

EARTHQUAKE IMPACT ON ADHERENCE TO ANTIRETROVIRAL THERAPY, MENTAL HEALTH AND THE RISK OF ART DRUG RESISTANCE AMONG PEOPLE LIVING WITH HIV IN NEPAL

Negi Bharat Singh¹⁾
Kameoka Masanori²⁾
Nakazawa Minato³⁾
Joshi Sunil Kumar⁴⁾

Abstract: A 7.8 magnitude earthquake in Nepal in 2015 claimed several thousands of lives and millions of people were affected. Health infrastructure damage further fueled the tragedy that leads to shortage of health service delivery at the time of emergency. People living with HIV/AIDS also affected equally; their access to health care service, especially anti-retroviral therapy (ART) was major problem for them. Thirteen percent of the study participants already developed treatment failure. Similarly, 44% of them have at least had some sign of posttraumatic stress disorder (PTSD). Interestingly, around 50% of participants felt stigmatized from society or friends or family members.

Key words: ART drug resistance, ART adherence, HIV stigma, PTSD, HIV subtype, Nepal

Background

A 7.8 magnitude earthquake hit Nepal on 25th of April 2015 that destroyed large extent of area including capital city Kathmandu. Devastating earthquake claimed more than 8,600 lives and left several thousands of people homeless. Around 88,000 people were displaced and took shelter in temporary houses such as tent. More than 21,900 were injured (MOHP, 2015). There was no appraisal for psychological trauma and stress caused by the deadly event.

Not only human loss but also infrastructure damage caused billions of economic loss that completely broke the backbone of the economic growth of the country. More than 1000 of health facilities in the region got damage; out of them 402 were completely destroyed that seriously affected health service delivery during the emergency crisis situation. Some 5 thousands of houses were destroyed that left huge portion of population homeless.

Fourteen districts (Gorkha, Sindhupalchowk, Makwanpur, Dhading, Nuwakot, Kathmandu, Lalitpur, Bhaktapur, Sindhuli, Kavre, Solukhumbu, Okhaldhunga, Rasuwa, and Ramechhap) out of 75 districts in the country, were hit very hard by the earthquake. Both infrastructural damage and population displacement, disrupted health service provision and amplified public health risks. In such disastrous emergency settings, acute illnesses and injuries occur



Figure: 1 Infrastructure damage during

immediately following the event, but impact on chronic conditions such as HIV/ AIDS can become an important public health threat in the post-disaster phase (Sharma, 2008 and Robinson, 2011)

According to NCASC, currently more than three thousand people living with HIV are on ART in this earthquake-affected area. In Nepal around 25 thousand people with HIV have been registered and out of them around 10,000 are on ART. It was not still assessed that how much this earthquake affected the adherence level; however, ART service availability was not stopped for long time by health facilities even after earthquake. Such service was provided from temporary camps too.

Medical compliance (Medical adherence) is very important for people living with HIV/AIDS. More than 95% medical adherence is needed to control the HIV related serious health complications. In emergency



Figure: 2 Casualties after earthquake

situation or even beyond, availability and accessing health services are often disrupted. One and a half years after the great Hanshin earthquake, approximately 25% of them experienced difficulty in receiving medical care or had discontinued receiving medical examinations or could not manage their medications by themselves (K, 1999). After the devastating earthquake in Haiti, a marked decline in HIV testing and new ART patient enrollment was reported, but follow-up of registered ART patients remained considerably high (Walldorf, 2012).

Disruption of health services after the disaster often occurs due to facility damage, population movements, limited resources, and lack of preparedness (Chapin, 2009). Patients may experience barriers to accessing health care (Tomio, 2010 and Druss, 2007). Past studies have examined indicators of socioeconomic status as predictors of health care access (Woerschling and Snyder, 2003 and Greenough, 2008). Interruption of ART can result in therapeutic failure (Hogg, 2002 and Bangsberg, 2001) and of course drug resistance (Harrigan, 2005).

