Results of the Spanish experience: A comprehensive approach to HIV and HCV in prisons

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ABSTRACT

Aim: to measure the results of prevention, health promotion and damage reduction programs for the health of the prison population via the progress of a number of illnesses in these contexts.

Materials and methods: The information was taken from reports, bulletins, specifications, central records and other documents containing health information from 1993 to 2009

Results: The prevalence of HIV has diminished 3.5 times and HCV has gone down by 50% in the last ten years. The rates of seroconversion within prisons have gone down by 85% in the case of HIV and by 71% for HCV. The incidence of tuberculosis and AIDS has decreased by 85% and 93.7% respectively. The number of users of damage reduction, methadone maintenance and syringe exchange programs has progressively increased to the point where the number of IDUs has begun to diminish, while the health mediators program has been implemented in practically all prisons.

Discussion: In response to WHO criteria, a series of activities were set in motion in the 90s by prisons, which focused on improving the situation of the prison population, including illness prevention and control, and damage reduction and health promotion programs. These have significantly contributed to improving the health of a population that comes from what only can be regarded as a highly vulnerable situation outside prison.

Key words: Prisons; Substance-Related Disorders; Vulnerable Populations; Health Promotion; Prevention & control; Hepatitis C; Mycobacterium tuberculosis; Methadone; Needle-Exchange programs.

Text received: September 2010 Text accepted: October 2010

INTRODUCTION

Since the late 1980s healthcare provided in Spanish correctional facilities has evolved to a comprehensive assistance model similar to the one provided in Primary Care centers in the community [1]. The detection, treatment and appropriate derivation of the diseases which are most frequently found in the correctional setting remains the first objective of Prison Healthcare. This enables the improvement of health among the most vulnerable social groups: people who are set apart of traditional gateways to healthcare provision. This way they can improve their health and acquire new skills in order to change unhealthy lifestyles which, with appropriate monitoring, can be kept after release.

As part of the Public Healthcare Service, Prison Health must ensure equivalent assistance to the one provided outside prison 2, 3. This has already been acknowledged as part of the community's resources to fight against healthcare inequality [4, 5, 6].

Health care in prisons in our country reveals some common features with the rest of countries in the European Union [7], and probably in the world, although its organization may show some differences [8]. There is a relatively small group of professionals involved in this part of public health who have exhaustive knowledge of a series of pathologies which only take place among this population and which have to be treated within a specific environment: the prison. There is also the need to face public health problems which go beyond this population, such as drug addiction rehabilitation, social reintegration or the prevention of communicable diseases such as HIV, viral hepatitis or tuberculosis.

The basis of prison health care in Spain is represented by health units in prisons, which depend of the Spanish Home Office, and which are in charge of primary care provided by medical and nursing staff. Those prisoners needing other types of health care are derived to specialized services and hospitals [9] when necessary.

The main objective of this article is to describe the evolution of bloodborne diseases prevailing in prisons (HIV/AIDS, viral hepatitis and TB) after the implementation of programs regarding the prevention and control of communicable diseases as well as harm reduction programs (methadone maintenance, needle exchange and health mediators), which were developed in Spanish facilities from the 1990s [10, 11].

MATERIAL AND METHODS

Data for this article was collected from the revision of yearly reports which consider information sent from prisons to the Central Record Office for the Coordination of Prison Health. These entries, which include notifications on Diseases of Compulsory Declaration and health care activities developed in prisons basically are the following: entries on AIDS and TB cases, which include the incidence of AIDS and/or TB diagnosed during imprisonment; entries on the prevalence of HIV, which include information on the prevalence/day through two transversal studies carried out in mid-June and mid-November every year; entries on HIV and HCV seroconversion, which include seroconversion concerning these two infections produced during imprisonment; entries on diseases of compulsory declaration (DCDs), entries on hospital discharge, on mortality and on drug user care.

Moreover, annual reports and epidemiological bulletins have also been reviewed with data on health care by the Coordination of Prison Health from 1992 to 2009. In addition, all instructions and official communications regarding the response to HIV infection and other infections related to imprisonment published by the Secretary of Penitentiary Institutions throughout that time were also reviewed. Finally, recommendations by different programs on facing HIV and Tuberculosis published by the Secretary of Penitentiary Institutions were also analyzed.

RESULTS

Results concluded through such exhaustive revision allow us to assess the evolution of different health related issues prevailing in prison as well as data on health care activity regarding these diseases.

Figure 1 shows how the prevalence of HIV, which is obtained by two transversal studies carried out in mid-June and mid-November every year and which include information about all prisoners at the time, has followed a descending trend throughout the last ten years, the prevalence in 2008 being 3.5 times lower than that of 1998.

