

HEALTH CARE IN BELGIAN PRISONS: SCENARIO BUILDING BLOCKS



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- The external experts were consulted about a (preliminary) version of the scientific report. Their comments were discussed during meetings. They did not co-author the scientific report and did not necessarily agree with its content.
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LIST OF ABBREVIATIONS

ABBREVIATION	DEFINITION
AViQ	Agence pour une Vie de Qualité (Agency for Quality of Life)
CAP	Centraal AanmeldingsPunt (Central Contact Point)
CGG	Centra Geestelijke Gezondheidszorg (Mental Health Care Service)
CHR	Centre Hospitalier Régional (Regional Hospital Center)
CI	Confidence Interval
CMC	Centre Médical – Medisch Centrum
CPAS	Centre Public d'Action Sociale (Public Center of Social Welfare)
CPT	European Committee for the Prevention of Torture and Inhuman or Degrading Treatment or Punishment
CRA	Coördinerende en Raadgevende Arts (Advice and Coordinating Doctor)
DG-EPI	Directorate General of Penitentiary Services
DGZG	Dienst Gezondheidszorg van de Gevangenen (Service for Healthcare in Prisons)
FPC	Forensic Psychiatric Center
FPS	Federal Public Service
FTE	Full Time Equivalent
GP	General Practitioner
HIV	Human Immuno Deficiency Virus
MD	Medical Doctor
LOS	Length of hospitalisation
NIHDI	National Institute for Health and Disability Insurance
OCMW	Openbaar Centrum voor Maatschappelijk Welzijn (Public Center of Social Welfare)



PMG – RPM	Psychiatrische Minimaal Gegevens – Résumé Psychiatrique Minimum (Minimum Psychiatric Data)
SMI	Severe Mentally Ill
SSM	Services de Santé Mentale (mental healthcare services)
SSSP	Service des Soins de Santé en Prison (service for healthcare in prisons)
TB	Tuberculosis
VAZG	Vlaams Agentschap Zorg en Gezondheid (Flemish Agency for Health and Care)
XR	X-Ray
WHO	World Health Organization



■ SCIENTIFIC REPORT

1 INTRODUCTION

Health care in Belgian prisons currently falls under the responsibility of the Minister of Justice and hereto a central service 'Dienst Gezondheidszorg van de Gevangenen / Service des Soins de Santé en Prison' (DGZG/SSSP) is organized within the Directorate General of Penitentiary Services (DG-EPI).

Like some other member states of the World Health Organization Belgium wants to transfer this responsibility in the future to the Minister of Social Affairs and Public Health. Such a shift creates the opportunity to thoroughly reform the future organization of health care in prisons, in line with the 2002 Law on the rights of patients and the 2005 "Basic Law on prisons" concerning equal health care for prisoners in prison and in the outside world.

Determining the future of health care in Belgian prisons requires an extensive study of the current health care policies, health care organisation/provision health care use, health care costs and health care problems and challenges. Based on this information, different scenarios to organize health care in Belgian prisons could be developed.

The final aim of this study is to develop a proposal to reform health care in Belgian prisons.



2 METHODOLOGY

Different research methods were applied to identify key problems and challenges and to prioritise areas for which scenarios should be prepared.

Desk research

Desk research aimed at:

- Identifying relevant international standards that could help put Belgian challenges and problems into context. These were derived from three main sources: the International Standards of CPT (European Committee for the Prevention of Torture and Inhuman or Degrading Treatment or Punishment)¹, the WHO guidelines on prisons and health²⁻⁴ and the 2016 Guideline NG57 from NICE (National Institute for Health and Care Excellence) on physical health of people in prisons⁵.
- Gathering relevant data on current problems in Belgium that were collected in the previous steps of the project. Data were found in the following chapters: "Current organization of care in Belgian prisons"⁶, "Health problems and health care utilization in Belgian prisons. Analysis based on Epicure"⁷, "International comparison of health care organization in prisons elsewhere"⁸, "Systematic review on health care problems and interventions in prison populations"⁹ and "Financial aspects of health care in Belgian prisons"¹⁰.

Field visits

In preparation to the field visits, prisons were classified according to different segmentation criteria: size, mean duration of imprisonment, geographical location, capacity and overall health care costs. Based on these segmentation criteria, 6 prisons were selected for the field visits: Brugge, Lantin, Saint-Gilles/Sint-Gillis, Merksplas, Antwerpen and Leuze-en-Hainaut: 3 prisons with CMCs with different levels of services, 1 prison with a high number of internees, 1 prison with a psychiatric annex and 1 small prison. The field visits consisted of interviews with generalist practitioners (GPs), nurses, nursing coordinators, psychiatrists, health care coordinators and dentists.

The field visits to prisons aimed at:

- Engaging in detailed interviews around main challenges and problems to complete and confirm the overview obtained via the desk research and prioritise the areas in which changes could bring most benefits.
- Facilitating a benchmark exercise between prisons in order to highlight differences and similarities.

DG-EPI consultations

Several meetings were organized with the members of DG-EPI to obtain (clarification of the) data concerning human resources, payment systems, and invoices

Stakeholder consultations

A stepwise analysis was conducted, starting by identifying all relevant stakeholders, including prisoners or their direct representatives. A fairly wide range of stakeholders was selected, both at a strategic and political level with a balanced representation of each region (Flanders, Wallonia, Brussels) as well as at a tactical and operational level (prison director, and within the prison, those responsible for the organization of care, etc.). Stakeholders were mapped out into a power / interest matrix grouping them into quadrants. For each type of stakeholder, a specific role in the entire process was defined.

Stakeholders were consulted through face-to-face interviews, stakeholder meetings (Dutch and French), held at KCE in May, June and October 2016 and a general meeting with the steering committee penitentiary health care in January 2017.

Stakeholder consultations aimed at:

- Identifying and drafting building blocks and possible scenarios.
- Capturing the advantages, disadvantages and feasibility of the scenarios



Elaboration of the building blocks

Data from the desk research, the field visits and the stakeholder consultations was gathered and used as input for the development of building blocks and scenarios. Building blocks were determined to close the gap between the standards of the services currently offered within prison walls and those offered in the outside world. These building blocks were used to construct basic scenarios for the organization of health care in Belgian prisons. The number of feasible scenarios were reduced during discussions with stakeholders.

Minutes were made of the prison field visits and the stakeholder and expert consultations, but because of confidentiality not included in this report. This applies also to detailed invoices of hospitals and/or professionals.

All data sources used in this chapter contain important gaps and should not be considered in isolation. Nevertheless, when combined and compared to each other, they provide a sufficient basis to support the recommendations in this report.

3 CURRENT SITUATION

This section provides a general overview of the current situation and the overall problems related to healthcare in Belgian prisons.

3.1 Prison population

This study focuses on the year 2015 and the 35^a prisons active in Belgium in 2015 (17 prisons in Flanders, 16 in Wallonia and 2 in Brussels)¹¹. In addition to these, due to prison overcrowding, Belgium rented a prison in Tilburg in the Netherlands with a capacity of 650 places, during the whole of the year 2015 (contract ended in December 2016).

In 2015, the prisons had a mean daily population of 11040¹¹. Most incarcerated persons were males under 40 years old and nearly half are of foreign nationality. Over the year 2015, the average number of prisoners was 11.040, among whom 31,7% were accused, 58,5% were condemned and 8,2% were mentally ill offenders (=geïnterneerden/internés). The latter number is decreasing within prison walls in recent years (1.088 in 2014, 904 in 2015 and 750 in September 2016^b). Based on Sidis Suite^c, there were 26.511 individuals who stayed at least 1 day in prison in the period from April 2015 to April 2016. Of new prisoners, 14,5% stayed less than 1 week and 56% of new prisoners stayed less than <3 months in prison.

^a There is some inconsistency in the way the number of prisons is reported. The figure most often reported (35) counts in most cases the prisons of Forest/Vorst and Berkendael as 1 prison. However, when individual prison statistics are reported, these prisons are separated, resulting in an overall number of prisons of 36.

^b See the written question to the Minister of Justice of 25/10/2016 (in Dutch) <http://www.dekamer.be/kvvcr/showpage.cfm?section=qrva&language=nl&cfm=qrvaXml.cfm?legislat=54&dossierID=54-B096-866-1494-2016201712669.xml>

^c Sidis Suite is an administrative database managed by the DG-EPI for the daily organization of the prison population



3.2 Health care organization/provision

Currently, the penitentiary Central Medical Service DGZG/SSSP, residing under the federal Ministry of Justice is responsible for the organization, management, supply and supervision of healthcare in prisons. However, different administrations are involved. With the sixth state reform several competences have been shifted from the federal to the defederated governments, also on the terrain of health care and with implications for the organization of health care in prisons. Generally speaking, treatment of health problems are a federal competency, while prevention and health promotion are defederated competencies (=communities). More details can be found in chapter 7¹².

Primary care is delivered by a local team of GPs assisted by nurses. Secondary healthcare is organized in the three medical centers (CMC) or in local and regional hospitals. Both statutory, independent and interim personnel are involved in the provision of care, which is offered to prisoners free of charge.

3.3 Health care use

From the Epicure analysis⁷, it appeared that in a 1-year period for the 26 511 prisoners that stayed at least one night in prison there were almost 250 000 contacts registered with a physician in prisons, with 77% of these were a consultation with the GP and, on second place, psychiatrist consultations (table 1). The overall rate of medical consultation was 23,7 per person-year (95% CI: 23,6-23,8). The corresponding rate for GP consultations was 18,3 per person-year (95% CI: 18,2-18,4)^d, and for psychiatric consultations 2,9 per person-year (95%CI: 2,8-2,9). For almost 7% of prisoners, any medical consultation was registered; this could eventually be due to the short time period some prisoners stay. More details about health care use can be found in chapter 2⁷.

^d This rate drops to 16,3 per person-year (95 %CI: 16,2-16,4) when the obligatory entry consultation is excluded

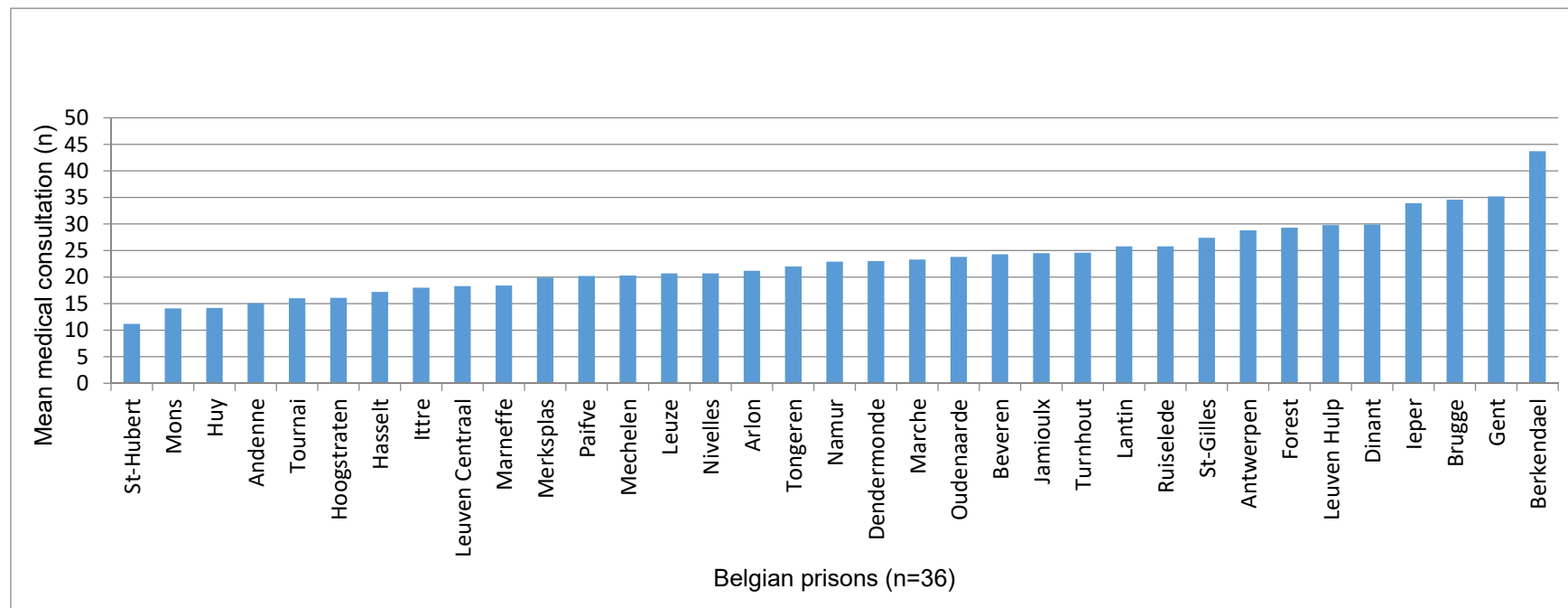
Although the overall number of medical consultations could reflect, to a certain extent, the poorer health conditions of this vulnerable population, no detailed diagnostic data are currently available for Belgian prisoners, preventing a thorough analysis.

Table 1 – Number of medical contacts in Belgian prisons in 2015 (n=26 511 prisoners)

Physicians	Number of contacts (n)	Proportion (%)
GP	193 941	77,7
Psychiatrist	29 789	11,9
Surgeon	6 419	2,6
Radiologist	5 725	2,3
Orthopedic surgeon	3 111	1,2
Dermatologist	2 643	1,1
All other MDs <1%	7 820	3,1
TOTAL	249 436	100

Source: EPICURE data, 2015

The data show large variations in health care use between prisons that could not be explained solely by the characteristics of the prisoners (age, accused versus condemned, etc.) (see Figure 1).

**Figure 1 – Mean medical consultation per prisoner-year per prison in 2015**

Source: Epicure Data, 2015



3.4 Health care costs

In 2015, the total estimated costs for the healthcare of inmates covered by the Ministry of Justice were € 43.060.147^e. About 60% of the expenses were spent on staff/human resources; 37% were linked to health care delivery costs (13% on consultations, hospitalisations or tests performed outside of prison walls); and the remaining 3% reflected healthcare organisation costs. Large variations were found between prisons. For detailed information, see chapter on “the financial situation”.

3.5 General Problems

3.5.1.1 General health care problems

Based on the national and international literature review⁹ and on the analysis of EPICURE data⁷, four major health care problems were identified:

- General poor health condition of most of the prisoners
- High prevalence of infectious diseases (TB, HIV or hepatitis C)
- High prevalence of mental health problems
- High prevalence of substance use/addiction

In addition to these 4 major health problems, other health problems have a higher prevalence among prisoners when compared to the general population such as respiratory diseases, dermatology illnesses and poor dental health.

3.5.1.2 General problems in health care delivery and organization

Based on Belgian literature, the field visits and the stakeholder discussions, several general problems linked to the organization and delivery of health care were identified:

- An image problem of prison health care, which often translates into a lack of health care staff willing to work in prisons
- A health care demand exceeding the actual health care offer, resulting in long waiting lists
- Difficulties for prisoners to access secondary care
- An imbalance in priorities between health care staff and security staff
- A limited coordination of health care in prisons and between prisons and external organizations
- No access to regular obligatory health care insurance

^e These data do not include costs of prisoners on penitentiary leave or with ankle bracelets, as well as the cost of external specialized centers used for mental ill prisoners or internees.



4 SCENARIOS

4.1 Transversal key principles

There are a couple of key principles that should be considered under all scenarios. In order to avoid repetition, these are presented in this section, prior to the development of the specific building blocks/scenarios for primary care, secondary care, mental health care and dental care.

Health care professionals from the mainstream health care system should provide health care services for prisoners inside and outside of prisons

To achieve equivalent standards of healthcare inside and outside prison walls, the existing “regular” health care professionals need to oversee health care within and outside prisons. Employment and contracting of medical staff by the FPS Justice or Public Health should, therefore, be avoided. This implies that the 244,45 FTE currently employed health care professionals and the 500 self-employed health care professionals (general practitioners, medical specialists, dentists, pharmacists, nurses...) need to be transferred or reoriented towards regular healthcare organizations. However, knowledge of the present staff should be recognized and ensured by integrating them in the regular organizations responsible for organizing health services in prisons. Transitional measures are necessary for the 288 statutory health care professionals.

All health services should be outsourced through contracts with the NIHDI. Contracts should include outcome and quality indicators. Different payment options should be considered: bundled payment, lumped sums, fee for service, payment per hour.

Overall coordination, policy, protocols and guidelines are responsibilities of the FPS Public Health and Justice

Health policy in prisons, guidelines, protocols and coordination between prisons and between the FPS Public Health and Justice are the responsibility of the FPS Public Health and Justice. As an example, the European Guidelines on drug and drug addiction should be nationally monitored. Sharing expertise and best practices should be facilitated by the FPS Public Health and Justice.

The FPS Public Health should ensure that prison health care is added to the medical and nursing education, including internships.

A course on health care in prisons should be offered in the general curriculum of medical students and nurses. Internships in prisons should be encouraged by improving connections with education institutes and by making sure that prison GPs or prison nurses can spend enough time coaching interns.

A qualitative dedicated training program should also be made available to all health care staff working in prisons. This should cover essential prison related healthcare issues, i.e. mental care, infectious diseases or drug abuse. Regular and specialized trainings should be organized to keep up with modern techniques and maintain quality standards of general health care. Training should be compulsory and stimulated by enabling health care staff to take courses during work hours or to reimburse (part of) the courses.

Coordination and organisation of safety and transportation for health care should remain the responsibility of the DG-EPI of the FPS Justice

Prisoners get access to regular obligatory health care insurance (see chapter 7¹²)

E-health is viable option to deliver health care to prisoners and to reduce extractions

Several studies¹³⁻³⁵ have shown that the use of Internet and computer-based programs and platforms is viable to deliver health care to prisoners. It can be used in all types of care and for several purposes (diagnostics, monitoring, risk screening, counselling, etc.).



4.2 Primary care

International recommendations^{1, 4} outline important standards to improve the health of prisoners and to reduce the risks posed by imprisonment to both health and society. Compared to these guidelines, there are important shortcomings in the Belgian context. In the next section, problems linked to the organization and delivery of primary health care are presented.

4.2.1 International recommendations

The WHO⁴ recommends that *a primary health care service in prisons must be provided with staff, resources and facilities of at least the same standard as those available in the community. Every prison should have medical, nursing, dental, psychological and pharmacy services, with administrative support.*

Health resilience (taking responsibility for your own health) is an important aim of prison health care and an important contribution towards successful reintegration after discharge, moreover it contributes to the reduction of health inequalities.

CPT standards¹ complement the WHO guidelines regarding equivalence of care and general medicine.

(34) While in custody, prisoners should be able to have access to a doctor at any time, irrespective of their detention (arrested, condemned, isolation cell, interneers). The health care service should be so organized as to enable requests to consult a doctor to be met without undue delay.

Prisoners should be able to approach the health care service on a confidential basis, for example, by means of a message in a sealed envelope. Further, prison officers should not seek to screen requests to consult a doctor.

(35) A prison's health care service should at least be able to provide regular out-patient consultations and emergency treatment (of course, in addition there may often be a hospital-type unit with beds). The services of a qualified dentist should be available to every prisoner. Further, prison doctors should be able to call upon the services of specialists.

Regarding emergency treatment, a doctor should always be on call. Further, someone competent to provide first aid should always be present on prison premises, preferably someone with a recognized nursing qualification.

Out-patient treatment should be supervised, as appropriate, by health care staff; in many cases, it is not sufficient for the provision of follow-up care to depend upon the initiative being taken by the prisoner.