In Nepal, no studies regarding drug resistance by genotypic analysis are available. However, just depending on viral load and treatment outcome they consider it as drug resistance but it is not standard. Drug resistance genotypic test is not available in Nepal. There are no published reports regarding present ART drug adherence situation in earthquake-affected area in Nepal. In such disastrous situation people may have been facing psychological problems due to loss of family members and shelters thereby their ART adherence is very difficult to stick with it. This study was targeting on people living with HIV who have been on ART since at least 6 month prior to earthquake focusing on drug resistance issues to disturbances in drug adherence. This study was very new of its type in this aspect although there are many ART adherence related studies exists in Nepal.

Therefore the objective of this study was-

1. To assess the impact of earthquake on people living with HIV (PLHIV) especially access and availability of antiretroviral therapy

2. To find out any risk of appearing drug resistance due to disturbance in their socio-economic factors and antiretroviral drug adherence after the disaster
3. To assess mental health, post traumatic stress disorder and risky sexual behavior among people living with HIV in the earthquake affected area.
4. To examine viral subtype and HIV Drug resistance strains especially developed after earthquake to see whether earthquake triggered drug resistance or not due to disturbances in drug adherences

METHODS AND MATERIALS USED IN THE STUDY

This study is longitudinal study, we are gathering information in two phases. In first phase the data were collected six month after earthquake that was what we already completed. Next stage data will be collected after one year of earthquake in Nepal that we are expecting to complete in May-June 2016. The logic behind completing two stage same information collection from PLHIV is to assess the real impact of earthquake and changes in their ART (Antiretroviral Therapy) drug adherence behavior, mental condition and other social conditions in two different point of time aftermath of great earthquake.

