UNITED NATIONS OFFICE ON DRUGS AND CRIME (UNODC)

MENTAL DISORDERS AND HIV RISK BEHAVIORS AMONG PRISONERS IN SOUTH SUDAN

JUNE 2008

Report

Persons Responsible & Contact Information:

Principal Investigator (PI): Professor David Ndetei
MB ChB (Nairobi), DPM (Lond), M.R.C.Psych, FRCPsych, (UK), MD (Nairobi), Certificate in Psychotherapy (London), Professor of Psychiatry, University of Nairobi, Kenya & Director, Africa Mental Health Foundation, Ralph Bunche Road (Next to Nairobi Hospital) Suite #4. P.O. Box 48423-00100, Nairobi, Kenya.
Tel: 254(0)202.716.315

Co-Principal Investigator: Dr. Lincoln Khasakhala
MBChB, MSc Clinical Psychology (Nairobi), Research Fellow, Africa Mental Health Foundation. 254(0)202.716.315

Investigators: Victoria Mutiso
MSc Clinical Psychology (University of Nairobi), Research Fellow, Africa Mental Health Foundation. 254(0)202.716.315

Valerie Harder, MHS Biostatistics
PhD Mental Health Epidemiology (Johns Hopkins University), Fulbright Fellow in Kenya 2008; Visiting Researcher, Africa Mental Health Foundation. 254(0)202.716.315

Collaborators:
Dr. Reychad Abdool
United Nations Office on Drugs and Crime (UNODC)
Regional Office for Eastern Africa (ROEA)
UNON, Gigiri, Block A Room 203, P.O. Box 30218-00100, Nairobi, Kenya. (254.20)762.3663

University of NAIROBI Library
0380526 4

1 UNIVERSITY OF NAIROBI LIBRARY
P. O. Box 30197
NAIROBI

Table of Contents

ntroduction

ach year, many people are released from prisons back into communities without knowing their HIV erostatus. Because prisons often house significant concentrations of persons who have HIV/AIDS and ndividuals who are at great risk for acquiring HIV and/or hepatitis C via injection drug use and sexual ctivity, these institutions also may be venues for the transmission of infectious diseases to other risoners and to the residents of the communities where they will return upon their release. It has been stimated that between 23 and 31 percent of people living with HIV/AIDS in the United States pass hrough the U.S. correctional system each year (Hammett, Harmon et al. 2002). Several studies suggest hat between one third and one half of these persons are not aware of their HIV status (Sabin, Frey et al. 001; Altice, Marinovich et al. 2005). At the end of 2005 correctional authorities in US reported that a otal of 20,888 state inmates (1.8 per cent) and 1,592 federal inmates (1.0 per cent) were diagnosed with HIV infection or had confirmed AIDS (Maruschak 2007). This represents a prevalence of HIV that is five imes higher in U.S. state and federal prisons than in the general population (Spaulding, Stephenson et al. 002).

Adaptation to prison life has a distinct impact on the psychological health of many people who get incarcerated (Travis & Waul 2003). The harshness of the prison environment affects many inmates physically and emotionally and further exacerbates the psychosocial conditions of inmates who have preexisting mental illnesses (Haney, 2002). The daily routine of prison life may be one of boredom and idleness compounded by problems of overcrowding. Penal institutions are often not well maintained and frequently have limited educational and recreational facilities. Numerous human rights violations—staff brutality, unhealthy and unsafe living conditions, and lack of adequate healthcare—have been documented throughout the world prisons' (Human Rights' watch 2005). According to the 2004 Survey of Inmates in State and Federal Correctional Facilities, 53 per cent of all State prisoners and 45 per cent of all Federal prisoners met the DSM-IV criteria for drug dependence (Mumola and Karberg, 2006). Fifty-six percent of state inmates and 50 per cent of federal inmates reported drug use in the month prior to incarceration (Mumola and Karberg, 2006).

After their release, many ex-inmates enter open society as poorly educated individuals; they lack both vocational skills and a history of employment. Many struggle with physical and/or mental disabilities and drug and alcohol abuse (Petersilia, 2001). Ideally, the prison system would have taken on the challenge of rehabilitating inmates and improving their health. However, most prisons lack programs for educating inmates, improving their job skills, or treating problems with substance abuse

Addressing the health problems of prisoners has the potential to improve individual health and reformation outcomes. The benefits may also extend beyond the individual to the communities in which the prisoner resides. Released prisoners return in relatively high concentrations to a small number of socio-economically disadvantaged communities (Lynch and Sabol, 2001). This concentration in some of the most disadvantaged urban areas has created a public health opportunity whereby attending to the health needs of prisoners may affect the course of a number of epidemics. Research has shown that sizeable portions of the total number of Americans with HIV, tuberculosis, and hepatitis, for example, serve time in correctional facilities each year (NCCHC, 2002). If individuals are engaged in treatment, either in prison or after release, there is the potential to reduce the burden of illness and prevent further disease transmission.

In South Sudan a study is presently being conducted on the prevalence of mental health problems and knowledge and practice of HIV prevention methods among her prison populations. The South Sudan government has started its governance system, therefore has no structures to control and prevent further spread of HIV infections; the HIV prevalence rate in the country is unknown. High rates of mental illnesses and transmission of HIV infection among prisoners are key factors which require intervention during prison and post prison periods. In policy making; structures need to be put in place to decongest prison populations, reduce recidivism among prisoners and to reduce the rate of spread of HIV infections by identifying and managing these problems. The improvement in mental health service provision in prisons has a number of projected benefits, both to individual prisoners and the society as a whole. So far, there is no locally available or published prison population data for South Sudan, the country must therefore formulate policy that has to see a large growth in the numbers of preventive measures including setting up of VCT and primary mental outreach service centres from National to grass root levels. In practice this will make these services adequate, in both central and outreach outlets.

Background

A staggering number of persons with mental illnesses are usually confined in prisons; the causes of this massive incarceration of the mentally ill are many, but corrections and mental health professionals point primarily to inadequate community mental health services and in many countries', the punitive criminal justice policies. As a consequence, many of the mentally ill, particularly those who are poor and homeless, are unable to obtain the treatment they need. In South Sudan; the prisons are currently housing

a number of inmates who are not offenders and are only there because there are no mental health facilities in the country.

Ignored, neglected, and often unable to take care of their basic needs, large numbers of people with mental illness commit crimes and find themselves swept up into the burgeoning criminal justice system. Prisons have become in most countries, the front-line mental health providers. Most of the mentally ill who end up in prison are initially incarcerated in jail as pretrial detainees. By all accounts, prisons across many countries are unable to care for mentally ill prisoners; there are inadequate mental health screenings and services in prison systems. They therefore inherit exacerbated mental health problems when the pretrial detainees suffering from mental illnesses are ultimately sentenced.

Epidemiological studies conducted in the USA and Europe has consistently shown that 14-15% (Greenberg & Nielsen, 2002) of people who committed crime and ended up in prisons suffered from severe mental illnesses that played a role in their crimes. The twelve-month prevalence (Butler & Allnutt, 2003) of mental disorders among prisoners has been shown to be higher than in the general population (74% versus 22%). A review of 62 surveys showed that even on completing their jail terms, there was a tendency for them to repeat the crimes (Fazel & Danesh, 2002). However, this has been under-explored in developing economies, due to unavailability of data, both for offender populations (Agbahowe *et al.*, 1998) and for non-offender populations (Kiima *et al.*, 2004; Alem, 2000; WHO, 1979), highlighting a need for "greater research in forensic psychiatric in these countries" (Fazel & Danesh, 2002). The current study is the first, which determined the prevalence of mental disorders among inmates in South Sudan prisons. The western data suggests that there is a burden of mental disorder among prisoners which remain under-diagnosed to date and subsequently under-treated by prison based healthcare services providers (Birmingham *et al.*, 1996; Parsons *et al.*, 2001; Reed & Lyne, 1997; Teplin, 1990).

Rationale

Problem Statement: Mental disorders are among the most prevalent, under-recognized and under-treated disorders worldwide. Although mental disorders are common, costly, disabling and are among the most burdensome disorders worldwide, little is known about their prevalence, co-existence (co-morbidity) and their association with HIV risk behaviors in Sub-Saharan Africa. Studies worldwide have shown that Prisoners have high rates of mental disorders and HIV and if left untreated, frequently result in recidivism (the return to prison after release). Prisoners with untreated mental disorders and who participate in risky behaviors are at greater risk of acquiring and transmitting HIV. In South Sudan,

policy frame work need to be put in place and operationalised to address the plight of people put into prison systems with mental disorders or have committed crime but have existing mental illness; such that treatments can be instituted in a hope to ultimately save lives and money through prison reformation. The South Sudan as a country needs a policy frame work set up on HIV and AIDS programmes which can be operationalised to minimise or control spread of HIV; these include behaviour change approach, sensitisation/awareness creation, advocacy, capacity building, policy dialogue and outreach, VCT that include mobile HIV and AIDS care. Interventions in prisons' setting are lacking at present. They need to be part of HIV and AIDS strategic response. This requires capacity development and strengthening the Health Services Units in prisons so as to provide effective and comprehensive HIV and AIDS prevention and care.

Research Aims:

Main Aim:

To assess the prevalence of mental disorders and HIV knowledge, attitudes, behavioral practice (KABP) among prisoners in South Sudan.

Specific Aims:

Aim 1: **Assess the prevalence and co-morbidity of mental disorders among prisoners**

Aim 2: **Assess the prevalence of HIV knowledge, attitudes, and behavioral practice among prisoners**

Methods:

Study Design

This study consisted of a cross-sectional sample of sentenced and remanded prisoners in South Sudan. Five prison staff and five research assistants were trained to consent prisoners and to administer assessments among the prisoners. Data were analyzed in accordance with the specific aims.

