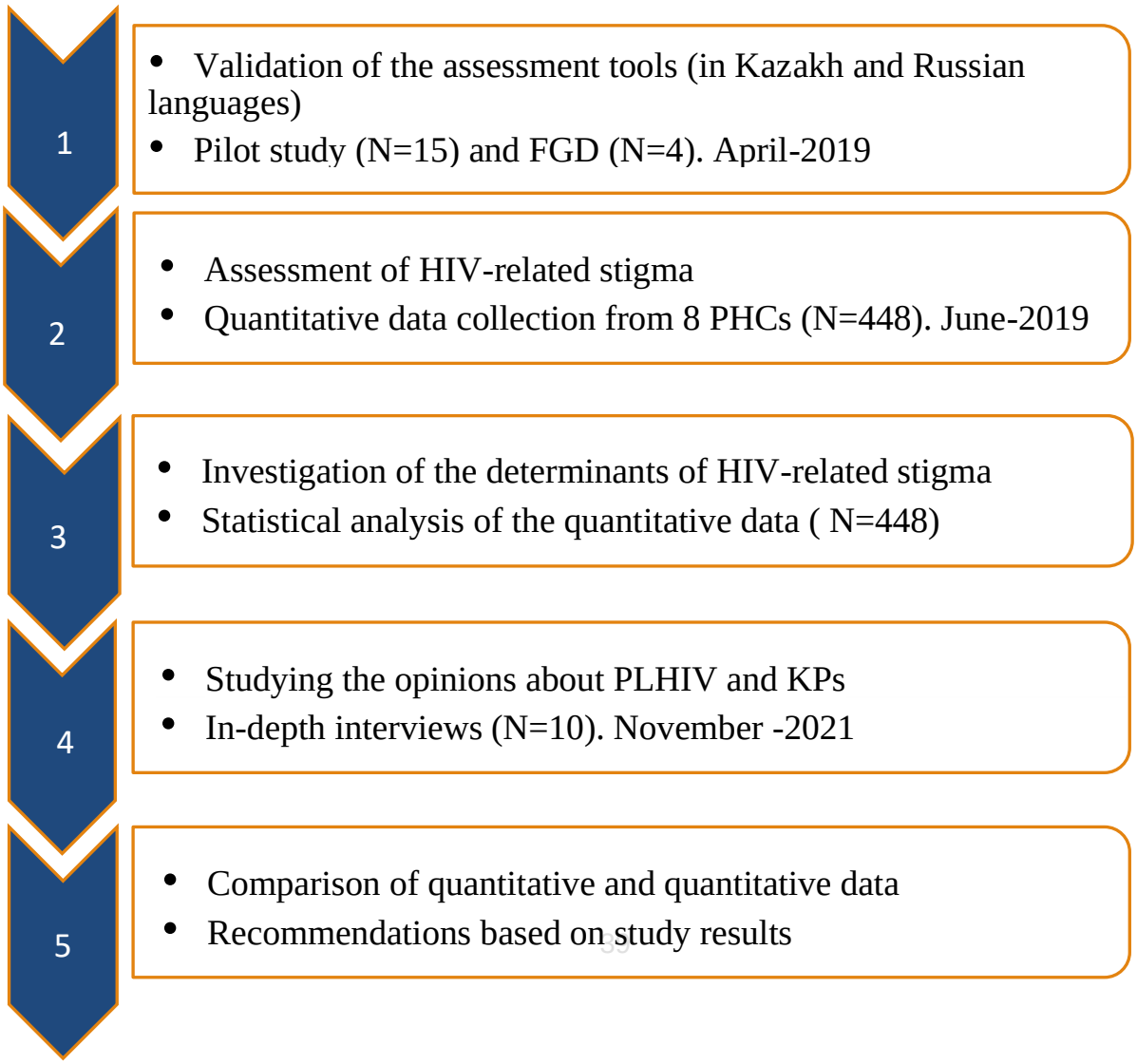

Figure 7 – Steps of quantitative and qualitative data collection

A pilot study was conducted first for validation purposes of the assessment tool among 15 healthcare workers (clinical and non-clinical staff) who were not included in the main sample. After the pilot study, a session of FGD was held among 4 respondents on the clarity of the assessment tool. A set of cross-sectional surveys were conducted on the main sample after the adaptation of the assessment tool in Kazakh and Russian languages from May 2, 2019 -July 2, 2019 (n=448). The last phase of the study was based on in-depth interviews conducted among 10 healthcare workers.

2.4.1 Adaptation and validation process of the questionnaire

This study applied a brief HIV stigma assessment tool that originally was validated in China, Dominica, Egypt, Kenya, Puerto Rico, and St. Christopher & Nevis. The tool is specifically designed for clinical and non-clinical staff of healthcare centers [83, p.126]. The original tool consists of 22 items divided into 5 sections covering actionable causes of HIV-related stigma and discrimination: background information, infection control, health facility environment, and policies, and opinions about PLHIV.

Due to the specific characteristics of the HIV epidemic in Kazakhstan and the lack of validated tools in Kazakh and Russian languages, we have modified the current tool by adding some items from the Ethiopian questionnaire on HIV stigma and discrimination [84, p.30]. Differential attitudes towards sexual identity, commercial sex, and drug abuse are common in both countries and may derive from strong cultural and religious beliefs. Therefore, we attempted to involve these aspects in the questionnaire focusing on differential opinions about PLHIV based on a mode of HIV transmission such as sexual intercourse, drug injection, and blood transfusion. A feeling of shame due to one's HIV-positive status was also added to the Ethiopian tool. Additionally, according to the Stigma Index conducted in 2015, PLHIV in Kazakhstan are likely to be advised not to have children [61, p.248]. Therefore, items on opinions about HIV-positive patients' plans on having children were added to the study instrument.

The brief assessment tool used in this study was previously translated into Russian by another research team in the country. We contacted this research team and received approval for using the Russian version of the questionnaire. The questionnaire was later translated into Kazakh language from English by the main study investigator and translated back into English by an independent expert.

A session of FGD was conducted after pilot testing the questionnaire before the main surveys. The purpose of conducting the FGD was to discuss the clarity and relevance of the assessment items both in Kazakh and Russian languages. The

discussion lasted for thirty minutes and included a group consisting of a general practitioner, a nurse, a social worker, and a psychologist.

The FGD revealed that study participants can be unfamiliar with some of the study terms such as “Men who have sex with men or MSM”. Therefore, the importance of explanations of such study terms before conducting the survey was noted. In addition, the items in the section “Fear of HIV transmission at work” (e.g., «How worried would you be about getting HIV if you drew blood from a patient living with HIV?”) made most of the participants confused judging by the pilot study and FGd session. These questions are about fears of contracting HIV at work during medical interventions. However, study participants seem to have interpreted the questions as if they were made exclusively for those who work with HIV-positive patients. Therefore, a clarifying note such as “How worried would you be about getting HIV if you did the following? Regardless of the presence of HIV-positive patients at the moment” was added.

2.4.2 Quantitative Data Collection

There are 65 primary healthcare centers in Almaty city and 8 of them were randomly chosen for the current study. The research investigators first contacted the administration of the polyclinics for recruitment purposes. After the administration’s approval, clinical and non-clinical staff of these healthcare centers were invited to participate in the study voluntarily. The participation in the study was confidential, specifically from the administration staff of the clinics. This is to ensure that there is no force or pressure to complete the surveys. The eligibility criteria included 18 years of age or older, fluency in Kazakh and/or Russian languages, and 1 year experience of working in healthcare. By the end of the recruitment period, 448 healthcare workers volunteered to participate in the study and were eligible.

The cross-sectional surveys were conducted at the polyclinics from May 2, 2019, to July 2, 2019. The HIV-related stigma assessment tool was made available in Kazakh and Russian languages for a choice during surveys. Considering the workload in primary healthcare settings and the differences in work shifts, study investigators made participation in surveys available from morning to late evening shifts. Surveys were conducted at the conference halls; the questionnaires were self-administered to provide more privacy to the respondents. A study investigator was available throughout the survey period to assist with any difficulties with the completion of the surveys.

The brief assessment tool used in this study includes the following sections: socio-demographic data; drivers of stigma; observed and secondary stigma; and stigma towards key populations and pregnant women living with HIV. Secondary stigma was also assessed by asking the respondents if they had ever witnessed stigmatization and discrimination of HIV-positive patients at the health facilities where they work.

Socio-demographic data included participants' age, gender (male/female), professional position (e.g., physician, dentist, nurse), ethnicity, religious affiliation (including self-reported religiousness), work years in healthcare, the experience of working with HIV-positive patients (e.g., "Among your patients in the past 12 months, did you have any patients who you knew to be HIV-positive?"), and ever receiving training on HIV and HIV-stigma-related issues (e.g., "Did you ever receive training in HIV-related stigma and discrimination"?).

HIV-stigma scale-related sections in the questionnaire included stigmatizing health facility policies, fear of contracting HIV, attitudes towards PLHIV, feelings of shame, and willingness to provide care to HIV key populations. Stigmatizing health facility policies were based on 6 items addressing the health facility environment that can be discriminative towards PLHIV (e.g., "My health facility has written guidelines to protect patients living with HIV from discrimination"). The fear of contracting HIV at work included items that were focused on fears during basic medical interventions such as making injections, touching the clothing of the patient, and treating wounds [85, p.2568]. Secondary stigma was based on witnesses of stigma and discrimination towards PLHIV among the healthcare staff (e.g., "Healthcare workers providing poorer quality of care to a patient living with or thought to be living with HIV, relative to other patients")

Opinions about PLHIV were measured using 9 items that cover prejudicial attitudes towards HIV-positive patients including the differential opinions about PLHIV based on a mode of HIV transmission (e.g., "HIV-positive patients who acquired the virus through drug injection are more at fault for contracting HIV than those who got it by blood transfusion."). The response options for HIV-stigma items ranged from a 4-point Likert scale ("Strongly agree" to "Strongly disagree") to "yes", "no", and "not sure" categories.

Inadequate knowledge of HIV transmission seems to have a significant impact on HIV-related stigma and fear of infection, hence, some items on basic and in-depth knowledge of HIV were added to this questionnaire. Knowledge of HIV transmission was correctly answering all the body fluids that can transmit HIV in the questionnaire. In-depth knowledge items were constructed from more detailed information on HIV transmission (e.g., "The risk of HIV transmission following a splash of blood to non-intact skin or mucous membrane is very small (approximately 1 in 1000)"), and those who answered all (3 items) or two of them, they were considered to have in-depth HIV transmission knowledge (Q27, Q28, Q29) [93]. All the items of the questionnaire are available in Appendix 1 and Appendix 2.

We calculated the overall percentage of people holding stigmatizing attitudes towards HIV-positive patients using the guidelines proposed by the original scale developers [94]. Agreeing at least with one of the stigmatizing statements in the

"Opinions about PLHIV" section or disagreeing with an idea of PLHIV having children was considered as negative (stigmatizing) opinions (NOs). These items include statements such as "People living with HIV should feel ashamed of themselves", "Most people living with HIV do not care if they infect other people" and "People get infected with HIV because they engage in irresponsible behaviors". The overall percentage of the respondents with NOs was then coded as "yes stigma" and "no stigma". This variable was later used during descriptive analysis and hypothesis testing. In addition, NOs and a set of socio-demographic data including years of work (categorized as >4 years, 5–15 years, and more than 15 years), self-identified religiousness (measured on a Likert scale from "highly religious" to "not religious at all") and whether the responded had seen an HIV-positive patient within the last 12 months was used for convergent and divergent validity analysis.

2.4.3 Qualitative data collection

Qualitative data was collected from 10 respondents who agreed to participate in one-to-one semi-structured interviews. However, with the emergence of the Covid-19 pandemic and safety concerns, in-depth qualitative interviews were conducted in an online format using the social media platforms such as WhatsApp and Zoom. Semi-structured interview guides consisted of several sections addressing fear of contracting HIV at work and the factors leading to it, attitudes towards PLHIV, and ideas on improving the knowledge of HIV and PLHIV (Appendix 3, Appendix 4). Interviews were audio recorded and transcribed by the study investigators.

2.5 Data analysis

2.5.1 Re-validation analysis

Before the main surveys, we conducted an Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) to re-validate the adapted HIV-related assessment tool in Kazakh and Russian languages. Half of the sample (N=268) was chosen randomly for running the EFA. Principal component analysis for categorical data (CATPCA) was applied using SPSS to test how well the newly added items fit within hypothesized factors. Cronbach's alpha with a cutoff value of 0.60 was used to determine the internal consistency of the items. After running CATPCA, we conducted CFA using R [95,96] on another half of the original sample (n = 180) that did not overlap with the EFA sample. The goodness of fit was evaluated with a chi-square test with corresponding degrees of freedom. On the other hand, chi-square models can be highly sensitive to large sample sizes leading to erroneous interpretations [97]. Therefore, the comparative fit index (CFI), and the root–mean–square error of the approximation index (RMSEA) were also estimated within the CFA analysis. We also report CFA as an indicator of an acceptable fit (≥0.90). RMSEA values between 0.06–

and 0.08 were used to indicate an acceptable fit, if the values of RMSEA were higher it was interpreted as a poor fit [98, 99].

We conducted additional analyses in this sample to report convergent and divergent validity. We constructed logistic regression models, considering that years of work experience and seeing patients living with HIV would be associated with stigmatizing attitudes (for convergent validity). We also run another model including self-identified religiousness and stigmatizing attitudes that might exhibit divergent validity and have no associations. Multivariable logistic regression models were then constructed adjusting for age, gender, and position (clinicians, non-clinicians). A significance level of alpha<0.05 was used to determine statistically significant associations.

2.5.2 Mixed Method Data Analysis

For the mixed method data, the analysis of the quantitative and qualitative data was analyzed separately in a sequential manner. At the interpretation stage, we made comparisons between qualitative and quantitative data analysis findings. Separate reports on quantitative and qualitative results were first prepared then, for each thematic area, we assessed the quantitative and qualitative data simultaneously to identify the areas where they differ and converge.

Quantitative data analysis included descriptive statistics (counts, percentages, means) and bivariate analysis on a set of selected variables using the Chi 2 test of independence ("Negative opinions about PLHIV", "Knowledge of HIV", "Fear of infection" and social-demographic data including "Experience of working with HIV-positive patients"). The next step was to examine the bivariate and multivariate associations of potential predictor variables with the main outcome, negative opinions about PLHIV, using logistic regression methods. All statistical models were conducted in R [96, p.1] with a cutoff p-value of 0.05 and confidence intervals of 95% for significant results.

Qualitative interview data of the 10 informants were transcribed verbatim reaching the word count of 15325 words. Manual thematic analysis was used due to the bilingual nature of the interviews and its translation challenges. The interviews were coded within pre-selected sections such as "fear of HIV transmission at work", "health facility conditions", "opinions about PLHIV" and "self-reflection on HIV knowledge". The interviews were coded following these sections first deductively then depending on new findings new themes were created (inductive). We used open and axial coding by categorizing the data in each section then we searched for repeated themes.

2.6 Ethical approval

Following the principles of bioethics, we obtained ethical approval from the Kazakh National Medical University Ethics Committee (IRB session №5/82) before data collection in this research. Due to the fact the collection of qualitative and quantitative data was conducted in 2019 and 2021, the initial ethical approval was renewed before conducting the in-depth interviews (according to the local regulations). Informed consent forms were provided to the participants available both in Kazakh and Russian languages with information about the research (Appendix 5,6), potential risks and benefits of participation. To ensure a volunteer participation of the participants consent forms were collected before conducting the quantitative data, For the qualitative data, verbal consent was obtained which was audiotaped. For confidentiality reasons, all the identifiable information was skipped during the surveys and interviews.

3 RESULTS

3.1 Overview

This chapter presents the results of both parts of the research, quantitative and qualitative findings. The aim of the study was to explore the level of HIV-related stigma in healthcare settings in Almaty and to investigate its main determinants using standardized survey tools and interview guides. Quantitative findings are presented first in this chapter including descriptive statistics, and bivariate and multivariate logistic regression models. Next, the interpretation of the qualitative research using thematic analysis and quotes is further discussed.

3.2 Descriptive statistics

There were 448 eligible healthcare workers to participate in this study. Demographic characteristics of the sample are presented in Table 1. Females were the majority in this study sample since 92% (n = 413) and nursing was the commonest profession category (62%, n = 274). Such gender distributions among the respondents are not surprising since the majority of healthcare workers in the country are homogeneous female-dominated. Anyone older than 18 was eligible to participate in the study and as the descriptive statistics show the age of the participants ranged from 19 to 74 (M = 40.02, SD = 13.92).

The majority of the sample was ethnically Kazakh 81% (n = 359) and self-identified Muslim 83% (n = 366). Only 18% (n = 79) of the sample reported receiving training on HIV-related stigma and discrimination and even fewer 14%(n=63) received training on discrimination towards key populations.

Figure 10 demonstrates descriptive statistics of HIV-related stigma variables. The level of negative opinions towards HIV-positive patients was considerably high in this sample: 83%(n=380) of the respondents agreed at least with one of the stigmatizing statements of the stigma scale. Only a third of the respondents answered all the HIV transmission questions correctly and only around 22% (n=89) could answer more detailed information about HIV. Around half of the respondents were aware of the undetectable viral load 53% (n= 212)

Table 1 – Socio-demographic characteristics of the survey sample (n=448)

Variables	Categories	N (%)
Gender	Male	35 (8%)
	Female	413 (92%)
Age group	18–29	138 (31%)
	30–40	78(17%)
	41–51	97 (22%)
	>52	135 (30%)
Religion	Christian	36 (8 %)
	Islam	366 (82 %)
	Judaism	3 (1%)
	Not religious	26 (6%)
7 (1%) is missing	Other	10 (2%)
Ethnicity	Kazakh	359 (80%)
	Russian	34 (8%)
	Uighur	20 (5 %)
	Ukrainian	6 (1%)
7 (1%) is missing	Other	22 (5%)
Professional category	Doctors/Physician	99 (22%)
	Dentist	16 (3.5%)
	Nurse	274 (62%)
	Psychologist/Social worker	19 (4 %)
	Cleaning staff	19 (4%)
7 (1%) is missing	Other	14 (3 %)

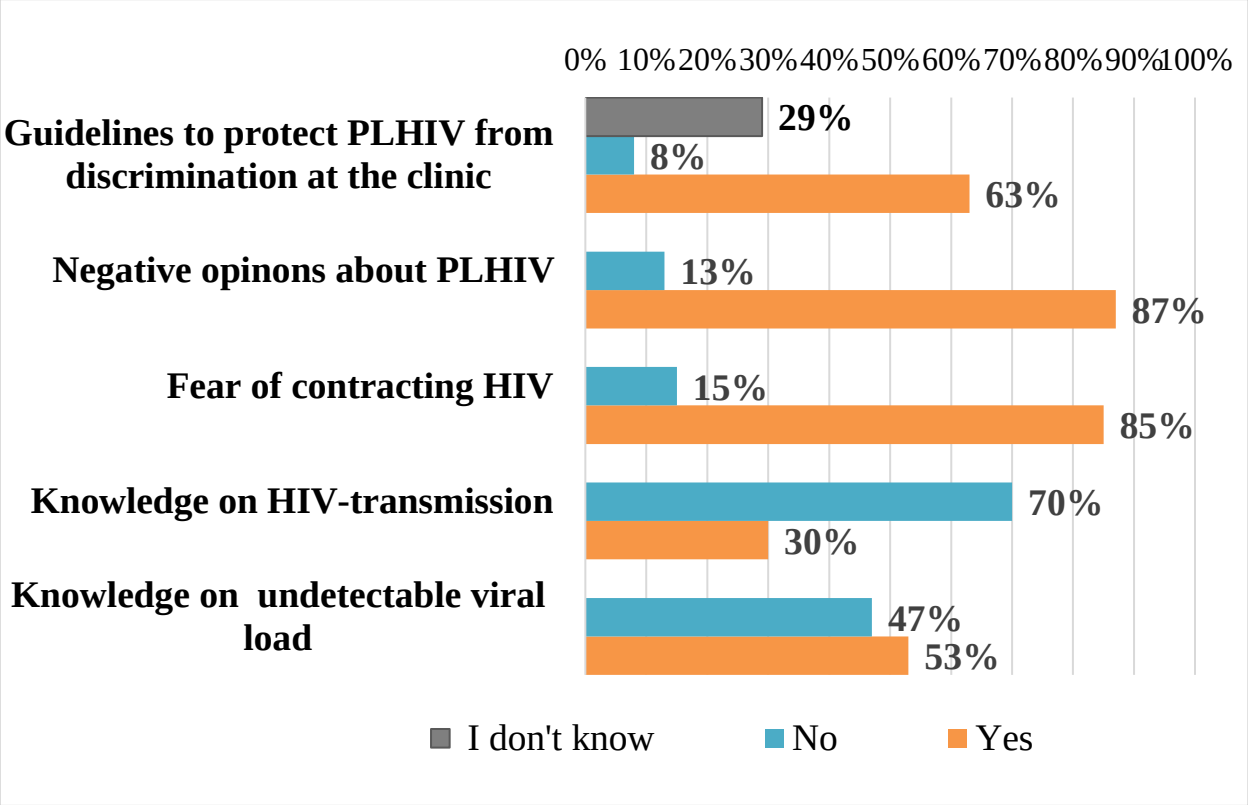

Figure 8 – Descriptive statistics results of HIV-related stigma variables

We have also collected data from the AIDS center to compare the descriptive findings (n=51). As the descriptive analysis demonstrated, the negative opinions towards PLHIV in AIDS centers were lower compared to primary healthcare centers (68%), and healthcare workers in such settings had better knowledge of HIV transmission (73% of the respondents answered all the HIV transmission modes correctly).

