PREVALENCE AND RISK FACTORS OF HEPATITIS B AND C AMONG PRISON INMATES IN CEBU

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INTRODUCTION

Background

Hepatitis B and Hepatitis C are known as the most serious forms of viral hepatitis. World Health Organization has announced Hepatitis-related cancer and cirrhosis of the liver as the ninth cause of mortality in the lower to middle-income countries.(1) In the Philippines, Department of Health (DOH) and Philippine Cancer Society statistics showed that liver cancer is the 3rd leading site of cancer for both sexes. (2) Hepatitis B virus(HBV)infection affects 240 million people worldwide and accounts for 780,000 deaths from cirrhosis, liver failure and hepatocellular carcinoma.(3) Hepatitis C virus(HCV) infection affecting 130-150 million people worldwide,is a leading cause of liver related deaths of 350,000 to 500,00 per year and most common reason for liver transplantation. (4) Together Hepatitis B and C cause approximately 80% of all liver cancer deaths and kill close to 1.4 million people every year – more than either HIV or tuberculosis. About two third of people suffering from Hepatitis B and C are residing in the developing countries of Central and East Asia and Africa. (3,4,5)

Prisons populations are considered to be at high risk for bloodborne and sexually transmitted infections such as Hepatitis B virus (HBV) and Hepatitis C virus (HCV), due to high proportion of injecting drug users (IDUs), commercial sex workers and men who have sex with men. (6) There is a growing evidence that these infections have actually been transmitted to individuals while they were in prison (7,8,9), although there is also evidence that some had these infections before they were incarcerated. Data on prevalence and risk factors for HBV and HCV among high-risk groups like the prisoners are very scanty in Filipino population. Therefore, discussion about the blood borne and sexually transmitted infections requires extrapolation from the data of other countries. The aim of this study was to determine the prevalence of Hepatitis B and C among prison inmates and the possible mode of acquisition by obtaining the history of exposure to known risk factors.

Objectives of the Study

Research Question:

What is the prevalence and risk factors of Hepatitis B and Hepatitis C virus infections among prison inmates in Cebu?

General Objective

To determine the prevalence and risk factors of Hepatitis B and Hepatitis C infections among prison inmates in Cebu

Specific Objectives

1. To determine the demographic characterisitics of prison inmates with Hepatitis B and Hepatitis C virus infections
2. To determine the prevalence of co-infections of Hepatitis B and Hepatitis C virus among prison inmates in Cebu
3. To determine the risk factors of Hepatitis B and Hepatitis C virus infections among prison inmates in Cebu

4. To determine the association of Hepatitis B and Hepatitis C virus infections in relation to demographic charactersitics and risk factors.

REVIEW OF RELATED LITERATURE

In the Philippines, an estimated 7.3 million Filipinos or 16.7% of adults are chronically infected with Hepatitis B, more than twice the average prevalence in the Western Pacific region. (10,11,12) Hepatitis C is increasingly recognized as major health care problem. Approximately 85% of individuals infected with HCV will develop chronic HCV infection. (13) A small-scale study suggest that up to 1.1% of Filipinos could be infected with HCV. (14) A group of people predisposed to this infections are the prisoners and drug abusers. Injecting drugs and infected blood products are the major routes for transmission of HBV and HCV as well as AIDS. Imprisonment has also been reported as a risk factor for infection. (15)Other identified risk factors include unsafe sex, multiple sexual partners, homosexuality and tattooing.(16) In addition, prison inmates are affected by prevailing social health problems, illegal behavior, and limited educational opportunities. (17)

In 2011, the world's prison census was 10 million (18)but an estimated 30 million people previously imprisoned were released to the community. (19) United Nations Office on Drugs and Crime reports that imprisonment is counterproductive in the rehabilitation and reintegration of those charged with minor crimes. (20)

In 2012, the Philippines had 106,323 prisoners. The total prison populaiton increased to 120,076 in 2014, with an occupancy level at 316%. Most inmates are pre-trial detainees (63.6%). (21) HIV prevalence among people who inject drugs(PWID) in Cebu is 5%, but few report being tested. Cebu City experienced a sharp rise in HIV infection among PWID from 0.4% in 2007 to 53.8% in 2011. (22) Hepatitis C prevalence among PWID is 80% and the prevalence of syphilis was 4.82% in 2013. (23)

HBV and HCV prevalence among prison inmates varies markedly from country to country. Reports of HBV exposure in 43 countries varies widely from 4.2% in Slovenia to 85% in Mexico. (24) Worldwide hepatitis C data similarly report significant prevalence figures in general detainees ranging from 26%-90%. (25) Prisoners have a higher prevalence of these infections. The rate is also greater among adolescents compared to the general population.(26)

PATIENTS AND METHODS

Study design: Cross-sectional study

Study setting: Cebu City Jail and Cebu Provincial Detention and Rehabilitation Center (CPDRC) in Barangay Kalunasan, Cebu City

Study Population: Prison inmates in Cebu age 18 years old and above

Exclusion: Prisoners who declined to be tested for HBV and HCV infection, prisoners who were absent from the premises at the time of survey and prisoners who were considered to be a safety risk for the research staff

Sampling:

Basis: In the Philippines, official estimates place the prevalence rate of HBs Ag positivity among prisoners at 16.5% of the population, or approximately 16 million Filipinos. [28]

***Sample Size**:*

Proportion:

$$n= k^2pq/ d^2$$

where:

n –sample size

k –reliability coefficient based on level of confidence(standard normal deviation, **α**=5%= 1.96)

p – estimate of frequency of event

q – 1-p

d – maximum amount of deviation from true frequency

our study:

$n = 1.96^2 (0.165X\ 0.833)/ 0.05^2$

= 211

We set the sample size at 300. The same sample size was also used for Hepatitis C testing.

Data Collection Procedure. Participants were selected by random sampling method. After the clinical investigator has obtained verbal consent, the written consent was signed. Each participant was assigned a code. The selection of participants involved selection of every 5th male and female on the lists. If the prison inmate refused to participate, we used sampling with replacement by choosing the next prison inmate of that number. There were two parts of the survey: an interview-guided checklist and collection of blood sample. No identifier was recorded on either the checklist or the blood specimen. A code was assigned to both, linking the two. Each study participant had an interview-guided questionnaire which was recorded by social workers and staff who were trained on how to adminster the questionnaire. Participants could skip any question. Blood specimen was taken by fingerstick method. Each sample was tested for HBsAg and anti-HCV Testing kits using Advanced Quality One Step Test immunochromatographic assay method (Intec) with more than 90% sensitivity.

Study Tool. The questionnaire collected the demographic and social data and the presence and absence of high risk behavior. Specific information included age, sex, marital status, number of marriages, educational level, crime type, number of times arrested, duration of imprisonment, use of illicit drugs, routes of drug use, history of blood transfusion, born to HBV or HCV positive mother, history of high risk sex, history of tattooing, history of body piercing.