Data Types

Data from anonymous interviewer-assisted assessments from respondents was collected using the assessment instruments, namely: the socio-demographics and personal history questionnaire, imprisonment variations of the respondents, mental health (symptoms of depression, anxiety,

suicidality as measured by the Beck system of questionnaires, and personality disorders as measured by the Composite International Diagnostic Interview) and their knowledge, attitudes, behavior and practice (KABP) in relation to HIV. In addition, the MINI Plus structured diagnostic interview meeting criteria for Diagnostic and Statistical Manual–IV (DSM-IV) diagnosable mental disorders was administered by a trained clinical psychologist.

Population:

Sample Size: The sampling design was negotiated with the prison authorities in South Sudan and the UNMIS during the training and information session that occurred in Juba. It was agreed upon that one prison (Juba Central Prison) would take part in the research study with the goal of administering the questionnaire to all prisoners within the prison. It was understood that not all prisoners would be willing or able to participate (as described further in "Inclusion and Exclusion Criteria"), and therefore, a target sample size of at least 200 prisoners was reached through consensus between the Principal Investigator (PI), the prison authorities, and UNMIS based on the best practices for sampling among prisoners in South Sudan. Out of a total of 413 prisoners in Juba Central Prison at the beginning of data collection, 212 voluntarily consented and were able to be in the study.

Inclusion and Exclusion Criteria: Prisoners, who spent the whole day outside the prison on assignment to do community work (as was the case for many convicted prisoners) and therefore were not physically present during the time of the study, were automatically excluded. Prisoners who remained at the prison but did not speak English, Kiswahili, Arabic, or Dinka were also excluded. Finally, prisoners who were too ill or had major physical impairments were excluded. All remaining prisoners that volunteered and provided consent were eligible to be included in the study. The prisoners with major psychiatric disorders who gave assent to the trained clinical psychologist were also included in the study.

Gender, Age and Locale: Male and female prisoners were included in the study. One cell block of convicted/sentenced prisoners and one remand area were for females. Prisoners from the female cell block and remand area met with the research team and were allowed to participate in the research study. Prisoners 13 years and older but less than 65 years old were included in the study. All assessments were conducted in the prison where the prisoner was being held in South Sudan.

Statistical Plan for Specific Aim 1: Data were analyzed to determine statistical correlations, proportions, and associations. Prevalence of depression, anxiety and personality disorders were calculated. Correlations were calculated between depressive and anxious symptom scores, and indicators for potential diagnoses of depression and anxiety were estimated for this population. Prevalence of suicide thoughts, plans, and attempts (suicidality) were reported as proportions, and the simple bivariate associations between depression, anxiety, and suicidality were reported. Further mental disorder diagnoses were obtained from the MINI Plus questionnaire and were compared with those obtained from the previously mentioned mental disorder questionnaires.

Statistical Plan for Specific Aim 2: Data were analyzed to determine the prevalence of knowledge, attitudes, behavior and practice in relation to HIV among the prisoners.

.

Procedures:

Training of prison staff members and research assistants: The training approaches were based on the experiences of collaborating parties who were involved in the development of the study in dealing with the risks associated with crime, mental health disorders, and environments with risky sexual behaviors as conceptualized by the PI (Ndetei) and the Co-PI (Khasakhala) under the auspices of the Africa Mental Health Foundation. Five prison staff members and five research assistants were trained on different aspects of conducting research assessments, interviewing techniques and proper completion of the assessment instruments. The training was conducted at Tot Child training venue and organized by the prison authorities in Juba, South Sudan. The participating prison staff members and the research assistants were trained theoretically and practically about every question on the assessments, on the operations of the study, and most importantly, on matters concerning confidentiality of personal information and respect for human rights. After the training, decisions were made to recruit respondents for the study from Juba Central prison in collaboration with the prison authorities in South Sudan.

Selection Process: Selection was limited to all eligible prisoners, as described above (Inclusion and Exclusion Criteria).

Study Procedures: The study was conducted over a five day period. On each day, prisoners from one convicted/sentenced cell block and two or three small remand areas met with the research team and the study was explained to them. Prisoners were randomly selected to be interviewed from the group who volunteered to participate in the study after meeting with the research team.

Not all prisoners who volunteered each day were interviewed due to time limitations. Prisoners from all five cell blocks and all eleven remand areas were given the opportunity to volunteer for the study. Volunteer prisoners interested in participating in the study met with a trained prison staff member or a research assistant and assessments were administered to those who consented. Every volunteer prisoner was given a copy of the consent form to read. In the case where the volunteer prisoner was not literate, the prison staff member or the research assistants read the consent out loud and answered any questions before proceeding to administer the assessments. The assessments were anonymous and were administered to each prisoner through interviews by trained prison staff or research assistants.

Assessments

The average length of the assessment was 50 minutes, but lasted as long as an hour and half. The background data included demographic, age, marital status, living arrangement before imprisonment, educational level attained, socio-economic, type of offense committed by the prisoner, any previous arrests/imprisonment, status in prison, duration of imprisonment, personal history and past mental health details. After background data were collected, several mental health assessments asking questions about current emotional feelings (depressive and anxious symptoms and thoughts of suicide) were given. These assessments are the Beck Depression Inventory, the Beck Anxiety Inventory and the Beck Suicide Inventory. These assessments have been extensively tested for reliability and validity following established standards for psychological tests. Internal consistency has been successfully estimated by over 25 studies in many populations, mostly in developed nations such as the US. These assessments have been shown to be valid and reliable, with results corresponding to clinician ratings of depression in more than 90% of all cases. After the assessments were completed, the prisoners were asked about their HIV risk behaviors both before coming to prison and while in prison using the Knowledge, Attitudes, Beliefs and Practices (KABP) questionnaire developed by the World Mental Health association. A final qualitative assessment was conducted through focus group discussions with ten groups of prisoners. All assessments and focus group discussions were conducted in one of three languages; English, Arabic or the local dialect, depending on the needs of the prisoner. The focus of each group, qualitatively explored mental health issues in prisons; focusing on:

i. How common mental illnesses are in prison
ii. How these illnesses are recognized within the prison service system
iii. Whether these illnesses are more associated with any category of prisoners

iv. Whether these illnesses contribute more to criminal behaviour
v. How these illnesses are managed in prison
vi. If there are gaps between the need for mental health services in prison and the actual provision of the mental health services
vii. How the gaps can be bridged

Key informant interviews were done to find out why there are fewer women in Juba central prison than males.

A total number of two hundred and twelve (212) were selected to take part in the study, representing 51.3% of the total population in Juba central prison at the beginning of data collection; 20 were unable to complete the full interview because of language difficulties. In the female prison, 33 females out 40 present were interviewed. The seven were not interviewed because of language barrier (females are not sent out for community work, but have vocational training in the prison). Participants who were unable to take part in the study, 48.7%, were not able to do so due to non-contact following release from prison or attendance at court throughout fieldwork period at the prison.

Where Data was Stored for Data Security: All assessments were stored in a locked cabinet in the Africa Mental Health Foundation offices both before and after data entry was completed. The electronic database was kept on a password protected computer and was backed up to an external hard drive.

Who had Access to the Data: Members of the study team had access to these data in the database. Only the PI and the Co-PI had access to the original assessment documents after they were entered into the electronic database. The Prison Authorities in South Sudan were presented with a final study report as well as any additional results as per their request, but they were not given the database or the original completed assessments.

Human Subjects Approval Process:

Ethical and Research Clearance was sought from the Ministry of Health in South Sudan, Prison's department and UNMIS Correctional advisers in South Sudan. Prisoners are a vulnerable group and therefore every effort was put into place to ensure that the prisoners participated voluntarily. Ethical considerations, informed consent and consent explanation and confidentiality were addressed as shown in details below.

1. The Prison staff and research assistants administering the assessments were trained intensively by co-PI not only on the assessments but also on concepts of informed consent and confidentiality of research subject identity. Privacy and confidentiality codes of ethics insist on safeguards to protect research participants' identity. Confidentiality was maintained throughout the study by giving participants a number. Research assistants were careful in ways not to discuss the participants and their settings to avoid exposure. Confidentiality involves protecting participants from all forms of harm or embarrassment as a result of research practices.
2. The risks involved were explained in the consent form, namely invasion of personal life on questions related to mental disorders and HIV risk behaviors.
3. The benefits to the clients were explained as self referral within the prisons system in case they had mental disorders or other problems that needed attention, as discussed in 1 above.

Application of Research Results

The Prison service, Ministry of Health, Police service, judicial services of South Sudan and UNMIS correctional advisers will be able to formulate:

1. Evidence-based practices and polices with a view to improve mental health services in prisons in combination with existing health services.
2. Policy frameworks, legislation, and interventions services in the areas of HIV and AIDS prevention and care in the general population and in prison settings of South Sudan

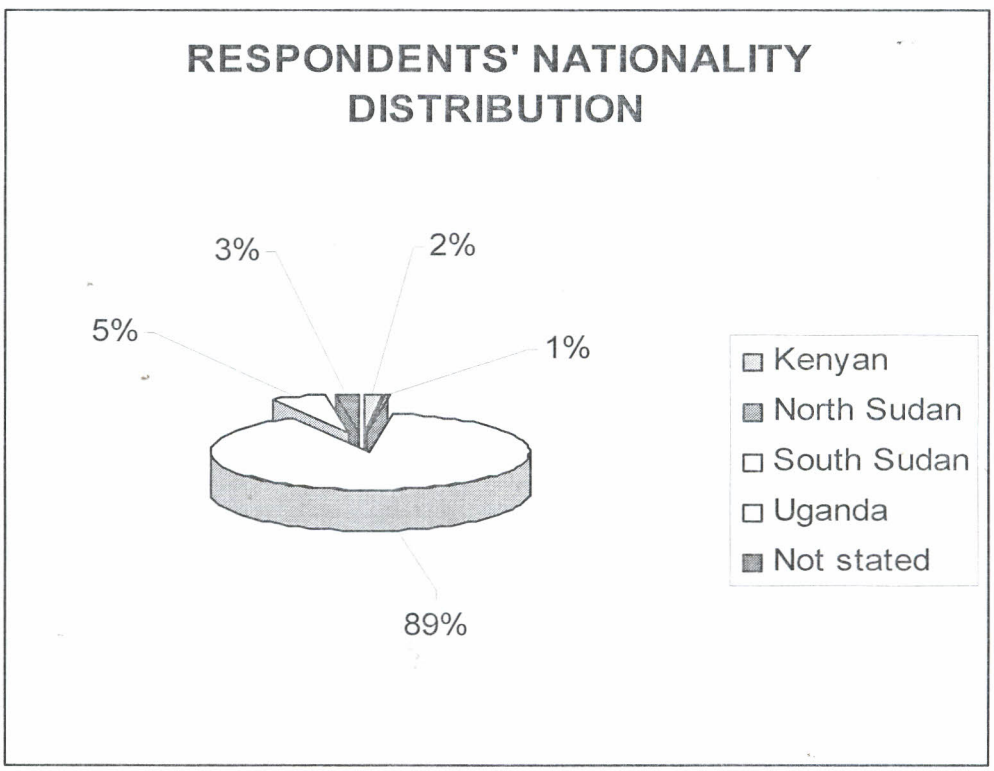
UNIVERSITY OF NAIROBI LIBRARY
P. O. Box 30197
NAIROBI

