## Drug use in prisons: strategies for harm reduction (ANRS-PRIDE Program)

Uso de drogas na prisão: estratégias de redução de danos (Programa ANRS PRIDE)

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**Abstract** *The existence of risky practices related to* drug use inside prisons is a reality everywhere and is a major issue for the community as a whole. The level of implementation of harm reduction (HR) measures recommended by the World Health Organization (WHO) and the United Nations Office on Drugs and Crime (UNODC) is very often poor and reveals inadequate concern about public health issues in the prison environment, without any respect for the principle of equivalence for prevention and health assistance with the general community. In 2009, the French National Agency for Research on AIDS and Viral Hepatitis (ANRS) developed a comprehensive research program focusing on the prevention of infectious risks in prison settings. Different steps were defined and scheduled, and included i) an inventory of harm reduction (HR) measures, ii) a qualitative survey on the reality of risky practices, iii) an assessment of the social acceptability of HR measures, and iv) an intervention trial exploring the feasibility of upgrading existing HR strategies. A progressive implementation of this program has shown it is feasible, but in France, it requires tenacity, simple long-term objectives, support from a scientific authority, pedagogical interventions for all involved, as well as constant discussion with the authorities. The implementation of this program in other countries is equally simple to manage.

**Key words** Prison, Drug use, Harm reduction, Recommendations, France

**Resumo** As práticas de risco relacionadas ao uso de drogas nas prisões são realidades universais e representam grande risco para a comunidade. O nível de implementação de medidas de redução de danos recomendadas pela Organização Mundial da Saúde (OMS) e pelo Escritório das Nações Unidas para Drogas e Crimes (UNODC) é frequentemente baixo e expressa limitado interesse considerando os problemas de saúde pública relacionados ao ambiente prisional, com desrespeito ao princípio da equivalência para prevenção e assistência à saúde em relação à comunidade. Em 2009, a Agencia Nacional de Pesquisa em Aids e Hepatites Virais da França (ANRS) desenvolveu abrangente programa de pesquisa focado na prevenção de risco de infecção na prisão. Foram definidos e planejados diferentes passos, incluindo: i) inventário das medidas de redução de danos (RD), ii) pesquisa qualitativa sobre a realidade das práticas de risco, iii) avaliação da aceitabilidade social das medidas de RD e iv) ensaio de intervenção demonstrando a exequibilidade do aprimoramento das estratégias de RD existentes. A progressiva implementação deste programa mostra sua exequibilidade, mas demandou, na França, tenacidade, objetivos simples em longo prazo, apoio por uma sociedade científica, intervenções pedagógicas para os envolvidos e constante discussão com autoridades. É fácil sua implementação por outros países.

**Palavras-chave** Prisão, Uso de drogas, Redução de danos, Recomendações, França

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#### Introduction

Drug users are over-represented in prisons compared to the general population. According to a systematic review by Fazel and al.1, prevalence estimates for drug abuse and dependence vary worldwide from 10 to 48% among male prisoners and 30 to 60% among female prisoners. Infectious diseases are also more prevalent and many reports indicate that time spent in prison is an independent risk factor for the transmission of blood-borne viruses<sup>2-4</sup>. Risky behaviors are frequent, while the dramatic prevalence of psychiatric disorders and the prison setting (lack of hygiene, lack of privacy, sexual violence, overpopulation and violence) exacerbate the risks<sup>1,4-6</sup>. But there are also risks for the general community, since prisoners are in constant contact with visitors and staff and a considerable proportion of them are regularly in and out of prison. Harm reduction interventions in prison settings are therefore crucial. In all events, HR interventions available in the community should also be implemented in prison settings. The United Nations Special Rapporteur on the right for everyone to enjoy the highest attainable standard of physical and mental health even considers that If harm-reduction programmes and evidence-based treatment are made available to the general public, but not to persons in detention, that contravenes international law. Indeed, because of the health risks associated with incarceration, the Special Rapporteur considers that greater efforts may be required inside prisons to meet public health objectives. In the context of HIV and harm reduction, this demands implementation of harm reduction services in places of detention even where they are not yet available in the community, as the principle of equivalence is insufficient to address the epidemic among prisoners<sup>7</sup>.