Unwillingness to provide medical care to the key populations of HIV was high in this sample. Half of the respondents preferred not to provide medical services, if they had a choice, to sex workers (52%), IDUs (54%), and MSM (52%). The most common reason indicated for such unwillingness was “being put at risk of getting infected” (43-57%). The other reasons provided included “immoral behavior” and not having specific training in working with HIV key populations and percentages agreeing with such statements varied from 35% to 45 in the current sample

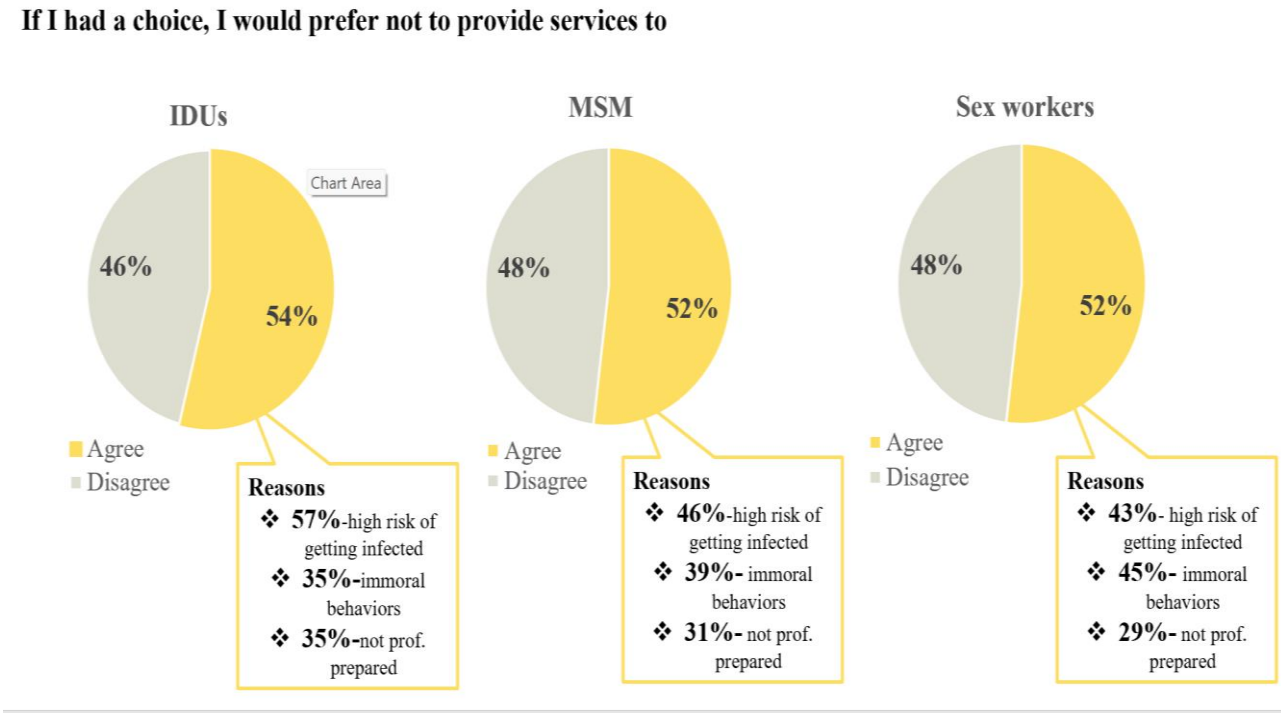

Figure 9 – Unwillingness to provide medical care to key populations if there was a choice

3.3 Re-validation of the study tool. Construct validity analysis

The brief HIV-stigma assessment tool used in this study was translated into the study languages (Kazakh, Russian) and several items were modified and explained above in the methods section. We then conducted a factor analysis to provide information on the validity of the modified stigma assessment tool. Two HIV-stigma-related scales were included in the factor analysis including 6 items measuring stigmatizing health policies and 9 items assessing stigmatizing opinions about PLHIV. These HIV-stigma scores were approximately normally distributed with the mean scores ranging from 1.26 (SD = 0.51) to 0.21 (SD = 0.08) for opinion and health policy sections. Before conducting EFA we run the Kaiser-Meyer-Olkin (KMO) test and Bartlett's test to test the factorability. We obtained the KMO value of 0.78 and a statistically significant Bartlett's test of sphericity ($p<0.001$) meaning that EFA can be applied to the study items. EFA suggested a two-factor solution for the 15 items that follow the initial division of the items into health policy and opinions sections by the original scale developers. Eigenvalues, interpretability of factors, and scree plot were examined for factor retention and all these parameters suggested a two-factor solution (with a total eigenvalue of 7.14 with 48% of variance explained, and with eigenvalues for each corresponding factor: 4.91 (33%), 2.23 (15%)). We used the cutoff value for factor loadings >0.35 and as the EFA suggests the factor loadings in the study items ranged from 0.43 to 0.81 within each subscale (Table 3).

CFA models conducted after EFA demonstrated contradictory results with some of the parameters suggesting good fit ($\chi 2 = 239.47$, $p<0.001$, CFI = 0.95, TLI = 0.94, SRMR = 0.12) and others indicating poor model fit (RMSEA=0.11). We then conducted a model revision with modification indices (MI) and the largest MI values were seen for item 20H (51.89) in the "Opinions about PLHIV" section (e.g., "HIV positive patients who acquired the virus through sexual intercourse are more at fault for contracting HIV than those who got it by blood transfusion") and the item 20I (e.g., "HIV positive patients who acquired the virus through drug injection are more at fault for contracting HIV than those who got it by blood transfusion"). Another highest MI (43.63) was seen for the items 20F (e.g., "I would feel ashamed if someone I know got HIV/AIDS") and 20G (e.g., "I would feel ashamed if someone in my family got HIV/AIDS"). The literature search suggested that the similar wordings used in items may lead to correlated errors within while running CFA [34, p.174]. Therefore, for a solution, we included two correlated error terms in the second CFA model that can be explained by the above-mentioned variables having similar wordings. This intervention significantly improved the model's fit (Appendix 7,8).

The second CFA model revealed acceptable goodness-of-fit with the following GFI (0.97), TLI (0.97), and RMSEA (0.07). This suggests the improvement of the CFA model making it an appropriate measurement model for the 15-item HIV-related stigma assessment tool. Other parameters of the CFA model are presented in Table 4 with the items loading significantly onto the two-factor model. The CFA model also demonstrated acceptable and good psychometric properties of the subscales with Cronbach's alpha of $\alpha = 0.66$ for the policy factor and $\alpha = 0.85$ for the opinion factor.

Table 2 – Factor loadings of the original and extended HIV-related sigma scales on EFA models (N = 196)

Item content by factor	Factor loadings	
Factor 1: ‘Health facility policies’	1	2
Item 15	-0.145	0.456
Item 16	0.159	-0.426
Item 17	0.144	-0.570
Item 18A	-0.299	0.708
Item 18B	-0.242	0.776
Item 19	0.299	-0.364
Factor 2: ‘Opinions about PLHIV’		
Item 20A	0.587	0.145
Item 20B	0.759	0.220
Item 20C	0.750	0.082
Item 20D	0.721	0.115
Item 20E	0.785	0.173
Item 20F	0.782	0.227
Item 20G	0.734	0.250
Item 20H	0.681	-0.048
Item 20I	0.615	-0.219

Table 3 – Standardized factor loadings with corresponding standard errors of the original and extended HIV-related scales on CFA models (N = 159)

Item content by factor	Factor loadings
Factor 1: 'Health facility policies'	
Item 15	0.38 (--)
Item 16	0.63 (0.53)
Item 17	0.46 (0.41)
Item 18A	0.85 (0.56)
Item 18B	0.92 (0.63)
Item 19	0.50 (0.35)
Factor 2: 'Opinions about PLHIV'	
Item 20A	0.46 (--)
Item 20B	0.64 (0.19)
Item 20C	0.67 (0.21)
Item 20D	0.58 (0.19)
Item 20E	0.76 (0.23)
Item 20F	0.86 (0.24)
Item 20G	0.79 (0.24)
Item 20H	0.79 (0.24)
Item 20I	0.67 (0.21)
Note: Dashes (--) indicate the standard error was not estimated.	

For the convergent validity analysis, we hypothesized that there will be statistically significant associations between negative attitudes towards PLHIV and years of working in healthcare; between negative attitudes and seeing an HIV patient. As the multivariable analysis demonstrated working 5–15 years had a reduced odds reporting stigmatizing attitudes compared to those who worked less than 5 years (AOR

= 0.33, 95% CI: 0.12, 0.84, p = 0.02). Seeing a patient living with HIV within the last 12 months also had an impact on negative attitudes; it reduced the odds having negative attitudes towards PLHIV in this sample (AOR = 0.34, 95% CI: 0.18, 0.62, p<0.001). In contrast, there was no significant association between self-identified religiousness and stigmatizing attitudes as expected for the divergent analysis.

3.4 Main analyses. Determinants of HIV-related stigma in healthcare

Secondary aim of the current study was to investigate the determinants of HIV-related stigma in healthcare settings. We hypothesized that social demographic data including age, gender, position (non-clinical versus clinical staff), self-reported religiousness and other factors such as years of working in healthcare, basic knowledge on HIV transmission and fear of contracting HIV would be associated with negative opinions towards PLHIV. Table demonstrates the crude and adjusted odds ratios (OR) obtained through logistic regression models. On bivariate logistic regression models, years of working 5-15 years, slight religiousness and seeing an HIV-positive patient had statistically association with negative opinions. In other words, those who work in healthcare lesser than 5 years, slightly religious compared to non -religious and those who have not seen HIV positive patient within the last 12 months have higher odds of holding stigmatizing attitudes towards PLHIV. However, after conducting multivariate logistic regression models two associations remained statistically significant: protective effect of longer years of work on having negative opinions about PLHIV and the relationship between not seeing an HIV positive patient and having stigmatizing opinions about HIV positive patients.

Due to methodological challenges “Fear of HIV” was not included in the given model (N=448). There was an increasing number of those who chose “not applicable responses on items such as “How worried would you be about getting HIV if you touched the clothing of a patient living with HIV?”. The clarification made that the question is relatable to any medical worker regardless of having an HIV positive patient did not give expected results. However, we run multiple logistic regression model on a subset of the main sample (n=272) without NA response in this section and the results demonstrated significant associations between “Fear of HIV” and “NOs about PLHIV” (AOR=3.33, 95%CI =1.34;8.2, p=0.01).

Having a knowledge on HIV transmission was associated with older age (Chi2=18.74, p<0.001), with longer years of work in healthcare (Chi2-22.33, p<0.001), seeing an HIV-positive patient within the last year (Chi2=5.84, p=0.01), and having a training on infection control and PEP (Chi=7.90, p=0.004).

Table 4 – Logistic regression results on determinants of HIV-related stigma

Categorical variables			Negative opinions about PLHIV			
		Frequency	Bivariate unadjusted OR [95%CI]	p value	Multivariate adjusted OR [95%CI]	p value
Age		40.02(13.92)	0.98 (0.96,1)	0.07	0.97 (0.93,1)	0.89
Positiion	Clinical	38(8)	inf		inf	
	No clinical	410 (92)	1.89 (0.72,4.92)	0.27	1.65 (0.54,5.01)	0.21
Years of work in healthcare	<5 years	139(31)	inf		inf	
	5-15 years	99(24)	0.48 (0.25,0.94)	0.003	0.26 (0.1,0.68)	0.01
	>15 years	210(45)	2.09 (0.89,4.91)	0.65	0.8 (0.2,3.15)	0.74
Religiousness	Not religious	88(20)	ref		ref	
	Slightly religious	149(33)	0.45 (0.18,1.09)	0.06	0.59 (0.23,1.53)	0.3
	Moderately religious	165(37)	0.66 (0.26,1.66)	0.26	0.61 (0.23,1.61)	0.4
	Strongly religious	27(6)	0.72 (0.17,3.03)	0.64	0.65 (0.14,2.93)	0.57
	Missing	19(4)				
Seen HIV+ patient	Yes	106(25)	ref		ref	
	No	323(75)	3.6 (1.94,6.66)	< 0.001	3.3 (1.72,6.35)	< 0.001
Knowledge on HIV transmission	Yes	129(30)	ref		ref	
	No	292(70)	1.44 (0.78,2.66)	0.35	1.19 (0.6,2.36)	0.63

3.5 Qualitative study findings

Analysis of the qualitative analysis revealed that the majority of the participants reported adequate numbers of medical equipment to protect from HIV and protocols regarding HIV positive patients. Almost all participants wished to have more training on the topic of HIV and proposed on more interactive methods of training:

"I wish they could explain things more clearly and with such interesting questions like yours (referring to the interview questions). Otherwise, they always come and read some lectures fast and leave like that. At the end we don't even know what was that.. while your questions make one think, and now I am thinking all about it now. I mean I feel ashamed even,," Nurse, __ years old.

"Well, I think, well, for example, these programs are held at most once a year, and then there are quizzes. It would be good if they conducted the training at least twice a year and if they updated the format of training so that it would be in an interesting form, not just in a monotonous lecture. If they also could talk about how to interact with such people probably..." Psychologist, 33 years old.

Some respondents also highlighted that they rarely see an HIV-positive patient on a daily basis and may forget many of its aspects.

In line with the quantitative survey findings, qualitative interviews demonstrated differential attitudes based on the mode of HIV transmission (i.e. through blood transfusion or sexual transmission):

"..there are some infected patients who acquired HIV during medical procedures but regarding the drug users and prostitutes…I mean, I think they are infected because of their ignorance and lack of responsibility. It is their own fault, I think." Endocrinologist, 29 years old.

Respondents were also more inclined to the belief that HIV is spread mainly via "uncontrolled sexual behaviors" or from sex workers to men or among youngsters. Interestingly, respondents had more negative attitudes towards females, saying that the men should be careful in choosing sexual partners with females for example.

"Most of the time it is the men who get infected by visiting such dirty women (prostitutes). Those women, in my opinion, think that they should not be the only ones infected. If they have HIV, I think they want to infect others too. Because I know a couple of people who got infected by visiting such women. Such women sometimes visit

our psychologists in our clinic. They keep their names secret of course but we hear stories about them you know..” Nurse, 26

All 10 participants of the qualitative interviews had negative attitudes towards HIV-key populations, describing sex workers as “disgusting” and feeling of “shame” if they knew anyone who was doing such business. They associated non-traditional orientation with some kind of “psychological disorder” and presented unwillingness of being in contact with such individuals. Some even supported violent acts against people with non-traditional sexual orientations in the country.

“I have negative attitudes towards gay people. Not sure about other countries but in Kazakhstan it is weird to discuss such topics. Therefore, we Kazakhs do not them. For example, these days, if such people appear on social media platforms, then Kazakh men want to go find them and beat them up or something. Therefore, I also have the same negative attitude as Kazakh men. It's just they need to understand that promoting such things in Kazakhstan is dumb. We don't like people like that. I think they should think about it and about what it can lead to.” Nurse, 26 years old
“Oh, I feel really bad about it. I do not understand such people, and I do not wish that to anyone. Any person, if he has some kind of mind in his head, he will not do such things. I don’t even want to think about it. But it also depends on society, if they have a good society, then it will not happen. If they have some kind of normal goal, then of course they can improve in life.” Pediatric nurse, 57 years old.

Some respondents attempted to explain why homosexualism should be considered as a mental health problem that some people are born with.

“Once I read a literature that explains how people become homosexual. For example, if the mother during pregnancy had a higher sexual drive and masturbated a lot then she developed such a need for contact. This seems to affect the fetus during pregnancy. But I think, if you give a good upbringing to your child and explain what is right and what is wrong, he should be able to grow up normally.” Pediatrician, 29 years old.

On the other hand, respondents revealed more empathy towards illegal drug user.

“ But regarding drug users they are in a different category, first if all these people have a disorder. I mean they are addicted. They do not care if the needles are sterile or not, all they want is just to get their dose of the drug and that is it, nothing else bothers them..” Psychologist, 33 years old

“ they are the victims of those who sell drugs for money. It is a profit to someone else. I feel bad for them..” Midwife, 60 years old

Most respondents were not against PLHIV having children if they wanted to, however, they were not aware or at least doubtful about the chances of transmitting HIV to the fetus and about how to prevent such transmission.

Some respondents mentioned the difficulties of getting the medical care needed among PLHIV especially in state clinics and primary healthcare centers. For example, there are trust rooms or social workers who are supposed to provide care for PLHIV in primary healthcare centers. However, such services are reported to be dysfunctional during these interviews. Trust rooms were transformed into quarantine rooms in some settings during the emergence of Covid-19 pandemic.

4 DISCUSSION

4.1 Overview

The dissertation consists of several consequent parts: revalidation of the HIV-related stigma assessment tool, quantitative measurement of HIV-related stigma tool in healthcare settings in Almaty city (using the re-validated tool), and qualitative part to study the attitudes of healthcare workers towards PLHIV in detail. This chapter addresses the findings of the study corresponding to each study's objectives including the results of the revalidation analysis, survey findings, qualitative interview results, strengths and limitations of the study, recommendations for further research and actions, and conclusion.

4.2 Validation of the brief HIV-related stigma assessment tool in Kazakh and Russian languages and adjust it to Kazakhstani context

The current section of the study aimed to re-validate the brief assessment tool on HIV-related stigma in healthcare by translating and adapting the tool items to the Kazakhstani context. The results demonstrated that the modifications made to the existing tool work well and the final versions of the re-validated tool are available in Kazakh and Russian languages.

The HIV-stigma scale with added items as this study demonstrates has good psychometric properties. There were two HIV-related stigma subscales that were included in the factor analysis including “Health facility policies” and “Opinions about PLHIV”. Based on Cronbach’s alphas obtained within factor analysis, these stigma subscales demonstrate acceptable and excellent internal consistencies (0.57 and 0.86). However, one might argue that Cronbach’s alpha for subscale 1 is lower than the average acceptable score for internal consistency in the literature. The section of the questionnaire contains 3-category responses (i.e. “yes”, “no”, “ I don’t know”) that can lead to reduced variance and low Cronbach’s alphas. Nevertheless, it does not vary from the average acceptable Cronbach’s alpha levels significantly and may still be used in future studies. The original validation study of the scale was conducted in multiple countries and languages and demonstrated a similar (average for 6 countries) Cronbach’s alpha level of $\alpha = 0.78$ [83, p.129]. There are some studies that attempted to develop a standardized tool for HIV stigma among healthcare providers [99, p.1503, 100] but none from Kazakhstani settings to our best knowledge. The lack of validated tools in Kazakh and Russian languages on the given issue adds an extra challenge in interpreting the existing studies on HIV-related stigma. This is due to the reliability of translations and the importance of adding country-specific characteristics to the survey tools.

People living with HIV/AIDS may experience double stigma as discussed earlier in this dissertation. HIV-related stigma can be another layer of burden onto already existing prejudices related to specific groups and behaviors such as sex workers, drug users, queers, and people involved in casual sex. The original tool included items related to refusals of providing medical care to key populations attempting to assess double stigma. We added items that assess negative attitudes towards PLHIV based on the mode of HIV transmission. The newly added items in "Opinions about PLHIV" did not alter the high reliability of the scale that was seen within the original validation study.

There were several challenges while conducting the re-validation of the study tool. Skip pattern items were the first issue the investigators had to face. Study respondents were unfamiliar with this kind of response options during the pilot study. We then provided clarifying explanations for the items with skip patterns (e.g., '22a. If I had a choice, I would prefer not to provide services to people who inject illegal drugs with the following clarifying question as 'I agree with the above-mentioned statement in 22. a because:..'). The original scale developers suggest using iPads or other electronic data collection devices so that skip pattern items are moved automatically. This would also work for giving the respondents privacy while responding to sensitive questions. Other challenges include the complexity of the translated questionnaire in Kazakh language, particularly, terminology. We then simplified the study items prior to the main surveys.