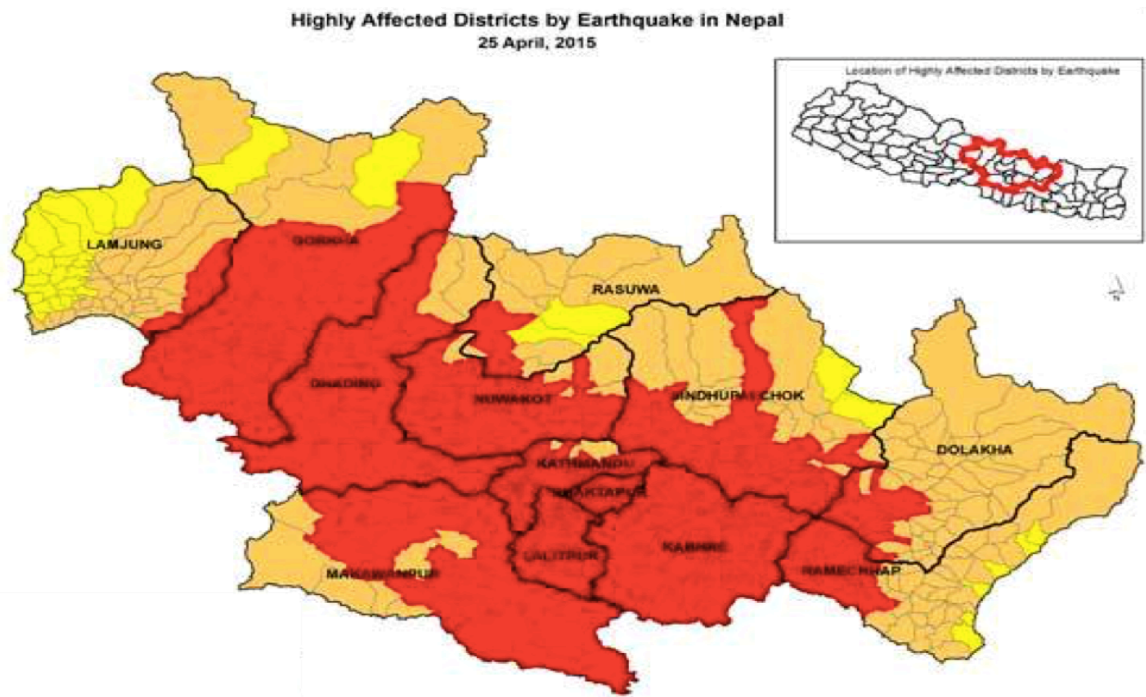


Figure: 3 Study areas in Nepal

We selected 14 highly earthquake-stricken districts. ART (Anti-Retroviral Therapy) centers were the primary point of accessing PLHIV for information collection through interviews. There were 12 functioning ART centers and we chose only 10 ART centers considering number of PLHIVs taking service from the center and meeting criteria that we already set. Those ART centers were Teku hospital, Sparsha Nepal, Tribhuvan University Teaching Hospital (TUTH), Bir Hospital, Dhulikhel Hospital, Makawanpur Hospital, Chautara Hospital, Gorkha Hospital, Dharadi Hospital and Trisuli Hospital. Out of those 10 ART centers we interviewed 305 PLHIV and withdrew blood sample from only 40 PLHIV who had treatment failure. Our target of blood sample collection was 100 but treatment failure cases were not enough for the sample; we got just 40 treatment failure cases. Before collecting data we obtained formal approval and cooperation to do our activities from their centers.

We hired 6 research assistants and one supervisor for the project. Then they were given 2 days orientation. The orientation was about how to conduct interview, how to ask question, the precautions taken



Figure: 4 Orientation to the Research assistant

during interviews and practice session. Lead researcher, local supervisor from Kathmandu Medical College, and resource person from ART center gave the orientation. After orientation research assistants conducted pretest of the questionnaires on 25 PLHIVs in different centers. From that pretest we finalized final version of questionnaires for interview.

The questionnaire were mainly formulated to find the information regarding posttraumatic stress disorder (PTSD), social support, discrimination and stigma, ART drug adherence, basic socio-economic status, earthquake damage and loss, access to medical services, and risky sexual behavior. The data collection activities were finished in two-month period.



Figure: 5 Research assistant taking interview

RESULTS

We interviewed 305 participants and withdrew blood sample from 40 participants. This is the first stage of our data collection that needs to be collected after 6 month of earthquake in Nepal. Second stage data collection will be started after 1 year of the earthquake. The final results will be available in few months from now. Table 1 and table 2 shows basic characteristics of the study sample i.e. 305 interviewed PLHIVs.

Table: 1 General characteristics of the study population

Sex	No	Percent
Male	178	58.4
Female	127	41.6
Marital Status		
Married	207	67.9

Unmarried	35	11.5
Widowed	50	16.4
Separated/Divorced	13	4.3
Occupation		
Agriculture	66	21.6
Business	55	18
Service (job)	58	19
Others	126	41.3
Cast		
Kshetri	84	27.5
Brahmin	29	9.5
Janjati	163	53.4
Dalit	22	7.2
Others	7	2.3
Education		
Illiterate	61	20
Primary	104	34.1
Secondary	114	37.4
Above secondary	26	8.5
Smoking		
Yes	112	36.7
No	193	63.3
Loss of Family Member		
No	289	94.8
Yes	16	5.2
Lost House		
Yes	155	50.8
No	97	31.8
Partial damage	53	17.4

Around 5% of the participant lost their one or more family member in the earthquake while more than 50% of the participant lost their houses. Similarly, around 44% of the participants have posttraumatic stress disorder sign and symptoms. Thirteen percent participant exhibits treatment failure after earthquake. Asking about last 4 days ART drug missed doses at the time of interview, 1.3% participants missed all last 4 days while 84.3% did not miss any ART drug in last 4 days.

Table 2 Social and health related characteristics

Stigma	No	Percentage
No	153	50.2
Yes	152	49.8
PTSD		
No	171	56.1
Medium	93	30.5
High	41	13.4
Risk group		

Sex Worker	18	5.9
Drug Injector	62	20.3
Blood or Organ	14	4.6
Client of Sex worker	38	12.5
Migrant	13	4.3
Spouse/partner of migrant	96	31.5
Others (unspecified)	64	21
Treatment Failure		
Yes	40	13.1
No	265	86.9
Last 4 day ART pill missing		
None	257	84.3
One day	33	10.8
Two days	9	3.0
Three days	2	0.7
Four days	4	1.3

CONCLUSION

Devastating earthquake last year in Nepal not only claimed lives of thousands of people but also it left psychological trauma and disruption of social life including health system of Nepal. People with chronic health condition such as HIV/AIDS were affected seriously. Many of them lost their family member, houses and job. That affected their continuity (adherence) to ART medicine. The disruption in taking medicine might further become disastrous for them as this disruption might lead to drug resistant. Thirteen percent of the study participants already developed treatment failure. This study is still not complete and final second stage data will further reveal more information regarding it.