WHO and UNODC have produced several recommendations on Human Immunodeficiency Virus (HIV) prevention and care in prison settings, the most recent<sup>8</sup> defining a comprehensive package of 15 key interventions for prevention, treatment and care for HIV but also viral hepatitis and tuberculosis: information, education and communication; HIV testing and counseling; treatment, care and support; prevention, diagnosis and treatment of tuberculosis; prevention of motherto-child transmission of HIV; condom programs; prevention and treatment of sexually transmitted infections; prevention of sexual violence; drug dependence treatment; needle and syringe programs (NSP); vaccination, diagnosis and treatment of viral hepatitis; post-exposure prophylaxis; prevention of transmission through medical or dental services; prevention of tattooing, piercing and

other forms of skin penetration; protecting staff from occupational hazards. It is important to note that bleach (3.6% solution), used for disinfecting used needles and syringes, is no longer mentioned in these recommendations. Its efficacy to prevent Hepatitis C Virus (HCV) infection is limited and the procedure necessary to disinfect needles and syringes for HIV prevention is not suited to this specific environment, as it requires different steps that are difficult to comply with in prison.

Nevertheless, it is very difficult for prison authorities around the world to ever acknowledge the fact that vigorous and expensive efforts to prevent drugs from entering the prison environment have very limited effect and may render the drug injections that do occur even more hazardous. It is therefore very difficult to define risk reduction measures and health interventions in legislation associated with drug use inside prisons and it is also very difficult to implement any such legislation when it exists. Despite a statement from the World Health Organization9 stipulating that All prisoners have the right to receive health care, including preventive measures, equivalent to that available in the community, adopted in several countries, a principle of equivalence for health, including prevention, between the prison system and the general community is only rarely implemented<sup>10,11</sup>.

#### The situation in French prisons

France is not an exception, and HR interventions, defined in 1996 in a circular focusing on HIV prevention in prison settings<sup>12</sup>, are few, and those that are recommended, have not been fully implemented<sup>13</sup>. In 2010, the French INSERM (National Institute for Health and Medical Research) published a collective expert report<sup>14</sup> on "Reducing risks of infection amongst drug users". The main conclusions concerning HR in prison settings were as follows: The main observation is that such different risk reduction tools currently exist, outlined by the 1996 circular, that there is currently no real risk reduction policy in prisons in France. Experience in the field of infection risk reduction in prisons is older and/or more advanced in numerous countries and there is abundant literature showing the benefits of certain measures. Furthermore, the principle of equivalence between care and prevention measures in free society and prison, recommended in 1993 by the WHO, is not observed in France.

It was therefore recommended that *Reducing* risks of infection in prison environments should be considered as an important public health issue... and Firstly, the group of experts recommends, in

accordance with the WHO's recommendations, that the principle of equal access to healthcare and risk reduction measures in prison and free society is applied. Furthermore, after an assessment of practices carrying risks of infection in prison environments, it recommends overcoming the deficiencies observed in France: distribution of bleach without instructions for use, insufficient access to condoms, not taking into account risks of infection linked to certain behaviors which are frequent in prison environments (sniffing, tattooing, injections, etc.), and lack of access to sterile equipment. Care-giving staff and prisoners' lack of awareness of the health issues associated with certain high-risk practices leads to the suggestion that all new risk reduction initiatives in prison environments be preceded by preparation and explanatory work aimed at identifying representations and amending them, as well as enabling adherence by various categories of carer. Training and sensitization initiatives for professionals working in prisons should also enable their adherence to a more global approach to risk reduction. These last recommendations are in line with the conclusions of the national inventory of HR measures in prison settings detailed below in the framework of the PRIDE research program.

### The PRIDE Program

In 2009, the ANRS (French national scientific research agency) created a research group (PRIDE group) focusing on the prevention of infectious diseases in prison settings, and gathering researchers, clinicians, self-support associations and representatives of the administration (Penitentiary Administration, Ministry of Health, Inter-ministerial Mission for Combating Drugs and Addictive Behaviours - MILDECA). Epidemiological data concerning the prison population in France were at that time, and are still now, very scarce and often outdated. In 2003, at prison entry<sup>15</sup>, 30.9% of prisoners reported excessive alcohol use (> 4 alcohol units/day for men and > 2 alcohol units for women and/or > 4 consecutive alcohol units at least once a month), 6.5% heroin, morphine or opium use, 7.7% cocaine/crack use, 10.5% polydrug use, 2.6% intravenous drug use and 6.5% had a history of IV drug use.