This study is the first of its kind in re-validating HIV-related stigma tools in Kazakh and Russian languages to the best of our knowledge. In addition, we applied mixed method data collection to ensure the modified items have good internal consistency. However, there are some limitations that we could not overcome in this section. As discussed earlier, there are methodological challenges within "Fear of HIV transmission at work" that have led to the use of only two dimensions of HIV stigma in factor analysis. Increasing numbers of nurses responding "Not applicable" to questions of fear of HIV can be explained by misinterpretations among the respondents that the questions are exclusively related to those who have HIV-positive patients at the time of the study. The clarification statement made after the pilot study ("How worried would you be about getting HIV if you did the following? Regardless of the presence of HIV-positive patients at the moment") was insufficient due to the high numbers of NA responses. These "Not applicable" responses were sent to missing data considerably affecting the sample size required for factor analysis.

Although the missing data in this sample was not significantly high, we consider the exclusion of missing information from factor analysis as another limitation to be discussed. We attempted to apply multiple imputation methods (MI) yet they failed to yield credible inferences due to specific challenges pertaining to rates of missing data

across a large number of variables. Added variance and rate of missing information was greater than the rates of ra missing data. This usually indicates that the models used to sample missing data are inefficient and not identifiable.

4.3 Level of stigma toward PLHIV in primary healthcare settings in Almaty

One of the main objectives of this study was to assess the level of HIV-related stigma in healthcare using a sample of healthcare workers from primary healthcare centers. As the descriptive statistical analysis demonstrates, the level of those who have negative attitudes towards PLHIV was notably high in this sample 87%, n = 380 (overall percentage of people holding stigmatizing attitudes). In other words, only one-quarter of the respondents did not agree with any of the stigmatizing statements of PLHIV in the questionnaire. This level of negative opinions towards HIV-positive patients among healthcare workers, the group of people who may have the most common contact with PLHIV, is concerning and requires immediate interventions.

Discrimination and stigma in healthcare settings may lead to serious and even tragic consequences. Experience or expectation of being treated poorly by medical workers discourages PLHIV from accessing medical care and testing, which can in turn increase the chance of patients hiding their HIV status.[80, p.99] Additionally, the nature of HIV treatment which is ongoing across one's lifespan requires the same level of tolerance and acceptance from healthcare workers throughout the years.[80, p.102] Stigma and discrimination in healthcare have been extensively reported worldwide which are mainly manifested in the form of discriminatory attitudes and opinions rather than behaviors.

Numerous studies have been addressing HIV-related stigma in healthcare from the perspective of PLHIV and fewer studies have systematically assessed this issue among healthcare workers including specific clinic staff (e.g., physicians, nurses, office managers, etc. Nevertheless, existing literature suggests moderate to high levels of stigma towards PLHIV in healthcare [80, p.110]. A study conducted among healthcare providers in the deep South USA demonstrated a similar percentage of stigma, 89 % of the respondents at urban healthcare centers and 91 % of those in rural clinics demonstrated at least one stigmatizing attitude [68, p.1790]. Similar findings were seen in other country contexts such as Nigeria,[101,102] China, [103] Poland,[104] and Iran [105].

The HIV stigma index surveys conducted among PLHIV in Kazakhstan in 2015 and 2020 suggested consistent results of reporting the highest levels of stigma and discrimination in healthcare centers among other settings [71, p.5]. The main manifestations of stigma reported in the Stigma Index 2020 included disclosure of one's HIV status without consent, recommendations on not having sex, gossip among medical workers, and avoidance. Similar to our findings, higher levels of experienced

stigma and denials in care provision were seen among MSM and sex workers compared to other key populations (8.1% of cases among MSM and 23.3% among SWs). These specific groups also were the most frequently advised not to be involved in sexual relationships, verbally hurt, and were subjected to physical violence.

One of the explanations for such high rates of stigma can be the difference between specialized hospitals such as AIDS centers and non-specialized medical centers such as primary healthcare settings. It is possible that medical workers who work in the latter may occasionally see HIV patients and have less experience in dealing with HIV on a daily basis. This has also been the case in our study since only around 25 % (n=106) of people reported seeing an HIV-positive patient within the last 12 months [106]. Additionally, some studies suggest healthcare providers in primary healthcare settings give differential treatment and disclose to HIV-positive patients to take protective measures when dealing with HIV [107]. Nevertheless, these actions are still considered to be a privacy violation of PLHIV, and clear guidance on unintentional discrimination is needed in future studies.

Another potential explanation is the fact that the predominant numbers of respondents are nurses (62%, n=274), and usually nurses receive professional degrees in nursing schools after the 9th grade of primary school education (also locally known as "nursing colleges"). Another study conducted in Iran also demonstrated a high prevalence of stigma among nurses, paramedics, and housekeeping staff compared to other professional categories [105, p.165]. It is possible that these groups may have lower awareness of HIV and PLHIV and often have lower levels of education compared to medical doctors. Although there are training programs on HIV that occur in these settings annually our study demonstrated alarmingly low levels of knowledge on HIV and HIV transmission. Numbers of studies suggest that higher levels of knowledge on HIV transmission contribute to less fear of contracting the infection and reduced prejudicial attitudes. For example, lower education and poor knowledge of HIV are significantly associated with higher rates of stigma and discrimination [108,109].

Previous studies suggest that HIV-related stigma develops when one starts making assumptions about a person's HIV status based on personal characteristics. For example, caregivers may assume that only certain kinds of people are at risk or that some people are less worthy of care than others due to their lifestyles. Studies conducted among nurses discuss that they may emulate attitudes and behaviors to reach acceptance from their peers [100, p.78]. However, one might argue that stigmatizing interactions are not even recognized by healthcare workers as stigmatizing [110]. Therefore, such behaviors can be unintentionally conducted and perceived negatively. For example, visibly marking the files of HIV-positive patients can be practiced as a regular procedure in some settings [110, p.653, 111]. Nevertheless, these behaviors

should be addressed, and non-discriminatory policies and regulations should be practiced in healthcare facilities.

We were also able to detect differential treatment of PLHIV based on the mode of infection transmission in this sample. For example, over a third of the respondents agreed with the statement that HIV-positive patients who acquired HIV via sexual contact or drug abuse are guiltier of their HIV-positive status than those who contracted the virus in other ways. This suggests a concerning level of differential attitudes towards key populations that needs to be addressed. Stigma toward individuals who engaged in same-sex behavior or drug use may have been stronger than toward PLWH. Furthermore, as some studies suggest it is a combination of stigma due to one's HIV-positive status, drug abuse, and sex work. Co-stigmas may lead to even higher rates of stigma and discrimination which serves as a barrier to being tested for HIV and undeniably contributes to the spread of HIV.

Other studies have documented similar phenomena based on sexual orientation or gender identity. A study conducted in the USA assessed the role of stigma and medical mistrust in routine healthcare engagement of black MSM and revealed that around 29% experienced racial and sexual orientation stigma from healthcare providers and a higher percentage of respondents (48%) reported a lack of trust to medical settings including medical workers. These findings are surprising since Western countries are generally known for higher tolerance to different sexual orientations and differences [101, p.45]. Although Almaty is considered to be the most developed and modern city in Kazakhstan, there is still a strong attachment to cultural beliefs, tradition, and religion that does not accept queers, sex workers, and drug users. A study conducted among AIDS centers suggests that those with higher preferences for tradition and power values show more negative attitudes toward PLHIV [112].

Negative attitudes towards key population groups were particularly detected during qualitative interviews in this study. Almost all participants reported negative opinions towards queers and sex workers describing it as something "dirty", and "disgusting", associating homosexual relationships as a symptom of a "psychological disorder" and feeling ashamed of such people. The extent of negative attitudes reached the level supporting the physical violence against queers. Furthermore, there was little awareness about men who have sex with men during the FGDs so the research team needed to clarify the study terms. This can be related to the fact that there is no open MSM community or open discussions about sexual orientation in Kazakhstan due to widespread homophobia in the country.

Homophobia in Kazakhstan is rooted in Soviet times laws against LGBT groups. In the former Soviet Union, anal intercourse between men was illegal as The Third Pink Book, published in 1993 reports [113]. This Soviet-era Criminal Code was also applied in Kazakhstan until January 1998. Interestingly, homosexual behaviors

between adults are not included in the law, nor are homosexual relationships between females considered to be a criminal offense. Fear of abuse remains high in the country even though Kazakhstan gained independence from the Soviet Union in 1991 and later decriminalized homosexual relationships between men. Soros Foundation-Kazakhstan conducted a survey among 1000 LGTB members in 2009 and revealed that more than 81 percent of respondents agree that gay and lesbian people in the country face disapproval and disrespect from the general public [114].

The climate of intense homophobia remains in Kazakhstan regardless of the decriminalization of same-sex relationships. One source suggests that local media portrays LGBT people with shame, scandal, and hate [115]. This has led to increasing violence and hostility against these groups in public places, such as in parks and outside nightclubs. Furthermore, recent studies demonstrate an increase in abuse and threats against LGTB populations on social media platforms. The state institutions currently fail to provide consistent care and protection to these groups. Furthermore, there are no anti-discrimination laws and no against hate crime and hate speech. It should also be noted that the research on attitudes towards LGTB people, including the current study, is conducted in major cities of the country with the highest level of well-educated individuals. Therefore, it is possible that other settings in the country may have higher rates of homophobia and stigma towards HIV and HIV key populations.

Attitudes towards female sex workers in healthcare have been addressed in numerous study settings previously yet with lesser evidence from lower-income countries[116-119]. A systematic review conducted in 50 countries across middle and low income provided evidence of noticeably higher rates of HIV among female sex workers compared to other women of reproductive age [120]. Another systematic review of qualitative studies revealed The predominant barrier to accessing healthcare services in this review was a multi-dimensional stigma towards HIV-positive patients and sex work [121]. The highest rates of enacted and perceived stigma were experienced frequently in healthcare settings. This occurred along a broad spectrum, for example, cultural conservatism in Malaysia and Lebanon worsened cultural taboos related to sex work or gender diversity within the healthcare settings affecting the willingness to access care among both female and male sex workers [122, 123]. Similar to these countries prostitution in Kazakhstan is legal in private settings except brothels and pimping. Existing studies on the region suggest discrimination and violence against sex workers [65, p.40]. Furthermore, some examples include threats or further abuse in response to sex workers' reports of violence to the police. This makes it more challenging to report any violence or abuse to authorities. On the other hand, sex workers are overlooked and ignored by police, and often get self-blamed in such situations [124]. This may indicate that sex workers receive poor treatment in almost all institutions in the country.

The actionable drivers of stigma against drug users in the literature include negative opinions and moral judgments [125-126]. Qualitative studies conducted in other settings highlight manifestations of stigma in which IDUs experienced denial of medical services, perceived negative attitudes, and avoidance among healthcare staff [126, p.88]. In contrast to these studies, the analysis of the current qualitative data demonstrated a more compassionate attitude towards IDUs compared to other key populations. This could be a result of earlier efforts towards a harm reduction approach to HIV in IDUs. IDUs were the predominant group key population with the highest rates of HIV in the early emergence of the infection in Kazakhstan. Therefore, the country introduced alternative forms of punishment for drug addicts in the form of compulsory treatment in 2011 [127]. This program was known as 'Salamatty Kazakhstan' and aimed at the development and improvement of the prevention of drug abuse and its consequences addressing its legal, and ethical barriers to prevention and treatment. Furthermore, more compassionate behavior can be a result of the recognition of addiction as a "disease" that needs "treatment" among medical workers in this sample.[84] In other words, considering addiction as something that is not under the control of a person where there is a need for professional intervention compared to sex work or gender diversities.

Stigmatizing attitudes towards MSM and LGTB people seem to lead to less willingness to use medical care including HIV [128]. In contrast, a study conducted in Kazakhstan demonstrates that support and those who perceive connectedness are more likely to receive HIV care [129]. This is especially the case in healthcare settings since having trust in medical care providers is equally crucial for LGTB members as well as for heterosexuals. Some authors reported that PLWHs were afraid to seek care because of past negative experiences or did not seek care at all, left care because of discriminatory practices, did not receive care because of their HIV status (as described above), and faced additional barriers to access care. [130,131] They also report that PLWH did not disclose their HIV status to HCP as a result of previous negative experiences .

4.4 Factors leading to stigmatizing attitudes among primary healthcare workers in Almaty

Another objective of the current study was to assess the determinants of HIV-related stigma based on a sample of primary healthcare workers. As multivariate logistic regression models suggest, more years of work in healthcare and having seen an HIV-positive patient within the last 12 months had a protective effect on holding negative attitudes towards PLHIV in this sample. On the other hand, those who reported high rates of fear of contracting HIV tend to have higher levels of negative

opinions towards PLHIV. No significant associations were found between negative opinions toward PLHIV and age, religiousness, knowledge, and position (clinical versus non-clinical staff).

The existing literature on the topic suggests structural and individual-level factors leading to the stigmatization of HIV and PLHIV in healthcare [132,133]. The former ones include discriminative policy at the facility, shortage of protective equipment inadequate knowledge of PEP, and absence of a redressal system for managing SAD by healthcare staff. Individual-level determinants of stigma comprise fear of HIV transmission at work, limited knowledge of HIV and stigma itself, and high traditional and religious beliefs.

In our study, high rates of fear of HIV transmission during medical procedures were detected. This could be related to low levels of knowledge of HIV and HIV transmission in the sample. The fact that majority of the sample was nursing staff with a college degree in nursing which is considered to be the middle level of medical education compared to high medical educational institutions in the country. Another explanation for such levels of fear can be the limited contact with HIV-positive patients. HIV and AIDS centers are commonly visited healthcare facilities of PLHIV in Kazakhstan and although primary healthcare centers also provide medical care to HIV-positive patients, the existing stigma may prevent their frequent visits in polyclinics.

Fear of contracting HIV was associated with having negative opinions about PLHIV in our sample. This is concurrent with other studies that suggest higher rates discriminatory attitudes towards HIV-positive patients among those who fear the infection the most [134]. Three studies examining how provider stigma toward PLHIV can affect patient care revealed that fear of acquiring HIV during medical interventions led to reduced quality of care, refusal of providing care, and increased anxiety among healthcare workers working with HIV-positive patients [135-137]. As the study further suggests, this fear was higher among providers with limited knowledge of access to post-exposure prophylaxis in their healthcare facilities.12 Furthermore, prioritization of other issues than HIV-related stigma in healthcare was significantly associated with reduced quality of care and patient satisfaction [135, p.910].

The direct consequence of fear of HIV is avoidance and extreme precautionary measures during the provision of care to PLHIV. A number of studies conducted on this issue earlier demonstrated experiences of patient avoidance in healthcare and differential or unnecessary precautionary measures conducted during medical examination of HIV-positive patients such as masks, protective suits, or wearing double gloves [138-140]. Extreme cases of discrimination which are caused by fear of contracting HIV were refusals to touch HIV-positive patients in the US clinics [138, p.812]. Other studies conducted in the Southeastern United States, showed common

beliefs that doctors should have the right to refuse services to PLHIV if they want to [78, p.118]. However, more interventions conducted in the following years did improve such attitudes in healthcare settings in the developed countries while low and middle-income countries still face such issues up to these days [117, p.540].

Reducing fear of HIV transmission is an urgent issue to be addressed. Following this need, the National Health and Family Planning Commission of the PRC released one version of the "Occupational Diseases Classification and Catalog" with the inclusion of AIDS (limited to health staff and policemen) for the first time in 2013 in China [106, p.5]. This attempt was made in order to maintain the interests of the medical staff members and eliminate their fears about HIV transmission and AIDS. However, this classification needs improvements and preventive measures should also be strengthened as some literature suggests [141]. Two perspectives should be taken into account in fighting against the fear of HIV healthcare facilities. The first is from the perspective of a healthcare staff, HIV-related training should be conducted addressing the fear of HIV and its impact on PLHIV. The second is from the governmental perspective, financial investment should be increased to have adequate numbers of equipment in medical facilities to prevent the infection of healthcare workers.

Seeing an HIV-positive patient within the last year had a preventative effect on negative opinions in this sample. A prior cross-sectional study conducted on Iranian healthcare workers demonstrated that an experience of working with PLHIV, having passed educational courses on HIV and on transmission of other blood-borne diseases, and fewer work years were significantly associated with lower levels of stigma towards PLHIV [105, p.168]. Those who experience working with HIV-positive patients may have different attitudes towards these patients compared to those who have rare or no contact at all. This is due to the phenomenon that more frequent contact with an infected person may lead to "getting used to" and having more knowledge about HIV-positive patients consequently leading to lesser stigmatizing attitudes [142].

Knowledge of HIV is a well-documented factor leading to fear of HIV and stigma towards PLHIV in the scientific literature. For example, some countries require passing an educational course on HIV before providing care to patients which may also improve their knowledge and alter their attitudes towards PLHIV [134, p.163]. In the present study, we were not able to detect such statistically significant associations between low levels of knowledge about HIV and negative opinions towards PLHIV. Nevertheless, the levels of basic and in-depth knowledge were disturbingly low in this sample. Further analysis of these data demonstrated that older age, longer years of work in healthcare, seeing an HIV-positive patient within the last year, and having training on infection control and PEP might have a positive impact on basic HIV knowledge. Longer years of work and older age can be associated with better knowledge of HIV

transmission due to experience gained over years and educational differences during Soviet times and after the collapse of the Soviet Union. This finding is contrary to other studies where younger generations have better knowledge of HIV which may suggest some gaps in the education systems of the nurses in the country [133, p.7]. This was particularly highlighted during qualitative interviews by respondents admitting low levels of knowledge among the younger nursing staff and about the need for its improvement.

The scientific literature is consistent on the impact of HIV training on attitudes and behaviors towards PLHIV. Studies conducted in the USA revealed that limited opportunities for clinical education and practice, especially among non-HIV specialty doctors, lead to HIV-related stigma and low quality of medical care for PLHIV [78, p.120]. Stringer et al. also found lower levels of stigmatizing attitudes among healthcare providers who received HIV stigma training within the last year compared to those who received training earlier than a year. This may suggest the importance of frequent training on HIV in healthcare settings. Furthermore, the training on reducing HIV-related stigma is suggested to include a variety of activities including group discussions, games, role-playing, interactive modular training on HIV-related stigma, infection control, and medical ethics [136, p.1260]. This was also noted during the qualitative interviews in this sample; many respondents highlighted on "monotonic" way of conducting training in the form of lectures that needs to be changed.

Stigmatizing interactions are also often not recognized by healthcare providers as being stigmatizing. For instance, visibly marking the files of PLHIV is taken as an appropriate practice by some HCWs [110, p.660]. The above factors should be addressed through skills building and structural interventions such as availing supplies for standard precautions and establishing non-discriminatory policies and regulations in healthcare facilities [135, p.910]. Evidence on the effectiveness and the details of these interventions should be assessed and pooled.

There are several aspects that can be considered as strengths in this study. Firstly, due to the scarcity of evidence-based information on the topic of HIV-related stigma in the country, this study adds valuable knowledge for future research in the field of stigma and HIV. The mixed method design can also be considered one of the strongest study designs that can provide both quantitative and more in-depth, qualitative data for a comprehensive investigation of phenomena such as "stigma". Finally, we were also able to validate the study tools in both Kazakh and Russian languages for future use.

Limitations of the study include the fact that we were able to revalidate two dimensions of stigma due to methodological challenges in other dimensions. We made clarifications on "Fear of HIV transmission at work" items ("How worried would you be about getting HIV if you did the following? Regardless of the presence of HIV-positive patients at the moment"). However, this clarification was not sufficient

judging by the high numbers of “not applicable “responses which were then treated later as missing affecting the sample size required for factor analysis. The exclusion of missing data from factor analysis is another limitation to be discussed. Another consideration for limitation is the representativeness of the current data. We were able to survey only the primary healthcare settings in Almaty (due to the financial and time restrictions of the PhD project) and one should be careful in making inferences about other parts of the country. Nevertheless, the findings of this study may increase the interest in the topic and serve as a precursor for future national-wide studies. Lastly, the cross-sectional nature of the quantitative data also restricts as to make conclusions on the temporality of the significant associations found in this study.

5 RECOMMENDATIONS ON LOWERING STIGMA IN PRIMARY HEALTHCARE SETTINGS IN ALMATY

Less negative and stigmatizing attitudes by healthcare providers can play a significant role in reducing the social and structural barriers to HIV care across the continuum. Interventions that address the root of the stigmatizing attitudes such as betterment of knowledge about HIV and PLHIV, cultural awareness, adequate medical care and health facility policies, and integrative approach to diagnostics and treatment of HIV in healthcare settings. In addition, hiring a diversified medical staff, effectively meeting the needs of the care setting including its employees, and up-to-date and frequent training to providers seem to facilitate care methods that are comprehensive and sensitive to a broad range of individuals [77, p.420].

