

## Scientific Electronic Archives

Issue ID: Sci. Elec. Arch. Vol. 12 (3)

June 2019

Article link

<http://www.seasinop.com.br/revista/index.php?journal=SEA&page=article&op=view&path%5B%5D=896&path%5B%5D=pdf>

Included in DOAJ, AGRIS, Latindex, Journal TOCs, CORE, Discoursio Open Science, Science Gate, GFAR, CIARDRING, Academic Journals Database and NTHRYS Technologies, Portal de Periódicos CAPES.



# Sexually transmitted infections among the elderly from São Miguel do Oeste - SC

M. D. Schoeninger<sup>1</sup>, G. C. M. Berber<sup>2</sup>, V. Beltrame<sup>1</sup>, S. F. Cetolin<sup>1</sup>

Universidade do Oeste de Santa Catarina  
Faculdade de Sinop

Author for correspondence: [sirleicetolin@gmail.com](mailto:sirleicetolin@gmail.com)

**Abstract.** This article presents part of study's results that aims to identify the incidence rates and factors associated with STDs in the elderly population of São Miguel do Oeste – SC. A quantitative, analytical, descriptive and cross - sectional cohort study was performed. The information was obtained in a campaign of rapid tests for men and women over 60 years. The population in the age group from 60 to 90 years, resident in the municipality in 2018 is 4,391 people (2,432 women and 1,959 men). Four rapid tests were performed: Hepatitis B, Hepatitis C, Syphilis and HIV; 1,027 people aged over 60 years were tested. A total of 29 positive STD-related results were reported, corresponding to 2.82% of the group. The results show that there is an exposure of the elderly population to STDs in the city and, therefore, is important to emphasize the relevance of health's professionals to develop actions focusing at the changes that happen in the aging process, highlighting the prevention of STDs as a important health factor.

**keywords:** Elderly; Sexuality; Prevention; Health education.

## Introduction

Reaching old age is no longer a privilege of a few, old age is a reality even in the poorest countries and lack of resources. The increase in the elderly population is a worldwide phenomenon and, in Brazil, it accelerates (VERAS, 2009). With growth can increase the occurrence of diseases. Sexual activity is inherent to the human being and in old age it is possible to maintain this activity in an active, healthy, pleasurable and safe way (NERY, VALENÇA, 2014).

According to IBGE (2012), the states of the southern region of Brazil have 6,939,865 people over 60. In Santa Catarina, there are approximately 1.6 million. Currently the population of São Miguel do Oeste is 4,391.

Addressing the topic of sexuality of the elderly is surrounded by taboos. However, it is an emerging issue, often controversial even by health professionals. Not considering that the elderly maintain active sex life, may contribute to the increase of STIs in this population. Several factors contribute to the increase of STIs, such as poor prevention strategies in basic care, motor deficit for condom use and, mainly, social prejudice. These factors weaken the health strategies for the

vulnerability problem that the elderly person is exposed to. (BRASIL, 2006).

According to the Ministry of Health (2012), in Brazil, in 2005, 3,246 cases of viral hepatitis were reported in people over 60 years of age. In 2010, there was an increase of approximately 25% of the cases, totaling 4,088 notifications and; in 2017, notifications increased 61.83%, totaling 6,616 cases. Following the same comparison model, in 2005, 145 new cases of viral hepatitis were confirmed among people over 60 years old in the state of Santa Catarina; in 2010, there was an increase to 211 new cases, increasing by 45.5% in relation to previous data; in 2017, this number increased to 339 new cases confirmed and reported, totaling an increase of 60.6%.

In Brazil, actions against HIV infections started in 1983, in the city of São Paulo - SP, where the first reports of the cases occurred. These actions allowed to map the susceptible ones, favoring the planning of public policies of prevention and treatment. Initially, HIV predominated in homosexuals, hemophiliacs and drug users. Over time, there was a variation in the profile of the contaminated population, including the elderly. According to the Ministry of Health, it is estimated

that 42 million people on the planet are carriers of the HIV virus, and that 2.8 million of those infected are over 50 years of age (SANTOS, 2011).