(38) A prison health care service should be able to provide medical treatment and nursing care, as well as appropriate diets, physiotherapy, rehabilitation or any other necessary special facility, in conditions comparable to those enjoyed by patients in the outside community. Provision in terms of medical, nursing and technical staff, as well as premises, installations and equipment, should be geared accordingly.

(39) A medical file should be compiled for each patient, containing diagnostic information as well as an ongoing record of the patient's evolution and of any special examinations he has undergone. In the event of a transfer, the file should be forwarded to the doctors in the receiving establishment. Further, daily registers should be kept by health care teams, in which particular incidents relating to the patients should be mentioned. Such registers are useful in that they provide an overall view of the health care situation in the prison, at the same time highlighting specific problems which may arise.

(40) The smooth operation of a health care service presupposes that doctors and nursing staff are able to meet regularly and to form a working team under the authority of a senior doctor in charge of the service.



4.2.2 Current primary health care organization and delivery

Every prison has its own primary care team, composed of GPs, nurses and physiotherapists. There are no psychologists or social assistants available for primary care in Belgian prisons, except in the psychiatric annexes. Psychologists and social assistants working within prison walls are appointed for judicial expertise, and cannot offer social or mental support. A limited number of psychiatrists are currently available but are mainly treating internees.

If prisoners want to see a GP, most prisons have paper request forms collected by security officers or disposed by prisoners in closed boxes emptied by nurses. In some prisons, requests to receive health care are made directly to security officers. Screening by security officers of prisoners' requests for access to health care staff has also been reported. Only the prisons of Leuze-en-Hainaut, Beveren and Marche-en-Famenne are currently equipped with a prison cloud system, making digital requests possible. Prisoners do not have to justify their need for a consultation, preventing the organisation of an efficient triage.

An entrance consultation is currently organized for all prisoners.

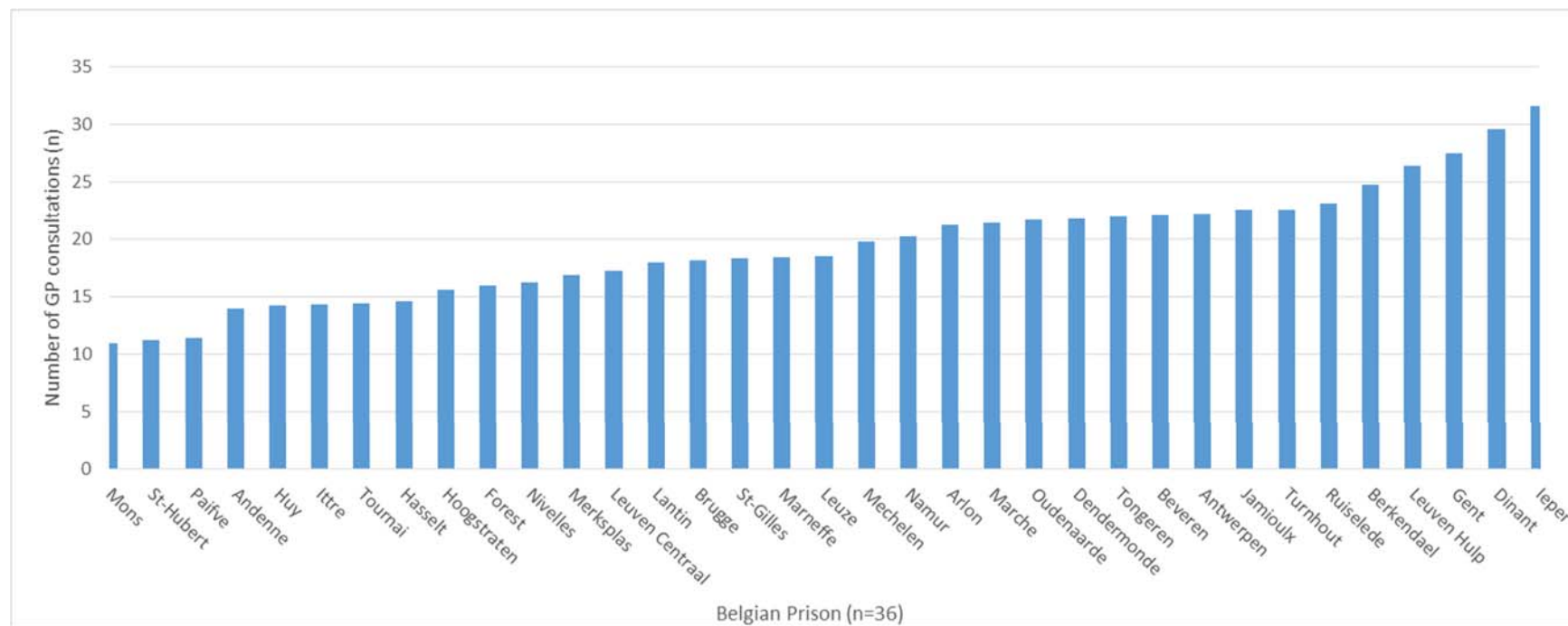
According to the surveyed health care professionals currently working in Belgian prisons, Belgian prisons have a good functioning screening system, with basic medical equipment⁶.

4.2.3 Primary health care use

According to the 2005 study of Feron et al.³⁶ the mean rate of GP consultations in prison appears to be significantly higher when compared to a similar population outside prison. Based on the 2015 EPICURE data analysis⁷, rate for GP consultations was 18,3 per person-year (95%CI: 18,2-18,4) and 16,3 per person-year (95%CI: 16,2-16,4) when the obligatory entry consultation was excluded. There was a large variety in health care use per prison, as shown in figure 2.



Figure 2 – Mean GP consultations per prisoner-year per prison in 2015



Source: Epicure Data, 2015



4.2.4 Primary health care costs

Table 2 shows the total costs for primary care in prison for the year 2015. These are estimated to be approximately € 14 million (see financial chapter¹⁰ for more information). Of these, €10 million represent nursing costs, €3.2 million GP costs, and €0.8 million physiotherapy costs. These calculations exclude all staff working in the mental health care teams of the annexes or the hospital part of the CMCs.

Table 2 – Costs related to primary care in Belgian prisons in 2015

Primary care	Costs (€)
Nurses	
Freelance nurses	€ 448 451,99
Interim nurses	€ 4 795 008,18
Employed nurses (excl. Nurses working in CMCs or annexes)*	€ 4 766 947,37
Total	€ 10 010 408,00
Generalist practitioners	
Freelance GP	€ 3 078 581,65
Employed GP (excl. CMC GP guards)*	€ 142 998,83
Total	€ 3 221 580,00
Others	
Freelance physiotherapists	€ 602 558,96
Freelance others (supporting personel)	€ 186 938,75
Total	€ 789 497,71
Total of primary care costs	€ 14 021 486,00

Source: DG-EPI, except for * : personel framework 2015 of the DG-EPI, 2015

More detail on overall costs and per capita comparisons between prisons are offered in the financial chapter¹⁰.

4.2.5 Primary care problems

4.2.5.1 Understaffing of health care staff

The International Observatory of Prisons^{37, 38} pointed out the understaffing of health care professionals, especially GPs, resulting in short consultation times and in general failure to offer timely access to a GP. The GP consultations are overcrowded, leading in some prisons GPs required to do 30 consultations in 3 hours (OIP-report 2017³⁸, p. 180). Not all consultations respond to medical needs. As is the case outside prison, GPs also have a social role, which could be expected to be even more requested/important in prison, due to the isolation and specific needs of prisoners. Moreover, GP should perform a compulsory entrance consultation which, in theory, should cover 14 439 new prisoners per year (according to EPICURE data 2015).

Nurses manage the administrative work, the planning and the follow-up of consultations since most prisons do not have a medical secretary. In most of the prisons, nurses are only available during 'office hours'. Only in a few prisons, nurses are available on weekdays until 9 pm. There is no night shift for nurses, apart in the three prisons with a medicosurgical center (CMC).

4.2.5.2 Confidentiality

As the most common vehicle for prisoners to request a medical consultation is a simple paper request form, often handed over to security officers, this poses problems of confidentiality.

4.2.5.3 Lack of coherent medical guard (after hours) system

In most prisons security officers assess health care needs at night and do emergency triage. They choose whether a GP or emergency services (112) is needed. Not all prisons have enough GPs to organize guards and no reimbursement is foreseen for being on call, only consultations arising from being on duty are covered. Most GPs working in prison have a private practice outside and participate already in outside guard systems. The field visits revealed that psychiatrists are generally not on call, not even in prisons



with an important number of internees, therefore GPs often face serious psychiatric crises for which they are currently not trained.

4.2.5.4 *Scattered offer of health prevention/promotion initiatives*

The International Observatory of Prisons^{37, 38} reported a failure to develop programs of health prevention and promotion; health care in prisons focus almost exclusively on curative medicine. Health care professionals lack time to spread prevention messages, and appropriate educational brochures are scarce. Moreover, screening for transmissible diseases is not systematically offered to all prisoners, but only to those belonging to a group deemed hazardous.

According to our site visits and the survey⁶, guidelines for screening are available, but large variations in screening between prisons remain, reflecting not only a different screening offer but also differences in the type and quality of equipment available.

4.2.5.5 *Lack of standardised coordination of prison health care teams*

Stakeholders interviews revealed differences in the coordination of the prison health care teams. A coordinating nurse may be appointed either for coordinating nursing teams in different prisons; either for the coordination in a single prison. There is no financial bonus in the remuneration of the coordinating nurse.

Not all prisons have an appointed coordinating GP; their role is not clearly defined except for some administrative tasks and contacts with the central medical service administration or the direction of the prison.

Since more nurses than GPs are available, nurses often manage the contacts with the direction of the prison. Formal team meetings are not currently organized as most teams are small with limited presence in prison, preventing them for discussing cases, general problems, setting out goals and coordinating efforts. Ad-hoc initiatives are sometimes taken to discuss complex files. The field visits also revealed that the coordinating GP has virtually no authority over other GPs and specialists. Moreover, the lack of

comprehensive guidelines does not favour common understanding and practice.

4.2.5.6 *Lack of continuity of care after release*

To ensure continuity of care after release, prisoner health records should be transmitted to an external GP or health care center, chosen by the prisoner. Stakeholder consultations and field visits revealed that this is not always done because (1) the date of release is often unknown, (2) the health record is not always handed over to the prisoner by security officers when leaving prison, (3) the EPICURE electronic health record is not compatible with digital systems used outside prisons. There are variations between prisons in providing prisoners with medication on the date of release. Not all prisoners are seen by a GP or a nurse before their release: they do not receive prescriptions or medication, are not screened for infectious diseases and do not receive their health record.

4.2.6 *Building blocks and scenarios*

4.2.6.1 *Building blocks*

Understaffing of health care personnel

- **Decrease of the pressure on GP consultations and facilitating referrals to the most adequate health care professional for a given need**

The presence of an interdisciplinary team offering alternatives for GP consultations is the first step towards a more efficient use of GP time. Prisoners should be able to ask for consultations with any member of the primary health care team. Under these circumstances, prisoners themselves perform a triage. Application forms should be made available in (at least) the 6 most frequent languages of the Belgian prison population (i.e. Dutch, French, German, English, Arab, and Russian according to 2015 EPICURE data) with a pictogram system for those with poor literacy skills. These application forms should contain defined categories of (para)medical consultations and be completed by a face-to-face explanation delivered by trained nurses at the entrance



consultation. To facilitate the triage system, indicating the reason for consultation should be mandatory (i.e. providing options to choose from, reflecting the most common reasons). Based on the application form and an assessment of the prisoner health record, nurses can refer prisoners to the relevant professional. In short, nurses perform an initial assessment of the degree of urgency and dispatch prisoners requests to the most appropriate professional.

The number of GP consultations could drop as the prisoners may better identify their needs based on the application forms and could be referred to other members of the interdisciplinary team such as nurses (for non-medical requests, routine follow-up and monitoring of pre-existing problems, patient education...) and psychologists/social assistant/educators (for social/mental problems). By decreasing the number of consultations, GPs should gain more time per consultation, so they can focus not just on curative tasks but also on health promotion and prevention.

- **Optimization of the nursing shifts (during the day)**

The number of nurses working in each prison should be adequate to organize shifts to ensure continuity of care. During day hours, nurses can assist GPs or specialists during consultations. Nurses could also assure the distribution of medication (morning, evening), offer education and coaching, perform some health care tasks (e.g. renewal of bandages in case of wounds), provide first-aid care and identify emergency situations. Flexibility of the working hours and mutual agreements between nurses could make this possible, given the approximate average number of FTE nurses working per prison in 2015 of 6,8.^f

- **Use of the prison cloud system as a support for primary care**

By using a prison Cloud system^{26, 27} installed in every cell, all requests for consultations could be digitally captured, and would be easier to process. Digital application forms should be made available in the most frequent languages spoken by prisoners. For privacy reasons, only prisoners and health care staff should have access to digital requests.

In a further step, the Cloud system should also be used for online consultations with GPs, nurses or other health/social care professionals. Videoconference or Skype provide direct communication options. If combined with an efficient triage system, online consultations may facilitate an efficient use of GP time, since only prisoners with medical problems will be seen face-to-face. In addition to this potential reduction of unnecessary consultations, prisoners' movements towards the waiting rooms will be limited.

Another possibility of the Cloud system would be to offer prisoners direct access to their personal health record to increase their self-reliance and empowerment. General health information could be made available by text, sound or image to a larger group of prisoners. However, this should be further investigated and tested through pilot projects.

Installing and maintaining the Cloud system is expensive and time consuming, but could help to improve the wellbeing and self-care practices of the prisoners as well as the current organization of services.

In Beveren, Leuze-en-Hainaut and Marche, there are already Cloud systems, allowing prisoners to make digital requests. The generalization of the Cloud system has already been planned³⁹. The installation of a Cloud system and its corresponding costs are not

^f Overall nursing costs from FPS Justice invoices divided by a mean annual FTE cost of €54.207 (based on the registered data for employed nurses and their salaries)



analysed here, since the implementation of this system lies outside the scope of healthcare organisation.

- **Implementation of a comprehensive, accessible, user-friendly, personal and interdisciplinary electronic health record for each prisoner**

Interactions and interventions delivered by the health care team should be documented and accessible in the electronic health records of prisoners. A new electronic health record should be user-friendly, comprehensive and offer all necessary tools to all professionals of the interdisciplinary team. To ensure patient confidentiality, prisoners should give their informed consent for the sharing of health data between professionals in charge of their situation, inside or outside prisons. For example, the prisoner may give consent for the availability of a summary of the electronic health record for external GPs (e.g. via the E-health platform) and/or GPs in other prisons.

The electronic health record should be compatible and up to the same standards as other outside electronic health records. The procedure for replacing the current EPICURE system has been started, leading to the test and assessment of a new electronic health record by the users (i.e. representatives of health care professionals in prisons). The new electronic health record should facilitate the exchange of data in and outside prisons with other health care professionals, the automatic reception of lab results or other health information as well as the continuity of care. As the public tender process is being prepared, the replacement of the EPICURE system has already been decided.

However, the implementation of an electronic health record should be combined with clear guidelines on its use and appropriate training of all health care teams working in prisons to ensure an efficient use of the system.

Confidentiality problems

- **Management and assessment of the requests for medical consultations only by health care staff**

To ensure patient confidentiality, all requests need to be put in closed boxes/envelopes or centralised on a Cloud system (as previously discussed), only accessible to health care staff. Some prisons already have forms that can be put in closed boxes by the prisoners themselves. Paper forms and digitalized forms can be used with pre-defined categories to facilitate the choices for the prisoners.

The financial consequences of installing such a process without a digital system will be negligible. Stakeholders acknowledged that using paper forms as a first step is a good and fast employable action.

Triage of the requests should be done following a clear algorithm of decision-making. This triage should be performed by trained nurses and not by security officers.

Lack of coherent medical guard (after hours) system and first aid responses

- **Organization of GP guards in evenings and weekends**

A first option is to include prison guards in the local regular GP guard system, provided that all GP are well informed about specific health care issues in prisons. Alternatively, one specific GP prison guard could be organised for a group of prisons in a defined area, as it is the case in Merksplas, Wortel, Hoogstraten and Turnhout. If a separate guard system is organized, GPs should not be involved in regular local guards. Another possibility could be to set up a single centralised phone number for GP guards (similar to the current 112 central model).

Whatever the organisational option, all involved GPs should have access to the health record the prisoner and to reliable and timely information about the situation of the prisoner. A comprehensive assessment should be done by the trained security officers or nurses making the call, based on algorithms.



- **Improvement of first aid response inside prisons**

To improve first aid response, national standardised care protocols should be available to all prisons ⁵. Security officers and staff should receive basic training on first aid care to identify the degree of emergency of the situations and to apply emergency care protocols when no health care staff is available.

During the day shift, emergency situations should be assessed and managed by the health care staff, supported by emergency care protocols and assisted by security officers when needed.

Scattered offer of health prevention/promotion initiatives

- **Extension of the primary health care team to include assessment, prevention and care of mental health problems**

The primary care team should perform a comprehensive screening of all new prisoners for mental health problems. The team should preferably be supported by a psychiatric nurse and a psychologist to deliver an adequate and adapted support to prisoners suffering from non-severe mental problems. Psychotherapeutic and occupational therapy programs should be carried out by these teams. Psychologists should be engaged to offer psychosocial treatment. The primary care team should have a psychiatrist available for consultations. Since most prisons already work with freelance psychiatrists, this should be feasible. Prisoners only have access to the psychiatrist after GP referral. The primary care team should, in close cooperation with psychiatric nurses, psychiatrists and psychologists, reduce the use of medication for mental health problems. The additional costs of psychiatric nurses and psychologists could be, to a certain extent, balanced by a reduction in the (currently high) use of psychiatric medications: e.g. reducing the consumption of pharmaceuticals for the “nervous system” by 20% could save up to 500.000€, according to reimbursement data from 2014. To enable this service, the health care professionals of the psychiatric health teams could be transferred towards the primary health teams.

- **Deployment of standard screening methods in line with international recommendations in every prison**

Clinical guidelines on comprehensive screening should be developed to ensure compliance with international recommendations and to capture, in a systematic way, prisoners health situation in an standardised health record at entry. This first comprehensive screening could be performed by a (specialist) nurse. After screening, the nurse refer the prisoner to the GP, if necessary. It requires therefore an adaptation of the current legal obligation requiring that each prisoner sees a GP within the first 24 hours after imprisonment.

In case of transfer of the prisoner to another prison, the entrance screening should not automatically be repeated, under the condition that the health record, including a brief report of the health care team, if relevant, is transferred to ensure the continuity of care. The GP may decide to perform a new comprehensive screening upon the individual situation of the prisoner (e.g. severe drug user or prisoner with an unstable chronic disease) .

When possible, prisoners should be asked to provide contact details of a health professional of reference outside prisons (e.g. family doctor). Prisoners should give their consent to the exchange of health records after release with their family doctor. Health records given at point of release should be neutral to protect the privacy of former prisoners.

- **Implementation and generalization of risk reduction programs**

Risks reduction programs related to drugs, tattoos & sexual risk factors among prisoners both during incarceration and after release should be implemented or generalized. Efforts should be put for early prevention of drug related problems in order to reduce costly interventions at a later stage. Risk reduction programs may benefit from a more coordinated and long-term planning, including health and social care after release.

In each prison, the health care team should regularly assess major risk factors related to health, based on prisoners' profiles and the initial comprehensive screenings. This risk analysis allows them to implement adequate risk reduction prevention programs. Pilot programs in risk



reduction should be introduced in different types of prisons and evaluated before generalization to all prisons. A regular follow-up on the evolution of the risk factors will help to adapt the risk reduction programs.