5.1 Integration of AIDS care into primary healthcare settings

Integration of HIV care with other healthcare systems has long been discussed and practiced in some countries with the purpose of increasing the health system's capacity. A shortage of trained workers and settings has emerged as one of the main barriers to achieving universal ART coverage [143–145]. Furthermore, the problem of retaining the medical staff in rural areas in low- and middle-income countries further complicates the situation with equal access to medical care for PLHIV [146]. Therefore, to overcome these obstacles, innovative strategies to optimally use the existing medical staff and settings for HIV care have been proposed. Kazakhstan along with some other countries delivers HIV/AIDS care in isolation, separately from non-HIV related health needs [147]. The vertical approach of HIV/AIDS care has previously been criticized in the literature as being less effective compared to integrated designs of care [148].

Integration of HIV services into primary care is defined as the sharing of services and resources for HIV care and primary care. This includes healthcare aspects such as clinic space, laboratory services, healthcare staff, pharmacy, and training. The purpose of such an integration is to address the issue of unequal allocation of resources and to obtain a better level of care provision regardless of one’s HIV status. This approach has been successful in resource-limited settings such as sub-Saharan Africa [149,150]. As the literature suggests integration of HIV and primary care is beneficial in many aspects of the HIV care continuum including financial (the use of available health facility structures for both non-HIV and HIV-related care); improved management of HIV infection (greater acceptability of services, increased referrals and enrolments into HIV care, and improved patient retention); efficient national health databases (integration results in the inclusion of ART related data into national health databases);

and in addition, integration leads to an increase of healthcare staff and shared workload resulting in more efficient use patients' waiting time [149, p.432].

Studies conducted in high HIV prevalence settings are consistent on a positive impact of integration of HIV and primary care services. For example, a program of decentralization of HIV care services in Mozambique revealed improvements in access to medical care and its quality [151]. A study in Rwanda provides further evidence of improvements in medical care in general after the integration such as improved staff capacity at primary healthcare settings which is a result of additional in-service training provided to the medical staff [152]. Improvements in the uptake of other services, particularly in antenatal care, were also seen as a result of integration that can be explained by mutually beneficial interaction between HIV care and other medical care services.

Another study assessing satisfaction after the integration of services suggests that patient satisfaction remains high and that integration does not worsen HIV-related perceived stigma [153]. The participants also report that the care was provided confidentially and equally regardless of HIV positive or negative both before and after the integration. This positive impact of integration on patient-provider interaction can be explained by satisfaction with HIV education and better reception with shorter waiting times. However, female respondents expressed increased discomfort with receiving care at integrated clinics. Furthermore, some studies suggest that the integration of HIV services with sexual and reproductive health can be challenged by increased patient burden and inadequate numbers of medical staff [154]. Similarly, integrating services for sexually transmitted infections into routine health services has also been reported to higher dissatisfaction among patients who receive routine care.

The impact of the integration of HIV services with other services on HIV-related stigma remains inconclusive. The reduction of HIV-related stigma in such a scenario is possible only if patients' HIV status cannot be determined by observing the physical location where a patient is receiving medical care. Furthermore, integration of services may lead to accidental disclosure of one's HIV-positive status. A study assessing HIV/AIDS stigma on health service utilization showed that anticipated HIV-related stigma can serve as a barrier to HIV testing, most commonly among pregnant women [155]. Another study among PLHIV demonstrated that "staying inside'' the HIV network made the participants feel comfortable and safe. In contrast, the idea of ''going outside'' the HIV network to receive care made some PLHIV more anxious and vulnerable [63, p.709] The study participants viewed the other healthcare providers outside the HIV-care network as less experienced and judgmental [63, p.710]. On the other hand, mixed-method research conducted in Zambia suggests a lower level of stigma after the integration of services. Nevertheless, decentralization of HIV-care

services requires more comprehensive investigation and offers an introduction of a new type of healthcare that needs training on HIV-specific matters [156].

5.2 Addressing the sources of stigma in healthcare

The scientific literature on reducing HIV-related stigma in healthcare settings is consistent in terms of addressing the individual and structural determinants of stigma. A systematic review analyzing interventions for reducing HIV-related stigma highlights five categories that most studies are conducted: information-based interventions, structural interventions, biomedical interventions, skills building, and contact strategies [132, p.5]. The majority of the studies reviewed in this study applied more than one of the categories of interventions. However, out of 14 studies chosen for the final review, only one study held moderate quality and the rest were assigned as low-quality interventions according to the authors [157]. This study sought to investigate the potential mediating effect of universal precaution (UP) on reducing HIV-related stigma in healthcare using a sample of 1740 healthcare workers in China.

The idea of UP is to consider all body fluids as potentially infectious and treat everybody the same during medical precaution procedures [158]. Consequently, compliance with UP in healthcare may improve safety and protection from infection based on procedures rather than individual judgment, which often derives from judgment and stereotypical thinking about HIV risk groups. Poor compliance with UP is generally manifested in the form of selective precaution and overprotection during the provision of care to PLHIV which subsequently leads to discrimination of such patients.

The interventional study conducted in China was focused on training popular opinion leaders in study settings and disseminating intervention messages to their coworkers [157, p.1441]. As the results demonstrate the intervention was effective in reducing avoidance and prejudicial attitudes and in improving compliance with universal precaution. This may indicate that structural interventions (availing materials for standard precaution) should be complemented with behavioral interventions. Compliance with UP can help to address fear-driven stigma, however, the issue of values-based stigma which is related to social norms and individual attitudes toward homosexuality, drug use, or other risks may remain. Previous research supports this idea by showing a more beneficial impact of interventions that address both fear-based and social stigma jointly than those addressing fear-based stigma alone [159]. Apart from equipping healthcare providers with knowledge and skills, it is equally important to address their emotions [160].

Knowledge of HIV and HIV-related stigma is one of the main individual factors that are specific to healthcare workers. As discussed earlier, poor knowledge of even the basic aspects of HIV may lead to fear of transmission that can in turn result in

discriminatory behaviors at work. Therefore, there is a need for programs that provide adequate information about how HIV is not transmitted and how practicing universal precautions can help with their fears. In addition, involving all staff members (e.g., medical doctors, mid-level healthcare workers, guards, cleaners, and administrative staff) in such intervention, rather than health professionals, is equally crucial.

Participatory methods of intervention including games, role plays, exercises, and group discussions are generally welcomed in the literature. These techniques are believed to create a non-judgmental environment that allows participants to assess personal values and behaviors while improving their knowledge and awareness. It may also create a sense of ownership among the participants within the process of developing stigma-reduction strategies. In other words, participatory methods may promote feelings of empowerment and inclusivity among healthcare workers as well as PLHIV participating in intervention programs [161]. There are numerous exercises available on stigma reduction to use or build your own program for example: Understanding and Challenging HIV Stigma: A Toolkit for Action [162]; Safe and Friendly Health Facility Trainers Guide [163]; and Reducing HIV Stigma and Gender-Based Violence: Toolkit for Health Care Providers in India [164]. Participatory methods of care may promote feelings of empowerment and inclusivity among PLHIV with those who provide their care.

The intervention guides on reducing HIV-related stigma also suggest involving individuals living with HIV in intervention programs [165]. Furthermore, involving people from marginalized PLHIV such as men who have sex with men, sex workers, and injective drug users may have a more beneficial impact, since it addresses not only HIV-related stigma but other social stigmas that exist towards such key populations. Showing that HIV has a "human face" may help others to better understand PLHIV and the stigma associated with their condition [166]. It is also important to conduct adequate training among PLHIV who are willing to participate in such interventions and prepare them for role-play activities (e.g., testimonials and co-facilitation). Some studies suggest that involving a healthcare worker with HIV-positive status may make a significant difference [136, p.1255].

Studying HIV-related stigma that is derived from assumptions of PLHIV as those who conduct immoral and improper behaviors is also essential in designing interventions. Interventions on disassociating persons living with HIV from the behaviors considered improper or immoral would be one of the many ways of addressing HIV-related stigma coming from shaming and blaming. A literature review conducted on this issue was able to identify only two guideline-related documents that address stigmatizing beliefs about HIV [167,168]. Surprisingly, this review suggests that the guidelines drew more recommendations to other health conditions related to stigma than the stigma associated with HIV, regardless of the increasing evidence of

its existence and negative impact on treatment. Therefore, more work needs to be done to include the negative associations with shame, blame, and immoral activities that fuel HIV-related stigma among healthcare workers from the policy-making perspective. For example, the government of Vietnam has updated its national hospital regulations by including stigma reduction and has provided a tool that hospitals can use to test their compliance with stigma reduction policies [159, p.247].

Creating a safe environment for health workers may also impact the quality of care provided to HIV-positive patients. The safe work environment in healthcare settings includes sufficient stocks of necessary materials such as drugs, gloves, syringes, needle disposal bins, and hand washing stations to practice effective infection prevention and control [133, p.15]. Facilities should be accessible and safe for all patients including PLHIV, avoiding distinguishing marks such as writing "HIV+" on a patient's chart or segregating patients within a health facility based on disease status, except where isolation is strictly necessary to implement [165, p.410]. The management of the hospitals also needs to ensure that the environment of the medical centers encourages respect for patient rights. One potential intervention suggested in the literature is to place chairs in waiting rooms to increase patient socialization between HIV-positive and HIV-negative patients.

Following these recommendations, a stigma-reduction intervention conducted in four Vietnamese hospitals can be presented as an example of effective prevention work [159, p.250]. The mean score on both a fear-based and a value-based stigma index decreased significantly after the intervention in this study. In addition, improvements in the use of UP, increased HIV testing of patients in the study settings, and a reduction in the marking of files including beds of HIV-positive patients were observed in this study. The intervention program this study applied consists of the following steps: Implementation of a brief survey to understand the need for action to reduce HIV-related stigma and to construct a guide for an intervention. Flexible scheduling of participatory training sessions for all hospital workers starting from cleaners to clerks and doctors. The training sessions included topics on HIV-related knowledge, universal precautions, fear- and value-based stigma, and sessions on how stigma may look like in healthcare settings. Participatory drafting of a healthcare atmosphere that is safe for the staff and stigma-free. Provision of the materials necessary for practicing universal precautions. Other studies are also consistent on the benefits of interventions addressing HIV-related knowledge and interventions on fear of HIV transmission including training on dealing with secondary stigma [165 p.406].

Overall, the following steps for HIV-related stigma reduction in healthcare settings: are genuinely known: group discussions, role-playing, and games to prepare popular opinion leaders; interventions through peer groups and group education in order to reduce addressing fear of HIV and HIV knowledge; interactive modular

training sessions on HIV-related stigma, medical ethics and contact with PLHIV; workshops and dissemination of policy guidelines and educational materials.

Health facilities should respond in a multi-faceted way to address HIV-positive health workers' fear of stigma and loss of confidentiality. The response should include private and confidential counseling and testing services, access to antiretroviral therapy, and professional and emotional support, either on the premises or at a convenient location.

CONCLUSION

Overall, the results of our study support other research that suggests high levels of negative opinions towards PLHIV among medical workers, particularly mid-level medical staff. Associations found between lower levels of negative opinions towards PLHIV and seeing an HIV-positive patient may suggest the positive impact of the potential integration of AIDS care into primary healthcare settings by increasing the contact between healthcare workers and PLHIV. Low levels of HIV knowledge among the mid-level medical staff should also be a priority for any interventions addressing HIV-related stigma and discrimination. We also acknowledge that there could have been changes over the past few years since the frequency of training has increased since 2019. In such a scenario, we recommend replication studies in primary healthcare centers to enable the comparison of changes over the years. Regarding HIV-related stigma and negative opinions, misconceptions, and judgmental opinions found in this study, we think that the quality of the intervention including the type of intervention should be paid more attention to than the quantity of training conducted among medical staff.

Considering the conclusions for each study objective:

1. **Re-evaluation and adaptation of the HIV-Related Stigma Assessment Tool for the Kazakhstani Context:** The assessment tool displayed favorable psychometric attributes (Goodness of Fit Index - GFI: 0.97, Tucker-Lewis Index - TLI: 0.97, Root Mean Square Error of Approximation - RMSEA: 0.07, Cronbach's alpha for Factor 1: $\alpha = 0.66$, Cronbach's alpha for Factor 2: $\alpha = 0.85$). The questionnaire is now available in both Kazakh and Russian languages for further evaluation of HIV-associated stigma within healthcare facilities in the country.
2. **Negative Attitudes toward PLHIV in healthcare:** In a study involving 448 employees from primary healthcare organizations, a substantial proportion (87%, n=387) of respondents endorsed at least one stigmatizing statement on the HIV stigma scale. Approximately 85% (n=286 out of 335 involved in medical procedures) expressed some degree of fear related to contracting HIV during their work. Almost half of the respondents reported taking additional precautions while interacting with HIV-positive patients, such as using double gloves (54.3%) and avoiding physical contact (48.18%). A minority of respondents (n=129, 30%) correctly identified all the body fluids that can transmit HIV
3. **Impact of Work Experience and Exposure on Attitudes and Knowledge:** Longer tenure in the healthcare field and experience with PLHIV correlated with reduced negative attitudes towards both PLHIV and key populations. Logistic regression models revealed significant correlations: longer work experience

was associated with lower likelihood of negative attitudes towards PLHIV (AOR = 0.33, 95% Confidence Interval - CI: 0.12, 0.84, p = 0.02), recent exposure to an HIV-positive patient within the last 12 months corresponded with lower levels of negative attitudes (AOR = 0.34, 95% CI: 0.18, 0.62, p = 0.001), while those who exhibited heightened fear of contracting HIV exhibited elevated levels of negative attitudes towards PLHIV (AOR = 3.33, 95% CI = 1.34, 8.2, p = 0.01). Knowledge about HIV transmission was associated with older age (Chi-square = 18.74, p < 0.001), longer work experience in healthcare (Chi-square = 22.33, p < 0.001), exposure to an HIV-positive patient in the previous year (Chi-square = 5.84, p = 0.01), and training in infection control and post-exposure prophylaxis (Chi-square = 7.90, p = 0.004).

4. **Impact of Work Experience and Exposure on Attitudes and Knowledge:** Longer years of work in the healthcare field and experience with PLHIV correlated with reduced negative attitudes towards both PLHIV and key populations (AOR = 0.33, 95% Confidence Interval - CI: 0.12, 0.84, p = 0.02), recent exposure to an HIV-positive patient within the last 12 months corresponded with lower levels of negative attitudes (AOR = 0.34, 95% CI: 0.18, 0.62, p = 0.001), while those who exhibited heightened fear of contracting HIV exhibited elevated levels of negative attitudes towards PLHIV (AOR = 3.33, 95% CI = 1.34, 8.2, p = 0.01). Knowledge about HIV transmission was associated with older age (Chi-square = 18.74, p < 0.001), longer work experience in healthcare (Chi-square = 22.33, p < 0.001), exposure to an HIV-positive patient in the previous year (Chi-square = 5.84, p = 0.01), and training in infection control and post-exposure prophylaxis (Chi-square = 7.90, p = 0.004).

5. **Recommendations for Reducing Stigma in Primary Healthcare (PHC):** To address stigma effectively in PHC settings, it is recommended to implement internationally recognized interventions in various formats and on a regular basis. The scientific literature provides interventions designed to combat HIV-related stigma and discrimination, along with the dissemination of HIV knowledge through methods such as group discussions, games, role-plays, and interactive modular training covering stigma, infection control, and medical ethics. Furthermore, integrating HIV care services into primary healthcare organizations to deliver comprehensive care, aligning with the WHO's recommendation to transition from disease-focused healthcare systems to people-centered systems, holds promise. However, further research is needed to explore the impact of such integration on the stigmatization of PLHIV.

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APPENDIX A

HIV-related stigma assessment tool in Russian

ИЗМЕРЕНИЕ УРОВНЯ СТИГМЫ И ДИСКРИМИНАЦИИ В СВЯЗИ С ВИЧ СРЕДИ ПЕРСОНАЛА МЕДИЦИНСКИХ УЧРЕЖДЕНИЙ:

РАЗДЕЛ 1: БАЗОВАЯ ИНФОРМАЦИЯ

Сначала мы зададим Вам вопросы для получения базовой информации о Вас.

1. Сколько лет Вам лет?

   _____ лет

2. Укажите пол?

   □ Женщина ☐ Мужчина

3. Какую должность Вы занимаете в настоящее время?

   □ Врач ☐ Мед. Сестра ☐ Стоматолог/Зубной техник ☐ Младший медицинский

   персонал (санитар (-ка) ☐Гинеколог /Акушер ☐Психолог ☐Социальный работник

   □ Другое:_____

4. Сколько лет Вы заняты в сфере здравоохранения?

   _____ лет

5. Вы когда-нибудь работали в клинике/больнице /отделении, специализирующийся в области лечении и ухода ВИЧ инфицированных?

   □ Да ☐ Нет

   a. Если да, сколько лет вы работали в таких медицинских учреждениях?

   _____ лет

6. Были ли среди ваших пациентов за последние 12 месяцев какие-либо пациенты, которые, как вы знали, были ВИЧ-положительными?

   □ Да ☐ Нет ☐ Неприменимо

a. Если да, то сколько?

☐_____ ☐ Затрудняюсь ответить

7. Вы проходили профессиональную подготовку по следующим направлениям? (Отметьте все возможные варианты.)

☐ В течение последних 12 месяцев

☐ В течение более 12 месяцев

☐Стигма и дискриминация в связи с ВИЧ

☐Инфекционный контроль и универсальные меры предосторожности (в т. ч. пост- контактная профилактика)

☐Информированное согласие пациента, право на частную жизнь, соблюдение конфиденциальности

☐ Стигма и дискриминация в отношении ключевых групп населения

8. Пожалуйста, укажите вашу религиозную принадлежность из следующих вариантов.

☐ Христианин ☐ Ислам ☐ Иудаизм ☐ Не религиозный ☐ Другое

a. Насколько Вы считаете себя религиозным?

☐ Сильно религиозный (принятие и подчинение всем учениям религиозной традиции, регулярное посещение религиозных служб)

☐ Умеренно религиозный (принятие некоторых учений религиозной традиции, нерегулярное посещение религиозных служб)

☐ Слегка религиозный (принятие некоторых учений религиозной традиции, редкое посещение религиозных служб или их отсутствие)

☐ Совсем не религиозный

9.Пожалуйста, укажите этническую группу, к которой Вы принадлежите.

☐ Казах ☐ Русский ☐ Уйгур ☐ Украинец ☐ Татар ☐ Еврей ☐ Кореец

☐ Киргиз☐ Узбек ☐ Туркмен ☐ Таджик ☐ Другое

РАЗДЕЛ 2: ИНФЕКЦИОННЫЙ КОНТРОЛЬ

Теперь мы зададим Вам вопросы о наличии у Вас обеспокоенности касательно вероятности заражения в Вашем медицинском учреждении.

10.Насколько Вы были бы обеспокоены возможностью заражения ВИЧ-инфекцией, если бы с Вашей стороны имели место следующие действия?

Если какие-либо из перечисленных ниже действий не входят в Ваши обязанности, пожалуйста, выберите ответ "Не применимо".

a. Касание одежды пациента, живущего с ВИЧ

□ Не обеспокоен(-а) ☐ Немного обеспокоен(-а) ☐ Обеспокоен(-а)

□ Очень обеспокоен(-а) ☐ Неприменимо

b. Перевязка раны пациента, живущего с ВИЧ

□ Не обеспокоен(-а) ☐ Немного обеспокоен(-а) ☐ Обеспокоен(-а)

□ Очень обеспокоен(-а) ☐ Неприменимо

c. Забор крови у пациента, живущего с ВИЧ

□ Не обеспокоен(-а) ☐ Немного обеспокоен(-а) ☐ Обеспокоен(-а)

□ Очень обеспокоен(-а) ☐ Неприменимо

d. Измерение температуры тела пациента, живущего с ВИЧ

□ Не обеспокоен(-а) ☐ Немного обеспокоен(-а) ☐ Обеспокоен(-а)

□ Очень обеспокоен(-а) ☐ Неприменимо

e. Делать уколы

□ Не обеспокоен(-а) ☐ Немного обеспокоен(-а) ☐ Обеспокоен(-а)

□ Очень обеспокоен(-а) ☐ Неприменимо

11. Предпринимаете ли Вы, как правило, какие-либо из перечисленных ниже мер при уходе за пациентом, живущем с ВИЧ, или предоставляя такому пациенту какие-либо услуги?

a. Избегать физического контакта

☐ Да ☐ Нет ☐ Неприменимо

b. Носить двойные перчатки

☐ Да ☐ Нет ☐ Неприменимо

c. Носить перчатки независимо от обстоятельств в рамках ухода за пациентом

☐ Да ☐ Нет ☐ Неприменимо

d. При работе с пациентами, живущими с ВИЧ, использовать специальные средства инфекционного контроля, которые Вы не используете при работе с другими пациентами

☐ Да ☐ Нет ☐ Неприменимо

РАЗДЕЛ 3: УСЛОВИЯ РАБОТЫ В МЕДИЦИНСКИХ УЧРЕЖДЕНИЯХ

Теперь мы зададим Вам вопросы о методах работы в Вашем медицинском учреждении и Вашем опыте работы в учреждении, осуществляющем уход за людьми, живущими с ВИЧ.

