

## Analysis of health care in prisons of Pará state, Brazil

Nancy Meriane de Nóvoa Lôbo (<https://orcid.org/0000-0001-9198-7821>)<sup>1</sup>

Margareth Crisóstomo Portela (<http://orcid.org/0000-0002-9858-9276>)<sup>2</sup>

Alexandra Augusta Margarida Maria Roma Sanchez (<http://orcid.org/0000-0001-5617-1173>)<sup>2</sup>

**Abstract** *This study aimed to describe Pará's Prison Health. This ecological time series study was based on secondary data with unrestricted access from Institutional Reports of the Penitentiary System and information from the Pará Transparency Web Portal, the National Register of Health Facilities (CNES), and the Notifiable Diseases Information System (SINAN). As a result, we observed a population with a majority of less-educated young black and brown males. In absolute numbers, we observed an increase of health professionals who did not follow the prison population hike. When entered into statistical control charts, the number of medical, dental, and psychological visits varied randomly and outside the limits. The potential coverage of prison health teams linked to the SUS achieved a maximum of 45.77%. Health task forces did not increase the number of visits. The incidence of tuberculosis was much higher than the mean for the state population, and its notification is adequate. Even with restricted secondary data, we could broadly look at the state's prison health, raising issues managers and professionals should consider.*

**Key words** *Prisons, Health services, Prisoners, Tuberculosis*

<sup>1</sup> Secretaria de Administração Penitenciária do Estado do Pará. Secretaria Municipal de Saúde de Belém. Av. Gov. José Malcher 2821, São Brás. 66090-100 Belém PA Brasil. [nancynlobo@gmail.com](mailto:nancynlobo@gmail.com)

<sup>2</sup> Escola Nacional de Saúde Pública Sergio Arouca, Fundação Oswaldo Cruz. Rio de Janeiro RJ Brasil.

## Introduction

Prison health is a historic challenge. Although the Penal Execution Law (LEP) provides for medical, dental, and pharmaceutical care<sup>1</sup>, the issue ceased to be an object of interest and responsibility restricted to public security policies to become an object of joint responsibility with social and health policies<sup>2</sup> only in recent years.

Several international entities have advised that health care for people deprived of liberty (PDL) must be provided by the public health system or, at least, in the same condition as it is provided to the general public<sup>3,4</sup>. In Europe, the United Kingdom, France, and Norway were pioneers in transferring this responsibility to the Ministry of Health or the corresponding body<sup>5</sup>.

In Brazil, despite the large population involved, the health of PDL still holds a modest place in the Unified Health System (SUS) agenda. Fifteen decisions involving the production of health standards for the prison setting were taken between 1984 and 2015, becoming landmarks of fundamental rights for people deprived of liberty<sup>2</sup>. Among them is the National Policy of Comprehensive Health Care for People Deprived of Liberty in the Prison System (PNAISP), implemented in 2014.

The PNAISP corrected some gaps in previous regulations. It determined that the Prison Health Unit would become the point of care of the health services network and expanded the types of teams, requiring the registration of establishments and teams in the National Registry of Health Facilities (CNES). Additionally, it promoted the adequacy of the monetary incentive<sup>6</sup>.

However, the optional authorization of states and municipalities to this policy means that not all health activities are under the aegis of the SUS, favoring a tangle of health spaces with multiple professional links and diverse funding, where SUS policies are often not incorporated. Thus, public health policies aimed at PDL can have varying impacts between states and even within each.

More recently, Ministry of Health Ordinance N° 99 of 2020 established that all prison health teams would be linked to code 74, corresponding to the Prison Primary Care Team (eAPP)<sup>7</sup>. Technical Note N° 4/2021-COPRIS/CGGAP/DESF/SAPS/MS, in turn, clarifies that the Health Coordination in the Prison System (COPRIS) is part of the Family Health Department of the Primary Care Secretariat<sup>8</sup>.

Regarding research within this theme, even in the face of growing studies on health services

in recent decades<sup>9</sup>, few are those dedicated to this subject in the universe of the prison system. On the other hand, managers can conduct studies to improve services<sup>10,11</sup>, and that data from admission exams, diagnoses, and location of services can be the first step to understanding the structure and the provision of health care<sup>12</sup>.

Although the volume of research on health in the prison system has increased since the 1990s on five continents, several studies are restricted to a single Prison Unit<sup>13-15</sup>. Also, we observe some limitations due to the lack of information on the prison population and non-standardized health data during incarceration<sup>16</sup>.

The scarcity of comprehensive studies makes a significant portion of the prison population invisible. The characterization of the prison health setting as a whole is still a great challenge, as it includes very different forms of organization, with different structures, even within the same Federative Unit.

The gathering of information related to the set of health service users deprived of their liberty can allow new perspectives on the organization of health care in the prison system. In this sense, this study was an effort to explore data related to the entire PDL in Pará, mitigating potential selection biases, which is relevant given the heterogeneous services and, possibly, the health situation of PDL.

Despite the availability and wide use in research of several SUS databases, such data are disordered and incomplete concerning prison health since not all institutions that provide health care for PDL are included in these health information systems, which is because much of the health care in the prison system is carried out by the Justice, Security, or Penitentiary Secretariats. As a result, this study is mainly based on information available in reports and official websites of government institutions responsible for custody and care, which is, in itself, relevant for considerations about the processes and results of the health care provided and even on the data themselves, in the sense of a possible improvement for management<sup>17</sup>.

This study aimed to provide exploratory analyses of health care for all PDL in the state of Pará, identifying possible weaknesses of the health system in its penetration in prisons.