Aging, for many people, is still synonymous with isolation and decay. The social weight that the third age causes is evidenced through taboos and prejudices. Society deprives the elderly of rethinking their own sexuality, libido, pleasure and sexual practice, causing difficulties of adaptation in this stage of life. With the passage of time, sexually transmitted diseases in the third age began to assume worrying rates (CEZAR; AIRES; PAZ, 2012). According to the same authors, these data are related to the failures that occur in the actions of education, promotion and prevention in health related to sexuality in the elderly. For a long time, such a subject was neglected due to socio-cultural values.

Various social mores contribute to a narrow understanding about sexuality in old age, often considering this phase to be asexual (Junqueira, 2012). Society's expectation is that the elderly take on the roles of grandparents, and that they disinterested or diminish their own self-interest. The participation of the elderly in the groups destined to the third age has made possible the greater occurrence of affective meetings, increasing the possibilities of exercising their sexuality.

There are several changes in the profile of the elderly today, therapeutic innovations such as Sildenafil "Viagra" and hormonal therapies, aim to promote improvements in the quality of life of this group. In addition, the migration of this population to urban centers, greater access to leisure, entertainment and information and the internet, as well as greater access to health services and group living, have made possible and stimulated the sexuality of the elderly (MOREIRA, 2012).

Sexual interest during old age is a form of equilibrium manifestation of health conditions. Maschio et al. (2011) and Viana (2010) have shown that the sexual act relieves tensions, arthritis, increases cortisone production and enables mental balance. Sexuality in the elderly is not restricted only to the sexual act, but to the sharing of emotions, affection, attention, affection, feeling, companionship and care (MOREIRA, 2012).

The WHO estimated that by 2025 there will be more seniors than children on the planet. This reality induces the emergence of public health education strategies to improve the quality of life of these people, reducing the social cost. With the increase of this population, it is increasingly necessary that social policies exist that contemplate the biopsychosocial needs of this group. It is imperative that the population and health professionals ensure protection and prevention practices directed to this group (BRASIL, 2006).

One of the challenges is to make the elderly accept their vulnerability. It is critical to include this group in discussions related to sexually transmitted infections. Prevention campaigns and educational

activities should be constant, promoting safe sex with equality of gender, age, race, color and ethnicity. The prevention process should be similar for all (MOREIRA, 2012).

The training to act in the education and the promotion of the health of the elderly is more and more necessary. The National Health Policy for the Elderly was established by Administrative Rule Nº 2.528/06. The main purpose was to recover, maintain and promote the autonomy and independence of the elderly by individual and collective activities. The guidelines emphasize the promotion of active and healthy aging, through practices in health education, aiming at the prevention of diseases in a collective way (BRASIL, 2006).

In view of this, the active development policy proposed by WHO in 2005 may be an example of such recommendations, emphasizing that aging well is not only the responsibility of the individual, but a process that must be supported by public policies and social and throughout the course of life. The creation of an active development policy, based on the principle that healthy lifestyles, which include changes in eating habits, regular physical activities, education policies, promotion and prevention in health and, consequently, the control of physical and psychological health (NERY, VALENÇA, 2014).

Thus, the objective of this study was to identify the incidence rates and factors associated with Sexually Transmissible Infections (STI) among the elderly in the city of São Miguel do Oeste - SC.

## Methods

A quantitative, descriptive and cross-sectional study was carried out (ROUQUAYROL, 1999). The objective of this study was to identify the incidence rates and factors associated with Sexually Transmissible Infections (STIs) among the elderly in the city of. The information was obtained by the nurse responsible for the database of Sexually Transmitted Infections of the Municipal Health Department, who carried out a campaign of rapid tests for men and women, over 60 years old, participants in the Vida Longa<sup>1</sup> group, which is found monthly in neighborhoods and communities of the municipality, in which they belong to rural and urban areas.

Rapid tests are used in screening for early disease identification. The execution, reading and interpretation are carried out in approximately 30 minutes, and can be done in the health unit or in a private and restricted place, without the need of a

---

<sup>1</sup> This group is exclusively aimed at the elderly, with the support of a doctor, a nurse and a physical educator, providing users with activities, care and information on health. It occurs monthly in neighborhoods and rural communities of the municipality of São Miguel do Oeste-SC.

laboratory structure. All positive results go through a confirmatory laboratory stage. The tests reduce the time of diagnosis and speed up the beginning of the treatment (BRASIL, 2017).