12. Видели ли Вы кого-либо из людей, живущих с ВИЧ, в Вашем медицинском учреждении за последние 12 месяцев?

☐ Да ⟶ переходите к вопросу № 13

☐ Нет ⟶ пропустите, перейдя к вопросу № 14

☐ Не знаю ⟶ пропустите, перейдя к вопросу № 14

13. Как часто за последние 12 месяцев Вы наблюдали в своем медицинском учреждении что-либо из перечисленного ниже?

a. Медицинские работники не хотели осуществлять уход за пациентом, живущим с ВИЧ, или пациентом, который, как считается, живет с ВИЧ.

☐ Никогда ☐ Один или два раза ☐ Несколько раз ☐ Практически все время

b. Медицинские работники осуществляли более низкий по качеству уход за пациентом, живущим с ВИЧ, или пациентом, который, как считается, живет с ВИЧ, по сравнению с другими пациентами.

☐ Никогда ☐ Один или два раза ☐ Несколько раз ☐ Практически все время

c. Медицинские работники плохо отзываются о людях, живущих с ВИЧ, или людях, которые, как считается, живут с ВИЧ

☐ Никогда ☐ Один или два раза ☐ Несколько раз ☐ Практически все время

d. Медицинские работники, отказывающиеся оказывать помощь людям, живущих с ВИЧ

☐ Никогда ☐ Один или два раза ☐ Несколько раз ☐ Практически все время

14. Насколько охотно медицинские работники Вашего учреждения соглашаются работать бок о бок с сослуживцем, живущим с ВИЧ, независимо от того, какие обязанности они выполняют?

☐ Охотно ☐ Немного неохотно ☐ В некоторой степени неохотно ☐ Очень неохотно

РАЗДЕЛ 4: ПОЛИТИКА МЕДИЦИНСКОГО УЧРЕЖДЕНИЯ

Теперь мы зададим Вам вопросы о политике Вашего учреждения и условиях работы в нем.

15.В моем учреждении не допускается тестировать пациента на ВИЧ без его ведома.

☐ Полностью согласен(сна) ☐ Согласен(сна) ☐ Несогласен(сна)

☐ Категорически несогласен (сна)

16.У меня будут проблемы на работе, если я буду вести себя дискриминирующим образом в отношении людей, живущих с ВИЧ.

☐ Да ☐ Нет ☐ Не знаю

17. У меня будут проблемы на работе, если я раскрою статус пациента, живущего с ВИЧ, другим без его или ее согласия

☐ Да ☐ Нет ☐ Не знаю

18.Вы согласны, полностью согласны, не согласны или категорически не согласны с перечисленными ниже утверждениями?

a. В моем медицинском учреждении достаточно средств, снижающих риск моего заражения ВИЧ

☐ Полностью согласен(сна) ☐ Согласен(сна) ☐ Несогласен(сна) ☐ Категорически несогласен(сна)

b. В моем медицинском учреждении внедрены стандартизированные процедуры / протоколы, снижающие риск моего заражения ВИЧ.

☐ Полностью согласен(сна) ☐ Согласен(сна) ☐ Несогласен(сна)

☐ Категорически несогласен(сна)

19.В моем медицинском учреждении внедрены оформленные в письменной форме руководящие указания, направленные на защиту людей, живущих с ВИЧ, от дискриминации.

☐ Да ☐ Нет ☐ Не знаю

РАЗДЕЛ 5: МНЕНИЯ О ЛЮДЯХ, ЖИВУЩИХ С ВИЧ

Теперь мы зададим Вам вопросы о мнениях, связанных с людьми, живущими с ВИЧ.

20.Вы согласны, полностью согласны, не согласны или категорически не согласны с перечисленными ниже утверждениями?

a. Большинство людей, живущих с ВИЧ, не волнует вопрос, а что, если они заразят других людей.

☐ Полностью согласен(сна) ☐ Согласен(сна) ☐ Несогласен(сна) ☐ Категорически несогласен(сна)

b. Людям, живущим с ВИЧ, должно быть стыдно за себя.

☐ Полностью согласен(сна) ☐ Согласен(сна) ☐ Несогласен(сна) ☐ Категорически несогласен(сна)

c. У большинства людей, живущих с ВИЧ, было много сексуальных партнеров.

☐ Полностью согласен(сна) ☐ Согласен(сна) ☐ Несогласен(сна) ☐ Категорически несогласен(сна)

d. Люди заражаются ВИЧ при безответственном поведении.

☐ Полностью согласен(сна) ☐ Согласен(сна) ☐ Несогласен(сна) ☐ Категорически несогласен(сна)

e. ВИЧ – это кара за неправильное поведение.

☐ Полностью согласен(сна) ☐ Согласен(сна) ☐ Несогласен(сна) ☐ Категорически несогласен(сна)

f. Мне было бы стыдно, если бы кто-то из моих знакомых был ВИЧ инфицированным.

☐ Полностью согласен(сна) ☐ Согласен(сна) ☐ Несогласен(сна) ☐ Категорически несогласен(сна)

g. Мне было бы стыдно, если бы кто-то в моей семье был ВИЧ инфицированным.

☐ Полностью согласен(сна) ☐ Согласен(сна) ☐ Несогласен(сна) ☐ Категорически несогласен(сна)

h. ВИЧ-инфицированные пациенты, которые заразились вирусом при половом акте, больше виноваты в заражении ВИЧ, чем те, кто заразились при переливании крови

☐ Полностью согласен(сна) ☐ Согласен(сна) ☐ Несогласен(сна) ☐ Категорически несогласен(сна)

i. ВИЧ-инфицированные пациенты, которые заразились вирусом при инъекции наркотиков, больше виноваты в заражении ВИЧ, чем те, кто заразились при переливании крови

☐ Полностью согласен(сна) ☐ Согласен(сна) ☐ Несогласен(сна) ☐ Категорически несогласен(сна)

21. Женщинам, живущим с ВИЧ, должно быть разрешено иметь детей, если

они этого хотят.

☐ Полностью согласен(сна) ☐ Согласен(сна) ☐ Несогласен(сна) ☐ Категорически несогласен(сна)

a. Мужчинам, живущим с ВИЧ, должно быть разрешено иметь детей, если они этого хотят.

☐ Полностью согласен(сна) ☐ Согласен(сна) ☐ Несогласен(сна) ☐ Категорически несогласен(сна

22. Пожалуйста, скажите нам, согласны ли Вы, согласны ли Вы полностью, не согласны ли Вы или не согласны ли Вы категорически со следующим утверждением:

a. Если бы у меня был выбор, я бы предпочел не предоставлять услуги людям, использующим незаконные инъекционные наркотические средства.

☐ Полностью согласен ⟶ переходите к вопросу № 22b

☐ Согласен ⟶ переходите к вопросу № 22b

☐ Не согласен ⟶ пропустите, перейдя к вопросу № 23

☐ Категорически не согласен ⟶ пропустите, перейдя к вопросу № 23

b. Я предпочитаю не предоставлять услуги людям, использующим незаконные инъекционные наркотические средства, потому что (отметьте все соответствующие варианты ответа):

I	Они подвергают меня повышенному риску заболевания.	☐	Согласен(сна)	☐	Не согласен(сна)
II	Эта группа ведет себя аморально.	☐	Согласен(сна)	☐	Согласен(сна)
III	Я не проходил профессиональную подготовку для работы с этой группой.	☐	Согласен(сна)	☐	Не согласен(сна)
IV	Другое, пожалуйста, уточните _____				

23.Пожалуйста, скажите нам, согласны ли Вы, согласны ли Вы полностью, не согласны ли Вы или не согласны ли Вы категорически со следующим утверждением:

a. Если бы у меня был выбор, я бы предпочел не предоставлять услуги мужчинам, занимающимся сексом с мужчинами.
   - □ Полностью согласен ⟶ переходите к вопросу № 23b
   - □ Согласен ⟶ переходите к вопросу № 23b
   - □ Не согласен ⟶ пропустите, перейдя к вопросу № 24
   - □ Категорически не согласен ⟶ пропустите, перейдя к вопросу № 24

b. Я предпочитаю не предоставлять услуги мужчинам, занимающимся сексом с мужчинами, потому что (отметьте все соответствующие варианты ответа):

I	Они подвергают меня повышенному риску заболевания.	□	Согласен(сна)	□	Не согласен(сна)
II	Эта группа ведет себя аморально.	□	Согласен(сна)	□	Согласен(сна)
III	Я не проходил профессиональную подготовку для работы с этой группой.	□	Согласен(сна)	□	Не согласен(сна)
IV	Другое, пожалуйста, уточните _____				

24.Пожалуйста, скажите нам, согласны ли Вы, согласны ли Вы полностью, не согласны ли Вы или не согласны ли Вы категорически со следующим утверждением:

a. Если бы у меня был выбор, я бы предпочел не предоставлять услуги работникам секс-бизнеса (как к женщинам, так и к мужчинам)
   - □ Полностью согласен ⟶ переходите к вопросу № 24b
   - □ Согласен ⟶ переходите к вопросу № 24b
   - □ Не согласен ⟶ пропустите, перейдя к вопросу № 25

□ Категорически не согласен ⟶ пропустите, перейдя к вопросу № 25

b. Я предпочитаю не предоставлять услуги работникам индустрии секса, потому что (отметьте все соответствующие варианты ответа):

I	Они подвергают меня повышенному риску заболевания.	□	Согласен(сна)	□	Не согласен(сна)
II	Эта группа ведет себя аморально.	□	Согласен(сна)	□	Согласен(сна)
III	Я не проходил профессиональную подготовку для работы с этой группой.	□	Согласен(сна)	□	Не согласен(сна)
IV	Другое, пожалуйста, уточните _____				

25.Я думаю, что я имею право отказаться оказывать медицинскую помощь ВИЧ инфицированным, чтобы защитить себя

□ Полностью согласен(сна) □ Согласен(сна) □ Несогласен(сна) □ Категорически несогласен(сна)

26.Я думаю, что я имею право отказаться оказывать медицинскую помощь ВИЧ инфицированным, чтобы защитить других пациентов

□ Полностью согласен(сна) □ Согласен(сна) □ Несогласен(сна) □ Категорически несогласен(сна)

РАЗДЕЛ 6: ЗНАНИЕ О ПУТЯХ ПЕРЕДАЧИ ВИЧ ИНФЕКЦИИ

Теперь мы зададим Вам несколько вопросов о путях передачи ВИЧ.

27.Риск передачи ВИЧ после уколов иглой или острыми предметами невелик (примерно 1 на 300)

□ Да □ Нет □ Не знаю

28.Риск передачи ВИЧ после попадания крови на не интактную кожу или слизистую оболочку невелик (примерно 1 на 1000)

□ Да □ Нет □ Не знаю

29.Стандартные процедуры стерилизации достаточны для стерилизации инструментов, использованных на ВИЧ-положительных пациентах.

☐ Да ☐ Нет ☐ Не знаю

30.Пациенты с венерическими заболеваниями чаще заражаются ВИЧ

☐ Да ☐ Нет ☐ Не знаю

31.Вакцина против ВИЧ уже разработана и доступна

☐ Да ☐ Нет ☐ Не знаю

32.Какие из следующих биологических жидкостей имеют достаточно высокие концентрации ВИЧ для передачи инфекции? (Отметьте галочкой все те биологические жидкости что может передавать ВИЧ).

☐ слюна ☐ кровь ☐ моча ☐ фекалии ☐ спинальная жидкость ☐ сперма ☐ грудное молоко

☐ вагинальные выделения ☐ гной ☐ пот ☐ плевральная жидкость

33.Передача ВИЧ может быть предотвращена путем правильного использования антиретровирусной терапии и достижения и поддержания неопределяемой вирусной нагрузки у ВИЧ-инфицированных пациентов.

☐ Да ☐ Нет ☐ Не знаю

РАЗДЕЛ 7: КРАТКАЯ ШКАЛА СОЦИАЛЬНОЙ ЖЕЛАТЕЛЬНОСТИ

34.Улыбались бы Вы людям каждый раз когда вы встречаете их?

☐ Да ☐ Нет

35.Вы всегда практикуете то, что проповедуете людям?

☐ Да ☐ Нет

36.Если вы говорите людям, что будете что-то делать, всегда ли выполняете свое обещание, независимо от того, как неудобно это может быть?

☐ Да ☐ Нет

37.Вы бы врали людям?

☐ Да ☐ Нет

APPENDIX B

HIV-related stigma assessment tool in Kazakh

МЕДИЦИНАЛЫҚ МЕКЕМЕЛЕРДІҢ ҚЫЗМЕТКЕРЛЕРІ АРАСЫНДА АИТВ-на БАЙЛАНЫСТЫ СТИГМА МЕН КЕМСІТУ ДЕҢГЕЙІН БАҒАЛАУ:

1 БӨЛІМ: НЕГІЗГІ АҚПАРАТ

Алдымен біз сіз жөнінде негізгі ақпарат алу мақсатында сізге сұрақтар қоямыз.

1. Толық жасыңыз?

_____ жас

2. Жынысыңыз?

□ Әйел ☐ Еркек

3. Қазіргі уақытта қандай қызмет атқарасыз?

□ Дәрігер ☐ Медбике ☐ Стоматолог/Тіс технигі ☐ Кіші медициналық қызметкер (санитар) ☐Гинеколог /Акушер ☐Психолог ☐ Әлеуметтік қызметкер

□ Басқа:_____

4.Денсаулық сақтау саласында қызмет атқарып жүргеніңізге қанша уақыт болды?

_____ жыл

5.Сіз АИТВ індетін жұқтырған адамдарды емдеу және күтумен айналысатын клиника/ аурухана/бөлімшеде қызмет атқардыңызба?

□ Иә ☐ Жоқ

а. Егер жоғарыда көрсетілген мекемелерде қызмет атқарған болсаңыз, қызмет атқару мерзімін көрсетіңіз

_____ жыл

6. Соңғы 12 ай аралығында сіздің науқастарыңыздың арасында қандай да бір сізге белгілі АИТВ-на оң нәтижелі науқас болды ма?

□ Иә ☐ Жоқ ☐ Қолдануға келмейді

b. Егер жоғарыда көрсетілген науқастар болған жағдайда санын корсетіңіз

☐_____ ☐ Жауап беруге қиналамын

7.Сіз келесі бағыттар бойынша мамандандырылған дайындықтардан өттіңіз бе? (Барлық мүмкін нұсқаларды белгілеңі

☐ Соңғы 12 ай уақыт аралығында ☐ 12 айдан астам уақыт аралығында

☐АИТВ-на байланысты стигма және кемсіту

☐ Инфекциялық бақылау және әмбебап сақтық шаралары (соның ішінде экспозициядан кейінгі профилактика)

☐Науқастың ақпараттық келісімі, жеке өмірге деген құқығы, құпиялылықты сақтау

☐Тұрғындардың негізгі топтарына қатысты стигма және кемсітушілік

8. Өтініш, төменде көрсетілген нұсқалардан қай діни топқа жататыныңызды көрсетіңіз

☐ Христиан ☐ Ислам ☐ Иудаизм ☐ Дін бағытын ұстанбаймын ☐ Басқа

a. Өзіңізді қаншалықты діншілмін деп санайсыз?

☐ Аса діншіл (діни дәстүрлердің барлық ілімдерін қабылдау және бағыну,діни қызметтерге жүйелі түрде қатысу)

☐ Орташа діншіл (діни дәстүрлердің кейбір ілімдерін қабылдау және діни қызметтерге жүйелі емес түрде қатысу)

☐ Аздап діншіл (діни дәстүрлердің кейбір ілімдерін қабылдау, діни қызметтерге сирек қатысу немесе мүлдем қатыспау)

☐ Мүлдем діншіл емес

9. Төменде көрсетілген этникалық топтардың қайсысына жататыныңызды көрсетіңіз.

☐ Қазақ ☐ Орыс ☐ Ұйғыр ☐ Украин ☐ Татар ☐ Еврей ☐ Кәріс

☐ Қырғыз☐ Өзбек ☐ Түркмен ☐ Тәжік ☐ Басқа _____

2 БӨЛІМ: ИНФЕКЦИЯЛЫҚ БАҚЫЛАУ

Келесі кезекте біз сіздің медициналық мекемеңізде инфекция жұқтырып алу ықтималдығы бойынша алаңдаушылыққа қатысты сұрақтар қоямыз.

10. Келесі әрекеттерді орындау барысында сіз АИТВ-н жұқтырып алу ықтималдығына байланысты қаншалықты алаңдаушылық көрсетер едіңіз? *Егер төмендегі әрекеттердің қандай –да біреуі сіздің қызметіңізге сәйкес келмесе, «Қолдануға келмейді» деген жауапты таңдаңыз.*

a. АИТВ-мен өмір сүретін науқастың киіміне қол тигізу

☐ Алаңдамаймын ☐ Аздап алаңдаймын ☐ Алаңдаймын

☐ Өте қатты алаңдаймын ☐ Қолдануға келмейді

b. АИТВ-мен өмір сүретін науқастың жарасын таңу

☐ Алаңдамаймын ☐ Аздап алаңдаймын ☐ Алаңдаймын

☐ Өте қатты алаңдаймын ☐ Қолдануға келмейді

c. АИТВ-мен өмір сүретін науқастан қан алу

☐ Алаңдамаймын ☐ Аздап алаңдаймын ☐ Алаңдаймын

☐ Өте қатты алаңдаймын ☐ Қолдануға келмейді

d. АИТВ-мен өмір сүретін науқастың дене қызуын өлшеу

☐ Алаңдамаймын ☐ Аздап алаңдаймын ☐ Алаңдаймын

☐ Өте қатты алаңдаймын ☐ Қолдануға келмейді

e. Иньекция жасау

☐ Алаңдамаймын ☐ Аздап алаңдаймын ☐ Алаңдаймын

☐ Өте қатты алаңдаймын ☐ Қолдануға келмейді

11. АИТВ-мен өмір сүретін науқасқа күтім жасау немесе қандай-да бір қызмет көрсету барысында төменде келтірілген шаралардың бірін орындайсыз ба?

e. Физикалық қатынастан аулақ болу

☐ Иә ☐ Жоқ ☐ Қолдануға келмейді

f. Қос қолғап кию

☐ Иә ☐ Жоқ ☐ Қолдануға келмейді

g. Науқастарға күтім көрсету барысында түрлі мән-жайларға қарамастан қолғап кию

☐ Иә ☐ Жоқ ☐ Қолдануға келмейді

h. АИТВ-мен өмір сүретін науқастармен жұмыс жасау барысында, басқа науқастармен жұмыс істегенде қолданылмайтын арнайы инфекциялық бақылау шараларын қолдану.

☐ Иә ☐ Жоқ ☐ Қолдануға келмейді

3 БӨЛІМ: МЕДИЦИНАЛЫҚ МЕКЕМЕЛЕРДЕГІ ЖҰМЫС ОРНЫ ЖАҒДАЙЫ

Келесі кезекте біз сіздің медициналық мекемеңіздегі жұмыс әдістері және АИТВ-мен өмір сүретін адамдарға күтім жасаудағы тәжірибеңіз туралы сұрақтар қоямыз.

12. Медициналық мекемеңізде соңғы 12 ай аралығында АИТВ-мен өмір сүретін науқас көрдіңіз бе?

☐ Иә ⟶ № 13 сұраққа көшіңіз

☐ Жоқ ⟶ өткізіп № 14 сұраққа көшіңіз

☐ Білмеймін ⟶ өткізіп № 14 сұраққа көшіңіз

13. Соңғы 12 ай аралығында сіздің медициналық мекемеңізде төмендегі көрсетілген әрекеттердің орындалуын қаншалықты жиі байқадыңыз?

d. Денсаулық сақтау қызметкерлерінің АИТВ-мен өмір сүретін науқасқа немесе АИТВ-мен өмір сүреді деп саналатын науқасқа күтім көрсеткісі келмеуі.

☐ Ешқашан ☐ Бір - екі рет ☐ Бірнеше рет ☐ Іс жүзінде барлық уақытта

e. Медицина қызметкерлерінің АИТВ-мен өмір сүретін науқасқа немесе АИТВ-мен өмір сүреді деп саналатын науқасқа, басқа науқастармен салыстырғанда, сапасы төмен күтім көрсетуі.

☐ Ешқашан ☐ Бір екі рет ☐ Бірнеше рет ☐ Іс жүзінде барлық уақытта

f. Медицина қызметкерлерінің АИТВ-мен өмір сүретін науқастар немесе АИТВ-мен өмір сүреді деп саналатын науқастар жайлы жаман пікірде болуы.