In each prison, the responsibility for risk assessment and reduction should be clearly assigned to a member of the health care team, preferably a GP, a psychiatrist nurse or a psychiatrist. Moreover, health care and prison staff need (additional) specific training on risk reduction programs.

- **Introduction of peer-to-peer health education/promotion in every prison**

There is consistent evidence⁴⁰ that becoming a supporting peer is associated with better health, a greater sense of empowerment, increased health knowledge and improved self control. It is also perceived as an acceptable source of help within the prison environment and has an overall positive effect on both providers and recipients.

There are several possible approaches to peer-to-peer health education/promotion. In most of these approaches, a selected group of prisoners is trained to become peer educators. They learn, for example, how to engage in interactive small-group sessions, involving role-play, group discussions and demonstrations. Peers improve their own health behavior and are likely to promote risk reduction in their (prison) network. Some Belgian organizations (i.e. Modus Vivendi and SES) have already implemented this approach in Belgian prisons, leading to, i.e., the creation of a support group, the development of adapted educative material or improvement of the self-esteem of prisoners⁹⁴¹.

- **Implementation of integrated programs of drug addiction management in every prison**

Clear guidelines and protocols and more coordinated actions and policies concerning drug addiction and drug substitution should be available to the prison health care team. The implementation and adaptation of the guidelines to the prison context should be regularly monitored⁴². The primary care team should coordinate all actors concerned with the management of drug addiction such as the local prison management, the dentist, the physiotherapist, the psychologist, the nurses and GP and the local organizations. Drug substitution programs should be systematically offered in every prison as part of an integrated program for drug addiction management. Sharing expertise concerning drug addiction management between health care professionals should be organized, inside each prison and between prisons. To ensure continuity of care after release, external organizations should be involved in treatment inside prisons. Cooperation with independent health care professionals outside prison could be improved by organizing interdisciplinary meetings.

- **Implementation of drug free sections in prisons per region**

Addressing drug abuse could increase the chances of a successful reintegration of prisoners and guarantees better follow-up by external drug treatment organizations. Although there are still no results about the impact of the existing drug free sections on, for example, recidivism, treatment outside prison or finding a job, positive outcomes have been found such as improvements of the relationships between prisoners and between prisoners and staff, of the general health status, reduction of the re-selling of medications⁴³. These positive outcomes support the need for implementation of drug free sections in prisons. Prisoners enroll on a voluntary basis and accept to be treated in special intensive programs, in cooperation with external organizations. Prisons with drug free sections should be spread regionally. In prisons with a high

⁹ See the description of the activities of the SES here (in French):
http://www.ses-asbl.be/nos_activites.php



turnover of prisoners, drug free sections may be less useful. The three existing drug free sections in Brugges, Hasselt and Ruisdele can accommodate up to 40 prisoners and have strong connections with outside organizations such as the CAP.

Lack of standardised coordination of prison health care teams

- **Improvement of the coordination of health care at management level in every prison**

In each prison, a health care coordinator should be clearly identified and be responsible for decisions related to prison health care. The role and responsibilities of the health coordinator should be clearly defined and communicated to the health care teams and to the prison staff. The health care coordinator should support the interdisciplinary work and collaboration, act as case-manager for complex situations, ensure the follow-up of guidelines and organize regular meetings between health care teams and prison staff, and the collaboration with local health care facilities outside prisons. The health coordinator may also develop a local strategic health plan, determining different cooperation agreements with local health care providers, local risk reduction programs, health promotion priorities and organization of all health aspects. Health care coordinators should also support health promotion and prevention at the prison level. The health care coordinator is accountable to the FPS Public Health and the relevant federated authorities. The health care coordinator could be either a GP, either a (specialist) nurse.

Regular meetings between all health coordinators should be organized and facilitated by federal authorities to coordinate and evaluate health actions in prisons.

4.2.6.2 Lack of continuity of care after release

- **Organization of a discharge consultation**

Health care staff should be informed of the date of release, preferably a week before. The health care staff of the prison will then prepare a discharge letter, a copy of the health record, a supply of medications in case of disease or chronic treatment and a standard pre-release health assessment including a post-release action plan made up by the interdisciplinary team. Upon consent of the prisoner, after care could be organized with an outside health professional (e.g. family doctor).

4.2.6.3 Scenarios

Scenario 1: Existing primary care staff under responsibility of FPS Public Health

Previously mentioned building blocks could be combined and used to improve primary care services and reduce discrepancies between prisons.

Table 3 presents the scenario 1 for primary care : this scenario aims at improving the current primary care approach system with minimal changes (i.e current health care staff, already working within prisons transferred from FPS Justice to FPS Public Health).

**Table 3 – Scenario 1 for the organisation and delivery of primary care****Short description**

Transfer of the existing health care staff in charge of primary care to the **FPS Public Health**. A **dedicated team** continues to provide primary care inside prison (as per current situation).

Full description

Every prison has its own primary care team, composed of GPs and nurses, contracted and controlled by the FPS Public Health. The workforce of GPs and nurses per prison should be based on the number of prisoners and their health profile. The GP, assisted by nurses, is responsible for **a comprehensive initial assessment and screening** of pre-existing and potential health problems and health care needs. Fixed or mobile **screening equipment** such as XR should be available and operated by technical nurses supported by external specialist via telehealth or PAX systems. The initial assessment is preferably supported by telehealth tools with validated questionnaires including health promotion, health literacy and health prevention. Specific attention is paid to illiterate prisoners and linguistic barriers.

All health information is entered in electronic health record and kept up to date. During the assessment, prisoners are invited to share the contact details of a referent external health care professional to ensure continuity of care after release (with respect to prisoner privacy and patient confidentiality).

GPs and nurses **attend the medical problems. Regarding mental health problems and substance abuse, GPs and nurses should be responsible for screening, offering primary care treatment and keeping an overall view of patient's trajectory.** They work in close cooperation with external local organizations in charge of **prevention, health promotion or substance abuse**. They are supported and counselled by specialists and psychiatrists for specific health issues and **responsible for referral and follow-up to specialist care**.

They organize **regular consultations and triage** inside prison and a **guard system** in cooperation with local external medical guards or other prisons.

They are responsible for adequate **pharmacological and non-pharmacological treatment** of prisoners: i.e. a **de-medicalization** of problems in prison should be encouraged by offering alternatives (e.g. contacts with nurses, social workers, online chat sessions, communication with volunteers).

Telehealth supports the services of GPs and nurses with additional on-line tools for prevention, promotion, screening, on-line consultations and specialized treatment.

Intervention elements	Where	Whom
Assessment/screening of actual and potential health problems and health care needs	In prison	- Nurses and GPs - Specialized regional organizations (for example FARES /VRGT for tuberculosis screening) - Telehealth
Prevention of health problems	In prison	- Nurses and GPs - Regional organisations - Telehealth
In-depth diagnostics with basic equipment	In prison	Nurses and GPs, supported by technical nurses or medical specialists
Basic care therapy/intervention: no invasive interventions and no need of high investment equipment	In prison	Nurses and GPs
Distribution of medication	In prison	Nurses



• After care and preparation of transfer		In prison	• Nurses and GPs in close cooperation with the regular providers who take over after release
Pros	Cons		
• No major changes at the prison level • No change in human resources management for health care professionals • Preservation of existing experience and expertise within health care staff • Responsibility for health care in prisons endorsed by the FPS Public Health and not the FPS Justice		• No solution for the high demand of GP consultations due to lack of alternatives, resulting in long waiting lists • No involvement of regular health care professionals to support the objectives of continuity and equivalence of care • No improvement in harmonizing the delivery of health care between prisons, persistence of discrepancies between prisons • No improvement of the allocation/control of human/material resources/quality of care • No impact on the offer: wellbeing, health quality, accessibility • No change/improvement in collaboration between health care staff and security officers • No support for interdisciplinary coordination in the health care team • No explicit mission in terms of prevention, health promotion and continuity of care • Absence of a quality control based on processes and outcomes, no accountability of health care professionals	

4.2.6.4 Scenario 2: Regular health care providers with an interdisciplinary approach

Table 4 presents the scenario 2 in which an interdisciplinary approach to primary health care in prisons is developed. Regular health care providers working also outside of prisons would be responsible for the health care of prisoners. Health care professionals currently working in prisons could be transferred to those health care providers to preserve the knowledge/experience in this specific field.

**Table 4 – Scenario 2 for the organisation and delivery of primary care****Short description**

Regular local providers with an **interdisciplinary approach** oversee primary care inside prison, including health promotion, prevention, screening, continuity of patient care with outside care providers and coordination of the **interdisciplinary teamwork**. Local providers have **contracts with NIHDI & the regions for prevention & health promotion**.

Full description

The interdisciplinary primary care team is responsible for **the initial assessment and screening** of pre-existing and potential health problems and health care needs. This initial assessment will determine the severity, the patient-centered care plan, the treatment, the expected duration, and a referent health professional within the interdisciplinary team. The referent health professional should empower prisoners, making them more responsible for their health situation.

The initial assessment should be comprehensive and should include mental health, substance abuse, infectious diseases and dental health situation. Fixed or mobile **screening equipment** such as XR is available and is operated by technical nurses of the interdisciplinary team, supported by external specialist via telehealth or PAX systems. The initial assessment is preferably supported by **telehealth** tools with validated questionnaires including health promotion, health prevention and health literacy. Specific attention is paid to illiterate prisoners and linguistic barriers.

All health information is entered in electronic health record and kept up to date.

In case **substance abuse** is detected, a follow-up is initiated by the interdisciplinary team supported by local external organizations; an opportunity to follow a **substitution treatment** is offered.

During the assessment, prisoners are invited to share the contact data of a referent external health care professional to encourage continuity of care after release (with respect to prisoner privacy and patient confidentiality).

The interdisciplinary team should be able **to cover most health problems. As regarding mental health problems and substance abuse, they should be responsible for screening and assessment, for primary care treatment and for keeping an overall view of patient trajectory**. The interdisciplinary team should include the following disciplines: GP's, dentists, (community health) nurses, psychiatric nurses, social workers, physiotherapists, health promoters, psychologists, and health educators and other disciplines to cover specific needs. They develop a comprehensive care package, including health promotion, preventive care, curative care, aftercare and rehabilitation. They work in close cooperation with external local organizations in charge of **prevention, health promotion or substance abuse**. They should be supported and counselled by specialists and psychiatrists for specific health issues. The interdisciplinary team is **responsible for referral and follow-up to specialist care**. The interdisciplinary team organizes **regular consultations** inside the prison and a **guard system** in cooperation with local external medical guards.

The interdisciplinary team is responsible for adequate **pharmacological and non-pharmacological treatment** of prisoners and the **de-medicalization** of problems in prison. If alternatives are offered (contacts with nurses, social workers, online chat sessions, communication with volunteers), the request for medical services may decrease.

Telehealth supports the services of the interdisciplinary team by extending the interdisciplinary offer of the team with additional on-line tools for prevention, promotion, screening, on-line consultations and specialized treatment.

To ensure the efficiency of the interdisciplinary team, **a team coordinator** should be clearly identified. The health coordinator will monitor and assess the health care activities, elaborate a local health strategic plan with the interdisciplinary team, ensure the respect of guidelines, coordinate with the prison staff, support the external collaborations and ensure interdisciplinary teamwork. The coordinators will also collaborate to the relevant workgroups at local or national levels (e.g. health promotion, quality, prevention, etc.) to add their expertise to health policies and decision-making.

Existing supervisory organizations will oversee the **monitoring of the quality** of the services and the facilities: Dienst voor Geneeskundige Evaluatie en Controle/ Service d'Evaluation et de contrôle médicaux, Nationale Raad voor Kwaliteitspromotie / Conseil National de Promotion de la Qualité, Vlaams Agentschap Zorg en Gezondheid (VAZG), Agence pour une Vie de Qualité (AViQ).



Thematic workgroups about specific issues in prisons are likely to support the coordination of interdisciplinary teams between prisons, i.e. drug prevention, screening methods, de-medicalization or guidelines. These workgroups should be accountable for the exchange of good practice, benchmarks, the development of strategies and methods for the continuous improvement of services.

The **DG-EPI** will still be responsible for the **infrastructure** and **maintenance** of the health facilities in prisons.

Intervention elements	Where	Whom
Assessment/screening of current and potential health problems and health care needs	In prison	- Interdisciplinary team (GPs, (specialist) nurses, pharmacists, physiotherapists, occupational therapists, psychologists, nutritionists, podiatrists, social workers, dentist) - Specialized regional organizations (for example FARES/ VRGT for tuberculosis screening) - Telehealth
Prevention of health problem	In prison	- Interdisciplinary team - Regional organisations - Telehealth
In-depth diagnostics with low investment equipment	In prison	Interdisciplinary team, supported by technical nurses or specialists
Basic care therapy/intervention: no invasive interventions and no need of high investment equipment	In prison	Interdisciplinary team
Distribution of medication	In prison	Nurses
After care and preparation of transfer	In prison	Interdisciplinary team, in close cooperation with the regular providers that take over after release
Pros	Cons	
- Inclusion of coordination and interdisciplinary teamwork - Possibility of developing a specific expertise for health care professionals working with prisoners - Adaptation to the local context of the prisons, i.e. including local support organizations - Increased support for coordination with other health care professionals and social care professionals (e.g. social integration) - Comprehensive health care management (from early assessment to rehabilitation) - Possibility for preserving existing resources and collaborations - Possibility of allocating existing primary care staff of prisons to regular health care providers	- Lack of experience of regular health care providers regarding specific issues related to prisoners - Variations in size, service delivery, expertise and staff composition between existing integrated health care services - Unwillingness of existing primary care staff to be transferred to external organisations	



- Possibility of having a standard health care package for the whole prisoner population (horizontal equity)
- Increased possibility of ensuring after-release care
- Inclusion of prisons into the existing quality control by the relevant authorities

4.3 Secondary care

4.3.1 International recommendations

The standards of the CTP offer the following guidelines

(36) The direct support of a fully-equipped hospital service should be available, in either a civil or prison hospital. If recourse is had to a civil hospital, the question of security arrangements will arise. In this respect, the CPT wishes to stress that prisoners sent to hospital to receive treatment should not be physically attached to their hospital beds or other items of furniture for custodial reasons. Other means of meeting security needs satisfactorily can and should be found; the creation of a custodial unit in such hospitals is one possible solution.

(37) Whenever prisoners need to be hospitalized or examined by a specialist in a hospital, they should be transported with the promptness and in the manner required by their state of health.

4.3.2 Secondary care organization/provision

Access to secondary care for prisoners is mediated by GPs. Only a limited number of specialist consultations are currently provided inside prisons: 66 different suppliers of indoor specialist consultations were identified in the 2015 bills of the DG-EPI. The highest number of consultations were found for psychiatry, radiology, orthopaedics, dermatology and general surgery (see table 1 in section on health care use).

Most of the specialist consultations and interventions inside prison are organized in the 3 medical centres (CMC): Brugge, Lantin and Saint-Gilles/Sint-Gillis. When the necessary secondary care (specialist

consultation or intervention) is not available in a CMC, extraction to a fully equipped local hospital is organized. In case of emergency, the prisoner is transferred to a nearby hospital.

The CMC Brugge has several consultation rooms, a room equipped for medical imaging (ECG, EMG, XR), two surgery rooms, a sterilisation room, and a section of 22 operating hospital beds (2 non-operating beds). Consultations and interventions in prison are performed by medical specialists of the AZ Sint-Jan Brugge based on an agreement with this hospital. Surgical interventions inside prison are organised weekly during one morning. There is a nursing permanence and 12 FTE nurses are dedicated to hospitalisation. Medical surveillance is managed by the surgery department of the AZ Sint-Jan Brugge. If the prison infrastructure does not allow the performance of interventions or consultations, the prisoners of Brugge are transferred to the AZ Sint-Jan Brugge. Prisoners of other prisons are referred to a different local hospital.

In the CMC Lantin, specialists of the CHR-La Citadelle Liège deliver specialist consultations for a fixed payment fee inside prison walls. There are no dedicated pre- or post-op rooms in Lantin. All prisoners are extracted to the CHR-La Citadelle Liège for interventions where 4 secured hospital beds are permanently available and financed by the DG-EPI.

The CMC of Saint-Gilles/Sint-Gillis has several consultation rooms, a room equipped for medical imaging, operation rooms, a sterilisation room, and a section of 12 hospital beds. Nursing permanence requires 10,6 FTE nurses. A recent audit by the FPS Justice performed in the first 4 months of 2017 showed that 6 of the beds available at Saint-Gilles/Sint-Gillis had been closed down. Despite this reduction in the number of beds, the nursing workforce had been kept stable. In-prison specialists consultations are done by medical specialists of Cliniques de l'Europe, site Sint Elisabeth. The



medical surveillance of hospitalized patients in the CMC of Saint-Gilles/Sint-Gillis is done by the GP. If the prison infrastructure does not allow the performance of surgical interventions, prisoners are usually transferred to the CHU Saint-Pierre/UMC Sint-Pieter^h.

While each CMC has an agreement with one or a few nearby hospital(s) and also some prisons without CMC have agreements with local hospitals, external consultations are often done in various hospitals and medical centers (112 in 2015 according to the bills from the DG-EPI). Seventeen hospitals performed more than 100 consultations with prisoners in 2015, while 84 hospitals performed less than 30.

Besides the CHR-La Citadelle Liège and the AZ Sint-Jan Brugge, 65 other hospitals performed a total of 1.682 hospitalizations of prisoners. Eighteen hospitals had more than 30 hospitalisations in 2015. All hospitalisations are organised in single rooms for safety reasons.

In 2015, 1602 invoices for ambulance transports were identified, although these ambulance transports may be organised for both medical and non-medical reasons.

Nine prisons (Antwerpen, Brugge, Gent, Hasselt, Ittre, Jamioulx, Lantin, Merksplas and Saint-Gilles/Sint-Gillis) have XR-equipment available for screening, used for local prisoners and those of nearby prisons. The XR pictures are made by technical nurses inside prisons. None of the equipment is connected to PACSonWeb, or any other software allowing a distance evaluation.

Safety measures are regulated by the circulaire 1780 of December 23, 2005 applicable to extraction of prisoners to hospitals for medical consultations and hospitalizations. The prison management determines the level of security neededⁱ. In case of an extraction to a regular hospital for a consultation, 2 security officers accompany the prisoner during the whole consultation period. For each 24-hour hospitalization in a local hospital, 6

security officers are needed per detainee. Organisational problems at the CMC of Brugge illustrate the impact of safety staff on health care delivery: if the prisoner who needs a hospitalisation is a regular prisoner of the Brugge prison, security officers accompany the prisoners to the AZ Sint-Jan Brugge. If the prisoner who needs an hospitalisation is a prisoner transferred from another prison, the security officers of the Brugge prison refuse to accompany him/her to the AZ Sint-Jan Brugge. Consequently, these prisoners are hospitalised in local hospitals.

4.3.3 Secondary health care use

4.3.3.1 Specialist consultations

Based on EPICURE data, 25.718 specialist consultations took place in 2015 in prisons, excluding psychiatric consultations (see Table 1 for more information). Based on statistics delivered by the CMC of Lantin and Saint-Gilles/Sint-Gillis, Lantin performed 5.951 specialist consultations in 2014 and Saint-Gilles/Sint-Gillis 8.638 specialist consultations in 2015. No specific information was available for Brugge or the other Belgian prisons.

In addition to specialist consultations carried out inside prisons, numerous consultations (approximately 5.000) were performed in local hospitals outside prison. No information on the external consultations in the AZ Sint-Jan Brugge and the CHR-La Citadelle Liège are available since they use a combined billing system for more than one prisoner.

