# Survey on the health conditions of incarcerated women

Inquérito sobre condições de saúde de mulheres encarceradas

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**ABSTRACT** Aim: To evaluate the socio-demographic profile and health conditions of incarcerated women. Method: Cross-sectional study with 1,013 women conducted in female penitentiary. Results: The average age of 30.8 years; low level of education; Papanicolaou test coverage and vaccination; high prevalence of obesity; Common Mental Disorder; and abusive use of tobacco. Considerations: Health promoting actions, disease prevention and attention to grievances must be developed with this population, as well as actions towards social recovery, such as study and work. Research development in closed institutions allows for expanding knowledge and establishing partnerships between the society and the prison sector.

KEYWORDS Women's health; Institutionalized population; Health surveys; Violence; Prisons.

RESUMO Objetivo: Avaliar o perfil sociodemográfico e as condições de saúde de mulheres encarceradas. Método: Estudo transversal com 1.013 mulheres, realizado em penitenciária feminina. Resultados: Idade média de 30,8 anos; baixa escolaridade; cobertura de exame de Papanicolaou e vacinação; altas prevalências de obesidade; Transtorno Mental Comum; e uso abusivo de tabaco. Considerações: Ações de promoção da saúde; prevenção de doenças e atenção aos agravos devem ser desenvolvidas junto a essa população, assim como ações de recuperação social, como estudo e trabalho. Desenvolvimento de pesquisas em instituições fechadas possibilita ampliar o conhecimento e estabelecer parcerias entre a sociedade e o setor prisional.

PALAVRAS-CHAVE Saúde da mulher; População institucionalizada; Inquéritos epidemiológicos; Violência; Prisões.

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# Introduction

From the point of view of Collective health, the burden of physical and psychological diseases in the penitentiary system presents a challenge and an opportunity for interdisciplinary actions in countries all over the world. Prison facilities are privileged places for contact with millions of people, who are often beyond the reach of conventional community-based health systems. Prison could be an opportunity for health care and education to which many inmates would not have access while they were on the outside. However, most inmates go back to their communities with physical and psychological morbidities that went untreated and were sometimes aggravated (FAZEL; BAILLARGEON, 2011).

More than 10.2 million people are incarcerated all over the world, and this figure has increased by approximately one million from late 1990 up to 2006-2008, with 2.3 million people in the United States (USA). India, Thailand, Iran, Indonesia, Turkey, Brazil, Mexico, South Africa and Ukraine have over a hundred thousand incarcerated people. USA has the largest number of inmates compared with the total population, with 756 people per hundred thousand inhabitants, while the world average is 145 people per hundred thousand (WALMSLEY, 2012).

By the end of 2012, Brazil counted 274 inmates per hundred thousand inhabitants in an estimated population of 199.8 million, 38% of which were still under precautionary imprisonment or withstanding preliminary trials. There were 1,478 prison institutions, with 584,003 inmates – including 34,290 in police premises, while the official capacity of the Brazilian prison system was of 318,739 inmates (8,052 in police premises), with an occupation rate of 171.9% (ICPS, 2013).

As a general rule, 2% to 9% of the incarcerated population worldwide consists of females, i.e., more than 600 women are kept in penal institutions, whether under precautionary imprisonment or serving their term of prison (ICPS, 2013).

Nearly one third of the imprisoned women are in the USA (201,200), followed by China (84,600), Russia (59,200), Brazil (35,596) and Thailand (29,175). The female incarcerated population is increasing across the five continents. Between 2006 and 2012, in a total of 187 researched countries, a larger than 16% increase in the female incarcerated population has been observed; the most significant increase was noticed in the Americas (up to 23%) and the less significant in the European countries (up to 6%) (ICPS, 2013).

In 2012, 6.4% of the inmates in Brazil were females (BRASIL, 2008B; NICOLAU *ET AL.*, 2012); however, although women represent a low percentage of the total incarcerated population, their numbers are increasing at a larger rate than men (WHO, 2009).

Prison policies often ignore the special and health needs of incarcerated women. Health is a fundamental human right, particularly for those individuals living under custody of the State (MARTINS ET AL., 2014). Women's rights in prison are the same as men's, but rarely do women have similar access to these rights. Incarceration systems were designed mostly for men, who make up more than 95% of the incarcerated population in most countries, which often makes the structure, norms and procedures of incarceration institutions unable to meet women's health needs (BRASIL, 2008A).

