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# Foreword

Healthcare is a global concern, one that pervades even our prison walls. It is our duty as correctional administrators to ensure the health of prisoners in our custody. Strategies on healthcare for prisoners should address their basic needs, as well as deal with the threats from infectious diseases.



*Soh Wai Wah, Director of Singapore Prison Service*

It is too early to declare victory over the H1N1 threat. As World Health Organisation chief Margaret Chan said on 28 Dec 09, we need to “remain prudent and observe the evolution of the pandemic over the next six to 12 months”. It is thus timely for healthcare to be the theme of this issue of the APCCA newsletter.

The following articles provide us with an overview of the challenges and accompanying strategies regarding healthcare in prisons. I hope you will find them useful and the information shared relevant for possible adoption in your respective jurisdictions.

I would like to thank the APCCA members who have contributed to this issue of the APCCA newsletter. As the new Director of the Singapore Prison Service, it is certainly my honour and pleasure to be a part of it. I hope that all members would continue to support this platform for knowledge sharing.

# Healthcare in Prisons - Addressing Infectious Diseases

*Contributed by Macao Prison*



*- Medical service provided to inmates in the prison -*

## Medical Service in Macao Prison

The health of inmates is always one of the main concerns of Macao Prison. The prison strives to offer comprehensive medical services so as to meet the different medical needs of inmates and to improve the quality of their lives. There is a clinic inside Macao Prison whose functions include the provision of primary health care, such as vaccination, regular body checks and screening for infectious diseases, to inmates. It also provides medical treatment, psychiatric and psychological counselling services, dental care as well as nutritional assessments to inmates who are on special diet for medical or religious reasons. Additionally, the prison clinic develops and implements disease prevention and health promotion plans.

In order to supervise and provide medical care for inmates efficiently, a custodial ward has also been set up in the Government Hospital of Macao. This facility was jointly established by the Health Bureau of Macao and the Macao Prison. It contains comprehensive care facilities and is equipped with standard medical treatment facilities. Its functions

are to provide both outpatient and inpatient services to inmates who require medical interventions that are available in the public hospital.



*- Government Hospital of Macao -*

## Measures to Prevent Infectious Diseases

Macao Prison adopts various measures for disease prevention and control and constantly upgrades the diagnostic and treatment services available so that infections among inmates can be diagnosed early and the affected inmates can be provided with care and treatment sooner. To reduce the risk of infectious diseases spreading in prisons, the following preventive measures are adopted by Macao Prison:

### Measures Taken for Newly Admitted Inmates

In order to protect the health of our inmates, all newly admitted inmates have to be incarcerated in an isolation zone for 14 days and are subject to medical check-ups, which include screening tests for various infectious diseases and other general examinations. In addition, new



- Custodial Ward -

inmates' bodies have to be checked within 48 hours after their admission. The prison will send their personal information to the Tuberculosis Prevention and Treatment Center and Public Health Laboratory to check their medical and HIV testing records. In addition, new inmates are required to undergo an X-Ray of their chest to check for the possibility of tuberculosis. Other tests administered on them include HIV test, syphilis test, HBsAG test and an anti-HCV test so as to identify these diseases,

provide appropriate treatment and undertake measures to prevent the spread of these contagious diseases at an earlier stage.

### **Epidemic Prevention Response Group**

A special "Epidemic Prevention Response Group" comprising prison guards, clerical and medical staff was established to formulate epidemic preventive measures. Some of the measures adopted include education on hygienic practices and ensuring a clean environment. The group is also in-charge of the conversion of cells into detention zones. Additionally, the group is the main communication point with the outside world on messages related to epidemic prevention.

### **Division of the Detention Zones in Medical Management**

To prevent the spread of infectious diseases, the prison has also divided the detention zones into several areas, which include isolation cells, functional cells and Epidemic Prevention and Isolation Zone. Isolation cells are used to house inmates with highly infectious respiratory diseases, such as tuberculosis and high-risk diseases like AIDS that are transmitted through bodily fluids. Functional cells, meanwhile, are established on different floors or in different blocks and would be used as temporary isolation cells in the event of an epidemic.



- Epidemic Prevention and Isolation Zone -

**“ A special “Epidemic Prevention Response Group” comprising prison guards and clerical and medical staff was established to formulate epidemic preventive measures. ”**



- Prison staff are being trained on how to use protective clothing and equipment -

## Vaccination

Diseases that can be prevented with an appropriate vaccination are an important cause of morbidity and mortality in all communities. Inmates with clinical indications or those who were identified by the Health Bureau of Macao to be vaccinated are required to be vaccinated to prevent the possibility of contracting infectious diseases. Examples of such vaccinations are Hepatitis B vaccine recombinant, Tetanus toxoid, and Influenza virus vaccine. In addition, all staff members and inmates of the prison are encouraged to be vaccinated against the influenza virus in order to prevent an outbreak of influenza, alleviate influenza symptoms and accelerate their recovery.