^h The CHU Saint-Pierre/UMC Sint-Pieter is the closest public hospital in the neighbourhood of the Saint-Gilles/Sint-Gillis prison.

ⁱ See the written question to the Minister of Justice of 08/02/2012 (In Dutch) <https://www.senate.be/www/?MIval=/Vragen/SVPrint&LEG=5&NR=5547&LANG=nl>



4.3.3.2 *Surgical interventions and hospitalisations*

In 2015, the CMC Brugge reported 231 surgical interventions and 34 prisoners were transferred to the AZ Sint-Jan Brugge for more complicated medical interventions and surgery related hospitalisations. At the CMC of Saint-Gilles/Sint-Gillis, 70 interventions were reported in 2015. In 2015, invoices of the CHR-La Citadelle Liège reported 412 hospitalisation days but no information is available on the number of prisoners that were effectively hospitalised.

In 2015, 1652 single prisoner bills for hospitalisation or one-day hospitalisation in local hospitals outside the CMCs were registered. This does not include hospitalizations at the CHR-La Citadelle Liège or at the AZ Sint-Jan Brugge where one invoice for several prisoners is used.

An audit carried out by the FPS Justice from 1st of January to the end of April 2017, reported an overall number of hospitalisations over that period of 231, of these 40% took place in the CMCs (Saint-Gilles/Sint-Gillis ou Brugge).

The CHR de la Citadelle de Liège registered over the same time period 42 hospitalisations, representing 18% of the total. The remaining 42% took place in other external hospitals scattered around Belgium.

The audit also captured the mean length of hospitalisation, which appeared to vary greatly when comparing the CMCs (LOS=22,5 days), la Citadelle (LOS= 4 days or the other, external hospitals (LOS=10 days). However, no robust conclusions can be drawn from such comparisons since the case mix of the patients/diagnosis/reasons for hospitalisations was not available. In addition to this, the longer LOS in the CMCs were discussed with the person responsible for the audit who believed the estimates could be a consequence of the fact that some prisoners are bedridden and do stay in the CMC beds for long periods of time, while this is not the case in external hospitals. Moreover, the estimates represented hospitalisations, but, in some cases, the same prisoner could be registered twice under, for

example, an external hospital (following a procedure and until stabilisation) and in the CMC (following stabilisation, until total recuperation).

4.3.4 *Secondary health care costs*

Table 5 shows the cost of secondary care per category of activities for the year 2015 in all prisons. Based on the bills recorded by the DG-EPI in 2015, specialist consultations in prisons were performed by 67 different suppliers for a total amount of € 1.199.355. The most important suppliers of specialist consultations inside prisons were the AZ Sint-Jan Brugge (21% of cost) and the CHR-La Citadelle Liège (8% of costs).

The overall staff costs of the CMC of Brugge was € 791.448: the cost of nursing personnel represented 650.484 € for the year 2015 for 12 FTE nurses (12 FTE x € 54.207/FTE nurses)^j and the costs of medical presence was of 140.964 € for 2015.

The overall staff costs of the CMC of Saint-Gilles/Sint-Gillis was € 735.933: the cost of nursing personnel represented 575.678 € for the year 2015 for 10,6 FTE (10,6 FTE x € 54.207/FTE nursing)^k and the cost of medical presence was of 160.225 € for 2015.

These staff costs of the CMCs do not include the costs of specialist interventions and consultations, the security costs or the costs of medical devices and medical material.

The bills for hospitalisations outside the CMC amounted to €3.870.151 in 2015. Fifty per cents of these bills include agreements with the CHR-La Citadelle Liège (€ 968.143), partly for the secured rooms, and with the AZ Sint-Jan Brugge (€ 977.384), partly for their medical guards at the CMC of Brugge. The other 50% include hospitalisations in 65 different hospitals for 2015.

^j Data reported by F. De Smet, DG-EPI

^k Data reported by F. De Smet, DG-EPI



The permanent daily cost per secured hospital bed at the CHR-La Citadelle Liège was € 398, that is € 579.479 per year for 4 beds¹. Extra costs are charged in case of hospitalization. In 2015, the total hospitalisation costs for the CHR-La Citadelle Liège was, as previously mentioned, € 968.143 for 412 hospitalization days, leading to an average cost per hospitalisation day of € 2.349.

External specialist consultations were performed by over 100 different providers in 2015, resulting in a total of 4.856 bills for a total cost of € 890.753. The CHR La Citadelle Liège accounted for 38% of the costs of these external specialist consultations.

Table 5 – Costs of secondary care per category of activities inside and outside prisons in 2015

Category of activity in secondary care	Costs (€)
Secondary care inside prisons	
Specialists freelancers	€ 1 199 355
Nurses CMC	€ 1 226 162
Medical guards CMC	€ 301 216
Total of secondary care inside prisons	€ 2 726 733
Secondary care outside prisons	
Day hospitalisation/hospitalisations (exc. CMC medical guards)	€ 3 729 187
External consultations	€ 890 754
Clinical biology	€ 502 121
Transportation	€ 312 774
Total of secondary care outside prisons	€ 5 434 837
Total costs for Secondary Care	€ 8 161 569

Source: DG-EPI, 2015

4.3.5 Secondary health care problems

4.3.5.1 Transport, security and logistics

Transport of prisoners to CMC or to local hospitals is one of the main problems in secondary care. As stated by all interviewees, transport is difficult to organize as police, safety corps and, sometimes, security officers need to be coordinated and deployed. There is currently approximately one out of three extractions refused by the prison management for security reasons, transportation problems or lack of security personal. It is, among others, the case for the Saint-Gilles/Sint-Gillis prison where there is a serious lack of penitentiary security officers to assure the transportation of prisoners. Moreover, centrally organized transportation to CMC is even more difficult than the transportation to local hospitals. The organisation and planning of transportation is time-consuming and require lots of administrative tasks. Therefore, going to a simple consultation in a CMC could take up to 2 weeks and numerous medical appointments must be cancelled because of logistics and transportation problems. Besides, the cost of the accompanying security officers due to safety regulations is high.

Prisoners are often extracted to local hospitals instead of the CMC for consultation and interventions. However, these local hospitals are insufficiently secured to prevent break in/out into rooms of prisoners. This is a concern when looking at the rise of radicalisation, terrorist association and gang formation observed in prison. To ensure safety, prisoners are hospitalized in single rooms but this leads to (high) supplementary fees for specialist interventions. Some prisons have agreements with a hospital although there is no standardisation in the agreements between prisons and local hospitals. The hospitalisation and consultations in external hospitals generate a high administrative burden, especially regarding the follow-up of bills and invoices. Moreover, the DG-EPI is unable to review the bills upon correctness.

¹ Invoices of CHR-La Citadelle Liège in 2015 concerning the "Convention SPF Justice et le CHR: Lantin-lits sécurisés".



4.3.5.2 *Shortage of specialists willing to come into prison*

An important challenge in secondary care is the shortage of specialists delivering health care inside prisons: specialists are reluctant to do so, especially if they have no guarantee that the interventions will be performed in their hospitals or that they will be in charge of the follow-up. As an illustration, orthopedists of the AZ Sint-Jan Brugge no longer organise consultations in the CMC of Brugge because they know that prisoners coming from prisons other than Brugge will be treated in other hospitals if requiring an intervention or a “complicated” follow-up. The field visits revealed that Brugge security officers refused to secure such prisoners when needing an external hospitalisation.

4.3.5.3 *Outdated medical equipment*

Because of the high costs and rapid development medical equipment is subject to, interviewees stated that CMCs often fail to provide equipments that are up to the standards of hospitals outside prison walls. In some cases, CMCs do not even comply with current quality standards of medical imagery. Due to these limitations, only a few interventions can currently be performed inside prisons (i.e. basic medicosurgical acts).

4.3.5.4 *Barriers at prisoner level and annulations*

Interviews revealed that barriers to secondary care also exist at the prisoner level. First, prisoners fear that if they leave their prison to be transferred to a CMC, they may lose their cell, jobs (if working) and may not be allowed to receive any visits (e.g. the CMC of Lantin was thought to have a very strict regime with no visits and no walks). Second, prisoners also experience personal barriers such as poor health literacy, cultural or linguistic barriers that prevent them from correctly formulating their complaints to the health care staff, although these barriers are not specific to secondary care. Third, some prisoners lack of confidence in the health care staff of the CMCs and refuse to go. As a consequence, there is a high rate of no-shows for planned consultations and interventions not just in CMCs, but also in local hospitals. Data from the CMC of Saint-Gilles/Sint-Gillis show that more than 50% of all planned activities in 2015 were cancelled. Data of the Lantin CMC show a

rate of 52% of annulations for consultations, increasing up to 86 % if prisoners have to stay overnight.

4.3.5.5 *Complexities linked to an ageing prisoner population*

The delivery of secondary care must cope with the ageing of prisoners. The number of prisoners between 60 and 70 years is currently rising, and, consequently, the need for understanding and caring for more complex comorbid health profiles⁴. Moreover, prisoners often show signs of early aging because of the sanitary and health conditions and other factors associated with imprisonment. Prisons are, at present, not designed for the elderly, because of lack of appropriate facilities and services. This may prevent them from an effective resocialisation or social insertion after release.

4.3.5.6 *Others*

Developing secondary care for prisoners should also consider the current reorganisation of the hospital care led by the FPS Public Health where hospitals have to be reorganised in networks serving a catchment area of 400.000 to 500.000 inhabitants. This major reform is not supporting the development of specific fully-equipped hospital reserved for prisoners as the mean prison population in 2015 was only 11.040. Instead, prisoners would need to be integrated in the existing network of hospitals.



4.3.6 Building blocks and scenarios

4.3.6.1 Building blocks

Transport, security and logistics

Five approaches could be considered to reduce cost of transportation/safety, no-show rates and barriers for prisoners by increasing the efficiency and access to specialist care.

- **Offering specialist consultations inside prison**

When requiring no or few equipment, specialist consultations could be organized inside prisons. If prisons have agreements with a limited number of hospitals, those hospitals could facilitate specialist consultations within the local prisons. These specialist consultations already exist in some prisons and should be pursued and elaborated to reduce the need for extractions.

- **Using penitentiary leave for external specialised medical consultations and interventions**

Prisoners entitled to penitentiary leave (16% of the prisoners) should see a specialist or go to a hospital during penitentiary leave. The prison GP acts as a gatekeeper and refers these prisoners to the most adequate external health care facilities: primary care center, polyclinic, specialist consultation or hospital. This system is likely to reduce the number of extractions and the mobilization of security officers. However prison should offer guarantees that prisoners they will keep their cell and job (for those working) during the penitentiary leave for medical reasons.

- **Equipping large prisons with XR-machines and deploying mobile XR-equipment**

As the PACSonWeb system enables distant evaluations of images by radiologists, this should be deployed in the 9 prisons already offering XR equipment and the CMC. Trained medical imagery personal or trained nurses can perform basic radiologic acts, similarly to the current situation. Investing in frequently used, low cost medical imagery

equipment may reduce costs linked to extractions. However, further data on costs would be necessary to assess to what extent the necessary investment to implement such system could be balanced out by a reduction in transportation and security costs.

For smaller prisons or prisons with low numbers of incoming and outgoing prisoners, the use of a mobile radiologic unit should be investigated. This kind of mobile unit is already used for screening purposes (e.g. FARES/VRGT, mammography). Feasibility will depend on the initial investment, the cost of maintenance and the extra costs of a driver.

- **Development of an extraction system with dedicated prison vehicles**

Daily transportations need to be organized between prisons and hospitals with dedicated vehicles and security staff, alongside with an appropriate and efficient planning system, including the identification of the most adequate trajectories between the prisons and the health care facilities. Medical transport should be reserved to prisoners with health needs and should never be used for other purposes (e.g. transportation to the Court).

To ensure safety, a specialized trained security team should be exclusively in charge of transportation for medical reasons. Transport for other reasons should be managed by the security officers of the prisons. Transports in case of emergency (112) should be secured by the security officers of the prisons. Medical transportation could be outsourced to a private partner.

The improvement the overall management of transport in combination with guarantees that prisoners can keep their cell and/or job during extraction will likely reduce the number of no-shows.



- **Development of special agreements with a limited number of hospitals**

Specific agreements could be made with a limited number of hospitals to provide secondary care to prisoners. These agreements will clarify the administrative process and may support the control of costs. Specific agreements may also facilitate the organisation of the transportation and the planning of the prisoner transfers to the local hospital. This may also contribute to the development of a specific expertise of the health care staff of the hospitals and to a better integration of safety rules into the hospital routine. By selecting a limited number of hospitals, this may also reduce the dispersion of prisoners and ease the implementation of a specific medical transport system between prisons and health care facilities.

Shortage of specialists willing to come into prisons

- **Agreements with local hospitals**

Such agreements could solve the problem of shortage of specialist willing to work in prison. This will, however, require an inventory and quality check of available equipments in prisons to ensure appropriate work conditions for the specialists.

- **Use of telehealth to improve accessibility to specialist care**

Telehealth or telemedicine consists in the delivery of health services via remote telecommunications, including interactive consultative and diagnostic services. It allows the delivery of specialised medical acts by a trained nurse with the remote support of qualified medical professionals.

Examples of such interventions are found in other countries⁴⁴: An Italian study²² investigated the use of remote tele-cardiology support for cardiac emergencies in 12 Italian prisons. This study demonstrated the feasibility of pre-hospital electrocardiogram to reduce the number of unnecessary urgent extractions. From the international comparison⁸,

we found that in Scotland, telemedicine is currently under development, to reduce (unnecessary) hospital transfers, by improved triage and supportive decision-making. Implementation of telehealth is likely to reduce the number of extractions and to increase accessibility to specialist care.

Barriers at prisoner level and annulations

- **Reduction of the rate of no-show prisoners**

As stated earlier, no shows negatively impact the overall efficiency and accessibility of secondary care. Efforts should be made at the prisoner and prison levels to reduce them. Primary care teams should reinforce health literacy skills of prisoners through health promotion activities as lack of trust and knowledge may impede the prisoners from accepting health care. When necessary, face-to-face or remote interpreters or mediators should be provided to overcome linguistic barriers. For those cancelling their appointments without a reasonable time limit (e.g. less than 48h), a sanction could be applied, i.e. a temporary privation of the canteen money^m. This is similar to the current practices of health care professionals and hospitals charging patients in case of no-show.

If the late cancellation of the medical appointments is due to the prison management, a fine should be agreed upon and paid to the hospital/health care professional as a compensation. This should be included in the agreement with the health care professionals/hospitals.

^m Or any administrative sanction that may be easily organised



Complexities linked to an ageing prisoner population

Ageing prisoners and those needing specific infrastructure and treatments should be concentrated in specialized wards.

- **Providing geriatric and palliative care when there is no alternative of care available**

Elderly prisoners and prisoners needing palliative care should preferentially be cared outside prisons, with appropriate surveillance when necessary. Those still considered as a threat to society could be transferred to a special nursing ward with 24/7 permanence inside prison walls. The nursing wards should be adapted to the needs of prisoners in order to provide comprehensive nursing and medical care (see, for example, the CMC of Brugge).

Others issues in secondary care

- **Delivering emergency care in local hospitals**

Emergency care must be performed in a nearby local hospital. Each cluster of prisons must make an agreement with a local hospital that will be used if emergency care is needed. Agreements with local hospitals should consider not only financial aspects, but also safety aspects.

- **Standardization of invoicing to improve cost control**

To improve cost control, a standardized system of invoicing should be developed and used by all health care professionals and facilities providing secondary care for prisoners. Like the interventions of CPAS/OCMW in health care costs, only the NIHDI tariffs will be paid to health care professionals / hospitals. No additional co-payment would be charged to the prisoners. This should be included in the agreements with the health care professionals/hospitals.

4.3.6.1 Scenarios

Scenario 1: Central Medical Center inside prison

Table 6 presents the scenario 1 for secondary care in which safety is prioritized over equivalence of care: the focus is on delivering as much secondary care as possible inside prisons. Under this scenario, the exploitation of one central CMC should be continued. All activities and interventions inside prison walls should be concentrated to improve the efficiency of the health care staff and the medical surveillance. Moreover, the investment in infrastructure inside prison should be optimized by reducing it to a single location. Equivalence can be improved by outsourcing the exploitation of this central CMC to a hospital of reference. However, some interventions will still need highly specialized operation rooms and equipment only available in fully equipped hospitals outside prisons. Extraction of prisoners to a fully equipped hospital can never be completely avoided: complicated interventions, diagnostic and emergency services will still require external hospitalisation.

**Table 6 – Scenario 1 for secondary care****Short description**

Concentration of **basic interventions in one central CMC inside a prison outsourced to one referent hospital**. Complicated diagnostics and interventions will be carried out in the **referent hospital** (excluding emergencies).

Full description

Specialist consultations that require limited investment in equipment are performed in **several prisons by local specialists upon agreements**. The **GP acts as gatekeeper** for specialist consultations. One **central CMC is equipped for specialist consultations, basic interventions that can be done in standard operating rooms and a hospitalisation unit**. The exploitation of the CMC, hospitalisation unit and the operating room is **outsourced to a local hospital of reference** to improve the standards of care to a level comparable to that of the outside market. The local hospital employs nurses, medical specialists, technical staff for medical imagery, sterilization and cleaning. They also oversee exploitation of the hospital unit, operating rooms and the sterilization unit. They provide medical supplies and technical support. When there is no possibility of providing the needed specialist care within the central CMC (consultations, diagnostics or interventions in need of highly specialised equipment) prisoners are extracted to the referent hospital. The referent hospital limits hospitalization to a minimum. In case of **emergency situations**, the prisoner is not transported to the CMC but immediately extracted to a **local hospital nearby the prison**.

The deployment of **telehealth** is key to enable the collaboration between hospital specialists and health care professionals working in prisons and to avoid the extraction of prisoners.

Intervention elements	Where	Whom
• Specialist consultation, diagnostics in need of limited equipment	In prison	• Local specialist & nurses • Telehealth
• Specialist consultation, diagnostics with specialized equipment	Central CMC	• Referent hospital (Nurses, medical specialists, technical staff in charge of medical imagery, sterilization and cleaning) • Telehealth
• Specialist consultation, diagnostics with highly specialised equipment not available at the CMC	Referent Hospital	• Referent hospital
• Basic interventions possible in standard operation rooms	Central CMC	• Referent hospital
• Interventions in need of highly specialised equipment	Referent Hospital	• Referent hospital
• Hospitalisation	Central CMC	• Referent hospital
• Hospitalisation in need of specialized observation	Referent Hospital	• Referent hospital
• After care	In prison	• Referent hospital • Primary care team • Telehealth



Pros	Cons
• Highest possible level of security for prisoners who most often receive care inside prison • Decrease of safety and transportation costs by concentration of prisoners in one CMC and hospital • Organisation of health care inside prisons by regular providers • No major changes needed • Improving quality control as health care is concentrated in a single facility • Improved equivalence of care as a regular health care provider delivers secondary care • Improved support for logistic and administrative aspects (sterilisation, secretary...)	• Limited number of interventions possible in CMCs because of lack of highly specialised equipment/installations • Low rate of occupation of OR infrastructure leading to high maintenance costs • Unaffordability of implementations of new/updated medical technologies in CMCs resulting in inadequate/outdated installations on long term • Shortage of specialists willing to work in CMCs • Organisation of numerous and long-distance transports from prisons to the central CMC • Refusals of prisoners to be treated at the CMCs because they are afraid of losing their job, cell and other detention-related conditions such as having visits of their relatives and other visitors (e.g. lawyers) • Organisation of transports still necessary for those that cannot be managed in the central CMC or the referent hospital

4.3.6.2 Scenario 2: Secured ward outside prison in hospital

The combination of safety and equivalence of care can only be obtained if a ward inside a hospital is secured, and prisoners are extracted to the secured ward for specialist care. The infrastructure of the fully equipped hospital is made available to prisoners and maximum security outside prison is obtained in this scenario. All activities and interventions should be concentrated to improve efficiency of staff and medical surveillance and minimise the necessary investment in infrastructure for a secured ward. Extraction of prisoners to a local hospital will remain necessary for emergencies.