Examples of illicit drugs that were included in the question were shabu, cocaine, marijuana, nubain, ecstasy and cough syrup. The route of illicit drug consumption were divided into three categories including; inhalation, injection and ingestion. History of drug inhalation in the past 12 months, start of injection in prison and sharing needles in prison were reported. Any study participant who had injected even once was included in the injection group. Regarding the duration of imprisonment, if there had been a number of arrest times, then all periods of incarceration were added together.

Ethical considerations: The study protocol was reviewed and approved by the CDU-CDUH Institutional Ethics Review Committee for conduct. Prior to any study related procedure, a written informed consent was obtained. Data handling was kept under confidentiality.

STATISTICAL ANALYSIS

All data were encoded in MS EXCEL 2013. Categorical data including demographic and risk factors were summarized by frequency and percentage distribution. Multiple logistic regression analysis was used to determine the relationship between prevalence of hepatitis infections and risk factors. P value < 0.05 will be considered statistically significant. Data analysis was performed using the SPSS software version 22.

RESULTS

Demographic characteristics. Between November 2014 and January 2015, A total of 658 participants from provincial and city jails were included in the study. Forty-five(6.8%) participants were positive for HBsAg and 181 (27.6%) participants were positive for HCV Antibody. Prevalence of HCV in city inmates was significantly higher (23.3%) compared to 4.3% among provincial inmates. The mean ±SD age of participants was 24± 0.5 years (median 25, range 18-30 years old). The proportion of Hepatitis B reactive cases was fairly similar among different age categories. The frequency of Hepatitis C reactive cases was significantly higher among individuals between 18-30 years old compared to individuals 36-60 years old. There were 556 (84.5%) males, and 102 (15.5%) females. There was a high proportion of males who have HBV and HCV, 6.1% and 24.8% , as compared to females at 0.8% and 2.7%, respectively.

In this study, majority(67.9%) were single. As to educational attainment of participants, there were 4(0.6%) on primary level, 227(34.5%) were on elementary level, 321 (48.8%) were on high school level and 96(14.5%) were on college level of education or had Bachelor's degree. There were 10 participants (1.5%) who were illiterate. Prison inmates were being held for various crimes; 287 (43.6%) for penal crimes related to drugs and drug paraphernalia, followed by crime against persons (24.9%) and crime against property (16.9%). Majority of the participants(78.1%)were arrested for the first time. With imprisonment history, there were 290 participants(44.1%) who were imprisoned in less than 12 months ,142(21.6%) stayed in prison in less than 2 years, 73 (11.1%) stayed more than 2 to 3 years , 89 (13.5%) stayed more than 3 to 5 years, the rest of the 10% stayed above 5 years in prison. (TABLE 1)

Table 1. Distribution of the Demographic Characteristics of Prison Inmates

Characteristics	Total (n, %)	HBV (n, %)	HCV (n, %)
Jail:			
Provincial	328 (49.8)	20 (3.0)	28 (4.3)
City	330 (50.2)	25 (3.8)	153 (23.3)
Age:			
18 – 24	150 (22.8)	8 (1.2)	46 (7.0)
25 – 30	151 (22.9)	6 (0.9)	54 (8.2)
31 – 35	105 (16.0)	9 (1.4)	28 (4.3)
36 – 45	139 (21.1)	14 (2.1)	40 (6.1)
46 – 55	72 (10.9)	6 (0.9)	12 (1.8)
56 – 60	20 (3.0)	1 (0.2)	1 (0.2)
>60	21 (3.2)	1 (0.2)	-
Sex:			
Male	556 (84.5)	40(6.1)	163 (24.8)
Female	102 (15.5)	5 (0.8)	18 (2.7)
Marital Status:			
Single	447 (67.9)	30 (4.6)	139 (21.1)
Married	195 (296)	14 (2.1)	40 (6.1)
Widowed/Widower	16 (2.4)	1 (0.2)	2 (0.3)
Number of Marriage:			
None	445 (67.6)	30 (4.6)	139 (21.1)
Once	207 (31.5)	15 (2.3)	41 (6.2)
Twice	4 (0.6)	-	1 (0.2)
Thrice or more	2 (0.3)	-	-
Education:			
Illiterate	10 (1.5)	1 (0.2)	-
Primary	4 (0.6)	1 (0.2)	-
Elementary	227 (34.5)	19 (2.9)	58 (8.8)
High School	321 (48.8)	18 (2.7)	102 (15.5)
College	96 (14.6)	6 (0.9)	21 (3.2)
Crime Type:			
Crime against persons	164 (24.9)	9 (1.4)	26 (4.0)
Crime under special penal laws-committed against the State: drugs, drug paraphernalia	287 (43.6)	22 (3.3)	83 (12.6)
Crime under special penal laws-committed against the State: firearms, gun band, gambling	53 (8.1)	6 (0.9)	20 (3.0)
Crime under special penal laws-committed against persons	39 (5.9)	1 (0.2)	7 (1.1)

Table 1. Continued…

Characteristics	Total (n, %)	HBV (n, %)	HCV (n, %)
Crime against property	111(16.9)	5 (0.8)	43 (6.5)
Crime against chastity	1 (0.2)	1 (0.2)	-
Crime against security and liberty	3 (0.5)	1 (0.2)	2 (0.3)
Number of Arrest:			
Once	514 (78.1)	35 (5.3)	96 (14.6)
2 – 3	116 (17.6)	8 (1.2)	64 (9.7)
4 or more	28 (4.3)	2 (0.3)	21 (3.2)
Duration of Imprisonment:			
<12 months	290 (44.1)	24 (3.6)	88(13.4)
1 – 1.99 years	142 (21.6)	7 (1.1)	29(4.4)
2 – 2.99 years	73 (11.1)	5 (0.8)	28 (4.3)
3 – 4.99 years	89 (13.5)	4 (0.6)	22(3.3)
5 – 7.99 years	39 (5.9)	2 (0.3)	9 (1.4)
8 – 10 years	15 (2.3)	1 (0.2)	2 (0.3)
More than 10 years	10 (1.5)	2 (0.3)	3(0.5)

Co-infections. Results showed that out of the 658 participants, there were 29 participants (4.4%) tested positive for HbsAg alone while 165 participants(25.1%) tested for HCV alone. There were 16 participants(2.4%) who had coinfection of HBV and HCV. (TABLE 2)

Table 2. Distribution of Co-Infections of Hepatitis B and C among Prison Inmates

	HCV					
	Negative		Positive		Total	
HBV	n	%	n	%	n	%
Negative	448	68.1	165	25.1	613	93.2
Positive	29	4.4	16	2.4	45	6.8
Total	477	72.5	181	27.5	658	100.0

Risk Factors. There were 495 participants (75.2%) who reported history of illegal drugs use; majority of these (64.8%) engaged in drug inhalation but denied injection. There were 134 (27.1%) participants in the injection group. Of all the drug users, 35 (5.3%) had serological evidence of HBV infection and 174 (26.4%) had serological evidence for HCV infection. Among the non-drug users, seropositivity for HBV and HCV was 10(1.5%) and 7 (1.1%) ,respectively.

