

EPIDEMIOLOGICAL PROFILE OF WORKER WOMEN: ANALYSIS OF THE RECORDS IN THE WEST OF SANTA CATARINA**PERFIL EPIDEMIOLÓGICO DE MULHERES TRABALHADORAS: ANÁLISE DOS REGISTROS NO OESTE DE SANTA CATARINA****PERFIL EPIDEMIOLOGICO DE ANÁLISES DE MUJERES TRABAJADORAS: ANALISIS DE LOS REGISTROS EM EL OESTE DE SANTA CATARINA**

Michelly Carla Santin¹, Adriana Remião Luzardo², Milena Schneiders³, Alexandre Inácio Ramos⁴, Kassiano Carlos Sinski⁵, Vander Monteiro da Conceição⁶

ABSTRACT

Objective: To analyze the epidemiological profile of worker women involved in work-related accidents and/or diseases in the West of Santa Catarina. **Methods:** This is a descriptive cross-sectional epidemiological study of an observational nature, with retrospective data collection. Data were collected between 2012 and 2016. **Results:** The results showed that the predominant age group of injured women are between 20 and 39 years of age; the most prevalent types of injury are cutting and trauma; As for accidents, the most notable are those with biological material, RSI/WMSD, exogenous intoxications and unspecified work-related accidents, and the most frequently reported professions include the production line feeder, the occupation of Cleaner and the nursing technician. **Conclusion:** Notification of injuries to workers' health is necessary, and there is a need to plan and re-plan actions, programs and policies aimed at the health of working women that help in the prevention of accidents and injuries and especially in reducing unfavorable outcomes.

Descriptors: Women Working; Accidents Occupational; Occupational Diseases.

RESUMO

Objetivo: Analisar o perfil epidemiológico de mulheres trabalhadoras envolvidas em acidentes e/ou doenças relacionadas ao trabalho no Oeste de Santa Catarina. **Método:** Estudo epidemiológico transversal descritivo de caráter observacional, com coleta de dados retrospectiva. Os dados foram coletados no período de 2012 a 2016. **Resultados:** Os resultados mostraram que a faixa etária predominante de mulheres acidentadas são dos 20 aos 39 anos; os tipos de lesão mais prevalentes são a lesão cortante e traumatismo; quanto aos acidentes destacam-se os com material biológico, LER/DORT, intoxicações exógenas e os acidentes de trabalho não especificados. As profissões mais notificadas são: alimentador da linha de produção, faxineiro e técnico de enfermagem. **Conclusão:** A notificação dos agravos à saúde do trabalhador é necessária pensando no planejamento e replanejamento das ações, programas e políticas voltadas para a saúde da mulher trabalhadora que auxiliem na prevenção de acidentes e agravos e sobretudo na redução de desfechos desfavoráveis.

Descritores: Mulheres Trabalhadoras; Acidentes de Trabalho; Doenças Profissionais.

¹ Enfermeira, Universidade Federal da Fronteira Sul, Campus Chapecó - SC.

² Enfermeira, Doutora em Enfermagem, Universidade Federal da Fronteira Sul, Campus Chapecó – SC.

³ Acadêmica de Enfermagem, Universidade Federal da Fronteira Sul, Campus Chapecó – SC.

⁴ Acadêmico de Enfermagem, Universidade Federal da Fronteira Sul, Campus Chapecó – SC.

⁵ Acadêmico de Enfermagem, Universidade Federal da Fronteira Sul, Campus Chapecó – SC.

⁶ Enfermeiro, Doutor em Ciências, Universidade Federal da Fronteira Sul, Campus Chapecó – SC.