The campaign of rapid tests for hepatitis B and C, syphilis and HIV was carried out by the Municipal Health Department from October 10 to December 20, 2017. First, a schedule of activities carried out by the elderly groups was obtained. Following the announcement of the campaign by radio, local newspapers and the Community Health Agents. After previous contact with the president of each of the institutions, the team of professionals were composed and directed to the districts and communities of the municipality. The rapid tests for hepatitis B and C, HIV and syphilis were performed individually by nurses, pharmacists and technical nursing collaborators, all of the municipality's servers.

All participants had their information related to the tests, as well as the freedom of not doing so. In 2017, the municipality had 4,391 people over the age of 60. Of these, 1027 participated in the 4 rapid tests, of which 682 were urban residents and 345 were residents of rural areas. The results of the tests were delivered individually, by the physician responsible for the group, at a meeting that occurred one month after the collection.

In all the positive results, the individuals were invited to perform the confirmatory laboratory examination. A sample error of 5% and a confidence level of 95% was considered for the study. The required sample should have at least 354 people and covered 1027 people, which corresponds to 23.38% of the population over 60 years of age residing in the municipality..

## Results and discussion

The age distribution of the population was expressed in Table 1. Four rapid tests (hepatitis B and C, syphilis and HIV) were performed on 1,027 people aged over 60.

In the campaign carried out by the Municipal Health Department, of the 1027 tests performed, 13 had positive results for hepatitis B, 16 for Syphilis, 1 for HIV and 0 for Hepatitis C (Table 2). Confirmatory laboratory tests were performed for all positive rapid tests. Only HIV had its negative result. There were no cases of co-infection among patients' diseases. Overall, 29 positive results were related to sexually transmitted infections in the elderly (2.82%), 23 of which were urban and 6 were rural.

Andrade (2017) conducted a study in Botucatu - SP with 382 seniors, from September 2011 to April 2012, through rapid tests and exams for Syphilis, Hepatitis B and HIV. The prevalence was 3.4% (totaling 13 positive results), with 10 cases of syphilis (2.6%), 2 of hepatitis B (0.5%) and 1 for HIV infection (0.3%). According to the survey, all the diagnosed elderly denied the use of condoms..

According to the Ministry of Health (2012), in 2008, there were 1,200 cases of viral hepatitis, sexually transmitted chlamydia, syphilis, gonococcal infection and HIV resulting from hospital admissions in people over 60 years of age. In 2017, this number rose to 2,338 confirmed and reported cases, representing a 94.8% increase when compared to 2008.

IBGE estimates (2012) calculated that the municipality has 39,793 residents, of which 11% are elderly; being 2,452 between 60 and 69 years, 1,378 between 70 and 79 years and 561 over 80 years.

Table 1: Elderly population living in São Miguel do Oeste - SC

	60 to 69 years	70 to 79 years	≥ 80 years	Total
Female	1292	788	352	2432
Male	1160	590	209	1959
Total	2452	1378	561	4391

Source: DATASUS, 2012

Table 2: Results of the rapid tests performed on the elderly of São Miguel do Oeste, SC, 2018

Test	Positive	Negative	%
Hepatitis B	13	1014	1,26
Hepatitis C	0	1027	0,00
Syphilis	16	1011	1,55
HIV	1	1026	0,09

Source: Research Data, 2018

In Brazil, the number of elderly hospitalized due to sexually transmitted infections increased from approximately 1200 in 2008 to approximately 2,300 in 2017.

The costs of these hospitalizations could be avoided. In the state of Santa Catarina, these expenses totaled R \$ 92,043.38 in 2008, and increased by 80%, costing R \$ 166,375.92 in 2017.

Dornelas (2015) stated that epidemiological data have shown an overall increase in diseases related to the sexuality of the elderly. In Australia, cases of chlamydia and gonorrhea in the population over 50 years of age doubled between 2004 and 2010. In the United States, research diagnosed a 43% increase in syphilis, herpesvirus, and human papillomavirus rates in the same age group. According to WHO (2005), approximately 40 million people in the world are living with HIV / AIDS, with 2.8 million being 50 or older.