ACKNOWLEDGEMENT

First of all I would like to thank RCUSS who generously supported by funding this research project. I would like to thank all 10 ART center heads that they granted approval for data collection from their center. Similarly, I would like to thank all the research assistants and supervisor who helped me data collection. I also like to thank to all the participants and my friends who helped me in this project.

APPENDIX

Appendix 1 Work Plan

Activities	Time
November 2015	Recruiting researchers, orientation, pre-testing of tool and seeking approval from ART centers
Dec 1, 2015 to Jan 3, 2016	Field work /data collection
Jan-Feb 2016 data analysis	Data analysis
June-July 2016	Second stage field work
August-Sept 2016	Data analysis
October 2016	Scientific paper submission
November-December 2016	Thesis preparation

Index 2 Questionnaire (Data collection tool)

प्रश्नावली	
IDENTIFICATION	
Name of VDC or Municipality
Ward number	<input type="text"/> <input type="text"/> Tole:
Name of the respondent Ph no 1).....2)
Date	Day Month Year
Code of respondent	<input type="text"/> <input type="text"/> <input type="text"/>
Interviewer
ART Center:
Supervisor	
Name.....	
Date.....	

A. Socio Demographic characteristics

1. उमेर

2. लिंग १ पुरुष २ महिला ३ अन्य

3. वैवाहिक स्थिति:

१ विवाहित २ अविवाहित ३ पारपाचुकि ४ विधुर /विधुवा ५ छुट्टिएको....

4. पेशा:

१ कृषि व्यवसाय (आफ्नो) २ व्यापार ३ सेवा (नोकरी) ४ घरेलु उद्योग
५ शिक्षण ६ मजदुरी (कृषि क्षेत्रमा) ७ मजदुरी (गैर कृषि क्षेत्रमा) ८ अन्य.....

5. जात:

१ क्षेत्री २ ब्राह्मण ३ जनजाती
४ दलित ५ मुसलमान ६ अन्य

6 धर्म:

१ हिन्दू २ बौद्ध ३ इस्लाम ४ किराँत
५ जैन ६ इसाई ७ अन्य ...

7. परिवारको किसिम :

1. एकल २ सयूक्त ३ वृहत

8. शिक्षा:

1. निरक्षर 2. प्रारम्भिक 3. माध्यमिक 4. माध्यमिक भन्दा माथि

9. शहर वा गाँउ स्थिति:

१ शहर २ गाँउ

11. ART केन्द्रको दुरी.....घन्टा

12. तपाईं धुस्रपान गर्नुहुन्छ?

१. हो २. होइन

हो भने एक दिनमा कति खिल्लि चुरोट पिउनुहुन्छ ?ओटा

13. तँपाई मखपान गर्नुहुन्छ ?
 १ कहिलै पनि गरेको छैन २ पहिले गर्थे ३ कहिलेकाहि गर्छु ४ प्रायः गर्छु

14. तँपाई अन्य कुनै लागु पदार्थ सेवन गर्नुहुन्छ ?
 १ गर्छु २ गर्दिन

15. यदि गर्नुहुन्छ भने के सेवन गर्नुहुन्छ ?
 १ भाड/गाजा २ धातुरो ३ अफिम ४ अन्य (खुलाउनुस्).....

16. भुकम्पमा परी परिवारजन गुमाउनु भएको छ ?
 1. छैन 2. 1 जना 3. 2 जना 4. 3 वा धेरै

17. भुकम्पमा परी घर गुमाउनु भएको छ ?
 1. छ 2. छैन 3. केही मर्मत गर्नु पर्ने छ ।

18. यातायातको सुविधा छ कि छैन ?

1. छ 2. छैन

19. प्रत्येक महिना परिवारको सहित मिलाएर कति जति खर्च हुन्छ ?

1. <5000 2. 5000-10,000 3. 10,000-20,000 4. >20,000

20. तपाईंको परिवारमा मासिक आम्दानी कति छ ?