## Methods

The study is ecological insofar as it addresses aggregated data and is based on secondary sources of unrestricted access. The data adopted in this

paper referred to Pará's prison system. They were retrieved from the "SUSIPE em números" institutional reports, the Transparency Portal of the State of Pará, the Notifiable Diseases Information System (SINAN), and the National Registry of Health Facilities (CNES).

Thus, we considered the demographic characteristics of PDL, the availability of health professionals, and the production of care per the "SUSIPE em números" records. These reports, together with SINAN, also provided information on two conditions that mark the health situation concerning the vulnerability of PDL, tuberculosis, and leprosy. The number of correctional officers was calculated from information available on the Transparency Portal of the State of Pará. Information on prison health teams was retrieved from the CNES.

The database used in the study was built with the REDCap tool (Research Electronic Data Capture, available at <https://www.project-redcap.org/>), with entry and verification performed by the author. We observed expressive time series, from May 2012 to November 2018.

Indicators were calculated from stored variables to present results compatible with the literature, facilitating comparability. We performed descriptive analyses, mean, standard deviation, minimum and maximum values, and quartiles to characterize the prison population and structure for the provision of health services, production/use of health services, and morbidities related to the prison population.

We incorporated statistical control graphs to capture trends over time and "stability" zones in the behavior of the variables and events that eventually positively or negatively affected such stability to observe the variability of the measurements over the 78 months covered.

The nonparametric Kruskal-Wallis test was used to compare demographic characteristics of the prison population over the years considered in the study. Moreover, we obtained Pearson correlations to identify factors associated with variations in the production/use of services and in the morbidities in the prison system.

The Statistical Analysis System (SAS) was the statistical package used in data management and statistical analysis. It was used to calculate indicators in terms of ratios and proportions from variables of the original database and obtain descriptive statistics, correlations, and statistical control charts. The version used was 9.4 for Microsoft® Windows Workstation for x64.

This work did not require consideration by the Research Ethics Committee. In any case, the

project was submitted to the CEP/ENSP to ratify this understanding, with the opinion of exemption from ethical assessment N° 10/2020 of the Research Ethics Committee of the Sérgio Arouca National School of Public Health, Oswaldo Cruz Foundation (FIOCRUZ).

## Results

The prison population of Pará increased by 75.6%, reaching 19,284 inmates in custody in the period analyzed, from May 2012 to November 2018. It was composed chiefly of young, less-educated black and brown men. The LGBTQIA+ population was not identified in the reports at the time.

The considerable number of provisional inmates had a statistically significant drop per the Kruskal-Wallis test ( $p$ -value < 0.0001), falling from 49.2% to 33.4%. The number of vacancies and correctional officers increased but could not keep up with the growing prison population in Pará, reaching maximum values of 2.2 PDL per vacancy and 7.7 PDL per correctional officer.

Similarly, health professionals hiked in absolute numbers but with a declining ratio per thousand PDL. However, it should be noted that Pará's prison system had more than six psychologists, two doctors, two dentists, two nurses, and 12 nursing technicians for every thousand in custody.

Medium and high positive correlations were also observed between the number of health professionals and escorts. However, when evaluating medical, dental, and psychological care against the number of correctional officers, a strong positive correlation was only observed for psychological care (Pearson correlation 0.81;  $p$ -value < 0.0001).

Only doctors, dentists, and psychologists' individual visits were computed in the reports. A very irregular production per professional for each of the three categories was observed, predominantly outside the statistical control zone, with a similar evolution (Figure 1), resulting in a sizeable monthly variation in the total number of health services delivered and the number of procedures performed per thousand PDL.

The number of monthly visits offered to the prison population of Pará had an average and median of 24.6 and 23.2 per dentist, 24.1 and 23.9 per psychologist, and 41.3 and 39.4 per doctor, respectively. The maximum numbers reached in one month were 91.2 internal visits by a doctor, 52.4 dental visits by a dental surgeon, and 34.3 individual visits by a psychologist.

Until then with a single qualified team, 2014 was a remarkable year for the increase in prison health teams, coinciding with the enactment of the PNAISP. However, the maximum coverage capacity was 45.8% of the population in custody in November 2018 (Figure 2). The partnership was more robust with the state health secretariat than the municipal ones.

The “SUSIPE em números” reports mention seven health task forces (Figure 3), which do not seem to have impacted the total number of health services delivered to the prison population, even showing a negative, albeit weak Pearson correlation (-0.17, *p*-value = 0.14).

The mean incidence of new TB cases per 100,000 in custody in the Pará penal system was 148.92, with 5.03 intramural laboratory tests for each new case entered into the control program. The number of laboratory tests performed in a month ranged from zero to a maximum of 168. The ratio between the numbers of new TB cases reported in the prison system reports and those reported in SINAN had higher levels and significant variability until 2014. In January 2015, a significant reduction was observed in its variability, with a mean of 0.94, mainly within the statistical control zone (Figure 4).

The comparison between the incidence of leprosy and TB calculated from institutional reports from the Pará prison system and those of epidemiological bulletins and historical series from the Ministry of Health for the general population of Pará is shown in Table 1. The differences between the rates are notorious. PDL have a lower incidence of leprosy, while the incidence is much higher for TB.

## Discussion

This work describes health care in the prison system of the state of Pará between 2012 and 2018. Assuming that reports from the then SUSIPE are reliable for scientific research was an option given the monitoring and verification by the author at several stages in the period presented here. Furthermore, this material takes a longitudinal perspective on the study object, with a significant time series accounting for implementing relevant policies in the sector.

