

## MEN'S KNOWLEDGE, ATTITUDES AND PRACTICE REGARDING SEXUALLY TRANSMITTED DISEASES

Carla Muriele Andrade Santos<sup>1</sup>, José Deivid Santos Oliveira<sup>1</sup>, Shirley Verônica Melo Almeida Lima<sup>2</sup>, Allan Dantas dos Santos<sup>3</sup>, Marco Aurélio de Oliveira Góes<sup>4</sup>, Leilane Barbosa de Sousa<sup>5</sup>

**ABSTRACT:** Objectives: to analyze men's knowledge, attitudes and practices regarding sexually transmitted infections and condom use. Method: a descriptive, transversal study with a quantitative approach, with truck drivers in the city of Itabaiana, in the Brazilian State of Sergipe. Data collection took place between January and March 2017, with 75 truck drivers. After data collection, the interviews were transcribed, analyzed and classified in terms of the truck drivers' knowledge, attitudes and practice. Results: of the truck drivers, 74 (98.6%) possessed adequate knowledge regarding the infections; however, it was possible to identify that their attitudes and practices were not adequate – mainly in regard to sexual behavior and previous infection with sexually transmitted infections. Conclusion: effective interventions, supported by situational strategic planning, must be encouraged for the population studied in different regions of Brazil. This would reduce chains of transmission of the diseases and promote health.

**DESCRIPTORS:** Sexually Transmitted Infections; Condoms; Health Knowledge, Attitudes, Practice.

### CONHECIMENTOS, ATITUDES E PRÁTICA DE HOMENS SOBRE INFECÇÕES SEXUALMENTE TRANSMISSÍVEIS

**RESUMO:** Objetivos: analisar conhecimentos, atitudes e práticas de homens acerca das infecções sexualmente transmissíveis e o uso do preservativo. Método: estudo descritivo, transversal com abordagem quantitativa com caminhoneiros do município de Itabaiana, Sergipe. A coleta de dados ocorreu entre janeiro e março de 2017 com 75 caminhoneiros. Após a coleta de dados, as entrevistas foram transcritas, analisadas e classificadas pelo conhecimento, atitude e prática dos caminhoneiros. Resultados: dos caminhoneiros, 74 (98,6%) possuíam conhecimento adequado acerca das infecções, porém foi possível identificar que as atitudes e as práticas não se apresentavam de maneira adequada, principalmente no que diz respeito ao comportamento sexual e os antecedentes de infecções sexualmente transmissíveis. Conclusão: intervenções efetivas, subsidiadas por planejamento estratégico situacional, devem ser estimuladas para a população estudada em diferentes regiões brasileiras. Assim, reduzem cadeias de transmissão das doenças e promovem saúde.

**DESCRIPTORES:** Infecções sexualmente transmissíveis; Preservativos; Conhecimentos, Atitudes e prática em saúde.

### CONOCIMIENTOS, ACTITUDES Y PRÁCTICA DE HOMBRES ACERCA DE INFECCIONES SEXUALMENTE TRANSMISIBLES

**RESUMEN:** Objetivos: analizar conocimientos, actitudes y prácticas de hombres acerca de las infecciones sexualmente transmisibles y el uso del preservativo. Método: estudio descriptivo, transversal de abordaje cuantitativo con camioneros del municipio de Itabaiana, Sergipe. La obtención de datos ocurrió entre enero y marzo de 2017 con 75 camioneros. Después de la obtención de datos, se transcribieron las entrevistas, y fueron analizadas y clasificadas por el conocimiento, actitud y práctica de los camioneros. Resultados: de los camioneros, 74 (98,6%) presentaban conocimiento apropiado acerca de las infecciones, sin embargo fue posible identificar que las actitudes y las prácticas no eran adecuadas, principalmente con relación al comportamiento sexual y a los antecedentes de infecciones sexualmente transmisibles. Conclusión: intervenciones efectivas, subsidiadas por planeamiento estratégico situacional deben ser estimuladas para la población estudiada en diferentes regiones brasileñas. Así, disminuyen las cadenas de transmisión de enfermedades y se promueve salud.

**DESCRIPTORES:** Infecciones sexualmente transmisibles; Preservativos; Conocimientos, actitudes y prácticas en salud.

<sup>1</sup>Student nurse. Federal University of Sergipe. Lagarto, State of Sergipe (SE), Brazil.