1. <5000 2. 5000-10,000 3. 10,000-20,000 4. >20,000

B. Perceived family support

	छैन	कहिलेकाहि	प्राय	सधैजस्तो
१ तपाईको परिवारबाट तपाईले कतिको माया हेरविचार पाउनु भएको छ ?	०	१	२	३
२ तपाईको परिवारबाट तपाईले कतिको घृणा र अपमान र भेदभाव भएको महशुस गर्नु भएको छ ?	०	१	२	३
३ परिवारमा तपाईको भुमिका कतिको छ जस्तो लाग्छ?	०	१	२	३
४ तपाई आफ्नो परिवारबाट कतिको तिरस्कृत (मन नपराउने, अपहेलना गर्ने, टाढा रहने) भएको महशुस गर्नु हुन्छ ?	०	१	२	३
५ परिवारमा कुनै पनि कुराको निर्णय लिदा तपाईलाई कतिको सोधखोज गरिन्छ?	०	१	२	३
६ तपाईको परिवारमा तपाईले अन्य सदस्य सरह खाना खान पाउनु हुन्छ ?	०	१	२	३
७ तपाई विरामी हुदा परिवारको सदस्यबाट कतिको स्याहार पाउनु हुन्छ?	०	१	२	३
८ तपाईको परिवारको सदस्यले तपाईलाई कतिको कटपिट गर्नुहुन्छ ?	०	१	२	३
९ तपाई आफ्नो परिवारलाई मनको कुरा (खुसि, पिर, मर्का) कतिको भन्नु हुन्छ ?	०	१	२	३
१० तपाईको परिवारले तपाईलाई कतिको शोषण (कामको बेला मात्र प्रयोग गर्ने, गरेको कामको जस नदिने, बढि काम गराउने) गरेको महशुस गर्नुहुन्छ ?	०	१	२	३

C. स्वास्थ्य, ART सेवाको उपभोग (Use of ART and general health service)

1. विगत ६ महिनामा अस्पताल पनि भर्ना हुनु भयो कि ?

1. हो (के कारणले:.....) 2. होइन

2. यदि हो भने कति समय भर्ना हुनुभयो? दिन

3. विगत ६ महिनामा HIV को औषधि नपाएको अवस्था छ ?

1. हो 2. होइन 3. थाहा भएन

4. यदि कुनै समय HIV को औषधि नपाउनु भएको भए नपाउनाको मुख्य कारण के थियो?

मुख्य कारणअरु कारण.....

D. Stigmatization, discrimination and exclusion

1. Perceived stigma

1. HIV को कारणले गर्दा अरु मान्छेहरु (साथिभाई, छरछिमेकी, अन्य व्यक्ति) तपाईंसँग बस्न हिडडुल गर्न लाज वा अप्ठ्यारो महसुस गर्छन?	1. हो	2. होइन
2. HIV को कारणले गर्दा अरु मान्छेहरु (साथिभाई, छरछिमेकी, अन्य व्यक्ति) तपाईं लाई हेप्ने वा निचा देखाउने काम गर्छन?	1. हो	2. होइन
3. HIV को कारणले गर्दा अरु मान्छेहरु (साथिभाई, छरछिमेकी, अन्य व्यक्ति) तपाईं सँग कुरा गर्न मन पराउँदैनन वा तपाईं सँग घुलमिल भएर कुरा गर्न चाहार्दैनन?	1. हो	2. होइन
4. HIV को कारणले गर्दा कोहि मान्छेहरु यो तपाईंको गल्तिको फल हो भन्ने सोच्छन ?	1. हो	2. होइन

1. के तपाईं आफ्नो जीवन सामाजिक आदर वा प्रतिष्ठाका साथ विताएको महसुस / अनुभव गर्नुहुन्छ ?
१ गरेको छु २ गरेको छैन

2. HIV को कारणले समाजमा, साथीभाइमा र परिवारमा कुनै विभेदको अनुभव गर्नु भएको छ ?

1. समाज	1. छ	2. छैन
2. साथी भाइ	1. छ	2. छैन
3. परिवार	1. छ	2. छैन

3. यदि छ भने कस्तो प्रकारको विभेदको अनुभव गर्नु भएको छ ?