About 54(8.2%) drug users reported injecting drugs for the first time while in prison. There were 159 (24.2%) reported sharing of needles while in prison. There were 16 participants (2.4%) reported to have received blood transfusion before July 1992. Participants who engaged in high risk sexual behavior was about 33.9% (223). There were 97(14.7%) had history of sexuallly transmitted disease. Majority of the participants had tattoo (75.2%) and body piercing (69.8%). (TABLE 3)

Table 3. Distribution of the Risk Factors for HBV and HCV among Prison Inmates

Factors	Total (n, %)	HBV (n, %)	HCV (n, %)

History of Use of Illegal Drugs:			
Yes	495 (75.2)	35 (5.3)	174 (26.4)
No	163 (24.8)	10 (1.5)	7 (1.1)
Routes of Drug Use:			
Inhalation	321 (64.8)	20 (4.0)	56 (11.3)
Injection	4 (0.8)	-	-
Ingestion	5 (1.0)	-	2 (0.4)
Inhalation and Injection	101 (20.4)	10 (2.0)	87 (17.6)
Inhalation and Ingestion	35 97.1)	2 (0.4)	7 (1.4)
Injection and Ingestion	2 (0.4)	-	1 (0.2)
Inhalation, Injection and Ingestion	27 (5.5)	3 (0.6)	21 (4.2)
Drug inhalation use in the past 12 months inside the prison:			
Yes	198 (30.1)	22 (3.3)	74 (11.2)
No	460 (69.9)	23 (3.5)	107 (16.3)
Start of injection inside the prison:	54 (8.2)	5 (0.8)	38 (5.8)
Yes	604 (91.8)	40 (6.1)	143 (21.7)
No			
Sharing of needles inside the prison:	159 (24.2)	7 (1.1)	63 (9.6)
Yes	499 (75.8)	38 (5.8)	118 (17.9)
No			
Persons notified that they received blood from a donor who later tested positive for Hepatitis B or C infection:			
Yes	2 (0.3)	-	1 (0.2)
No	656 (99.7)	45(6.8)	180 (27.4)
Persons who received a transfusion of blood/ blood components before July 1992:			
Yes	16 (2.4)	4 (0.6)	3 (0.5)
No	642(97.6)	41 (6.2)	178 (27.1)
Persons born to HBV or HCV positive mother:			
Yes	4 (0.6)	-	1 (0.2)
No	654 (99.4)	45 (6.8)	180 (27.4)
Persons who have history of sexually transmitted disease			
Yes	97 (14.7)	7 (1.1)	47 (7.1)
No	561 (85.3)	38 (5.8)	134 (20.4)

Table 3. Continued…

Factors	Total (n, %)	HBV (n, %)	HCV (n, %)

Persons who has greater than 20 sexual partners in his/her lifetime or other high risk sexual behavior:			
Yes	223 (33.9)	22 (3.3)	87 (13.2)
No	435 (66.1)	23 (3.5)	94 (14.3)
Persons who have tattoo:			
Yes	495 (75.2)	33 (5.0)	162 (24.6)
No	163 (24.8)	12 (1.8)	19 (2.9)
Persons who have body piercing:			
Yes	459 (69.8)	30 (4.6)	136 (20.7)
No	199 (30.2)	15 (2.3)	45 (6.8)
Persons born during 1945-1965			
Yes	67 (10.2)	6 (0.9)	6 (0.9)
No	591 (89.8)	39 (5.9)	175 (26.6)

Logistic regression models were fitted to determine the association between the prison inmate's demographic characteristics and reported risk factors and the likelihood of being positive for HBs Ag and Anti-HCV.

In relation to HBV, there was no significant difference observed in the likelihood of Hepatitis B between different age categories and sex. After adjusting the risk factors for Hepatitis B, those with history of drug inhalation in the past 12 months is 3 times likely to have HBV than those who did not (OR=2.551, p-value 0.005; 95% CI=1.336)). Patients with a significant history of blood transfusion before July 1992 was 5 times more frequent than those who did not receive blood transufsion (OR=5.067, p-value 0.013; 95%CI=1.413) (TABLE 4)

Table 4. Multiple Logistic Regressions of Demographic Characteristics and Risk Factors for HBV

	B	S.E.	Wald	df	P value	Odds	95% CI for Odds	
Drug inhalation in the past 12 months inside the prison	0.936	0.330	8.061	1	0.005	2.551	1.336	4.869
Transfusion of blood/blood components before July 1992	1.623	0.652	6.201	1	0.013	5.067	1.413	18.171

In relation to HCV, incarceration in the city jail prison had a significant impact on the likelihood of being anti-HCV reactive than incarceration in the provincial jail (OR=5.578, p value 0.000; 95% CI =3.446) Illegal drug users were 5 times more likely to be Hepatitis C positive compared to those without history of drug use (OR = 5.378, p-value 0.000, 95% CI =2.370) Those who started injection in prison (OR = 2.997, p value 0.002, 95% CI = 1.510) and those who have tattoos were 3 times more likely to have HCV (OR = 2.547, p value 0.002, 95% CI = 1.426) Interestingly, prison inmates who had a single arrest were less likely to have HCV

infection than those with multiple arrests 4x or more (OR = 0.248, p-value 0.004, 95% CI = 0.096)

Table 5. Multiple Logistic Regressions of Demographic Characteristics and Risk Factors for HCV

	B	S.E.	Wald	df	P value	Odds	95% CI for Odds	
City Jail	1.719	0.246	48.922	1	0.000	5.578	3.446	9.030
Arrested once	-1.395	0.487	8.208	1	0.004	0.248	0.096	0.644
Illegaldrugs user	1.682	0.418	16.186	1	0.000	5.378	2.370	12.206
Started injection insidethe prison	1.098	0.350	9.850	1	0.002	2.997	1.510	5.948
Have tattoo	0.935	0.296	9.969	1	0.002	2.547	1.426	4.552

DISCUSSION

High risk populations are individuals most at risk of contracting Hepatitis B and C, including those who came from medically underserved and minority communities who have history of IV drug injection, alcohol abuse and multiple sexual partners. (27)Prevalence of HBs Ag had been measured in 59 countries accounting for 73% of the world's injecting drug users(IDUs) population. The highest levels of HBs Ag were in countries mostly in Asia that are known to have endemic HBV in general population. HBsAg prevalence reports among IDUs varied within countries quite remarkably. In the USA, HBs Ag reports ranged fron 3.5% to 20%; In Iran, from 3.7% to 30.9%; In China, from 3.8 to 15.4%; In Singapore, 8.5% and in Taiwan, 16.7%. (24) In the Philippines, a study by Lansang in 1996 showed a prevalence of HbsAg among IV drug users at 14.4% to as high as 16.5% among prisoners. (28) A 2005 study done in Metro Cebu showed a seroprevalence of 9.3% among inhalational drug users and 10.3% among injecting drug users. (29)

In this cross-sectional study, we investigated the epidemiological and clinical profile of Hepatitis B and C infections among Cebu prison inmates diagnosed during a screening program. A total of 658 prison inmates were screened and 6.8% were infected with HBV. A lower prevalence of HBV infection was likewise was seen in prison inmates below 24 y.o (1.2%). Illicit drug use via inhalational drug use was most commonly seen among inmates with HBV.