In a randomly selected sample of 998 prisoners<sup>16</sup>, assessed using a structured interview (MINI 5 plus), 35.2% presented either alcohol abuse and dependence (18.4%) or drug abuse and dependence (27.9%) with 11.2% presenting both conditions. In the same survey, 33.9% presented at least one psychiatric disorder, including 17.3% a psychotic disorder, 22.9% a major de-

pressive disorder and 24.0% an anxiety disorder<sup>5</sup>. In the 2010 PREVACAR Survey<sup>17</sup>, HIV and HCV sero-prevalence rates in a representative sample of 1856 prisoners were respectively 2% and 4.8%, 6 times higher than in the general population. In the same PREVACAR survey, in this instance considering the total prison population in France, 7.9% were receiving opioid maintenance therapy (OMT: buprenorphine or methadone) and 31% of these treatments had been initiated inside prison. Almost no data was available on the implementation of HR measures in prison settings or on the prevalence of risky behaviours.

The "PRIDE" research program was therefore defined, including i) an assessment of infectious risks in prison settings by way of an inventory of measures for infectious risks reduction and their accessibility in all prisons at national level, ii) a qualitative survey on the reality of risky practices amongst drug users inside prisons, iii) an assessment of the acceptability, efficiency and conditions for extension of a set of measures intended to improve the infectious risk situation in prisons in France and iv) design and implementation of an intervention trial exploring the feasibility of upgrading existing measures, developing new interventions, and defining the conditions of extension of the experiment to all French prisons.

### Step 1: Inventory of harm reduction measures

The first step of the PRIDE research program, the inventory of HR measures, was conducted in 2009<sup>18</sup>. Access to HR measures, i.e. information-education-communication, testing and counseling, condoms and lubricants, OMT, bleach, Hepatitis B Virus (HBV) vaccination, post-exposure prophylaxis, hair cutting procedures or protocols (it can be noted that needle exchange programs for their part are not allowed in prison in France) were assessed in all French prisons, using a questionnaire first sent to the heads of medical units (all 171 prisons) and to psychiatric units (26 prisons of the 171 had an independent psychiatric unit). Additional detailed information about issues regarding access to HIV prevention was gathered using a structured phone administration of a qualitative questionnaire with a professional designated by the head of the unit. Two scores for adherence to national and international guidelines were constructed on the one hand to evaluate the implementation of HIV prevention and other HR measures in French prisons, and on the other to estimate the level of infectious risk. We defined "international guidelines for HIV prevention in prison" as the

recommendations provided by WHO, in collaboration with the United Nations Program on HIV/ AIDS (UNAIDS) and UNODC in their document entitled "Effectiveness of interventions to address HIV in prisons" which includes interventions for preventing not only HIV, but other infectious diseases (viral hepatitis, tuberculosis and sexually transmitted infections) in prison settings4. Both the French 1996 circular<sup>12</sup> and the national prison guidelines<sup>19</sup> were used to construct the score for adherence to national guidelines. A majority (N = 113 (66%)) of the 171 prisons responded to the questionnaire, amounting to 74% (46 786 prisoners) of the French prison population (Table 1). This study clearly showed a wide gap between national and international policies and local practices. Adherence to national guidelines on availability of information and access to HIV prevention and HR measures was very poor, and preventive measures such as needle/syringe programs (NSP) promoted by the WHO guidelines were, and are still lacking, even as local initiatives.

This survey was extended (PRIDE Europe) in 2013 to four other European countries (Belgium, Austria, Denmark and Italy), taking into account in the scoring calculation (Table 2), the 2012 ONUDC recommendations on HIV prevention in prison settings<sup>8</sup>, and in a second analysis, a scoring adjustment to enable international comparisons, including results from the 2009 French survey<sup>20</sup>. A majority of prisons responded in Austria (100%) and Denmark (58%), half in Belgium (50%) and only a few in Italy (17%), representing 100, 89, 47 and 23% coverage of the prison populations, respectively. The implemen-