1. समाज
2. साथिभाई
3. परिवार

4. के तपाईं सामाजिक एवं मनोरन्जनात्मक कृयाकलाप (धेरै मान्छेहरूसँग घुलमिल हुने ठाउँ) मा संलग्न वा सहभागी हुनुभएको छ वा थियो ?
१ छ/थियो २ छैन /थिएन

5. परिवारमा वा समाजमा तपाईंको कुनै निर्णयकारी भूमिका (भनेको मान्ने) छ/छैन ?
१ छ २ छैन → प्र न. ७

6. यदि छ भने कस्तो प्रकारको निर्णयकारी भूमिका छ? (बहुउत्तर)
१ आर्थिक परिचालन २ व्यवस्थापन गर्ने ३ सामाजिक तथा सांस्कृतिक
४ शिक्षा सम्बन्धी ५ स्वास्थ्य सम्बन्धी ६ अन्य(खुलाउने)

7. तपाईंको कुनै सामाजिक सघ संस्थामा संलग्नता रहेको छ ?
१ छ २ छैन → प्र न. 11 मा जानुस ।

8. तपाईं आफु आवद्ध वा संलग्नता भएको संस्थामा तपाईंको भूमिका कस्तो छ ?
१ कामदार/श्रमिक २ निर्णायक तह ३ कार्यान्वयन/अनुगमन तह ४ थाहा छैन

10. किन त्यो संस्थासँग आवद्ध हुनु भएको ?

11. तपाईंले HIV छ भनेर कसलाई भन्नुभएको छ?
१. छ २. छैन

12. कस कसलाई भन्नु भएको छ?
१. आमा बाबु २. लोग्ने वा श्रीमती ३. साथि भाई ४. नातेदार
५. दाजुभाइ वा दिदिबहिनी ६. अन्य

13. तपाईंलाई पहिलो चोटि HIV भएको थाहा भएको कति समय पछि उहाहरुलाई भन्नुभएको थियो?
१. थाहा भएकै दिन २. १ देखि २ हप्तामा ३. २ हप्ता देखि १ महिना ४. १ देखि ६ महिनामा
५. ६ महिना भन्दा बढि (उल्लेख गर्ने.....)

14. तपाईंको चाहाना विपरित कसैले तपाईंलाई HIV छ भनेर अरुलाई भनिदिएको कुरा तपाइलाई थाहा छ?
१. भनेका छन २. भनेका छैनन ३. थाहा भएन

E. Adherence to ART Medicines

अब तपाइले लिने औसधिहरु बिगत ४ दिनमा कुनै बेला खान भुल्नु भयो भने निम्न तालिकामा भर्नु होला

a. निम्न दिनहरुमा कुनै बेला औसधि लिन भुल्नु भयो भने भुलेको डोज (मात्रा) उल्लेख गर्नु होला -

Step 1 औसधिको नाम	कति डोज भुल्नु भयो ?			
	Step 2 हिजो	Step 3 अस्ति	Step 4 ३ दिन अगाडी	Step 5 ४ दिन अगाडी
	... डोज	... डोज	... डोज	... डोज
	... डोज	... डोज	... डोज	... डोज
	... डोज	... डोज	... डोज	... डोज
	... डोज	... डोज	... डोज	... डोज
	... डोज	... डोज	... डोज	... डोज
	... डोज	... डोज	... डोज	... डोज
	... डोज	... डोज	... डोज	... डोज

b. बिगत ४ दिनमा कति दिन सबै औसधि लिन भुल्नु भयो ? कुनै पनि दिन भुलेन

- १ दिन
- २ दिन
- ३ दिन
- ४ दिन

c. डाक्टरले जुन जुन बेला (बिहान या दिउसो वा बेलुकी) औसधि लिन भनेको हुन्छ त्यहि बेला सधैं लिनु हुन्छ ?

- कहिले पनि लिदैन त्यसरी
- कहिले कहिँ मात्र
- आधा जस्तो समय
- प्राय
- सधैं त्यहि समय

d. तपाइको डाक्टरले कुनै औसधि भोको पेटमा लिने वा खाना खाएर लिने वा प्रसस्त पानि पिउने भनेको छ ?