FINDINGS

Socio-demographic Characteristics:

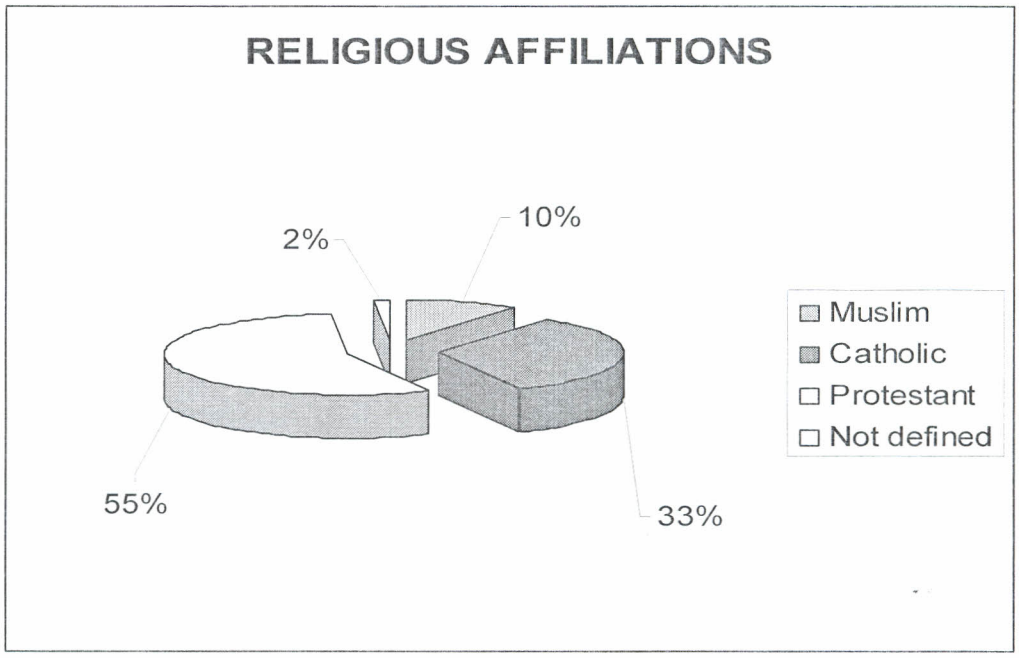
At the beginning of data collection, there were 413 people incarcerated at the Juba central prison, but by the end of data collection (seven days later), the total number had increased to 627; representing a turnover of 51.8%. Only one hundred and ninety two (192) participants completed the interviews; 82.8% males and 17.2% females. About half (101), that is 52.6% of the respondents were within the age bracket 18-30 with the youngest being 13 years and the oldest 60 years with a mean age of 29.72. The nationalities of the respondents were distributed as follows: Three (1.6%) were Kenyans, one from North Sudan, ten (5.2%) Ugandans, and five (2.6%) did not indicate their country of birth, while majority (90.1%) was from South Sudan as shown in figure 1.

Figure 1: Nationalities of the prisoners



The respondents' religious affiliations were Catholic 63(32.8%), Protestants 107(55.7%), Muslim 19(9.9%) while only 3(1.5%) did not state their religious affiliations as shown in figure 2.

Figure 2: Religious affiliations of the prisoners



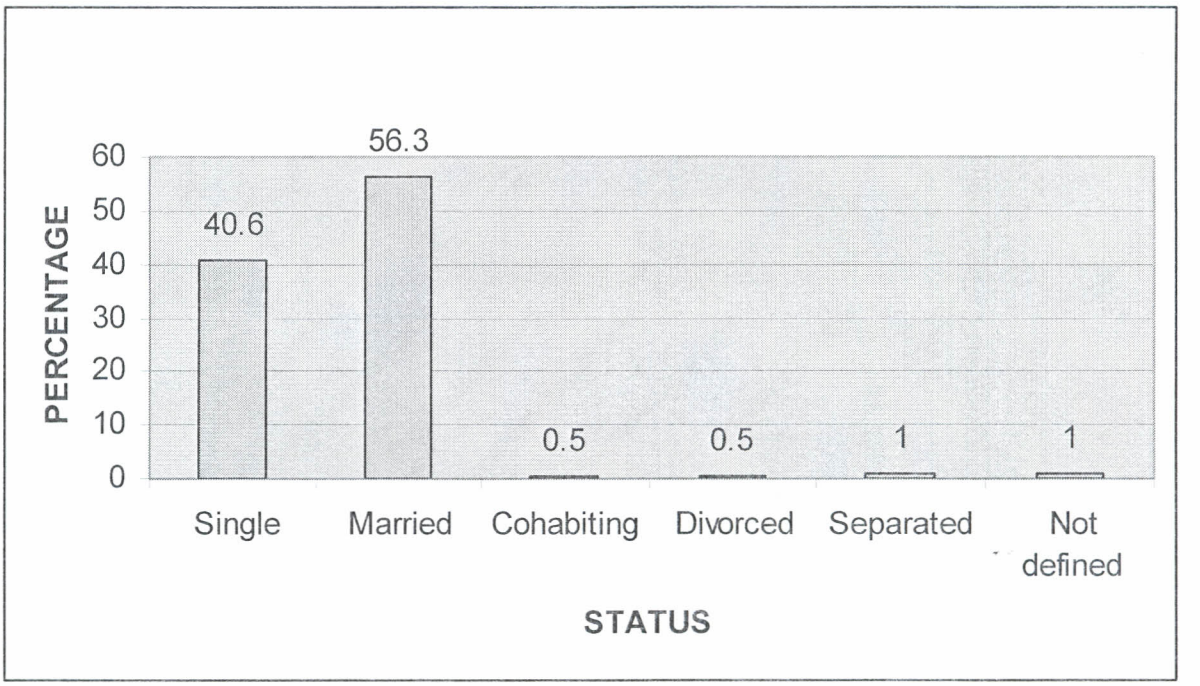
A third of the respondents, that is 64(33.3%) were living together with their partners (spouses) before the imprisonment, about a quarter constituting 53(27.6%) were living with both parents, 20(10.4%) with their children, 15(7.8%) with friends, 16(8.3%) lived alone, while 24(12.5%) did not indicate their living arrangement before imprisonment. Slightly more than half (56.3%) of the respondents were married while (40.6%) were single. These are tabulated in table 1.

Table 1: Living arrangements of the prisoners before imprisonment

Characteristics		Frequency (n)	Percentage (%)
Respondent(s) Living arrangements before imprisonment	Spouse/partner	*64*	*33.3*
	Children	*20*	*10.4*
	Friend/s	*15*	*7.8*
	Alone	*16*	*8.3*
	Both parents	*53*	*27.6*
	Not defined	*24*	*12.5*
	Total (N)	***192***	***100.0***
Employment status (way used to earn money before imprisonment	Not earning any money (not employed)	45	23.4
	Steady wage/income from legal job (employed)	53	27.6
	Own business(self-employed)	48	25.0
	Odd jobs on street (causal labourer)	21	10.9
	Money from family/partner	15	7.8
	Selling drugs	2	1.0
	No response	8	2.6
	Total	192	100.0

More than a half of the prisoners were married (56.3%) while 40.6% were single as shown in figure 3

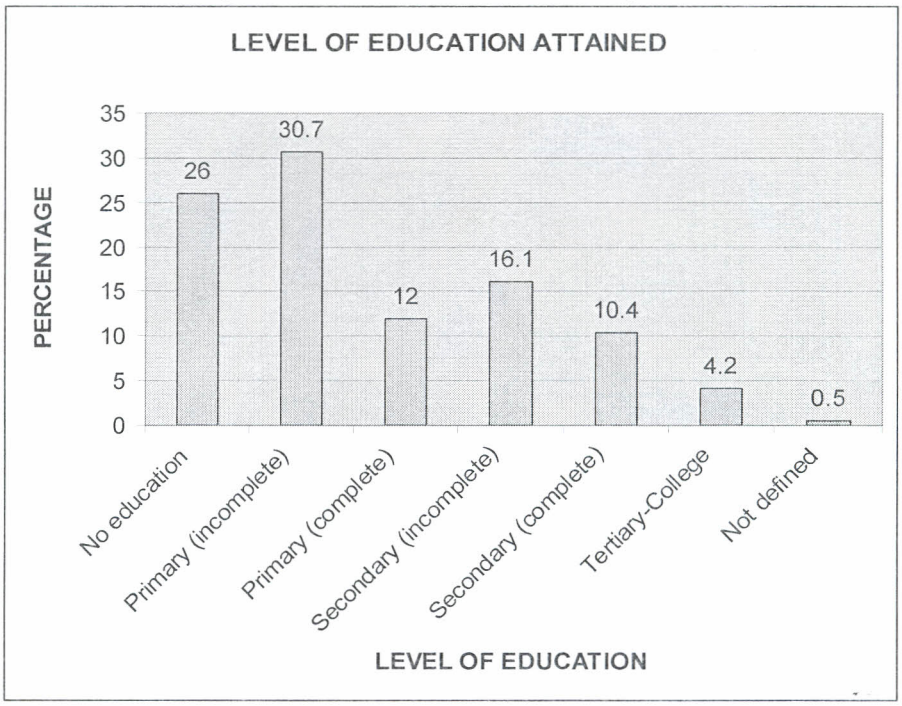
Figure 3: Respondents relationship status



Level of education completed

A few (8) respondents had completed tertiary education (4.2%), 30.7% (59) had not completed primary education while 30.7% (59) had completed primary education compared to 12.0% (23) who had not completed secondary education and 16.1% (31) completed secondary education, 26.0% (50) had no form of education as shown in figure 4.