RESUMEN

Objetivo: analizar el perfil epidemiológico de mujeres trabajadoras involucradas en accidentes y/o enfermedades relacionadas al trabajo en el Oeste de Santa Catarina, Brasil. **Método:** se trata de una investigación epidemiológica transversal descriptiva de carácter observacional, con colecta de datos retrospectiva. Los datos fueron colectados en el período de 2012 a 2016 y obtuvieron una totalidad de 3.084 notificaciones relativas a los accidentes del trabajo y enfermedades relacionadas al trabajo de la mujer. **Resultados:** los resultados mostraron que las edades predominantes de mujeres accidentadas son de los 20 a los 39 años, los tipos de lesiones más comunes son la lesión cortante y el traumatismo; cuanto a los accidentes se destacan con material biológico, las *LER/DORT*, las intoxicaciones exógenas y los accidentes de trabajo no especificado y cuanto las profesiones más notificadas se evidencia el alimentador de la línea de producción, la ocupación de limpiador y la del técnico en enfermería. **Conclusión:** Por lo tanto, la notificación de los agravios a la salud del trabajador es necesaria, ocurriendo la necesidad en planear y replantear acciones, programas y políticas enfocadas a la salud de la mujer trabajadora que ayuden en la prevención de accidentes y agravios y sobre todo de desenlaces desfavorables. **Descriptor:** Mujeres Trabajadoras; Accidentes de Trabajo; Enfermedades Profesionales.

INTRODUCTION

Labor, in the capitalist model, is determined by the production process, in which accident and illness are economic and social problems.¹ The International Labor Organization has estimated that 2.34 million people die every year due to accidents and work-related illnesses, 2.02 million (86.3%) caused by occupational diseases and 321 thousand as a result of work accidents. There are 6,300 daily work-related deaths, 5,500 caused by occupational diseases.²

The concept of accident at work is defined by Law 8,213/1991 in its article 19, which establishes: “Accident at work is what occurs due to the exercise of work at the service of the company, or even by the work of special insured persons, causing bodily injury or functional disturbance that causes death, loss or reduction of the

capacity for permanent or temporary work”.

According to this same Law, in article 20, items I and II ... "Occupational diseases are diseases with slow and progressive evolution, originating from an equally gradual and durable cause, linked to working conditions".³

Accidents and work-related illnesses are predictable and preventable injuries. However, such events continue to happen and have a strong impact on productivity, the economy, society and the lives of workers. Accidents and deaths at work are among the biggest problems related to worker health in Brazil. Therefore, the Ministry of Health has created strategies such as the implementation of the National Policy for Notification of Accidents and Diseases at Work, which has resulted in the creation of the National Network of Comprehensive Attention to Workers’

Health (RENAST) and the Occupational Health Reference Center (CEREST).⁴

The insertion of women in the labor market was effected from the advance of industrial capitalism. Upon entering the job market, women began to play multiple roles, since their role as wife, mother and housewife is maintained until today, and their dedication is not exclusive to the home. The contemporary woman, at the same time she is a housewife, she is also a student and worker and in addition to her professional fulfillment, work is also linked to her own subsistence and of her family, as her duties also become financial, since their income is incorporated into the family income.⁵

A study by the Ministry of Social Security points out that women are more vulnerable to illnesses caused by work. Between 2004 and 2013, while employment contracts increased by 79% among women, the granting of accident-related sickness increased by 172% among female workers. Among men, salaried employment grew by 53% - during the same period - while the granting of accidental sickness aid grew by just over 60%. While men are more vulnerable to traumatic causes, women are more distant due to illnesses related to ergonomic work conditions.⁶

In view of the above, it is questioned: What is the epidemiological profile of

women workers involved in work-related accidents and/or illnesses in the West of Santa Catarina, Brazil?

To answer the research question, the objective was formulated: To analyze the epidemiological profile of women workers involved in accidents and/or illnesses related to work in the West of Santa Catarina, Brazil.

METHODS

This is a descriptive cross-sectional epidemiological study, with retrospective data collection, of an explanatory nature and quantitative approach. Data collection was carried out by consulting the CEREST notification records of the western macro-region, where it was analyzed the epidemiological profile of women workers involved in work-related accidents and/or illnesses, from 2012 to 2016, a period made available by the study's local institution considering that the update time of the information systems is delayed to the current year.