Although the results show the growth of health teams provided by the PNAISP from 2014 onwards, it is evident that the health infrastructure could not keep up with the sharp population increase. Moreover, a very irregular pattern was

observed in the monthly number of health visits. The expected effect of the greater availability of prison agents for care provision was evidenced only in the positive correlation for psychology. TB incidence was higher than that of Pará's general population, while leprosy had a much lower number in the same comparison. The reporting pattern of TB cases diagnosed intramurally improved in the SINAN.

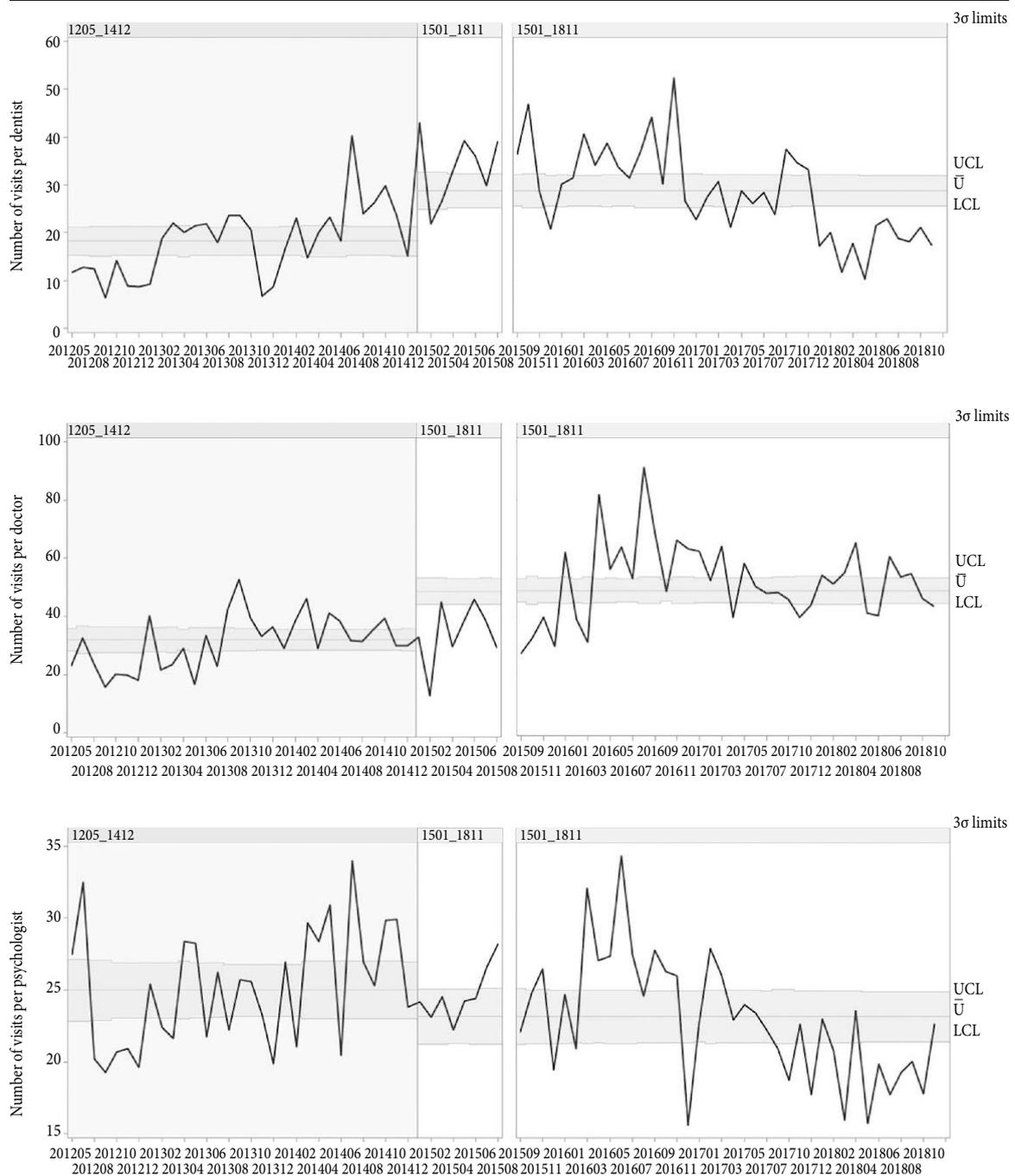
The description of Pará's prison population is similar to that described in studies and documents on the Brazilian prison system: the majority of less-educated young black and brown men. The brown and black majority of prison population deserves attention as the effects of racial discrimination are reflected in health<sup>18</sup>.

The increase in the prison population is a worldwide reality<sup>19</sup>. Pará follows this trend, showing an increase of 7,628 individuals in custody in the period studied, reaching 2.2 PDL per available vacancy. Prison overcrowding is a determining factor for deteriorated health in the prison context, associated with an unhealthy physical structure, abundantly portrayed in the literature<sup>20-22</sup>.

The population of pretrial detainees has grown on every continent except Europe<sup>23</sup> since 2000. However, from another perspective, in five-year analyses, the proportion of pretrial detainees increased until 2015 and then continued to decline<sup>24</sup> in Brazil, probably associated with custody hearings implemented in the country's courts<sup>25</sup>. However, Pará shows that it is at the forefront of this decrease in its prison system reports, with an appreciable and progressive drop in the percentage of the population held in custody under the provisional regime since 2012.

Regarding health care services, a recurring issue refers to the adequate number of professionals and services to be provided. This forecast depends on the health needs of the population<sup>26</sup> and the number of professionals and visits performed are just some indicators that can be used to assess performance<sup>27</sup>.