Table 7 – Scenario 2 for secondary care

Short description

Concentration of all **elective** specialist care in need of specialized equipment in **1 central hospital with secured ward** in the immediate proximity of one prison. **Emergency** care in a **selection of local hospitals** near every (cluster of) prison.

Full description

Specialist consultations that require limited investment in equipment are performed in several prisons by local specialists upon agreement. The **GP is gatekeeper** for specialist consultations. **All elective consultations, diagnostics and interventions requiring highly specialised equipment are centralized in one hospital with a secured ward in a bilingual central setting.** For interventions, diagnostics and consultations with specialized equipment, the regular infrastructure of the hospital is used. Safety is assured by the security personnel present in the hospital. **In case of emergency, the prisoner is immediately extracted to a local hospital nearby the prison.** For elective specialist care, **daily (grouped) extractions** are executed from the nearby prison to the fully secured hospital ward. Grouping prisoners that require secondary care, is expected to increase efficiency and reduce the cost. Existing regular transportation between prisons can be used for transportation towards the prison nearby the central hospital. This internal transport must be efficient to minimize the extraction time from the “mother prison”. The DG-EPI will still cover transportation and security costs.

The dedicated hospital ward should be **fully secured** (limited accessibility, window securitization, security staff ...) with a reserved access and elevator and a specialized team of security officers paid by the DG-EPI.

Telehealth is implemented when possible. It enables the specialists of the central hospital to conduct triage and pre-op consultations, including interactive consultative and diagnostic services to reduce (unnecessary) hospital transfers, by improved supportive decision-making.

The **planning** of hospitalizations, interventions and consultations is done by the **hospital** in close **cooperation with the DG-EPI of the FPS Justice** in charge of transportation.

Intervention elements	Where	Whom
Specialist consultation, diagnostics in need of limited equipment	In prison	- Local specialist & nurse - Telehealth
Specialist consultation, diagnostics with specialized equipment	Referent Hospital	- Referent hospital (nurses, medical specialists, safety staff, support staff from the central hospital (administrative, social, technical and maintenance)) - Telehealth
Interventions	Referent Hospital	Referent hospital
Hospitalisation	Referent Hospital	Referent hospital
After care	In prison	- Primary care - Telehealth
Pros	Cons	
- Availability of internal transportation on a daily basis - Efficient use of security officers and high levels of security outside prisons	- Numerous and long internal transportation to the central hospital - Geographical disparities depending on the location of the central hospital - Impact on local prison situation of the prisoners: visits, loss of cell, loss of work	



- Dedicated safety staff with good interaction with health care team in the hospital
- Reduction of length of stay in local emergency hospitals: increasing safety and reducing safety cost
- No investment needed in local CMCs
- State of the art infrastructure in equivalence with regular market
- Efficient use of health care staff
- Improved continuity of patient care
- Accessibility to different specialties inside the hospital
- Implementation of telehealth limited to one hospital
- Control of quality, cost, service, safety limited to one centralized hospital
- Reduction of the rates of sudden annulations of consultations and interventions
- Need for contracts with local hospitals for emergency care
- Risk of high costs of dedicated safety staff in case of low occupancy
- Investment costs for a secured hospital wing
- Need of highly trained nursing staff being able to take care of a highly heterogeneous patient population on a secure ward, prisoners with different diagnoses and procedures are mixed on one ward;
- Need for a separated ward for men and women
- Higher risk of nosocomial infections due to the mix of pathologies
- Organization of pre-intervention consultations
- Bilingual health care staff
- Increased need for coordination inside the hospital, including the organization of internal transport

4.3.6.3 Scenario 3: Contracting with local hospitals

Table 8 presents the scenario 3 for the secondary care. Scenarios 1 & 2 include an important number of extractions towards central hospitalization

units inside or outside of prison. If short, less costly transportation is a priority, prisoners could be treated in nearby hospitals instead. Since this scenario involves several hospitals, the cost of securing wards and staff will increase substantially.

Table 8 – Scenario 3 for secondary care

Short description

Specialist care is offered in a **limited number** of local hospitals.

Full description

A cluster of prisons has an agreement with one referent hospital in charge of specialist care. Specialist consultations that require limited investment in equipment are performed inside prisons by specialist of the local referent hospitals. **Emergency care** and **elective** specialist care (consultations, diagnostics and interventions) that cannot be carried out inside prisons are organised in a selection of local referent hospitals near every (cluster of) prison. If the local referent hospital is not able to deliver the specialist care because of lack of equipment, (e.g. MRI), another referent hospital that has an agreement with prisons is used for referral. The planning of hospitalizations, interventions, consultations and diagnostics is done by the referent hospital in close cooperation with local prison management and DG-EPI in charge of transportation and safety. The DG-EPI still covers transportation and security costs. Telehealth is implemented when possible. It enables the specialists of the central hospital to conduct triage and pre-op consultations, including interactive consultative and diagnostic services, to reduce (unnecessary) hospital transfers, by improving triage and supportive decision-making.

Intervention elements

Where

Whom



• Specialist consultation, diagnostics in need of limited equipment	In prison	- Local specialist & nurses - Telehealth
• Specialist consultation, diagnostics with highly specialised equipment	Referent Hospital	• Referent hospital (all the necessary health and support staff of the hospital is involved)
• Interventions in need of highly specialised equipment	Referent Hospital	• Referent hospital (all the necessary health and support staff of the hospital is involved)
• Hospitalisation in need of specialized observation	Referent Hospital	• Referent hospital (all the necessary health and support staff of the hospital is involved)
• After care	In prison	- Referent hospital - Specialist & nurse - Telehealth
Pros		Cons
- Reduction of internal transportation to central prison - Minimum impact on local prison situation of the prisoner: visits, loss of cell, loss of work, ... - Increased availability, feasibility and willingness of specialist consultations inside prisons - No investment costs on a secured hospital ward - No investment in local CMCs - Inclusion of both emergency care and other specialized health care services - Improved continuity of patient care - No monopolist situation with possibility of benchmarking - Increased geographical accessibility - Availability of a state-of-the-art infrastructure in equivalence with regular market - Increased coordination with local first line health care teams in prisons - Existing 'good practice' example between the prisons of Hoogstrate, Merkplas, Turnhout and Wortel with AZ Turnhout ¹¹		- Safety level and impact on services for high security prisoners: safety in local hospitals only assured by security officers and not through infrastructure - High safety costs – more security officers required for each consultation hospitalisation - Acceptance of safety personnel regarding transfer and surveillance at the local hospitals - No economy of scale - Scattered services / local disparities regarding availability and willingness - No acceptable solution for long stays - Risk of discretionary decisions by safety staff regarding the availability and accessibility of the services - Implementation of telehealth in all prisons and local hospitals partnered with them - Need for coordination regarding health issues and safety issues inside and outside prisons - Organization of pre-intervention consultations



4.4 Specialized mental health care

4.4.1 International recommendations

The WHO⁴ recommends the following points considering mental health care for prisoners:

Prisoners with mental health problems benefit from good basic prison care. The mental well-being of any prisoner can deteriorate if his or her needs are not met. Studies have consistently shown that the prevalence of poor mental health among prisoners is considerably higher than in the community. Prison mental health services should be based on the health needs of prisoners. This might require more intensive and integrated services than in the wider community. Prisoners with mental health problems will often also have several other vulnerabilities, such as substance misuse problems, poor physical health, learning difficulties, poor life skills, histories of trauma, relationship difficulties, unstable housing and/or homelessness, poor education and limited experience of employment

Improving mental health care is also likely to have a positive impact on the regime in terms of safety and security. Additionally, it may result in improved outcomes for prisoners on release from prison, both for the risk of exacerbation of illness and in the recidivism risk for criminal offences.

Mental health treatment and care need to address all the prisoners' needs, including their social needs, and be psychosocial in nature. All staff working in prisons should have an appropriate level of mental health awareness training, which should cover the specific needs of those with personality disorders. Prison populations do not reflect the communities that surround them; instead prisons represent communities where the prevalence of all illnesses, including and especially mental illness, is much higher than in the community. This might require more intensive and integrated services than in the wider community. Fellow prisoners or ex-offenders can often help to support mental well-being through mentoring. All prisoners should be screened on entry to prison for a range of mental health and related problems. There should also be other opportunities to identify needs.

Some prisoners suffer from severe or acute mental health symptoms and may benefit from treatment in a psychiatric unit, either in the prison or in a hospital.

The CTP standards¹ also emphasize the importance of good mental health care:

In comparison with the general population, there is a high incidence of psychiatric symptoms among prisoners. Consequently, a doctor qualified in psychiatry should be attached to the health care service of each prison, and some of the nurses employed there should have had training in this field. The provision of medical and nursing staff, as well as the layout of prisons, should be such as to enable regular pharmacological, psychotherapeutic and occupational therapy programs to be carried out.

It could be questioned if a prison is the ideal place for therapy. If so, it could be done by internal or external health care professionals. It seems necessary to explore the possibilities to create a psychotherapeutic climate in some cases, and if so, it would be better done by external professionals

The CPT stresses the role to be played by prison management in the early detection of prisoners suffering from a psychiatric ailment (eg. depression, reactive state, etc.), with a view to enabling appropriate adjustments to be made to their environment. This activity can be encouraged by the provision of appropriate health training for certain members of the custodial staff.

The CPT asked the Belgian government to put in place a structure that enables the provision of mental health care in prison. Every internee should have an individual treatment plan, a systematic psychiatric follow-up and be provided with therapeutical and occupational activities. In addition, the Belgian government should take adequate measures to provide more therapeutical possibilities for prisoners with mental health disorders and, in particular, increase the number of psychiatrists and psychologists in place. Additional recommendations of the CPT have been made regarding the situation of internees.

**The CPT standards state:**

“A mentally ill prisoner should be kept and cared for in a hospital facility which is adequately equipped and possesses appropriately trained staff. That facility could be a civil mental hospital or a specially equipped psychiatric facility within the prison system. On the one hand, it is often advanced that, from an ethical standpoint, it is appropriate for mentally ill prisoners to be hospitalized outside the prison system, in institutions for which the public health service is responsible. On the other hand, it can be argued that the provision of psychiatric facilities within the prison system enables care to be administered in optimum conditions of security, and the activities of medical and social services intensified within that system. Whichever course is chosen, the accommodation capacity of the psychiatric facility in question should be adequate; too often there is a prolonged waiting period before a necessary transfer is carried out. The transfer of the person concerned to a psychiatric facility should be treated as a matter of the highest priority.”

“A mentally disturbed and violent patient should be treated through close supervision and nursing support, combined, if considered appropriate, with sedatives. Resort to instruments of physical restraint shall only very rarely be justified and must always be either expressly ordered by a medical doctor or immediately brought to the attention of such a doctor with a view to seeking his approval. Instruments of physical restraint should be removed at the earliest possible opportunity. They should never be applied, or their application prolonged, as a punishment.ⁿ In the event of resort being had to instruments of physical restraint, an entry should be made in both the patient's file and an appropriate register, with an indication of the times at which the measure began and ended, as well as of the circumstances of the case and the reasons for resorting to such means.

ⁿ There is a distinction between isolation as a sanction and isolation as a protective or preventive measure. The distinction in procedure is clear, but not always in practice. The prison director decides on the type of punishments that are allocated.

4.4.2 Specialised mental health care organisation/provision

There are 12 prisons with psychiatric annexes: Antwerpen, Brugge, Gent, Jamioulx, Lantin, Leuven-Hulp, Merksplas, Mons, Namur, Paifve, Turnhout and Forest/Vorst (incl. Berkendael). Since 2007, these prisons have “psychiatric health care teams”, that include a psychiatrist, a psychologist, a social worker, an occupational therapist, a psychiatric nurse, a physical therapist and an educator and are assisted by trained security officers^o. They provide therapeutic mental health care to internees and, to a lesser extent, to severe mentally ill prisoners. One psychiatric health care team per 40 internees has been assigned⁴⁵. In prisons without a psychiatric annex, specialized mental health care is provided by the primary care team and/or psychiatrists. When no psychiatrist is assigned to a prison, the expert psychiatrist of the psycho-social service PSD/SPS could be solicited although it is not part of their missions.

In some prisons, local mental health services provide specialized mental health care inside prison or intervene after release to support former prisoners. The health and welfare department of the Flemish region has appointed a coordinator to supervise the implementation of the strategic plans for welfare and assistance to prisoners. To our knowledge, no equivalent position currently exists for Wallonia or Brussels, but several coordination and discussions platforms were established to align policy and activities.

^o Ministeriële omzendbrief 1800 betreffende “Zorgequipes in psychiatrische afdelingen van de gevangenen, in afdelingen en inrichtingen tot bescherming van de maatschappij: doelstelling, samenstelling, werking” van 7 juni 2007 / Circulaire ministérielle 1800 concernant « Les équipes de soins dans les services psychiatriques des prisons, des départements et des



4.4.3 Specialized mental health care use

A distinction should be made between internees and “regular” prisoners with mental health problems. The number of internees decreased by 30,5% between 2014 and 2017: 1.088 internees in 2014, 904 internees in 2015 and 756 internees in 2016. The 2016 Masterplan of the Minister of Justice^p states that all internees should be treated outside of the prison system. Since 2015, the transfer of internees to a Forensic Psychiatric Center (FPC) is operational for FPC Gent (264 places). A transfer of 182 internees is planned for the FPC Antwerp and future additional places are foreseen in Aalst, Wavre and Paifve. However, despite the transfer to FPC, there will always be internees returning to prison or awaiting decision of the Chambers for the Protection of Society.

As shown in Table 1, 29.785 contacts with psychiatrists were registered in 2015. The rate for psychiatric consultations was 2,9 per person-year (95%CI: 2,8-2,9); the consultation rate was expectedly much higher for internees than for other prisoners (Hazard ratio=2,98; 95%CI: 2,66-3,36) but large variations across prisons were observed for psychiatric consultations both among internees and non-internees (e.g. a mean of 26,0 for internees in Forest/Vorst versus 5,3 for internees in Merksplas and a mean of 11,7 for non-internees in Berkendael versus zero in several other prisons)⁷.

Although the psychiatric health care teams are mainly in charge of the treatment of internees, they sometimes also treat regular prisoners with severe mental illnesses.

4.4.4 Specialized mental health care costs

Table 9 presents the costs of specialized mental health care per category of health care professionals and by place of delivery. Although the focus of this report is the health care of inmates, costs currently spent by DG-EPI on internees extra muros are also included in the table for completeness. Nevertheless, those costs represent mostly invoices paid to Les Marronniers (80%). Costs of mental care intramuros, amounted to €7.304.000 in 2015

Figure 3 presents the cost of specialized mental health care per prisoner per prison.

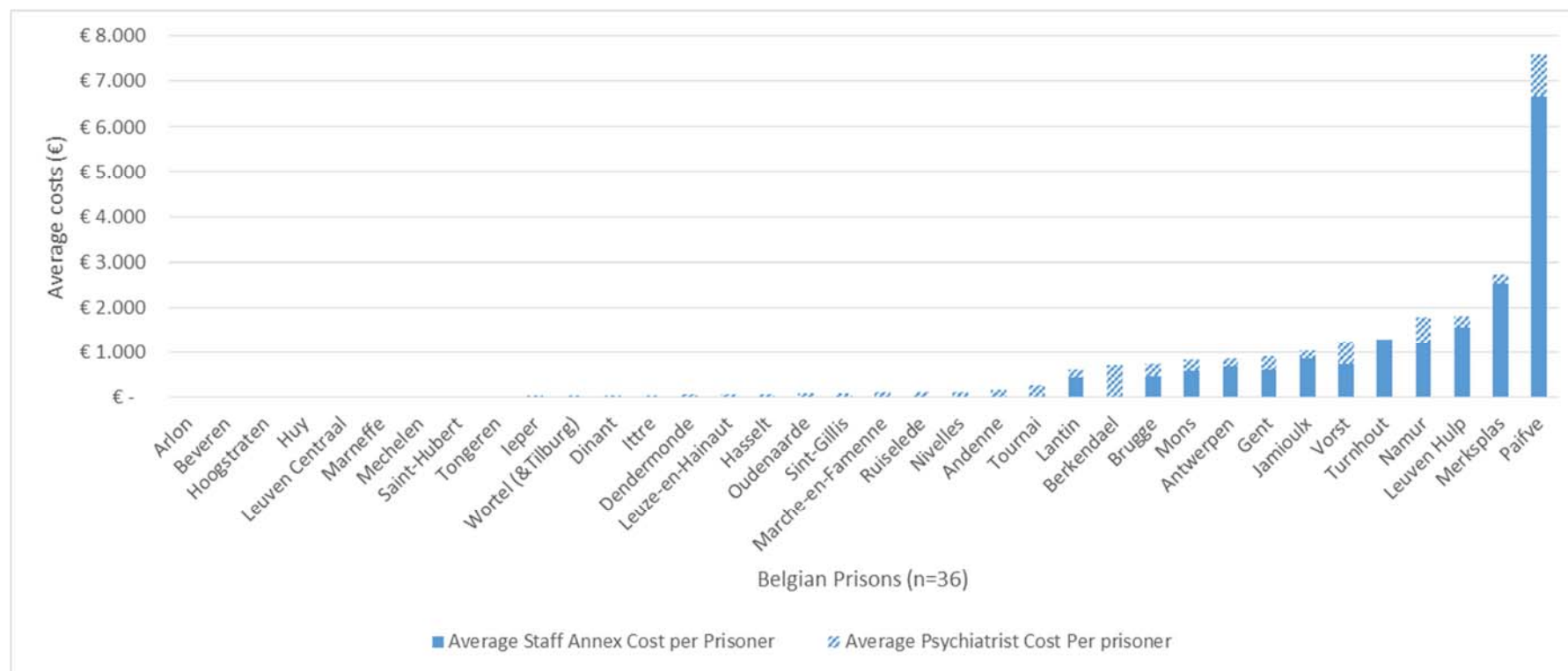
Table 9 – Cost of mental health care per category in 2015

Expenses category by place of delivery	Costs (€)
Intramuros mental health care	
Freelance psychiatrists	€ 1 353 704
Salaried psychiatrists	€ 160 386
Nurses in the psychiatric annexes	€ 2 414 930
Psychiatric care team (exclusive of nurses)	€ 3 375 869
Total of intramuros mental health care	€ 7 304 890
Extramuros mental health care	
NHIDI recognised and non-recognised mental health centres for internees	€ 21 156 284
Total of extramuros mental health care	€ 21 156 284
Total Mental Health Care	€ 28 461 174

Source : DG EPI, 2015

établissements pour la protection de la société: objectifs, la composition, le fonctionnement” du 7 juin 2007

^p See the masterplan for prisoners and internees, 18/11/2016, (in Dutch) <https://www.koengeens.be/news/2016/11/18/masterplan-gevangenis-en-internering-goedgekeurd>

**Figure 3 – Average costs of psychiatric health care teams and psychiatrists per prison and per prisoner in 2015**

Source: DG-EPI, 2015



4.4.5 *Specialized mental health care problems*

4.4.5.1 *High demand for mental health care and insufficient offer of psychiatric care*

Prisoners have a poorer mental health, higher prevalence of psychiatric disorders, psychoses, substance abuse and higher risk of suicide when compared to the general Belgian population (see chapter 3 for more details⁹).