The epidemiological assessment profile of the descriptive study describes the characterization of semiological, etiological, pathophysiological and epidemiological aspects of a disease. They are used to know a new or rare disease, or

health problem. The temporal directionality of the retrospective study takes place from records of the past, and is followed forward from that moment to the present.⁷

According to data from the Brazilian Institute of Geography and Statistics, Santa Catarina has 6,248,436 million inhabitants, with an estimated 6,910,553 for 2016. In this context, the western of Santa Catarina is a region known for its dynamism and economic growth, where the municipality of Chapecó highlights, being considered the capital of the west, with intense activity of industries responsible for offering jobs in the region.⁸

In order to study the reality of working women in the face of accidents and occupational diseases, we sought to develop this study at CEREST in the western macro-region, headquartered in Chapecó, which it has been in operation since April 2007, covering 76 municipalities, more than 730 thousand inhabitants and 15 thousand km². The said service is responsible for organizing and systematizing the data in the Information System for Notifiable Diseases of health problems to workers. Based on these notifications, CEREST carries out health surveillance, inspecting companies, carrying out educational actions, among other duties, and aims to provide technical support to SUS. For that, it receives resources from the Ministry of Health.

It is through the health units and the hospital that CEREST is notified by a notification form included in a standard system. With the information received, the municipal health inspector makes a visit to the company. Notification is required according to the Ministry of Health Ordinance.

Based on these actions performed by CEREST, the records of women workers, from 2012 to 2016, residents of the municipality of Chapecó were accessed. Data were collected from August to September 2017, using an instrument based on the work accident notification forms and work-related illness notification forms, which notify diseases such as cancer, repetitive strain injury (RSI) and work-related musculoskeletal disorder (WMSD), in addition to mental disorders.

From this, the variables were listed: age, marital or conjugal status, education, number of children, income, occupation, workplace, occupational accidents (type of accident, causative agent, sequelae) and work-related diseases. Only data from the municipality of Chapecó/SC were considered.

The data obtained from the analysis of the records were stored in an electronic spreadsheet developed in the *Br Office Calc* program (free software), being transferred to the computer program *Statistical*

Package for the Social Sciences (SPSS), version 22.0, for analysis.

Data were presented through absolute and relative frequency, measures of central tendency. The research was approved by the Human Research Ethics Committee of the Federal University of Fronteira Sul (UFFS), under number 2,222,266.

RESULTS

In the period from 2012 to 2016, a total of 3,084 notifications related to work accidents and work-related illnesses were identified, recorded in the database of the said service involving women workers.

Table 1. Distribution of the variable age group, according to year and female gender, obtained from the CEREST data collection, in the period 2012-2016. Chapecó, SC, 2019.

Age Range	2012		2013		2014		2015		2016		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
00 to 09	4	0.9	15	2.3	3	0.5	4	0.5	6	0.9	32	1.0
10 to 19	20	4.7	34	5.2	36	6.0	27	3.7	18	2.7	135	4.4
20 to 29	135	32.0	188	28.7	194	32.0	225	31.0	182	27.0	924	30.0
30 to 39	122	29.0	216	33.0	177	29.2	208	29.0	219	32.4	942	30.5
40 to 49	107	25.3	142	21.7	135	22.3	175	24.1	156	23.1	715	23.2
50 to 59	30	7.1	52	8.0	59	9.7	75	10.3	76	11.2	292	9.5
60 to 69	4	0.9	8	1.2	2	0.33	11	1.5	18	2.7	43	1.4
69 years and over	0	0.0	0	0.0	0	0.0	1	0.1	0	0.0	1	0.03
Total	422	100	655	100	606	100	726	100	675	100	3,084	100

The greatest number of records at CEREST of accidents and illnesses at work were concentrated in the age groups of 20 to 29 years, 30 to 39 years and in the range of 40 to 49 years. It is worth noting that cases of work accidents were identified in the age groups of 00 to 09 and 10 to 19 years old. These cases were reported as work

accidents with children and adolescents, so there was no description of the social situation in which these individuals were found, , as well as the discussion about child labor requires theoretical foundation in other social data, such information was not identified in this article.