Data on the health situation of imprisoned women are scarce and, if any, not gender specific (WHO, 2009). Thus, this study aimed to evaluate the socio-demographic profile and the health conditions of women who are incarcerated in a Female Prison (FP) in the countryside of São Paulo state. Paulo.

### Method

At a university located in the countryside of São Paulo state, teaching and support activities are developed in Health Basic Units (UBS – Unidades Básicas de Saúde) since the 1970's and, during the last decade, also as part of the training of fourth year medical students. In the area covered by one UBS, there is an FP whose imprisoned population is has been attended to by the university's students and professionals since 2006. Both teachers and students consider these activities very relevant from the clinical, ethical and health rights points of view, regarding the quest for integral and good quality care.

While getting medical care at the UBS, female inmates in re-education commonly complained of inadequate meals, sedentary routines, use of tobacco in the closed environments of the cells and of the difficulty to control chronic diseases such as hypertension, diabetes mellitus, as well as infectious diseases and Aids/Sexually Transmitted Diseases (STD) not diagnosed at an early stage. As to general gynecological care, the initial care of the inmates in re-education was expanded in 2008 to include pregnant women. Complaints about bad life conditions and food persisted, and the pregnant women often presented obstetric morbidities and intercurrences.

That situation has led us to investigate more deeply the health conditions of the women incarcerated in this FP, allowing us to anticipate the health problems that were occurring and to recommend improvements to the environment which would contribute to preserving their health.

A transversal study was, thus, conducted from August 2012 to July 2013, as part of a larger project entitled 'Comprehensive study on women's and servants' health care in a female penitentiary, in the countryside of São Paulo state'. The study involved 1,013 inmates in re-education, who were living in the institution at the time and agreed to take part in the project.

Two nurses and a female researcher from the collective health field of the university were trained to perform the interviews and to collect data. Only these nurses performed all capillary tests and body measurements.

From a list of the 39 cells, each woman was invited to take part in the research and, if she would agree, blood collection and anthropometric measurements were performed in the morning, and interviews in the afternoon. The place that proved to be more adequate for the collection was the inmates' beauty salon, as suggested by the inmates themselves; the proximity to the women's reality was favorable for the research. Other activities in the room were canceled, thus ensuring the women's privacy during the procedures. Interviews lasted 30-40 minutes, and capillary blood tests and anthropometric data collection lasted about ten minutes.

The Ethical Research Committee of the Penitentiary Administration Secretariat (CEP/SAP Report nº 45/2011) approved the project. The Term of Free and Informed Consent, that explained the research aims and procedures, was read to all the inmates in re-education, who received a copy of the document. All the inmates in re-education received the results of their tests and, if any anomalies were found in the evaluated parameters, medical care and complementary exams were requested as needed to get an accurate diagnosis.

# **Data collection tools**

Figure 1. Variables and measures that make up the data collection tool for the 'Comprehensive study on women's and servants' health care in a female penitentiary, in the countryside of São Paulo state' research

# QUESTIONNAIRES INMATES IN RE-EDUCATION SERVANTS

Registration number; place of birth; marital status; schooling; currently studying or not; religion; reported race/skin color; performing occupational activity or not; income; last city of residence; time in this prison. **Data from records:** profession; have they been arrested in another municipality before; detention time in another city.

Besides those described in the Inmates Module: gender. Working conditions: time at work; number of working hours per week at FP; distance from home to working place; means of transportation; commute time; position or job assignment; other occupational activities outside the FP; if tasks performed at FP are compatible with technical training; if they have been trained and would like to receive any in-service training.

#### REGARDING HEALTH

**Maternal reproductive background:** conjugal visits; contraceptive method; number of children; age of 1st pregnancy

Referred morbidity: high blood pressure; diabetes; gynecological complaint; triglycerides; uric acid; cholesterol; urinary infection; tuberculosis; Hansen's disease; heart conditions; migraine (headache); STDs/Aids; risky sexual behavior; lack of sexual drive; scabies; pediculosis; oncotic cytology and mammography; Aids serology and immunization status.

Referred morbidity: same as for inmates, plus carrying out preventive tests: Prostate gland tests for men aged 40 or more.

Anthropometric measures: weight; height; abdominal circumference; hip circumference; wrist perimeter; bio-impedance. Vital signs: pulse; systolic and diastolic blood pressure. Capillary blood tests: glycaemia; cholesterol; triglycerides.