The HBV prevalence reported in our study is lower compared to the seroprevalence of 16.5% reported by Lansang et al in 1996. During this time period, the Philippine government embarked on a major campaign to fight Hepatitis B infection through Hepatitis B screening for pregnant women and a universal vaccination program for infants since 1992. Patient education and information campaigns were likewise implemented. Therefore the findings in our study of a markedly decreased seroprevalence of 6.8% for Hepatitis B nearly 19 years after the initial study of Lansang et al may be a valuable indicator about the success of these campaigns.

Our study showed a high proportion of men among Hepatitis prison inmates. The causes may be due to higher exposure of men to risk factors for Hepatitis infection. (30, 31)

This may also be due to the fact that there more male than female prisoners (M=556; F=102) in our study.

As mentioned, horizontal transmission is a major path of disease among high risk population. Seroprevalence of HCV has been globally reported to be 50-90% among injecting drug users. (24, 32) The countries with largest estimated population of IDUs (China, Russia and USA) had midpoint estimates of anti-HCV prevalence among IDU of 67%, 72.5% and 73.4% respectively. In Southeast Asia, midpoint prevalence in descending order showed 89.8% in Thailand, 79.2% in Myanmar, 77.3% in Indonesia, 70% in Philippines, 67%in China and 64.8% in Japan. (24)

In our study, prevalence of HCV seropositivity among all prison inmates was 27.6%. HCV seroprevalence in drug abusers and non-drug abusers were 26.4% and 1.1%, respectively. A difference was observed in the relative frequency of positvity of HCV among prison inmates in the city and provincial jail. This may be due to close contact and proximity of various high risk places for infection transmission in the city jail as well as underly the greater congestion in city jail compared to provincial jail in the local setting. This can have an effect on the rate of community infection producing high number of cases. Thus, being in prison in Cebu City jail may be an independent risk factor. Percutaneous route through IV drug use was most common high risk exposure in this study. Results indicated that there is a relationship between HCV and IV drug use. The rate of IV drug use in HCV inmates was significantly higher than HBV inmates which is comparable to the results of similar studies (33, 34, 35). Starting injection in prison and tattooing introduced as risk factors that may be due to use of shared syringes and needle exchange that exposed the individual to Hepatitis virus. Prison inmates who injected drugs outside of prison continue to inject in prison but in a less safe manner. They claimed that safe practices were not observed like the use of a single disposable syringe for each inmate; likewise injecting paraphernalia were generally cleaned only with alcohol or soap and water. In other countries, levels of HCV and HIV have dropped significantly due to direct implementation of needle and syringe programs. (36) Access to sterile injecting equipment should be scaled up in Cebu community. Prison inmates who were arrested frequently (4 or more) were more likely to be positive for HCV. This confirmed the high prevalence of blood borne disease in those with imprisonment history.

The results of this study show co-infection rate of HBV and HCV is 2.4%. Behrooz et al (2015) reported a prevalence of co-infection of HBV and HCV as 2.1% (37), which is consistent with the present study. Given the high prevalence of chronic HCV in IDUs, HBV infection is likely to represent HBV/HCV co-infection, which is associated with more rapid progression of liver disease and mortality. (38) This is similarly the case of co-infection between HIV and viral hepatitis. (39)

The difference in the degree of HBV and HCV infections in various studies are possibly due to different levels of infection in the whole population, type of prison and prisoners, their health condition, and involvement in high risk behaviors, which vary in different societies and cultures. However, the prison is one of the limited crowded places concerning physical atmosphere where prisoner's low knowledge and cultural principles are effective in spreading numereous diseases. (40)

Most of the studies have shown IV drug use as the most important risk factor concerning infections of Hepatitis B and C among prison inmates, and long and frequent imprisonments as well as high risk behaviors such as body piercing, tatooing and illicit sexual

relations are also included.(41)Many prisoners serve only short periods of imprisonment and a number of them return to their families and communities. They are not only in danger of contamination with life threatening diseases like AIDS and Hepatitis, they can transmit these serious infections into the society. Therefore, regular inmate screening, educational program and counselling, focusing on prevention to promote low risk behaviors, careful supervision over entrance of drugs and sharing needles should be widely implemented. Vaccination against HBV of all prisoners should be emphasized. (42) Prevention of bloodborne pathogens amongs IDUs should focus on young users, early in their drug use experience.

Few limitations of the study which are worth mentioning. First, we use cross-sectional design for this study, participants included were those who were asymptomatic and were survivors of the disease, so there might be some survivor bias as prison inmates with more aggressive and end stage disease might have died earlier and might not be included. We could not study the HBV vaccination status and only presume it to be very low compared to other high risk groups. Because of financial reasons, we could not perform and measure PCR and mutiple markers (anti HCV plus HCV RNA-PCR or HbsAg plus Anti-HBc and Anti-HBs) on our samples to make more accurate estimates of chronic infection, past infection, susceptibility or immunity. Lastly, there is unequal sizes of risk groups due to difficulty in approaching high risk injection drug users.

Although the prison inmates participating in this study cannot be considered a representative of all prison inmates in Cebu, the results obtained have important implications for penal and public health administrators, including the importance of policies to prevent transmission of these infections during and following incarceration. These policies must include primary concern on not only identification of those most at risk but also on provision of appropriate treatment.(43,44,45)Testing programs in prisons should be seen as an opportunity to improve the health outcome of those infected and prevent further transmission of diseases.

CONCLUSION

The study showed that Hepatitis viruses are being trasmitted in prisons. There is a higher prevalence of HCV compared to HBV among Cebu prison inmates. The odds of being Hepatic C reactive in city jails is significantly higher compared to provincial jails. A significant relationship was seen between HBV and drug inhalation and history of blood transfusion before 1992. Usage of illegal drugs, tattoo injections and multiple incarcerations were important risk factors for HCV.

The time has come for policymakers, researchers and clinicians working in prison to ensure that being in prison does not add unnecessarily to the health risks of this already disadvantaged population.