tation of prevention measures was poor, with median adherence scores ranging from 3.5 to 4.5 at national level, for a maximum theoretical score of 12. These results were confirmed in the second analysis, using the second scoring, including France in the inter-country comparison (Figure 1) with median adherence scores ranging from 1.5 to 3.5, for a maximum theoretical score of 9. The estimated environmental infectious risk remained extremely high in the prisons of the 5 European countries assessed. Overall, the adherence score was inversely associated with prison overpopulation rates (p = 0.08). Knowledge of HR strategies and awareness of risky practices among prisoners were poor among care providers in France. Overall, these results emphasize the need for an urgent policy reform for HIV prevention and HR in prison settings, incorporated into a wider health policy reform at national level, to improve the general health and quality of life of prisoners as well as providing equal access to care and prevention in prisons and in the general community. It also suggests the need to develop alternatives to incarceration for drug-users. The same inventory is to be implemented in the prisons in the French overseas territories of the West Indies and Central America (Martinique and Guadeloupe islands, French Guyana,...) where opioid use is very rare but crack and alcohol use is very common. Another specific infectious risk to be assessed in these territories is related to the practice of penile implants (pearling).

We have also started to simultaneously collect and document case reports of HCV seroconversion occurring inside prison settings, to

**Table 1.** Proportion of prisons adherent to national and International guidelines for each sub-score composing the global adherence score (ANRS PRI<sup>2</sup>DE - France) (N = 103 prisons)<sup>18</sup>.

	Proportion of French prisons adherent to French guidelines % [95%CI]	Proportion of French prisons adherent to International guidelines % [95%CI]
Bleach: access and information	14 [7-20]	6 [1-10]
Condom & Lubricants: access and information	9 [3-14]	12 [5-18]
Opioid Substitution Treatment	27 [18-36]	27 [18-36]
HIV-HCV-HBV Screening	64 [55-74]	0%*
HBV vaccination	83 [75-90]	NA
Information Education Communication	66 [57-75]	0%*
Post-Exposition Prophylaxis	23 [14-31]	23 [ 14-31]
Hair cutting measures	33 [24-42]	NA
NSP	NA	0%**

<sup>\*</sup>A condition of simultaneous availability of condoms and needle/syringe programs (not authorized in French prisons) is required in WHO guidelines. \*\* NSP are not authorized in French prisons but are available in the community. NA = Not Available.

**Table 2.** Scoring method for computing adherence to international recommendations in prisons (PRIDE Europe)<sup>20</sup>.

	International Recommendations	Score
Information-Education-Communication	Availability of Information/education at entry or during prison stay	0.5
	<ul> <li>Peer education programs available</li> <li>AND availability of clean injecting equipment + condoms</li> </ul>	0.5
	(0 if not)*	1
Testing - Counseling	• Testing for HIV, HBV, HCV systematically proposed at entry (RC) and during prison stay (all prisons) • AND availability of clean injecting equipment +	
	condoms (0 if not)*	1
Condoms - Lubricants	Condoms available in various locations     Water-based lubricants available	1 0.5
	Male condoms and lubricants accessible and female condoms accessible for prisons with female prisoners	0.5
		2
Opioid Substitution Therapy	• Induction at entry (RC) + induction during prison stay + continuity of OST at entry (all prisons)	1
	No ceiling dosage     No buprenorphinecrushing or dilution	0.5 0.5 <b>2</b>
Bleach	• At least 2 locations/access for bleach inside prison (penitentiary distribution, purchasable inside prison, available in medical unit)	
	• AND Intelligible information for HR purposes accessible for all prisoners	1
HBV Vaccination <sup>®</sup>	• Systematic HBV vaccination proposal for all seronegative prisoners	1
Post-Exposition Prophylaxis	• All prisoners informed of PEP availability inside prison	1
Needle Exchange Programs	• NEP are available	1
ARV treatment <sup>&amp;</sup>	• ARV are accessible • Prescriptions follow national guidelines	0.5 0.5 1
Prevention of transmission through tattooing, piercing <sup>&amp;</sup>	• Existing initiatives aiming at reducing the sharing and reuse of equipment used for tattooing, piercing and other forms of skin penetration	1
TOTAL		12

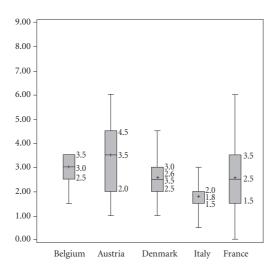
<sup>\*</sup>Condition defined in the 2007 WHO recommendations for IEC and Testing/counseling: "prisoners must be provided with the prevention measures that enable them to act upon the information they receive, such as condoms and clean injecting equipment". 