Data from the Ministry of Health (2012) pointed to a 42.8% increase in the incidence of HIV among people over 60 years of age between 1998 and 2010, diversifying the incidence rate from 4.9 to 7 cases per 100.000 inhabitants. From 1980 to 2012, 18712 HIV cases were reported in people aged over 60.

The results obtained in this research were relevant for all the multiprofessional team involved in the work, besides serving as a subsidy for planning and implementation of actions focused on the elderly population.

Caution is indicated in the generalization of the presented data, mainly in relation to the rapid tests, since this is not a population-based study, but rather it is adopted sampling for convenience.

It is considered that our results were significant in relation to Syphilis and Hepatitis B. There are few articles related to the incidence of STI in people over 60 years, through the use of tests or rapid testing. The only study found was the Botucatu - SP study previously mentioned, which had similar results.

Data from the Ministry of Health pointed out trends related to the increase in Sexually Transmitted Infection rates in the elderly population, which occurred in the last 10 years. A survey conducted in São Paulo - SP showed an increase in the detection of syphilis from 17 / 100,000 people in 2010, to 45.5 / 100,000 in 2013 (BRASIL, 2014).

WHO (2005) reported lacking reliable data to assess the actual situation of STI cases in the elderly. He also reported that there are few investigations on risk factors and the transmission route in this age group. Although sexual activity is the most likely route, professional screening is still not common.

Another factor to be considered is that rapid tests were performed on individuals of both genders, over 60 years old in the local elderly groups, noting that none of the patients with positive results for hepatitis B, hepatitis C and syphilis had been tested diagnosed in the daily life of health services. In view of this, Ayres (2012) reported that the majority of the elderly population is not aware of their vulnerability and thus may be fragile in public policies regarding the prevention, diagnosis and treatment of these diseases.

Considering that the population over 60 years old in the Municipality of São Miguel do Oeste increased from 2,741 to 4,391 people (IBGE, 2012), the age increase in 17 years is also observed. Thus, Zornita (2008) and Pottes (2007) described that the gradual increase of Sexually Transmitted Infections in the elderly is related to the increase in life expectancy, increased sexual activity due to the use of hormone replacement, treatments for erectile dysfunctions and also related to the lack of awareness of the risk of diseases and the non-use of condoms.

Pedrosa (2011) reported that 74% of men and 56% of married women maintain active sexual life after 60 years of age. In another study, Laroque (2011) showed that the elderly sought information about sexuality through the media. No participant reported having talked to health professionals about their sexuality, proving that there are barriers and taboos related to the topic. The author also explains that low adherence to condoms occurs through the difficulty of the elderly perceive their vulnerability to STIs. The idea of marriage and married life as a protection factor, the conviction of fidelity for having a fixed partner and the experience of the climacteric, justify this. In addition, Leite et al. (2007) reported

that the use of condoms for people over 50 is six times lower than in the younger age group.

Leite (2007) reported that 73% of the elderly who participate in the groups destined for the elderly, have already had information on STIs and HIV / AIDS, but evaluate that they are not dangerous to contract these diseases. In the same study, 21% of respondents used condoms. The Ministry of Health (2009) mentioned that, given the increase in quality of life, stimuli to socialization and creation of bonds, existence of collective activities such as groups involving dance, alcoholic drink intake, hormonal treatments, medicines that enable improvements in performance sexual intercourse, have provided new encounters among the elderly, and through this rediscovery of new experiences, there is an increase in sexual activity.

The rapid testing campaign for the elderly provided health information and distributed condoms through the Secretariat of Health. Given the results obtained, the study could serve as a subsidy for new campaigns focused on the subject.

Foster (2012), Saldanha (2009), Diniz (2009), Brazil (2009), Figueiredo (2009), agreed that even with the first cases of HIV in the elderly occurring 20 years ago, the misconceptions related to sexuality in this population continue. It is common for health professionals to consider the elderly as asexual, and thus do not promote the preventive approach. This neglect of sexuality in old age is common in everyday care. The socio-cultural change related to the attitudes of the professionals would naturally consider sexual activity in the third age, making quick tests a routine procedure. As a result, there would be inclusion of Healthy Aging in policies at all levels of government, ensuring full access to services according to the need of the elderly.