#### HOUSING AND SOCIAL SUPPORT NETWORK

Does she/he receive some sort of help? If yes, from whom?

Lifestyle: physical activity; frequency; kind of activity.

Use of psychoactive substance: tobacco and nicotine dependence, measured by Fagerström Test (MARI; WILLIANS, 1986)

Alcohol abuse (AUDIT)

#### COMMON MENTAL DISORDER measured by the Self-Report Questionnaire (SRQ 20)

Violence: interpersonal, family and/or intimate partner; experienced during adolescence; in the community; performed by known or unknown people. Perception of violence in his/her neighborhood. Nature of those violent actions: psychological, physical or sexual.

Feeding: frequency of food consumption and on-site assessment; evaluation of food provided.

**Current pregnancy:** age at first pregnancy; number of pregnancies; difficulties for pre-natal tests and follow up; desired pregnancy; abortion; stillbirth and preterm birth.

Open question about life: 'If you could do something, what's the first thing you would do here so that life of all women would improve?'

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The present study describes the following variables:

Socio-demographic conditions: age; place of birth; marital status; reported skin color; number of years of schooling; if inmate was studying at the FP (yes or no); if inmate was working at the FP (yes or no); monthly income; number of children.

Referred morbidities and preventive actions: high blood pressure, diabetes mellitus; cardiovascular problems; vaginal bleeding; gynecological problems; urinary infection; headache; bone fractures; common mental disorder (CMD) with cut-off ≥ 8 (MARI; WILLIANS, 1986); tuberculosis; Hansen's disease; STD and scabies (categorized as 'yes' or 'no'). Oncological cytology and mammography were investigated for the last 12 months. Immunization status was evaluated with the question: 'Are you up to date with your vaccines?'.

Indicators of life style and health-related behavior: nicotine dependence measured by Fagerström test (FERREIRA ET AL., 2009); use of tranquilizers (yes or no); daily practice of physical activity during at least 30 minutes; Body Mass Index (BMI) (kg/m²), with cut-offs adopted by the World Health Organization (WHO, 1998); and practice of risky sexual activity (yes or no).

Violence and drug use: psychological, physical or sexual violence during the year before imprisonment (yes or no); violence before 15 years of age (witnessed physical aggression in the family or suffered physical aggression in the family); sexually touched against will. Regarding drugs: drug use during the year before imprisonment

(yes or no) and frequency of use ( $\leq$  once a month, 2-4 times a month, 2-3 times/week,  $\geq$  4 times a week.

Descriptive analyses were performed with the presentation of absolute and percent frequencies for the set of social-demographic variables, for referred morbidities and preventive practices, for life style and health-related behavior, violence and drug use indicators. Women who did not answer the questions or did not know how to answer were excluded from the frequency calculation.

## **Results**

The prison where the research was conducted is considered the second largest in São Paulo state. The place was originally built as a male prison, and in March 1993 it became a temporary imprisonment and punishment facility for women. It can house up to 556 women but, at the time the research was conducted, it was hosting approximately 1,100 women.

### Socio-demographic conditions

From the 1,013 inmates interviewed, thirty (3%) were pregnant. The average age was 30.8 years old (standard deviation = 9.3). Most women were 20-39 years old, born in other towns in São Paulo state (69.7%), single (51.5%) and non-white (51.4%), catholic or protestants (83.3%), three or less years of schooling (61.4%), were not studying in prison (95.8%), had no income whatsoever (63.8%) and did not perform any occupational activities in prison (88.5%). It must be pointed out that 80.6% of them were mothers (*table 1*).

Table 1. Socio-demographic characteristics of FP inmates in re-education, in the countryside of São Paulo state, Brazil, 2012-2013

Variables	N	Inmates in re-education
	1.013	100%
Age group <sup>a</sup>		
Under 20 years old	43	4,3
From 20 to 39 years old	783	77,7
From 40 to 59 years old	173	17,2
60 years old or more	8	0,8
Place of birth		
Campinas	129	12,7
Other municipality of São Paulo	706	69,7
Another state	171	16,9
Another country	7	0,7
Marital status		
Married/Consensual union	355	35
Single	522	51,5
Separated/Divorced/Widower	136	13,4
Skin color <sup>b</sup>		
White	487	48,3
Non-white	521	51,7
Religion <sup>c</sup>		
Not religious	51	5,2
Catholic	400	40,4
Protestant/Evangelical	444	44,8
Spiritualist	34	3,4
Other	62	6,2
Schooling (in years of education) <sup>d</sup>		
From 0 to 3 years	622	63
From 4 to 8 years	328	33,2
9 years or more	38	3,8
Studying while in prison		
No	970	95,8
Yes	43	4,2
Monthly income <sup>e</sup>		
None	646	64
Half minimum wage	319	31,6
From 1 to 2	34	3,4
≥3	10	1