\*These interventions were not included in the international scoring calculation in the 2009 French ANRS-PRI2DE survey.

underline the reality of the infectious risk (data not published). Until now, six cases have already been collected including 2 fully documented and related to intravenous drug use inside prisons.

### Step 2: Qualitative survey on the reality of risky practices among drug users

The second step is a qualitative survey on the reality of risky practices among drug users



**Figure 1.** Mean, median, min and max values and interquartile range of the adjusted global score used in the 2013 European survey, including results from the French 2009 survey. The scores ranged from 0 (no adherence at all to international guidelines) to 9 (full adherence to international guidelines)<sup>20</sup>.

inside prisons. This survey has been delayed and will be included as a specific prison component in the French ANRS-Coquelicot survey, which aims to describe drug user profiles and practices, estimate HIV and HCV seroprevalence rates, and assess HR policies. The main module of the Coquelicot survey has already been conducted in 122 specialized centers for drug users in the community throughout France<sup>21</sup>. The prison module should be implemented by the end of 2015 in several prisons in France and will be based on individual interviews of prisoners identified as former (mainly prisoners receiving OMT) or current drug users.

### Step 3: Assessment of the social acceptability of harm reduction measures

The third step is an assessment of the social acceptability of HR measures and the conditions for extending measures intended to improve the infectious risk situation in prisons in France. This survey started in the spring of 2015 and is ongoing. To reach this objective, security staff (20 subjects), prisoners (at least 20 prisoners) and health staff (focus groups) were interviewed on their perceptions and the acceptability of HR measures, access to care and continuity of care after prison release. Prisoners and security or

healthcare staff were interviewed in the prison of Fresnes (suburbs of Paris) and Les Baumettes (Marseille). Because some information had already been collected from healthcare staff during the inventory of HR measures (step 1), focus groups involving a representative sample of care providers were given priority over individual encounters. As the objective of the qualitative survey was also to document risky practices related to drug use among prisoners, some of them were interviewed just after release in different specialized centers for drug users in the Paris area where the fear of the penitentiary administration would be less likely to interfere with the collection of detailed information on drug use practices. Preliminary results show that injection practices do occur in prison settings and entail greater risks than in the community. Snorting drugs as well as frequent use of medication (OMT but also benzodiazepines, paracetamol or other pills) are very common and exposure to HCV infection occurs when straws are shared.

# Step 4: Upgrading harm reduction measures and developing new interventions: an intervention trial

The last step will be the implementation of an intervention trial on the feasibility of upgrading the existing HR measures, developing new interventions, and defining the conditions of extension of the program to all French prisons. The definition of the interventions will be based on the conclusions of the previous steps of the PRIDE research program, in line with the international recommendations of WHO4 and UNO-DC<sup>8</sup> and based on the principle of equivalence for care and prevention with the general community. The main judgment criterion will not be the efficacy of the measures implemented, already widely documented in the international literature, but the social acceptability of the measures adopted, in order to define the conditions for extension to all French prisons. The intervention will probably take place in a limited number of prisons with a qualitative and quantitative assessment of social acceptability among prisoners, healthcare and security staff, with a pre and post-intervention assessment design rather than a comparison of prisons with randomly assigned interventions, which is particularly difficult to implement in a prison environment. In December 2015, the French government enacted a new law, entitled the "Health law" (Loi Santé), which includes a specific section on the compulsory compliance with the principle of equivalence with the general community for HR interventions in prison

settings . According to this law, HR measures that are available in the general community, including NSP, will be mandatory in prison settings. Implementation decrees should be issued in the next few months and will refer back to the official decree of 2005 (decree no 2005-347, 14 April 2005) defining the harm reduction measures to be implemented in the community.