Thus, from the few suggestions about the adequate number of professionals, one doctor from the family health strategy for every 2,500 people (0.4 doctor/1,000 inhabitants) and one nurse for every thousand inhabitants of specific populations (people living on the streets and riverside dwellers)<sup>26</sup> are recommended. For the Prison System, the Ministry of Health's guidance is that the different types of teams serve 500 to 1,200 PDL, also suggesting adjustments to the workload at the Prison Unit (PU) based on the number of inmates<sup>28</sup>.

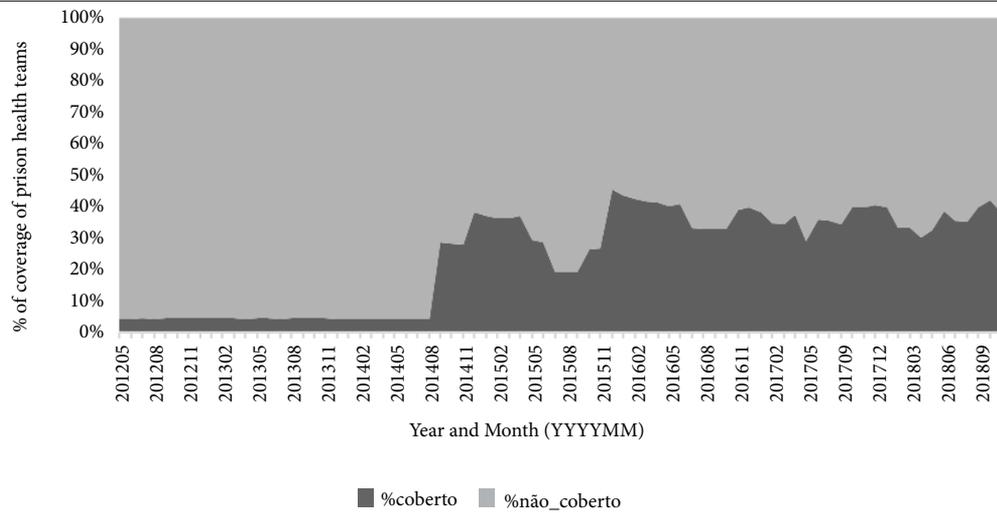


**Figure 1.** Statistical control chart of the number of visits per dentist, doctor, and psychologist in the prison system. Pará, May 2012–November 2018.

Source: “SUSIPE em números” reports.

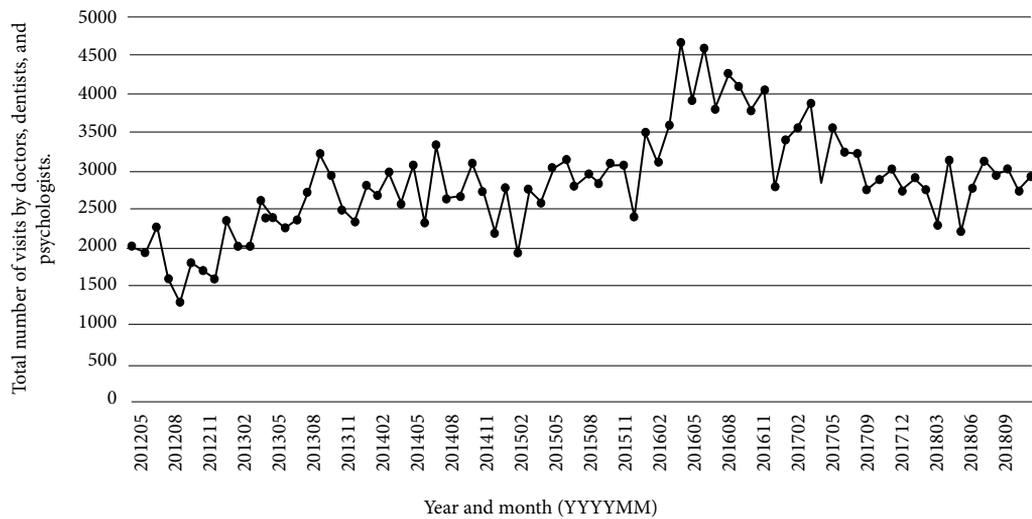
The composition of the health workforce of Pará’s prisons is adequate to this guideline, with more than one professional for every thousand

PDL throughout the analyzed period, except for pharmacists and oral hygiene technicians/dental health assistants. However, the distribution of



**Figure 2.** Evolution of the percentage of coverage of prison health teams. Pará, May 2012–November 2018.

Source: Ministry of Health – Brazilian National Registry of Health Facilities (CNES) and “SUSIPE em números” reports.



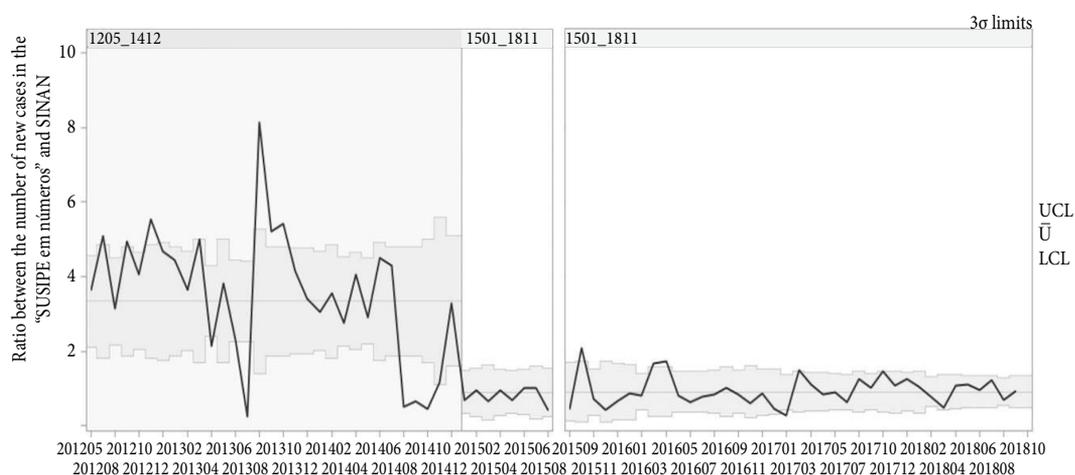
**Figure 3.** Evolution of the sum of the total number of visits by doctors, dentists, and psychologists and care task forces in the prison system. Pará, May 2012–November 2018.