Table 2. Distribution of the variable injury-type notifications, according to year and female gender, obtained from the CEREST data collection, in the period 2012-2016. Chapecó, SC, 2019.

Injury-type notifications	2012		2013		2014		2015		2016	
	N	%	N	%	N	%	N	%	N	%
Path	45	10.6	83	12.6	81	13.3	101	13.9	82	12.1
Cutting Injury	28	6.6	96	14.6	142	23.4	138	19.0	115	17.0
Piercing Injury	23	5.4	44	6.7	31	5.1	48	6.6	55	8.1
Fractures	22	5.2	17	2.6	20	3.3	22	3.0	17	2.5
Burn	11	2.6	16	2.4	28	4.6	28	3.8	22	3.2
Amputation	3	0.7	9	1.3	2	0.3	3	0.4	5	0.7
Trauma	50	11.8	163	24.8	174	28.7	232	31.9	216	32.0
Intoxication	19	4.5	62	9.4	56	9.2	50	6.9	14	2.0
Electric shock	0	0.0	0	0.0	1	0.1	2	0.2	2	0.3
Foreign body penetration	0	0.0	0	0.0	6	1.0	6	0.8	5	0.7
Sting	0	0.0	0	0.0	0	0.0	5	0.7	1	0.14
Uninformed	221	52.3	165	25.2	55	9.0	66	9.0	49	7.2
Total	422	100	655	100	606	100	726	100	675	100

According to table 2, even in the same period from 2012 to 2016, it is observed in the notifications by type of injury that the

“cutting injury” and the “trauma” were more relevant from the others in practically every year.

Table 3. Distribution of the variable notifications of accidents or occupational diseases, according to year and female gender, obtained from the CEREST data collection, in the period 2012-2016. Chapecó, SC, 2019.

Occupational accident or illness	2012			2013			2014			2015			2016		
	N	%	T	N	%	T	N	%	T	N	%	T	N	%	T
Accident with biological material	42	82.3	51	54	81.8	66	48	78.6	61	79	84.0	94	130	76.0	171
RSI/WMSD	99	69.2	143	91	68.4	133	46	57.5	80	61	70.0	88	48	69.5	69
Exogenous intoxications	5	83.3	6	15	71.4	21	18	64.2	28	27	57.4	47	13	52.0	25
Unspecified work accident	265	26.8	987	446	25.0	1,778	438	21.0	2,091	0	0.0	0	0	0.0	0
Fatal accident	1	9.0	11	0	0.0	10	4	22.2	18	4	18.1	22	2	13.3	15
Accident with mutilation	3	17.6	17	1	4.5	22	3	12.0	25	3	13.0	23	4	15.3	26
Work accident with child and adolescent	0	0.0	0	2	28.5	7	1	5.0	20	3	15.7	19	0	0.0	17
Mild accident	0	0.0	1	0	0.0	0	9	18.3	49	468	21.2	2,200	421	23.9	1,760
Serious accident	0	0.0	0	39	17.0	229	31	12.8	241	50	16.0	312	34	11.0	308
Work-related mental disorders	5	100	5	6	100	6	1	100	1	4	100	4	0	0.0	0
Work-related oral disease	0	0.0	3	0	0.0	6	1	8.3	12	0	0.0	0	2	50.0	4
Occupational dermatoses	2	100	2	0	0.0	1	2	66.6	3	0	0.0	1	0	0.0	1
Work-related cancer	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	1	100	1
Others	0	0.0	2	1	50.0	2	4	66.6	6	27	51.9	52	20	55.5	36
Total			1,228			2,282			2,635			2,871			2,433

Analyzing the female gender, which is the focus of the study, it is clear that the occurrences that stood out the most with workers, in general, were accidents with biological material, Repetitive Strain

Injuries/ Musculoskeletal Disorders Related to the Work (RSI/WMSD), exogenous intoxications and unspecified work accidents.