## Education on infectious diseases

The prevention of infectious diseases requires everyone's efforts. Only when everybody understands the importance of preventing and containing infectious diseases, cultivating hygienic habits and observing the rules consciously can we successfully prevent an outbreak of infectious diseases. Therefore, it is important to educate everyone.

Seminars are held to educate staff about infectious diseases and they are also trained on how to use protective clothing and equipment. Inmates are also frequently reminded that they should remain alert to communicable diseases. They are required to attend seminars on topics, such as AIDS, tuberculosis and influenza which are conducted by the prison doctors. A seminar about the Human Swine Influenza was held recently to help inmates understand more about it.

## Measures in the Event of Transmission of Disease within the Prison

Infectious diseases can easily spread through close contact so the following procedures are carried out when a case of transmission within the prison is discovered.

- All persons who enter the prison (including prison staff) have to record their body temperature. If any one is running a temperature of 38°C or above, they will not be allowed to enter the prison.



- Seminar for inmates held by prison doctors -

- Hand sanitizers and masks are placed around the reception areas inside the prison for public use.
- All prison staff are required to put on masks when they meet the inmates.
- Inmates have to put on masks when they meet visitors or staff.
- Public places are cleaned and disinfected daily.
- Special wards (Epidemic Prevention and Isolation Zone) have been set up in the male and female zones.

In addition to the above measures, the meal utensils used by the infected inmates are washed separately from those used by the other inmates, and are disinfected using high temperatures. Staff who have contact with infected inmates are required to put on gloves, protective clothes or other

protective equipments, depending on the circumstance.

### **Information Intelligence**

Having up-to-date information on infectious diseases is also vital for formulating and implementing effective preventive measures. Therefore, besides following guidelines given by the Health Bureau to declare infectious diseases, Macao Prison closely engages with the Center for Disease Control and Prevention to seek professional medical and technical support. This is to ensure that prison management is able to obtain the most up-to-date information and implement effective measures. In addition, news about infectious diseases around the world is updated to all prison staff on a daily basis.

# Healthcare in Sri Lanka Prisons - Addressing Infectious Diseases

*Contributed by Sri Lanka Prisons*

According to the World Health Organisation's (WHO) evaluation of health status in the Asian region, Sri Lanka is one of the more advanced nations. Compared to other developing countries, the spread of communicable diseases in Sri Lanka is limited due to the more efficient health care and services provided in this nation. With the rapid ageing of the population and the success in containing major communicable diseases, more non-communicable diseases prevail ([http://www.searo.who.int/EN/Section313/Section1524\\_10882.htm](http://www.searo.who.int/EN/Section313/Section1524_10882.htm)). The health problems in Sri Lanka are similar to those in developed countries - high prevalence of diseases such as Ischaemic heart, hypertension, diabetes etc. Our mortality due to infectious diseases like typhoid and hepatitis is quite low.

## **Morbidity among Inmates**

However, the morbidity and mortality pattern among the prison population is not similar to the general public. The majority

of the Sri Lankan prison population is imprisoned for offences related to drugs and illegal liquor transactions. Drug offenders comprise 33% of the inmate population and excise offenders form 25.5% of the population. The health of prisoners is directly related to their lifestyle, habits and personal behaviour.

The factors that contribute to morbidity among inmates are overcrowding, socio-economic factors and personal habits. Common cough and cold, acute respiratory infections, lower respiratory infections, tuberculosis, skin diseases, eye infections, chicken pox, filariasis and diarrhoea are the more prevalent diseases among inmates.

Most of the new admissions to the prisons are found to be suffering from respiratory infections and these inmates are mainly drug addicts. They are prone to contract lung infections, such as chronic pneumonia, chronic obstructive airway diseases and pulmonary tuberculosis.



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**In prisons, we face a serious health problem due to the smoking of raw tobacco cigars made by prisoners. The smoking of raw tobacco leads to severe respiratory infections which may end up as pulmonary tuberculosis (TB). The risk of contracting TB in prisons is 40% higher than in the outside community in Sri Lanka.**

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### **Pulmonary Tuberculosis**

In prisons, we face a serious health problem due to the smoking of raw tobacco cigars made by prisoners. This could be because of the low cost of these cigars and prohibition of cigarettes in prisons. These cigars are made without a filter so the direct inhalation of smoke carries all the harmful substances into the respiratory systems of both active and passive smokers. The smoking of raw tobacco leads to severe respiratory infections which may culminate in pulmonary tuberculosis (TB) which is highly prevalent in our prisons. We have presented a paper on TB in prisons at the APCCA conference in 2005. The risk of contracting TB in prisons is 40% higher than in the outside community in Sri Lanka. The major reasons for high prevalence of TB are addiction to drugs, malnutrition, suppression of immunity, overcrowding in prisons and the socio-economic status of the inmates.