Note: The task forces are highlighted in black.

Source: “SUSIPE em números” reports

these professionals by teams and the distribution of these teams in the Prison Units were not investigated.

Besides health professionals, correctional officers play an essential role in providing care. They are responsible for removing the patient



**Figure 4.** Statistical control chart of the ratio between the number of new cases in the tuberculosis program according to the “SUSIPE em números” report and the number of cases reported in SINAN. Pará, May 2012–November 2018.

Source: SINAN/SVS/MS and “SUSIPE em números” reports.

**Table 1.** Comparison of leprosy and tuberculosis incidence in Pará, for the general population and PDL.

Year	Disease	Incidence per 100,000 inhabitants	
		In Pará, according to the epidemiological bulletins of the Ministry of Health (SINAN)	In the Prison System of Pará, according to the reports “SUSISPE em números”
2014	Leprosy	42.34	13.16
2015	Leprosy	35.34	14.31
2016	Leprosy	30.43	22.58
2017	Leprosy	31.05	11.76
2018	Leprosy	30.44	12.10
2014	Tuberculosis	42.60	99.64
2015	Tuberculosis	41.08	115.73
2016	Tuberculosis	43.50	136.94
2017	Tuberculosis	45.40	163.31
2018	Tuberculosis	46.70	206.23

Source: SINAN/SVS/MS and “SUSIPE em números” reports.

from his cell, searching them, conducting, monitoring, and ensuring their safety during the procedure. This research revealed that the number of psychological visits increased when the number of prison agents increased in the same period, which was not identified for medical and dental care.

Brazil suggests as adequate the ratio of one correctional officer for every five prisoners<sup>29</sup>. The Pará penitentiary system accounted for 7.67 PDL

for each custody professional at the end of the analyzed period. We should remember that civil servants appointed as correctional officers on the transparency portal of the state of Pará usually also perform secretarial and concierge functions. Therefore, their activities are not limited exclusively to escorting.

As for productivity, remarkably high variability was observed in the number of monthly visits with doctors, dentists, and psychologists, evol-

ing with a similar pattern for the three groups of professionals. Based on this similar performance, the increase or decrease in the number of health visits is likely linked to broader structural and logistical issues of the prison system and not to individual aspects of each of these professional activities. The significant variability in patterns that transcend statistical control generates harmful unpredictability for the planning of health actions and raises concerns about the actual productive capacity of the health sector.

The literature describes some variability in the number of health services delivered to the population, with possible seasonal variation and greater production in mid-year<sup>30</sup>. The variation in the Pará prison system seemed somewhat random, with no trends in specific periods.

Productivity can be subject to targets. However, the understanding that any planning and programming parameters are referential, without any imposition or mandatory character<sup>31</sup>, is assumed as consensual. More specifically, the lack of comparison parameters for the prison system hinders the critical analysis of the monthly production with the means and medians presented.

It is also risky to make considerations about the level of assistance/neglect in the Pará prison system. The decision on the appropriate amount of care must be per the population's health needs, epidemiological and demographic profile, and cultural traits, which modify the demand and use of health services<sup>26</sup>.

Also, prison health care requires unique structural and logistical conditions. The meeting of patients and health professionals is filled with security requirements from removal from the cell and search, among other rules. It is also subject to the routine of the prison and its numerous demands such as visits, legal, educational and religious assistance, and critical situations such as escapes, fights, and riots that are not unusual inside prisons. However, a restrained supply can be estimated from the low percentage of PDL covered by health teams and the high incidence of TB, as discussed below.

The increased number of prison health teams is factual, despite reaching a maximum of 45.8% of the population in custody. Also, on the national scene, the total number of teams registered in SCNES never reached the entire prison population<sup>32</sup>.

We have not found publications that cross-reference information about access to care and prison health teams. However, based on the experiences of the Family Health Strategy,

among others, we identified some performance gaps before the heterogeneous care organization within the SUS<sup>33,34</sup>. Thus, it is likely that there are marked differences between the PUs served by health teams linked to the PNAISP and those with traditional care provided by health professionals linked only to the penitentiary system.

Another issue to be considered is that, while the PNAISP is a policy in which states and municipalities are responsible for health promotion, protection, and recovery actions, this study only assessed the number of visits with doctors, dentists, and psychologists. In the secondary data available, the lack of information about the performance of other professionals provided for in the policy, such as nurses and social workers, and the lack of description of prevention and health promotion actions, such as lectures and vaccination, conceal essential elements about the implementation of the national policy within Pará's prisons.

Another relevant observation in the research period was the seven health task forces mentioned in the reports. An increase in the number of services during such events is expected. Scientific research even reported a reduction in the waiting list and a low number of surgical complications in task forces<sup>35</sup>. However, this was not the reality in Pará's prison system. The task force did not correlate with a higher number of visits.