Figure 1. Prevalence of HIV infection in imprisoned population 1992-2009

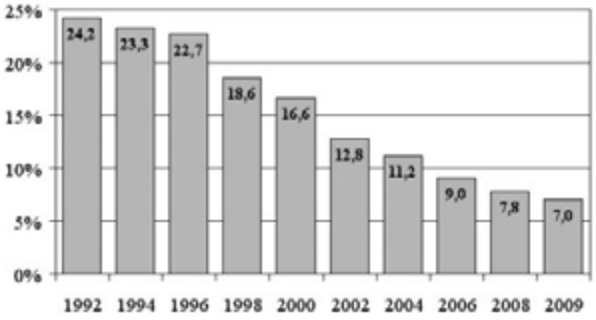
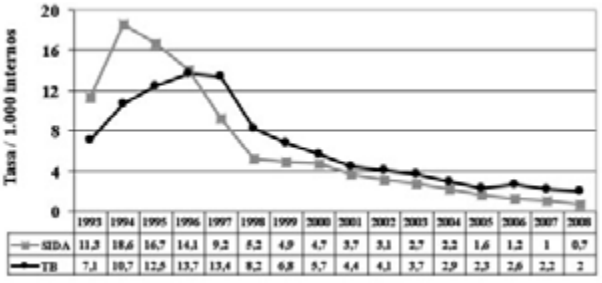


Figure 2 shows the evolution of the incidence of HIV and tuberculosis. Both diseases have followed a descending trend with almost parallel curves, something which shows the close relationship between both diseases. From 1994, when the number of AIDS cases hit its highest level because of the inclusion of pulmonary tuberculosis as indicative, to 2008 the number of AIDS cases has dropped by 93.7%. As far as Tuberculosis is concerned, its decrease began two years later, in 1996, and since then it fell by 85%.

Figure 2. AIDS and TB incidence among inmates 1993-2008



Regarding the prevalence of the infection by hepatitis C virus, which was highly prevalent in 1998, we can see how it has dropped by half throughout the last 10 years (figure 3).

Figure 3. Prevalence of HCV among inmates 1993-2008

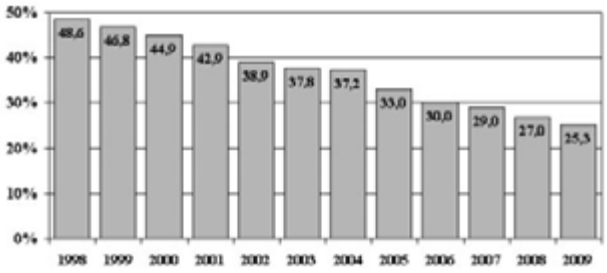
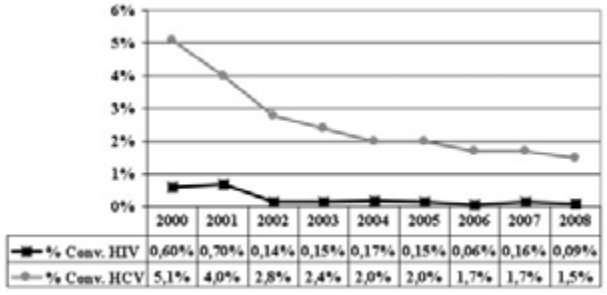


Figure 4 shows the evolution of HIV and HCV serconversion (when transmission has taken place in prison) among prisoners. This may represent in a clearer way the efficiency of prevention and control programs implemented in prison. Seroconversion rates regarding both infections have dropped in the last 8 years (about which data is available), by 85% regarding HIV and by 71% regarding HCV.

Figure 4. Incidence of HIV and HCV infections transmitted in prison (seroconversion) 2000-2008



	2000	2001	2002	2003	2004	2005	2006	2007	2008
% Conv. HIV	0,60%	0,70%	0,14%	0,15%	0,17%	0,15%	0,06%	0,16%	0,09%
% Conv. HCV	5,1%	4,0%	2,8%	2,4%	2,0%	2,0%	1,7%	1,7%	1,5%

Figure 5 shows the evolution of methadone maintenance programs in prisons and it shows a progressive increase in the number of users since its implementation in 2003 and a slow but progressive reduction in the course of the last years.

Figure 5. Evolution of the number of inmates enrolled in the Methadone Maintenance Program. 1996-2009

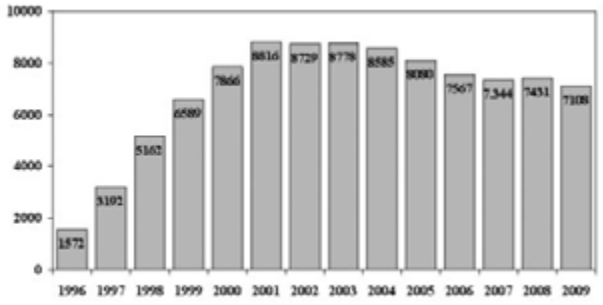
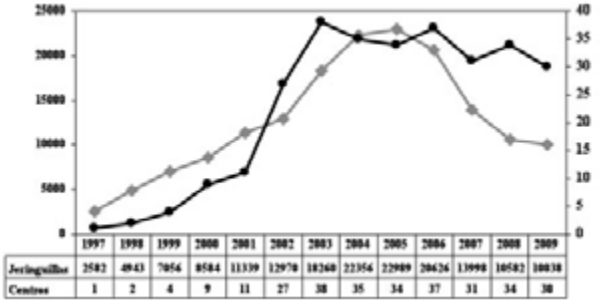