- छ
- छैन

छ भने त्यसरी नै बिगत ४ दिनमा लिनु भएको छ ??

- कहिले पनि लिदैन त्यसरी
- कहिले कहिँ मात्र
- आधा जस्तो समय
- प्राय
- सधैं त्यहि समय

e. तपाइलाई थाहा भए अनुसार कहिले औसधि लिन छुटाउनु भयो ?

- गत हप्ता
- १-२ हप्ता अगाड
- २-४ हप्ता अगाडी
- १-३ महिना अगाडी
- ३ महिना भन्दा

यदि कहिले पनि छुटाइनु भएन भने यो f भाग नभर्नु होला ।

f. विभिन्न कारणले मान्छेहरु औसधि लिन भुल्छन वा छुटाउछन । तपाईं चाही के कारणले भुल्नु हुन्छ वा छुटाउछनुहुन्छ र निम्ना उल्लेखित कारण तपाइमा कति लागु हुन्छ ? प्रत्येकमा गोलो घेरा लगाउनु होला ?

	यस्तो कहिले हुदैन	मुस्किलले	कहिले कहिँ	प्राय
1. घरभन्दा टाढा भएर	0	1	2	3
2. काममा व्यस्त भएर	0	1	2	3
3. सामान्य भुल्ने बानि	0	1	2	3
4. धेरै औसधि खानु पर्ने भएकोले	0	1	2	3
5. औसधिको असरले गर्दा औसधि खादैन	0	1	2	3
6. अरुले देख्छ भन्ने दरले खाना छुट्छ	0	1	2	3
7. दैनिक क्रियाकलाप बदलिरहेने भएकोले	0	1	2	3
8. मलाई कहिलेकाही औसधिले नराम्रो गर्छ भन्ने सोचले गर्दा	0	1	2	3
9. औसधि खाने समयमा सुत्ने गर्छु	0	1	2	3
10. बिरामी परेर	0	1	2	3
11. कहिले कहिँ चित्त दुखेर आउछ / यो खाएर के नै हुन्छ अब भन्ने सोच	0	1	2	3
12. भनेको समयमा डाक्टरले भने अनुसार (भोको पेट, खाना संग आदि) औसधि लिन समस्या हुन्छ	0	1	2	3
13. औसधि सकिएर	0	1	2	3
14. अब मलाई स्वास्थ्य भैसक्यो (अरु असर छैन, बिरामी छैन) भन्ने सोचले गर्दा	0	1	2	3

ना। इन्धनको (तेल पेट्रोल) कमिको कारण यातायातमा समस्या भएर औषधि खान कहिलेकाही छुटाउनु भएको छ?

१ छ २ छैन

यदि छुटाउनु भएको छ भने कति समय छुटाउनु भयो ?

१. १ हप्ता भन्दा कम

२. १ देखि २ हप्ता

३. २ देखि ४ हप्ता

४. १ महिना भन्दा बढि

F. Posttraumatic Stress Disorder

गएको एक हप्तामा	कहिले नि होइन	अलिअलि	कहिले काही	धेरै	अतिनै धेरै
एज तपाईंलाई विगतको भुक्म्पको झन्झटको आउछ ? यसले कतिको दुःख दिन्छ ?	१	२	३	४	५
एद तपाईंलाई विगतको भुक्म्पको अनुभव सपनामा आउछ ?	१	२	३	४	५
एघ तपाईंलाई विगतको भुक्म्प फेरि पनि तपाईंको जीवनमा होला जस्तो लाग्छ ? यसले कतिको पिर लाग्छ?	१	२	३	४	५
गएको एक हप्तामा..... एद तपाईंलाई विगतको भुक्म्पको नरमाइलो सम्झना कतिको मनमा आउछ ?	१	२	३	४	५
एछ तपाईंलाई विगतको भुक्म्पको बारे सम्झाओ वा याद दिलाओ भने त्यती बेला तपाईंको मुटुको ढुक्ढुकी बढने, सांस फेर्न गाह्रो हुने, धेरै	१	२	३	४	५