In general, the health task forces in Pará's prisons had an agreement with municipal or state health secretariats. Some were exclusive to one sector, such as the dental task forces and others gathered several services, aggregating visits and tests. Not infrequently, they took place together with legal task forces. The secretariats collaborated with professionals, and some infrastructure of equipment and materials such as buses with dental offices and supplies, X-rays, and rapid tests, which, added to the penal system health personnel staff, were committed to producing services.

The task forces play a vital role in the units most in need of care. On the other hand, they mobilize all the logistics of regular daily care very intensely, paralyzing the service in some units that deliver most of their labor to the task force. Even considering the possibility of underreporting the task force activities, the possibility of adversely impacting the care of prisons not participating in the event must be considered, which may have prevented the increase in the total production of health services.

The task force's objective can be searching for a solution to focal problems, in specific units with

high restrained demand. Thus, failing to increase the total productivity may not be a failure in the purpose of this endeavor.

Pará's prison system conducted in its laboratory a maximum of 168 TB tests in a month for a population that reached 19,284 people in the period studied. It is clear that most TB diagnoses are not made through the existing penal system laboratory, as the number of monthly diagnoses remains stable even when the tests stop.

The existence of the penal system's own laboratory, operating even within a penitentiary unit, should be a logistical facilitator. However, several issues in using this service are observed in the health care routine. Even without considering difficulties in the laboratory's functioning, sending material for testing is not a trivial routine; for example, before a distance of 36 kilometers between the main state prison complex and the laboratory and, mainly, between the penal units located in inland Pará that need transport by plane or boat to access the metropolitan region of Belém.

Thus, most health professionals must resort to external services for diagnosis. In conversation with a nurse serving the prison system, she revealed that most symptomatic patients are diagnosed through radiographs taken at the nearest Emergency Care Unit (UPA) or have laboratory tests sent to laboratories outside the institution responsible for custody. More attention should still be given to screening based not only on the existence of symptoms which, in some cases, can identify only a small proportion of patients<sup>21</sup>.

External health units perform the compulsory notification of diseases in Pará's prison system. Moreover, the literature reveals the low completeness of fields related to special populations, including the population deprived of liberty<sup>36</sup>. Faced with these challenges, maintaining the ratio between the numbers of new cases reported by the prison system reports and by SINAN close to one and their variations within the statistical control portray an adequate pattern of notifications, which refers to good inter-institutional communication, an essential fact for epidemiological surveillance and the treatment's establishment.

A possible explanation for the fact that, in a few months, more new cases appear in the SINAN database than those reported by the Pará prison system may be related to the scope of the PDL concept. It does not only include the population in the prison system's custody but extends, for example, to juvenile offenders. In short, it is

appropriate to notify individuals not described in the "SUSIPE em números" reports.

Starting with the portrait of the health situation, this description of Pará's prison population from the secondary data presented in the institutional reports is limited, which is because there is only information about people enrolled in specific health programs, which, as of August 2014, only present new cases, then assumed as an incidence, not allowing an accurate estimate of the number of people actually sick.

Comparisons between the values presented by epidemiological bulletins and historical series from the Ministry of Health showed that the incidence rate of leprosy in Pará is lower for people deprived of their liberty than for the general population. On the other hand, PDL have a much higher TB incidence than the mean of their free fellow citizens. The prison population is more vulnerable to diseases than the general population due to substandard confinement conditions<sup>37</sup>. Thus, the TB findings agree with the literature and are further confirmed by the epidemiological bulletins that report the prison situation<sup>38</sup>.

As for leprosy, Pará's prison system reported a 42% decline in cases<sup>39</sup>. However, one should be alert to the possibility of low detection. For example, Paraíba recorded 27.84 detections of leprosy cases per 100,000 inhabitants in the general population of the state, while it was 193.50 for its prison population, reaching 526.30 in prisons where there were case-detection task forces<sup>40</sup>.

Given all that has been exposed, we could present findings in a poorly studied area. Analyzing the health care provided to the entire prison population in the state of Pará was a valuable step in understanding better the routine of prison health services in the face of public policies aimed at PDL. On the other hand, data limitation is explicit, and it is urgent to provide more accurate information on the health situation and capacity to produce services for logistical planning in this public health sector. Thus, this research also brings to the fore new questions to be answered to organize and streamline care.

## Final considerations

This research employed the statistical analysis of the available data and showed an overview of prison health care in Pará. On the other hand, it also revealed some service shortcomings to be remedied. Despite working with secondary

data of variable reliability, positive results were achieved, such as the description of the prison population, some health situations, and correlations that can affect health activities.

There is also a need for more data to be presented publicly, unrestrictedly, and continuously, which allows for a deeper understanding of relevant issues related to health needs, supply, access and use of services, the productivity of more professionals, the physical structure, the contribution of inputs and security issues, for a firmer assumption of the productive capacity directed to prison health.

The conviction of the significant fluctuation of health visits conducted within the prisons should consider reorganizing work where predictability is allied with planning. The consistency of PDL TB notifications through SINAN is entirely satisfactory in Pará and highlights the need for information on special populations in notifications of other diseases of interest to this public.

While lacking complete and definitive answers, everything discussed in this work generally describes prison health care in the state. By analyzing data on the totality of actions in the state of Pará, we can think of solutions that are not just one-off and thus launch new management challenges to improve the service.

## Collaborations

This work derives from NMN Lôbo master's dissertation in Escola Nacional de Saúde Pública Sergio Arouca, Fundação Oswaldo Cruz (Fiocruz). MC Portela was the research advisor, working on the design, definition of methods and analyses, writing, and review. AAMMR Sanchez was a co-advisor, working on the design, writing, and review.