Figure 6 represents the number of prisons with needle exchange programs as well as the total number of needles provided. Regarding the number of facilities, the curve shows three different zones: one representing the first years after implementation, with a slow beginning, a second one with an exponential increase in the number of facilities which implement the program after the publication of the order that compelled all prisons to do so, and a third one representing the maintenance of the number of prisons in the last years. The number of needles provided progressively increased until 2005 when it slowly started to fall.

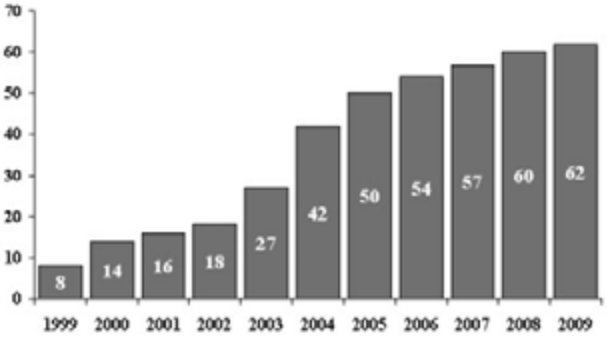
Figure 6. Evolution of the Needle Exchange Program. 1997-2009



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Jeringuillas	2582	4943	7056	8584	11339	12970	18260	22356	22989	20626	13998	10582	10038
Centros	1	2	4	9	11	27	38	35	34	37	31	34	38

Figure 7 shows a gradual increase in the number of facilities which have implemented the health mediator program, which has reached practically all prisons throughout the last 10 years.

Figure 7. Evolution of the number of facilities with a program of health mediators. 1999-2009.



DISCUSSION

The implementation of prevention and control programs regarding communicable diseases, basically HIV /AIDS, viral hepatitis and tuberculosis, at the beginning of the 90s, derived from the assembly

of prisoners with highly dangerous habits which made them suffer these diseases, essentially those habits included illegal injecting drug abuse by sharing needles (46%) [12].

The first prevention and control program regarding communicable diseases was implemented in 1990 [13]. These programs, which have repeatedly been examined, basically are aimed at early detection of the cases, monitoring and appropriate treatment, along with preventing new cases. Later harm reduction programs were implemented, first methadone maintenance (including up to 20% of prisoners) and needle exchange later (providing up to 20,000 needles every year). Together with these measures, new education strategies were developed such as "among equals" education programs and drug rehabilitation in specific therapeutic units [14].

Throughout these years it has been proved that the implementation of these programs has achieved satisfactory results. In the case of HIV, infection rates have dropped year after year from 24% in 1992 to 7% in 2009. The rest of diseases approached by these programs have followed the same lead: hepatitis has fallen almost by half since 1998, TB incidence rates is 10 times lower in 2008 than in 1998 and as far as HIV and HCV seroconversions are regarded, they have both significantly dropped [15, 16, 17].

The late reduction of the number of users of harm reduction programs shown by the results is partially due to the modification of consumption habits and the proportional reduction of drug users among prisoners. The implementation of health education programs and the preparation of mediator programs, which directly include prisoners as active health agents, have been efficient in improving habits among prisoners [12, 18], reducing injecting drug use and sharing needles.

Health care policies implemented in Spanish health services during the last ten years have remarkably supported the reduction of HIV/AIDS infection as well as of other related diseases such as tuberculosis or viral hepatitis among an important part of the vulnerable population in our society, injecting drug users, criminals and prisoners.

The WHO Regional Office for Europe has been wisely working for over ten years on the development of international agreements about the main problems of prison health, which is essential in order to move forward in such a difficult field of public health. Its efforts to integrate the work developed by public health governmental authorities, prison health representatives and as many organizations (governmental or not) efficiently working on the restitution and protection of health among inmates, allows all professionals silently and strenuously developing their mission to feel backed up by an international network of highly prepared professionals lead by the World Health Organization [1].

There remain important challenges that need to be faced in the European prison system: overcrowded prisons, raising awareness among authorities implied in achieving healthier prisons, with modern facilities where prisoners' right are respected, specially the right to health, and where social reinsertion of prisoners remains its first objective.

Success achieved in the last years by the Spanish Prison System regarding the control of prevailing communicable diseases, encourage us to positively tackle other health care problems such as mental health, achieving more human prison environments, enhancing resocialization routes after imprisonment or improving health care in prison.

CORRESPONDECE

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