Besides, prisoners often come from socially deprived communities with higher prevalence of health problems, psychiatric morbidity and several complex social issues⁶. Well-being of prisoners and caring for their mental health requires not only the provision of appropriate medication and psychological treatment, but also the inclusion of their physical health and social needs.

The risk of suicide is higher among prisoners compared to the community, suicide rates are continuously increasing even in prisons where the numbers of prisoners has decreased⁴⁶⁻⁴⁸. According to the annual report of the FPS Justice, 16 people committed suicide in Belgian prisons in 2015¹¹.

Despite the high prevalence of mental health needs, there is currently a shortage of psychiatrists caring for prisoners. Not all prisons with psychiatric department succeed in having a full psychiatric health care team per 40 internees. Mental health care for non-internees is scheduled and organized erratically, on a discretionary basis, heavily depending of the willingness and availability of the psychiatric health care team.

When provided, mental health care appears to be highly focused on a pharmacological approach as shown by the Epicure data: in 2015, 43,3% of all prescriptions concerned the nervous system and 58,8% of prisoners received at least one prescription of that group during the observation year⁷. The extent to which such “medicalised” approach of mental health responds to the limited number of mental health professionals (i.e. psychiatrists/psychologists) remains unclear.

4.4.5.2 *Suboptimal management of psychiatric emergencies and guards*

In case of a psychiatric emergency, there is no psychiatrist on call. Psychiatric emergencies are managed by the on-call GP (and the security officers). GP have not always access to the psychiatric health record, preventing them from providing appropriate advice and treatment.

4.4.5.3 *High levels of drug abuse*

Prisoners have disproportionate levels of drug consumption compared to the general population. In Belgium, one in three prisoners regularly consumes drugs^{9,49}. The most prevalent comorbidities associated with drug abuse are communicable and psychiatric diseases. Drug policy in prison is highly heterogeneous, (prevention and) treatment are mostly managed by the GP.

The federated authorities support coordinated prevention programs but implementation highly depends on the local context¹².

4.4.6 *Building blocks and scenarios*

4.4.6.1 *Building Blocks*

High demand for mental health care and insufficient offer of psychiatric care

The mental health situation of prisoners should be improved by reinforcing the primary care team. Screening and assessment of the mental health should be part of their mission. An interdisciplinary primary care team should address most mental health problems, reducing the need of specialized mental health care. In addition trained security officers might be used to detect problems.

- **Training of security officers**

As security officers are daily in close contact with prisoners, they should be able to recognize early signs of mental health decompensation. This should be supported by an increased collaboration between security officers and health care teams; regular meetings and other organized



exchanges of knowledge. This training should be integrated in the general health training attended by every security officer when starting. The training should be repeated regularly. Examples of best practices exist; for example at the Fedito Brussels.^q

Three options for the specialized mental health care for the severe mentally ill (SMI) prisoners are possible:

- **Using the existing psychiatric health care teams (in charge of treatment of internees) for treatment of SMI**

The existing psychiatric health care teams could be used for treating SMI after the completion of the transfer of internees to FPCs. This will ensure the preservation of the existing knowledge of the specificities related to prison mental health care. These psychiatric health care teams may provide mental health care in prisons with psychiatric annexes or be used as mobile teams for a cluster of prisons. The members of the psychiatric health care teams should be integrated in the regular health care system through the mental health centers (SSM/CGG), general hospitals with psychiatric unit and psychiatric emergency ward, psychiatric hospitals or 107 networks^r.

- **Outsourcing of the specialised mental health care to external specialised mental health care teams in the 12 psychiatric annexes**

Upon the severity of the mental health problems, specialized mental health care could be delivered by the local SSM/CGG, the psychiatric outpatient mobile teams of the 107 networks, the mobile teams of the psychiatric hospitals^s or a forensic mobile team in collaboration with the primary health care team of the prison. This will ensure the inclusion of prisoners in the existing mental health care system and support the

collaboration with health services in charge of prevention, mental health promotion and risk reduction. A collaboration agreement with all involved partners should be elaborated, including the identification of the partners that should be involved. This agreement should follow the existing rules governing psychiatric and mental health care.

Another possibility is to include mental health and psychiatric care in prison in the missions of the CAP in Flanders or Step by Step in Wallonia and Brussels.

- **Concentrating SMI prisoners in specialized prison wards with adapted (therapeutic) infrastructure and outsourcing of health services**

Upon the degree of severity and the complexity of the treatment, SMI prisoners should be concentrated in 1 or 2 specialized prison wards, including a Psychiatric Crisis Unit. These specialized prison wards could either be made of secured rooms in an FPC or a medium security forensic psychiatric hospital; either be a separate prison ward with special facilities for SMI prisoners (not internees). Mental health care should be provided by a specialized mental health care team; this team is part of a regular psychiatric hospital or of a FPC.

As stated in the Masterplan, the Merksplas prison will host 400 prisoners with special profile: long term prisoners, elderly prisoners and SMI prisoners. It also foresees the creation of a new FPC for 250 internees close to the prison of Paifve, leaving the existing structure for hosting prisoners.

^q Political memorandum on Drugs 2016-2019 (in French) : <https://feditobxl.be/fr/ressources/memorandums-politiques/politique-drogues-et-plan-drogues-2016-2019/plan-drogues/>

^r The 107 network is used to define a team of health care professionals working in interdisciplinary networks in order to provide mental health care in the community. Five functions are targeted by the 107 networks: prevention &

health promotion, outpatient mobile teams, rehabilitation and social integration, intensive inpatient units and specific residential facilities <http://www.psy107.be>

^s OPZC Rekem has psychiatric nurses that already work inside prisons to prepare detained internees before hospitalization ⁵⁰:



4.4.6.2 *Suboptimal management of psychiatric emergencies and guards*

- **Organizing a guard for psychiatric emergencies and continuity of care**

To ensure continuity of psychiatric care and to cope with psychiatric emergencies, a psychiatric guard should be organised and made available 24/7 to the security officers and the primary health care teams (nurses and GPs). Access to the psychiatric health records should be facilitated for other health care professionals, especially the referent GP of the prisoner or the GP in charge of the regular guard (with respect to the patient confidentiality). Psychiatric guard could be organized in cooperation with (psychiatric) hospitals already offering this service.

4.4.6.3 *High levels of drug abuse*

- **Implementation of integrated programs of drug addiction management in every prison**

Clear guidelines and protocols and more coordinated actions and policies concerning drug addiction and drug substitution should be available to the prison health care team and adaptation of the guidelines should be monitored⁴². The primary care team should coordinate all actors concerned with drug addiction involving local prison management, dentist, physiotherapist, psychologist, nurse and GP and local organizations. Drug substitution programs should be systematically offered in every prison as part of an integrated program for drug addiction management. Sharing expertise concerning drug addiction management between health care professionals should be organized, inside each prison and between prisons. To ensure continuity of care after release, external organizations should be involved in treatment inside prisons. Cooperation with independent health care professionals outside prison could be improved by organizing interdisciplinary meetings.

- **Implementation of drug free sections in prisons per region**

Addressing drug abuse could increase the chances of a successful reintegration of prisoners and guarantee better follow-up by external drug treatment organizations. Although there are still no results about the impact of the existing drug free sections on, for example, recidivism, treatment outside prison or finding a job, these drug free sections could be set up in more prisons as other positive outcomes have been found such as improvements of the relationships between prisoners and between prisoners and staff, of the general health status, reduction of the re-selling of medications⁴³. Prisoners enroll on a voluntary basis and accept to be treated in special intensive programs, in cooperation with external organizations. Prisons with drug free sections should be spread regionally. In prisons with a high turnover of prisoners, drug free sections may be less useful. The three existing drug free sections in Brugges, Hasselt and Ruisdele can accommodate up to 40 prisoners and have strong connections with outside organizations such as the CAP.

4.4.6.4 *Others*

- **Deployment of telehealth**

Telemedicine and telehealth have been successfully applied to mental health, psychological and psychiatric care. International studies revealed that telehealth can reduce the costs of psychiatric care while ensuring the same quality of care as in one to one treatment^{16, 17, 23, 28}.

In Canadian correctional services, telehealth is used since the 1990s to provide psychiatric and mental health care to prisoners³⁴. Prisoners are generally satisfied with their experience with telehealth consultations, some even preferring it for sensitive issues (e.g. sexual concerns)³⁵.

Belgium already has a telehealth system in some prisons: the Prison Cloud. First assessments^{26, 27} supported the potential of such system to restore the social, relational and psychological balance of the prisoners.



Besides, telehealth could be easily combined with interpreters and mediators for those experiencing cultural and linguistic barriers. The FPS Public Health is currently providing access to remote interpreting for deaf and hearing impaired persons but also to foreigner patients.

4.4.6.5 Scenarios

Interviewees identified 4 distinct groups of prisoners that should be considered in the scenarios:

1. Prisoners suffering from non-severe mental health problems in need of follow up and psychological support that can be managed by primary care teams (see the scenarios for primary care in the section 4.3.6.1.)
2. Severe mentally ill (SMI) that are stable but need adapted context, extra support and coordination on top of primary health care by psychiatric health care teams;
3. Severe mentally ill but not internees that are not stable and need an integrated service of psychiatric health care teams within a special infrastructure;
4. Internees that should be treated outside prison (not considered for the scenarios)

Scenario 1: Mobile Mental health care teams for SMI in all prisons

Table 10 presents the scenario 1 for specialised mental health care in which a specific psychiatric health care team takes care of severe mentally ill prisoners.

**Table 10 – Scenario 1 for specialised mental health care****Short description**

A **dedicated psychiatric health care team** that is part of a regular mental health care providers is responsible for the treatment of SMI inside prisons. In this situation, psychiatric annexes no longer exist.

Full description

Psychiatric care inside prisons is **outsourced** to a local regular mental health care provider. Existing psychiatric health care teams that are currently in charge of treatment of internees and SMI in prison are transferred to a **regular provider of psychiatric care** (i.e. local 107 networks, mobile teams, SSM/CGG, psychiatric hospitals or general hospitals with a psychiatric department). This psychiatric health care team is in charge of treatment of **all SMI inside prisons** that cannot be treated by the primary care team because of special needs/severity. SMI are treated in their own prison. Emergency interventions are performed by the same provider in charge of SMI treatment inside prisons.

Telehealth is used for consultations and as a support for treatment.

Intervention elements	Where	Whom
Assessment/screening of actual and potential health problems and health care needs	In prison	Primary care team
- Treatment of SMI prisoners inside prison upon prisoners needs - Emergency interventions - Individual and group activities - Social support - Medical and non-medical treatment - Continuity of care for SMI prisoners - Collaboration with security officers - Collaboration with other sectors inside and outside prisons (e.g. services supporting drug reduction programs)	In prison	Dedicated psychiatric health care team: psychiatrist, psychologist, social worker, occupational therapist, psychiatric nurse, physical therapist, educator
After care and preparation of transfer	In prison	Dedicated psychiatric health care team + primary health care team
Pros	Cons	
- No major changes needed in local health care organisation and infrastructures - No extra investment in special infrastructures - Preservation of the existing expertise of the specificities of the mental health care in prisons, including knowledge of local resources and networks - Continuity of patient care inside and outside prisons (post-release) - Equivalence of care - Minor impact on prisoners' lives, visits and other detention-related conditions (e.g. canteen, work...) - Increased possibility of reintegration in local prison population	- No adequate infrastructure for SMI - Lack of adequacy between the current human resources and the demand for mental health care - No uniform geographic repartition of 107 networks/mobile teams/SSM/CGG/psychiatric hospitals /general hospitals with a psychiatric department - Persistence of inequalities between prisons due to local supply of mental health care facilities - Increased burden for local mental health care facilities	



-
- Increased attractiveness of the job as psychiatrists and psychologists are working for external organisation, with the possibility of having/keeping a private practice
 - No extraction of prisoners for specialised mental health care, reducing safety and transportation issues
 - No need for transportation of prisoners to a central (distant) specialist centre
 - Possibility of psychiatric emergency crisis management for SMI if mobile teams are developed
 - Adaptation to the local context of the prison, i.e. including local support organisations in drug reduction use
 - Increased expertise and quality control as regular providers are involved
 - Possibility of increased case-management of SMI, supporting social reintegration after release
 - Shortage of human resources to provide special mental health care for prisoners within regular mental health facilities
 - Need for efficient health coordination with other health care professionals and local network
 - Uncertainty about the willingness of 107 networks/mobile teams/ SSM/CGG /psychiatric hospitals / general hospitals with a psychiatric department to work with prisoners
 - Need to limit the caseload of health care professional to preserve the efficiency of the system
 - Lack of expertise regarding the specificities of the mental health care in prisons among regular health care professionals
 - Shared political responsibilities regarding mental health care policy – leading to variations in the funding system of health care staff
-

4.4.6.1 Scenario 2: Concentrate SMI in a specialised prison ward

Table 11 presents the scenario 2 for specialised mental health care in which all SMI prisoners are concentrated in a specialised prison ward.

Table 11 – Scenario 2 for specialised mental health care

Short description

SMI are **concentrated** in a specialized prison ward similar to the current psychiatric annexes, with an **improved therapeutic infrastructure** run by regular local mental health care services.

Full description

SMI are concentrated in a **limited number of specialized prison wards** similar to the current 12 psychiatric annexes. The infrastructure of the current psychiatric annexes should be upgraded to match the current standards of inpatient psychiatric health services. The services are **outsourced** to a regular local mental health care service, delivering mental health care to the SMI and ensuring continuity of care (e.g. local 107 networks, mobile teams, SSM/CGG, psychiatric hospitals or general hospitals with a psychiatric department).

Emergency situations are managed by the regular mental health care service, preferably inside the specialised wards. If not possible/feasible, a mobile emergency mental health care team should take care of the prisoners outside the specialised wards.



Intervention elements	Where	Whom
Assessment/screening of actual and potential health problems and health care needs	In prison	Primary care team (see the section on primary care 4.3.6.1)
- Treatment of SMI - Individual and group activities - Social support - Medical and non-medical treatment - Collaboration with security officers	In prison with annexes	Outsourced to regular local mental health care service: psychiatrist, psychologist, social worker, occupational therapist, psychiatric nurse, physical therapist, educator
- Treatment of severe SMI - Emergency interventions	In prison with special ward	Outsourced to regular local mental health care service: psychiatrist, psychologist, social worker, occupational therapist, psychiatric nurse, physical therapist, educator
After care and preparation of transfer	In prison	Outsourced to regular local mental health care service + primary care team
Pros	Cons	
- Adapted infrastructure supporting the healing process - Specialized support with high degree of equivalence - Deployment of Minimum Psychiatric Data (PMG/RPM) to quantify clinical activity and support cost evaluation in equivalence of regular hospitals - Presence of specific expertise of health care team due to concentration of patients in specialized centers - Opportunities for integration of social care into health care to promote reintegration - Inclusion of additional support staff (social workers, interpreters, occupational therapists)	- Investment in special wards adapted to mental health treatment - Risk of negative impact on prisoners: impact on visits and lives of prisoners, e.g. access to canteen or work opportunities - Risk of increased geographical distance for prisoners and their relatives - Increased stigma for SMI and their relatives - Nonlinear evolution of the SMI patients, leading to a risk of revolving patients, that is patients transferred from prisons to psychiatric hospitals and vice-versa	



4.5 Dental and oral health

4.5.1 International recommendations

The WHO⁴ recommendations state the following

Good dental health is as important for prisoners as it is for everybody else.

Many prisoners suffer from poor oral health when they enter prison.

Many prisoners only access dental services when they are imprisoned.

Prisons should offer a comprehensive dental health care service and provide an appropriate range of treatments based on patients' clinical needs.

Oral health should be included in prisoner induction programs and health triage systems.

Oral health promotion should be an integral part of health service provision.

Prison dental teams should be clinically experienced and competent.

Dental teams should encompass a varied mix of skills and include dental hygienists, therapists and oral health educators, where appropriate.

Commissioners of dental services for prisons should have a good understanding of the complex needs of prisoners and the difficulties of providing a dental service in the prison structure.

Remuneration systems for dental professionals should be appropriately weighted for patients' special conditions and the special requirements of the prison environment.

4.5.2 Dental and oral health care organisation/provision

All prisons but Tongeren and Dinant have an up-to-date and fully equipped dental office^t. Freelance dentists provide dental care in prison. Dentist are reimbursed per hour and per technical intervention, with an extra payment if a dental assistant is present.

The dental care that can be delivered to prisoners depends also on the type of prison and the stage in which the prisoner is. More precisely, in prisons for adults held in pre-trial detention or serving short-term sentences (hence where prisoners do not stay too long), usually only urgent dental care can be provided, whereas in prisons where people are sentenced for a long time, routine dental care and prophylactic care can be provided^u.

4.5.3 Dental and oral health care use

In 2015, according to the EPICURE, 20.143 dentist consultations were performed for 11.060 prisoner-years (mean=1,8 dentist consultation per prisoner-year), with various levels of consumption between prisons⁷.

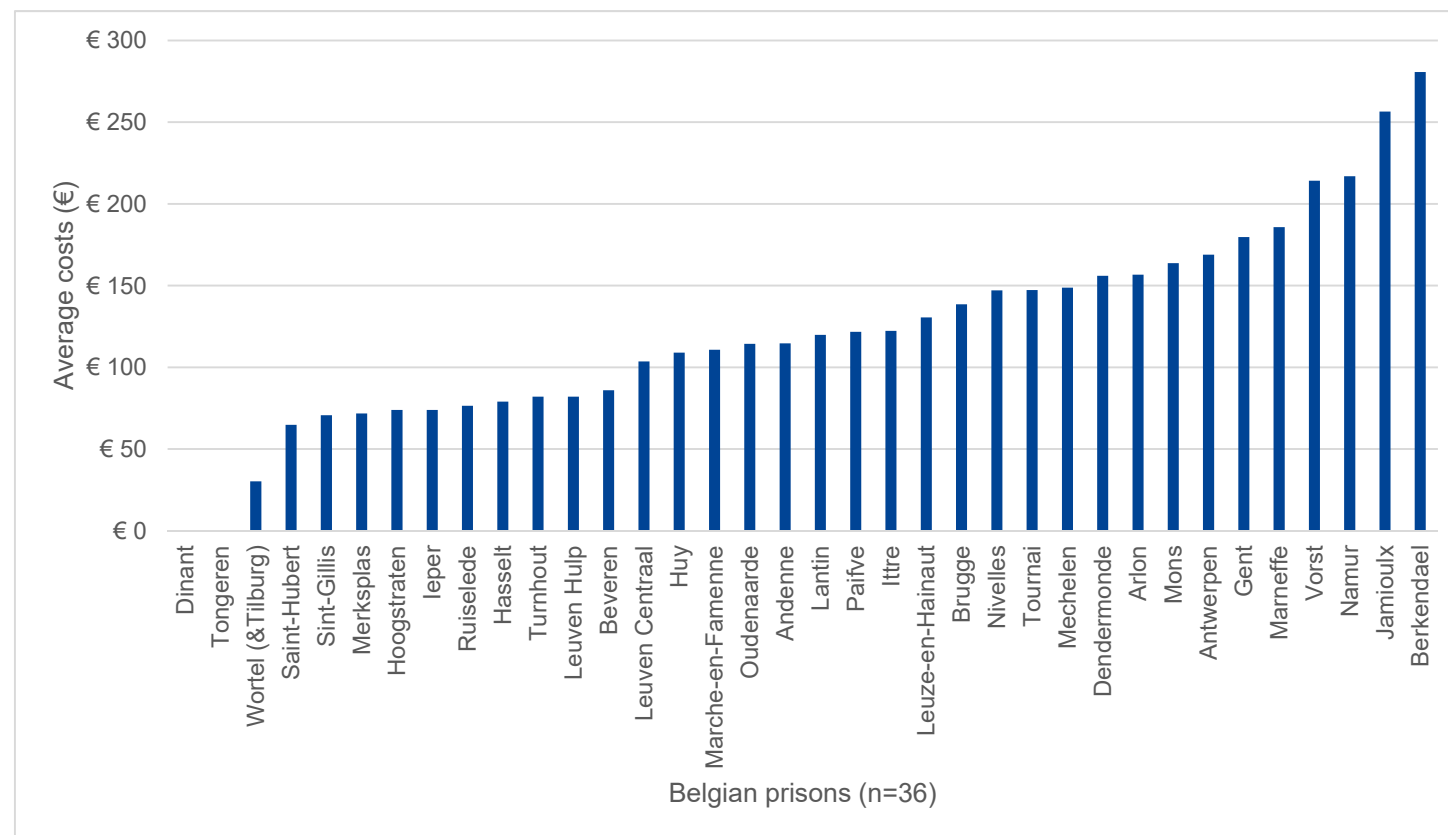
4.5.4 Dental and oral health care costs

The total cost of dental and oral health care in 2015 was €1.628.286 resulting in an average cost per consultation of €81. Figure 5 presents the average dental and oral health care costs per prisoner per prison.