<sup>2</sup>RN. M.A in Health Sciences. Lecturer in Nursing, Federal University of Sergipe. Lagarto, SE, Brazil.

<sup>3</sup>RN. Ph.D in Health Sciences. Lecturer in Nursing, Federal University of Sergipe. Lagarto, SE, Brazil.

<sup>4</sup>Physician. M.A in Health and the Environment. Lecturer, Federal University of Sergipe. Lagarto, SE, Brazil.

<sup>5</sup>RN. Ph.D in Nursing. Lecturer in Nursing, University of Luso-Afro-Brazilian International Integration. Redenção, State of Ceará (CE), Brazil.

#### Corresponding author:

Carla Muriele Andrade Santos  
Universidade Federal de Sergipe  
Av. Governador Marcelo Déda, 13 - 49400-000 – Lagarto, SE, Brasil  
E-mail: murieleandrade@outlook.com

Received: 24/07/2017

Finalized: 23/11/2017

## ● INTRODUCTION

Sexually Transmitted Infections (STI) are an important public health problem, as they are responsible for causing impact on people's quality of life and on their personal, family and social relationships<sup>(1-2)</sup>.

According to the World Health Organization (WHO)<sup>(1)</sup>, more than 1 million people acquire an STI every day; it is estimated that each year, 500 million people acquire one of the curable STI (gonorrhea, chlamydia, syphilis and trichomoniasis).

Worldwide, infection by Human Papilloma Virus (HPV), for example, causes 530,000 cases of cervical cancer and 275,000 deaths from this disease/year; gestational syphilis, in its turn, causes approximately 300,000 fetal and neonatal deaths/year and places 215,000 newborns at risk of premature death, low birth weight or congenital syphilis; it is calculated, furthermore, that 530 million people are infected with the genital herpes virus<sup>(1)</sup>.

According to data published in the 21st International AIDS Conference (Acquired Immune Deficiency Syndrome), this syndrome has caused 30 million deaths; approximately 36.7 million people live with the human immune deficiency virus (HIV) worldwide, of whom only 17 million are receiving treatment<sup>(3)</sup>. In Brazil, between 1980 and July 2016, 842,710 cases of AIDS were notified<sup>(4)</sup>, indicating a significant increase, over time, in the rate of detection of AIDS among men, and a reduction among women<sup>(5)</sup>.

According to the WHO, in 2014, unprotected sexual relations were considered an important risk factor for the transmission of STI and HIV worldwide<sup>(6)</sup>. The condom has been the form of prophylaxis most publicized through health policies, due to its high degree of protection against the risk of the appearance of STI – above all HIV/AIDS – as it reduces the cycles of contamination<sup>(7)</sup>.

The correct and frequent use of condoms is directly related to the issue of gender, as a determinant factor in the development of personal autonomy, as well as being one of the sexual and reproductive health promotion strategies, particularly among women. The development of personal skills defines what women know, think and practice in terms of sexual behaviors and condom use<sup>(8)</sup>.

In the light of the prevalent issue of STI in Brazil, truck drivers are characterized as a population group which presents raised vulnerability to STI and HIV, a fact which may influence the endemic process of the dissemination of the same<sup>(9)</sup>.

Vulnerability to STI is related to exposure to the risk, due mainly to lack of knowledge, attitudes and practices which promote sexual health. Raised vulnerability among truck drivers results from their great physical mobility, as well as their sexual risk behaviors adopted in the various situations they experience, among which emphasis is placed on the practicing of unprotected sex with various occasional partners<sup>(1,9-10)</sup>.

In this context of vulnerability, truck drivers deserve specific attention from health actions, not in the sense of recovering the old notion of risk groups, but rather with the objective of observing issues which become essential for planning and implementing policies and programs geared towards groups which experience contexts of greater vulnerability.

Accordingly, the present study aimed to analyze men's knowledge, attitudes and practices regarding STI and condom use.

## ● METHOD

A descriptive, transversal study, with a quantitative approach, undertaken in the city of Itabaiana, in the Brazilian State of Sergipe. The city was chosen as it is the National Capital of the Truck, under Law N. 13,044, of 19th November 2014. Under Legal Project 7132/14, Itabaiana has slightly over 100,000 inhabitants and approximately 6000 trucks registered, characterizing the highest rate in Brazil<sup>(11-12)</sup>. In this context, the city has a significant number of professional truck drivers.