RECOMMENDATIONS

1. Educate prisoners about the importance of personal hygiene
2. Educate prisoners on awareness of wound care and offer access to wound care material if necessary
3. Provide a screening policy for Hepatitis B, Hepatitis C and HIV for all prisoners upon initial entry into the prison

4. Conduct regular testing of blood borne diseases among prison inmates , with test results and the number of prisoners accessing Hepatitis B and C treatment reported on annual basis
5. Close monitoring of prisoners infected with hepatitis and other blood-borne diseases
6. Offer constant availability of Hepatitis B and Hepatitis C tests for all prisoners accessing healthcare service
7. Mandatory basic training in handling blood borne viruses and protection for all prison staff
8. Provide Hepatitis education for prisoners, prison staff and community
9. Expand drug treatment programs in the prison and community
10. Expand access to sterile needles and syringes in the community
11. Provision for safe sexual practices among prison inmates and their sexual partners
12. Provide Hepatitis B vaccinations to all prisoners and prison staff
13. Conduct further studies in the trend of disease and changes in mode of transmission after implementation of vaccination programs

DEFINITION

1. WHO- World Health Organization
2. HBV – Hepatitis B virus
3. HCV – Hepatitis C virus
4. Hepatitis B virus infection – serologic test result showed positive or reactive to HBs Ag
5. Hepatitis C virus infection – serologic test result showed positive or reactive to Anti-HCV
6. HBsAg - Hepatitis B surface antigen
7. Anti-HCV - antibody to Hepatitis C virus

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APPENDIX A : Approval Letters

Republic of the Philippines
Department of the Interior and Local Government
BUREAU OF JAIL MANAGEMENT AND PENOLOGY
Regional Office VII
No. 13B, M. Veloso St., Guadalupe, Cebu City
Tel: 254-4747 / Fax: 412-7717
E-mail: rbjmp7@yahoo.com

06 November 2014

Dr. JUDY LAO-TAN
Consultant
Department of Internal Medicine Section of Gastroenterology
Cebu Doctors' University Hospital
Cebu City

Dear Dr. Lao-Tan:

This has reference to your letter request to conduct a research study on the "Prevalence of hepatitis B and C infections and its identifiable risk factors among prison inmates" in Cebu City Jail – Male and Female Dormitory from November 2014 to January 205.

In this regard, BJMP Regional Office 7 **APPROVES** the said request provided that Bureau's policies, rules and regulations shall be strictly observed and followed while inside the jail premises. Proper coordination with the concerned jail facility must be secured prior to the conduct of the said activity to avoid conflict with jails' schedule of activities. Hereto is the contact information of Cebu City Jail – Male and Female Dormitory:

Name of Warden	**Jail Unit**	**Telephone Number**
J/SUPT JOHNSON M CALUB	Cebu City Male Dormitory	239 2002
J/CINSP CORAZON S NOEL	Cebu City Jail-Female Dormitory	236 6973

Further, this office advised to strictly follow the schedule that will be given by the specified above to avoid delay in the deliverance of jail service to its clients. Pertaining to blood extraction, selected inmates subject for such must sign a Blood Extraction Consent to ensure their willingness to undergo such diagnostic procedure and for legal purposes as well.

Respectfully yours,

SERAFIN P BARRETTO JR, CESO IV, CSS
Jail Chief Superintendent
Regional Director

APPENDIX A : Approval Letters

2015-32754

Republic of the Philippines
Province of Cebu
CEBU PROVINCIAL HEALTH OFFICE
G/F East Wing, Capitol Building, Capitol Site
Cebu City 6000

OFFICE OF THE PROV'L ADMINISTRATOR
RECEIVED
DATE 1/13/15
TIME 9:12 AM/PM
BY
PROVINCE OF CEBU

1st Indorsement
January 12, 2015

Respectfully forwarded to HILARIO P. DAVIDE III, Governor, Thru: Atty. Mark C. Tolentino, Provincial Administrator, 2/f Capitol Building., Cebu City, the herein letter of Dr. Michelle Chu of Cebu Doctors' University Hospital re; to research study in the Prison Inmates at Cebu Provincial Detention and Rehabilitation Center, for your information and approval; thank you. (please find attached ... request ...)

CYNTHIA T. GENOSOLANGO, M.D.
Provincial Health Officer I

CTG/hfs/melis

OK - - Warden, please work w/ Dra Giango at your clinic to facilitate this undertaking.

Received: 1/9

Telephones: Provincial Health Officer: 416-5450/Fax: (032) 253-9773 Admin: T/F (032) 254-9426; Medical-Dental Clinic: 253-3630; Laboratory: 254-9883; Supply: 256-2144

APPENDIX B : Consent Form (ENGLISH)

CONSENT FORM

Study Title: Prevalence and Risk factors of Hepatitis B and Hepatitis C virus Infections among Prison Inmates in Cebu

Principal Researcher: Dr. Michelle Chu

The Research Team:

Name/Degree	Title	Department	Phone Number	E-mail
Dr. Judy Lao-Tan	Gastroenterology consultant	CDUH Gastroenterology section	09084827345	cduh_gastro@yahoo.com

1. Researchers' Statement:

You have the option to take part in a research study. The goals of this form are to give you information about what would happen in the study if you choose to take part and to help you decide if you want to be in the study.

Feel free to take notes, write questions or highlight any part of this form.

2. What you should know about this study:

- This form explains what would happen if you join this research study.
- Please read it carefully. Take as much time as you need.
- Please ask the research team questions about anything that is not clear.
- You can ask questions about the study any time.
- If you choose not to be in the study, it will not affect your care in the health service.
- If you say 'Yes' now, you can still change your mind later.
- You can quit the study at anytime.
- You would not lose benefits or be penalized if you decide not to take part in the study or to quit the study later.

3. What is the goal of this study?

The goal of any research study is to answer questions. We (the research team listed on the front of this form and our staff) are doing this research study to answer hepatitis questions:

- To determine the prevalence and identifiable risk factors of Hepatitis B and Hepatitis C infections among prison inmates in Cebu

4. Why do I have the option of joining the study?

You have the option to take part in this research study because you are a prison inmate in Cebu and is legible for inclusion in the study.

5. How many people will take part in the study?

We think that about 600 people will take part in this research study.

6. If I agree to join this study, what would I need to do?

If you join the study, you would have some blood tests.

These tests help us find out the prevalence of Hepatitis B and C virus infections among prison inmates. We want to determine appropriate prevention measures to protect the community, and monitor patterns of health care and clinical intervention.

Explanation of Research Tests or Procedures:

The tests that would be done include:

- HBsAg to identify the presence of Hepatitis B infection.
- Anti-HCV to identify the presence of Hepatitis C infection.

Research Study Visits:

Visit #	Procedures	Location	How much time the visit will take
Visit 1	blood extraction (3cc)	Cebu Jails	5 minutes

7. How long would I be in the study?

If you join the study, you can decide to stop **at anytime for any reason**. If you decided to stop, you would need to talk with any of the research team member so you leave the study in a safe way.