It is important that age discrimination be tackled by incorporating a new look and understanding about aging, and this can not be based on outdated stereotypes. This demands acceptance of diversity and acknowledgment of daily prejudice.

## Conclusion

The objective of this study was reached, being possible to construct considerations related to the vulnerabilities of this population. Many studies have mentioned the lack of prevention campaigns and health promotion aimed at sexuality for the elderly. There was also a lack of research on this subject for this population. It can also be noticed that, even though the increase in STIs is evident in the population over 60, this group of people is often excluded from public policies related to STI health education, promotion and prevention. Therefore, there is a need for the awareness of health professionals about changes in behavior regarding the elderly population.

Still, there is little financial incentive related to the topic, since the forms of prevention for STIs

are concentrated in the younger population. The main challenges are to build prevention plans that are consistent with the age and lifestyle of this population. Campaigns could be made with information leaflets, poster dissemination, radio advertisements, internet, television, cinema and creating spaces for discussion in groups, using social, cultural and language practices in the described age range. The aging process requires articulation and preparation. Health professionals are the main actors in this process and should be encouraged to recognize changes in behavior, identify the profile of this population and to develop scientific research on the subject.

The study confirmed that health professionals need to consolidate knowledge related to the sexuality of the elderly population, develop personal skills to deal with the issue and provide the elderly empowerment, ensuring health promotion, reducing morbidity and mortality indicators and reducing costs due to hospitalizations for sexually transmitted diseases. Continuing education is essential and proposes integral care for the patient. The professional will be prepared to answer and clarify doubts related to the sexuality of the elderly public. These procedures could happen in the routine of the units in a natural way and without taboos. Notification of suspected and confirmed cases is important for the data to be real.

It is hoped that this study has contributed to the professionals developing a critical, systematic, reflective, problematizing and humanized sense for the direction of health policies focused on the theme.

### Acknowledgment

I thank the Secretariat of Education of the state of Santa Catarina for providing the specialization course in Collective Health: Emphasis on Family Health Strategy, with the assistance of the FUNDES grant, and thus encouraging professionals to seek personal and professional qualification in for a humane, efficient and resolute National Health System. Thanks also to all the teachers of the course who were so important in this learning process, to friends, colleagues and family for the encouragement and constant support. I thank the Municipal Health Secretariat of São Miguel do Oeste - SC for opportunizing the research to be carried out. To each one of you, my gratitude. This achievement is shared!

### References

ANDRADE, J. et al. In: Vulnerabilidade de idosos a infecções sexualmente transmissíveis. Acta Paul. Enferm., São Paulo, v. 30, n. 1, p. 8-15, Jan., 2017. Disponível em: [http://www.scielo.br/scielo.php?script=sci\\_arttext&pid=S0103-21002017000100008&lang=pt](http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0103-21002017000100008&lang=pt)

AYRES, J. R.; PAIVA, V.; JÚNIOR, I. F. Conceitos e práticas de prevenção: da história natural da doença ao quadro da vulnerabilidade e direitos humanos.

Curitiba: Editora Juruá, 2012. 71-94 p.

BRASIL, Ministério da Saúde (MS). Departamento de Informática do SUS, DATA SUS, Portal da Saúde, SUS, 2012. Disponível em: <http://datasus.saude.gov.br/>

BRASIL. Ministério da Saúde Brasília (BR). Departamento de DST, Aids e Hepatites Virais Diagnóstico de Idosos 2009. Disponível em: <http://www.aids.gov.br/pagina/diagnostico-de-idosos>

BRASIL, Ministério da Saúde (MS). Política Nacional de Saúde da Pessoa Idosa. Brasília: Ministério da Saúde: 2006. Disponível em: [http://bvmsms.saude.gov.br/bvs/saudelegis/gm/2006/prt2528\\_19\\_10\\_2006.html](http://bvmsms.saude.gov.br/bvs/saudelegis/gm/2006/prt2528_19_10_2006.html)