Data collection took place between January and March 2017 in gas stations and transport companies

– places where there is a high concentration of truck drivers. Inclusion criteria were to be over 18 years old and to have worked as a truck driver for over 6 months.

The study sample was by convenience, and was made up of 75 truck drivers. Initially, 10 pilot studies were undertaken. Subsequently, the data collection instrument was adapted. Interviews were later held with 75 truck drivers. The questionnaire was made up of 34 questions, which analyzed sociodemographic and work-related aspects; knowledge regarding STI, HIV/AIDS; knowledge on the transmission and prevention of STI; sources of knowledge; testing for HIV; sexual practices, sexual behavior and condom use by the truck drivers. The instrument used was an adaptation of the main questionnaire of the Survey of Knowledge, Attitudes and Practices in the Brazilian Population<sup>(6)</sup>.

After data collection, the data were tabulated in the Microsoft Excel 2013 program and were analyzed descriptively according to the following themes: men's knowledge, attitudes and practices regarding STI and condom use.

The study complied with Resolution N. 466, of 12<sup>th</sup> December 2012<sup>(13)</sup>, and was approved by the Research Ethics Committee of the Federal University of Sergipe, under Opinion N. 1,849,207.

## ● RESULTS

A total of 75 male truck drivers participated in the study. They were aged between 19 and 60 years old; 43 (57.3%) were married, 54 (72%) were Roman Catholic, and the monthly income of 50 (66.6%) was over 2 minimum salaries; 39 (52%) were residents of Sergipe, and 49 (65.3%) had worked in the profession for over 10 years. In terms of educational level, 32 (42.6%) truck drivers had either graduated from, or attended but not completed, senior high school (Table 1).

Table 1 - Sociodemographic profile of the truck drivers. Itabaiana, State of Sergipe (SE), Brazil, 2017 (continues)

Characteristics		(n=75)	(%)
Age	19 - 29 years	10	13.3
	30 - 39 years	31	41.3
	40 - 49 years	23	30.6
	50 - 59 years	10	13.3
	60 or over	1	1.3
Time in profession	Over 10 years	49	65.3
	Less than 10 years	15	20
	10 years	11	14.6
Education	1 <sup>st</sup> to 4 <sup>th</sup> year of Primary School	7	9.3
	5 <sup>th</sup> to 8 <sup>th</sup> year of Primary School	28	37.3
	Primary/Junior High School – complete	4	5.3
	Senior High School incomplete	11	14.6
	Senior High School complete	21	28
	Higher Education – incomplete	4	5.3
Monthly income	1 minimum salary	5	6.6
	1 - 2 minimum salaries	20	26.6
	2 - 3 minimum salaries	23	30.6
	3 or more	27	36
Religion	Roman Catholic	54	72
	Protestant/Evangelical	9	12
	None	12	16

Marital situation	Single	12	16
	Partner	14	18.6
	Divorced	6	8
	Married	43	57.3
Place of Residence	Sergipe	39	52
	Bahia	11	14.6
	Other states	25	33.3
Routine destinations	Bahia	27	36
	São Paulo	22	29.3
	Others*	26	34.6
Mean time away from home	Up to 9 days	25	33.3
	10 - 19 days	22	29.3
	20 - 29	12	16
	30 days or more	16	21.3

\*Alagoas, Pernambuco, Minas Gerais, Rio de Janeiro, Pará and Paraná.

Regarding knowledge of STI, 74 (98.6%) showed appropriate knowledge. Regarding which STI they knew of, all mentioned AIDS, and 35 (46.6%), hepatitis. Regarding the vehicles of information, the most mentioned were television, radio and campaigns involving billboards installed along the highways.

Regarding condom use, 72 (96%) agreed that it was the best way of avoiding the transmission of STI, 45 (60%) were unable to state the appropriate care for its correct use, and 72 (96%) were aware of the female condom (Table 2).