☐ Ешқашан ☐ Бір екі рет ☐ Бірнеше рет ☐ Іс жүзінде барлық уақытта

d. Медицина қызметкерлерінің АИТВ-мен өмір сүретін науқастар немесе АИТВ-мен өмір сүреді деп саналатын науқастарға күтім көрсетуден бас тартуы

☐ Ещқашан ☐ Бір екі рет ☐ Бірнеше рет ☐ Іс жүзінде барлық уақытта

14. Сіздің мекемеңіздегі медицина қызметкерлері АИТВ-мен өмір сүретін әріптестері бар болған жағдайда, олардың қандай қызмет атқаратынына қарамастан, бірге жұмыс жасауға қаншалықты ықылас білдірер еді?

☐ Үлкен ықылас білдіреді ☐ Белгілі дәрежеде ықылас білдіреді ☐ Белгілі дәрежеде ықылас білдірмейді ☐ Жоғары дәрежеде ықылас білдірмейді

4 БӨЛІМ: МЕДИЦИНАЛЫҚ МЕКЕМЕЛЕРДІҢ САЯСАТЫ

Келесі кезекте сіздің мекемеңіздің саясаты және онда жұмыс шарттары туралы сұрақтар қоямыз.

15. Мен жұмыс жасайтын мекемемде науқасты АИТВ-на оның білуінсіз тексеруге жол берілмейді.

☐Толығымен келісемін ☐ Келісемін ☐ Келіспеймін ☐ Толығымен келіспеймін

16. Менің тарапымнан АИТВ-мен өмір сүретін адамдарға қатысты кемсітушілік көрсетілген жағдайда менің жұмыс орнымда қиыншылықтар туындайды

☐ Иә ☐ Жоқ ☐ Білмеймін

17. Мен АИТВ-мен өмір сүретін науқастың статусын басқаларға оның келісімінсіз жариялаған жағдайда менің жұмыс орнымда қиыншылықтар туындайды

☐ Иә ☐ Жоқ ☐ Білмеймін

18. Сіз төмендегі мәлімдемелермен келісесіз,толығымен келісесіз, келіспейсіз немесе толығымен келіспейсіз, сәйкесін таңдаңыз.

c. Менің медициналық мекемемде, менің АИТВ-ні жұқтыру қаупін азайтатын шаралар жекілікті

☐ Толығымен келісемін ☐ Келісемін ☐ Келіспеймін ☐ Толығымен келіспеймін

d. Менің медициналық мекемемде, менің АИТВ-н жұқтыру қаупімді азайтатын стандартталған рәсімдер / протоколдар енгізілген.

☐ Толығымен келісемін ☐ Келісемін ☐ Келіспеймін ☐ Толығымен келіспеймін

19. Менің медициналық мекемемде АИТВ-мен ауыратын адамдарды кемсітуден

қорғауға бағытталған жазбаша түрдегі жетекшілік нұсқаулары енгізілген.

☐ Иә ☐ Жоқ ☐ Білмеймін

5 БӨЛІМ: АИТВ-МЕН ӨМІР СҮРЕТІН АДАМДАР ЖАЙЛЫ ПІКІРЛЕР

Келесі кезекте сізге АИТВ-мен өмір сүретін адамдарға қатысты пікірлер жайлы сұрақтар қоямыз.

20. Сіз төмендегі мәлімдемелермен келісесіз,толығымен келісесіз, келіспейсіз немесе толығымен келіспейсіз, сәйкесін таңдаңыз.

a. АИТВ-мен өмір сүретін адамдардың көбісін олардың АИТВ-н басқа адамдарға жұқтыру мәселесі толғандырмайды.

☐ Толығымен келісемін ☐ Келісемін ☐ Келіспеймін ☐ Толығымен келіспеймін

b. АИТВ-мен ауыратын адамдар өздері үшін ұялуы керек.

☐ Толығымен келісемін ☐ Келісемін ☐ Келіспеймін ☐ Толығымен келіспеймін

c. АИТВ-мен өмір сүретін адамдардың көпшілігінде бірнеше жыныстық серіктері болған.

☐ Толығымен келісемін ☐ Келісемін ☐ Келіспеймін ☐ Толығымен келіспеймін

d. Адамдар АИТВ-н жауапсыз мінез-құлықтары арқасында жұқтырады.

☐ Толығымен келісемін ☐ Келісемін ☐ Келіспеймін ☐ Толығымен келіспеймін

e.АИТВ-ы - бұл дұрыс емес әрекеттер үшін берілген жаза.

☐ Толығымен келісемін ☐ Келісемін ☐ Келіспеймін ☐ Толығымен келіспеймін

f. Егер менің таныстарымның арасында АИТВ-н жұқтырған адам бар болса, мен ол үшін ұялатын едім.

☐ Толығымен келісемін ☐ Келісемін ☐ Келіспеймін ☐ Толығымен келіспеймін

g. Егер менің отбасымның мүшесі АИТВ-н жұқтырған болса, мен ол үшін ұялатын едім

☐ Толығымен келісемін ☐ Келісемін ☐ Келіспеймін ☐ Толығымен келіспеймін

h. АИТВ-н жыныстық қатынас арқылы жұқтырған науқастар, вирусты жұқтырғанына, қан құю кезінде жұқтырған науқастарға қарағанда көбірек кінәлі.

☐ Толығымен келісемін ☐ Келісемін ☐ Келіспеймін ☐ Толығымен келіспеймін

i. АИТВ-н иньекциялық есірткі арқылы жұқтырған науқастар, вирусты жұқтырғанына, қан құю кезінде жұқтырған науқастарға қарағанда көбірек кінәлі

☐ Толығымен келісемін ☐ Келісемін ☐ Келіспеймін ☐ Толығымен келіспеймін

21. АИТВ-мен өмір сүретін әйелдерге, егер олар қалаған жағдайда, балалы болуға рұқсат берілуі керек

☐ Толығымен келісемін ☐ Келісемін ☐ Келіспеймін ☐ Толығымен келіспеймін

b. АИТВ-мен өмір сүретін еркектерге, егер олар қалаған жағдайда, балалы болуға рұқсат берілуі керек.

☐ Толығымен келісемін ☐ Келісемін ☐ Келіспеймін ☐ Толығымен келіспеймін

22. Сіз төмендегі мәлімдемелермен келісесіз,толығымен келісесіз, келіспейсіз немесе толығымен келіспейсіз, сәйкесін таңдаңыз.

a.Егер таңдау еркі болған жағдайға, мен заңсыз инъекциялық есірткі қолданатын адамдарға қызмет көрсетуден бас тартар едім.

- ☐ Толығымен келісемін ⟶ № 22b сұраққа көшіңіз
- ☐ Келісемін ⟶ № 22b сұраққа көшіңіз
- ☐ Келіспеймін ⟶ өткізіп № 23 сұраққа көшіңіз
- ☐ Толығымен келіспеймін ⟶ өткізіп № 23сұраққа көшіңіз

b.Мен заңсыз инъекциялық есірткі препараттарын қолданатын адамдарға қызмет көрсетуден бас тартар едім, себебі: (жауаптардың барлық сәйкес нұсқаларын таңдаңыз):

I	Олар мені ауруға шалдығудың жоғарғы қаупіне ұшыратады.	☐	Келісемін	☐	Келіспеймін
II	Бұл топ аморальді өмір салтын ұстанады.	☐	Келісемін	☐	Келіспе»мін
III	Мен мундай топтармен қалай жұмыс жасау жайлы мамандандырылған дайындықтан өтпедім.	☐	Келісемін	☐	Келіспеймін
IV	Басқа, өтініш, көрсетіңіз _____				

23. Сіз төмендегі мәлімдемелермен келісесіз,толығымен келісесіз, келіспейсіз немесе толығымен келіспейсіз, сәйкесін таңдаңыз.

a.Егер таңдау еркі болған жағдайға, еркектермен жыныстық қатынасқа түсетін еркектерге қызмет көрсетуден бас тартар едім.

- ☐ Толығымен келісмін ⟶ № 23b сұраққа көшіңіз
- ☐ Келісемін ⟶ № 23b сұраққа көшіңіз
- ☐ Келіспеймін ⟶ өткізіп № 24 сұраққа көшіңіз
- ☐ Толығымен келіспеймін ⟶ өткізіп № 24сұраққа көшіңіз

b.Мен еркектермен жыныстық қатынасқа түсетін еркектерге қызмет көрсетуден бас тартар едім, себебі: (жауаптардың барлық сәйкес нұсқаларын таңдаңыз):

I	Олар мені ауруға шалдығудың жоғарғы қаупіне ұшыратады.	☐	Келісемін	☐	Келіспеймін
II	Бұл топ аморальді өмір салтын ұстанады.	☐	Келісемін	☐	Келіспе»мін
III	Мен мундай топтармен қалай жұмыс жасау жайлы мамандандырылған дайындықтан өтпедім.	☐	Келісемін	☐	Келіспеймін
IV	Басқа, өтініш, көрсетіңіз _____				

24. Сіз төмендегі мәлімдемелермен келісесіз,толығымен келісесіз, келіспейсіз немесе толығымен келіспейсіз, сәйкесін таңдаңыз.

a.Егер таңдау еркі болған жағдайға, коммерцияллық секс қызметкерлеріне

қызмет көрсетуден бас тартар едім. (әйелдерге, сол сияқты еркектерге де)

□ Толығымен келісемін ⟶ № 24b сұраққа көшіңіз

□ Келісемін ⟶ № 24b сұраққа көшіңіз

□ Келіспеймін ⟶ өткізіп № 25 сұраққа көшіңіз

□ Толығымен келіспеймін ⟶ өткізіп № 25сұраққа көшіңіз

b.Мен коммерциялық секс қызметкерлеріне қызмет көрсетуден бас тартар едім, себебі: (бар сәйкес нұсқауларды таңдаңыз):

I	Олар мені ауруға шалдығудың жоғарғы қаупіне ұшыратады.	□	Келісемін	□	Келіспеймін
II	Бұл топ аморальді өмір салтын ұстанады.	□	Келісемін	□	Келіспе»мін
III	Мен мундай топтармен қалай жұмыс жасау жайлы мамандандырылған дайындықтан өтпедім.	□	Келісемін	□	Келіспеймін
IV	Басқа, өтініш, көрсетіңіз _____				

25. Мен өзімнің қауіпсіздігім үшін АИТВ-мен өмір сүретін адамдарға медициналық көмек көрсетуден бас тартуға құқығым бар деп ойлаймын.

☐ Толығымен келісемін ☐ Келісемін ☐ Келіспеймін

☐ Толығымен келіспеймін

26. Мен басқа науқастардың қауіпсіздігі үшін АИТВ-мен өмір сүретін адамдарға медициналық көмек көрсетуден бас тартуға құқығым бар деп ойлаймын

☐ Толығымен келісемін ☐ Келісемін ☐ Келіспеймін

☐ Толығымен келіспеймін

6 БӨЛІМ: АИТВ-Ң БЕРІЛУ ЖОЛДАРЫ БОЙЫНША БІЛІКТІЛІК

Келесі кезекте сізге АИТВ-ң берілу жолдары жөнінде бірнеше сұрақтар қоямыз.

27. Теріні инемен немесе өткір заттармен шаншып алған жағдайда АИТВ-ң берілу қаупі төмен (шамамен 300-ден 1)

☐ Иә ☐ Жоқ ☐ Білмеймін

28. Қандай да бір қан мөлшерінің зақымданбаған теріге немесе шырышты қабатқа тусуі жағдайында АИТВ-ң берілу қаупі төмен (шамамен 1000-нан 1)

☐ Иә ☐ Жоқ ☐ Білмеймін

29. АИТВ-ы оң нәтижелі пациенттерде қолданылған құралдарды залалсыздандыру ұшін стандартты залалсыздандыру рәсімдері жеткілікті.

☐ Иә ☐ Жоқ ☐ Білмеймін

30. Жыныстық жолмен берілетін аурулары бар науқастар АИТВ-н жиірек жұқтырады.

☐ Иә ☐ Жоқ ☐ Білмеймін

31. АИТВ-на қарсы вакцина өндірілген және қол жетімді

☐ Иә ☐ Жоқ ☐ Білмеймін

32. Төмендегі биологиялық сұйықтықтардың қайсысында АИТВ-ң таралуына жеткілікті вирустың жоғары шоғырлануы бар? (АИТВ-ң таралуына ықпал ететін барлық биологиялық сұйықтықтарды белгілеңіз.)

☐ сілекей ☐ қан ☐ несеп ☐ нәжіс ☐ жұлын сұйықтығы ☐ шәует ☐ емшек сүті ☐ қынаптық бөліністер ☐ ірің ☐ тері ☐ өкпеқап сұйықтығы

33. АИТВ-ң таралуын антиретровирустық терапияны дұрыс қолдану және АИТВ-мен өмір сүретін адамдарды анықталмайтын вирустық жүктеме дәрежесіне жеткізу және оны қолдау арқылы алдын алуға болады.

☐ Иә ☐ Жоқ ☐ Білмеймін

7 БӨЛІМ: ҚОҒАМДЫҚ ТАЛАП-ТІЛЕКТЕРГЕ СӘЙКЕС КЕЛУГЕ ҚАЛАУШЫЛЫҚТЫ АНЫҚТАЙТЫН ҚЫСҚАША ШКАЛА

34. Сіз адамдармен кездескен сайын күлімсіреп қарайсыз ба?

☐ Иә ☐ Жоқ

35. Сіз басқа адамдарға уағыздайтын нәрсені үнемі ұстанасыз ба?

☐ Иә ☐ Жоқ

36. Егер Сіз басқаларға қандай да бір істі атқаруға уәде берсеңіз, әрқашанда сол уәдені еш кедергілерге қарамастан орындауға тырысасызба?

☐ Иә ☐ Жоқ

37. Сіз басқаларға жалған сойлеуге барар ма едіңіз?

☐ Иә ☐ Жоқ

APPENDIX C

In-depth interview guide in Russian

Стигма в связи с ВИЧ в медицинских учреждениях. Подробное руководство по проведению глубинного интервью (полу-структурированное).

Введение

Представление интервьюера, краткое изложение целей и задач исследования. Разъяснения по срокам обучения.
Объяснение процесса собеседования и вариантов участия в исследовании, ответы на вопросы, поднятые в рамках методов интервью
Получение информированного согласия
Начало интервью

Вопросы

1. Персональная информация респондента (профессиональная информация).
2. Расскажите, пожалуйста, немного о своей работе и о том, какие у вас здесь обязанности.
3. Какая у Вас должность?
4. Сколько лет / месяцев Вы работали в данном медицинском учреждений и в своей области в целом?
5. Каков ваш опыт работы с ВИЧ-инфицированными пациентами?

Страх передачи ВИЧ на работе и его причины.

Общий вопрос: Что вам приходит в голову первым, когда вы думаете о ВИЧ и о риске заражения ВИЧ в медицинской сфере?

1. О каких рисках вы можете себе представить, оказывая помощь ВИЧ-инфицированному пациенту?
2. Каковы ваши регулярные меры предосторожности во время медицинских процедур с ВИЧ-инфицированными?

PROBE: как их можно улучшить?

3. Каков ваш личный опыт общения с ВИЧ-положительными людьми, за исключением ваших пациентов?

4. Что вы думаете об учебных курсах по теме «ВИЧ и уход за ВИЧ-инфицированными пациентами»?

PROBE: Какие наиболее важные аспекты ухода за ВИЧ-инфицированными пациентами следует включать в эти учебные курсы и почему? Как, по вашему мнению, можно сделать эти курсы более эффективными? Какие-нибудь дополнительные комментарии или предпочтения?

5. Некоторые более ранние исследования / практика показывают отказы в медицинской помощи ВИЧ-инфицированным пациентам в медицинских учреждениях. Что вы думаете об этом?

PROBE: Что вы думаете о правах пациентов, а также медицинских сотрудников касательно ухода за пациентами? Можете ли вы вспомнить какие-либо проблемные ситуации среди пациентов и медицинского персонала в вашем учреждении?

Условия медицинского учреждения для работы с ВИЧ-инфицированными пациентами

1. Что вы делаете иначе при лечении ВИЧ-положительных пациентов по сравнению с ВИЧ-отрицательными пациентами? Почему? Почему бы и нет?

2. Что вы думаете о достаточности средств предосторожности для предотвращения передачи ВИЧ в вашем медицинском учреждении?

PROBE: расходные материалы для гигиены рук, одноразовые принадлежности, СИЗ, правила предотвращения травм и утилизации медицинских отходов и т. д?

3. Как вы относитесь к политике и протоколам оказания помощи ВИЧ-инфицированным пациентам в вашем медицинском учреждении?

PROBE: можете ли вы описать регулярную практику ухода за ВИЧ-инфицированным пациентом в вашем учреждении? включая тестирование, раскрытие ВИЧ-статуса и т. Д. Можете ли вы вспомнить какой-либо опыт или проблемы, поднятые в рамках этих политик среди ваших коллег?

4. Как бы вы описали отношение ваших коллег к ВИЧ-инфицированным пациентам в вашем медицинском учреждении?

PROBE: можете ли Вы дать какие-нибудь идеи по повышению эффективности ухода за ВИЧ-инфицированными? Есть ли у Вас идеи по улучшению условий для лучшего контакта / работы с такими пациентами?

Отношение к ВИЧ-инфицированным

Общий вопрос. Что в первую очередь приходит вам на ум, когда вы думаете о людях живущих с ВИЧ?

1. Что вы думаете о людях, которые заражаются ВИЧ при половом акте?

2. Что вы думаете о людях, которые заражаются ВИЧ путем инъекции запрещенных наркотиков?

3. Как бы Вы себя чувствовали, если бы кто-то из ваших знакомых (друг или член семьи) заразился ВИЧ?

4. Как вы в целом относитесь к работникам коммерческого секса?

PROBES: как бы вы себя чувствовали, если бы кто-то из ваших знакомых (член семьи или друг) занимался коммерческим сексом?

5. Как вы в целом относитесь к ПИН?

PROBES: как бы вы себя чувствовали, если бы кто-то из ваших знакомых (член семьи или друг) был ПИН?

6. Что вы думаете о нетрадиционном сексуальном поведении?

7. Как вы лично относитесь к нетрадиционным сексуальным ориентациям и занятиям, связанным с этой темой? (во всем мире и на местном уровне)

8. Некоторые медицинские работники предпочитают не оказывать медицинскую помощь ВИЧ-инфицированным пациентам. Как вы думаете, в чем причины этого? Что насчет вашей собственной практики - как бы вы себя чувствовали / как вы себя чувствуете?

9. Что вы думаете о людях, живущих с ВИЧ, которые хотели бы создать семью и иметь детей, если бы они этого хотели?

Знания о передаче ВИЧ

1. Как бы вы оценили свои знания о ВИЧ?
2. Когда и откуда вы получили эту информацию?
3. Какие вопросы у вас есть о передаче ВИЧ / риске заражения ВИЧ?
4. Как бы вы оценили знания своих коллег о ВИЧ - какие темы все еще отсутствуют в медицинском образовании (курсы переквалификации) и т. д.?

Завершение интервью ..

1. Какой совет вы дали бы по ведению ВИЧ-инфицированных пациентов в вашем медицинском учреждении?
2. Есть ли что-нибудь, что вы хотели бы добавить, чего мы не спрашивали?

Спасибо за Ваше участие!

APPENDIX D

In-depth interview guide in Kazakh

Денсаулық сақтау саласындағы АИТВ-мен байланысты стигма. Терең сұхбат бойынша нұсқаулық (жартылай құрылымдалған).

Кіріспе

Танысу, зерттеудің мақсаттары мен міндеттерінің қысқаша мазмұнын беру.
Зерттеу уақытын түсіндіру.
Сұхбаттасу үдерісі мен зерттеуге қатысу нұсқаларын түсіндіру, сұхбаттасу әдістері аясында қойылған сұрақтарға жауап қайтару.
Ақпаратты келісім алу
Сұхбаттың басталуы

Сұрақтар

1. Респонденттің жеке ақпараты (кәсіби ақпарат).

2. Сіздің жұмысыңыз және міндеттеріңіз жайлы қысқаша ақпарат бере аласызба?

3. Қазіргі уақыттағы қызметіңіз қандай?

4. Сіз осы медициналық мекемеде және жалпы мамандығыңыз бойынша қанша жыл / ай жұмыс істедіңіз?

5. АИТВ-жұқтырған науқастармен тәжірибеңіз қандай?

Жұмыс барысында АИТВ-инфекциясынан жұқтырып алудан қорқу және оның себептері.

Жалпы сұрақ: Медициналық салада АИТВ және АИТВ -жұқпасының қаупі туралы ойлағанда ең алдымен ойыңызға не келеді?

1. АИТВ жұқтырған науқасқа күтім жасау барысындағы қауіптер жайлы айтып бере аласызба?