BRASIL. Ministério da Saúde (MS). Secretaria de Vigilância em Saúde. Departamento de DST, AIDS e Hepatites Virais. *Boletim Epidemiológico AIDS-DST 2011 - Versão Preliminar*. 2012. Disponível em: [http://www.aids.gov.br/sites/default/files/anexos/publicacao/2011/50652/boletim\\_aids\\_2011\\_final\\_m\\_pdf\\_26659.pdf](http://www.aids.gov.br/sites/default/files/anexos/publicacao/2011/50652/boletim_aids_2011_final_m_pdf_26659.pdf)

BRASIL, Ministério da Saúde (MS). Departamento de vigilância, prevenção, e controle das IST, do HIV, AIDS e das Hepatites virais, 2017. Disponível em: <http://www.aids.gov.br/pt-br/publico-geral/o-que-sao-ist>

BRASIL. Ministério da Saúde (MS). Boletim Epidemiológico de HIV/aids. Brasília: Secretaria de Vigilância em Saúde, Departamento de DST, Aids e Hepatites Virais. Brasília (DF): Ministério da Saúde; 2014. 84p.

CEZAR, A. K.; AIRES, A.; PAZ, A. A. In: Prevenção de doenças sexualmente transmissíveis na visão de idosos de uma estratégia da Saúde da família. Ver. Bras. Enferm., Brasília, v. 65, n. 5, p. 745-50, Set/Out., 2012. Disponível em: <http://www.scielo.br/pdf/reben/v65n5/05.pdf>

DINIZ, R. F.; SALDANHA, A. A. W. Representações sobre AIDS na Velhice por Agentes Comunitários de Saúde. In: Congresso Virtual. Anais do 8 Congresso Virtual HIV/AIDES., 2008. Disponível em: [http://www.aidscongress.net/article.php?id\\_comunicacao=328](http://www.aidscongress.net/article.php?id_comunicacao=328).

DORNELAS NETO, J. et al. In: Doenças sexualmente transmissíveis em idosos: uma revisão sistemática. Ciênc. Saúde Coletiva, Rio de Janeiro, v. 20, n. 12, p. 3853-3864, Dez., 2015. Disponível em: [http://www.scielo.br/scielo.php?script=sci\\_arttext&pid=S1413-81232015001203853&lang=pt](http://www.scielo.br/scielo.php?script=sci_arttext&pid=S1413-81232015001203853&lang=pt)

FIGUEIREDO, M. A. C.; PROVINCIALI, R. M.