As we are very concerned about TB, we always do the needful investigations as

often as possible. Due to lack of sufficient funds to conduct all the necessary tests, such as X-ray, blood film, VDRL for each and every prisoner, we conduct these tests only for inmates with complaints related to TB.

### **HIV/AIDS**

Compared to other countries in our region, the prevalence of HIV/AIDS in Sri Lanka is very low. UNAIDS estimates that about 3,800 Sri Lankans were living with HIV at the end of 2007, yielding a prevalence rate of less than 0.1 percent.

Screening our inmates also resulted in identifying no cases of HIV. The zero prevalence of HIV in our prisons is believed to be due to the lack of drug-injecting behaviour. The commonly used drugs in Sri Lanka are heroin and cannabis. Current estimates of opiate users in Sri Lanka range from 30,000 to 240,000 out of which only 2% inject the drug into their bodies. However, an increase in drug injection could spark an epidemic of HIV.

## Homosexual Behaviour in Prisons

Another serious health-related problem we face is due to homosexual behaviour among inmates. This occurs in both male and female prisons. Though the prison administration is interested in controlling such behaviour, we lack facilities, such as CCTVs, to detect such behaviours. Our prisons are also over-crowded.

The following health issues have been identified as the result of homosexual behaviour:

1. Sexually transmitted diseases
2. Psychological problems- depression, high levels of stress.
3. Certain ailments of the rectum.

The common STDs found among inmates are Gonorrhoea, Syphilis, Genital warts and Hepatitis B.

To control the spreading of viral venereal diseases, most countries have introduced condoms in Prisons. This option has been discussed during several occasions in Sri Lanka. But our cultural norms stop us from doing so as the distribution of condoms may be interpreted as encouragement of homosexual behaviour.

Medical personnel understand the gravity of the issue and the possible outcome of not allowing the use of condoms among vulnerable groups. Being unable to supply condoms in prisons, we try our best to educate inmates on the adverse effects on engaging in homosexual intercourse. Special health education programmes have been introduced to educate inmates in controlling homosexual behaviour. The main

objective is to improve awareness among inmates and help to change their habits. If we were to discover an inmate with STD or a sexually abused inmate, all his contacts would be traced and provided treatment. Confidentiality of the inmates' identity is guaranteed. To prevent instances of sexual abuse, inmates are housed according to the classification of inmates based on different criteria. For instance, young offenders are housed away from adult offenders.

## Provision of Health Care for Prisoners

According to the Sri Lankan health care concept, we have three levels in providing health facilities to the nation.

1. Primary health care
2. Secondary health care
3. Tertiary health care

The prison hospitals are specialized in providing secondary health care services. The tertiary care is provided at the general hospitals. There is no facility within the prisons to provide primary health care to prisoners. The prison authority has to obtain the primary health care services from the Public Health Authority within the location of the prison. Insufficient primary health care in prisons leads to the spread of infectious diseases and rise in health problems among inmates.

Awareness programmes help medical staff to identify diseases, especially STDs. In-service training programmes regarding health issues among the inmates are conducted for officers. Most of these programmes are funded by the UNAID, Lions, Rotary etc.

# Healthcare in Prisons - Addressing Infectious Diseases

*Contributed by Queensland Corrective Services*

Queensland Corrective Services is currently involved in the implementation of a state-wide strategy to address infectious diseases. The Queensland HIV, Hepatitis C and Sexually Transmissible Infections Strategy 2005-2011 (the QCS Strategy) broadly targets all those infected by HIV, hepatitis C and sexually transmissible infections (STIs) in Queensland.

For people living with HIV, hepatitis C or STIs, the state-wide strategy seeks to minimise impacts on their health by identifying and responding to their needs and issues, especially those associated with care management and treatment.

The focus of the Queensland state-wide strategy is on populations within the community considered to be at highest risk for transmission of these diseases. Accordingly, the prison population is considered one of the higher risk groups and a specific strategy has been developed for it.

The QCS Strategy encourages the promotion of personal health by raising awareness of risk factors and encouraging a harm reduction approach that aims to improve the health of offenders while they are incarcerated and supports the improvement of social and economic outcomes for the whole community. The approach taken by the QCS Strategy is one that is holistic, aiming to address issues related to prevention, education, treatment, case management and duty of care.

There is a high rate of movement of offenders within the correctional system as well as a high turnover due to recidivism and the length of the sentences incurred. The risks associated with incarceration can contribute to the spread of blood-borne viruses and STIs. The introduction

**“ The QCS Strategy encourages the promotion of personal health by raising awareness of risk factors and encouraging a harm reduction approach that aims to improve the health of offenders while they are incarcerated and supports the improvement of social and economic outcomes for the whole community. ”**

of measures, such as disposable hygiene equipment, which reduce the spread of communicable diseases within the facilities in corrective services, will benefit both the correctional centre populations and the wider community.