Table 4- Distribution of the variable notifications by the Brazilian Classification of Occupations (CBO) in female gender, obtained from the CEREST data collection, in the period 2012-2016. Chapecó, SC, 2019.

CBO	N	%
Production line feeder	439	14.2
Janitor	363	11.7

Nursing technician	294	9.5
Community health worker	133	4.3
General cook	121	3.9
Nursing assistant	115	3.7
Public health agent	73	2.3
Nurse	65	2.1
Trade Seller	54	1.7
Higher education teacher in Elementary School ***	48	1.5
Hospital cook	40	1.3
Office assistant	38	1.2
Hodman (bricklayer's mate)	30	0.9
Bricklayer	28	0.9
Higher education teacher in early childhood education **	26	0.8
Administrative assistant	22	0.7
Food services assistant	21	0.6
Youth and adult education teacher in elementary school	19	0.6
Higher education teacher in early childhood education*	17	0.5
Clinical physician	17	0.5
Dental surgeon	13	0.4
Other occupations	1,108	36
Total	3,084	100

* early childhood education (zero to three years).

** child education (4 to 6 years).

*** early childhood education (first to fourth grade).

Analyzing the occupations of women workers, the research showed that 18.4% of them are in the health area, including nursing technicians, in addition to community health agent (ACS), nursing assistant, public health agent, nurse, clinical physician and dental surgeon.

DISCUSSION

According to table 1, the age group of adult working women, in the period from 2012 to 2016, showed that the largest number of CEREST records regarding notifications of accidents and illnesses at work were concentrated in the age groups 20 to 29 years, from 30 to 39 years old and

in the 40 to 49 age group, mainly when analyzing the percentage of the 20 to 39 age group, highlighting the productive and reproductive phase of women.

The female population has been going through several transformations in family life, their roles and positions in society. Despite all the advances, the concept of patriarchal society prevails, which values women because of their reproductive capacity. Social inequality between genders is reflected in the health situation of both genders, especially in women.⁹

As described in the second table, although occupational accidents represent an important social, economic and public

health problem, these events have been underreported.¹⁰ Even in the same period from 2012 to 2016, it is observed in injury-type notifications that “cutting injury” and “trauma” stood out in practically every year.

The occurrence of accidents at work generates traumatic consequences, which can cause mutilation, permanent disability, among other damages, which are not limited to the physical body of the worker, also affecting his psychological integrity.¹¹

With regard to accidents at work, it can be seen that although the promotion of workers' safety and health has advanced in recent decades, accidents and illnesses related to work remain high, strongly penalizing men, women and their families. However, it can be seen that the percentage of occupational accidents involving men has decreased; in contrast, accidents with women increased, which is explained by the entry of women into the labor market. As a result, as women increase their participation in the labor market, there is also the accumulation of functions and the double shift of activities, accumulating domestic and professional chores. Besides that, dangers and risks women face are also related to work conditions of the economic sector in which they work.¹²

Analyzing the female gender, which is the focus of the study, it is clear that the

occurrences that stood out the most with workers were accidents with biological material, RSI/ WMSD, exogenous intoxications and unspecified work accidents .

RSI/WMSD has caused irreversible consequences to workers, which can result in permanent disability. Pain and fragility in the limbs or spine can become chronic and make it impossible to perform even the simplest daily tasks, causing the absence from work due to the limits and disabilities generated by adversity.¹⁴

Epidemiological information is scarce about the mortality or morbidity of occupational poisoning by pesticides, there is usually difficulty in identifying data such as the type of pesticide used, types of work related to poisoning, and how the product was inoculated into the human body.¹⁵

In the “Others” category, pneumoconiosis, accidents with venomous animals, human anti-rabies care, work-related leptospirosis, work-related brucellosis, work-related Hantavirus, work-related dengue and work-related violence were added to the category.