- HIV/AIDS em pessoas idosas: vulnerabilidade, Convívio e Enfrentamento. In: Congresso Virtual: Anais do 7. Congresso Virtual HIV/AIDS. São Paulo. Anais Portugal. Disponível em: [http://www.aidscongress.net/article.php?id\\_comunicacao=280](http://www.aidscongress.net/article.php?id_comunicacao=280)
- FOSTER, V.; CLARK, P. C.; HOLSTAD, M. M.; BURGESS E. In: Factors associated with risky sexual behaviors in older adults. J. Assoc. Nurs. AIDS Care, v. 23, n. 6, p. 487-99, 2012.
- INSTITUTO BRASILEIRO DE GEOGRAFIA E ESTATÍSTICA (IBGE). Brasília: Ministério do Planejamento, Orçamento e Gestão, 2012, Projeção da População das Unidades da Federação por sexo e grupos de idade: 2000-2030. Disponível em: <http://tabnet.datasus.gov.br/cgi/lbge/projpopuf.pdf>
- JUNQUEIRA, M. F. et al. In: Aspecto sócio demográfico e prevenção de doenças sexualmente transmissíveis em idosos. Fragmentos de Cultura, Goiânia, v. 22, n. 1, p. 97-109, Jan/Mar., 2012. Disponível em <http://seer.pucgoias.edu.br/index.php/fragmentos/article/viewFile/2290/1402>
- LAROQUE, M. F. et al. In: Sexualidade do idoso: comportamento para a prevenção de DST/AIDS. Rev Gaúcha Enferm., Porto Alegre, v. 32, n. 4, p. 774-80, Dez., 2011. Disponível em: <http://www.scielo.br/pdf/rgenf/v32n4/v32n4a19.pdf>
- LEITE, M. T.; MOURA C.; BERLEZI, E. M. In: Doenças Sexualmente Transmissíveis e HIV/AIDS na opinião de idosos que participam de grupos de terceira idade. Revista Brasileira de Geriatria e Gerontologia, v. 10, n. 3, p. 339-354, 2007. Disponível em: <http://www.redalyc.org/articulo.oa?id=403838775007>
- MASCHIO, M. B. M. et al., In: Sexualidade na terceira idade: medidas de prevenção para doenças sexualmente transmissíveis e AIDS. Rev. Gaúcha Enferm., Porto Alegre, v. 32, n. 3, p. 583-589, Set., 2011. Disponível em: [http://www.scielo.br/scielo.php?script=sci\\_arttext&pid=S1983](http://www.scielo.br/scielo.php?script=sci_arttext&pid=S1983)
- MOREIRA, T. M. et al. In: Conhecimento das mulheres idosas sobre doenças sexualmente transmissíveis, conhecimento, uso e acesso aos métodos preventivos. Ver. Eletr. Enf., v. 14, n. 4, p. 803-10, Out/Dez., 2012.
- NERY, V. A. S.; VALENÇA, T. D. In: Sexo e sexualidade no processo de envelhecimento. Revista Eletrônica da Fainor, Vitória da Conquista, v.7, n.2, p.20-32, Jul/Dez., 2014. Disponível em: <http://srv02.fainor.com.br/revista/index.php/memorias/article/viewFile/304/190>
- Organização Mundial da Saúde. (2005). Envelhecimento ativo: uma política de saúde. Brasília: Organização Pan-Americana de Saúde. Disponível em: [http://bvsmms.saude.gov.br/bvs/publicacoes/envelhecimento\\_ativo.pdf](http://bvsmms.saude.gov.br/bvs/publicacoes/envelhecimento_ativo.pdf)
- PEDROSA, V. L. et al. In: DST e suas Determinantes: Quatro Anos de Vigilância em um Centro Sentinela no Estado do Amazonas – Brasil. DST. J. Bras. Doenças Sex. Transm., n. 23, v. 2, p. 57-65, 2011.
- Pottes F. A. et al. In: Aids e envelhecimento: característica dos casos com idade igual ou maior que 50 anos em Pernambuco, de 1999 a 2000. Rev. Bras. Epidem., n. 10, v. 3, p. 338-51, Set., 2007.
- ROUQUAYROL, M.Z; FILHO, N.A. Epidemiologia e saúde. 5 ed. Rio de Janeiro: MEDSI, 1999
- SANTOS, A. F. M.; ASSIS M. In: Vulnerabilidade das idosas ao HIV/AIDS: despertar das políticas públicas e profissionais de saúde no contexto da atenção integral: revisão de literatura. Revista Brasileira de Geriatria e Gerontologia, v. 14, p. 147-157, 2011.
- SALDANHA, A. A. W.; ARAÚJO, F. L. A Aids na terceira idade na perspectiva dos Idosos, Cuidadores e profissionais de saúde. In: Congresso Virtual: Anais do 7. Congresso Virtual HIV/AIDS; 2006. Disponível em URL: [http://www.aidscongress.net/article.php?id\\_comunicacao=294](http://www.aidscongress.net/article.php?id_comunicacao=294)
- VERAS, R. In: Envelhecimento populacional contemporâneo: demandas, desafios e inovações. Rev. Saúde Pública, v. 43, n. 3, p. 548-554, 2009.
- VIANA, H. B.; MADRUGA, V. A. In: Sexualidade na velhice e qualidade de vida. Rev. Bras. De Qualidade de Vida, Ponta Grossa, v. 2, n. 2, p. 26-35, Jul/Dez., 2010. Disponível em: <https://periodicos.utfpr.edu.br/rbqv/article/view/735>
- ZORNITA M. Os novos idosos com AIDS: sexualidade e desigualdade à luz da bioética. 2008. Dissertação (Mestrado em Ciências na área de Saúde Pública) – Instituto de Comunicação e Informação Científica e Tecnológica, Escola Nacional de Saúde Pública Sérgio Arouca, Rio de Janeiro.