



OCCUPATIONAL ACCIDENTS WITH COMMUNITY HEALTH AGENTS

ACIDENTES OCUPACIONAIS COM AGENTES COMUNITÁRIOS DE SAÚDE

ACCIDENTES OCUPACIONALES CON AGENTES COMUNITARIOS DE SALUD

Daciane Souza dos Santos¹, Renan Sallazar Ferreira Pereira², Mirian Cristina dos Santos Almeida³, Fábila Silva Oliveira⁴, Miriam da Silva Rocha⁵, Zilmar Augusto de Souza Filho⁶, Alexandre de Souza Vieira⁷, Ana Paula Gomes Soares⁸

ABSTRACT

Objective: to analyze the occurrence of work accidents with community health agents. **Method:** this is a quantitative, field, descriptive, cross-sectional study with 45 agents, the results are presented in figure form. **Results:** 13 (28.89%) reported having suffered some kind of work-related accidents, totaling 22 accidents, of which 14 (63.63%) were of the typical type, five (22.73%) were diseases of the work and three (13.64%) were road accidents. It was estimated that, among the reported work accidents, 36.36% referred to accidents without collision, 22.72% to falls, 18.18% to exposure to blows or bites of dogs or cats and 13, 64% to infectious and parasitic diseases. The motorcycle was pointed out as the main causal agent, representing 22.73% of the total. Only two accidents were reported (9.09%). **Conclusion:** it was perceived, before the analysis, that the factors capable of harming the health of the agents are subject to the particularities of the work carried out in the microarea, making it necessary to broaden the perception of the contexts on the conditionality of the work of these professionals, as well as the discussion about the mechanisms of protection that can be implemented. **Descriptors:** Accidents; Community Health Agents; Occupational Risks; Workplace; Work Conditions; Worker's Health.

RESUMO

Objetivo: analisar a ocorrência de acidentes de trabalho com agentes comunitários de saúde. **Método:** trata-se de um estudo quantitativo, de campo, descritivo, transversal, com 45 agentes, apresentam-se os resultados em forma de figura. **Resultados:** constatou-se que 13 (28,89%) declararam ter sofrido algum tipo de acidentes de trabalho, totalizando 22 acidentes, dos quais 14 (63,63%) foram do tipo típico, cinco (22,73%) foram doenças do trabalho e três (13,64%) foram acidentes de trajeto. Calculou-se que, entre os acidentes de trabalho relatados, 36,36% referem-se aos acidentes de transporte sem colisão, 22,72% às quedas, 18,18% à exposição a golpes ou mordeduras de cães ou gatos e 13,64% às doenças infecciosas e parasitárias. Apontou-se a motocicleta como o principal agente causador, representando 22,73% do total. Notificaram-se apenas dois acidentes (9,09%). **Conclusão:** percebeu-se, diante da análise, que os fatores capazes de prejudicar a saúde dos agentes estão sujeitos às particularidades do trabalho exercido na microárea, fazendo-se necessário ampliar a percepção dos contextos sobre a condicionalidade do trabalho destes profissionais, bem como a discussão acerca dos mecanismos de proteção passíveis de serem implementados. **Descritores:** Acidentes de Trabalho; Agentes Comunitários de Saúde; Riscos Ocupacionais; Ambiente de Trabalho; Condições de Trabalho; Saúde do Trabalhador.

RESUMEN

Objetivo: analizar la ocurrencia de accidentes de trabajo con agentes comunitarios de salud. **Método:** se trata de un estudio cuantitativo, de campo, descriptivo, transversal, con 45 agentes, se presentan los resultados en forma de figura. **Resultados:** en el caso de los accidentes de trabajo, se observó que 13 (28,89%) declararon haber sufrido algún tipo de accidentes de trabajo, totalizando 22 accidentes, de los cuales 14 (63,63%) fueron del tipo típico, cinco (22,73%) fueron enfermedades del trabajo y tres (13,64%) fueron accidentes de trayecto. Se calculó que, entre los accidentes de trabajo reportados, el 36,36% se refieren a los accidentes de transporte sin colisión, el 22,72% a las caídas, el 18,18% a la exposición a golpes o mordeduras de perros o gatos y 13, 64% a las enfermedades infecciosas y parasitarias. Se apuntó la motocicleta como el principal agente causante, representando el 22,73% del total. Se notificaron solamente dos accidentes (9,09%). **Conclusión:** se percibió, ante el análisis, que los factores capaces de perjudicar la salud de los agentes están sujetos a las particularidades del trabajo ejercido en la microárea, haciéndose necesario ampliar la percepción de los contextos sobre la condicionalidad del trabajo de estos profesionales, así como la discusión sobre los mecanismos de protección pasibles de ser implementados. **Descriptores:** Accidentes de Trabajo; Agentes Comunitarios de Salud; Riesgos Laborales; Ambiente de Trabajo; Condiciones de Trabajo; Salud Laboral.

