

# The Access of the Homeless Persons with Tuberculosis to the Health Care: an Integrative Review

REVIEW

Annelissa Andrade Virginio de Oliveira<sup>1</sup>,  
Rita de Cassia Cordeiro de Oliveira<sup>2</sup>, Khivia Kiss da Silva Barbosa<sup>3</sup>,  
Ana Valéria Machado Mendonça<sup>4</sup>, Maria Fatima de Sousa<sup>5</sup>, Lenilde Duarte de Sá<sup>6</sup>

## Abstract

**Introduction:** The Tuberculosis (TB) keeps being a big public health problem in the world, having the poverty, the bad life condition, the bad income distribution, the social iniquity and the disability on the health system as a substrate to its maintenance.

**Objective:** To identify the scientific knowledge produced under the access to the health service of the homeless person sick by TB.

**Method:** Integrative literature review conducted from April to June, 2016, having as inclusion criteria: publications written in Portuguese, English or Spanish, published from 1990 to 2015, indexed on the data basis: LILACS, SciELO, MEDLINE and Web of Science and portals Virtual Health Library (VHL) and MEDLINE/PubMed, that had the text completely available online. The data analyzes was made in qualitative terms, using the technique of content analysis proposed by Bardin, it was possible to construct three categories: Specific characteristics of the homeless people access to the health services to tuberculosis diagnostic and treatment; Access difficulty to the health care: factors related to homeless people and factors related to health services; Strategies to overcome the access difficulties of the homeless person (HLP) to the health care.

**Results:** Pointed that the homeless people have a higher risk to get sick by TB, presenting TB incidence rate 10 to 20 times higher than the general population. Many obstacles that limited those people access to the health services were identified. Many times they presented difficulty to identify the appropriated place to search for assistance and not always this place had the opened doors to this social group.

- 1 Doctoral Student of the University of Brasília. Nurse at the University Hospital Lauro Wanderley/Federal University of Paraíba (UFPB), João Pessoa, Paraíba, Brazil.
- 2 Doctorate in Nursing. Nurse at the National Foundation of Health. Collaborating Professor at the Open University of SUS/Federal University of Pernambuco/UNASUS/UFPE. João Pessoa, Paraíba, Brazil
- 3 Doctoral Student of Nursing at the Federal University of Paraíba. Professor of Nursing at the Federal University of Campina Grande/UFCG. Paraíba, Brazil.
- 4 Adjunct Professor IV of the Department of Collective Health, University of Brasília (UnB). PhD in Information Science at the University of Brasília/UnB/Brazil
- 5 Doctor in health sciences. Adjunct Professor IV of the University of Brasília UnB/Brazil.
- 6 Doctorate in Nursing. Professor of Nursing at the Federal University of Paraíba. João Pessoa, Paraíba, Brazil.

## Contact information:

**Annelissa Andrade Virginio de Oliveira.**

**Address:** Campus I, Av. Contorno das Cidades, SN . Cidade universitária, João Pessoa, PB, 58051-900.

**Tel:** +55(83)32167098.

 [annelissa.andrade@gmail.com](mailto:annelissa.andrade@gmail.com)

Another important finding treats about the low adhesion to the TB treatment, because treating about the search for health care, the homeless people are less inclined to search the health services, seen that living on the street implies in a daily fight for survival. To those people, the sickness treatment has a lower priority than the meal obtaining, the searching for shelter, or the search for a job.

**Conclusion:** It is necessary that the health actions break the strictly technical caring barriers and include the psychosocial and educative perspective in all the health care process to homeless people with different conformations due to the individuals' singularities and their scenarios. Thus, the search by the more integral care and, therefore, more efficient possible, it is wait that be included on the health team daily work, routines and process to a systematic search for the health necessities, and developed abilities to recognize the adequacy of the offers to the specific context, in which is given the meeting from the individual and the team.

#### Keywords

Tuberculosis; Health Services  
Accessibility; Homeless  
Persons.

## Introduction

The Tuberculosis (TB) keeps being a big public health problem in the world, having the poverty, the bad life conditions, the bad income distribution, the social iniquity and the deficiencies on the health systems as a substrate to its maintenance [1-6]. Markedly social, the strong and persistent influence of the life condition on the TB transmission process is projecting a deep socio economical inequality situation that results in health social iniquities [7].

In this scenario, among the poorer populations and socially disadvantaged, are the Homeless population (HLP), considered by the Health Ministry (HM) priorities to the TB control in Brazil [8]. Many studies have identified the TB as one of the main health problems observed in this population [9-11], being the TB case number increasing meaningfully among this group [12].