### Lessons learnt from the PRIDE Program

What can be said from our experience of the PRIDE program implementation in France and what are the difficulties encountered? First, the definition and implementation of a research program such as the "Pride" program required the involvement of an identified group, with clear support from a scientific authority (ANRS in France), constant discussions with the authorities and long-term objectives. Despite an efficient HIV prevention policy for drug users in the community in France, HR reduction in prison settings is very limited and encounters several obstacles. Practical obstacles are real, as prison staff is often insufficiently trained in HR and the different tasks they have to ensure often relegate interventions of this type to a position of secondary importance.

Reluctance on the part of both security and healthcare staff to accept pragmatic measures that tacitly allow drug use in prisons is common and requires a pedagogical approach with explanations on the public health objectives and the benefits expected in terms of prisoner health, and also staff health, and finally, the health of the general community. Clearly, the adherence of all staff is necessary. Health and HR should be considered as a matter of safety concerning the whole prison community and its potential benefit should be pinpointed. Safety for prisoners is linked to safety for staff. Measures such as NSP are often perceived as dangerous, because security staff consider that needles can be used as weapons, or a way for prisoners to harm themselves. The WHO report4 clearly shows, however, that this does not reflect reality and for example, razorblades, which are virtually freely accessible in most prisons, are far more dangerous.

The political obstacle is probably the most salient. The prison environment is sociologically very sensitive, and HR measures can be perceived as permissive, particularly in a country like France where mere drug use can theoretically send you to prison. A real political will, or at least a clear consensus, as well as appropriate laws and circulars, are needed to implement a preventive policy for drug users in prison settings.

Conducting research in prison is also challenging. Care providers are very often reluctant to collect information for research purposes, as they are often understaffed and already overwhelmed by administrative tasks and their clinical activity. Security staff and the penitentiary administration are also sometimes reluctant, because research activity is often perceived as an evaluation of their work with possible negative conclusions. Authorization processes are very long. There are also ethical concerns. Ethics committees may be opposed to any research project in prison settings, because prisoners are considered as unable to give informed consent freely. The benefit for prisoners has to be clear and straightforward, which is not always simple to demonstrate. Our experience is that the best advocacy tools to "push out the boundaries" are objective data collection and evidence-based scientific conclusions. "Prison health is public health"22, and HR policies and strategies in prisons should be considered as public health strategies.

An inventory of HR measures (step 1) is easy to implement, it provides useful information and draws a useful picture of the state of HR in a national prison environment. It is a very helpful way to raise awareness among prison professionals and to embark on advocacy. It is also easy to extend to other countries and reproducible. In France, its conclusions have been used in the collective expert report<sup>14</sup> on "Reducing risks of infection amongst drug users", published in 2010, and as a basis for discussions of a task force involving representatives from the Ministry of Health, the Ministry of Justice, the Penitentiary administration, professionals working in prison, experts and self-support associations on HR in prison settings in 2013-2014, via a joint-venture of the Ministry of Justice and the Ministry of Health. The recommendations of this task force, along with the new "Health Law", should enable adjustment of the HR policy with an objective of equivalence with the general community.

### **Conclusions**

The progressive implementation of the ANRS-PRIDE program in France shows that a long-term project in prison settings is feasible, but requires tenacity, simple long term objectives, support from a scientific agency, pedagogical interventions and advocacy with all partners, and constant dialogue with the authorities. Simply designed studies enable test-retest in a same location, and also extension to other countries,

affording interesting comparisons. While taking into account risky practices among drug users inside prisons and improving HR measures and policies can be seen by many as a very small part of what has to be changed to ensure basic respect for essential humanitarian rights in prisons, the adoption of this principle of equivalence is in fact

a huge symbolic step. Prison is not a specific environment where prisoners' rights for health and prevention are different from those in the community. If this principle is validated for health, it could be validated for many other concerns. It is therefore a major public health issue, but also a human rights concern.