^t Interview with Francis De Smet, DG-EPI, FPS Justice.

^u Personal communication with a dentist working in several Belgian prisons

Figure 4 – Average costs per prisoner for dental and oral health care per prison in 2015 in Belgian prisons



Source: DG-EPI, 2015



Besides human resources costs, there are also dental equipment costs.

Five dental supply companies were asked to provide us with a cost estimate for the instalment of a fixed dental unit in a prison and/or a mobile dental unit. Only two replied (one of which only partially); both specified that the estimates should be regarded as rough “mean” estimates (since different price ranges exist). According to firm A, the combination of a dental chair, dental unit, suction unit and operating light costs about € 19.950. Firm B gave a more complete estimate, presented in Table 12. Although an overall cost of €89.000 is shown, it is important to highlight that in addition to the purchase of the dental unit, extra funds (not included in the table) would need to be considered for disposable products (several units required), for legally established inspections of Rontgen devices and for the maintenance of all devices.

Table 12 – Cost estimates for a fixed dental structure

Items	Cost estimate (€)
Dental chair	€ 25 000
Dental furniture	€ 3 000
Lighting (for above the dental chair)	€ 1 500
Rotary instruments per unit (several of each needed)	
• High speed handpiece	€ 1 000
• Low speed handpiece	€ 2 000
Instruments & disposable products	€ 15 000
Curing light	€ 1 000
Suction engine	€ 1 200
Compressor	€ 2 000
Intra oral Rontgen device	€ 3 000
Digitalization of radiographs	€ 5 500
Orthopantomograph (panoramic radiographs)	€ 15 000
Ultrasonic bath	€ 800
Washer-disinfector (Thermodisinfector)	€ 8 000
Sterilizer	€ 5 000
Total costs for a fixed dental structure	€ 89 000

Source: Dental supply company B

None of the firms provided cost estimates for mobile dental clinics. However, contact was made with the Dutch Penitentiary Service, who are currently using a such vans for prisons where less than 10 hours per week of dental care are needed. They estimated a cost for a mobile dental van of €500.000 - €700.000. Yet, it should not be forgotten that in a mobile dental clinic is to be used, the wage of a driver should also be added to the estimate.

4.5.5 Dental and oral health care problems

- Several studies illustrated that prisoners have poorer oral health, more unmet objective and subjective oral health care needs and more damaging oral health behaviours than the general population⁵¹⁻⁵⁷. Many prisoners enter prison with extensive and long-standing oral neglect, which is linked with poor (oral) health literacy and previous difficulties in accessing dental care⁵⁸.
- The overall poor dental health of prisoners could be partly explained by a pre-existing poor dental and oral health and a lack of access to appropriate dental and oral health care before arrestation. Moreover, the prevalence of oral health problems is higher among drug users.
- Due to the lack of willingness of dentists to work in prisons and the high demand of dental care, an imbalance exists between demand and offer, resulting in long waiting lists. Differences were found between prisons i.e. regarding the number of consultations, supporting the hypothesis of an unequal access to dental care between prisons. This may be reinforced by the absence of quality and cost controls.



- Some prisoners “abuse” their short-term sentence to have dental treatment (e.g. dental extractions) done that is not reimbursed or only partially reimbursed in the “outside” world^v.
- The problem of “no-shows” (cf. supra) is also very prevalent in Belgian prisons. In this way precious treatment time is lost and waiting times further increase^w.
- Prisoners have to rely on prison shops for the purchase of oral hygiene material (tooth paste, tooth brushes, dental floss, interdental brushes). Yet the quality of these products is currently suboptimal^x.

4.5.6 Building blocks and scenarios

4.5.6.1 Building blocks

Continuing the existing offer of dental and oral health care inside prison

Large prisons, with prisoners purging long term condemnations, should be equipped with appropriate dental equipment because of the limited investment in equipment and the high demand of consultations for dental and oral health care.

Developing mobile dental and oral health services

A mobile dental and oral health service could be developed for small prisons, with a limited annual number of dental health consultations. Feasibility will be determined by the initial investment, the maintenance of the equipment and of the van as well as the salaries of the driver(s). Besides, this should be completed by an efficient planning system and collaboration with the security officers.

Developing an agreement with dental and oral health care professionals

An interdisciplinary dental and oral health care team should be dedicated to dental and oral health care for prisoners. The interdisciplinary team could include dentists, dental assistants and nurses, allowing for an improved follow-up of prisoners and prevention. The agreement, based on the convention model with the NHIDI, should include indicators of process, quality of care and costs, leading to a containment of budget. This agreement system is likely to reduce disparities between prisons.

4.5.6.2 Scenarios

Table 13 presents the scenario for dental and oral health care in which the size of the prisons is a key element.

^v Personal communication with a dentist working in several Belgian prisons

^w Personal communication with a dentist working in several Belgian prisons

^x Personal communication with a dentist working in several Belgian prisons

**Table 13 – Scenario for dental and oral health care****Short description**

Depending on the size of the prisons, dental and oral health care is provided in a **fixed dental infrastructure located inside prison walls** or by means of a **mobile dental unit**.

Full description

Dentist are accountable for **prevention, monitoring, treatment and continuity** of dental health care for prisoners.

If specialized equipment is needed for dental treatment and is not available in the prisons or in the mobile unit, specialised dental health care services in hospitals or other health care centers should be used. As extraction will be necessary, the same organisational and safety rules than in secondary care should be applied. After the intervention in secondary care, the dentist of the prison is responsible for follow-up, prevention, referral and continuity of care.

Interventions elements	Where	Whom
Assessment of the needs for dental and oral health care	In prisons	Primary care team
Prevention and health promotion activities	In prisons	Interdisciplinary dental and oral health care team: dentists, dental assistants and nurses + primary care team
Treatment of routine dental and oral health problems	In prisons	Interdisciplinary dental and oral health care team
Treatment of severe dental and oral health problems	Hospitals/specialised dental health care services	Local dental and oral health care team
Continuity of dental and oral health care	In prisons	Interdisciplinary dental and oral health care team + primary care team
Pros	Cons	
- Increased offer of dental and oral health care - Improved triage - Increased health promotion and prevention - Adaptation of the offer to the situation of the prisons - Increased collaboration between primary care and dental care professionals - Increased quality control of the procedures	- Investment in mobile equipments to cover all the prisons - Upgrading of existing equipments - Attraction and retention of the health care professionals - Risk of positive discrimination: access is easier for prisoners than for the rest of the population	



4.6 Pharmaceutical services

4.6.1 International recommendations

Management of pharmaceutical services has been targeted by several recommendations of the Committee of Prevention of Torture¹ :

- *The use of up-to date methods for screening, the regular supply of medication and related materials, the availability of staff ensuring that prisoners take the prescribed medicines in the right doses and at the right intervals, and the provision when appropriate of special diets, constitute essential elements of an effective strategy to combat the above-mentioned diseases and to provide appropriate care to the prisoners concerned.*
- *(46) Patients should be provided with all relevant information (if necessary in the form of a medical report) concerning their condition, the course of their treatment and the medication prescribed for them. Preferably, patients should have the right to consult the contents of their prison medical files, unless this is inadvisable from a therapeutic standpoint.*
- *(38) [for prisoners with mental disorders] psychopharmacologic medication often forms a necessary part of the treatment given to patients with mental disorders. Procedures must be in place to ensure that medication prescribed is in fact provided, and that a regular supply of appropriate medicines is guaranteed.*
- *Regular reviews of a patient's state of health and of any medication prescribed is another basic requirement. This will inter alia enable informed decisions to be taken as regards a possible dehospitalisation or transfer to a less restrictive environment.*
- *If recourse is had to chemical restraint such as sedatives, antipsychotics, hypnotics and tranquillisers, they should be subjected to the same safeguards as mechanical restraints. The side-effects that such medication may have on a particular patient need to be constantly borne in mind, particularly when medication is used in combination with mechanical restraint or seclusion.*

- *(33) [for women] As a matter of principle, prisoners who have begun a course of treatment before being incarcerated should be able to continue it once detained. In this context, efforts should be made to ensure that adequate supplies of specialist medication required by women are available in places of detention. As regards, more particularly, the contraceptive pill, it should be recalled that this medication may be prescribed for medical reasons other than preventing conception (e.g. to alleviate painful menstruation). The fact that a woman's incarceration may - in itself - greatly diminish the likelihood of conception while detained is not a sufficient reason to withhold such medication.*

The WHO⁴ recommends several key points such as guidelines for practice, ensuring the continuity of care and informing prisoners.

Policies and guidelines should be developed specifying that people living with HIV (and other conditions necessitating uninterrupted treatment) are allowed to keep their medication with them, or are to be provided with their medication upon arrest and detention and at any time they are transferred within the system or to court hearings. Police and staff working in detention settings need to be educated about the importance of continuity of treatment. Particular attention should be devoted to discharge planning and links to community aftercare.

Before release, prisoners [with Hepatitis C] undergoing treatment should be provided with a stock of medications for one month and a complete copy of their medical files, including the results of all tests conducted during incarceration.

Adequate procurement, supply and management of quality medication and effective administration should be in place [for TB management]. Airborne infection control, including protective measures for staff, should be ensured, and provider-initiated HIV counselling and testing to detect HIV and TB/HIV co-infected individuals should be promoted to provide the necessary support and care.



In the community, patients with long-term conditions are encouraged to care for themselves. The prison environment poses particular problems for self-care as security concerns preclude many prisoners from keeping their own medication and monitoring devices. The promotion of self-care runs contrary to the ethos of prison regimes, which are designed to disempower prisoners. [...] Prisoners should not be released without adequate medication and appropriate arrangements for follow-up in the community.

Before starting treatment, drug users must be provided with relevant information, especially about the risk of overdose and the potential risks of multiple drug use and interactions with other medications.

The medication lists of older adults should be regularly reviewed to avoid specific medications and to limit polypharmacy [...]. Prior to release from prison, an inmate should receive personalized discharge planning, including a bridging supply of medications, post-discharge medical appointments, summarized health records, a social support plan and age-specific community agency referrals.

The WHO also recommends the separation of the stocks of medication for prisoners and staff.

Regarding practical issues, NICE⁵ recommends that prisoners should be able to manage their own medication based on an individual risk assessment, this could be helped by a lockable cupboard. Close collaboration with the prison staff is necessary to “supervise the administering of medicines not held in-possession to maximise adherence, allow timings of medicines doses to align with the prescribed dose regime, reduce diversion (passing medicines on to other people) and protect confidentiality”. The risk assessment should be repeated as often as necessary, and could be conducted by a multidisciplinary team in collaboration with the prison staff and the prisoner. This multidisciplinary team could provide information and education about adherence, ensure continuity of treatment planned before incarceration, review medicines for those with complex health conditions, and provide a minimum supply of 7 days when released or transferred.

4.6.2 Pharmaceutical services organisation/provision

The DG-EPI currently employs a central pharmacist who is responsible for:

- the contracts with local pharmacies that deliver medication to local prisons.
- the control of the local pharmacies
- the central purchase of non-pharmaceutical products (for example : antiseptics or bandages...) that are delivered to the prisons from a central stock.

In prisons, the prisoners may receive pharmaceutical products through three different channels:

- via a prescription by a physician or a medical specialists
- via the nursing staff for over-the-counter medication (analgesics, disinfectants, anti-emetics, antidiarrheal medication, and anti-allergic).
- via the so-called “medical cantina” where they could directly buy pharmaceutical products (if necessary, the medical cantina will order the pharmaceutical product for the prisoner).

Regarding local supply of the prisons, an external local pharmacist delivers pharmaceutical products per prisoner per day and provides the supply of frequently used medicines (e.g. pharmaceutical products delivered over-the counter by nurses). The delivery is often performed on a daily basis. This external local pharmacist was the sole responsible for preparing the unidoses in 68% of the prisons surveyed (see chapter 1) ⁶. In 28% of the prisons, a nurse assisted the pharmacist. In only one prison, there was an internal pharmacist managing pharmaceuticals. If a prisoner needs specific medicine in emergency (e.g. during the weekend), a different local pharmacy may be used. Nurses and pharmacists may be asked to take up the dosing of medication during the weekends and nights, when starting a new treatment, in case of urgencies, and for newly arrived prisoners.



4.6.3 *Pharmaceutical services use*

Based on the Epicure-analysis⁷, there were 203.903 records of medication prescriptions in 2015 (Wortel prison excluded). The most ATC1 category prescribed was medications for the nervous system with 43,3% of the prescriptions, and 58,8% of prisoners received at least one prescription of that group during the observation year (76,4% for those who stayed 12 months in prison during the observation year).

A similar result was found based on the analysis of billing data¹⁰: Medication for the nervous system represented 54.4% of the costs, followed by 'antibiotics' (16,6%) and pharmaceuticals for the 'respiratory system' (9,1%).

There is currently no accurate data about the consumption of over-the-counter medication, the self-medication by prisoners via the medical cantinas and the use of chemical contentions for unstable prisoners.

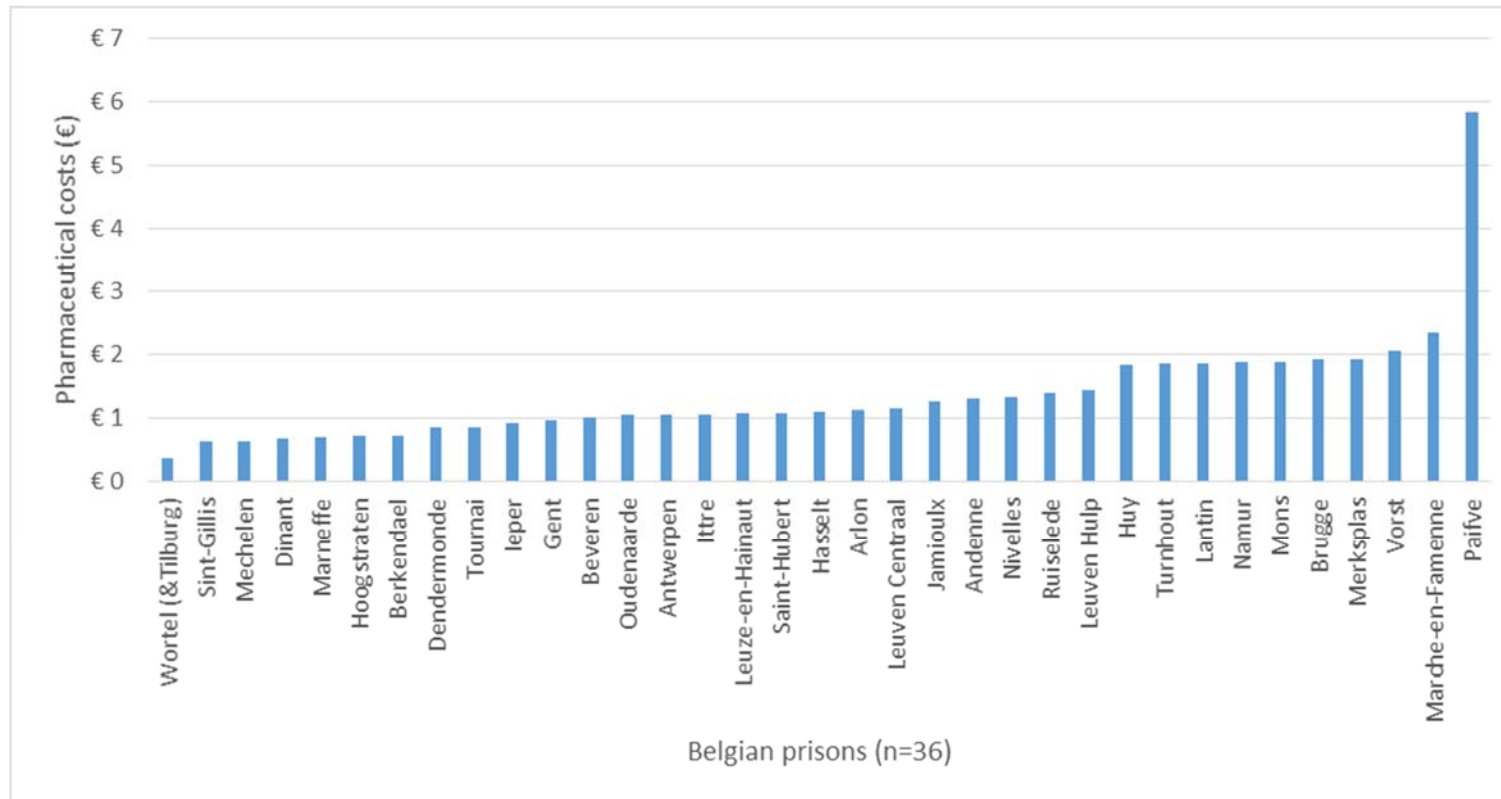
4.6.4 *Pharmaceutical costs*

Although the overall yearly pharmaceutical costs are thought to be of the order of €6.000.000, these were difficult to separate in the accounting data from other pharmacy related costs such as costs of magistral formulae, anaesthetics, orthoses and prostheses or consumables. Overall, these costs together amounted to €8.427.324 in 2015. The average daily cost per capita in Belgian prisons for pharmaceuticals in 2015 was of approximately €1,26 (SD = 0,47), with large variations across prisons.

The local external pharmacist receives a daily fee of 0,55 € per prisoner requiring medication. Figure 5 presents the average pharmaceutical costs per prisoner per day per prison.



Figure 5 – Average pharmaceutical costs per prisoner per day per prison in 2015



Source : DG-EPI, 2015



4.6.5 *Pharmaceutical services problems*

4.6.5.1 *Critical incidents related to distribution of medication*

Interviews reported critical incidents related to the management of medication. External pharmacists committed errors in preparing the supplies or did not deliver the medications. There were also errors in the dose or in the moment of intake, prisoners taking a daily supply in one intake, and even delivery of medication to the wrong person. There is no systematic registry of such critical errors.

4.6.5.2 *High number of medications per prisoner*

The average drug consumption of prisoners is higher than in the general population, especially regarding prescriptions of antipsychotics. Although there is no evidence to support this affirmation, this high number of antipsychotic prescriptions may be due to overcrowding of prisons, lack of alternatives for providing mental health care, lack of training of GP and shortage of health care professionals caring for mental health issues.