Research indicates that offenders in correctional facilities are considered to be at high risk of contracting hepatitis C, STIs and other blood-borne viruses. The prevalence of hepatitis C among offenders in custodial centres is extremely high. It



is estimated that approximately 1.8% to 2.9% of the adult general community has been exposed to hepatitis C, whereas, among offenders, it is estimated that one-third of males and two-thirds of females test positive for hepatitis C. The sharing of illicit drug-injecting equipment is surmised to be the most common mode of hepatitis C infection within the prisons. The high prevalence of drug-injecting history among offenders would account for the increased prevalence of hepatitis C at the time of incarceration.

Within the correctional setting, activities such as unsafe tattooing practices may also place offenders at risk of being infected. This, coupled with a generally poor state of overall health, poor oral health and poor

personal hygiene practices places this population at increased risk of contracting diseases. The QCS Strategy addresses issues such as the sharing of razors and toothbrushes and reviews guidelines for the management of blood spills in relation to accidents and/or other at-risk situations.

The purpose of the QCS Strategy is to provide a framework to address the following:

- Reduce the transmission of HIV, hepatitis C and STIs in the Queensland Corrective Services facilities.
- Minimise the impact of HIV, hepatitis C and STIs on the Queensland population when offenders reintegrate into the general population.



- Improve the health and well-being of offenders living with HIV, hepatitis C and STI-related chronic illnesses.

The implementation plan for the QCS Strategy comprises action plans arising from five strategic priorities. A brief description of the priorities and their purpose is outlined below:

#### 1. Enabling Environment

- Ensure that policy and procedures reflect current best practices and community standards within the operational limitations of a correctional environment.

#### 2. Education and Prevention

- Continue implementation initiatives from the Prisons Lifestyle Project.

#### 3. Early Detection, Care, Management and Treatment

- Provide services to offenders of the same standard as provided in the wider community within the operational limitations of a correctional facility.

#### 4. Training and Professional Development

- Provide access to training for relevant staff to facilitate the initiatives and outcomes of the QCS Strategy.

#### 5. Research and Surveillance

- Monitor and research current trends, replicate the annual Needle and Syringe Program Finger Prick Survey within the two Queensland correctional facilities.

# Addressing The Spread Of Blood-Borne Viral Infections In Prisons

*Contributed by Corrective Services New South Wales, Australia*

Prisons are high risk environments for the spread of blood-borne viral infections, such as HIV and hepatitis C. According to a recent study, while fewer than 1% of all newly admitted inmates to New South Wales Correctional Centres were infected with HIV, 42% were infected with hepatitis C (37% of males, 65% of females and 71% of injecting drug users) and 96% of the admitted inmates with hepatitis C had a history of injecting drug use (Butler T, & Papanastasiou C. 2008).

Corrective Services New South Wales (CSNSW) employs a comprehensive set of harm reduction strategies to reduce the risk of transmission of blood-borne viral infections in prisons. Many of these strategies were pioneered in the NSW correctional system. For example, CSNSW was the first jurisdiction in the world to introduce opioid pharmacotherapies (methadone and buprenorphine) in prisons. Several evaluations of this programme have demonstrated its success in reducing the risk of hepatitis C infection and mortality as well as re-offending.

Universal precautions to prevent blood-borne viral infections are incorporated into occupational health and safety policies and training throughout NSW correctional centres. Condoms and dental dams are made available to inmates to encourage safe sex practices. An ammonia-based universal disinfectant (Fincol), which has been shown to have some anti-bacterial and anti-viral properties, is made available for use as an external cleaning agent. This product replaced concentrated bleach products after concerns were raised about the potential danger of making bleach widely available.



CSNSW provides funding for the "Prisons' Hepatitis C Helpline" run by the NSW Hepatitis C Council. This phone service, which is free for inmates, provides health and lifestyle advice as well as medical information. CSNSW also provides health information and education and training in HIV and hepatitis C prevention to all staff and inmates.

Justice Health, the NSW Department of Health agency, which provides all health care services in New South Wales prisons, employs specialist public health and

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sexual health nurses to provide screening, testing and treatment for HIV, hepatitis C and other blood-borne viral infections. They also provide vaccinations against hepatitis B for inmates.

This combination of strategies makes CSNSW a world leader in devising strategies to reduce the risk of the transmission of blood borne virus infections in prisons.

#### References

Butler T, & Papanastasiou C. (2008). National Prison Entrants’ Bloodborne Virus and Risk Behaviour Survey Report 2004 & 2007. National Drug Research Institute (Curtin University) & National Centre in HIV Epidemiology and Clinical Research (University of New South Wales).

# Dealing with Infectious Diseases in Thai Prisons

*Contributed by Department of Corrections, Thailand*

Prison overcrowding is a worldwide issue as it is in Thailand - there are around 200,000 prisoners incarcerated throughout the country. In each prison or correctional institution, many prisoners suffer from either serious or non-serious health problems which may lead to an outbreak or an epidemic of infectious disease. Thus far, HIV/AIDS and Pulmonary Tuberculosis have been identified as major infectious diseases faced by prisons nationwide.