## References

1. Brasil. Presidência da República. Lei nº 7.210, de 11 de julho de 1984. Institui a Lei de Execução Penal. Lei de Execução Penal. *Diário Oficial da União* 1984; 13 jul.
2. Lermen HS, Gil BL, Cúnico SD, Jesus LO. Saúde no cárcere: análise das políticas sociais de saúde voltadas à população prisional brasileira. *Physis* 2015; 25(3):905-924.
3. Lehtmetts A, Pont J. *Prison health care and medical ethics: a manual for health-care workers and other prison staff with responsibility for prisoners' well-being* [Internet]. Strasbourg: Council of Europe; 2014. [cited 2019 dez 26]. Available from: <https://rm.coe.int/prisons-healthcare-and-medical-ethics-eng-2014/16806ab9b5>
4. Enggist S, Møller L, Galea G, Udesen C. *Prisons in health*. Copenhagen: World Health Organization, Regional Office for Europe; 2014.
5. Ismail N, Woodall J, Viggiani N. Using laws to further public health causes: the Healthy Prisons Agenda. *Glob Health Promot* 2020; 27(2):121-124.
6. Schultz ALV, Dias MTG, Lewgoy AMB, Dotta RM. Saúde no sistema prisional: um estudo sobre a legislação brasileira. *Argumentum* 2017; 9(2):92-107.
7. Brasil. Ministério da Saúde (MS). Portaria nº 99, de 7 de fevereiro de 2020. Redefine registro das Equipes de Atenção Primária e Saúde Mental no Cadastro Nacional de Estabelecimentos de Saúde (CNES). *Diário Oficial da União* 2020; 11 fev.
8. Brasil. Ministério da Saúde (MS). Nota Técnica nº4/2021 – COPRIS/CGGAP/DESF/ SAPS/MS. [acessado 2021 abr 27]. Disponível em: <https://www.camara.leg.br/propostas-legislativas/2274498>
9. Martins M, Portela MC, Noronha MF. Investigação em serviços de saúde: alguns apontamentos históricos, conceituais e empíricos. *Cad Saude Publica*. 2020; 36(9):e00006720.
10. Carnie J, Broderick R, Cameron J, Downie D, Williams G. *Prisoner Survey 2017* [Internet]. Scotland: Scottish Prison Service; 2017. [cited 2021 abr 27]. Available from: <https://www.sps.gov.uk/Corporate/Publications/Publication-6101.aspx>
11. Pate R, Wright D, Railton C, Cauty A. *A survey of dental services in adult prisons in England and Wales* [Internet]. London: Public Health England; 2014. [cited 2020 fev 28]. Available from: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/328177/A\\_survey\\_of\\_prison\\_dental\\_services\\_in\\_England\\_and\\_Wales\\_2014.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/328177/A_survey_of_prison_dental_services_in_England_and_Wales_2014.pdf)
12. Chari KA, Simon AE, DeFrances CJ, Maruschak L. National Survey of Prison Health Care: select findings. *Natl Health Stat Rep* 2016; 96:1-23.
13. Cordeiro EL, Silva TM, Silva LSR, Pereira CEA, Patrício FB, Silva CM. Prisoners' epidemiological profile: notifiable pathologies. *Av En Enferm* 2018; 36(2):170-178.
14. Dourado JLG, Alves RSF. Panorama da saúde do homem preso: dificuldades de acesso ao atendimento de saúde. *Bol Acad Paul Psicol* 2019; 39(96):47-57.
15. García SJ, Borges DTM, Blanes L, Ferreira LM. Avaliação clínica e epidemiológica do paciente com feridas em uma unidade prisional do estado de São Paulo. *Av En Enferm* 2019; 37(1):19-26.