Table 2 - Truck drivers' knowledge regarding Sexually Transmissible Infections. Itabaiana, SE, Brazil, 2017 (continues)

		(n)	(%)
Do you know what STI stands for, and how they are transmitted?	Yes	74	98.6
	No	1	1.4
Which STI can a person be infected with, if they don't use condoms during sexual relations?	AIDS	75	100
	Syphilis	71	94.6
	Gonorrhea	67	89.3
	Hepatitis	35	46.6
From which source of information do you normally receive information about STI?	TV	60	80
	Campaigns with billboards along highways	60	80
	Radio	45	60
	Newspapers and magazines	28	37.4
	Health Centers	23	30.6
Participants who agreed with the statement: "The risk of transmission of HIV/AIDS can be reduced if a person restricts sexual relations to a single partner who is not infected."	Yes	71	94.6
	No	4	5.4
Participants who agreed with the statement: "A person who looks healthy can have an STI, such as AIDS."	Yes	64	85.4
	No	11	14.6
Do you know of a health service where the test for AIDS is undertaken free of charge?	Yes	51	68
	No	24	32
Participants who agreed with the statement: "Using a condom is the best way of avoiding the transmission of STI."	Yes	72	96
	No	3	4

Have you heard of the female condom?	Yes	72	96
	No	3	4
Do you know of the necessary care for correct condom use?	Yes	30	40
	No	45	60

In the observation of attitudes and practices, it was ascertained that 18 (24%) either had or had had an STI, 29 (38.6%) think that they have a behavior of risk for contracting STI, 65 (86.6%) had bought condoms, and 36 (48%) kept condoms in the truck or at home at the time of the interview. Only 17 (22.6%) used a condom during the last sexual relations, and of those who had casual sexual partners, 28 (57.14%) reported using condoms during their sexual relations with these partners (Table 3).

Table 3 - Truck drivers' attitudes and practices regarding Sexually Transmitted Infections. Itabaiana, SE, Brazil, 2017

		(n)	(%)
Do you have, or have you ever had, an STI?	Yes	18	24
	No	57	76
If the answer was 'yes', which?	Gonorrhea	14	77.7
	Herpes	2	11.1
	Syphilis	1	5.55
	Chancroid	1	5.55
Do you think you have a behavior of risk for contracting STI?	Yes	29	38.66
	No	46	61.34
Have you been tested for HIV/AIDS?	Yes	45	60
	No	30	40
Have you ever bought condoms?	Yes	65	86.6
	No	10	13.4
Have you ever received condoms free of charge?	Yes	72	96
	No	3	4
At the moment, do you have condoms in your truck or at home?	Yes	36	48
	No	39	52
Did you use a condom, the last time you had sex?	Yes	17	22.6
	No	58	77.4
Do you use condoms in your sexual relations with your partner?	Yes	3	5.26
	No	51	89.48
	Sporadically	3	5.26
If not, why don't you use condoms?	Trusts partner	52	69.33
	It reduces the erection	13	17.33
	It reduces the sensitivity and pleasure	10	13.34
Have you had sexual relations with casual partners in the last 12 months?	Yes	49	65.34
	No	26	34.66
Have you had more than five sexual partners in the last 12 months?	Yes	17	22.6
	No	58	77.4
Do you use a condom in sexual relations with casual partners?	Yes	28	57.16
	No	12	24.48
	Sporadically	9	18.36
Have you ever had sexual relations with a woman who was using the female condom?	Yes	11	14.6
	No	64	85.4



## ● DISCUSSION

According to the results, all of the interviewees were male, reproducing historical characteristics, exercised almost exclusively by men. Studies in Vitória da Conquista, in the Brazilian state of Bahia (BA)<sup>(10)</sup> and in Goiânia, in the Brazilian state of Goiás (GO)<sup>(14)</sup> showed that the majority of male truck drivers were married or had a partner, and that the majority reported that in the last year they had had sexual relations with casual partners, principally when they were on the road, during their travels.

The truck drivers reported driving to other states and traveling on routes considered to be long, over 50 km, passing an average of 19.6 days away from home, which may contribute to their exposure to acquiring STI as well as to disseminating these<sup>(9)</sup>.

Regarding knowledge on STI and how these are transmitted, it was possible to identify that nearly all of the truck drivers interviewed had some knowledge on the topic, a fact which may be explained by the ease of accessing information, making it possible to have better knowledge on this topic. Regarding which STI they knew of, all mentioned AIDS and only 35 (46.6%), hepatitis. One study undertaken with 64 young and adult individuals in Recife, in the Brazilian State of Pernambuco (PE), and in the city of São Paulo, in the State of São Paulo (SP), identified that hepatitis, as with other STI, remains little known by this public<sup>(15)</sup>.

The information on STI are received mainly through means of mass communication, such as television and radio, which are the most accessible to the population in general, as corroborated by other studies undertaken in Brazil<sup>(9,15)</sup>. It was also identified that the majority of truck drivers received information during highway campaigns, which demonstrates that as time goes by, public policies for preventing STI are being encouraged.