## Strategies to manage HIV/AIDS

In case of HIV/AIDS in Thai prisons, blood test for HIV infection can be done on a voluntary basis or when prisoners need to receive medication. At present there are no statistics showing the exact number of HIV infected prisoners, especially those who engage in behaviours like drug misuse and unsafe sex practices, which place them at risk of being infected with HIV. To prevent HIV transmission in prisons and to provide proper care to those affected by HIV/AIDS, the Thailand Department of Corrections has imposed preventive and remedial measures in accordance with both national and international policies, such as the Political Declaration on HIV/AIDS 2006, Universal Access towards Prevention, Care and Support on HIV/AIDS by 2010. Some important measures include:

- Voluntary Counseling Testing for HIV (VCT) Programme for high risk HIV infected prisoners to take blood tests and to receive proper medication
- Condom distribution with the cooperation of Department of Disease Control, Ministry of Public Health for prevention of HIV transmission among homosexual prisoners.



*- Treatment of prisoner -*

- Provision of Anti retroviral drugs for free of charge according to National Healthcare System

## Strategies to manage Pulmonary Tuberculosis

Another infectious disease leading to a high death rate in Thai prisons is Pulmonary Tuberculosis (TB). Overcrowded prisons





- Both medical staff and prisoners wearing masks as a preventive measure -

are vulnerable places for TB infection as prisoners have to live in cells with poor hygiene and ventilation. The provision for medical treatment for TB infectious prisoners includes Direct Observed Treatment (DOTs) and a short course programme, which has been an implemented therapy in Thai prisons for more than 10 years. Moreover, sputum testing in prisons has been done for discovering new smear positive TB prisoners and infected prisoners are separated to the prison hospital or infirmary. These TB infectious prisoners will attend DOTs programme and receive related treatment until the sputum testing shows negative TB results and the prisoners are no longer TB infective for TB. However, the success rate of TB control in Thai prisons is still not satisfactory due to overcrowding and understaffing problems.

**“ Overcrowded prisons are vulnerable places for TB infection as prisoners have to live in cells with poor hygiene and ventilation. The provision for medical treatment for TB infectious prisoners includes Direct Observed Treatment (DOTs) and a Short course programme has been an implemented therapy in Thai prisons for more than 10 years. ”**

### **Strategies to prevent Type A (H1N1) outbreak**

More importantly, an outbreak of pandemic Influenza Type A (H1N1) has occurred in Thailand in mid-2009. Fortunately, no case of Influenza Type A (H1N1) has been found in any prisons but the following preventive measures have been strictly implemented in prisons and correctional institutions nationwide :

- Distribution and use of surgical masks among prisoners and prison officers.

- Cleaning the area used for sleeping and the bars of prison cells as well as prison utensils.

- Prohibiting any sick persons from visiting prisoners until he/she completely recovers.

- Promotion of prisoner’s health and sanity, such as providing clean food and suitable exercise.

In short, healthcare in prisons is still a challenging issue since there are diverse restrictions, especially limited budget and understaffing. Despite the challenges, prevention of infectious diseases continues to be the top priority for prison management in Thailand.

# Healthcare in Prisons - Addressing Infectious Diseases

*Contributed by Hong Kong Correctional Services Department*

The mission of Hong Kong Correctional Services Department (HKCSD) is to detain persons committed to custody in a decent and healthy environment, and provide comprehensive rehabilitative services in a secure, safe, humane and cost effective manner, so as to enhance the physical and psychological health of prisoners. In doing this the public is protected and crime is also reduced.

Under Prison Rules (Cap. 234A of Laws of Hong Kong), our Medical Officer (MO) has the medical authority and is responsible for the treatment of a sick prisoner. To enhance the physical health of prisoners, HKCSD has established a team of hospital staff who generally are qualified nurses, working together with the MOs seconded from the Department of Health (DH). Prisoners who need further treatment are referred to the hospitals under Hospital Authority (HA), the major provider of healthcare services in Hong Kong.

As a prison is part of the community, the provision of quality primary medical services to prisoners detained therein is as important as prison security. To ensure a healthy prison environment, we address the problem of infectious diseases at the earliest possible instance and have developed strategies in infection control measures with support from DH and HA.

Prevention is always better than cure. If an uncontrolled pandemic were to happen in a prison, it will endanger prison security causing panic among both prisoners and the public and will possibly overload the public healthcare system.