Agroindustry presents itself as the most representative activity of the economy of western Santa Catarina, especially the municipality of Chapecó, with the increase in slaughterhouses. Therefore, the possibility of hiring workers has increased

and this increase in formal jobs reflects changes in the statistics on the notification of accidents at work.

In formal work, in the scope of the so-called productive work of companies linked to the production of material goods, and in service providers, cleaning property (cleaning) is the most disqualified, with low wages and little social visibility, despite in the scientific literature it is described that there are rewarding work spaces for professionals working in this field.¹⁶

Analyzing the occupations of women workers, it was identified that 18.4% of them belong to the health area, including nursing technicians, community health agents, nursing assistants, public health agents, nurses, clinical doctors and dentists.

Nursing workers develop their activities in several places, among them hospitals, where they carry out activities on a continuous basis, which require constant attention, physical effort, repetitive movements and weight lifting, which predispose them to the risk of illness. The work of these professionals becomes stressful due to the strong psycho-emotional load, physical demands, deficit of workers, prolonged shifts and inadequate work conditions.¹⁴

CONCLUSION

It is clear from this investigation that women are also vulnerable in relation to accidents/illnesses related to work. The profile highlighted are the women of working age for the labor market, who mainly suffer cutting injuries or trauma due to exposure to biological materials, RSI and exogenous intoxications, especially for working with activities such as production line feeder, cleaning lady and nursing technician.

It is proposed the need for work/health policies aimed at protecting and promoting the health of working women, given that, in the current social scenario, they have double working hours, one formal and the other informal, the latter with homecare. Therefore, implications for their health affect more than one social dimension.

The study was limited to data made available by CEREST with a delay period in the notification of data. In addition, underreporting of information may occur. Therefore, we consider that the profile established here has limitations regarding generalizations.