^{1,4}Nurse, University Center AGES / UniAGES. Paripiranga (BA), Brazil. Email: dacianesouza@hotmail.com.br ORCID iD: <https://orcid.org/0000-0003-1010-5933>; Email: fabiacerodantas@hotmail.com ORCID iD: <https://orcid.org/0000-0002-9728-0488>;

²Master, Federal University of Tocantins / UFT. Palmas (TO), Brazil. Email: renansallazar@gmail.com ORCID iD <https://orcid.org/0000-0001-5140-4046>; ^{3,8}PhD, Federal University of Tocantins / UFT. Palmas (TO), Brazil. Email: miriandresp@hotmail.com ORCID iD: <https://orcid.org/0000-0002-9178-1345>; Federal University of Tocantins / UFT. Palmas (TO), Brazil. ^{5,6}PhDs, Federal University of Amazonas / UFAM, Manaus (AM), Brazil. Email: mluiza1@bol.com.br ORCID iD: <https://orcid.org/0000-0002-0891-0514>; Email: augusto.eem.ufam@hotmail.com ORCID iD: <https://orcid.org/0000-0002-3146-8445>; ⁷Master, Federal University of Amazonas / UFAM. Palmas (TO), Brazil. Email: professoralexandreufam@yahoo.com.br ORCID iD <https://orcid.org/0000-0002-9938-8505>

INTRODUCTION

Occupational accidents (OA) are considered to be the greatest health problem for workers, constituting a relevant public health problem due to their high incidence and social and economic implications. It is known, however, that the knowledge about the scale of the problem is still quite limited, mainly due to the underreporting that prevents proper analysis of the potential factors that are in its origin.¹ It is observed that the OAs are predictable and therefore susceptible to prevention, facilitated through the study of working conditions with the identification of risks and the lifting of technical intervention mechanisms necessary for their adaptation and improvement.

According to the Statistical Yearbook of Social Security (SYSS), 2 in 2015, in Brazil, 612,632 occupational accidents, including 2,502 deaths and 11,028 permanent incapacity generators were recorded, considering only registered workers with a portfolio. In contrast, in the same period mentioned, by the National Institute of Social Security (NISS), 22,450 accidental benefits were granted. It is understood that OA is a worldwide public health problem because it is fatal, disabling and particularly affects young people of productive age and has a negative impact on the economy and society in general.³

It is observed that the community health agents (CHA) make up a group of health professionals whose work dynamics is complex and presents several particularities potentiated by the fact that they work in the same place of residence and work in the Family Health teams, performing activities external to the health unit.⁴ The occupational profile of CHAs is defined as that of professionals who work most of the time outdoors and in locomotion, an important feature that causes them to be exposed to more risk factors for workplace accidents, such as urban violence and accidents of traffic.

It integrates the CHA into the Family Health Strategy (FHS), responsible for monitoring all families in an adjoining territory (microarea) with up to 750 people. Among their specific functions are the registration and follow-up, through a monthly home visit, to the families of their micro-area and the development of activities to promote health, disease prevention and health surveillance.⁵

It is an important professional in the context of the actions of the Unified Health System (UHS), but it is exposed to numerous

inadequate working conditions that can lead to illness, accidents and death. Studies^{4,6} show that an exhausting work routine with long walks under unfavorable climatic conditions, use of unsafe means of transport, interaction with people with infectious and parasitic diseases, contact with ferocious animals, attendance in areas at risk of exposure to solar radiation and dust and an intense work load.

It is observed the scarcity of research that evaluates the occupational accidents related to CHA in Brazil such that studies of this type are non-existent in the city of Cícero Dantas, Bahia, thus justifying the importance of this study.

OBJECTIVE

- To analyze the occurrence of work accidents with community health agents.