Figure 4: Level of education completed



mprisonment Variations

Current status in jail

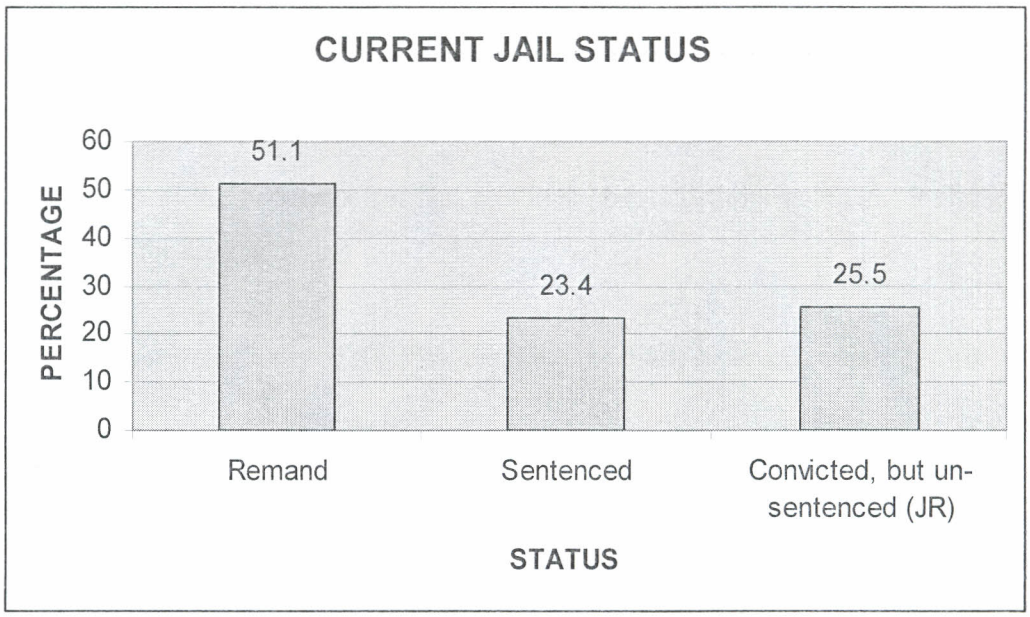
A proportion of 51.1% were in remand while 23.4% and 25.5% were sentenced and convicted but not sentenced respectively as shown in figure 5.

Type of crime versus current jail status (table 2): About a quarter, that is 50 (26%) of the prisoners had been convicted of murder; 18 were in remand, 22 sentenced and 10 convicted but not yet sentenced while 37 (19.3%) of the prisoners had been convicted with theft; 27 were in remand, 2 sentenced and 8 convicted but not yet sentenced. Prisoners convicted for fighting were 21 (10.9%);9 were in remand, 5 sentenced and 8 convicted but not yet sentenced compared to another 21 who were convicted of causing road traffic accidents. Another 12 were in remand, 3 sentenced and 6 convicted but not yet sentenced. A total of 12.5% (24) respondents had been prison because of mental illness; all were in remand. Prisoners convicted for a sexual offense were 12 (6.3%); 2 were in remand, 5 sentenced and 5 convicted but not yet sentenced, while those convicted for drug peddling were 13 (6.9%) with 4 in remand, 4 sentenced and 5 convicted but not yet sentenced. Eight prisoners (4.2%) had been convicted of manslaughter; 1 was in remand, 4 sentenced and 3 convicted but not yet sentenced.

Table 2: Imprisonment Variations (Type of Offense versus current jail status)

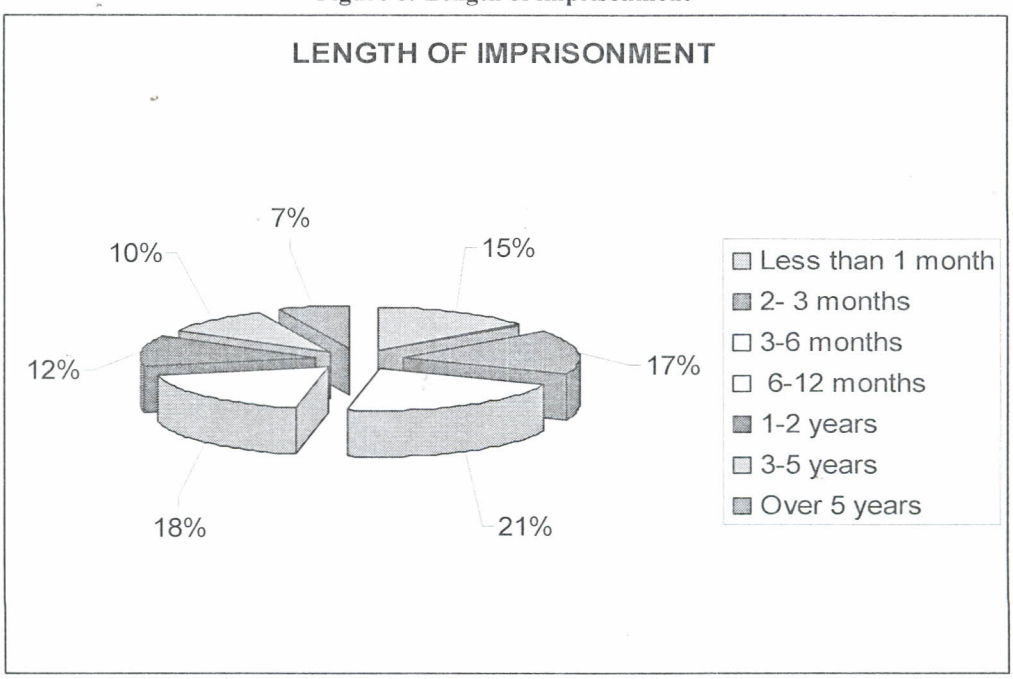
Type of Offence	What is your current status in prison			Total
	Remand	Sentenced	Convicted, but un-sentenced (JR)	
Caused accident	12	3	6	21
	6.3%	1.6%	3.1%	10.9%
Drug Peddling	4	4	5	13
	2.1%	2.1%	2.6%	6.8%
Drunk and disorderly	0	0	1	1
	.0%	.0%	.5%	.5%
Fighting	9	5	7	21
	4.7%	2.6%	3.6%	10.9%
Found with gun	1	1	1	3
	.5%	.5%	.5%	1.6%
Manslaughter	1	4	3	8
	.5%	2.1%	1.6%	4.2%
Mental illness	24	0	0	24
	12.5%	.0%	.0%	12.5%
Murder	18	22	10	50
	9.4%	11.5%	5.2%	26.0%
Robbery	1	0	1	2
	.5%	.0%	.5%	1.0%
Sexual offense	2	5	5	12
	1.0%	2.6%	2.6%	6.3%
Theft	27	2	8	37
	14.1%	1.0%	4.2%	19.3%
Total	97	46	49	192
	50.5%	24.0%	25.5%	100.0%

Figure 5: Current Jail status



Length of stay in prison (figure 6): About 14.6% had been in prison for less than one month, 16.6% had been in prison between 1 month and three months, 21.9% had been in prison between 3 months and six months, 18.2% between six months and one year, 12.0% had been in prison for one year to two years, 9.9% had been in prison for between 3-5 years and 6.8% had been in prison for over 5 years.

Figure 6: Length of imprisonment



Type of prison wing currently placed: Almost half of the respondents (40.6%) were in remand, 38.0% were convicted prisoners, and those imprisoned for safety (mentally ill persons) were 9.4% while those sentenced for life imprisonment were 6.8%.

Recidivism: Only 6.8% of the prisoners had had previous arrests or imprisonment; 9 charged previously because of theft and 4 for drug peddling.

Previous psychiatric services: Only 6 (3.1%) respondents had received treatment for a psychiatric problem.

Reasons why few women were found at Juba Central Prison

A key informant interview was done with the Commissioner of Prison, his Assistant and the police commissioner to find out why few women were involved in crime as compared to men; hence more men in prisons (82.8% males in the study compared to 17.2% females). There responses were

- Women in South Sudan have never been involved in war, hence do not handle guns
- Culturally, once a girl becomes of age, she is married off to her husband, rarely then do they come out into public, looking for jobs in urban areas or go to drinking places where most fights occur
- Because of war, most of the petty offenses are committed in towns, looking at the cost of living; most of women are left in villages to bring up the children and only men live in urban areas

HIV Knowledge, Behavioral Practice and Health Care Seeking Behaviour

About a 10.4% (20) of the respondents had severe mental illnesses; therefore they did not have the cognitive capability to coordinate the responses to specific questions about frequency of HIV knowledge, attitudes, behavioral practice and health care seeking behaviors.