In this context, men may experience this context differently from women, as they present greater resistance in relation to seeking appropriate guidance on prevention, and do not consider themselves to be vulnerable.

It was observed that, although the truck drivers identified that the condom is the best way of avoiding the transmission of STI, nearly 25% did not use it in their practice, suggesting that there is no association between knowledge and sexual practice.

As the rationale for not using condoms during sexual relations with partners with whom the men are in stable monogamous relationships, many reported trust in the partnership, and reduction in their erection, or reduction in sensitivity and pleasure when condoms were used; a rationale which was also found in a study undertaken with truck drivers in Bahia<sup>(10)</sup>.

Low adherence in relation to condom use is evident – a behavior which may be related to beliefs such as that condoms impair sexual performance, or that sex with an apparently healthy partner does not involve a risk of contamination. Furthermore, a study undertaken in Santos, in the Brazilian State of São Paulo, identified that condom use differs according to the sexual partner<sup>(9)</sup>.

It follows that the partner in a monogamous relationship may be vulnerable regarding STI, as it was identified that during sexual relations with that partner, the rate of adherence to condom use is low – and truck drivers reported not using condoms in their relations with casual partners.

It was possible to verify that the majority of the truck drivers, at some point in their lives, had either bought, or received free of charge, condoms; however, at the time of the interview, the majority did not have condoms either in their trucks, at home, or on them. They also reported not having knowledge about the care necessary for correct condom use – a fact which calls attention, as the incorrect use of condoms can result in an increased risk of acquiring STI<sup>(8)</sup>.

Regarding knowledge on the female condom, the majority reported knowing about it. However, they do not use it in their sexual practice. This fact may be explained by the high cost of the female condom when compared with the male condom, and because its distribution free of charge in the public health network is lower. Factors such as power dynamics between men and women directly influence the use or not of condoms, and overwhelmingly influence couples' adherence to the method<sup>(15)</sup>.

The attitudes and practices of the truck drivers studied evidenced behaviors of risk for contracting some type of STI, as 18 (24%) reported already having acquired some STI in their lives, differing from the Brazilian rate for sexually active men aged between 15 and 64 years old, of whom approximately 17% stated that they had had at least one previous infection related to STI<sup>(6)</sup>.

The present study presented limitations, as it was undertaken with truck drivers living only the State of Sergipe, as this is a specific population with its own social and cultural characteristics. Moreover, the study did not check the knowledge, attitudes and practices of the partners with whom the men were in stable, monogamous relationships, and/or of the men's casual partners, in order to establish discussion regarding the couples' relations involving condom use.

## ● CONCLUSION

The majority of truck drivers had appropriate knowledge regarding STI and HIV/AIDS – particularly regarding how these are transmitted or prevented. This knowledge was acquired from different sources of information, but was not proportionately aligned with the attitudes and practices of the group studied, as a considerable number of the truck drivers had already acquired an STI and as there was low adherence to condom use as a sexual practice.

There is a need for better information and communication strategies for this population, focusing on ways of preventing STI and on the importance of using condoms. It is desirable that the gaps in the attitudes and practices observed in this study should contribute to identifying points to be developed and emphasized in planning in health and in intervention strategies for promoting the health of this population group, which experiences a context of greater vulnerability.

It is suggested that further studies should be undertaken with truck drivers living in other regions of Brazil, so that comparisons may be made regarding knowledge, attitudes and practices relating to condom use in different contexts, as well as with these professionals' sexual partners. In this perspective, studies could shed light on cultural and gender issues related to low adherence to the use of condoms among truck drivers.