METHOD

This is a cross-sectional, cross-sectional, quantitative study carried out with CHA from the Cícero Dantas Family Health Strategy Teams (FHS), which integrates the research "Referred Morbidity and Work Accidents Occurred with Community Health of Cícero Dantas (BA)" developed by researchers from the Group of Studies and Interdisciplinary Research in Health (GSIRH) of the Centro Universitário AGES, in Paripiranga (BA).

As subjects, 45 of the 71 CHAs that operated in the city were used, corresponding to a sample of 63.38%. It is noteworthy that of the 26 CHA that did not participate in the research, six were on medical leave; 12, on vacation and eight refused to participate.

The data was collected in April 2018, having as inclusion criteria all the CHA that make up the cadre of the Municipal Health Department of Cícero Dantas, who worked during the period of data collection and who accepted to participate in the research after consent in the Free and Informed Consent Term.

Data was collected through the direct application of semi-structured questionnaires whose questions were organized according to the characterization of the subjects, the work performed in the community and the occupational accidents.

The research was carried out under the authorization of the City Hall of Cícero Dantas and with the approval of the Ethics Committee in Research of the University Center AGES (Opinion No. CAAE 87524518.7.0000.8013), following the ethical precepts of Resolution 466/2012.

For the analysis of the data, simple descriptive statistics techniques with the presentation of categorical series and the distribution of frequencies made possible by Excel-Office 2010 software were adopted. Copyright Microsoft Corporation. Accident events referred to according to the International Statistical Classification of Diseases and Related Health Problems (ICD10).⁷

RESULTS

It was verified that, in the profile, the CHA are predominantly female (75.56%), with ages varying from 30 to 39 years (44.44%) and from 40 to 49 years (33.33%), married (48.89%), with one or two children (62.22%) and with a family income of up to R \$ 2,000 (71.11%). The mean time of service as CHA was 13.22 (dp 4.61), with the majority (20; 44.44%) working as CHA for more than 15 years.

It was found that the average transport time between the residence and the BHU was 18.21 minutes (dp 24.35), and the types of transportation most used to go from the residence to the UBS and to work on the microarea were "on foot" (46.67% and 64.44%, respectively) and "motorcycle" (37.78% and

20%). It was verified that there is no standardization on the types and use of Personal Protective Equipment (PPE): 24 (53.33%) reported using some type of PPE, whereas, of the 21 (46.67%) who reported never used, 15 (71.42%) justified that they did not receive them from the employer. It was reported, considering all the answers about the types of PPE and utensils used, the use of cap, jeans, long sleeve shirt, closed shoe, umbrella, sunscreen and helmet.

It was noticed, in relation to the occurrence of work-related accidents among the CHA in the municipality of Cícero Dantas, that 13 (28.89%) declared to have suffered some type of OA; of these, the majority (53.84%) reported having suffered only one accident during the entire time of service while CHA. A total of 22 accidents were identified: 14 (63.63%) classified as typical, five (22.73%) as occupational diseases and three (13.64%) as commuting.

The motorcycle was the main agent causing OA, representing 22.73% of the occurrences, as shown in Figure 1. It was noted that of the 22 reported accidents, only two (9.09%) were reported and two (9.09%) resulted in the removal of CHA.