In Brazil, the responsibility by the health care to the vulnerable populations, as any other citizen, if

from the Primary Health Care Attention (PHCA) [13]. The PHCA shall act as the preferential entrance gate of the user on the health system, articulating with others care points and regulating the population flow to the services on the secondary and tertiary levels; what puts the PHCA as a coordinator center of a care network, presenting potentialities trying to decrease the assistance fragmentation [14-16] and be effective as priority space to the health strengthen and the creation of a bond on the health care network [13].

However, the traditional ways to implement the PHCA, through the Family Health team work process, are not appropriated to include the homeless people, what generated exclusion to this parcel of the society to the assistance network [17]. The problem is not only in being part of the homeless population and be more vulnerable to TB, it is in the health services difficulty, mainly to the belonging to the PHCA sphere, in promote the health on the

people who lives in those conditions. In this way, particularly to the homeless population, the PHCA ambit difficulties is occasioning the frequently diagnostic in emergence hospital services, suggesting a later diagnostic and revealing access difficulties to the health services [18].

Thus, starting from the assumption that the homeless people when searching for the diagnosis face barriers that difficulty their Access to the health services that could clarify their clinical condition, this research was guided through the following guideline question: What does the scientific literature has publishing about the health services access of the homeless person sick by TB?

Therefore, the present study aimed to identify the scientific knowledge produced under the access to the health services of the homeless person sick by TB.

## Method

A study with qualitative approach in which was chose the Integrative Review (IR) method to achieve the proposed objective. This method allows the knowledge art status synthesis about the studied theme, pointing to knowledge gaps that need to be filled with new studies conductions as the support to the decision make and to the clinical practice improvement, and also enable the conduction of a multiples published studies synthesis, facilitating general conclusions regarding a particular studying area [19-20].

Na IR demands the same rigor, clarity and replication standards used in primary studies [21]. Considering this, was followed, to this review operationalization, the subsequent steps: problem identification, searching strategies, key-words and descriptors definition; inclusion/exclusion criteria definition to the studies to be analyzed selection; information to be extracted from the studies selection; studies included on the IR selection; data analyzes, results interpretation and review synthesis presentation [22-23].

The search for articles was conducted from April to June, 2016. The descriptors used to the research were selected according to the proposed theme, through the Health Science Descriptors (HSD). To the searching strategy was used the Boolean operator AND, with the descriptors: tuberculose, acesso aos serviços de saúde, pessoas em situação de rua; tuberculosis, acceso los servicios de salud, Personas sin Hogar; tuberculosis, health services accessibility; homeless people.

The study inclusion criteria were: publications written in Portuguese, English or Spanish, published from 1990 to 2015, indexed on the data basis: LILACS, SciELO, MEDLINE and Web of Science and portals Virtual Health Library (VHL) and MEDLINE/PubMed, that had the complete text available online.

The study exclusion criteria were: studies defined as cases report and clinical cases; dissertations and thesis that hadn't articles published in journals, articles repeated on the data basis and studies that hadn't texts published integrally, once was prioritized the methodological rigor maintained, necessary to this kind of methodology.

The search on the data basis resulted in 51 articles. From those, 27 (twenty-seven) were excluded from the selected basis for being repeated in different basis, 04 (four) were excluded for don't have the complete text available, 02 (two) were excluded for don't be presented in article way.

The articles were chose by the title and abstract present on the data basis reading, pertinent to the research questioning. The publications that don't have the abstracts on the data basis were selected through the integral study reading. It is noteworthy that, after the deeply reading of those articles, were also excluded 08 (eight) of them, don't related to the research questioning. Thereby, the final sample was composed for 10 (ten) scientific worlds.

To obtain the information that answered to the guideline question was elaborated a form that contemplated the following items: 1) identification (study title, journal title, data basis, authors, publi-

cation year, language, study place); 2) theme; 3) descriptors or key-words; 4) abstract (introduction, objectives, methods, results, conclusions) 5) introduction (research justification, objectives, literature review, hypothesis); 6) method (ethics committee evaluation and Term of Consent appliance, kind of research, study design, population and sample selection, study eligibility criteria, data collection instrument, studied variables, data analyzes); 7) results (number of participants and exclusion justification, socio demographic description of the participants: graphics, tables, figures, data statistic analyzes); 8) discussion (obtained data discussion according to the proposed objectives, results obtained discussion compared to the actual literature, study limitations, study implications); 9) conclusions (interpretation according to the justification and the study objectives, recommendations); 10) references (used norm).