8. What are the potential harms or risks if I join this study?

Bruise or pain from blood extraction site will be self-limiting.

9. What are the potential benefits if I join this study?

Potential Benefits for You:

Being in this study might benefit you in the following ways:

- If you will be found out to be have Hepatitis B and/ or Hepatitis C infection, the research team can assist you to seek medical management and possible treatment
- You will be aware of your health status

Potential Benefits for Others:

We hope to use information we get from this study to benefit others who haveHepatitis B and/or Hepatitis C infection and educate the general population about the disease.

10. What other options do I have?

If you choose not to be in this study, you can refuse enrollment

11. How would you keep my information confidential?

If you take part, we will make every effort to keep your information confidential.

We will store all of your research records in locked cabinets and secure computer files. We will not put your name on any research data. Instead, we will label your information with a study number. The master list that links a person's name to their study number is stored in a locked cabinet or on a secure computer file.

If results of this research are published, we would not use information that identifies you.

We would only use your information for research. These are some reasons that we may need to share the information you give us with others:

- If it's required by law.
- If we think you or someone else could be harmed.
- Sponsors, government agencies or research staff sometimes look at forms like this and other study records. They do this to make sure the research is done safely and legally. Anyone who reviews study records would keep your information confidential.
    - Agencies that may look at study records include:
        - Central Visayas Consortium for Health Research and Development
        - Department of Health
        - Cebu Doctors' University Research Committee

If you join this study, we would put information about this study in your medical record. We do this because the research study involves patient care.

We would keep your results for 5 years.

12. Would it cost me money to be in the study?

If you take part in this study, there would be no cost to you.

Services related to the research are done only for the purpose of the study. These include:

- HBsAg, Anti-HCV

13. What if I were injured because I joined the study?

If you were injured as the direct result of this research study, we would refer you for treatment if needed.

It is important that you tell the Principal Researcher, Dr. Michelle Chu, if you think that you have been injured as a result of taking part in this study. You can call her at 0908-4827345.

14. Would I be paid if I join this study?

You will not be paid to take part in this study.

15. Who do I contact if I have problems, questions or want more information?

If I have questions or would like to know about …	**You can call …**	**…**
• **General study questions** • **Research-related injuries**	**Dr. Michelle Chu and Dr. Judy Lao-Tan**	**Phone: 09084827345** **Phone:032 2531321**

16. If I join the study, can I stop?

Yes. Taking part in research is always a choice. If you decide to be in the study, you can change your mind at any time.

17. What would my signature on this form mean?

Your signature on this form would mean:

- The research study was explained to you.
- You had a chance to ask all the questions you have at this time. All your questions have been answered in a way that is clear.
- You understand that the persons listed on this form will answer any other questions you may have about the study or your rights as a research study participant.

- **You have rights as a research participant. We will tell you about new information or changes to the study that may affect your health or your willingness to stay in the study.**
- By signing this consent form, you do not give up any of your legal rights. The researcher(s) or sponsor(s) are not relieved of any liability they may have.

You agree to take part in the research study.

_____

Printed Name of Research Participant

_____

Signature of Research Participant

_____ _____

Date *Time*

18. Researcher's Signature

I have fully explained the research study described by this form. I have answered the participant and/or parent/guardians questions and will answer any future questions to the best of my ability. I will tell the family and/or the person taking part in this research of any changes in the procedures or in the possible harms/possible benefits of the study that may affect their health or their willingness to stay in the study.

*Dr. Michelle Chu*_____

Printed Name of Researcher Obtaining Consent

_____

Signature of Researcher Obtaining Consent

_____ _____

Date *Time*

19. Interpreter Information

_____

Printed Name of Interpreter during initial presentation of study *Date*

_____

Printed Name of Interpreter when translated form is presented (if applicable) *Date*

20. Witness Information for Short Form Use

Witness Statement

I have been present during the verbal presentation of this research study.

_____

Printed Name of Witness

_____

Signature of Witness

_____ _____

Date *Time*

Original form to:

Research Team File

Copies to:

Prison inmates (Health Service Unit)

PAGTUGOT

Uluhan sa Pagtoon: Pagtumaw sa peligrong hinungdan sa mga sakit nga Hepatitis B ug Hepatitis C virus Infections sa mga Piniriso dinhi sa Sugbo

Naghimo sa Pagtoon: Dr. Michelle Chu

Ang Research Team:

Ngalan/Grado	Titulo	Departmento	Numero sa Telepono	E-mail
Dr. Judy Lao-Tan	Gastroenterology consultant	CDUH Gastroenterology section	09084827345	cduh_gastro@yahoo.com

1. Deklarasyon sa Pagtoon:

Adunay kapilian ang mga gustong moapil ning maong pagtoon. Kini aron makahatag kanimo sa mga impormasyon sa higayon nga dawaton nimo nga manginlabot aron kagiyahan ang imong paghukom.

Mahimo kang mofill-up, mosulat og mga pangutana o gustong pakisayran ning maong pagtoon gamit kining maong porma.

2. Unsay gusto nimong masayran ning maong pagtoon:

- Kini nga porma maoy mopasabot kanimo sa higayong modawat ka ning maong pagtoon.
- Basaha ug maayo, di kinahanglan nga madali-dali kay gihatagan ka sa taas nga higayon pagbasa.
- Pangutana sa bisan unsa kon dunay kay di masabtan sa gihimo sa research team.
- Bisan unsa nga oras ug higayon mahimo kang makapanguta labot ning maong pagtoon.
- Dili makaapekto sa pagpadangat sa imong health services sa higayon nga mouyon ka pagdawat ning maong pagtoon.
- Kon mouyon ka pagdawat ning maong pagtoon, mahimo ka usab nga mohunong o di mopdayon ning maong pagtoon.
- Dili mawala ang gidawat nimo nga benipisyo o silot kon mawad-an kana ug interes kon mopadayon ning maong pagtoon.

3. Unsay tuyo ug tumong ning maong pagtoon?

Ang tumong ug tuyo sa research study gihimo kini aron pagtubag sa among mga pangutana. Kami (ang research team og staff nga misuwat sa porma) naghimo ning maong research study aron pagtubag sa mga pangutana labot sa hepatitis:

- Kini aron mahibaw-an ang hinungdan ug ang mga delikadong rason nganong natakbuyan sa Hepatitis B ug Hepatitis C infections ang mga piniriso dinhi sa Sugbo.

4. Nganong kinahanglan ang pagsalmot sa pagtoon?

Aduna kay kagawasan pag-apil o pagbalidad ning maong research study, apan isip usa sa mga piniriso dinhi sa Sugbo mahimo kang makasalmot ning maong pagtoon.

5. Pila ka tawo ang makasalmot pagtoon?

Sa among pagbana-bana dili mominos sa 600 ka tawo ang mangilabot ning maong research study.