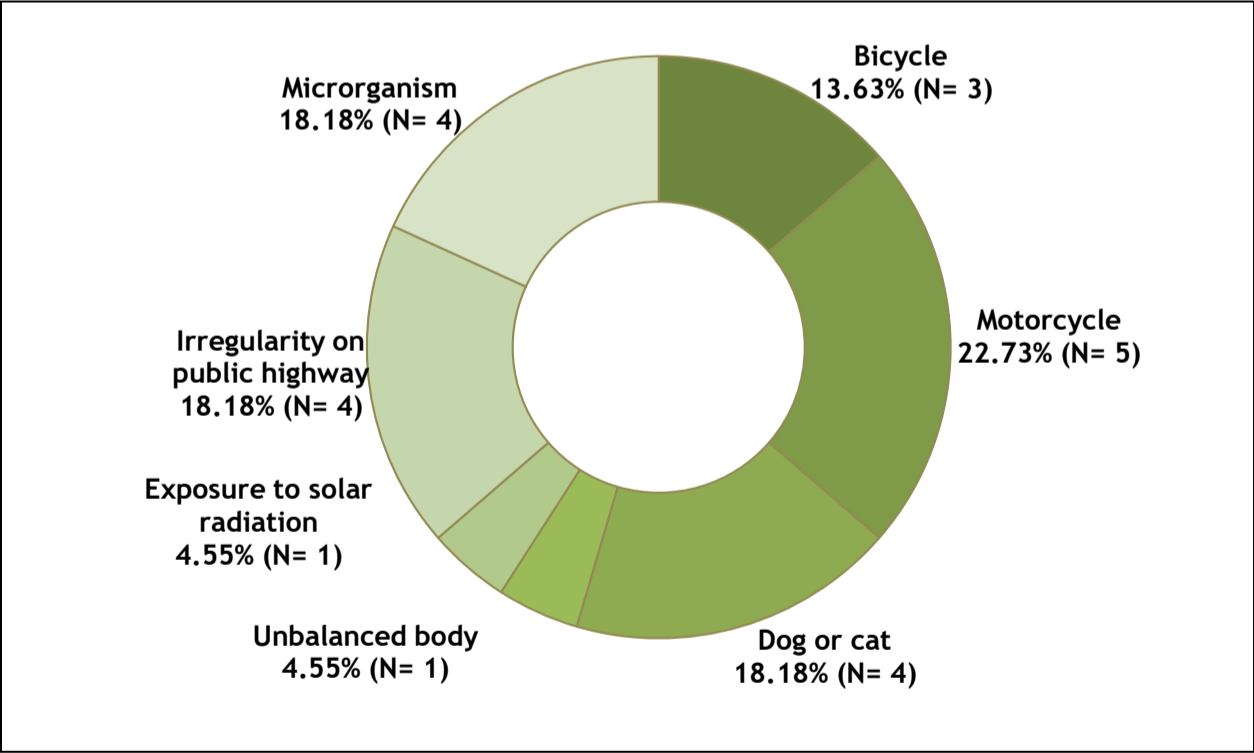


Figure 1. Distribution of work accidents according to the causative agent. Cícero Dantas (BA), Brazil, 2018.

It is considered among the reported work accidents that the majority (36.36%) refers to non-collision transportation accidents, 22.72% to falls, 18.18% to blows or bites of dogs or cats, 13.64% to infectious and parasitic diseases, 4.55% to disorders of the respiratory

system and also 4.55% to disorders of skin and subcutaneous tissue. Table 1 shows the accidents reported by CHAs grouped according to the International Statistical Classification of Diseases and Related Health Problems - ICD10.⁷

Table 1. Distribution of self-reported occupational accidents by the CHA, according to ICD 10. Cícero Dantas (BA), Brazil, 2018.

Self-reported Accidents by CHA	n	%
B00-B99 - Infectious and parasitic diseases	3	13.64
B86 - Scabies (mange)	3	13.64
J00-J99 - Respiratory tract disorders	1	4.55
J11 - Influenza (flu) due to unidentified virus	1	4.55
L00-L99 - Skin and Subcutaneous Tissue Disorders	1	4.55
L55 - First degree sunburn	1	4.55
V10-V29 - Transport Accidents without Collision	8	36.36
V18 - Cyclist injured in collision-free transport accident	3	13.64
V28 - Motorcyclist injured in collision-free transport accident	5	22.72
W00-W19 - Falls	5	22.72
W19 - Fall without specification	1	4.55
W19.4 - Fall without specification - street and highway	4	18.18
W50-W64 - Exposure to animated mechanical forces	4	18.18
W54 - Dog Bite or Attack	1	4.55
W55 - Bite or attack from other mammalian animals	3	13.64
Total	22	100.00

DISCUSSION

It was shown that the sociodemographic profile of CHAs in this study is similar to that found in other regions of Brazil^{6,8}, with a predominantly female population, a characteristic that, according to some authors,⁹⁻¹¹ can be attributed to the fact that the community presents greater resistance to the male CHA due to situations of embarrassment experienced mainly by women receiving them at home when they are alone or when talking about subjects such as women's health and female diseases. The social representation of women was also raised as a figure responsible for care, which is why women's predominance in other health professions, such as nursing technicians and nurses, is also evident. These are gender issues that need to be deconstructed between professionals and the community.¹⁰

It was identified that the mean age was also similar to the mentioned studies: the majority of those surveyed were young adults, the age group in which the professional has more energy for work, and higher productivity. This is considered the phase of greater activity and, consequently, also of greater exposure to risks.