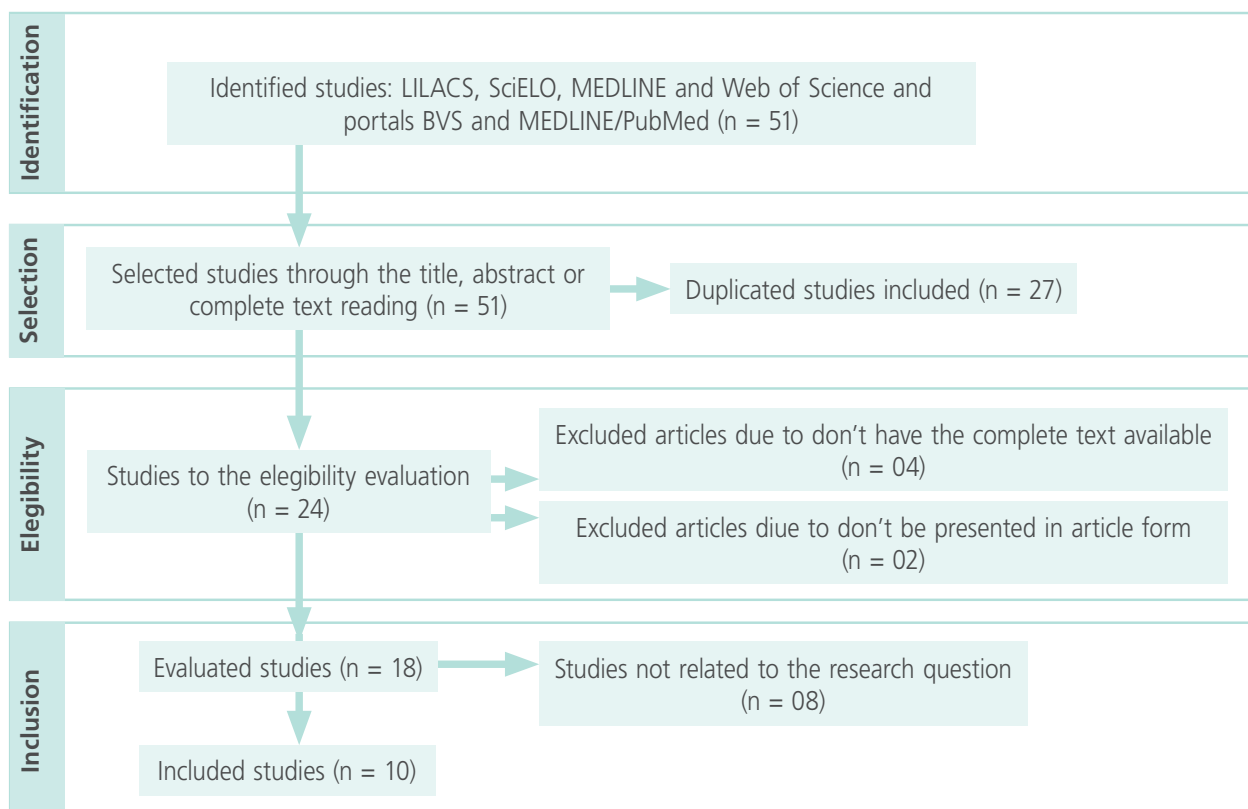
Regarding the concepts and factors associated to the homeless people health service sick by

TB access, the analyzes was made in qualitative terms, using the technique of content analysis proposed by Bardin [24], from the following steps: pre-analysis; exploitation of the material; treatment and interpretation of results. From the analysis it was possible to construct three categories: Specific characteristics of the access from the homeless people to the health care services to tuberculosis diagnostic and treatment; access difficulties to the health care: factors related to the homeless people and related to the health services; strategies to overcome the HLP access difficulties to the health care.

## Results

Studies included on the review selection representation (**Figure 1**). Selected studies characteristics (**Table 1**). Main findings on the selected studies (**Figure 2**).