Early identification and proper control of any infectious disease are stressed in our management strategies. In parallel, the Prevention and Control of Disease Ordinance (Cap. 599 of Laws of Hong Kong) also requires

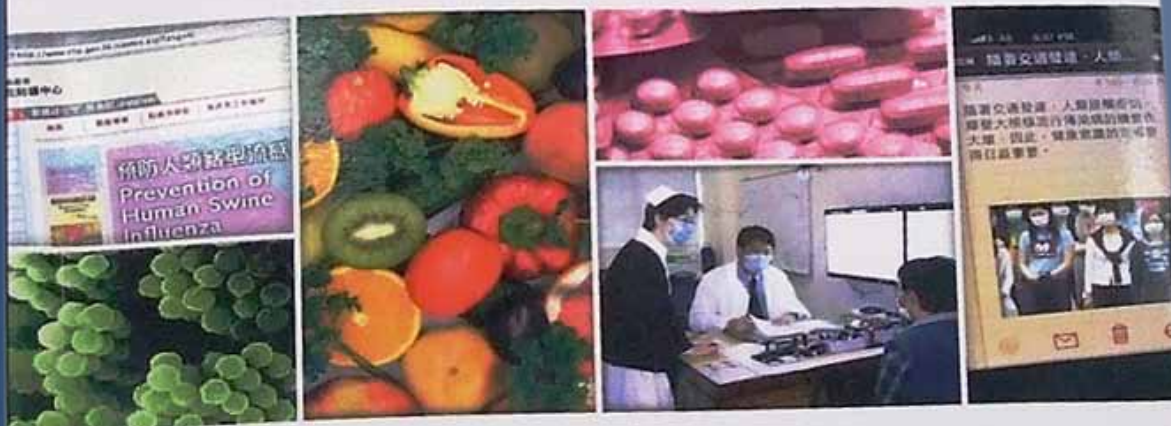
**“As a prison is part of the community, the provision of quality primary medical services to prisoners detained therein is as important as prison security. To ensure a healthy prison environment, we address the problem of infectious diseases at the earliest possible instance and have developed strategies in infection control measures with the support from DH and HA.”**

medical practitioners to immediately notify DH when any “scheduled infectious disease” is detected or suspected.

Health Communication and Public Health

# 健康傳播與公共衛生

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## International survey conducted

According to an international survey, pulmonary tuberculosis (PTB) is one of the major health problems in prisons. Between 1999 and 2005, a territory-wide tuberculosis (TB) surveillance study was carried out by DH among prisoners in Hong Kong to better understand the TB epidemiology and its risk factors in local prisons so as to guide the effective implementation of TB control measures. The study revealed that illegal immigrants and drug addicts were two major risk groups. After excluding these two groups, the sex and age factors were not significantly different from that

of the general population. In addition, no extensive drug resistant TB cases were found and no definite outbreak of TB cases was detected. The study also reflected that TB remained a significant disease in local prisons but the good health infrastructure in Hong Kong helped to prevent, reduce and ultimately stop the transmission of TB in correctional institutions.

## Measures taken by HKCSD

To understand the health condition of a prisoner, comprehensive health screening and examination for all newly admitted prisoners are conducted upon



their receptions by MO and hospital staff. Past medical history, drug addiction history, present health particulars, etc. are included in the reception health screening. Moreover, all convicted prisoners undergo chest x-ray (CXR) to identify TB or other chest problems. Other prisoners with symptoms of tuberculosis like persistent cough, hemoptysis, night sweats, weight loss, anorexia and fever may also undergo CXR. All suspected cases with radiological abnormality are further investigated by sputum bacteriology and referred to DH's chest physician who pays regular consultation visits to our institutions.

As TB is an airborne disease, all prisoners diagnosed with PTB are admitted to the isolation ward of institutional hospital during the initial period of treatment. After receiving anti-PTB treatment and subject to the advice of the chest physician, they will return to normal association after two weeks when their infectivity becomes low.

### **Dealing with Severe Acute Respiratory Syndrome**

In March 2003 there was an outbreak of the Severe Acute Respiratory Syndrome in Hong Kong, which soon became a severe public health challenge. At that time, a previously unknown corona virus had infected over 8 000 people and claimed over 900 lives worldwide in just a few months. To cope with the critical situation, HKCSD devised an emergency plan including the promulgation of guidelines, measures and intensive cleansing and disinfection of communal areas in prisons, together with the promotion of good personal hygiene

among prisoners and staff. Through concerted efforts, none of our prisoners were infected.

### **Dealing with seasonal influenza**

As prisons are confined areas, there are occasional incidents of small scale outbreak of seasonal influenza. To minimise the possibility of bringing influenza into prisons, infrared camera systems are in use to screen the body temperature of both staff and visitors prior to their entry into a prison. If fever is detected, one will be recommended to seek medical advice before entering the prison. Face masks are also provided for those with signs and symptoms of influenza and upon request.

### **Steps taken to prevent seasonal influenza**

Influenza vaccination is an effective means to prevent seasonal influenza and its complications. With the assistance of DH, influenza vaccination has been given annually since 2004 to our medical and hospital staff as well as targeted prisoners (pregnant prisoners, prisoners aged 65 or over, those with chronic disease as well as infants and young children who are taken care of by their imprisoned mothers).