It is associated the profile of occurrence of work accidents involving the CHA of this study to the type of transport used to go from the residence to the BHU and to exercise the work in the microarea. It was found that, with an average transport time between the residence and the BHU calculated in about 18 minutes, some CHA (37.78%) use the motorcycle as a means of transportation. It was also observed that the fact that the residences are located very distant or isolated, especially in the rural

area, causes that the CHA (20%) also use this type of transport to carry out the home visits. It should be noted that, considering the motorcycle as the main agent that causes OA (22.73%), most accidents refer to collision-free accidents.

Despite the fact that the national fleet of cars corresponds to twice the number of motorcycles, the number of accidents involving motorcycles is much higher than that of motor vehicles.¹²⁻¹³ In this type of transport, the use of the helmet is required as protective equipment and, in relation to this factor, it is important to emphasize that among the CHA that use the motorcycle, only one mentioned the use of helmet.

It is pointed out that motorcycle helmets are not used as one of the most important risk factors for the occurrence of head injury. It favors the occurrence of several other traumas in the same victim, such as the extremities, thorax and abdomen, due to the fact that the victims of motorcycle accidents are more exposed.¹³

It is emphasized, for the same reasons, that the bicycle, responsible for 13.63% of the mentioned accidents, also requires the use of safety equipment. Bicycle is recognized as the most used individual transport vehicle in the country, but the infrastructure necessary for its use is not available in all localities, and the cyclist's vulnerability occurs mainly in urban roads, where he shares the space with the automotive vehicles, causing the chance of occurrence of accidents to be 224.0% higher when compared to the rural area.¹⁴ Similar data is found in CHA in the north coast of São Paulo, where the highest occurrence of OA is related to transport accidents involving cyclists or motorcyclists.¹⁵ It is understood

that, as the work of the CHA, most of the time, on public roads, due to the accomplishment of home visits, they are more likely to suffer OA related to the mode of transport used, being essential the adoption of measures of prevention through traffic education and the promotion of the use of safety equipment, such as the helmet.

They reveal, behind the transport accidents, the falls as responsible for 22.72% of the accidents, being caused, for the most part, by irregularities of the public roads and by the imbalance of the own body. It is observed, as has been characterized in other studies,^{6,14} that falls constitute a common and quite prevalent type of accident.

Exposure to animated mechanical forces during rabies vaccination campaigns in dogs and cats (18.18%) is included, as are other OA causes among CHA. A similar situation is described in the literature¹⁶ when dealing with the working conditions of endemic agents. It is understood, in fact, that this activity demands, besides training, the use of specific equipment like muzzles.

It was also mentioned, by a CHA, the occurrence of first degree burn due to abrupt and unprotected sun exposure. Repeated and prolonged sun exposure is an important risk factor that is present in the daily life of all the professionals that perform external activities, such as CHA, and that can cause from changes in the skin, to the development of lesions of a neoplastic nature.

In a survey conducted in New Zealand with 1061 workers in nine occupations with potential for excessive sun exposure, the most commonly used personal sun protection measures were hat, sunglasses and sunscreen on exposed areas of the body. The workers' sun protection was strongly associated with the provision of PPE by the employer and the culture of support for sun protection, inferring that workplace factors and employer-led interventions are the ones that most influence the adequate sun protection of workers.¹⁷

In a study carried out in Araxá (MG) with CHA¹⁸, it was shown that the solar exposure time to which CHA are subjected exceeds four hours per day, and the time of greatest intensity is between ten and 16 hours. It was found that, in this study, the number of CHA that use some mechanism of photoprotection is low. This information refers to the need to create a safety culture, including the provision by the employer of photoprotective agents and the adoption of a preventive approach on the part of these professionals, including the regular use of photoprotectors and regular skin self-inspection.

It should also be pointed out that infectious diseases referred to as occupational accidents due to their acute nature - scabies and infections of the upper airways - can not be said to have been contracted during home visits, through contact with infected clients, and that it is important to consider contact with infected persons at home as frequent and unavoidable in the work of CHA.