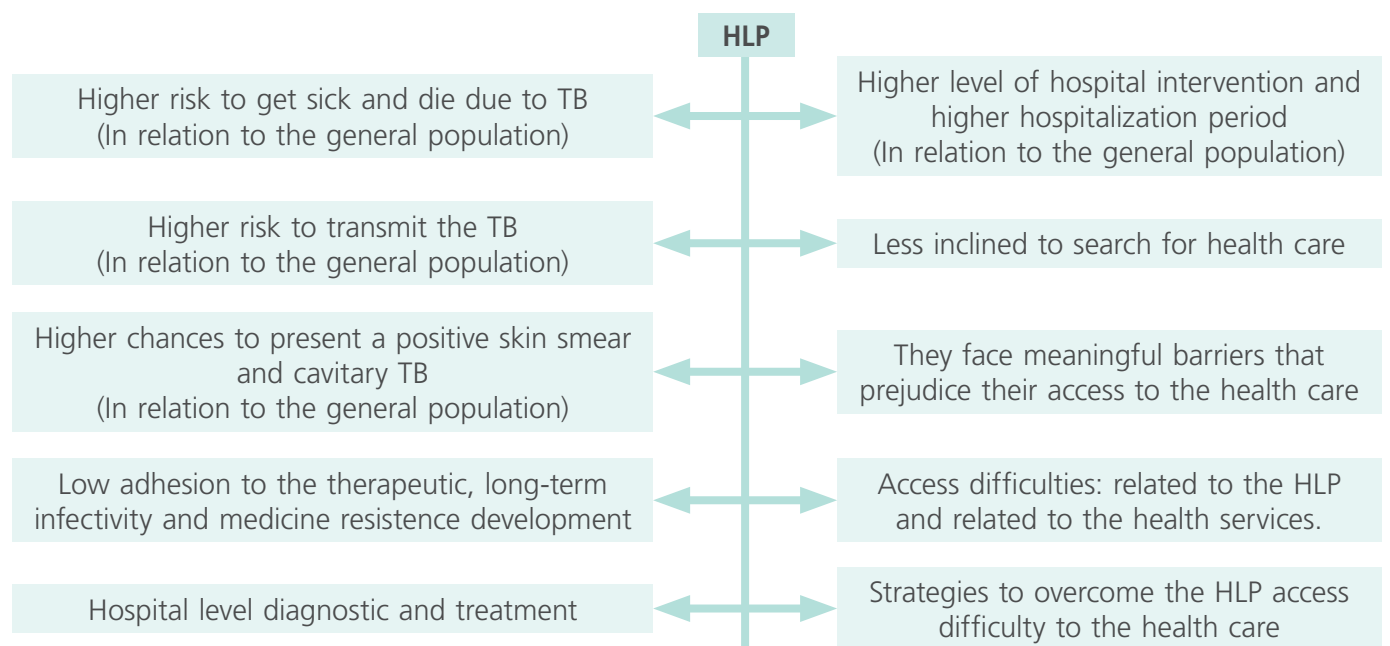
**Figure 1:** Studies selection process flowchart – João Pessoa, PB, Brazil, 2016.



**Table 1.** Selected studies characteristics – João Pessoa, PB, Brazil, 2016.

N	Author	Journal	Year	Data basis/portals	Origin
1	Bamrah	Int J Tuberc Lung Dis	2013	MEDLINE MEDLINE/PubMed	United States
2	Brewer	JAMA	2001	MEDLINE/PubMed	United States
3	Brickner	Bulletin of The New York Academy of Medicine	1993	MEDLINE MEDLINE/PubMed	United States
4	Brudney	The Journal of Law, Medicine & Ethics	1993	MEDLINE/PubMed	United States
5	Craig, Joly & Zumnla	BMC Public Health	2014	MEDLINE MEDLINE/PubMed	United Kingdom
6	Gelberg, Andersen & Leake	HSR: Health Services Research	2000	MEDLINE MEDLINE/PubMed	United States
7	Hwang	CMAJ	2001	MEDLINE MEDLINE/PubMed	Canada
8	Lashley	Public Health Nursing	2006	MEDLINE/PubMed	United States
9	Stevens	Journal of Epidemiology and Community Health	1992	MEDLINE MEDLINE/PubMed	United Kingdom
10	Otálvaro & Arango	Investigaciones Andina	2009	Web Of Science	Colombia

**Figure 2:** Main findings on the selected studies– João Pessoa, PB, Brazil, 2016.



## Discussion

### Specific characteristics of the homeless people access to the health services to the tuberculosis diagnostic and treatment

The homeless people have a high risk to get sick per TB, presenting the TB incidence rate 10 to 20 times

more than the general population [25-29]. Those people present, still, a high risk to die, presenting mortality rate by TB approximately 4 times higher than the general population [26-27]. The higher risk to get sick and high TB mortality rate among the homeless people comparing to the general population evidence the serious problem that this disease

represent to this specific group and justify the necessity of specific actions to the TB control in this population.

The lack of home is also associated to a higher TB transmission, being the homeless people exposed to many risk factors, emphasizing: male, ethnic/racial minority, substances abuses (alcoholism, chemical dependence), environmental exposition (exposition to extreme heat and cold, lack of protection against the rain and snow), inadequate sleeping accommodations, shelters agglomeration, stress, psycho disturbs, poverty, HIV infection, status nutritional (weak nutrition), affected immunity through the pre-existents conditions, the late searching for care, the non adhesion to the therapeutic, cognitive affection and the adverse effects to the health in the lack of house [25-27, 29-31].

In front of many risk factors is necessary to understand that the street demands bring extreme difficult to the health services, bearing in mind the necessity to considerate the health dimensions integrality, the ways of life complexity, the inseparability among the biological health, subjective and social, attending a reality with variables ways of life, with the work and others dynamics in their affective bonds [32, 33].

Many are the obstacles that limit those people Access to the health services. Many times they present difficulty to identify the appropriate place to search assistance and not always the place keeps the doors opened to this social group. Complicated registration process that requires identification is the factors that discourage the search. Many times, the lack of sympathy/sensibility of some teams or the inability of a single place to attend the variety of problems presented by homeless people are additional barriers [17].