4.6.5.3 *Lack of control of local pharmacists*

Guidelines for collaboration between prisons and pharmacists state that local pharmacists should prepare the unidoses of medication for prisoners. This preparatory work is paid through the daily fee. However, in some prisons, nurses are in charge for the preparation of unidoses.

4.6.5.4 *Absence of a standardised list of over-the-counter pharmaceutical products*

Each prison has its own supply of over-the-counter pharmaceutical products that may be delivered to the prisoners. There are no minimal standardized/national lists regarding over-the-counter medication available in prisons, leading to disparities between prisons.

4.6.5.5 *Absence of control of the distribution of pharmaceutical products to the prisoners*

The paragraphs 1-2 of the article 99 of the Basic Law on Prisons states that the distribution of medication is the responsibility of trained health care professionals. In practice, delivery of medicines to the prisoners is managed by the security officers and / or the nursing staff. In 48% of the prisons surveyed⁶, the security officers were exclusively in charge of the distribution of medical drugs whereas nurses oversaw the distribution in 28% of the prisons. In the remaining 24%, the delivery of medicines was shared by security officers and nursing staff. This is confirmed by the CPT reports⁵⁹⁻⁶¹ mentioning that mentally ill offenders, prisoners with psychiatric problems and prisoners with a drug addiction receive their medication from the security officers.

Moreover, interviewees reported that security officers also distribute over-the-counter medication and manage medical cantinas. In some cases, it has been reported that nurses deliver medications without proper prescription.

4.6.5.6 *Absence of control of medical prescriptions*

Contrary to existing practices outside prisons, there is no control of the prescription behaviours of the GP and medical specialists working in prisoners (e.g. antibiotic prescription). There is also no control whether the prescription is adequate regarding prisoner's situation, best practices, or according to reimbursement rules of the NIHDl (e.g. if a prisoner needs antacids, there is no possibility to check if he has had a gastroscopy beforehand). This absence of control prevents also the identification of prisoners subjected to chemical contentions.

4.6.5.7 *Absence of control of the self medication by prisoners*

As there is no control of the distribution of over-the-counter medications and the delivery of medical supplies through the cantinas, there is a risk of self-medication among prisoners that may lead to harmful polymedication. This harmful polymedication may be reinforced by the lack of coordination between GP, specialists, nursing staff and security officers involved in the distribution of prescribed and non-prescribed pharmaceutical products.



4.6.5.8 *Inequalities between prisoners regarding extra pharmaceutical supplies*

As the access to the medical cantina depends on the personal financial resources of the prisoners, inequalities exist as some prisoners cannot afford the amount requested for these pharmaceutical supplies. Besides, when a prisoner orders specific supplies, this final decision of ordering is let at the discretion of the prison management.

4.6.5.9 *Lack of continuity of medication after release*

Depending on the prisons, the status of the prison and the type of medication, prisoners will receive or will not receive a provisional supply of medications when released.

4.6.6 *Building blocks and scenarios*

4.6.6.1 *Building blocks*

Critical incidents related to distribution of medication

- **Extending the presence of nursing staff during day shifts and weekends**

Errors in distribution, errors in the moment or the dose delivered to the prisoners may be avoided if there is enough nurses to control the prescriptions before distribution and to distribute the medications at appropriate time. By extending the nursing presence during day shifts and weekends, security officers are no longer in charge of the distribution of medications. If security officers have to distribute the medication, the nurse or the pharmacist should have checked the correctness of the prescription beforehand.

- **Developing a registry of critical incidents**

Every incident related to distribution of medication should be recorded in the prisoner health record and centralised at the national level. The central pharmacist at the FPS Public Health should regularly review the register and take the appropriate measures to reduce the incidents (e.g. coordination meeting with the local pharmacist and the health care team).

High number of medications per prisoner

- **Developing alternatives to medication for mental health problems**

When compared to the rest of the population, prisoners have a higher consumption rate of psychotropics. Providing additional forms of therapeutic support such as group therapies, individual counselling, or peer support programs such as those of Modus Vivendi are likely to decrease the medication related to mental health problems and will ensure that prisoners receive appropriate treatments of mental health problems according to guidelines.

- **Increasing the number of mental health care professionals working in prisons**

The current shortage of mental health care professionals limit the number of alternatives to medication in case of mental health problems. By increasing the number of trained health care professionals, this is likely to reduce the medication use. Support should be also oriented towards associations.



- **Identifying efficient alternatives to the chemical restraint**

As higher use of medicines could be also due to chemical restraint, security officers and health care staff should be trained to alternative restraint methods similar to what is currently used in psychiatric wards (i.e. non-violent communication). The CHU Brugman in Brussels has, for example, trained the health care professionals to the CAMP method^y (mastering aggressiveness by physical control).

- **Reducing overcrowding in prisons**

Overconsumption of medications per prisoner is also due to the current overcrowding in Belgian prisons : this overcrowding negatively impacts the sleeping conditions, the anxiety level, and the overall mood of prisoners. By ensuring that each prisoner has his own bed and the norms of occupation per cell are respected, this may lead to a reduction in stress and anxiety and to an improvement of sleeping habits, leading to an overall reduction of psychotropes, sleeping pills and other medications.

Lack of control of local pharmacists

- **Strengthening the role of the central pharmacist**

According to Van Mol⁶², every prison should have a local pharmacist who is responsible for the underwriting and management of service contracts with local pharmacies in their area. They act as coordinator for the local pharmacies and are used as a reference for other health care providers. They control the delivery of drugs and other pharmaceutical products by local and remote pharmacies and their payment. They are responsible for the strategy, management and supervision of the drug distribution in prisons. They help in managing the budgets for pharmaceutical products based on a specific medicine formulary of the NIHDI .

Absence of a standardised list of over-the-counter pharmaceutical products

- **Elaborating a national list of over-the-counter pharmaceutical products**

The central pharmacist overseeing the organisation and the contracts with local pharmacies should coordinate with the NIHDI and the representatives of health care professionals in prisons to establish a national list of over-the-counter pharmaceutical products that should be available in all Belgian prisons. The list should be considered as a minimal supply, include generic products rather than brand products and be consistent with evidence-based recommendations. This list should be regularly updated to take into account the evolution of pharmaceutical care. The list of the class D medications used by the 19 CPAS/OCMW of the Brussels region is an example of such good practices.

Absence of control of the distribution of pharmaceutical products to the prisoners

- **Distributing of the pharmaceutical products by health care professionals only**

Nurses should oversee the distribution of medication, the delivery of over-the-counter medication and the supply of pharmaceutical products by the medical cantina. Security officers should never provide pharmaceutical products. Prescribed medications received by the pharmacy are directly distributed to the prisoners in their cells by a nurse accompanied by a security officer for safety issues, according to a pre-established planning decided by the prison management and the health care team. This allows the nurses to physically see the prisoners. This may support the early detection of physical and mental health problems and the prisoners education regarding use of medications.

^y The description of the training could be found here (in French): <http://foster-little.com/formations/formation-secteur-hospitalier/gestion-des-patients-violents-urgences/>



The patient confidentiality is also guaranteed by not using and intermediary person.

- **Developing reminders and feedbacks systems in the health record of the prisoners**

To prevent the harmful polymedication due to multiple prescribers, over-the-counter medications and self-medication, a tracking system of prescription should be coupled with the electronic health record. When prescribing a new medication, the GP or the specialist should have a warning message informing them about the risks of harmful effects if existing.

Absence of control of the medical prescriptions

- **Having a control of the prescriptions by the local pharmacist**

When preparing unidoses for prisoners, the local pharmacist should check the absence of double prescription, the risk for adverse effects and the need for follow-up of the treatment (e.g. if a prisoner begins a treatment for thyroid problem, a blood take control should be planned). If necessary, the pharmacist should inform the coordinating GP of the prison about the precautions, preferably through a written document. This document should be added to the health record of the prisoners.

- **Using telehealth to provide information for health care professionals**

Health care staff should have access in a timely manner to a pharmacist to get support when prescribing a treatment or when being asked for over-the-counter medication by prisoners. This is likely to support informed decision-making, prevent harmful prescriptions and limit the use of over-the-counter medication.

- **Sending annual feedbacks to the health care staff about medication consumption**

Structured feedbacks on medication consumption per prisoner (including over-the-counter medication and other pharmaceutical products) should be sent annually by the central pharmacist to health care staff in prisons. Feedbacks should include the consistency between the treatment and the diagnosis of the prisoners. This may help to improve practices of the health care staff regarding medication but also identify training needs regarding specific health problems when prescribed treatments do not match current evidence-based recommendations. This systematic registration may also serve as a quality control through an annual reporting of the medical consumption in the different prisons.

- **Having a coordinator for the management of pharmaceutical products in each prison**

A coordinator may be appointed in each prison on the model of the Flemish advice and coordinating doctor (CRA). This coordinator should be responsible for the screening of the prescribed medication by using a standard formularium and to make a strategic plan concerning the use of medication at the prison level. This may include the use of over-the-counter medication and other supplies delivered directly by the medical cantina. The strategic plans and their outcomes are supervised by the central pharmacist of the FPS Public Health.

- **Developing care protocols including medication delivery**

To ensure the adequacy of the delivery of medication by nurses in the absence of medical doctor, care protocols for frequent health conditions should be developed in order to support the clinical decision-making of the nurses. This is already existing for pain management in the emergency department or in surgery units.

**Absence of control of the self medication by prisoners**

- **Registering systematically the medication consumption in the health record of the prisoner**

Delivery of over-the-counter medication and other pharmaceutical products through the cantina should always be reported in the health record of the prisoners. This information should be made available to all health care professionals caring for the prisoners. This systematic registration may also serve as a quality control through an annual reporting of the medical consumption in the different prisons.

- **Improving health literacy of prisoners regarding self-medication**

Primary health care staff and local organisations may improve health literacy of the prisoners by appropriate health education and health promotion activities to sensibilise the prisoners to proper use of medications and to improve self-care strategies. Prisoners themselves perceive that clear and detailed information regarding side-effects of medications is a good practice to be supported. Self-care and health literacy are particularly important for prisoners with non-communicable or chronic affections, purging long-term sentences or with drug abuse problems.

Lack of continuity of medication after release

- **Committing the primary health care for preparing the continuity of care**

The primary health care team should be notified of the date of release of the prisoner to prepare the health record of the prisoner, a supply of medications for a defined period (e.g. 7 days as recommended by the NICE guidelines) and the prescriptions for the first renewal of medication. Upon the consent of the prisoner, a copy of the health record may be transferred to a referent health care professional outside the prison.



4.6.6.2 Scenario 1 Preserve existing organisation of pharmaceutical services

Table 14 presents the scenario 1 for the delivery of pharmaceutical services in which the existing organisation is preserved.

Table 14 – Scenario 1 for pharmaceutical services

Short description

Keep the current organisation and **transfer responsibility, staff and budget to FPS Public Health**

Full description

The current organisation of the pharmaceutical services is preserved but the **overall responsibility, the staff and the budget are transferred to the FPS Public Health**. The medical doctors are still prescribing the necessary medications and the preparation of the unidoses is managed by nurses and/or local pharmacists. Distribution is managed by nursing staff and/or security officers.

Intervention elements	Where	Whom
• Prescription of medication	Inside / outside prisons	• Medical doctors
• Preparation of the unidoses for prisoners	Pharmacy / prisons	• Local pharmacists & nurses
• Central purchase and supply of non-pharmaceutical products	FPS Public Health	• Central pharmacist at the FPS Public Health
• Supply of the prisons for medication and pharmaceutical products	Prisons	• Local pharmacists
• Distribution of prescribed medicines	Prisons	• Nursing staff & security officers
• Delivery of over-the-counter medication	Prisons	• Nursing staff & security officers
• Control of the quality and the adequacy of the prescribed medications	Outside prison	• None
• Delivery of pharmaceutical products through the cantina	Prisons	• Security officers
• Continuity of treatment after release	Prisons	• None
Pros	Cons	
• No major change for health care staff	• Absence of patient confidentiality when the medications are delivered by security officers • Absence of economy of scale, high costs of pharmacy staff and medications • Scattered services with inequalities between prisons and prisoners • Absence of an efficient coordination and quality control • Increased administrative burden for the prisons and the FPS Public Health due to the high number of pharmacists without standardized conditions • High number of incidents	
• No major change for prisoners		
• Coordination of the medication delivery at the local level		
• Adaptation of pharmaceutical services to the local organization of the prison		
• Short delivery time of medications for prisoners (<24h)		



4.6.6.3 Scenario 2 Outsourcing of pharmaceutical services

Table 15 presents the scenario 2 for the organisation of the pharmaceutical services, including the distribution of medication in prisons.

Table 15 – Scenario 2 for pharmaceutical services

Short description		
Outsourcing of pharmaceutical services through contract with providers by public tenders		
Full description		
Outsourcing of medication and other pharmaceutical supplies through contracts with providers by public tenders : outsourcing includes the services of the local pharmacist (e.g. advices and revision of prescriptions for polymedicated prisoners), the preparation of medication and unidoses for prisoners, the provision of pharmaceutical supplies (e.g. antiseptics, bandages...), the coordination with the health care staff of the prisons, the emergency delivery, the support of the primary health care staff and the control of prescriptions. Paiement is organised on the same model than in hospitals (fix-payment per prisoner). Outsourcing can be done at national, regional or local level .		
Intervention elements	Where	Whom
• Prescription of medication	Prisons / hospitals	• Medical doctors
• Preparation of the unidoses for prisoners	Pharmacy	• Outsourced provider
• Purchase and supply of non-pharmaceutical products	Pharmacy	• Outsourced provider
• Supply of the prisons for medication and pharmaceutical products	Pharmacy	• Outsourced provider
• Distribution of prescribed medicines	Prisons	• Nurses
• Delivery of over-the-counter medication	Prisons	• Nurses
• Control of the quality and the adequacy of the prescribed medications	FPS Public Health	• Central pharmacist at the FPS Public Health + outsourced provider (local level)
• Prisoners health education regarding self medication	Prisons	• Primary health care team
• Delivery of pharmaceutical products through the cantina	Prisons	• Nurses
• Continuity of treatment after release	Prisons	• Primary health care team
Pros	Cons	
• Economy of scale and cost reduction • Increased feasibility of unidose delivery (e.g. traceability) • Inclusion of emergency delivery of medications and supplies	• Need for increased coordination at local level if national outsourcing • Monopolist situation in case of national/regional outsourcing • Persistence of disparities in case of local outsourcing	



-
- Clarification of the supplying process per prison, reducing administrative burden for both prisons and FPS Public Health
 - Increased quality control: inclusion of guidelines such as appropriate use of antibiotics and generic medications, control of adequation of prescriptions, reduction of harmful combination and polymedication, better overview of self-medication
 - Risk of disappearance of existing efficient collaborations
 - Need for an efficient coordination between security officers and nursing staff for the distribution of medication
-

4.7 Payment modalities

In view of the current data limitations regarding epidemiology and costs for the health care of inmates, recommending specific payment methods remains at this stage, premature.

Nevertheless, the aim of this section is to offer an overview of payment methods that could be considered at the time of the transfer/re-organisation, as well as the main advantages and disadvantages they offer.

After the general description, a short discussion including implementation challenges is offered.

It is important to highlight that different systems can be used in combination (e.g. salary +fee for service) and therefore, they do not necessarily need to be mutually exclusive. In fact, most often, funding models rely on mixed systems.

4.7.1 Payment modalities:

Global budget

A global budget is a fixed amount paid (usually per year) for all care delivered. Often these budgets are calculated on a historical basis and can be flexible or capped. The amount of money provided is calculated and provided prospectively, although in the case of “flexible” budgets, retrospective reimbursements is made to cover for any costs incurred in by providers that surpass the original estimated figure.

Under such a system, providers are free to decide how to best spend the provided budget. Although global budgets, when capped or closely

monitored, offer the incentive of controlling costs, they can also result in a reduction in the quantity of care provided (less care given) or the quality or appropriateness (e.g. less use of expensive, innovative therapies). This is due to the fact that global budgets per se are not connected to “patient needs”.

Fee for service

Fee for service is one of the most traditional payment methods in health care, not only in Belgium but worldwide. It consists of separate payments to the healthcare provider for each medical service rendered to a patient. Its main advantage is that it rewards volume (which could result in better access) and does not incentivize “cream-skimming” (i.e. providers selecting only “healthier patients”), or disincentivise the use of expensive, innovative therapies. However, such system often results in high use of “unnecessary” resources and does not reward quality or offer incentives to implement preventive care strategies or avoid hospitalisations.

As a consequence two different payment methods, often referred in the literature as “value-based payment methods”, have become more popular as potential ways of surpassing the key disadvantages offered by global budgets and fee for service systems.

Value based payment methods

1. Capitation payment system

In this healthcare population payment model system, a single payment is assigned per patient. The patient-specific amount is estimated on the basis of their characteristics (e.g. age, sex, socioeconomic status, medical history) prospectively.



Under such models, payment rates are tied to the expected usage of a patient regardless of how much care they finally get. Thus, it promotes risk-sharing between payers and providers, making the latter more responsible for their use of resources (e.g. the provider would be interested in offering good preventive care to help patients avoid high-cost procedures and tests). Capitation models could be “full” capitation models or “partial”. Under partial capitation models, only certain types or categories of services or patient groups are paid on the basis of capitation.

The main disadvantage of such a system, is that it is challenging to adjust them to ensure they reflect the appropriate health risk of a patient.

2. Bundled payments/activity-based funding

Bundled payments consist on single payment to healthcare providers (retrospective payment) for all services delivered during an entire “episode of care”. Bundled payments need to be adjusted taking into consideration specific patient risks based on their characteristics (i.e age, gender), or co-morbidities. Often, multiple providers from different setting are involved and covered by that single payment.

This healthcare payment model encourages efficiency and quality of care because there is only a set amount of money to pay for the entire episode and promotes collaboration (integrated care) between different providers as well as good preventive care to avoid future health complications.

Their main disadvantage is that they are highly complex to design and implement.

4.7.2 *Current situation and challenges for introducing new payment modalities*

Under the current system in prisons, most nurses are salaried, while payment for GPs mainly relies on a fixed number of hours per month: every act you perform on top of these hours is not paid. The number of patients seen does not make a difference either. Such as system is unlikely to encourage efficiency.

Although their general introduction remains at present premature, capitation payments or activity-based funding could introduce better incentives for an efficient multidisciplinary and collaborative approach between all health professionals involved in primary care.

Nevertheless, effective methods for capturing more accurate and complete patient diagnostic and cost specific data would represent the first necessary step to set up pilot studies on the effect of value-based payment models in Belgian prisons. In the meantime, estimates on the overall funds needed to be transferred would need to be based on historical expenditure.

Regarding secondary care (specialist or hospital care), changing the payment system currently used outside of prison may not be appropriate given the problems already faced at present to attract specialists to come into prison or the complications that a separate payment system could bring for hospitals dealing with prisoners.

Nevertheless, a couple of points were raised during stakeholder consultations regarding such payments:

1. Payments for specialists to come into prison should be at least equivalent to that of specialists working in the outside world, while a plus based on transport or waiting times for entering the prison could help to address the current “attraction and retainment” problems.
2. The current delays in payment (over those that could be justified by the necessary administration also present outside of prison walls) should be avoided.

A further factor that would affect payment models include the insurability of prisoners. The existing services in prisons must be covered by a separate contract between health care providers and the NIHDI. The NIHDI nomenclature covers only curative health services, while federated entities take care of health promotion, prevention and the wellbeing of prisoners. This political fragmentation constitutes an important challenge when it comes to the identification of an adequate payment system for comprehensive care.



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