Knowledge and Practice (Table 3)

Out of the 192 respondents who were interviewed, one hundred and forty-six (76%) had heard about AIDS. Out of the 192 prisoners, 72.4% (n = 139) thought HIV was a serious problem in South Sudan and only 30.7% (n = 59) out of 192 thought that HIV was a serious problem in prisons. A small proportion (13.5%, n = 26) of the respondents had not heard about AIDS; 17.1% (33) did not know how serious the HIV problem was. They thought that HIV was not a problem in south Sudan. A third of the respondents (64) did not know how serious HIV problem was in prisons, with 15.1% (29) and 10.4% (20) respectively thinking that it was a small problem and not a problem in prisons in south Sudan.

Most of the respondents (68%) knew what a condom was while 32% did not know. A small proportion (18.8%, n = 36) of the respondents thought there was a high risk of contracting HIV while in prison; as compared to 25% (48), 21.9% (42) and 24% (46) who did not know that there was a risk, who thought there was no risk and low risk, respectively.

Forty three respondents (22.3%) thought that a pregnant mother could not infect her unborn baby with HIV as compared to 43.2% (83) who knew that a pregnant mother could transmit HIV to her unborn baby, 6.8% (13) were not sure and 17.2% (33) did not know that HIV could be transmitted to an unborn baby. Most, 70.8% (132) of the respondents were aware that HIV had no cure. A few 8.3% (16) believed there was a cure for HIV, while 4.2% (8) were not sure and 16.7% (32) did not know whether there was a cure for HIV.

Three quarters of the respondents, (75%, n = 144) knew that HIV cannot be transmitted if they worked or sat next to a person infected with HIV as compared to 2.6% (5) who were not sure and 12.0% (23) who did not know.

Twenty nine (15.1%, n = 29) respondents had attended HIV meetings while in prison; 7.8% (15) had attended once, 4.7% (9) attended twice, and 2.6% (5) attended twice per month. When compared to HIV education meetings attended while outside prison; only 30.7% (59) had attended: 4.7% (9) once, 7.3% (14) twice and 18.8% (38) more than twice.

Only 2.1% (4) had had education meeting on condom use while in prison compared to 20.3% (39) that had had these meetings before going to prison. A few respondents (9.4%, n = 18) had had HIV education from a health worker while in prison compared to 32.3% (62) who had HIV education before imprisonment.

Majority (44.8%, n = 86) of the respondents had watched HIV presentations; the commonest presentation being on video, followed by TV programmes and drama.

Table 3: Knowledge and Practice

Type of Knowledge	Response	Frequency(n)	%(n)
Have you ever heard about AIDS?	Yes	*146*	*76.0*
	No	*26*	*13.5*
	No response	*20*	*10.4*
	Total(N)	*192*	*100.0*
How serious a problem do you think HIV is in S. Sudan?	Not a problem	*6*	*3.1*
	A small problem	*7*	*3.6*
	A serious matter	*139*	*72.4*
	Don't know	*20*	*10.4*

	No response	20	10.4
	Total (N)	192	100.0
How serious a problem do you think HIV is in prisons?	Not a problem	20	10.4
	A small problem	29	15.1
	A serious matter	59	30.7
	Don't know	64	33.3
	No response	20	10.4
	Total (N)	192	100.0
Do you think there is a risk that you may get HIV in prison?	No risk	42	21.9
	Low risk	46	24.0
	High risk	36	18.8
	Don't know	48	25.0
	No response	20	10.4
	Total (N)	192	100.0
Do you know what a condom is?	Yes	117	60.9
	No	55	28.6
	No response	20	10.4
	Total	192	100.0
Can a pregnant woman give HIV to her baby?	Yes	83	43.2
	No	43	22.4
	Not sure	13	6.8
	Don't know	33	17.2
	No response	20	10.4
	Total(N)	192	100.0
Is there a cure for AIDS?	Yes	16	8.3
	No	115	59.9
	Not sure	8	4.2
	Don't know	33	17.2
	No response	20	10.4
	Total (N)	192	100.0
Can you get HIV by working or sitting next to a person who has HIV?	No	144	75.0
	Not sure	5	2.6
	Don't know	23	12.0
	No response	20	10.4
	Total	192	100.0

Knowledge of/and Risk Behavioural practice (Table 4)

Most of the respondents, 64.6% (124) were aware that one could be infected with HIV if they had unprotected sex. Of these, 60.1% (116) were aware that one can contract HIV if they had unprotected sex with a healthy looking person. A few of the respondents (6.8%) did not think one can be infected with HIV if they had unprotected sex, 14.6% (28) did not know while 7.8% (15) were not sure if one could contract HIV if they practised unprotected sex. Most of the respondents, 64.1% (123) were aware that the risk of HIV transmission can be reduced by having only one faithful sex partner as compared to 8.3% (16), 5.2% (10) and 12.0% (23) who did not think so, were not sure and did not know, respectively. Of the thirty six (18.8%) respondents who had had a sexual relationship in the past six months, 26 were males and 10 were females. Of these, 14 had used a condom in the last sexual relationship with 19 of

the respondents still continuing with the relationship. Among these; 12 were married and 3 had the sexual contact with a prostitute.

Table 4: Knowledge of/and Risk Behavioural Practice

Type of Knowledge	Response	Frequency(n)	%(n)
Can you get HIV by having unprotected sex with a person who looks healthy?	Yes	*116*	*60.4*
	No	*13*	*6.8*
	Not sure	*15*	*7.8*
	Don't know	*28*	*14.6*
	No response	*20*	*10.4*
	Total (N)	*192*	*100.0*
Can you get the HIV virus from having unprotected sex?	Yes	*124*	*64.6*
	No	*12*	*6.3*
	Not sure	*7*	*3.6*
	Don't know	*27*	*14.1*
	No response	*22*	*11.5*
	Total (N)	*192*	*100.0*
Can you reduce the risk of HIV by having only one faithful sexual partner?	Yes	*123*	*64.1*
	No	*16*	*8.3*
	Not sure	*10*	*5.2*
	Don't know	*23*	*12.0*
	No response	*20*	*10.4*
	Total	*192*	*100.0*
Can you get HIV by working or sitting next to a person who has HIV?	No	*144*	*75.0*
	Not sure	*5*	*2.6*
	Don't know	*23*	*12.0*
	No response	*20*	*10.4*
	Total (N)	*192*	*100.0*

Four male respondents had previously been forced by another man to have sex while six had forced another man to have sex with them before current imprisonment. For all the four who were forced to have sex with a male counterpart, a condom was used while only a half of those (3) who forced another man to have sex with them used a condom. A quarter, (25.5%) 49 of the respondents thought that a few prisoners practised man-to-man sex, only 4 thought many prisoners were practising homosexuality. Fifty five (28.6%, 55) thought that there was no such practice and 18.2% (35) were not aware of such relationships in prisons. Only 22.4% (43) of the respondents thought HIV can be transmitted if a man had sexual contact with another man; 26.6% (51) did not know, 4.2% (8) were not sure and 21.9% (42) did not think that HIV can be transmitted if there is man to man sex.

When asked to give reasons why inmates of same sex had sex with each other, majority, 58.9% did not respond to the question. However, the following were reasons given for inmates practising homosexuality:

1. Inmates sleep together, sharing the same blanket
2. Since there are no women sharing the same prison, they can only have a man-to-man sexual relationship.
3. Many of the inmates are incarcerated for a long period of time
4. Sex is a human desire and sometimes the behaviour can be adapted, some prisoners practised this before being imprisoned
5. One's own decision to practice homosexuality
6. Some people are out of their mind in prison
7. Some people have psychological disorders

Slightly more than half (54.2%, 104) of the respondents did not think that condoms should be made available in prisons, 16.7% (32) did not know, 2.6% (5) were not sure; while 3.1% (6) reported that condoms should be made available in prisons. The reasons given by respondents why condoms should not be allowed in prisons included:

1. Introducing condoms will be encouraging prisoners and warders to start practising man-to-man sex, thus start homosexuality in prisons
2. To discourage sex and introduction of homosexuality
3. This would give the impression that sexual activities are encouraged in male prisons
4. There is no homosexuality in prisons
5. Prison for men has no women, there is no sexual activity
6. There is no connection between men when it comes to sexual activity
7. There is no need for man to man sexual activity
8. It is illegal for a man to practise man to man sex, the law absolutely condemns the practice
9. It is not correct for the same gender to practise sex
10. For the married prisoners, the other partner is not in prison
11. Because there is no transmission of HIV during man to man sex
12. Because HIV can only be transmitted through vaginal fluid
13. Very few prisoners have been found to practise man to man sex

Other risk behavioural practices

Five prisoners (2.6%) had been tattooed in prison with 10.4% (20) who affirmed that tattooing is a problem in prison. The instrument used in prison was a razor blade, but traditionally they use a knife or traditionally made sharp instruments which are not available in prison. About 46.4% (89) new HIV cases can be transmitted when these instruments are shared, 13.5% (26) did not know, 2.1% (4) were not sure and 8.9% (17) affirmed that HIV could be transmitted if these instruments are shared. There was no reason given why tattooing was practised in prison; although traditionally it is done for cultural reasons which include:

- Identification of the tribe that one belongs to,
- Rite of passage (which means that one has matured and is no longer a child),
- A treatment procedure by traditional healers when one is sick,
- To change one's behaviour (after tattooing as a rite of passage, boys take up adult responsibilities

Majority of the inmates, 43.8% (84), shaved once per month, 26.0% (50) shaved once or twice per week while 58.1% (54) had never shaved since imprisonment. A razor blade is the instrument that is used for shaving where 17.7% (34) of the respondents indicated that they shared the same razor blade with other inmates. Based on their opinions, the prisoners reported that 30.2% (58) of the respondents were aware that there was no sharing of this equipment (razor blade) compared to 24.0% (46) who indicated that many inmates shared, 10.9% (21) indicating that a few inmates shared while 16.7% (32) respondents did not know whether there was sharing of the blades. Majority, 66.1% (127), were aware that HIV can be transmitted if the razor blade is shared, 2.1% (4) were not sure, 22.4% (33) did not know while only 9.4% (18) indicated that HIV cannot be transmitted when these instruments are shared. Only 3.6% (7) of the respondents had shared a tooth brush.