The homeless people have also more chances to present positive skin smear and cavitary TB, suggesting a more contagious disease, possibly due to the late diagnostic and treatment, resulting in long-termed infection periods [25, 26, 30]. Thereby, the

active tuberculosis treatment in homeless people can be complicated by the no-adhesion to the therapeutic, long-termed infectivity and the medicines resistance development [27].

The precocious detection of the TB cases and an efficient treatment are two powerful tools to the success achievement on this disease control. It is necessary to emphasize that the TB precocious detection has as principal rule the reduction of the infection transmission to the society, because it is estimated that a single person affected with TB without diagnostic and, therefore, don't treated, can infect from ten to fifteen people each year. In this sense, is observed the precocious identification efficient methods existence and immediately treatment [34].

As result of the late TB diagnostic among homeless people, generally the first contact of those people with the health services happens through the emergency in hospital level. Being the TB on the homeless people initially diagnosed and treated at the hospital [30, 31, 28, 27]. Thus, the homeless people are hospitalized at the hospital 5 times more frequently than the general population and stay there longer than the other low income patients [27].

The hospitalization can be used to document potential barriers to the ambulatory care and to evaluate the services performance and identify possible deficiencies on the assistance quality in PHC points. The delay to receive an effective assistance at PHC can result in unnecessary hospital admissions for many common conditions [35]. In this sense, the TB diagnostic conduction in homeless people in hospital level, as well as the high hospitalization rate, reflects on the PHCA services difficulties on the assistance provision to homeless people.

Other important finding treats the low adhesion to the TB treatment by the homeless people. The homeless individuals are less inclined to complete the TB treatment than the ones with residence, even when the treatment is given by direct observation. Thus, this population presents low adhesion to the

TB treatment, bearing in mind treating about a population with transitory characteristic, exposed to many social risk factors and presenting much comorbidity [25-28]. In this scenario is noteworthy that generally the aspects that disfavor the precocious diagnostic also difficulties the TB treatment adherence, emphasizing the health services necessity to produce a singularity care, based on this vulnerable group specific health necessities.

### **Access difficulties to the health care: factors related to homeless people and factors related to the health service**

The homeless people face meaningful barriers that prejudice their Access to the health care, such as: lack of Money to transport, mental diseases, the alcoholism and/or the drug addiction, personal hygiene precarious conditions, inadequate conduct, inadequate language using, pets presence, lack of documents (lost or stolen), disrespect to the arriving order, reluctance from the homeless people to search for health services [27, 30, 29, 36, 25, 37].

Treating about the search for health care, the homeless people are less inclined to search for the health services, since living on the street implies in a daily fight for survival. To those people, the disease treatment has a lower priority than the meal obtaining, the shelter search, the job search. Thus, those concurrent priorities can impede homeless adults to use the health services [26, 30, 27, 31].

Due to the lack of Access to the health care, the homeless people with TB frequently don't search for medical care till they get very sick and highly contagious. The homeless people only search the care if they consider to be in serious situation, once the patients tend to normalize their symptoms in their daily context [30, 31, 37]. As the symptoms are attributed to the causes that the participants don't search for medical care, as for drugs and alcohol abstinence, tiredness attributed to weak feeding, by economical reasons, and other condition in the long term, this indicates the facility that the serious

disease can be lost by the ones who lives in a complexity of health questions and social questions [28].

It is emphasized that treating about homeless people, only through the disease interference in their capacity to make their daily survival activities and the understanding by their problem severity and the healing intervention necessity – through their symptoms worsening – is that the sick search the health services, this fact potentiate the late diagnostic, as highlighted in a study conducted in Ethiopia, in which long periods of delay were influenced by the lack of perception on the health attendance necessity [38].

That way, bearing in mind that each TB case identified and healed among homeless people can reduce the new case number in the general population from 3-4 by each homeless infected person found during 1 year, 7-9 in the period of 2 years and 15-25 during 5 years [39], the active search for respiratory symptomatic cases among homeless people shall be a priority on the working process of the professionals/services that act on the health assistance provision to this specific group.

Besides the access difficulties factors related to homeless people, are cited also the factors related to the services, such as: lack of health team training to deal with homeless people (they aren't trained on this population attendance, they are exceeded with the demands put by the general situation of those people and dilemmas faced in relation to their rule limitation), lack of refuge and service working time [36, 29]. Thus, to revert this scenario, it is evident the necessity of readjustments on the services, establishment of intersectorial articulation, professionals who acts with the HLP awareness and articulation and HLP access spreading to the different points of the network and care health.