Table 1 (cont.)		
Working while in prison		
No	897	88,5
Yes	116	11,5
Receives intimate visits		
No	946	93,4
Yes	6,7	6,6
N of children		
None	197	19,4
1 or 2	428	42,3
3 or more	388	38,3

Does not know/did not answer: a Age group: 6. b Skin color: 5. c Religion: 22. d Number of years attending school: 25. e Income: 4.

Several occupational activities, usually requiring little professional qualification, had been performed before they were imprisoned: kitchen and general helper; artisan; cleaning helper; production and selling helper; domestic tasks; hairdresser/manicurist; farm worker; shop assistant; seamstress; small entrepreneur; cashier; housewife; cleaning lady – among others. Some of them were retired; others reported they had been self-employed or were not working at the time they were imprisoned, or simply did not inform the activity in which they were engaged before prison.

# Health conditions and health-related behavior

As to the morbidities reported, a high prevalence of gynecological problems, fracture antecedents and scabies/pediculosis was observed. Headache prevalence was 59.3%, and Common Mental Disorder had a prevalence of 66.7%. As to preventive actions, a low prevalence of exams such as uterine colon oncological cytology and mammography was noted. Only 31% reported being up to date on their vaccination (*table 2*).

Table 2. Prevalence of referred morbidity and preventive actions among FP inmates in re-education, in the countryside of São Paulo state, Brazil, 2012-2013

Variables	N	Inmates in re-education
	1.013	100%
Referred morbidity		
High blood pressure	217	21,4
Vaginal bleeding	66	6,5
Gynecological problem	345	34,1
Urinary infection	314	31
Heart condition	90	8,9
Tuberculosis	29	2,9
Diabetes	32	3,2
Bone fractures	357	35,2

Table 2 (cont.)		
Headache	601	59,3
Hansen's disease	13	1,3
Sexually Transmitted Diseases	16	11,5
Scabies/Pediculosis	251	24,8
CMD	675	66,7
Preventive actions		
Oncotic cytology	266	26,3
Mammography	147	14,5
Up-to-date immunization	321	31,7

Table 3 presents the prevalence of life style and health-related behavior indicators. Serious nicotine dependence was observed in 26.1% of the women; use of tranquilizers was reported by 19.1%; approximately 70% did not practice physical

activities; the majority of inmates in re-education were overweight or obese; the practice of risky sexual activities (having sexual intercourse without protection or with several partners) was mentioned by 26.8% of the women.

Table 3. Prevalence of health related indicators regarding lifestyle behavior, among FP inmates in re-education, in the countryside of São Paulo state, Brazil, 2012-2013

Variables	N	Inmates in re-education
	1.013	100%
Nicotine addiction (Fagerström test) <sup>a</sup>		
Does not smoke	309	30,5
Mild (0-4)	411	40,6
Moderate (5-7)	313	30,9
Severe (8-10)	264	26,1
Use of tranquilizers <sup>b</sup>		
Yes	193	19,2
No	816	80,8
Physical activities >= 30 min/day		
Yes	302	29,8
No	711	70,2
Body Mass Index (BMI) (kg/m²)c		
Low weight	36	3,8
Eutrophic	426	45,5
Overweight	287	30,6
Obese	188	20
Risky sexual activity	271	26,8

Does not know/did not answer: a Fagerström test: 25; b Use of tranquilizers: 4; c BMI 76.

As well as heavy drug consumption (62.4%), physical violence is part of these women's life background, starting from adolescence (26.9%) and persisting throughout their lifetime (31.4%).

The prevalence of drug use among those women in the last year before they were imprisoned was 62.3%. Almost half of them reported daily consumption of drugs (table 4).