It is verified, taking into account the classification of OA as typical (due to the exercise of the professional activity), of course (occurring during the journey between the residence and the place of work and vice versa) and work sickness (produced by the exercise of the work peculiar to the branch of activity included in the Brazilian Social Security Regulation),² in this study, that accidents are categorized, for the most part, as typical, emphasizing the importance of promoting better working conditions. Accidents of transport were classified according to the place of occurrence, being considered typical when they occurred during the trip to the home visit, or of course, when the CHA was affected during the trip to work or in the return to his residence.

It was found that the number of non-reported accidents was quite high (90.91%). A failure in the system of communication between them and the Municipal Health Department as an employer was denounced as justification by the CHA, since the workers judge the lack of solvency premeditatedly to the attempt of notification, which is associated with other factors also stated, such as lack of knowledge, lack of motivation, lack of experience and guidance, resulting in lack of notification and negligence as to their importance.

CONCLUSION

It was possible, with this study, to identify the occupational accidents that occurred with CHA in the city of Cícero Dantas (BA), analyzing the characteristics of the conditions that involve them.

It can be seen from the analysis that the factors capable of impairing the health of the CHA are subject to the particularities of the work performed in the microarea. Thus, as a predisposing factor for OA, the difficulty of locomotion to perform home visits, involving the use of the motorcycle as a means of transport, exposure to solar radiation and high temperatures, contact with pathogenic biological agents during visits to sick domiciles and exposure to lively forces in vaccination campaigns was perceived.

The adoption of safety equipment is required as regards the safety measures, since the risks to which the agents are exposed are recurrent and can cause work accidents, as demonstrated in this study. It is therefore essential to broaden the perception of the contexts regarding the conditionality of the work of these professionals, as well as the discussion about the mechanisms of protection that can be implemented and the stimulus to self-care that should start from the CHA.

Lastly, the reasons given by the CHA for failing to notify accidents reveal a problem that also needs to be discussed, as well as improving the communication process between management and workers, by establishing an information policy that appropriate levels of notification according to the occurrence of the grievances.

It is concluded that, due to the small number of participants in this study, it is necessary to carry out similar research in other Brazilian municipalities, with the objective of investigating sickness and work-related accidents in the CHA, and seeking to reinforce and support actions prevention of health problems for these professionals, such as the standardization of PPE and investment in worker safety culture.