### **Strategies to overcome the HLP Access difficulties to the health care**

The TB eradication will demand more than prescribe the right medications to the right people and to the

right moment, the most important element on the TB elimination will be the accentuated decreasing on the agglomeration, the poverty and the health care barriers [30]. To increase to access to the health care is essential on the TB control at the homeless population. To overcome the faced barriers by the homeless population to access the health services, and, specifically the programs to control the TB, will be crucial to reduce the TB charge in this high risk group [26]. It is necessary to highlight what when health services that attend their necessities are provided, the homeless people will access the health care at the same rhythm as the general population [26].

Bearing in mind the HLP having a transitory characteristic, a new treatment regime that reduces the treatment time can increase the treatment success among this population [25]. In this sense, discussing the treatment, it is good to reinforce that the treatment directly observed has been used with big advantage, resulting in higher healing rates and less relapses [27, 30].

Although the lack of house is a risk factor well documented to the non-adhesion to the TB treatment, programs that provide support to the homeless people, such as habitation, transport, support groups, meal voucher, and others incentives, has demonstrated that it is possible to improve substantially the treatment and the conclusion rates [29, 26].

The professionals who provide care to homeless people shall pay attention to the unique aspects of conditions and life style that can affect the homeless people health results and hinder the care utilization. It shall be evaluated the life situation, income status, drug and alcohol use, the mental health status, concurrent necessities and victimization story, aiming the elaboration of an evaluation and treatment plan what will be viable and efficient, given the life situations limitations of the homeless patients. This can't be possible in many traditional health contexts [37]. In this way, the TB treatment in

homeless people requires creativity and dedication, as from the patient as from the health team [30].

This implies that, from the point of view of interference with this population, it is required a personalized and intensive effort in terms to support since the psychosocial and educative perspective, in all the health attention process, to do it more integral and, therefore, more efficient [36, 40]. This requires rethinking the attendance model structure to this population and its relation to the health organizations.

## Conclusion

The homeless people sick by TB face meaningful barriers that prejudice their Access to the health care, being different from the general population to present higher vulnerability to this disease due to the risk factors which they are exposed and their life conditions.

To increase the access to the health care will be crucial to reduce the TB charge in this high risk group, an essential fact to the TB control on the homeless population. To that, it is indispensable that the health actions turned to homeless people sick with TB be thought taking in consideration the unique aspects of conditions and life style that can affect the homeless people health and hinder the care utilization. It is necessary, thus, that the health actions break the strictly technical care barriers and include the psychosocial and educative perspective in all the health attention process, recognizing that the disease controlling actions shall assume different conformations in function of the individuals singularities and their scenarios.

Thereby, in the search for caring, the more integral and, therefore, the most efficient possible, it is waited that be included in the health team daily work, routines and systematic search for the health necessities, and developed abilities to recognize the offers adequacy to the specific context, in which is given the meeting between the individual and



the team. In this way, rest evident the necessity to rethink the structure of the model attendance to this population, aiming to improve this population access to the health care.