Health care Seeking Behaviour

Majority of the respondents, 75.0% (144) had never been counseled or visited VCT centres, only 14.1% (27) knew their HIV status. Of these, 19 had disclosed their status to family members (wife, husband, brother or sisters). Only 5 had disclosed to friends other than the immediate family members.

Most of the inmates 75.5% (145) did not know what ARVs meant. In the communities of South Sudan, information about ARVs can be found from:

1. Health workers
2. VCT centres
3. TV/Radio/Newspapers

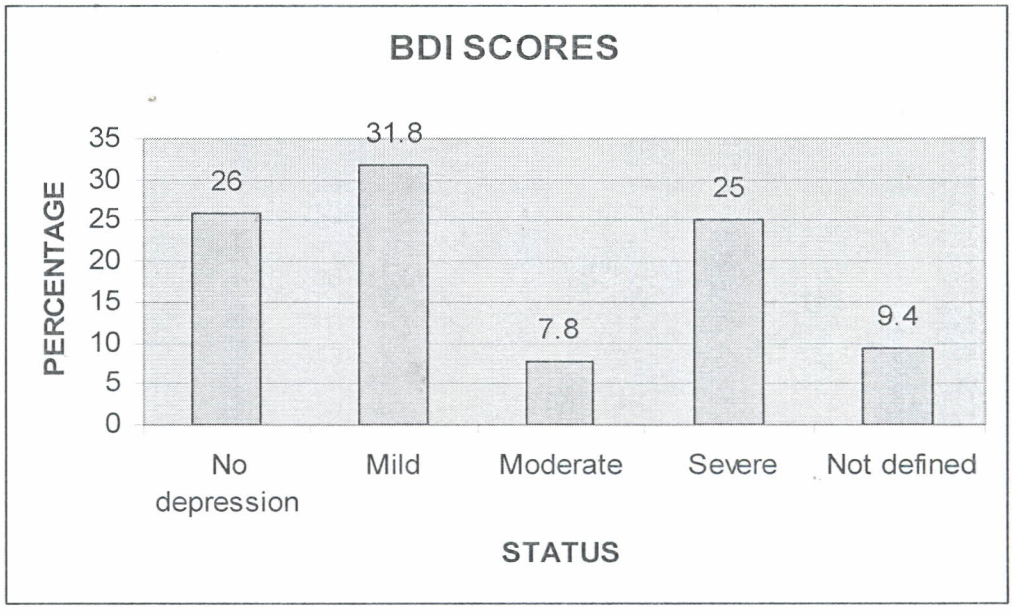
4. Religious groups
5. Friends/family members
6. PLWH peer groups
7. Traditional healers
8. Pastors

Mental Disorders as Assessed by Different Psychological Instruments

Axis 1 Mental disorders

Assessment using the Beck Depression Inventory (BDI) showed that out of 124 (64.6%) respondents who filled out this section 31.8% had mild depression, 7.8% had moderate depression and 25% had severe depression (figure 7). According to the DSM IV diagnosis; 14.1% (27) of the respondents had current major depressive episode while 22.4% (43) had past episode major depressive illness and 6.3% (12) had dysthymia. Twenty six (13.5%) had suicide symptoms with 4 having attempted suicide once and one attempting more than twice. The commonest method(s) used were taking poisonous drugs or hanging using a robe. This was confirmed by level of suicide risk using the DSM IV criteria where out of the 26 respondents with suicide symptoms; 4 had no suicide risk, 6 had low risk, two moderate while 14 had high suicide risk (had suicide plans with only 5 having attempted suicide).

Figure 7: BDI scores



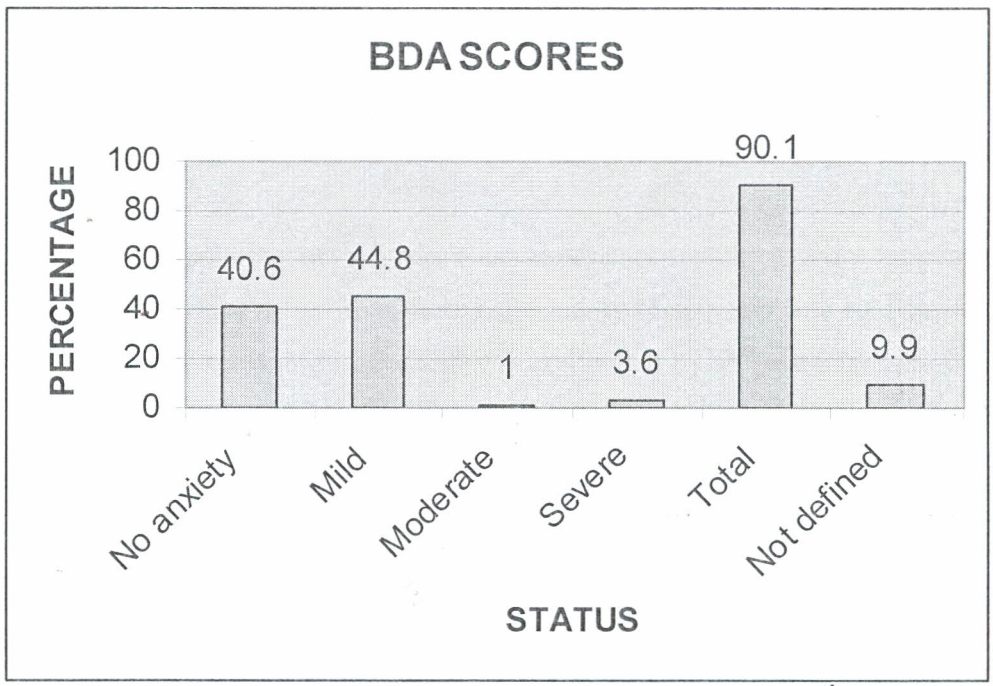
Using the Beck Anxiety Inventory (BAI) (figure 8), 49.4% (95) of the respondents had mild to severe anxiety symptoms distributed as mild anxiety symptoms in 44.8%; moderate anxiety symptoms in 1.0%

and severe anxiety symptoms in 3.6% as shown in figure 7. In accordance with DSM IV axis 1 disorder; 26.1% (50) of the respondents had experienced or had to deal with an extremely traumatic event (inmates convicted of murder, manslaughter and caused road traffic accident).

Among these respondents:

- 31 (16.1%) in the past month still re-experienced the event in a distressing way (such as, dreams, intense recollections, flashbacks or physical reactions).
- 27 (14.1%) had avoidance (avoided thinking about or talking about the event, avoided activities that reminded them about the event, had trouble recalling some important part of what happened and felt that their life would be shortened or that they would die sooner than other people).
- Only one had hyper arousal.
- In the past one month, 32 (16.6%) had significant distress when re-experiencing occurred.

Figure 8: BAI Scores



Depression and other Co-morbid Psychiatric Disorders

156540

Depression and anxiety are often considered distinct categories of psychiatric illness because of the guidelines outlined in the Diagnostic Statistical Manual. From the results, the two psychiatric disorders co-occurred; all respondents who had anxiety on BIA scale had depression on BDA scale. Thus,

individuals who are less likely to discuss emotional feelings, their depression or anxiety may manifest as somatic symptoms, such as pain or abdominal discomfort, rather than as emotional symptoms.

Alcohol Misuse and Drug Dependence

Majority of the prisoners had never used drugs of dependence in their life. Only two respondents had alcohol dependence disorder, they used alcohol in a harmful way; they used alcohol in a hazardous way. The prisoners put into incarceration with drug peddling offense did not have/use the substances sold to the community. The commonest drug peddled in the community was cannabis.

DSM IV Axis 1 Psychotic Disorders:

Twenty (12.5%) respondents had psychotic symptoms (delusions, hallucinations and abnormal behaviour). They had been placed in prison for safety for many years. Out of these, 8 met DSM IV diagnostic criteria for schizophrenia; they were unkempt, had bizarre delusions and hallucinations (had two or more voices talking about them or commanding them/commenting about them). The remaining 12 met the criteria for bipolar 1 mood disorder; in addition to the psychotic symptoms; they were feeling depressed, irritable at the same time (6 of them were on daily antipsychotic injections to keep them calm). They became violent when not on treatment; reason for them being put in prison for safety.

DSM IV Axis 2 Disorders

Personality disorders are patterns of behaviour or experience resulting from a person's particular personality characteristics which differ from those expected by society and lead to distress or suffering to that person. The personality screening instrument was completed by all prisoners who were recruited in the study; this identified those who probably had personality disorder. The prevalence rates of the different disorders in the study were:

a) Forty five (23.4 %) respondents had antisocial personality disorder with 8 of them having had the problem since childhood
b) Nineteen (9.9%) respondents had borderline personality disorder
c) Fourteen (7.3%) had dependent personality disorder
d) Paranoid personality disorder: 25% (48) had paranoia
e) Obsessive compulsive personality: 29% (57) had this disorder

In the study; general inspection was done by the Principal Investigator and the following are the findings in South Sudan:

a) **Human Resources** - There is only one psychiatric clinical officer who serves the whole of Southern Sudan, with an estimated population of 5 million.