## ● REFERENCES

1. Ministério da Saúde (BR). Secretaria de Vigilância em Saúde. Departamento de DST, Aids e Hepatites Virais. Protocolo Clínico e Diretrizes Terapêuticas para Atenção Integral às Pessoas com Infecções Sexualmente Transmissíveis. Brasília: Ministério da Saúde; 2015.
2. Rocha EM. DST e AIDS em regiões de fronteiras: um estudo com caminhoneiros no estado de Rondônia [dissertação]. Brasília (DF): Universidade de Brasília; 2008.
3. Escola Nacional de Saúde Pública Sergio Arouca (Ensp). Saúde em Números: 30 milhões de mortes. Revista RADIS. [Internet] 2016;(167) [acesso em 26 set 2016]. Disponível: [http://www6.ensp.fiocruz.br/radis/sites/default/files/radis\\_167\\_web.pdf](http://www6.ensp.fiocruz.br/radis/sites/default/files/radis_167_web.pdf).
4. Ministério da Saúde (BR). Secretaria de Vigilância em Saúde. Departamento de DST, Aids e Hepatites Virais. Boletim Epidemiológico - Aids e DST. Ano V – nº 01. Brasília: Ministério da Saúde; 2016.
5. Ministério da Saúde (BR). Secretaria de Vigilância em Saúde. Departamento de DST, Aids e Hepatites Virais. Boletim Epidemiológico - Aids e DST. Ano IV – nº 01. Brasília: Ministério da Saúde; 2015.
6. Ministério da Saúde (BR). Secretaria de Vigilância em Saúde. Departamento de DST, Aids e Hepatites Virais. Pesquisa de conhecimento, atitudes e práticas na população brasileira. Brasília: Ministério da Saúde; 2011.
7. Aragão JCS, Lopes CS, Bastos FI. Comportamento Sexual de estudantes de um Curso de Medicina do Rio de Janeiro. Rev. bras. educ. med. [Internet] 2011;35(3) [acesso em 17 jul 2016]. Disponível: <http://dx.doi.org/10.1590/S0100-55022011000300006>.
8. de Sousa LB, Cunha DFF, Ximenes LB, Pinheiro AKB, Vieira NFC. Conhecimentos, atitudes e prática de mulheres

acerca do uso do preservativo. Rev. enferm. UERJ. [Internet] 2011;19(1) [acesso em 17 jul 2016]. Disponível: <http://www.facenf.uerj.br/v19n1/v19n1a24.pdf>.

9. Villarinho L, Bezerra I, Lacerda R, Latorre MRDO, Paiva V, Stall R, et al. Caminhoneiros de rota curta e sua vulnerabilidade ao HIV, Santos, SP. Rev. Saúde Pública. [Internet] 2002;36(4) [acesso em 17 jul 2016]. Disponível: <http://dx.doi.org/10.1590/S0034-89102002000500009>.

10. de Sousa LMS, Silva LS, Palmeira AT. Representações sociais de caminhoneiros de rota curta sobre HIV/AIDS. Psicol. Soc. [Internet] 2014;26(2) [acesso em 17 jul 2016]. Disponível: <http://www.ufrgs.br/seerpsicsoc/ojs2/index.php/seerpsicsoc/article/view/3755>.

11. Brasil. Lei n. 13.044, de 19 de novembro de 2014. Confere ao Município de Itabaiana no Estado de Sergipe o título de Capital Nacional do Caminhão. [Internet] Brasília, DF, Diário Oficial da União, 2014 [acesso em 07 jul 2016]. Disponível: [http://www.planalto.gov.br/ccivil\\_03/\\_Ato2011-2014/2014/Lei/L13044.htm](http://www.planalto.gov.br/ccivil_03/_Ato2011-2014/2014/Lei/L13044.htm).

12. Brasil. Projeto de Lei 7132/2014 do Senado. Ementa: Confere ao Município de Itabaiana, no Estado de Sergipe, o título de Capital Nacional do Caminhão. [Internet] Brasília, DF, 2014 [acesso em 07 jul 2016]. Disponível: <http://www.camara.gov.br/proposicoesWeb/fichadetramitacao?idProposicao=606303>.

13. Ministério da Saúde (BR). Conselho Nacional de Saúde. Diretrizes e normas regulamentadoras de pesquisa envolvendo seres humanos. Resolução n. 466, de 12 de dezembro de 2012. Brasília; 2012.

14. Teles AS, de Matos MA, Caetano KAA, Costa LA, França DDS, Pessoni GC, et al. Comportamentos de risco para doenças sexualmente transmissíveis em caminhoneiros no Brasil. Rev Panam Salud Publica. [Internet] 2008;24(1) [acesso em 07 jul 2016]. Disponível: <http://www.scielosp.org/pdf/rpsp/v24n1/v24n1a03.pdf>.

15. Garcia S, de Souza FM. Vulnerabilidades ao HIV/AIDS no contexto brasileiro: iniquidades de gênero, raça e geração. SP, Saúde Soc. [Internet] 2010;19(2) [acesso em 07 jul 2016]. Disponível: <http://dx.doi.org/10.1590/S0104-12902010000600003>.