REFERENCES

1. Girelli S, Magro MLPD. Saúde do trabalhador e economia solidária: estudo de uma cooperativa de construção civil.

- Fractal Rev Psicol. [Internet]. 2017 [citado em 13 fev 2019]; 29(1):9-16. doi: <http://dx.doi.org/10.22409/1984-0292/v29i1/1184>
2. Araújo TMP, Araújo TF, Carmo N. Vigilância em Saúde Mental e Trabalho no Brasil: características, dificuldades e desafios. *Ciênc Saúde Colet.* [Internet]. 2017 [citado em 13 fev 2019]; 22(10): 3235-46. doi: <https://doi.org/10.1590/1413-812320172210.17552017>
3. Edilmar M. Implantação de equipe de saúde do trabalhador nas empresas: um olhar sobre doenças ocupacionais com manifestação bucal. *Braz Ap Sci Rev.* [Internet]. 2018 [citado em 13 fev 2019]; 25(2):568-82. Disponível em: <http://www.brazilianjournals.com/index.php/BASR/article/view/422/362>
4. Silva A, Ferraz L, Rodrigues-Junior SA. Ações em saúde do trabalhador desenvolvidas na atenção primária no município de Chapecó, Santa Catarina. *Rev Bras Saúde Ocup.* [Internet]. 2016 [citado em 13 fev 2019]; 41:e16. doi: <http://dx.doi.org/10.1590/2317-6369000122415>
5. Oliveira LA, Oliveira EL. A mulher no mercado de trabalho: algumas reflexões. *Rev REFAF Multidisciplinar* [Internet]. 2019 [citado em 13 fev 2019]; 8(1):1-15. Disponível em: <http://refaf.com.br/index.php/refaf/article/view/287/pdf>
6. Portal Brasil (Brasil). Mulheres são mais vulneráveis a doenças no ambiente de trabalho [Internet]. Brasília, DF: Ministério da Previdência; 2020 [citado em 07 jun 2020]. Disponível em: <https://www.gov.br/previdencia/pt-br/assuntos/noticias/previdencia/conselho-de-previdencia/cnps-mulheres-sao-mais-vulneraveis-a-doencas-causadas-pelo-trabalho>
7. Hochman B, Nahas FX, Oliveira Filho RS, Ferreira LM. Desenhos de pesquisa. *Acta Cir Bras.* (Online) [Internet]. 2005 [citado em 20 fev 2019]; 20 (supl 2):2-9. Disponível em: <http://www.scielo.br/pdf/acb/v20s2/v20s2a02.pdf>
8. Instituto Brasileiro de Geografia e Estatística (Brasil). Cidades [Internet]. Rio de Janeiro: IBGE; 2016 [citado em 20 fev 2019]. Disponível em: <https://cidades.ibge.gov.br/brasil/sc/chapeco/panorama>
9. Hirata H. Globalização, trabalho e gênero. *Rev Polít Públicas* [Internet]. 2005 [citado em 23 fev 2019]; 9(1):111-28. Disponível em: <http://www.periodicoselétronicos.ufma.br/index.php/rppublica/article/view/3770/1848>
10. Mendes JMR, Wunsch DS, Machado FKS, Martins J, Giongo CR. Saúde do trabalhador: desafios na efetivação do direito à saúde. *Argum.* [Internet]. 2015 [citado em 23 fev 2019]; 7(2):194-207. Disponível em: <https://periodicos.ufes.br/argumentum/article/view/10349/8253>
11. Bastos-Ramos TP, Santana VS, Ferrite S. Estratégia Saúde da Família e notificações de acidentes de trabalho, Brasil, 2007-2011. *Epidemiol Serv Saúde* [Internet]. 2015 [citado em 23 fev 2019]; 24(4):641-50. Disponível em: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S2237-96222015000400641
12. Souza TV. A influência do sexo e do gênero nas questões envolvendo segurança e saúde do trabalhador. *Revista Espaço Acadêmico* [Internet]. 2016 [citado em 03 abr 2019]; (177):73-83. Disponível em: <http://periodicos.uem.br/ojs/index.php/EspacoAcademico/article/view/28794/16162>
13. Brust RS, Oliveira LPM, Silva ACSS, Regazzi ICR, Aguiar GS, Knupp VMAO. Perfil epidemiológico de trabalhadores rurais do estado do Rio de Janeiro. *Rev Bras Enferm.* [Internet]. 2019 [citado em 03 abr 2019]; 72 (Suppl 1):129-35. doi: <http://dx.doi.org/10.1590/0034-7167-2017-0555>
14. Viegas LRT, Almeida MMC. Perfil epidemiológico dos casos de LER/DORT entre trabalhadores da indústria no Brasil no período de 2007 a 2013. *Rev Bras Saúde Ocup.* [Internet]. 2016 [citado em

03 abr 2019]; 41:e22. doi:
<http://dx.doi.org/10.1590/2317-6369000130615>

15. Padilha NS. Agrotóxicos e a saúde do trabalhador: a responsabilidade por contaminação do meio ambiente do trabalho. *Rev Jurídica Luso-Brasileira* [Internet]. 2018 [citado em 03 abr 2019]; 4(6): 977-1006. Disponível em: http://www.cidp.pt/revistas/rjlb/2018/6/2018_06_0977_1006.pdf

16. Alvarez D, Azevedo ERF. O trabalho feminino na função de limpeza de prestadoras de serviço em uma instituição de ensino superior. *Rev Vianna Sapiens* [Internet]. 2016 [citado em 03 abr 2019]; 7(1):185-212. Disponível em: <http://viannasapiens.com.br/revista/article/view/188>

RECEIVED: 05/10/2019

APPROVED: 03/20/2020

PUBLISHED: 07/2020