Profile of the Psychiatric Clinical Officer

i. *Background: General Medical Assistant trained in Khartoum, also did extra training in Psychiatry (1978 – 1981) at Khartoum*

ii. *He opened the Department of Psychiatry, University of Juba 1981. No other psychiatric services in Juba since then.*

iii. *Has helped 5 more people to train as psychiatric clinical officers but left immediately they completed the training.*

(b) **Psychiatric Facilities and Services:**

i. **Department of psychiatry, Juba Teaching Hospital:** The Department is run by the same psychiatric clinical officer who sees outpatients on daily basis and also runs a 15 bed Unit within the Juba Psychiatric Hospital. The Department itself has less than 4 rooms. The 15 beds are for both sexes of all ages and is for holding those with minor psychiatric disorders. The disturbed patients are sent to Juba Central Prison for safe-custody. At the psychiatric unit (Juba Teaching Hospital), the only psychoactive drugs available are chlorpromazine and phernegan.

ii. **Psychiatric Wing at the Juba Central Prison**: All patients who are too disturbed to remain in the community and too disturbed to remain in the psychiatric Unit at the Juba Teaching Hospital are admitted at the Juba Central Prison in a Unit officially referred to as the Lunatic Wing. The following are highlights: -

- The reception of the referred patients is done by Prisons officers
- There is hardly any diagnoses recorded in the reception papers, except a "Lunatic"
- The admission papers are kept by the Prisons officer
- There are no records that are kept anywhere on reviews except the daily administration of drugs prescribed by the clinical officer. The supervision of the drugs is done by medical assistants with the two recovering patients and with the general supervision of the clinical officer. The records of the drug administration are kept by the Prisons authorities as part of prison records.
- The clinical officer has no clinical notes on reviews allegedly because there is no paper available to keep records, the psychiatric services being regarded as an extra burden by the Prison services.

- ❖ However, most noteworthy is that the Prison Psychiatric services are well stoked with psychiatric drugs such as setralline (one of the new generation anti-depressant), haloperidol, carbamazepine, chlorpromazine, benzhexol, and phenegan, olanzapine (one of the new generation anti-psychotics). These are supplied directly from Khartoum. The clinical officer gives direction on how these drugs are given to the psychiatric patients.
- ❖ Those patients who are disturbed (psychotic) are controlled through physical restrain which include:
    - o Chaining – there are 4 chaining points on a concrete floor where patients are chained for as long as they are a disturbance, either physical or verbal to other patients and inmates. They are chained both day and night; toilet facilities consist of buckets placed next to them and sleep chained on the concrete floor. They are naked most of the time.
    - o The females are put in isolation room (facility has 3 rooms) each to their own room and fed from beneath the door. The sleeping and toilet facilities are the same as for the chained males.
    - o The other patients sleep in 2 dormitories – one for the males and one for the females. They sleep on the floor using thin mattresses.

In summary the conditions are basically the same as for the prisoners.

c) Psychiatric Services for the Prisoners:

Mental Health Human Resources at the Juba Central Prisons

i. 1 Clinical Officer
ii. 2 Medical Assistants
iii. 6 certificate nurses
iv. 1 prisoner
v. 5 social workers (general)

There were five prisoners whose referrals had originated from the courts. At the time of the visit, one had been transferred to Juba General Hospital for a physical condition; one refused to be seen and 3 were willing to be seen. All the 5 had been charged with murder. They were all waiting full trial pending psychiatric reports. Of the three seen, one was clearly an epileptic patient who had struck to death his nephew with one blow thinking it was an animal. Most likely he killed in the context of an organic confusion during an epileptic attack (fit). He was on carbamazepine 200mg twice a day and phenergan 25 mg twice a day. He was stable, had been admitted to the psychiatric wing on 24th May

2007. The other two were clearly schizophrenic patients who had hallucinated and had killed in the context of their psychotic symptoms. They were both on chlorpromazine.

A total of 33 prisoners on incarceration pending a psychiatric report before admission to court were interviewed:

- 5 court referral
- 28 civil referrals (27 males and 6 females)

Those seen were 22 prisoners who had been incarcerated for various reasons. These had been randomly selected for review. They all had various, but significant psychiatric symptoms mainly of depression and of varying degrees in severity. Some were on pretrial, others in the course of trial or post-trial and therefore serving their sentences. The offences varied from murder (some therefore on death roll), drug related (2 of them) but a significant number were held because they could not raise the money to compensate people they had offended through adultery, deals gone sour or unpaid debts. None of these prisoners had been seen for a psychiatric evaluation and therefore none was on any treatment for a psychiatric disorder.

DISCUSSION

SOCIO-DEMOGRAPHIC CHARACTERISTICS

Age and gender

The socio-demographic characteristics of the sample studied reflect the general socio-demographic characteristics of offenders obtained in previous studies done in other countries where majority are young people. In the study, majority (52.6%) were between ages 18-30 years and mean age of 29.72; these are similar findings to Wales study (Singleton, Meltzer, & Gatward, 2000) where the offenders were young; a quarter of the male remand prisoners were 16-20 years old and two thirds were under 30 years while a sixth of the male sentenced male prisoners were 16-20 years and those below 30 years of age were similar to the remand prisoners.

Unlike in other studies done worldwide (Singleton, Meltzer, & Gatward, 2000; Fazel & Danesh, 2002; Greenberg & Nielsen, 2002) majority of the prisoners were males (82.8% males as compared to 17.2% females) this can be attributed to the fact that the country is emergeing out of the war which started in 1983. In African culture, men go out to hunt and protect their home states while females care for children, thus are less exposed to factors that will push them into offending. From the key informant interviews: women in South Sudan have never been involved in war, hence do not handle guns (for most cases imprisoned for murder, the aggression occurred in a war situation). Culturally, once a girl becomes of age, she is married off to her husband; rarely then do they come out into public, looking for jobs in urban areas or go to drinking places where most fights or conflicts occur. Because of war, most of the petty offenses are committed in towns, given the cost of living. Most women are left in villages to bring up the children and only men live in urban areas.

Ethnic Diversity

Four different nationalities were represented; South Sudan had majority of the prisoners, followed Uganda, then Kenya and North Sudan; all these countries border South Sudan.

Living arrangements before coming to prison

About a third of the prisoners were still living with their parents; 40.6% labeling themselves single while majority were married (56.3%). These results are slightly different from those of western studies where majority label themselves as cohabiting (Singleton, Meltzer, & Gatward, 2000) or single.

Level of education completed

Most prisoners had completed tertiary education; majority (61.4%) had some primary education whether completed or incomplete unlike western countries where basic education is almost invariable.

Imprisonment Variations

Murder was the most common crime. Inmates were put in prison for minor offenses such as: causing road traffic accidents, fighting, found in possession of a gun or drunk and disorderly. In comparison, most studies in the west reveal offences like burglary, theft, drug offenses as being most common (Singleton, Meltzer, & Gatward, 2000). Members of community with severe mental illnesses were also put in prison for safety reasons. Some of the reasons for their imprisonment were: found wandering, homeless or with violent behaviour due to mental illness. This calls on the government to set up mental care units; these can easily be used in decongesting prisons and also gaining access to psychiatric services. Factors that can be cited as causes of mentally ill persons being placed in the prison system are: South Sudan has no outlets for mental health services; there are more rigid criteria for civil commitment and lack of adequate community support for persons with mental illness.

Knowledge, Attitudes, Beliefs and Practices (KABP)

A significant number of the prisoners had not heard about AIDS (24%). This would therefore mean that education campaigns which provide information on HIV transmission and prevention, mainly emphasizing on condom use, reduction in sexual partners, abstinence and delaying the age of sexual debut have not taken route in South Sudan. There is no support in terms of research, by KAP surveys, which have been used to evaluate the impact of the AIDS education and information on behaviour as compared to other countries of the world (Kenya DHS, 2003; UNAIDS Reports, 2000; Government of Kenya, Ministry of Health, 2001; Frohlich, Corin & Potvin, 2001). The respondents (60.1%) who were aware that HIV can be carried by a healthy looking person is much lower as compared to Kenyan figures of 2003, 90% for male and 85 female respondents (Kenya DHS 2003). Also, respondents (64.1%) who were aware that the risk of HIV transmission can be reduced by having only one faithful sex partner is much lower as compared to the Kenyan figures of 2003.

A few respondents had gone for VCT services. Although the proportion is much higher as compared to the Kenyan proportion of 2003 where women and men who reported receiving an HIV test and test results in the last 12 months (7% and 8%, respectively). Very few prisoners acknowledged that there was man to man sex in prison; although this is abominated by culture. Therefore a move through any HIV and

AIDS transmission reduction strategies must put into consideration cultural sex practices and norms before introduction of condom use among prisoners

Proportion of incarcerated persons with mental illness

Most of the prisoners were psychologically distressed as shown by various instruments (BDI, BAI & BSS). This means therefore that adaptation to prison life has a distinct impact on the psychological health of many people who get incarcerated as shown by Travis & Waul in 2003. Generally, the results had more prisoners with mental illnesses. Prevalence of personality disorders in the population is high; similar to findings of studies done in western countries (Singleton, Meltzer, & Gatward, 2000).

Conclusion

There are no data on measures for the prevention, management and control of HIV and AIDS in South Sudan Prisons. Policies to address prevention and control of HIV and AIDS spread need to be formulated and operationalised for protection and promotion of public health in South Sudan; for appropriate treatment, counselling, support and care of persons infected or at risk of HIV and AIDS infection, and for connected purposes. High risk behaviour includes men having sex with men, commercial sex work, multiple sexual partners as well as the unique realities of the prison setting. This dramatically increases risk of HIV infection in contradistinction with the general population. Specific strategies are needed to effectively target these high risk groups. There is need for targeted and scaled up Behaviour Change Communication (BCC) through various measures for prevention of new infections in the prison setting. Prison authorities should provide prisoners and prison staff with access to adequate HIV-related prevention information, education, voluntary testing and counselling, treatment and care and voluntary participation in HIV-related clinical trials.

Congestion in prisons should be urgently addressed as a serious public health issue. Four things requiring urgent attention were highlighted by the prisoners in Focus Group Discussions:

- Sanitation,
- Good water supply,
- Balanced diet (some prisoners are HIV positive) and
- Provision of good medical care to the prisoners.

Lack of these facilities causes many prisoners to suffer from many communicable diseases; diarrhea diseases, fungal infections, malaria and tuberculosis.