16. Bui J, Wendt M, Bakos A. Understanding and addressing health disparities and health needs of justice-involved populations. *Public Health Rep* 2019; 134(suppl. 1):3S-7S.
17. Thum MA, Baldisserotto J, Celeste RK. Utilização do e-SUS AB e fatores associados ao registro de procedimentos e consultas da atenção básica nos municípios brasileiros. *Cad Saude Publica* 2019; 35(2):e00029418.
18. Chehuen Neto JA, Fonseca GM, Brum IV, Santos JLCT, Rodrigues TCGF, Paulino KR, Ferreira RE. Política Nacional de Saúde Integral da População Negra: implementação, conhecimento e aspectos socioeconômicos sob a perspectiva desse segmento populacional. *Cien Saude Colet* 2015; 20(6):1909-1916.
19. Walmsley R. *World prison population list* [Internet]. Londres: University of London; 2018. [cited 2021 set 14]. Available from: [https://www.prisonstudies.org/research-publications?shs\\_term\\_node\\_tid\\_depth=27](https://www.prisonstudies.org/research-publications?shs_term_node_tid_depth=27)
20. Carvalho SG, Santos ABS, Santos IM. A pandemia no cárcere: intervenções no superisolamento. *Cien Saude Colet* 2020; 25(9):3493-3502.
21. Sánchez A, Larouzé B. Controle da tuberculose nas prisões, da pesquisa à ação: a experiência do Rio de Janeiro, Brasil. *Cien Saude Colet* 2016; 21(7):2071-2080.
22. Topp SM, Moonga CN, Luo N, Kaingu M, Chileshe C, Magwende G, Henostroza G. Mapping the Zambian prison health system: an analysis of key structural determinants. *Glob Public Health* 2017; 12(7):858-875.
23. Heard C, Fair H. *Pre-trial detention and its over use: evidence from ten countries* [Internet]. Londres: Institute for Crime & Justice Policy Research; 2019. [cited 2020 nov 5]. Available from: [https://www.prisonstudies.org/sites/default/files/resources/downloads/pre-trial\\_detention\\_final.pdf](https://www.prisonstudies.org/sites/default/files/resources/downloads/pre-trial_detention_final.pdf)
24. Brasil. Ministério da Justiça (MJ). Departamento Penitenciário Nacional. *Levantamento Nacional de Informações Penitenciárias Atualização - Junho de 2017*. Brasília: MJ; 2019.
25. Azevedo RG, Sinhoretto J, Silvestre G. Encarceramento e desencarceramento no Brasil: a audiência de custódia como espaço de disputa. *Sociologias* 2022; 24(59):264-294.
26. Brasil. Ministério da Saúde (MS). Secretaria de Atenção à Saúde. *Crítérios e parâmetros para o planejamento e programação de ações e serviços de saúde no âmbito do Sistema Único de Saúde*. Brasília: Ministério da Saúde; 2015.
27. França MASA, Freire MCM, Pereira EM, Marcelo VC. Indicadores de saúde bucal propostos pelo Ministério da Saúde para monitoramento e avaliação das ações no Sistema Único de Saúde: pesquisa documental, 2000-2017. *Epidemiol Serv Saude* 2020; 29(1):e2018406.
28. Brasil. Ministérios de Estado de Saúde (MS) e da Justiça (MJ). Portaria Interministerial nº 1, de 2 de janeiro de 2014. Institui a Política Nacional de Atenção Integral à Saúde das Pessoas Privadas de Liberdade no Sistema Prisional (PNAISP) no âmbito do Sistema Único de Saúde (SUS). *Diário Oficial da União* 2014; 3 jan.
29. Conselho Nacional de Política Criminal e Penitenciária. Resolução nº 9, de 13 de novembro de 2009. Dispõe sobre a exigência mínima de presos por agentes em estabelecimentos penais destinados a presos provisórios e em regime fechado.
30. Andrade FB, Pinto R S, Antunes JLF. Tendências nos indicadores de desempenho e monitoramento de produção dos Centros de Especialidades Odontológicas do Brasil. *Cad Saude Publica* 2020; 36(9):e00162019.
31. Brasil. Ministério da Saúde (MS). Portaria nº 1.631, de 1º de outubro de 2015. Aprova critérios e parâmetros para o planejamento e programação de ações e serviços de saúde no âmbito do SUS. *Diário Oficial da União* 2015; 2 out.
32. Silva M. *Saúde penitenciária no Brasil: plano e política*. Brasília: Verbena Editora; 2015.
33. Cardozo DD, Hilgert JB, Stein C, Hauser L, Harzheim E, Hugo FN. Presence and extension of the attributes of primary health care in public dental services in Porto Alegre, Rio Grande do Sul State, Brazil. *Cad Saude Publica* 2020; 36(2):e00004219.
34. Cunha CRH, Harzheim E, Medeiros OL, D'Avila OP, Martins C, Wollmann L, Faller LA. Carteira de Serviços da Atenção Primária à Saúde: garantia de integridade nas Equipes de Saúde da Família e Saúde Bucal no Brasil. *Cien Saude Colet* 2020; 25(4):1313-1326.
35. Antunes ML, Frazatto R, Macoto EK, Vieira FM, Yonamine FK. Mutirão de cirurgias de adenotonsilectomias: uma solução viável? *Rev Bras Otorrinolaringol* 2007; 73(4):446-451.
36. Rocha MS, Bartholomay P, Cavalcante MV, Medeiros FC, Codenotti SB, Pelissari DM, Andrade KB, Silva GDM, Arakaki-Sanchez D, Pinheiro RS. Sistema de Informação de Agravos de Notificação (Sinan): principais características da notificação e da análise de dados relacionada à tuberculose. *Epidemiol Serv Saude* 2020; 29(1):e2019017.
37. Benetti SAW, Bugs DG, Pretto CR, Andolhe R, Ammar M, Stumm EMF, Goi CB. Estratégias de enfrentamento da COVID-19 no cárcere: relato de experiência. *Rev Bras Saude Ocupacional* 2021; 46:e30.
38. Brasil. Ministério da Saúde (MS). *Boletim Epidemiológico Especial: Tuberculose 2020*. Brasília: MS; 2020.
39. Secretaria de Estado de Administração Penitenciária do Pará. Susipe reduz em 42% o número de casos de hanseníase nos presídios do Pará [Internet]. 2018. [citado 2021 jan 23]. Disponível em: <http://www.seap.pa.gov.br/noticias/susipe-reduz-em-42-o-n-c3%BAmerno-de-casos-de-hansen%C3%ADase-nos-pres%C3%ADdios-do-par%C3%A1>
40. Governo do Estado de Pernambuco. Tuberculose e hanseníase no Sistema Prisional [Internet]. *Vigilância em Saúde* 2016; 2. [acessado 2021 23]. Disponível em: [http://portal.saude.pe.gov.br/sites/portal.saude.pe.gov.br/files/tb\\_hansen\\_informe\\_segundo\\_semestre2016gerencia\\_tbhansenses.pdf](http://portal.saude.pe.gov.br/sites/portal.saude.pe.gov.br/files/tb_hansen_informe_segundo_semestre2016gerencia_tbhansenses.pdf)

Article submitted 26/11/2021

Approved 28/06/2022

Final version submitted 30/06/2022

Chief editors: Maria Cecília de Souza Minayo, Romeu Gomes, Antônio Augusto Moura da Silva