REFERENCES

1. Cavalcante CAA, Cossi MS, Costa RRO, Medeiros SM, Menezes RMP. Critical analysis of accidents at work in Brazil. RAS. 2015 Apr/June;13(44):100-09. Doi: [10.13037/ras.vol13n44.2681](https://doi.org/10.13037/ras.vol13n44.2681)
2. Ministério da Fazenda (BR), Secretaria de Previdência. Anuário Estatístico da Previdência Social 2015 [Internet]. Brasília: Ministério da Previdência Social; 2015 [cited 2017 Dec 15]. Available from: <http://sa.previdencia.gov.br/site/2015/08/AE-PS-2015-FINAL.pdf>
3. Santos EC, Gonçalves LFP, Amorim CR, Pereira TCL, Silva ACC. Perfil dos acidentes de trabalho na região sudoeste da Bahia. Rev Enferm Contemporânea. 2015 Jan/June;4(1):57-64. Doi: <http://dx.doi.org/10.17267/2317-3378rec.v4i1.328>
4. Medeiros LNB, Guedes CDFS, Silva DRS, Souza TKC, Costa ABC, Araújo Neta BPA. Condições laborais e o adoecimento dos agentes comunitários de saúde: revisão integrativa. Rev Eletr Estácio Saúde [Internet]. 2015 [cited 2017 Dec 15];4(2):180-192. Available from: <http://revistaadmmade.estacio.br/index.php/sauesantacatarina/article/view/1809>
5. Ministério da Saúde (BR), Gabinete do Ministro. Portaria n°. 2.488, de 21 de outubro de 2011. Aprova a Política Nacional de Atenção Básica, estabelecendo a revisão de diretrizes e normas para a organização da Atenção Básica, para a Estratégia Saúde da Família (ESF) e o Programa de Agentes Comunitários de Saúde (PACS) [Internet]. Brasília: Ministério da Saúde; 2011 [cited 2017 Dec 15]. Available from: http://bvsms.saude.gov.br/bvs/saudelegis/gm/2011/prt2488_21_10_2011.html
6. Almeida MCS, Baptista PCP, Silva A. Workloads and strain process in Community Health Agents. Rev Esc Enferm USP. 2016 Feb;50(1):93-100. Doi: <http://dx.doi.org/10.1590/S0080-623420160000100013>
7. Organização Pan-Americana de Saúde; Organização Mundial de Saúde. Classificação Estatística Internacional de Doenças e Problemas Relacionados à Saúde: CID-10. São Paulo: Saraiva; 2008.
8. Krug SBF, Dubow C, Santos AC, Dutra BD, Weigelt LD, Alves LMS. Work, suffering and illness: the reality of community health agents in southern brazil. Trab Educ Saúde. 2017, Sept/Dec;15(3):771-88. Doi: <http://dx.doi.org/10.1590/1981-7746-sol00078>
9. Krug SBF, Santos AC, Dutra BD, Bender KG, Sehnem L, Alves LMS, et al. Suffering and illness at the community health agents work: a study on family health strategies. Rev UNIABEU [Internet]. 2015 Sept/Dec [cited 2017 Dec 23];8(20):363-79. Available from: http://revista.uniabeu.edu.br/index.php/RU/article/view/2118/pdf_299
10. Castro TA, Davoglio RS, Nascimento AAJ, Santos KJS, Coelho GMP, Lima KSB. Community Health Agents: sociodemographic profile, employment and satisfaction with work in a city of Bahia's semiarid. Cad Saúde Coletiva. 2017;25(3):294-301. Doi: <http://dx.doi.org/10.1590/1414-462x201700030190>
11. Santos FAAS, Sousa LP, Serra MAAO, Rocha FAC. Factors that influence the quality of life of community health workers. Acta Paul Enferm. 2016; 29(2):191-7. Doi: <http://dx.doi.org/10.1590/1982-0194201600027>
12. Lopes ALC, Almeida AC, Couto KG, Santos NM, Ferreira JC, Silva ACR, et al. Prevalence of traffic accidents attended by mobile emergency care service of the Rio Verde municipality, Goiás. Rev Univ Vale do rio Verde. 2018 Jan/July; 16(1):1-6. Doi: <http://dx.doi.org/10.5892/ruvrd.v16i1.3876>

13. Santos SMJ, Souza MA, Rocha FL, Souza VP, Muniz MAS, Rodrigues JA. Characterization of the risk factors for traffic accidents in victims tended to by the mobile emergency care service. J Nurs UFPE on line. 2016 Oct; 10(10):3819-24. Doi:

<https://doi.org/10.5205/1981-8963-v10i10a11448p3819-3824-2016>

14. Ferreira Júnior AR, Torres ARA, Silva CMA. Condições laborais dos agentes de combate a endemias e seus efeitos à saúde. Essentia [Internet]. 2015 [cited 2018 Jan 10]; 16(Spe): 77-95. Available from:

<http://www.uvanet.br/essentia/index.php/revistaessentia/article/view/66/64>

15. Almeida MCS, Baptista PCP, Silva A. Occupational accidents involving community health agents. Rev Enferm UERJ. 2016; 24(5):e17104. Doi:

<http://dx.doi.org/10.12957/reuerj.2016.17104>

16. Souza CA, Bahia, CA, Constantino P. Analysis of factors associated with traffic accidents of cyclists attended in Brazilian state capitals. Ciênc Saúde Coletiva. 2016 Dec; 21(12):3683-90. Doi: [10.1590/1413-812320152112.24152016](https://doi.org/10.1590/1413-812320152112.24152016)

17. Reeder Al, Gray A, McCool JP. Occupational sun protection: workplace culture, equipment provision and outdoor workers' characteristics. J Occup Health. 2013; 55(2):84-97. PMID:23385117

18. Nobre RAP, Porto NT, França-Botelho AC. Photoprotection and self-examination of the skin among health community agents in Araxá (MG). Rev Saúde Ciênc Online [Internet], 2016 [cited 2018 Jan 14];5(3):32-40. Available from:

<http://www.ufcg.edu.br/revistasauedeeciencia/index.php/RSC-UFCG/article/view/404/258>

Submission: 2018/05/04

Accepted: 2019/01/13

Publishing: 2019/02/01

Corresponding Address

Renan Sallazar Ferreira Pereira
Rua Terezina, 495
Bairro Adrianópolis
CEP: 69057-070 – Manaus (AM), Brazil