### **Steps taken to prevent Human Immunodeficiency Virus (HIV)**

On the prevention and surveillance of Human Immunodeficiency Virus (HIV), HKCSD works closely with the Special Preventive Programme (SPP) of DH and has been conducting annual unlinked anonymous screening (UAS) for newly



admitted prisoners since 1995. According to SPP's seroprevalence study on UAS, only a few prisoners were found to be infected with HIV and there is no evidence that these prisoners were infected in prison.

### **Education for staff**

Staff is educated on the prevention of HIV infection in their recruitment training and in regular in-service training sessions. Prisoners confirmed to be HIV carriers or suffering from AIDS are referred to DH or HA for follow up and treatment and are treated under the General Guideline on the Management of AIDS cases in penal institutions. Every staff member is also issued with a pair of packed latex gloves to avoid contact with body fluid in case of need and is provided with a "CSD Staff Information Booklet" on the prevention of blood-borne infection.

### **Education for prisoners**

Education programmes on the prevention of infectious diseases including HIV infection, and the importance of personal hygiene are organised for prisoners during their induction programme. Pre-exit kits that contain pamphlets on HIV prevention and condoms are distributed to them upon discharge.

### **Type of Protective Equipment for staff**

Personal Protective Equipment (PPE) including latex gloves, gown, eye protection, surgical masks and N95 Respirator are readily available for staff in institutions. On top of the use of PPE, hand hygiene,

one of the most important components for preventing the transmission of infectious diseases, is highly promoted to staff and prisoners.

Various infection control measures are in place to protect our staff and prisoners. The following standard precautionary measures are adopted to prevent blood borne diseases:

- i. Wear gloves when handling blood, body fluids, secretions, excretions, mucous membrane or non-intact skin;
- ii. Wear a mask, protective eyewear and a gown to protect from blood or body fluids splashing;
- iii. No recapping of needles;
- iv. Handle sharps carefully; and
- v. Perform hand hygiene immediately after taking off gloves or handling blood, body fluids, secretions, excretions, mucous membrane or non-intact skin.

With the support of DH and HA, HKCSD is able to detect at the earliest possible time signs of outbreak of infectious diseases within the prison walls and formulate preventive guidelines and measures for our healthcare staff to follow. We are also able to combat the diseases through concerted efforts of our medical team, health care staff and the specialists of DH and HA. We strongly believe that through the collaboration of parties concerned, we have the ability and knowledge to fight in this protracted war.

# Healthcare in Prisons - Addressing Infectious Diseases

*Contributed by Singapore Prison Service*

Outbreak of infectious diseases such as influenza outbreak, dengue fever and HIV has been a cause of concern for prisons worldwide. The recent global pandemic outbreak of Influenza A, H1N1, which had peaked the World Health Organisation's (WHO) pandemic alert level at Phase 6 and caused numerous deaths, was highlighted as a chief risk to the Singapore Prison Service (SPS). SPS recognized that the infection of one inmate or staff will lead to a significant proportion of inmate and staff population requiring medical attention due to the enclosed prison environment. In view of the vulnerability in its system, SPS put in place prevention and containment measures to minimise impact on its operations, security, and prison resources. This article specifically describes how SPS managed the threat of H1N1 infiltrating into its local prisons and ensured business continuity during the crisis phase.



## Staff

### Pandemic Plans

Pandemic Standard Operating Procedures (SOPs) and Business Continuity Plans (BCPs) were drawn up and reviewed by the relevant HQ units, cluster and institutions. The H1N1 crisis, though a much undesired health risk, created an opportunity for SPS to put to test the effectiveness and relevancy of its pandemic support plans, and validate them. Workflows and processes were refined, such as incorporation of checklists, to enhance work efficiency.

### Identification of High-Risk Groups

Staff who were identified as of high-risk, such as pregnant women and staff with existing medical conditions, were re-deployed to units with less human traffic, to minimize their risk exposure.

### Temperature Screening

Staff were required to take their temperatures twice daily. SPS had issued all staff with their personal thermometers. A temperature tracking application was also developed to facilitate staff in recording their temperatures. Prompting of temperature taking was also available online as a form of reminder.

Staff who were running a fever were not allowed to report to work. Temperature screening stations were set up at SPS Headquarters, Changi Prison Complex (CPC) and institutions to ensure that only personnel, who did not pose any health risks, were allowed into SPS premises. Handheld infra-red thermometers were made available at these screening stations

**“ In order to ensure business continuity in SPS, a split team working arrangement was planned for SPS with staff being split into two teams in their respective units, clusters and institutions. Alternate HQ was set up at basic level and this working arrangement was put to test at HQ level through an exercise. ”**

to enhance efficiency of the temperature-taking process and to reduce reliance on disposable ear tips which were used up in large quantities. Coloured stickers were issued to staff to indicate temperature clearance. The colours of these stickers were changed daily and standardized across all prison institutions to prevent any form of re-use by personnel.