Table 4. Prevalence of violence and drug use among FP inmates in re-education, in the countryside of São Paulo state, Brazil, 2012-2013

Variable	N	Inmates in re-education
	1.013	100%
Violence during last year before imprisonment <sup>a</sup>		
Psychological	376	37,1
Physical	318	31,4
Sexual	79	7,8
Violence before 15 years old <sup>b</sup>		
Witnessed physical aggression in the family	421	41,6
Suffered physical aggression in the family	273	26,9
Has been touched sexually, unwillingly	184	18,2
Drug use during last year before imprisonment		
Yes	631	62,4
Frequency of drug use before imprisonment		
Never	393	38,8
≤ once a month	10	1
2 to 4 times a month	48	4,7
2 to 3 times a week	121	11,9
4 or more times a week	441	43,5

<sup>&</sup>lt;sup>a</sup> Did not suffer violence: 240; <sup>b</sup> Never witnessed or suffered violence before 15 years old: 135.

# **Discussion**

Collective health actions for the general population, and particularly for the incarcerated population, are a citizenship right. In the incarceration context, they contribute to the individuals' re-insertion in the society. Besides, it is the State's responsibility to preserve the life, physical and mental integrity and health of all individuals (BRASIL, 2008B).

Besides providing information on the socio-demographic profile and the health conditions of inmates in re-education, this study made possible the exploration of the subtle meanings of social relationships in a universe endowed with specific codes, neologisms, previously unknown experiences, imagination and fantasies present in a rough reality, with a large amount of conflicts and probably difficult and dubious answers (OPAS, 2012).

A survey carried out in Brazil in 2008 identified 508 penal institutions with incarcerated women, among which 58 were exclusively female and 450 housed both genders. In the mixed penal institutions, there are

pavilions, alleys and cells adapted for female use; in most cases, there is no specific treatment focused at the inmates' reinsertion in society, nor nurseries or day care facilities for their children (BRASIL, 2008B) – a condition similar to that found in the FP where this research was conducted.

The socio-demographic profile of the inmates in re-education has shown that the majority includes young, black and colored, single women with low schooling level. This mirrors the findings of the survey carried out by the National Penitentiary Department (Depen) in 2008-2009 (BRASIL, 2008A). This is the portrait of many Brazilian young women, who live in unstructured families, social and economic environments. The fragility of public policies as to ensuring good quality education, housing, leisure, basic sanitation, food, professional training and work opportunities makes it very difficult for them to have access to a dignified place in society (NICOLAU ET AL., 2012).

We found out that only 11.5% of the inmates in re-education had some sort of labor activity in prison, in contrast with what was indicated by a national research, where those in charge stated that 47.5% of the incarcerated women perform this sort of activity in the prison units. Only 4.3% of the inmates in reeducation reported studying in the prison, a much lower figure than that divulged by the national research (25.4%) (BRASIL, 2008A).

In the institution analyzed, 6.6% of the inmates in re-education mentioned receiving an intimate visitor. This number may be underestimated, because intimate visitors are not allowed in the institution due to lack of structure and, thus, it is likely that many women failed to report their experiences. In the total set of Brazilian penal institutions, 70.6% do allow intimate visitors, but only 9.7% of the women do receive this sort of visit (CARVALHO ET AL., 2006; BRASIL, 2008A).

The present study found a high prevalence of referred morbidities and a reduced coverage of preventive tests and immunization. The confinement situation allows for the implantation/implementation of health promoting actions and disease control for the majority of those women. But, again, the observed situation differs from what is presented by the national diagnosis on incarcerated women's health, that states that 92.2% go through regular preventive exams for uterine colon cancer and 88.2% for breast cancer, although the kind of exams performed is not informed (BRASIL, 2008A).

We understand that the sheer number of young women in the penal institution focused here leaves many of them out of mammographic screening programs for breast cancer. This is not the case when it comes to cervical cancer, which must be precociously implemented, particularly when there is a greater risk for STDs, as evidenced by the high prevalence of risky sexual behavior (BRASIL, 2013A).

The practice of physical activities is rare among these women. Although there is a courtyard in the facility studied, only one third of the inmates in re-education reported half an hour of daily physical activity. Sports are regularly practiced in 43.1% of the female penal units (BRASIL, 2008A). Overweight prevalence was reduced in comparison with the general population, while the prevalence of obesity was the same, similarly to what was found in other studies (SCHERER ET AL., 2011; BRASIL, 2013B). Among adult women aged 18, living in Campinas (SP) in 2008, the prevalence of obesity was lesser than the observed prevalence among inmates in re-education (FRANCISCO ET AL., 2015). Overweight, obesity and physical inactivity are important risk factors for nontransmissible chronic diseases (GIGANTE; MOURA; SARDINHA, 2009: FAZEL: BAILLARGEON, 2011). Food supply, a constant complaint of the incarcerated women, may be improved with the opening of the kitchen in the prison unit itself, which took place three months ago. The unit coordination and the incarcerated women have already noticed this improvement, besides the creation of several new job openings. The external evaluation by the university, pointing out the need for a healthier food supply, probably contributed to this conquest of the incarcerated population.