6. Kung mosanong ko sa pagtoon, unsay imong buhaton?

Sa higayn nga mo-uyon ka sa pagsalmot sa pagtoon, adunay sunod-sunod nga blood tests nga pagahimoon.

Ang Blood test makatabang kini aron masayran nganong mitakboy ang Hepatitis B og C virus infections sa mga piniriso. Buot masayran sa research team ang mga tukmang lakang kini aron kapanalipdan ang komunidad, pagmonitor ingon man paghimo'g desenyo sa tukmang pag-atiman sa panglawas sa tawo.

Pagpasabot sa himoong Pakisusi og mga Pamaagi:

Ang pakisusi langkuban ning mga mosunod :

- HBsAg aron pagsuta sa presensya sa Hepatitis B infection.
- Anti-HCV aron pag-ila sa presensya sa Hepatitis C infection.

Ang Research Study mohimo sa pagbisita:

Pagbisita #	**Mga pamaagi**	**Lokasyon**	**Pila ka oras ang pagbisita**
Unang pagbisita	**Pagkuha ug dogo (3cc)**	**Prisohan sa Sugbo**	**5 minutos**

7. Unsa ka dugay ang himoon nga pagtoon?

Kon mosalmot ka sa pagtoon, mahimo kang mo-undang bisan unsang orasa ug sa bisan unsa nga rason. Kon imong mahukman ang paghunong, kinahanglan lang nga makig-estorya ka sa bisan kinsa nga sakop sa research team aron makabiya ka sa pagtoon sa luwas nga paagi.

8. Unsay mga posibleng peligro o risgo kon mosalmot ako sa pagtoon?

Bun-og o ang sakit gumikan sa pagkuha og dogo diha sa site apan maagwanta ra.

9. Unsay mga posibleng benipisyo nga akong makuha sa pagtoon?

Potential nga Benipisyo nga imong madawat:

Isip kabahin sa pagtoon, makabaton ka sa mga mosunod nga benipisyo:

- Kung masuta nga aduna kay Hepatitis B o Hepatitis C infection, ang research team makagiya kanimo sa medical management ug sa posibleng pagtambal niini
- Mahimong masayod ka sa estado sa imong panglawas

Mga Potensyal nga Benipisyo alang sa uban:

Among gipanghinaot paggamit sa mga makuhang impormasyon gikan ning maong pagtoon kini aron makabenipisyo ang uban nga adunay Hepatitis B o Hepatitis C infection ug sa pag-edukar sa kadaghanan labot ning maong sakit.

10. unsa pa nga mga lain opsyon nga akong makuha?

Kon imong pilion sa dili pagsalmot sa pagtoon, mahimong mobalibad ka sa pagpa-enrol

11. unsay inyong lakang nga magpabiling kompidensyal ang impormasyon?

Kon ikaw mosalmot, himoon namo ang tanan aron magpabiling kompidensyal ang makuha namong impormasyon.

Among tipigan ang tanan nimong research records sa usa ka di-kandado nga kabinet ug luwas nga computer files. Dili namo ibutang ang imong pangalan sa bisan asa nga research data. Hinoon, may ibutang mi nga ilhanan sa imong impormasyon sa usa ka numero sa pagtoon. Ang master list nga naglambigit sa pangalan sa tawo nga may numero sa pagtoon ang ibutang sa di-kandado nga kabinet ug luwas nga computer file.

Kon ang resulta sa pagtoon imantala, dili namo gamiton ang impormasyon nga magtudlo o pag-ila kanimo.

Gamiton lang namo ang impormasyon alang sa pagtoon. Dunay mga higayon nga gikinahanglan namo nga ihatag sa uban ang impormasyon:

- Kini kon mando sa balaod.
- Kon sa among pagtoo nga ikaw o laing tawo ang masakitan o nameligro.

- Sponsor, ahensya sa gobierno o mga research staff usahay mohimo ug pagtandi sa records. Gihimo kini aron pagsiguro nga ang pagtoon nga luwas ug legal nga gihimo. Ang si bisan kinsa nga mosusi sa records magtamod nga magpabiling kompidensyal ang imong impormasyon.
    - Mga ahensya nga mahimong motan-aw sa gihimong pagtoon naglakip ning mga mosunod:
        - Central Visayas Consortium for Health Research and Development
        - Department of Health
        - Cebu Doctors' University Research Committee

Kon mosalmot ka sa pagtoon, among ibutang ang imong medical record sa impormasyon sa gihimong pagtoon. Amo kining buhaton sangit kining maong pagtoon naglambigit man sa pag-atiman sa pasyente.

Among tago-an ang resulta sulod sa lima ka mga tuig.

12. Kinahanglan ba nga mobayad ko ning maong pagtoon?

Wala kay pagabayran kon mosalmot ka ning maong pagtoon.

Mga serbisyo nga may labot sa research gihimo lamang tungod sa pagtoon. Kini gilangkuban sa mga mosunod:

- HBsAg,
- Anti-HCV

13. Kon maangol ko sa pagsalmot ning maong pagtoon?

Kon maangol ka tungod sa gihimo nga research study, amo ka nga patambalan kon gikinahangan.

Importante kaayo nga imong sultihan ang Principal Researcher, Dr. Michelle Chu, kon sa imong pagtoo naangol ka tungod sa pagsalmot ning maong pagtoon. Mahimo nimo siyang matawagan sa iyang numero sa cellphone, 0908-4827345.

14. may madawat ba ako nga bayad sa pagsalmot ning maong pagtoon?

Wala kay madawat nga bayad sa pag-apil nimo ning maong pagtoon.

15. Kinsa man ang akong duolpn kon dunay problema, pangutana o dugang impormasyon?

kon dunay mga panguta o buot nga magpakisayod…	**You can call …**	**…**
• **General study questions** • **Research-related injuries**	**Dr. Michelle Chu and Dr. Judy Lao-Tan**	**Phone: 09084827345 Phone:032 2531321**

16. kon mosalmot sa pagtoon, mahimo ba nga moundang?

Oo, ang pagsalmot sa research inong kagustuhgan. Kon makahukom ka sa pagsalmot sa pagtoon, mahimong makausab ka sa imong desisyon bisan unsa nga oras o higayon.

17. Unsa may buot ipasabut sa pagpirma nako ning maong porma?

Ang imong pagpirma ning maong porma nagpasabot nga:

- Ang research study napasabot na kanimo.
- Adunay kay higayon sa pagsulti sa tanang pagpanguta ning higayona. Ang tanan nimong panguta klaro nga natubag.
- Imong nasabtan nga ang mga tawo nga nalista sa ning maong porma mahimong makatubag sa sa tanang pangutana labut ning maong pagtoon isip imong katungod sa pagsalmot ning maong pagtoon.
- **Aduna kay katungod isip partisipante ning maong pagtoon. Among kang pahibaw-on sa mga bag-ong impormasyon o mga kausaban sa pagtoon nga mahimong maka-apekto sa imong panglawas o sa imong gana nga magpabilin ning maong pagtoon.**
- Pinaagi sa pagpirma ning maong porma, wala nimo gitugyan ang bisan unsa nimo nga legal nga katungod. Ang researcher(s) o sponsor(s) adunay mga tulubagon niini.