### **Self-Quarantine**

In line with Ministry of Health’s (MOH) travel advisory, staff who had travelled to affected countries listed by MOH, were instructed to undergo self-quarantine at their own residences to prevent any possible infection

of the masses in prisons. All staff had to declare their travel plans, including that of family members staying with them, so that they could be notified of self-quarantine orders, should their travel destination be flagged as an affected country while they were overseas. Staff who were in close contact with H1N1 infected people were also placed on self-quarantine, for a short incubation period, to determine whether they were infected. At the end of the self-quarantine period, staff were allowed to return to work.

### **Contact Tracing**

For staff or inmates who were infected with H1N1, contact tracing was done immediately to identify staff who had been in close contact with them so that they could be placed on quarantine where necessary.

### **Education**

Talks were conducted for staff to create awareness and to provide in-depth understanding on the skills of infectious disease control. It also served as a useful platform to clear doubts, allay anxiety, equip staff with basic prevention skills and in turn, instilled confidence in them. Videos on H1N1 prevention, hand washing techniques, proper disposal and donning of Personal Protection Equipment (PPE) were developed for staff.

### **Split Team Working Arrangement**

In order to ensure business continuity in SPS, a split team working arrangement was planned for SPS with staff being split into two teams in their respective units, clusters and institutions. An alternate HQ was set up at basic level and this working arrangement was put to test at HQ level through an exercise. Through the exercise, areas of improvement were surfaced in detail to improve the overall work process. Some examples of improvement include equipping the migratory team with notebooks for easy transportation, specific logistical requirements for individual branches and reviewing of space allocation at the alternate HQ.

## Info Management

A H1N1 website was set up on the Prison Intranet to provide updates on the development of the disease on local ground, situation in local prisons and latest measures undertaken by SPS. The website is accessible to all staff, hence information flow was accurate and measures were implemented promptly. Daily updates on key developments were also sent to key appointment holders via email to keep them abreast of the H1N1 situation, both locally and globally.

## Inmates

### Temperature Screening

Inmates' temperatures were taken on a daily basis and those running a fever were immediately placed on medical isolation. Inmates who returned from hospital appointments were automatically placed in medical isolation upon return, as hospitals were classified as high risk areas. Isolation facilities were identified in all clusters and institutions to accommodate inmates in medical isolation. Additional attention was given to inmates who tested positive for H1N1 and their medical situation was monitored and reported to HQ daily.

“ A H1N1 website was set up on the Prison Intranet to provide updates on the development of the disease on local ground, situation in local prisons and latest measures undertaken by SPS. ”

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**Archives**  
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**Travel Advisory** Be Responsible

**Home Quarantine Order**

Monday, 19 October 2009, 1421 hrs

1. **LOCAL**

DORSCON Level: **Yellow**

Total No. of Cases in Hospitals: **8 confirmed cases, 0 ICU case (as of 16 Oct 2009)**

Public Hospital	Hospitalised in ICU
Alexandra Hospital	0
Changi General Hospital	1
KK Women's and Children's Hospital	1
National University Hospital	0
Singapore General Hospital	1
Tan Tock Seng Hospital	4
CDC	1
Total	8

[\* denotes the number of patient(s) in Intensive Care Unit.]

- Singapore Prison Service H1N1 website -





## Influenza Trend

As part of prevention, an influenza chart, collating the number of inmates who were infected with common influenza across all clusters and institutions, was submitted on a daily basis. This chart provided useful information to detect increasing influenza trends in a specific institution so that containment measures could be put in place at an early stage to prevent it from spreading.

## Disinfection

Inmates' living areas and highly utilized areas such as records office and visit areas were disinfected frequently. In addition, prison vehicles used for transportation of inmates were disinfected after every trip.

## Education

Inmates were briefed on personal hygiene. Posters on hand washing techniques were put up at the Housing Units in prisons. They served as a constant reminder to both staff and inmates to adopt this good habit, even during peacetime.

## Visitors

### Temperature Screening

Thermal scanners were purchased and installed at areas with high human traffic such as Prison Link Centres (PLCs), where tele-visits are conducted for inmates' family members, to detect visitors who may be infectious. All visitors (non-SPS staff) to local prisons had to declare whether they had been in close contact with H1N1 infected people. Those who declared so were debarred from entering the local prison premises. The debarment also applied to visitors who registered a high temperature or display flu symptoms. These measures were necessary to prevent infiltration of the disease into SPS' sterile environment.

In conclusion, SPS had minimal H1N1 cases among staff and inmates during the first wave of H1N1. Its prevention and containment measures had proven to be effective to prevent the spread of H1N1 in prisons. In spite of its success, SPS continues to be vigilant by following up on the peacetime preparation measures proposed during the crisis phase. Currently, it is in the process of vaccinating its staff. With the management's experience of the first wave of H1N1, SPS is confident that it can brave the second wave of H1N1, with minimal or no infections, should it resurface locally.



MULTIMEDIA HUB  
PRISON SCHOOL, SINGAPORE



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*Special thanks to the inmates at MMH for their dedication and  
commitment in the design and layout of this newsletter.*



SINGAPORE  
PRISON SERVICE

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