The study revealed that a high percentage of the incarcerated women make use of tranquilizers, similarly to what was found at another institution in the state's countryside (SCHERER ET AL., 2011). As to tobacco consumption, the proportion found was larger when compared with that of community female residents (SCHERER ET AL., 2011; BRASIL, 2013B). The control measures that were implemented in Brazil in the last 20 years have already reduced significantly the prevalence of tobacco abuse and tobacco-related diseases (INCA; CONICQ, 2014), but the same does not occur in the country's penal institutions.

Mistreatment and abuse against Brazilian women are significantly frequent. Recurring situations related to the several kinds of violence targeted at women were found in different cycles of life (AUDI ET AL., 2008). The most susceptible age range involves pre-adolescents, adolescents and young adults, between 10 and 19 years old (28.8%), followed by children under the age of nine years old (21%) (BRASIL, 2010). This scenery of increasing violence against women requires a large mobilization of public policies, through the articulation of its networks and services in order to prevent, care for, protect and rehabilitate the victims - which, in the present context, appears as a huge challenge. These indicators allow us to infer the worsening of the picture of violence against women in Brazil, where young girls and female adolescents are daily victimized (BRASIL, 2010; ESCORSIM, 2014).

The course of the investigation has shown that these penal institutions are quite exempt from the general society's regard and that knowledge about health conditions provided by external eyes can contribute to the structuration of actions that enlarge the possibility of reinsertion of incarcerated individuals in society.

In this study, the expression inmate in

re-education was adopted to refer to incarcerated women because it is employed by the institution and by the incarceration system. However, we do recognize that, in the present conditions of that system, few actions are implemented aiming at the women's rehabilitation and social reinsertion.

# **Final comments**

Knowledge about the functioning conditions of penal institutions, and particularly about those that host women, is important as a base to the reflections about the incarcerated women's situation – which is usually hidden and silent – in order to allow the adoption of measures that may, if not solve, at least contribute in a substantial proportion to the improvement of the current reality. However, beyond the incarceration context, it also configures a very serious social situation, since these women are also mothers and find very scarce conditions to exert maternity in a satisfactory way that can minimize their families' vulnerability.

Health conditions are an important indicator to allow societies to be aware of the need for more efficient actions targeting the incarcerated population – currently very large in Brazil – and thus contribute to a more peaceful society.

During the research, it was also important to identify a large number of more or less complex, immediate and long-term actions – particularly in the health sector – that might help to elaborate less inhuman forms of freedom deprivation that may be conceived not merely as punishment, but also as opportunities for care and restoration of a normal life. An improvement in the provision of food is one of those actions, which through simple measures has meant significant advances in the conditions for life in prison. In this sense, other actions such as the promotion of physical activities can and should also be implemented.

#### References

AUDI, C. A. F. *et al.* Violência doméstica na gravidez: prevalência e fatores associados. *Rev. Saúde Pública*, São Paulo, v. 42, n. 5, p. 877-885, 2008.

BRASIL. Ministério da Justiça. Departamento Penitenciário Nacional. *Mulheres Encarceradas*: diagnóstico nacional. Brasília, DF: Ministério da Justiça, 2008a. 92 p. Disponível em: <a href="http://www.mpsp.mp.br/">http://www.mpsp.mp.br/</a> portal/page/portal/cao\_civel/cadeias/doutrina/ Mulheres%20Encarceradas.pdf>. Acesso em: 10 abr. 2015.

\_\_\_\_\_. Secretaria Especial de Políticas para as Mulheres. *Grupo de trabalho interministerial:* reorganização e reformulação do sistema prisional feminino, 2008. Brasília, DF: Secretaria Especial de Políticas para as Mulheres, 2008b. 196 p. Disponível em: <a href="http://carceraria.org.br/wp-content/uploads/2012/09/">http://carceraria.org.br/wp-content/uploads/2012/09/</a> RELATORIO\_FINAL\_-\_vers%C3%A3o\_97-20031.pdf>. Acesso em: 28 jun. 2015.