## References

1. Cioran V, Mincă DG; Brîndușe L. A. Costs-of-illness evaluation methodology due to tuberculosis in homeless adults in Bucharest. *Acta medica transilvanica/AMT*. 2015; 20(2): 13-15. Available from: <http://www.amtsibiu.ro/Arhiva/2015/Nr2-en/Cioran.pdf>
2. World Health Organization [WHO]. Global tuberculosis report 2014. 2014. Available from: [http://apps.who.int/iris/bitstream/10665/137094/1/9789241564809\\_eng.pdf](http://apps.who.int/iris/bitstream/10665/137094/1/9789241564809_eng.pdf)
3. Starfield B. Atenção Primária: equilíbrio entre necessidades de saúde, serviços e tecnologia. 2002. Available from: [http://bvsmms.saude.gov.br/bvs/publicacoes/atencao\\_primaria\\_p1.pdf](http://bvsmms.saude.gov.br/bvs/publicacoes/atencao_primaria_p1.pdf)
4. Santos MLSG. et al. Pobreza: caracterização socioeconômica da tuberculose. *Rev. Latino-Am. Enfermagem*. 2007; 15(spe): 762-767. DOI: <http://dx.doi.org/10.1590/S0104-11692007000700008>
5. Hijjar MA et al. Epidemiologia da tuberculose: importância no mundo, no Brasil e no Rio de Janeiro. *Pulmão*. 2005; 14(4): 310-314. Available from: [http://www.sopterj.com.br/profissionais\\_revista/2005/n\\_04/08.pdf](http://www.sopterj.com.br/profissionais_revista/2005/n_04/08.pdf)
6. Bertolli Filho C. História social da tuberculose e do tuberculoso: 1900-1950 2001. *Antropologia & Saúde* collection. Available from: <http://static.scielo.org/scielobooks/4/pdf/bertolli-9788575412886.pdf>
7. San Pedro A, Oliveira RM. Tuberculose e indicadores socioeconômicos: revisão sistemática da literatura. *Rev Panam Salud Publica*. 2013; 33(4):294-301. DOI: <http://dx.doi.org/10.1590/S1020-49892013000400009>
8. Ministério da Saúde(BR), Secretaria de Vigilância em Saúde. Departamento de Vigilância das Doenças Transmissíveis. Panorama da tuberculose no Brasil: indicadores epidemiológicos e operacionais. 2014. Available from: [http://bvsmms.saude.gov.br/bvs/publicacoes/panorama%20tuberculose%20brasil\\_2014.pdf](http://bvsmms.saude.gov.br/bvs/publicacoes/panorama%20tuberculose%20brasil_2014.pdf)
9. Aguiar MM, Iriart JAB. Significados e práticas de saúde e doença entre a população em situação de rua em Salvador, Bahia, Brasil. *Cad. Saúde Pública*. 2012; 28(1): 115-124. DOI: <http://dx.doi.org/10.1590/S0102-311X2012000100012>
10. Varanda W, Adorno RCF. Descartáveis urbanos: discutindo a complexidade da população de rua e o desafio para políticas de saúde. *Saude soc*. 2004; 13(1): 56-69. DOI: <http://dx.doi.org/10.1590/S0104-12902004000100007>
11. Carneiro Junior N, et al. . Serviços de saúde e população de rua: contribuição para um debate. *Saude soc*. 1998; 7(2): 47-62. DOI: <http://dx.doi.org/10.1590/S0104-12901998000200005>
12. Popescu-Hagen M, Tanasescu M, Traistaru R, Postolache P. Homeless People: A Real Challenge in TB Management in Romania. *Chest Journal*. 2016; 149(4\_S): A75 Available from: <http://journal.publications.chestnet.org/article.aspx?articleid=2511476>
13. Ministério da Saúde(BR), Secretaria de Atenção à Saúde. Departamento de Atenção Básica. Política Nacional de Atenção Básica. 2012. Available from: <http://189.28.128.100/dab/docs/publicacoes/geral/pnab.pdf>
14. Lavras C. Atenção primária à saúde e a organização de redes regionais de atenção à saúde no Brasil. *Saúde soc*. 2011; 20(4): 867-874. DOI: <http://dx.doi.org/10.1590/S0104-12902011000400005>
15. Mendes EV. A atenção primária à saúde no SUS. Fortaleza, Escola de Saúde Pública do Ceará, 2002.
16. Ministério da Saúde(BR), Secretaria de Vigilância em Saúde. Departamento de Vigilância Epidemiológica. Sistema de Informação de Agravos de Notificação - Sinan: normas e rotinas. 2 ed. Brasília. 67p. 2007.
17. Ministério da Saúde(BR), Secretaria de Atenção à Saúde. Departamento de Atenção Básica. Manual sobre o cuidado à saúde junto a população em situação de rua. 2012. Available from: [http://189.28.128.100/dab/docs/publicacoes/geral/manual\\_cuidado\\_populacao\\_rua.pdf](http://189.28.128.100/dab/docs/publicacoes/geral/manual_cuidado_populacao_rua.pdf)
18. Ranzani OT, Carvalho CRR, Waldman EA, Rodrigues LC. The impact of being homeless on the unsuccessful outcome of treatment of pulmonary TB in São Paulo state, Brazil. *BMC Medicine*. 2016; 14:41. Available from: <https://bmcmedicine.biomedcentral.com/articles/10.1186/s12916-016-0584-8>
19. Polit DF, Beck CT. Using research in evidence-based nursing practice. In: Polit DF, Beck CT, editors. *Essentials of nursing research. Methods, appraisal and utilization*. Philadelphia: Lippincott Williams & Wilkins; 2006. 457-94.
20. Benefield LE. Implementing evidence-based practice in home care. *Home Health Nurse*. 2003;21(12): 804-11. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/14665967>
21. Beyea SC, Nicoll ELH. Writing an integrative review. *Aorn J*. 1998; 67(4):877-80. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/9616108>
22. Mendes KDS, Silveira RCCP, Galvão CM. Revisão integrativa: método de pesquisa para a incorporação de evidências na saúde e na enfermagem. *Texto Contexto Enferm*. 2008; 17(4):758-64. DOI: <http://dx.doi.org/10.1590/S0104-07072008000400018>
23. Ganong LH. Integrative reviews of nursing research. *Res Nurs Health*. 1987; 10(1):1-11. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/3644366>
24. Bardin L. Análise de conteúdo. Lisboa: Edições 70; 2007.
25. Bamrah S, Yelk Woodruff RS, Powell K, Ghosh S, Kammerer JS, Haddad MB. Tuberculosis among the homeless, United States, 1994-2010. *Int J Tuberc Lung Dis*. 2013. 17(11):1414-1419. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5077150/>