Andam ka nga mosalmot ning mao nga pagtoon.

_____

Isulat ang pangalan sa partisipante sa Research

_____

Pirma sa partisipante sa Research

_____ _____

Petsa *Oras*

18. Pirma sa nag-Researcher

Akong hingpit nga napasabot kining maong pagtoon nga nalatid ning maong porma. Akong natubag ang mga pangutana sa participante ug sa ilang ginikanan/guardians og andam ngnga motubag sa mga umaabot nga pangutana sa maabot sa akong kahibalo. Akong sultihan ang pamilya o ang nga tawo nga nalambigit ning maong pagtoon kon adunay mga kausaban sa mga pamaagi o posibleng kadaot/posibleng benipisyo sa pagtoon nga maka-apekto sa ilang panglawas o sa ilang kagustuhan nga magpabilin ning maong pagtoon.

Dr. Michelle Chu
Pangalan sa Researcher nga nangayo sa pagtugot

Pirma sa Researcher nga mikuha sa pagtugot

Petsa *Oras*

19. Impormasyon sa Interpreter

Pangalan sa Interpreter atol sa inisyal nga presentasyon sa patoon *Petsa*

Pangalan sa Interpreter dihang gipresentar ang gihubad nga porma (if applicable)/ Petsa

20. Impormasyon sa saksi paggamit porma

Pamahayag sa Saksi
Diha ko samtang gipasabot o gipresentar kanako kinong maong pagtoon.

Pangalan sa Saksi

Pirma sa Saksi

Peta *Oras*

Orihinal nga porma alang sa :
Kopya sa Research Team

Kopya alang sa:
Piniriso (Health Service Unit)

APPENDIX C: SURVEY

I. Cover Sheet

Questionnaire number:	
Inmate code:	
Prison:	( ) City ( ) Provincial
Completed by	Name/Signature
Date	

( ) Informed Consent Obtained

II. Survey for Participants

Section A. Demographic Details and Imprisonment history

A1. Age (**Pila na imong edad?)**	
A2. Sex (**Unsa imong gender?)**	( ) male ( ) female
A3. Marital status (**Unsa imong marital na estado?)**	( ) single ( ) married ( ) widowed/widower
A4. Number of Marriage (**Kapila ka nagminyo?**)	( ) none ( ) once ( ) twice ( ) thrice or more
A5. Educational level (**Unsa ang imung level sa eskwela?)**	( ) Illiterate ( ) Primary ( )Elementary ( ) High School ( ) College
A6. Crime type (**Unsa ang imung unang sala /charges nga nakapapa priso nimu?)**	( ) **Crime Against Persons** - murder - parricide - homicide - serious physical injury - rape ( ) **Crime under Special Penal Laws** – ***Committed Against the State*** - Drug user - Drug pusher - Illegal possession of Drug paraphernalia ( ) **Crime under Special Penal Laws – *Committed Against the State*** - Illegal possession of firearms - Violation of Gunband - Gambling ( ) **Crime under Special Penal Laws – *Committed Against Persons*** - Child Abuse - Violence against Women and Children - Human Trafficking - Illegal Recruitment - Sexual Harrassment - Cybercrime ( ) **Crime Against Property**

	- Carnapping - Robbery - Theft/ Shoplifting - Estafa ( ) **Crime Against Chastity** - Adultery - Concubinage - Acts of Lasciviousness ( ) **Crime Against Security and Liberty** - Kidnapping - Grave threat ( ) Others: _____
A7. Number of Arrest (**Kapila ka napriso sulod sa prisohan?)**	( ) once ( ) 2-3 times ( ) 4 or more times
A8. Duration of imprisonment (**Pila na ka bulan ang imung gipuyo sa prisohan?)**	( ) < 12 months ( ) 1 -1.99 years ( ) 2- 2.99 years ( ) 3- 4.99 years ( )5- 7.99 years ( ) 8 – 10 years ( ) more than 10 years

Section B. Risk Factors

	YES (OO)	NO (WALA)
B1. History of Use of Illegal Drugs (**Nakagamit/ Nakasuway na ba ka ug illegal na drogas ? sama sa shabu, cocaine, marijuana, nubain, ecstasy,cough syrup ug uban pa)**		
	If YES:	If NO, Proceed to **B6**
B2. Routes of Drug use (**Unsa ang pamaagi sa pagamit sa droga?)**		
- Inhalation (**agi sa simhut)**		
- Ingection (**agi sa tupok)**		
- Ingestion (**agi sa pag-inum)**		
B3. Drug inhalation use in the past 12 months inside the prison (**Nakagamit ka ba ug illegal nga drogas na pa agi sa simhut sulod sa prisohan?)**		
B4. Start of injection inside the prison		

(**Nakasugod ka ba ug gamit ug drogas na gi-injecksyon sulod sa prisohan?)**		
B5. Sharing of needles inside the prison (**Nakighinuwamay/ Nakigbahin ba mu ug gamit sa dagom para sa injeksyon sulod sa prisohan?)**		
B6. Persons notified that they received blood from a donor who later tested positive for Hepatitis B or C infection (**Na ingnan ka ba nga naka dawat ka ug abono sa dugo nga positibo sa Hepatitis B or C?)**		
B7. Persons who received transfusion of blood/ blood components before July 1992 (**Nakasuway ka ba nga maabonohan ug puwa/ puti na dugo sa wala pay Hulyo 1992?)**		
B8. Persons born to HBV or HCV positive mother (**Gipanganak ka ba nga positibo sa Hepatitis B o Hepatitis C ang imung mama?)**		
B9. Persons who have history of sexually transmitted disease? (**Nakaagi ka ba nga naay samad ug kugang sa imung kinatawhan?o Nabati nga paghubag, sakit, pagdako ur bukol sa imung kinatawhan?**)		
B10. Persons who has greater than 20 sexual partners in his/her lifetime or other high risk sexual behavior (**Nakighinglawas ka ba ug sobra 20 nga partner sa imung kinabuhi o Nakighinglawas ka ba ug gibayran na babaye ug naay musulod sa kinatawo? Nakasulay na ka nga nakighinglawas uban sa usa ka lalaki?)**		
B11. Persons who have tattoo (**Aduna ka bay patik sa imung lawas?)**		
B12. Persons who have body piercing (**Aduna ka bay ariyos sa imung lawas?)**		

B13. Persons born during 1945-1965 (**Natawo ka ba sa tuig 1945-1965)**		