#### References

- Fazel S, Bains P, Doll H. Substance abuse and dependence in prisoners: a systematic review. *Addiction* 2006; 101(2):181-191.
- Dolan K, Kite B, Black E, Aceijas C, Stimson GV. HIV in prison in low-income and middle-income countries. *Lancet Infect Dis* 2007; 7(1):32-41.
- Jurgens R, Ball A, Verster A. Interventions to reduce HIV transmission related to injecting drug use in prison. *Lancet Infect Dis* 2009; 9(1):57-66.
- World Health Organization (WHO). Effectiveness of interventions to address HIV in prisons. Geneva: WHO-UNODC-UNAIDS; 2007.
- Falissard B, Loze JY, Gasquet I, Duburc A, de Beaurepaire C, Fagnani F, Rouillon F. Prevalence of mental disorders in French prisons for men. BMC Psychiatry 2006; 6:33.
- Fazel S, Danesh J. Serious mental disorder in 23000 prisoners: a systematic review of 62 surveys. *Lancet* 2002; 359(9306):545-550.
- Secretary General of the United Nations General Assembly. Report of the Special Rapporteur on the right of everyone to the enjoyment of the highest attainable standard of physical and mental health. New-York: United Nations Human Rights Council; 2010.
- United Nations Office on Drugs and Crime (UNO-DC). HIV prevention, treatment and care in prisons and other closed settings: a comprehensive package of interventions. Vienna, Austria: UNODC, 2012.
- World Health Organization (WHO). WHO Guidelines on HIV infection and AIDS in prisons. Geneve: WHO; 1993.
- World Health Organization (WHO), Council of Europe. Strasbourg Conclusions on Prisons and Health.
   In: WHO, editor. Joint World Health Organization (WHO)/Council of Europe international expert meeting Prison Health in Europe: Missions, Roles and Responsibilities of International Organizations; 2014. Strasbourg: WHO; 2014.
- 11. Stover H, Michels, II. Drug use and opioid substitution treatment for prisoners. *Harm Reduct J* 2010; 7:17.
- France. Ministry of Health, Ministry of Justice. Circulaire no 739, 5 December 1996: Measures to fight against AIDS in prison setting. Paris: DGS/DH/DAP; 1996.
- 13. Michel L, Carrieri MP, Wodak A. Harm reduction and equity of access to care for French prisoners: a review. *Harm Reduct J* 2008; 5:17.
- Institut national de la santé et de la recherche médicale (Inserm). Réduction des risques infectieux chez les usagers de drogues. Paris: Inserm; 2010.

- 15. Mouquet MC. La santé des personnes entrées en prison en 2003. Paris: Drees; 2005.
- Lukasiewicz M, Falissard B, Michel L, Neveu X, Reynaud M, Gasquet I. Prevalence and factors associated with alcohol and drug-related disorders in prison: a French national study. Subst Abuse Treat Prev Policy 2007; 2:1.
- 17. Chiron EJ-RM, Le Strat Y, Chemlal K, Valantin MA, Serre P, Caté L, Barbier C, Semaille C. Prévalences de l'infection par le VIH et le virus de l'hépatite C chez les personnes détenues en France. Résultats de l'enquête PREVACAR. BEH 2013; 35-36:445-450.
- Michel L, Jauffret-Roustide M, Blanche J, Maguet O, Calderon C, Cohen J, Carrieri PM; ANRS PRI<sup>2</sup>DE study group. Limited access to HIV prevention in French prisons (ANRS PRI<sup>2</sup>DE):implications for public health and drug policy. *BMC Public Health* 2011; 11:400.
- France. Ministry of Health, Ministry of Justice. Guide méthodologique relatif à la prise en charge sanitaire des personnes détenues. Paris: Ministry of Health, Ministry of Justice; 2004.
- Michel L, Lions C, Van Malderen S, Schiltz J, Vanderplasschen W, Holm K, Kolind T, Nava F, Weltzien N, Moser A, Jauffret-Roustide M, Maguet O, Carrieri PM, Brentari C, Stöver H. Insufficient access to harm reduction measures in prisons in 5 countries (PRIDE Europe):a shared European public health concern. BMC Public Heath 2015; 15:1093.
- 21. Jauffret-Roustide M, Pillonel J, Weill-Barillet L, Léon L, Le Strat Y, Brunet S, Benoit T, Chauvin C, Lebreton M, Barin F, Semaille C. Estimation of HIV and Hepatitis C prevalence among drug users in France - First results from the ANRS-Coquelicot 2011 survey. Bulletin Epidémiologique Hebdomadaire 2013; 39-40:504-509.
- Regional Office for Europe of the World Health Organization (UNODC/WHO). Good governance for prison health in the 21st century. A policy brief on the organization of prison health. Copenhagen: UNODC/WHO; 2013.