26. Brewer TF, Heymann J, Krumplitsch SM, Wilson ME, Colditz GA, Fineberg HV. Strategies to Decrease Tuberculosis in US Homeless Populations. A Computer Simulation Model. *JAMA*. 2001; 286(7):834-842. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/11497538>
27. Hwang SW. Homelessness and health. *CMAJ*. 2001; 164(1): 229-33. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC80688/>
28. Craig GM, Joly LM, Zumla A. 'Complex' but coping: experience of symptoms of tuberculosis and health care seeking behaviours – a qualitative interview study of urban risk groups, London, UK. *BMC Public Health*. 2014; 14:618. Available from: <http://bmcpublichealth.biomedcentral.com/articles/10.1186/1471-2458-14-618>
29. Lashley M. A Targeted Testing Program for Tuberculosis Control and Prevention Among Baltimore City's Homeless Population. *Public Health Nursing*. 2006; 24(1): 34-39. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/17214651>
30. Brickner PW, et al. Proviing Health Services or the Homeless: A Stitch in Time. *Bulletin Of The New York Academy Of Medicine*. 1993; 70(3): 146-170. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2359236/>
31. Brudney K. Homelessness and TB: A Study in Failure. *The Journal of Law, Medicine & Ethics*. 1993; 21(3-4): 360-367. Available from: <http://onlinelibrary.wiley.com/wol1/doi/10.1111/j.1748-720X.1993.tb01261.x/abstract>
32. Macerata I, Soares JGN, Ramos JFC. Apoio com o cuidado de territórios existenciais: Atenção Básica e a rua. *Interface (Botucatu)*. 2014. 18(supl. 1): 919-930. Available from: <http://www.scielo.br/pdf/icse/v18s1/1807-5762-icse-18-1-0919.pdf>
33. Carneiro Junior N. et al. Organização de práticas de saúde equânimes em atenção primária em região metropolitana no contexto dos processos de inclusão e exclusão social. *Saude soc., São Paulo*. 2006; 15(3):30-39. DOI: <http://dx.doi.org/10.1590/S0104-12902006000300004>
34. Mfinanga SG. et al. The magnitude and factors as sociated with delays in management of smear positive tuberculosis in Dar es Salaam, Tanzânia. *BMC Health Serv Res*. 2008; 8(158). Available from: <https://bmchealthservres.biomedcentral.com/articles/10.1186/1472-6963-8-158>
35. Arcencio RA, Oliveira MF, Villa TCS. Interações por tuberculose pulmonar no Estado de São Paulo no ano de 2004. *Ciênc. saúde coletiva*. 2007; 12(2): 409-417. Available from: <http://www.redalyc.org/pdf/630/63012214.pdf>
36. Otálvaro AFT, Arango MEC. Accesibilidad de la poblaci ón habitante de calle a los programas de Promoción y Prevención esta blecidos por la Resolución 412 de 2000. *Investigaciones Andina*. 2009; 11(18): 23-35. Available from: <http://www.redalyc.org/pdf/2390/239016503003.pdf>
37. Gelberg L, Andersen RM, Leake BD. The Behavioral Model for Vulnerable Populations: Application to Medical Care Use and Outcomes for Homeless People. *HSR: Health Services Research*. 2000; 34:6. Available from: [https://www.researchgate.net/publication/12659629\\_The\\_Behavioral\\_Model\\_for\\_Vulnerable\\_Populations\\_Application\\_to\\_Medical\\_Care\\_Use\\_and\\_Outcomes\\_for\\_Homeless\\_People](https://www.researchgate.net/publication/12659629_The_Behavioral_Model_for_Vulnerable_Populations_Application_to_Medical_Care_Use_and_Outcomes_for_Homeless_People)
38. Demissie M, Lindtjorn B, Berhane Y. Patient and health service delay in the diagnosis of pulmonary tuberculosis in Ethiopia. *BMC Public Health*. 2002; 2:23. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC130033/>
39. Romaszko J, Siemaszko A, Bodzioch M, Bucirski A, Doboszyńska A. active case finding among homeless people as a means of reducing the incidence of pulmonary tuberculosis in general population. *Advs Exp. Medicine, Biology - Neuroscience and Respiration*. 2016. Available from: <http://link.springer.com/bookseries/5584>
40. Stevens A, Bickler G, Jarrett L, Bateman N. The public health management of tuberculosis among the single homeless: is mass miniature x ray screening effective? *Journal of Epidemiology and Community Health*. 1992; 46: 141-143. Available from: <http://pubmedcentralcanada.ca/pmcc/articles/PMC1059522/pdf/jepicomh00209-0055.pdf>

### Publish in International Archives of Medicine

International Archives of Medicine is an open access journal publishing articles encompassing all aspects of medical science and clinical practice. IAM is considered a megajournal with independent sections on all areas of medicine. IAM is a really international journal with authors and board members from all around the world. The journal is widely indexed and classified Q2 in category Medicine.