पसिना आउने हुन्छ ? त्यस्तो समस्याले कतिको दुःख दिन्छ ?					
एठ तपाईंलाई विगतको भुक्मको बारेमा केही पनि सोच्न कसैलाई पनि भन्दिन भन्ने विचार कतिको आउछ ?	१	२	३	४	५
एठ तपाईंलाई विगतको भुक्मको याद गराउने कुनै ठाउँ, मान्छे वा कामकाजबाट जोगिएर हिँड्न पर्ने भयो ? यस्तो समस्याले कतिको सताउछ ?	१	२	३	४	५
एठ तपाईंलाई विगतको भुक्मको कारण मुख्य कुरा सम्झन गाह्रो हुन्छ ?	१	२	३	४	५
एठ पहिला पहिला भुक्म आउनु भन्दा अगाडी आनन्द आउने वा राम्रो लाग्ने काम अहिले गर्न मन नलाग्ने भएको छ ?	१	२	३	४	५
एजण तपाईंलाई एकान्त वा एक्लो भएको अनुभवले कतिको सताउछ ?	१	२	३	४	५
एजण तपाईंलाई आफ्नो नजिकको मान्छेप्रति माया नलाग्ने अनुभव भएको छ ? यस्तो कतिको भएको छ ?	१	२	३	४	५
एजण तपाईंलाई आफ्नो भविष्य कताकता अन्धकार हुने हो कि भन्ने सोचाईले कतिको सताउछ ?	१	२	३	४	५
एजघ तपाईंलाई निन्द्रा नलाग्ने वा निन्द्रा खल्बलिन समस्याले कतिको दुःख दिन्छ ?	१	२	३	४	५
एजठ तपाईंलाई एक्कासी रीस उठ्ने वा झर्को लाग्ने समस्याले कतिको दुःख दिन्छ ?	१	२	३	४	५
एजछ तपाईंलाई कुनै कुरामा एकचित्त भएर ध्यान दिइरहने कतिको गाह्रो हुन्छ ?	१	२	३	४	५
एजठ तपाईंलाई धेरै होशियारी वा सतर्क हुनुपर्ने समस्याले कतिको दुःख दिन्छ ?	१	२	३	४	५
एजठ तपाईंलाई एक्कासी तर्सिने वा झस्किने समस्याले कतिको दुःख दिन्छ ?	१	२	३	४	५

G. Risky sexual behavior

1. विगत ६ महिनामा तपाईं कति जना संग योन सम्पर्क गर्नु भयो ?

a. कसै संग पनि छैन b. एक जना c. दुई वा बढी संग

2. विगत ३ महिनामा योन सम्पर्क गर्दा कन्डोमको प्रयोग गर्नु भयो ?

a. कहिले पनि गरिन b. कहिले कहिँ c. प्राय d. सधैं

3. विगत ३ महिनामा रक्सि खाएर (मधपान गरि) योन सम्पर्क गर्नु भयो ?

a. छ b. छैन

I. Other laboratory /clinical and other background (filled from record)

- ART drug side effects/complications? 1. Yes 2. No
- Presence of HIV/AIDS related complications
 - Bacterial Pneumonia
 - Tuberculosis
 - Candidiasis
 - Diarrhoea
 - Cryptococcal meningitis
 - Pneumocystis Carinii pneumonia
 - Cytomegalo virus disease
 - Herps zoster
 - Genital Herpes
 - Toxoplasmosis
 - Other
- Last CD4 count -----
- Last HIV viral load -----
- Treatment failure? 1. Yes 2. No
- Risk Group:
 - Sex worker
 - Drug injector
 - MSM and TG
 - Blood or organ
 - Client of sex worker
 - Migrant
 - Spouse/Partner of migrant
 - Others

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AUTHORS

- 1) Negi Bharat Singh, Graduate student, Kobe University Graduate School of Health Science
- 2) Kameoka Masanori, Associate Professor, Kobe University Graduate School of Health Science
- 3) Nakazawa Minato, Professor, Kobe University Graduate School of Health Science
- 4) Joshi Sunil Kumar, Professor, Kathmandu Medical College, Nepal