2. АИТВ-мен ауыратын адамдарға медициналық көмек көрсету кезіндегі әдеттегі сақтық шараларыңыз қандай?

PROBE: оларды қалай жақсартуға болады ?

3. Сіздің науқастарыңызды есептемегенде басқа АИТВ-позитивті адамдармен қарым-қатынас жасауда жеке тәжірибеніз қандай?

4. АИТВ және АИТВ-жұқтырған науқастарды күту бойынша оқу курстары туралы (тренингтердің пайдалылығы бойынша) пікіріңіз қандай?

PROBE: АИТВ-жұқтырған науқастарды күту бойынша курстарда қандай мәселелер қарастырылуы қажет және неге? Бұл курстарды қалай тиімді етуге болады деп ойлайсыз? Қосымша пікірлеріңіз немесе идеяларыныз бар ма?

5. Кейбір алдыңғы зерттеулер /тәжірибелер денсаулық сақтау жүйелерінде АИТВ жұқтырған науқастарға күтім көрсетуден бас тартулар келтірілген. Сіз бұл туралы не ойлайсыз?

PROBE: Сіз науқастар мен денсаулық сақтау мамандарының құқықтары туралы не ойлайсыз? Сіздің мекемеңіздегі науқастар мен медициналық қызметкерлер арасындағы кез-келген жанжалды жағдайларды еске түсіре аласыз ба?

АИТВ-жұқтырған науқастармен жұмыс істеуге арналған медициналық мекемедегі жағдайлар

1. АИТВ-позитивті науқастарды емдеу кезінде басқа науқатсармен салыстырғанда қандай да бір ерекше әрекеттер жасайсызба? Неліктен? Егер жасамасаңыз, онда неге?

2. Сіздің мекемеңізде АИТВ-жұқпасының алдын алу шаралары сақтауға қажетті құрал-жабдықтар жеткілікті деп ойлайсыз ба?

PROBE: қол гигиенасы шығын материалдары, бір реттік құралдар, ЖҚҚ, жарақаттанудың алдын алу және медициналық қалдықтарды жою ережелері және т.б.

3. Сіздің емдеу мекемесіңізде АИТВ -жұқтырған науқастарды күту жөніндегі саясат пен хаттамаларға қалай қарайсыз?

PROBE: сіздің мекемеңізде АИТВ жұқтырған науқасқа күтім жасаудың әдеттегі тәжірибесін сипаттап бере аласыз ба? соның ішінде АИТВ-ға тестілеу, тест нәтижесін жариялау және т.б., осы нұсқаулық бойынша әріптестеріңіз арасында туындаған кез-келген тәжірибені немесе алаңдаушылықты еске түсіре аласыз ба?

4. Сіздің емдеу мекемесіңіздегі әріптестеріңіздің АИТВ-жұқтырған науқастарға қатынасын қалай сипаттай аласыз?

PROBE: Сіз АИТВ -ға қарсы көмектің тиімділігін арттыру үшін қандай да бір идея бере аласыз ба? Осы пациенттермен жақсы байланыс / жұмыс істеу жағдайларын жақсарту туралы ойларыңыз бар ма?

АИТВ-жұқтырған адамдарға байланысты көзқарас

Жалпы сұрақ. АИТВ-мен өмір сүретін адамдар туралы ойлағанда ең алдымен ойыңызға не келеді?

1. АИТВ-ны жыныстық қатынас арқылы жұқтыратын адамдар туралы не ойлайсыз?

2. Заңсыз есірткіні енгізу арқылы АИТВ –ны жұқтырған адамдар туралы не ойлайсыз?

3. Егер сіз білетін адам (досыңыз немесе отбасы мүшеңіз) АИТВ -ны жұқтырса, сіз өзіңізді қалай сезінер едіңіз?

4. Коммерциялық секс-жұмыскерлерге деген жалпы көз қарасыңыз қандай?

PROBE: Егер сіз білетін адам (отбасы мүшесі немесе досыңыз) коммерциялық секс қызметкері болса, сіз өзіңізді қалай сезінер едіңіз?

5. Инъекциялық есірткіні тұтынушыларға (ИЕТ) деген жалпы көзқарасыңыз қандай?

PROBE: Егер сіз білетін адам (отбасы мүшесі немесе досы) ИЕТ болса, сіз өзіңізді қалай сезінер едіңіз?

6. Дәстүрлі емес жыныстық мінез-құлық туралы не ойлайсыз?

7. Дәстүрлі емес сексуалдық бағдарлар мен осы тақырыпқа байланысты әрекеттерге жеке көзқарасыңыз қарайсыз? (ғаламдық және жергілікті)

8. Кейбір денсаулық сақтау мамандары АИТВ жұқтырған науқастарға медициналық көмек көрсетуден бас тартады. Мұның себебі неде деп ойлайсыз? Өз тәжірибеңіз туралы не айтар едіңіз - сіз өзіңізді қалай сезінер едіңіз / өзіңізді қалай сезінесіз?

9. АИТВ-мен өмір сүретін адамдар, егер олар қаласа, отбасы құрып, балалы болғысы келетіндер жайлы не ойлайсыз? … ..

АИТВ -ның берілу жолдары бойынша білімділік

1. Сіз АИТВ туралы біліміңізді қалай бағалар едіңіз?

2. Сіз бұл ақпаратты қашан және қайдан алдыңыз?

3. Сіздің АИТВ -ның берілуі / АИТВ қаупі туралы қандай сұрақтарыңыз бар?

4. Әріптестеріңіздің АИТВ туралы білімін қалай бағалар едіңіз, медициналық оқытуларда АИТВ бойынша қандай тақырыптарға қажеттіліг бар деп ойлайсыз?

Сұхбаттың аяқталуы ..

1. Сіз өзіңіздің емдеу мекемесіңіздегі АИТВ жұқтырған науқастарды басқару бойынша қандай кеңес берер едіңіз?

2. Біз сұрамаған мәселелер болған жағдайда ол жайлы ақпарат қосқыңыз келе ме?

Сұхбатқа қатысқаныңызға рахмет!

APPENDIX E

Informed consent from in Russian

ИНФОРМАЦИЯ ДЛЯ УЧАСТНИКА ИССЛЕДОВАНИЯ

Мы приглашаем Вас к участию в научном исследовании, проводимому в городских поликлиниках и в центрах по профилактике и борьбе со СПИД г. Алматы.

Мы приглашаем именно Вас так как Вы подходите к следующим критериям включения участников данного исследования: медицинский персонал с не менее чем шести месяцев опыта работы в данном учреждении, не моложе чем 18 лет, и владение одним из языков исследования (казахский, русский).

Исследование проводится в рамках диссертационной работы PhD докторанта первого года специальности «6D11020Общественное здравоохранение», Искаковой Балнур Аманкуловны

Мы хотим, чтобы Вы знали, что:

Во-первых,

- Участие в этом исследовании является добровольным.
- Вы можете отказаться от участия в исследовании или выйти из него в любое время. В любом случае вам не будет отказано в том, на что Вы имеете право, не будучи участником исследования.
- Возможно, Ваше участие в исследовании не принесёт Вам дополнительной пользы.

  Однако в результате исследования мы можем получить знания, которые в будущем принесут пользу другим людям.

Во-вторых,

- У некоторых людей могут быть личные, религиозные или другие взгляды, которые затрудняют участие в исследовании. Если у Вас есть такие взгляды, пожалуйста, обсудите их со своим врачом или другими специалистами до того, как согласиться на участие.

Прежде чем Вы дадите согласие на участие в исследование, не спеша, обсудите всё с любым сотрудником данной клиники или со своими друзьями, родственниками, лечащим врачом или другими специалистами**.**

1. НАЗВАНИЕ ИССЛЕДОВАНИЯ:

Оценка стигмы, связанной с ВИЧ в учреждениях здравоохранения.

2. ЦЕЛЬ ИССЛЕДОВАНИЯ:

Целью данного исследования является разработка шкалы для оценки стигмы и дискриминации, связанной с ВИЧ, в медицинских учреждениях г. Алматы.

3.ОПИСАНИЕ ИССЛЕДОВАНИЯ:

Данное исследование состоит из следующих частей: Фокус групп дискуссии-обсуждение существующего инструмента по определению ВИЧ-ассоциированной стигмы и дискриминации в учреждениях здравоохранения в г.Алматы и его валидация; Определение уровней ВИЧ-ассоциированной стигмы и дискриминации в выбранных учреждениях здравоохранения в г.Алматы с помощью анкетирования; Определение факторов влияющие на уровни ВИЧ-ассоциированной стигмы и дискриминации в выбранных учреждениях здравоохранения в г.Алматы с помощью глубинных интервью; Разработка рекомендации по снижению уровни ВИЧ-ассоциированной стигмы в медицинских учреждениях г.Алматы. Планируемый срок исследования 2 года. Приблизительное (планируемое) количество участников исследования 380 (для количественной части). Участие в данном исследовании не является препятствием для участия в других исследованиях.

4.УСЛОВИЯ ОПЛАТЫ/ВОЗМОЖНЫЕ РАСХОДЫ:

1) Со стороны испытуемого в исследовании расходов нет
2) Оплата испытуемым в исследовании не предусмотрено

5.ПРЕДСКАЗУЕМЫЕ РИСКИ И НЕУДОБСТВА:

1) Потенциальные риски и неудобства минимальные. Анкетирование будет проводиться

я в учреждениях, где участники данного исследования работают, а также в удобное

время им суток.

6. ОЖИДАЕМАЯ ПОЛЬЗА:

1) Плата за участие в анкетировании не рассматривается. Небольшие стимулы во

время дискуссий и интервью будут использованы

7. АЛЬТЕРНАТИВЫ К УЧАСТИЮ В ИССЛЕДОВАНИИ:

1) Неприменимо в данном исследовании

8.ПОЛОЖЕНИЕ О ПРАВАХ УЧАСТНИКОВ:

Участие в данном исследовании является добровольным. Вы можете отказаться от участия в исследовании или прекратить участие в любое время. В любом случае Вам не будет отказано в том, на что Вы (Ваш ребёнок) имеете право, не будучи участником исследования.

9.КОНФИДЕНЦИАЛЬНОСТЬ:

Информация о Вашем участии в исследовании является конфиденциальной. Мы гарантируем, что Ваше имя не будет указано при публикации результатов исследования. Информация, полученная в результате этого исследования (материалы исследования), считается конфиденциальной и будет храниться в надлежащих условиях, предусмотренных законом. Однако, эти материалы исследования и Ваша личная медицинская документация могут быть доступны для проверок официальными инстанциями (Министерство здравоохранения), агентством или компанией, спонсирующей это исследование, людьми, которые уполномочены контролировать исследование или этической комиссией организации (комиссия, которая наблюдает за всеми исследованиями на людях в АО Национальном медицинском университете) в рамках действующих законов или инструкций.

10.КОМПЕНСАЦИЯ/ЛЕЧЕНИЕ:

Исследовательский центр (название ИЦ) обязуется предоставить компенсацию в случае вреда от исследования, инвалидности или смерти, и любого другого физического вреда, причинённого Вам (Вашему ребёнку) в результате данного исследования.

(Приводится размер и условия предоставления медицинской помощи или финансовой компенсации в случае вреда от исследования в соответствии с местным законодательством (на основе страховых гарантий спонсора или другой уполномоченной структуры)

ОДНО из следующих трех стандартных положений должно быть включено в этом пункте.

Для протоколов исследований с минимальным риском используют это положение:

Если Вы полагаете, что получили вред здоровью, связанный с этим исследованием, как участник этого исследования, то Вам следует связаться с исследователем Искаковой Балнур Аманкуловной по номеру телефона +77077857254.

Для протоколов с более чем минимальным риском, но в которых участник может получить пользу, используют это положение:

В случае вреда, связанного с Вашим участием в данном исследовании Вам будут оказана соответствующая медицинская помощь на клинических базах АО «Национальный медицинский университет» за Ваш счет. Финансовая компенсация от АО «Национальный медицинский университет» не предусмотрена. Если Вы полагаете, что получили вред, связанный с этим исследованием как участник этого исследования, Вы должны связаться с доктором_____ по номеру телефона _____.

Для протоколов исследований с более чем минимальным риском, в которых польза для участника не предусмотрена, используют это стандартное положение:

В случае повреждений, полученных в результате Вашего участия в исследовании, краткосрочная госпитализация и профессиональный уход, если потребуется, будут представлены Вам на клинических базах АО «Национальный медицинский университет», бесплатно. Финансовая компенсация от АО «Национальный медицинский университет» не предусмотрена. Если Вы полагаете, что получили повреждение, связанное с этим исследованием как участник этого исследования, Вы должны связаться с доктором_____ по номеру телефона _____.

11.ДОБРОВОЛЬНОЕ УЧАСТИЕ:

Участие в данном исследовании является добровольным. Вы можете отказаться от участия в исследовании или прекратить участие в любое время. В любом случае Вам не будет отказано в том, на что Вы (Ваш ребёнок) имеете право, не будучи участником исследования.

12.ЗАВЕРШЕНИЕ УЧАСТИЯ:

Вы можете прекратить участие в исследовании в любое время без каких-либо отрицательных последствий для Вас или Вашего ребенка. Отказ от участия не отразится никоим образом на отношениях к Вам или Вашему ребенку Вашего

врача и медицинских работников и Вам не будет отказано в медицинских услугах, на которые Вы или Ваш ребенок имеете право.

(В соответствующих случаях опишите потенциальные последствия решения участника выйти из исследования и процедуру раннего завершения участия испытуемого. Опишите обстоятельства, при которых участие испытуемого в исследовании может быть завершено исследователем без согласия испытуемого)

13.КОНТАКТНЫЕ ЛИЦА:

Если у Вас возникают проблемы или вопросы, касающиеся данного исследования, Ваших прав как участника исследования или вреда от исследования, обратитесь к ответственному исследователю проекта Искаковой Балнур Аманкуловне по номеру телефона +77077857254.

Главному исследователю: Искакова Балнур Аманкуловна, АО «НМУ», Толе би 94 г. Алматы. Номер телефона: +7 707 785 72 54.

Вы можете также обратиться к: Нугманова Жамиля Сакеновна, АО «НМУ», Толе би 94 г. Алматы. Номер телефона: +7 727 246 53 35.

Вы можете также позвонить тому (той), кто будет представлять Ваши интересы в том, что касается исследования (организации, проводящие исследование, должны указать Фамилию, имя лица, не связанного с исследованием, которое может выступить в качестве представителя или защитника интересов испытуемого в исследовании).

(В зависимости от категории испытуемых в исследовании, выберите соответствующий вид согласия)

APPENDIX F

Informed consent from in Kazakh

ЗЕРТТЕУ ҚАТЫСУШЫСЫНА АРНАЛҒАН АҚПАРАТ

Біз Сізді, Алматы қаласының қалалық емханалар мен ЖИТС-тің алдын алу және бақылау жөніндегі орталықтарында өтетін зерттеу жұмысына қатысуға шақырамыз.

Біз тек Сізді шақырамыз, өйткені Сіз осы зерттеуге қатысушыларды қосу үшін төмендегі критерийлерге сәйкес келесіз: берілген медициналық мекемеде алты айдан кем емес жұмыс тәжірибесі бар, кемінде 18 жаста және зерттеу тілдерінің біреуінде (қазақ, орыс) біліктілігі бар

Бұл зерттеу жұмысы "6D11020 Қоғамдық денсаулық сақтау" мамандығы бірінші курс PhD докторанты Искакова Балнур Аманқұлқызының доктролық диссертация жұмысы шеңберінде жүргізіледі

Біз, Сіз білсін дейміз:

Біріншіден,
• Зерттеуге қатысу ерікті болып табылады.
• Сіз, қалаған уақытта зерттеуге қатысудан бас тарта аласыз немесе шығып кете аласыз. Зерттеуге қатысушы болмаған жағдайда, әр уақытта Сіздің құқығыңыз бар затқа кедергі болмайды.
• Мүмкін, зерттеуге қатысқаныңыз Сізге қосымша пайда әкелмес, бірақ-та зерттеудің нәтижесінде біз келешекте басқа адамдарға пайда беретін жаңадан ғылыми мағлұматтар алуымыз ықтимал.

Екіншіден,
• Кейбір адамдарда жеке, діни немесе басқа да көзқарастары зерттеуге қатысу үшін қиындықтар туғызуы мүмкін. Егер Сізде осындай көзқарастар болса, онда зерттеуге қатысуға келісім бермей тұрып, бұл сұрақтарды бас дәрігермен талқылаңыз.

Келісім беруден бұрын, кез-келген клиниканың жұмысшысымен немесе достарыңызбен, туысқандарыңызбен, емдеп жатқан дәрігеріңізбен немесе басқа да мамандармен бар сұрақтарыңызды асықпай талқылап алыңыз.

1. ЗЕРТТЕУДІҢ ТАҚЫРЫБЫ:

Денсаулық сақтау мекмелеріндегі АИТВ-на байланысты стигманы бағалау

2. ЗЕРТТЕУДІҢ МАҚСАТЫ:

Зерттеудің мақсаты денсаулық сақтау мекемелеріндегі АИТВ-на қатысты стигма мен кемсітушілікті бағалау шкаласын құру.

3. ЗЕРТТЕУДІ СИПАТТАУ:

Зерттеу жұмысы келесі негізгі бөліктерден тұрады: Фокус топтармен пікірталас жүргізу- денсаулық сақтау мекемелерінде АИТВ-на байланысты стигма және кемсітушілігін анықтау арналған (аударылған) құралды талқылау; денсаулық сақтау мекемелеріндегі АИТВ-на байланысты стигма және кемсітушілік деңгейін анықтау; денсаулық сақтау мекемелеріндегі АИТВ-ға байланысты стигма мен кемсітушілікке ықпал ететін факторларды анықтау; Медициналық мекемелерде АИТВ-на байланысты стигма деңгейін төмендету бойынша

4. ТӨЛЕМАҚЫ ШАРТТАРЫ /МҮМКІН БОЛАТЫН ШЫҒЫНДАР:

қатысушылардың болжалды (жоспарлы) саны - 380. Бұл зерттеуге қатысу басқа зерттеулерге қатысу үшін келергілік жасамайды.

4. ТӨЛЕМАҚЫ ШАРТТАРЫ /МҮМКІН БОЛАТЫН ШЫҒЫНДАР:

1) Зерттеудегі зерттелуші тарапынан шығындар жоқ
2) Зерттелушілер жағынан төлем жасау қарастырылмаған.

5. БОЛЖАЛДЫ ҚАУІП-ҚАТЕР ЖӘНЕ ҚОЛАЙСЫЗДЫҚТАР:

1) Зерттеу кезіндегі ықтимал тәуекелдер мен қолайсыздықтар деңгейі минимальді. Сауалнама зерттеуге қатысушылардың жұмыс орындарында, сондай-ақ оларға деген ыңғайлы уақытта өткізілетін болады.

6. КҮТІЛЕТІН ПАЙДА:

1) Зерттелушілер жағынан төлем жасау қарастырылмаған. Талқылау және сұхбат кезінде шағын ынталандырулар қолданылатын болады.

7. ЗЕРТТЕУГЕ ҚАТЫСУҒА БАЛАМА АМАЛДАР:

1) Бұл зерттеуде қолданылмайды.

Тиісті жағдайларда емдеу әдісінің қандай балама амалдары бар екенін жазыңыз (олардың артықшылығы және кемшіліктері).

8. ЗЕРТТЕЛУШІЛЕРДІҢ ҚҰҚЫҒЫ ТУРАЛЫ ЕРЕЖЕ:

Берілген зерттеуге қатысу ерікті болып табылады. Сіз зерттеуге қатысудан бас тарта аласыз немесе кез-келген уақытта зерттеуден шыға аласыз. Зерттеудің қатысушы болмаған жағдайда, Сіздің (Сіздің балаңыздың) құқығы бар затқа қай жағдайда болса да қарсылық көрсетілмейді.