CARVALHO, M. L. *et al.* Perfil dos internos no sistema prisional do Rio de Janeiro: especificidades de gênero no processo de exclusão social. *Ciência Saúde Coletiva*, Rio de Janeiro, v. 11, n. 2, p. 461-471, 2006.

ESCORSIM, S. M. Violência de gênero e saúde coletiva: um debate necessário. *R. Katál,* Florianópolis, v. 17, n. 2, p. 235-241, 2014.

FAZEL, S.; BAILLARGEON, J. The health of prisoners. *The Lancet*, Reino Unido, v. 377, n. 9769, p. 956-965, 2011.

FERREIRA, P. L. *et al.* Teste de dependência à nicotina: validação linguística e psicométrica do teste de Fagerström. *Rev. Port. Saud. Pub.*, Portugal, v. 27, n. 2, p. 37-56, 2009.

FRANCISCO, P. M. S. B. *et al.* Desigualdades sociodemográficas nos fatores de risco e proteção para doenças crônicas não transmissíveis: inquérito telefônico em Campinas. *Epidemiol. Serv. Saúde,* São Paulo, v. 24, n. 1, p. 7-18, 2015.

GIGANTE, D. P.; MOURA, E. C.; SARDINHA, L. M. V. Prevalência de excesso de peso e obesidade e fatores associados, Brasil. *Rev. Saúde Pública*, São Paulo, v. 43, supl. 2, p. 83-89, 2009.

INSTITUTO NACIONAL DE CÂNCER JOSÉ ALENCAR GOMES DA SILVA (INCA); COMISSÃO NACIONAL PARA IMPLEMENTAÇÃO DA CONVENÇÃO-QUADRO PARA CONTROLE DO TABACO (CONICQ). *Política Nacional de controle do tabaco:* relatório de gestão e progresso, 2011-2012. Rio de Janeiro: INCA, 2014. 132p.

INTERNATIONAL CENTRE FOR PRISON STUDIES (ICPS). World prison brief. [Internet]. Disponível em: <a href="http://www.prisonstudies.org">http://www.prisonstudies.org</a>. Acesso em: 1 dez. 2013.

MARI, J. J.; WILLIANS, P. A. Validity study of a psychiatric screening questionnaire (SQR-20) in Primary Care in the city of São Paulo. *British Journal of Psychiatry*, Inglaterra, v. 148, p. 23-66, 1986.

MARTINS, É. L. C. *et al.* O contraditório direito à saúde de pessoas em privação de liberdade: o caso de uma unidade prisional de Minas Gerais. *Saude Soc.*, São Paulo, v. 23, n. 4, p. 1222-1234, 2014.

NICOLAU, A. I. O. *et al.* Retrato da realidade socioeconômica e sexual de mulheres presidiárias. *Acta Paul Enferm.*, São Paulo, v. 25, n. 3, p. 386-392, 2012.

ORGANIZAÇÃO PANAMERICANA DE SAÚDE (OPAS). Guia sobre gênero, HIV/Aids, coinfecções no sistema prisional. Brasília, DF: OPAS; OMS, 2012. 65 p. Disponível em: <a href="http://www.unodc.org/documents/">http://www.unodc.org/documents/</a>

lpo-brazil/Topics\_aids/Publicacoes/GUIA\_SOBRE\_ GENERO\_HIV\_em\_prisoes\_2012.pdf>. Acesso em: 5 abr. 2016.

SCHERER, Z. A. P. et al. Perfil sociodemográfico e história penal da população encarcerada de uma penitenciária feminina do interior do estado de São Paulo. Rev. *Eletrônica Saúde Mental Álcool Droga*, São Paulo, v. 7, n. 2, 2011.

WALMSLEY, R. World female imprisonment list: women and girls in penal institutions, including pre-trial detainees/remand prisoners. 2. ed. London: King's College London International Centre for Prison Studies, 2012. Disponível em: <a href="http://www.prisonstudies.org/images/news\_events/wfil2ndedition.pdf">http://www.prisonstudies.org/images/news\_events/wfil2ndedition.pdf</a>. Acesso em: 15 maio 2015.

WORLD HEALTH ORGANIZATION (WHO). *Obesity* preventing and managing the global epidemic. WHO: Programme of Nutrition, Family and Reproductive Health, 1998. 178 p.

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