Other areas of public health concern to be addressed urgently as pointed out by prisoners are:

Recommendations

Recommendations for improvement of prison service system in South Sudan

a) Recommendations for psychiatric services in prisons:

i. Careful screening of incoming jail detainees for mental illnesses;

ii. Diversion to the mental health system of mentally ill persons who have committed minor offenses;

iii. Assertive case management and various social control interventions, such as outpatient commitment, court-ordered treatment, psychiatric conservatorship, and 24-hour structured care;

iv. Involvement of and support for families; and

v. Provision of appropriate mental health treatment within prison system or referral system.

b) The detailed recommendations specifically on mental health services:

Remove all mentally ill individuals from prisons and placing them in a mental health institution. This will involve:

i. Developing a new facility for mentally ill individuals and, in the interim, provide a special (psychiatric) ward for these individuals in hospitals.

ii. Assessing current population of mentally ill individuals and determine whether some of them could be released and managed (perhaps with medication) within the community.

iii. Encouraging community peer groups within the community and support to the mentally ill individuals through family responsibility

iv. Encouraging training of prison officers with capacity to diagnose

v. Recruiting welfare officers for reintegration purposes

vi. Creating diversionary measures for those who are not yet in prison

vii. Have legislation to deter imprisonment of mentally ill people

viii. Sensitization of Judiciary and County Commissioners and the community on who should be in prison

ix. A need to train police to be able to identify who should go through the criminal justice process and how to handle the mentally ill.

Those to be involved: Ministry of Health, Police, Judiciary, Traditional Leaders, Prison Service. Lead agency: Judiciary (also for point 5). This will therefore call for multi-sectoral wide coordinated efforts and approaches (SWAP-Multi-sector wide approach)

) Recommendations (general for the whole country)

i. Remove the general Psychiatric beds from the prison

ii. Start a mid-level training programme for mental health workers in Southern Sudan in the areas of clinical officers, nurses, social workers and rehabilitation. The training must take place in Southern Sudan and should identify for training only people already within the service and have roots in Southern Sudan to avoid brain drain.

iii. Experts from either Khartoum or from other places should be hired to develop the curriculum and provide the training in Juba or in any other setting but within Southern Sudan.

iv. The Ministry of Health should be approached to fast-track these policy issues with the assistance of donors.

v. There should be strong mental health inputs in all general medical training programmes (including medical students) in Southern Sudan so as to increase awareness of mental health issues in the future medical personnel in Southern Sudan.

vi. A strong public health education to reduce the stigma towards mental health.

vii. All prisons officers, the police and judicial officers should be given crash general education programme on mental health issues and the relationship between mental disorders and crime; how to increase the level of awareness for possible mental illness and how to treat people with mental illness; how to detect mental disorders in prison population.

UNIVERSITY OF NAIROBI LIBRARY
P. O. Box 30197
NAIROBI

Study Limitations

1. Language barrier: 20 prisoners voluntarily accepted to participate in the study but due to language barrier, the assessments could not be done. None of these participants could communicate in English, Arabic, Dinka or Kiswahili; the languages the research assistants could use.
2. About half (48.7%) of the participants were unable to take part in the study; the main reason for non-contact were their release from prison, involvement in community work and attendance at court throughout fieldwork period at the prison.
3. Other prisons in South Sudan were not involved in the study for various reasons:
   a. Difficulties of communication in South Sudan (security reason, lack of roads and accommodations in the smaller towns where these prisons are located);
   b. Time factor (had only two weeks to train the data enumerators and collect the data in the field);
   c. Finances: the money available could only sustain a study in one location;
   d. Inaccessibility of getting suitable persons to be trained in data collection

BIBLIOGRAPHY

1. Agbahowe, S., Ohaeri, .1., Ogunlesi, A. & Osahon, R. (1998) Prevalence of psychiatric morbidity among convicted inmates in a Nigerian prison community. East African Medical Journal 75; 19-26
2. Alem, A (2000) Human rights and psychiatric care in Africa with particular reference to the Ethiopian situation. Acta Psychiatr Scand 101: 93-96
3. Altice, F. L., A. Marinovich, et al. (2005). "Correlates of HIV infection among incarcerated women: implications for improving detection of HIV infection." J Urban Health 82(2): 312-26.
4. Birmingham, L.., Mason, D. & Grubin, D (1996) Prevalence of mental disorder in remand prisoners: consecutive case study British Medical Journal 313: 1521-1524
5. Butler, T. and Allnutt, S. (August 2003). Mental illness among New South Wales prisoners; NSW Corrections Health Service, State Health Publication No: (CHS) 030147
6. Fazel, S. & Danesh, 3 (2002) Serious mental disorder in 23 000 prisoners: a systematic review of 62 surveys The Lancet 359: 545-550
7. Government of Kenya, 1999 Population Census
8. Government of Kenya, Demographic and Health Survey 2003. Ministry Health, Kenya, National HIV/AIDS Surveillance results 2003
9. Government of Kenya, Ministry of Health (2001), *AIDS in Kenya: Background, Projections, Impact, Interventions and Policy, 6th Edition.* Nairobi: NASCOP
10. Greenberg, D. and Nielsen, B (2002). Court Diversion in NSW for people with mental health problems and disorders. NSW Public Health Bulletin, 13(7) July 2002; NSW
11. Hammett, T. M., M. P. Harmon, et al. (2002). "The burden of infectious disease among inmates of and releases from US correctional facilities, 1997." Am J Public Health 92(11): 1789-94.
12. Haney C. (2002).*The Psychological Impact of Incarceration: Implications for Post- Prison Adjustment.* Washington DC: Urban Institute Press; 2002.
13. Human Rights Watch (2005). Prisoners. Available at: http://www.hrw.org/ prisons. Accessed January 25th June 2008
14. Kiima, D.M., Njenga, F.G., Okonji, M.M.O. & Kigamwa, P.A. (2004) Kenya mental Health: State Health Publication PH020116. Health country profile International Review of Psychiatry 16 (1-2): 48-53
15. Maruschak, L. M. (2007). "HIV in Prisons, 2005." U.S. Department of Justice Document NCJ 218915.

16. Mumola CJ. Substance abuse and treatment, state and federal prisoners, 1997. Washington, DC: Bureau of Justice Statistics, January 1999. (Report no. NCJ 172871.) (Accessed December 12, 2006, at http://www.ojp.usdoj.gov/bjs/pub/pdf/satsfp97.pdf.)
17. Parsons, S., Walker, L. & Grubin, D. (2001) Prevalence of mental disorder in female remand prisons Journal of Forensic Psychiatry 12: 194-202
18. Petersilia Joan (2001). *Prisoners Come* Desistance from Crime. *Crime Justice.* 28:1–69.
19. Reed, J. & Lyne, M. (1997). The quality of health care in prison: Results of a year's propgramme of semi structured inspections. British Medical Journal 315: 1420-1424
20. Sabin, K. M., R. L. Frey, Jr., et al. (2001). "Characteristics and trends of newly identified HIV infections among incarcerated populations: CDC HIV voluntary counseling, testing, and referral system, 1992-1998." J Urban Health 78(2): 241-55.
21. Spaulding, A., B. Stephenson, et al. (2002). "Human immunodeficiency virus in correctional facilities: a review." Clin Infect Dis 35(3): 305-12.
22. Teplin, L. (1990) Detecting disorder: the treatment of mental illness among jail detainees Journal of Consulting and Clinical Psychology 58 (2): 233-236)
23. Travis J, Waul M. (2003). *Prisoners Once Removed: The Impact of Incarceration and Reentry on Children, Families, and Communities.* Washington DC: Urban Institute Press
24. UNAIDS Reports (2000). *HIV/AIDS: the Impact and Prevention: Global Estimates and Goals,*
25. World Health Organization (1979) Schizophrenia: An International Follow-up Study Chichester: Wiley

APPENDIX I: SCHEDULE IN JUBA (3-7TH JUNE 2008)

03/06/08	Arrival via Uganda airline 2pm Meet with Ministry of Health Officials
04/06/08 &	Either in June Central Prisons (doing Psychiatric Assessment)
05/06/08	Or Participating in the ongoing conference on Prisons Reforms
6/06/08	Juba Central Prison-Psychiatric Assessment
7/06/08	Departure back to Nairobi

APPENDIX II:

ANONYMOUS VIEWS OF OFFICERS ON CONTACT WITH SOUTHERN SUDANESE CITIZEN AND PRISONS SERVICES

1. RECOMMENDATIONS ON THE PRISON SERVICES

I really would love to take this opportunity and express what is going or I have seen during the time we collected data on mental well being and HIV awareness. There are a lot of problems in the prison service. For example, their condition is not okay on the site of living; they can spread diseases very easily to the healthy prisoners who are free from those diseases.

Services are not properly given to them in the correct time, because people are not trained on how to deal with this. There are no enough medicines which are unavailable in Southern Sudan. My request is that if the UN who are funding this survey/study to look into prisoners problems seriously inside the prison and come-up with the organisation which will deal (look after) with the prisoners issues.

The other thing is that they need to be training on how to do mechanic, metal work, tailoring, carpenter, plumber, masonry etc, inside the prison in order to keep prisoner busy, for future to help themselves and also their families.

In the issue on the Law Section, this another area in which the Government of Southern Sudan and the UN should join their words and work for the better management of those inmate to be taken back to where they were because this not their right place for the to stay.

The last one is on the side of the prisoners rights, it should be observed very kindly and given them chance for example right to express what they have in mind for their case etc.

Training the doctors who will deal with the problem of the prisoners.

Thank you very much, I would be very happy if theses comments are put into their own practicality and offer this; I do not think if we will be having a lot of problems within the prison and I think this will be the beginning of correcting the prisons service.

UNIVERSITY OF NAIROBI LIBRARY
P. O. Box 30197
NAIROBI

Training is required if to the people of Southern Sudan if they are to mange prisons services.

Thanks

By PD

2. CHALLENGES THAT NEED TO BE MET

1. Crash Training programme for the mental health professions
2. Drug programme supply – to help the mental side
3. Building of Mental Health facility outside the main prison

3. THERE ARE SOME CHALLENGES

- No equipments
- *We need training* so that we can improve
- We need collaboration with other communities so that we can learn from their past experience *because experience is the staring point.*
- *We need to be professional with the help of other country.*

156540/non