9.ҚҰПИЯЛЫҚ:

Сіздің зерттеуге қатысқаныңыз жайлы ақпарат конфиденциальды болып табылады. Зерттеудің нәтижелерін жариялымға берген кезде Сіздің аты-жөніңіз көрсетілмейтіндігіне кепілдеме береміз. Зерттеу (зерттеу материалдары) нәтижесінде алынған ақпараттар конфиденциальды болып есептеледі және заңмен қарастырылған тиісті жағдайда сақталады. Бірақ-та, зерттеу материалдары және Сіздің жеке медициналық құжаттарыңызды арнайы инстанциялар (Денсалық Сақтау Министрлігі), зерттеуге демеуші болған агенство немесе компания, этикалық комиссияның ұйымы (ҰМУ-дағы адамдарға жүргізілетін барлық зерттеулерді бақылайтын комиссия) немесе зерттеуді қадағалауға уәкілетті тұлғаларға тексеруге қолжетімді бола алады, қолданыстағы заңдар немесе нұсқамалар аясында

10. ҚАРЫМАҚЫ/ЕМДЕУ:

Берілген зерттеудің нәтижесінде Сізге (Сіздің балаңызға) зерттеуден залал алу, өлім немесе мүгедектікке ұшырау, және басқа да тән залалдарына ұшыраған кезде Зерттеу орталығы қарымақы төлем жасауға міндеттенеді.
(жергілікті заңнамаға сәйкес зерттеуден залал тиген жағдайда медициналық көмек немесе қаржылық қарымақы төлеудің ұсыну рәсімі мен мөлшері келтіріледі (демеушінің сақтандыру кепілдемесі немесе басқа уәкілетті құрылым негізінде))

Бұл пунктте келесі үш стандартты ереженің БІРЕУІ кіру керек

Бұл ережені кішігірім қауіп-қатерлі зерттеулер хаттамасы үшін қолданады:

Егер де, зерттелуші есебінде осы зерттеуге байланысты Сіздің денсаулығыңызға залал келтірілді деп есептесеңіз, Сіз +7 707 7857254 телефоны арқылы мына зерттеушімен Искакова Балнұр Аманқұлқызымен хабарласа аласыз

Бұл ережені қауіп-қатері кішігірімнен сәл жоғары зерттеу хаттамалар үшін қолданады, бірақ қатысушы зерттеуден пайда ала алады:

Зерттеуде Сіздің қатысуыңызбен байланысты зерттеуден залал алғаныңыз болса, Сіздің өз есебіңіздің атынан ҰМУ-нің клиникалық базаларында медициналық көмек көрсетіледі. «Ұлттық медицина университеті» АҚ

қаржылық қарымақы төлеу мүмкіндігі қарастырылмаған. Егер де, зерттелуші есебінде осы зерттуге байланысты Сіздің денсаулығыңызға залал келтірілді деп есептесеңіз, Сіз _____ телефоны арқылы мына дәрігермен (аты-жөні) _____ хабарласа аласыз.

Бұл стандартты ереже, зерттелушіге зерттеуге қатысудан пайда алу қарастырылмаған, қауіп-қатері кішігірімнен сәл жоғары зерттеу хаттамалар үшін:

Сіздің зерттеуге қатысу салдарынан залал алған жағдайда, егер қажет болса, С.Д. Асфендияров атындағы ҰМУ-нің клиникалық базаларында қысқа мерзімді госпитализация және кәсіптік бағу тегін көрсетілетін болады. «Ұлттық медицина университеті» АҚ қаржылық қарымақы төлеу қарастырылмаған. Егер де, зерттелуші есебінде осы зерттуге байланысты Сіздің денсаулығыңызға залал келтірілді деп есептесеңіз, Сіз _____ телефоны арқылы мына дәрігермен (аты-жөні) _____ хабарласа аласыз.

11. ЗЕРТТЕУГЕ ЕРІКТІ ТҮРДЕ ҚАТЫСУ:

Берілген зерттеуге қатысу ерікті болып табылады. Сіз зерттеуге қатысудан бас тарта аласыз немесе кез-келген уақытта зерттеуден шыға аласыз. Зерттеудің қатысушы болмаған жағдайда, Сіздің (Сіздің балаңыздың) құқығы бар затқа қай жағдайда болса да қарсылық көрсетілмейді.

12. ЗЕРТТЕУГЕ ҚАТЫСУДЫҢ АЯҚТАЛУЫ:

Сізге немесе Сіздің балаңыз үшін қандай да бір жағымсыз нәтижелерсіз зерттеуге қатысуды доғара аласыз. Зерттеуге қатысудан бас тарту Сізге немесе Сіздің балаңызға, Сіздің дәрігеріңіз және медициналық жұмысшылар арасындағы Сізге деген қарым –қатынасқа әсер етпейді және Сіз немесе Сіздің балыңыздың құқылы медициналық көмек көрсетуге қарсылық білдірілмейді.

13. БАЙЛАНЫСУ:

(Тиісті жағдайда зерттелушінің зерттеуден шығу шешімінің потенциалды салдарын және зерттелушінің зерттеуден ерте шығып кету процедурасын жазып шығыңыз. Зерттеуші қатысушының мақұлдауынсыз зерттеуге қатысуын доғаруы мүмкін болатын жағдайдың мән-жайы жазып шығыңыз) Егер де Сіздің берілген зерттеуге қатысты, зерттелуші құқығы немесе зерттеуден алынғын залал туралы сұрақтар немесе өзекті мәселелер пайда болса, келесі адамдарға жүгінуіңізге болады:

Бас зерттеуші: Искакова Балнұр Аманқұлқызы, «ҰМУ» АҚ, Төле би 94, Алматы қ. Ұялы телефон номері: + 7 707 785 72 54.

Сондай-ақ мына адамдарға жүгіне аласыз: Нугманова Жамиля Сакеновна, «ҰМУ» АҚ, Төле би 94, Алматы қ., телефон нөмірі:+7 727 246 53 35.
(аты-жөні, адресі және басқа зерттеушілердің телефон номерлері).

Зерттеуге қатысты Сіздің мүдделеріңізді өкілдік ететін адамға телефон шалуыңызға болады (зерттеу жүргізуші ұйым, зерттелушінің зерттеудегі мүдделерін қорғайтын, зерттеумен қатысты емес өкілдің аты-жөнін көрсету керек)

Зерттеудегі зерттелушілердің категориясына байланысты, келісімнің тиісті түрін таңдаңыз.

APPENDIX G
Supplementary documents

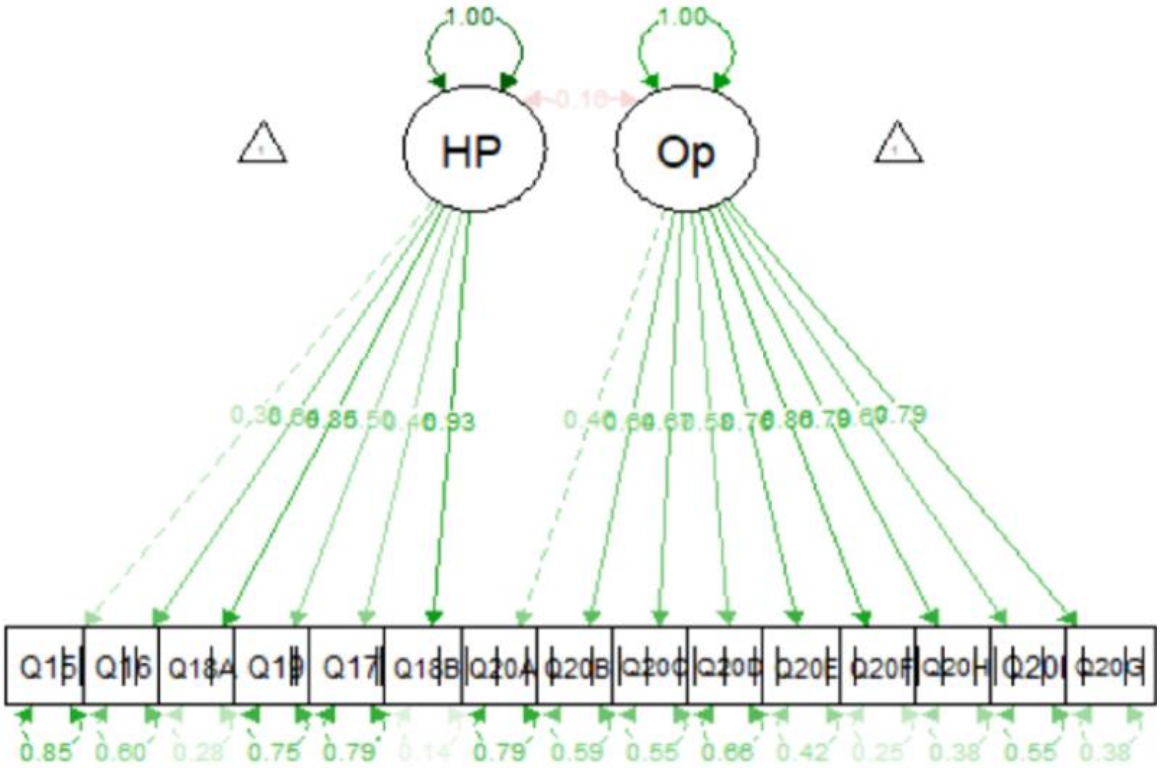
S1 Table. CFA Modification indices Model 1.

lhs	op	rhs	mi	epc	sepc.lv	sepc.all	sepc.nox
225	Q20H	~~	Q20I	51.897730	0.4553078	0.4553078	0.9968237	0.9968237
224	Q20F	~~	Q20G	43.634461	0.3998860	0.3998860	1.2976855	1.2976855
152	Q18A	~~	Q18B	16.242139	0.7396560	0.7396560	3.7226370	3.7226370
193	Q20A	~~	Q20C	14.259980	0.2512971	0.2512971	0.3835745	0.3835745
113	HP	=~	Q20F	13.793442	0.7288549	0.2782479	0.2782479	0.2782479
115	HP	=~	Q20I	13.700222	-0.6495453	-0.2479707	-0.2479707	-0.2479707
209	Q20C	~~	Q20F	13.115993	-0.2974894	-0.2974894	-0.8014001	-0.8014001
114	HP	=~	Q20H	11.772640	-0.5939055	-0.2267296	-0.2267296	-0.2267296
134	Q15	~~	Q20H	11.224181	-0.3073814	-0.3073814	-0.5404110	-0.5404110
222	Q20F	~~	Q20H	11.096339	-0.3002803	-0.3002803	-0.9706849	-0.9706849
223	Q20F	~~	Q20I	8.637741	-0.2819852	-0.2819852	-0.7558024	-0.7558024
135	Q15	~~	Q20I	8.342033	-0.2878311	-0.2878311	-0.4195801	-0.4195801
212	Q20C	~~	Q20G	7.985757	-0.2372336	-0.2372336	-0.5240434	-0.5240434
208	Q20C	~~	Q20E	7.927349	0.1870290	0.1870290	0.3897827	0.3897827
220	Q20E	~~	Q20I	7.187278	-0.2490377	-0.2490377	-0.5163958	-0.5163958
109	HP	=~	Q20B	7.061566	0.5106350	0.1949402	0.1949402	0.1949402
169	Q19	~~	Q20F	6.719122	0.2987504	0.2987504	0.6840584	0.6840584
213	Q20D	~~	Q20E	6.685453	0.1819029	0.1819029	0.3447704	0.3447704
227	Q20I	~~	Q20G	6.656457	-0.2539226	-0.2539226	-0.5580800	-0.5580800
117	Op	=~	Q15	6.555966	-0.3115294	-0.1437545	-0.1437545	-0.1437545
219	Q20E	~~	Q20H	6.521364	-0.2140526	-0.2140526	-0.5353128	-0.5353128
139	Q16	~~	Q17	6.180568	0.3110872	0.3110872	0.4546608	0.4546608
207	Q20C	~~	Q20D	6.054149	0.1723594	0.1723594	0.2874403	0.2874403
205	Q20B	~~	Q20I	5.860657	-0.2176466	-0.2176466	-0.3820178	-0.3820178

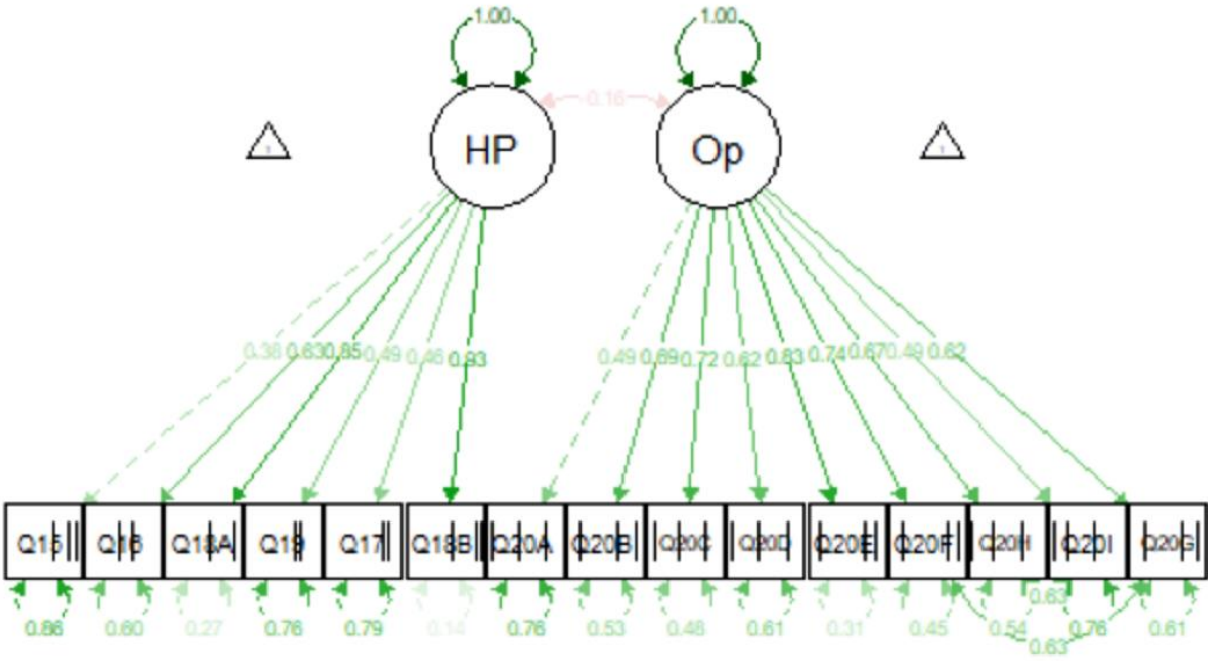
S2 Table. Modification indices CFA Model 2.

	lhs	op	rhs	mi	epc	sepc.lv	sepc.all	sepc.nox
117	HP	=~	Q20I	16.905029	-0.7149119	-0.2693824	-0.2693824	-0.2693824
154	Q18A	~~	Q18B	15.187762	0.7291655	0.7291655	3.6846479	3.6846479
116	HP	=~	Q20H	13.760273	-0.6402680	-0.2412562	-0.2412562	-0.2412562
136	Q15	~~	Q20H	11.748081	-0.3138146	-0.3138146	-0.4589616	-0.4589616
115	HP	=~	Q20F	11.097479	0.6532780	0.2461584	0.2461584	0.2461584
195	Q20A	~~	Q20C	9.608946	0.2144291	0.2144291	0.3558995	0.3558995
137	Q15	~~	Q20I	8.996883	-0.2981862	-0.2981862	-0.3682121	-0.3682121
211	Q20C	~~	Q20F	8.455634	-0.2431627	-0.2431627	-0.5244904	-0.5244904
111	HP	=~	Q20B	7.789890	0.5517607	0.2079062	0.2079062	0.2079062
197	Q20A	~~	Q20E	7.705949	-0.2309712	-0.2309712	-0.4746777	-0.4746777
141	Q16	~~	Q17	6.351550	0.3152624	0.3152624	0.4587279	0.4587279
171	Q19	~~	Q20F	6.241149	0.2873694	0.2873694	0.4919862	0.4919862
119	Op	=~	Q15	5.674072	-0.2947885	-0.1434628	-0.1434628	-0.1434628
220	Q20E	~~	Q20F	5.349449	0.1625835	0.1625835	0.4342246	0.4342246
150	Q16	~~	Q20I	5.259861	-0.2387468	-0.2387468	-0.3527458	-0.3527458
182	Q17	~~	Q20H	5.068567	-0.2516860	-0.2516860	-0.3840853	-0.3840853
205	Q20B	~~	Q20F	5.039577	0.1598713	0.1598713	0.3264840	0.3264840
142	Q16	~~	Q18B	5.023508	-0.3596754	-0.3596754	-1.2296047	-1.2296047
122	Op	=~	Q19	4.631876	0.2870259	0.1396851	0.1396851	0.1396851
188	Q18B	~~	Q20D	4.301031	-0.1846482	-0.1846482	-0.6243221	-0.6243221
153	Q18A	~~	Q17	4.252003	-0.3155725	-0.3155725	-0.6787303	-0.6787303
190	Q18B	~~	Q20F	4.173922	0.2101521	0.2101521	0.8273939	0.8273939
221	Q20E	~~	Q20H	4.155055	-0.1792883	-0.1792883	-0.4360656	-0.4360656

S2 Fig. Path diagram CFA Model1.



S2 Fig. Path diagram CFA Model2.



ҚАЗАҚСТАН РЕСПУБЛИКАСЫ

РЕСПУБЛИКА КАЗАХСТАН

АВТОРЛЫҚ ҚҰҚЫҚПЕН ҚОРҒАЛАТЫН ОБЪЕКТІЛЕРГЕ ҚҰҚЫҚТАРДЫҢ МЕМЛЕКЕТТІК ТІЗІЛІМГЕ МӘЛІМЕТТЕРДІ ЕНГІЗУ ТУРАЛЫ

КУӘЛІК

2023 жылғы «18» мамыр № 35871

Автордың (лардың) жөні, аты, әкесінің аты (егер ол жеке басын куәландыратын құжатта көрсетілсе):
ИСКАКОВА БАЛНУР АМАНҚУЛОВНА

Авторлық құқық объектісі: **туынды шығарма**

Объектінің атауы: **МЕДИЦИНАЛЫҚ МЕКЕМЕЛЕРДІҢ ҚЫЗМЕТКЕРЛЕРІ АРАСЫНДА АИТВ-на БАЙЛАНЫСТЫ СТИГМА МЕН КЕМСІТУ ДЕҢГЕЙІН БАҒАЛАУ**

Объектіні жасаған күні: **01.01.2018**

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Н. Абулкаиров

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РЕСПУБЛИКА КАЗАХСТАН

СВИДЕТЕЛЬСТВО

О ВНЕСЕНИИ СВЕДЕНИЙ В ГОСУДАРСТВЕННЫЙ РЕЕСТР ПРАВ НА ОБЪЕКТЫ, ОХРАНЯЕМЫЕ АВТОРСКИМ ПРАВОМ

№ 35871 от «18» мая 2023 года

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УТВЕРЖДАЮ
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"__" Мая 2023 г.

АКТ
внедрение результатов научно-исследовательской работы
КГП на ПХВ «Городская поликлиника №8» г. Астана

Наименование предложения
"Внедрение инструмента по оценке ВИЧ-ассоциированной стигмы в медицинских организациях РК"

Работа включена из планов внедрения научно-исследовательских работ в рамках выполнения исследовательской работы Искаковой Балнур Аманкуловны -докторанта PhD Казахского Национального Медицинского Университета им.С.Д.Асфендиярова специальности Общественное Здравоохранение.

Область применения: медицинские организации, медицинские работники (клинического и не клинического профиля)

Данный инструмент является стандартизированным инструментом адаптированный специфично для оценки ВИЧ-ассоциированной стигмы среди медработников. Инструмент был ранее протестирован и валидирован в таких странах, как Китай, Доминика, Египет, Кения, Пуэрто-Рико и Сент-Кристофер и Невис. Предлагаемый инструмент был переведен на Казахский и Русский язык и адаптирован местному Казахстанскому контексту учитывая эпидемиологические и культурные особенности ВИЧ-инфекции в стране. Были добавлены вопросы с другого валидированного интрумента по оценке ВИЧ-ассоциированной стигмы среди медработников медицинских организации в Эфиопии. Докторант провел несколько этапов адаптации инструмента включая, пилотное тестирование адаптированного инструмента, фокус групп дискуссии анкетирование с медперсоналом поликлиник г.Астана и факторный анализ для оценки ре-валидизации и психометрических данных адаптированного инструмента на Казахском и Русском языке. Ре-валидизация данного инструмента опубликована в рецензируемом журнала с высоким рейтингом "Plos One", что свидетельствует о высоком качестве процесса адаптации инструмента. Данный инструмент состоит из нескольких разделов: Базовая информация респондента, Инфекционный контроль (включая вопросы о страхе заражения ВИЧ и стигматизирующей практике), Условия работы в медицинских учреждениях, Политика медицинского учреждения касательно ЛЖВ, мнения о ЛЖВ и знание о ВИЧ/СПИД.

Формы и метод внедрения: данный инструмент можно будет использовать для оценки ВИЧ-ассоциированной стигмы среди работников медицинских организаций г.Астана.

Эффективность внедрения: Адаптация инструмента с хорошими доказательными психометрическими данным, на двух языках, является важным элементом оценки ВИЧ-ассоциированной стигмы. Полученные данные с помощью данного инструмента могут быть использованы для дальнейших интервенции по уменьшению стигмы, связанной с ВИЧ, среди медработников на городском и государственном уровне.

Предложения, замечания учреждения, осуществляющего внедрения: замечании нет

Срок внедрения: в течение 2023-2024 года

Председатель комиссии:

Члены комиссии: