RESEARCH

EPIDEMIOLOGICAL PROFILE OF USERS SERVED ON HEALTH ACTION IN THE COASTAL LOWLANDS OF RIO DE JANEIRO

Perfil epidemiológico de usuários atendidos em ação de saúde na baixada litorânea do Rio de Janeiro

Perfil epidemiológico de los usuarios sobre la acción sanitaria en las tierras bajas costeras de Río de Janeiro

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ABSTRACT

Objective: to reveal the epidemiological profile of the users met in health action in the Coastal Lowlands of Rio de Janeiro. **Method:** this is a descriptive study, retrospective, exploratory quantitative in nature used as documentary research design through the analysis of secondary data. **Results:** 746 records were evaluated, with female prevalence (69.7%), age between 20 and 29 years (41.6%), incomplete higher education (63.9%) and marital status single (69.4%). Males showed an average blood pressure higher when compared with the female. It was evidenced that with advancing age and lower educational level, the greater the blood pressure and blood glucose levels. **Conclusion:** it is considered that studies about the knowledge of the epidemiological profile of a population becomes an important tool to support health actions.
Descriptors: Health profile; Epidemiology; Noncommunicable diseases; Diabetes mellitus; Hypertension.

RESUMO

Objetivo: identificar o perfil epidemiológico dos usuários atendidos em ação de saúde na Baixada Litorânea do Rio de Janeiro. **Método:** trata-se de um estudo descritivo, retrospectivo, exploratório de natureza quantitativa que utilizou como delineamento a pesquisa documental por meio da análise de dados secundários. **Resultados:** foram avaliados 746 registros, com prevalência do sexo feminino (69,7%), idade entre 20 e 29 anos(41,6%), ensino superior incompleto (63,9%) e estado civil solteiro (69,4%). O sexo masculino apresentou uma média mais elevada de níveis pressóricos quando comparado com as mulheres. Evidenciou-se que com o avançar da idade e baixa escolaridade, maiores são os níveis de pressão arterial e glicêmicos. **Conclusão:** estudos que ampliam o conhecimento sobre o perfil epidemiológico de uma população representam uma ferramenta importante para subsidiar o cuidado em saúde.
Descritores: Perfil de saúde; Epidemiologia; Doenças não transmissíveis; Diabetes mellitus; Hipertensão.

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RESUMEN

Objetivo: identificar el perfil epidemiológico de los usuarios se reunieron en la acción sanitaria en las tierras bajas costeras de Río de Janeiro. **Método:** se trata de un estudio descriptivo, retrospectivo, utilizado cuantitativo en naturaleza exploratoria como diseño de investigación documental a través del análisis de datos secundarios. **Resultados:** se evaluaron registros de 746, con predominio femenino (69.7%), edad entre 20 y 29 años (41.6%), educación superior incompleta (63.9%) y el estado civil solo (69,4%). Los varones mostraron mayor los niveles de presión arterial media en comparación con las mujeres. Se evidenció que con el avance de edad y menor nivel educativo, mayor será los niveles de glucosa en sangre y presión arterial. **Conclusión:** estudios que amplían el conocimiento sobre el perfil epidemiológico de una población representan una herramienta importante para apoyar la atención de la salud.

Descriptores: Perfil de salud; Epidemiología; Enfermedades no transmisibles; Diabetes mellitus; Hipertensión.

INTRODUCTION

Non-communicable chronic diseases (NCDs), such as diabetes mellitus (DM) and systemic arterial hypertension (SAH), reveal increasing rates of disabling and death in the world population.[1]

About 70% of deaths in the world are due to impairments derived from NCDs. Data from the same report elucidate that the Brazilian population, in the year of 2017, constituted by a total of 206 million inhabitants, reported 928 thousand cases of death due to some type of NCDs, accounting for 73% of the total rate of deaths per year. The risk of premature death by NCDs in the national scope is of 17%.[2]

The National Health Survey (PNS), conducted in 2013 by the Brazilian Institute of Geography and Statistics (IBGE) along with the Ministry of Health, estimated that about 40% of the adult brazilian population - 57,4 million people - have at least one NCD. Still, hypertension affects around 31,3 million people over the age of 18, corresponding to 21,4% of the population.[3] About diabetes, 9 million Brazilians are affected by the disease, accounting for 6,2% of the adult population.[4]

A monitoring system of the main determinants of NCDs in the country, developed in 2006 by the Ministry of Health and named VIGITEL (Risk Factor Surveillance and Protection for Chronic diseases by Telephone Inquiry) presented the following informations: an increase in the number of people diagnosed with diabetes, going from 5,5% in 2006 to 8,8% in 2017, being the highest number of diagnoses in the state of Rio de Janeiro. Regarding the statistical records of cases of high blood pressure, an increase of 22,5% to 30,7% in 2017 is noted, predominantly on women and having a higher prevalence also in the State of Rio de Janeiro.[5]

It is pertinent to note the pieces of evidence in the population that indicate an increase in the comorbidities resulting from chronic diseases and the growth of the four main modifiable risk factors that demand intervention and extended care in face of health risks. These are: tobacco, a sedentary lifestyle, alcohol abuse, and unhealthy eating.[6]

Given its chronic and often disabling characteristics, low treatment compliance results in an emergency, and sometimes irreversible, complications, directly affecting both personal and familiar quality of life. This low compliance is justified by conditioning factors such as inappropriate use of medication resulting from a polypharmaceutical therapeutic regimen, orientations on a lifestyle change that don't consist with one's reality and poor nutrition.[7]

The importance of carrying out this studies stands out, as an epidemiological branch, with the goal to identify groups/individuals that live with the risk of contracting this pathologies, in a way that promotes the creation of programs and/or public health policies that minimizes the difficulties these people face when it comes to having access to preventive measures.[1]

This research justifies itself due to the need of incrementing more studies that correlate the epistemological profile of health of a specific population to risk/vulnerable situations in the face of health policies recommended by the Ministry of Health under non-communicable chronic diseases such as high blood pressure and diabetes. In this perspective, it is intended to contribute to the planning of actions/strategies in the health field, especially of preventive, therapeutic and caring nature, envisioning improvements in the quality of life/wellbeing of this population.

Facing the opposite, the goal of this study was to identify the epidemiological profile of people assisted in health actions in the Coastal Lowlands of Rio de Janeiro.

METHODS

This study is descriptive, retrospective and exploratory of quantitative nature that used as a guideline the documentary research that analyzed secondary data obtained through consultation to the records of health actions carried out in a city on the Coastal Lowlands region of the state of Rio de Janeiro.

This type of approach stands out by data collection that can be measured in numbers, classified and analyzed through statistical techniques, avoiding possible interpretation and analysis distortions in the results, which results in a bigger safety margin.

The data were collected through consultation with health care records documented in the last three years, which were carried out in the period between 2016 and 2018. An instrument previously elaborated was used that contained sociodemographic information (age, gender, education, marital status, and profession and clinical information (blood pressure readings, capillary blood glucose and body mass index values).

The following were listed as criteria for inclusion: Records from the last three years of assisted carried out in the health actions. Exclusion Criteria: Records of patients that were filled out incorrectly and/or incomplete.

The data were entered into a Microsoft Office Excel spreadsheet. Descriptive Statistics were used for analysis, based on measures of central tendency (mean and median) and dispersion. To compare the averages of systolic and diastolic blood pressure and capillary blood glucose, a Student's t-test and analysis of variance (ANOVA),

considering p≤ 0,05, were used. IBM SPSS v.22 Software was adopted in the data analysis.

The project was approved by the Research Ethics Committee on August 31, 2018, under the number 2.865.323. All ethical aspects were contemplated, respecting the Resolution 466/2012 of the National Health Council.

The information collected in archives were kept confidential, in a way that there was no nominal identification of the users. The forms used for the collection will remain in possession of the researcher for five years and will be destroyed once this time is passed.

Along with the Ethics Committee, a waiver of the Informed Consent Form was registered, considering that: the research is based on retrospective documents and the data were collected from archived forms, meaning there were no physical and/or biological risks to users, as there were none for the researcher as well, once the study is merely observation documental. The guarantee of confidentiality of the personal identity of the sample public in every step of the research is stressed by the main researcher.

The commitment form for the use of archived data and the request for the waiver of the Informed Consent Form are in possession of the researcher.

The study offers minimal risk for the population because it makes use of secondary databases. However, to minimize this risk the data will be extracted in absolute secrecy, anonymity, and confidentiality by the researcher.

Furthermore, it is valid to reinforce that there is no nominal identification of the users. Thus, users are exempt from further emotional damage.

As a benefit, the study will provide knowledge on the demographic and clinical profile of these people in hopes to enable the construction of a personalized assistance model that targets the needs of this specific population.

RESULTS AND DISCUSSION

746 (100,0%) records of people assisted on a health action were consulted, and a prevalence of female users, with ages between 20 and 29, incomplete higher education and single marital status, was noted (Chart 1).

Chart 1- Characterization of individuals evaluated according to individual variables. Rio das Ostras, RJ,Brasil, 2016-2018

Variables	Frequency (n)	Percentage (%)
Gender		
Female	520	69,7
Male	226	30,3
Age		
≤ 19 Years	134	18,0
20 to 29 years	310	41,6
30 to 39 Years	77	10,3
40 to 49 Years	69	9,2
≥ 50 Years	156	20,9
Marital Status		
Single	518	69,4
Married	164	22,0
Divorced	40	5,4
Widower	22	2,9
Education*		
Elementary school	40	5,4
High School	135	18,1
Incomplete Higher Education	477	63,9
Complete Higher Education	55	7,4
Post-Graduation	35	4,7

* The variable was presented missing.

When comparing the averages of both systolic and diastolic blood pressure between the demographic variables, it was evident that males showed a higher average of SBP (p=0,000) and DBP (p=0,035) when compared to females, to a point where it is statistically significant (chart 2).

Chart 2 - Clinic characterization of the evaluated individuals according to blood pressure levels and blood glucose levels. Rio das Ostras, RJ,Brasil, 2016-2018

Variables	**SBP mmHg (DP)	Test Value (p)	***DBP mmHg (DP)	Test Value (p)	Blood Glucose mg/dL (DP)	Test Value (p)
Gender						
Female	115,15 (14,5)	-4,26 (0,000)	73,95 (11,4)	-2,107 (0,035)	110,83 (39,1)	0,42 (0,674)
Male	120,11 (14,2)		75,91 (11,4)		109,04 (37,9)	
Age						
≤ 19 Years	110,84 (12,0)	27,33 (0,000)	71,39 (10,3)	26,615 (0,000)	101,40 (18,6)	12,49 (0,000)
20 to 29 Years	113,31 (11,4)		71,18 (10,2)		101,88 (21,3)	
30 to 39 Years	118,59 (15,1)		76,96 (11,3)		103,52 (20,2)	
40 to 49 Years	122,69 (16,2)		79,24 (10,1)		108,05 (20,5)	
Over 50 Years	124,67 (16,6)		80,67 (12,0)		131,03 (62,5)	
Education**						
Elementary	122,64 (18,4)	9,240 (0,000)	79,23 (10,3)	8,075 (0,000)	132 (61,4)	4,704 (0,000)
High School	121,38 (17,1)		78,29 (12,9)		120 (52,7)	
Incomplete Higher Education	114,08 (12,7)		72,62 (10,6)		104 (29,0)	
Complete Higher Education	119,93(15,0)		76,15 (11,6)		107 (19,3)	
Post-Graduation	119,70(14,4)		78,48 (12,7)		108 (18,1)	

Systolic Blood Pressure; * Diastolic Blood Pressure; **** variable was presented missing.

When it comes to the IMC, not shown on the chart, there wasn't a significant statistical difference between the genders (t=1,11; p=0,264), however females (n=456) showed an average of 38,6. Also noted on Chart 2 is that the older the individual higher are the risks of SBP, DBP and glycemic, this last variable revealing the maximum value of 236 mg/dL to the ages between 20 and 29 and 433 mg/dL in individuals with ages of 50 or older.

Regarding Education, relatively high systolic blood pressures is observed, showing maximum values between 160 mmHG and 180 mmHg on the sample profiles with education between elementary school and postgraduate.

Still, about the variables, it can be noted that the lower the education level, THE higher the levels of blood pressure (p=0,000). In the same way, regarding blood glucose levels, education showed itself as inversely proportional to the greatest findings of this clinical variable (p=0,000).

In this study, it was possible to identify the epistemological profile of the individuals met on the health action carried out in a city in the Coastal Lowlands of Rio de Janeiro

It was noted that the largest contingent of records evaluated in this research belonged to women. This data are backed up by a survey carried out in cities on the Brazilian territory that was based on the National Survey on Access, Use and Promotion of Rational Use of Medicine (PNAUM). Among 8.676 (100,0%) of interviews performed, it was evidenced that the majority of interviewed were women (76,0%).[8]

This data can be associated with the fact that. historically, health and caring for life had its focus of intervention directed to children, women and on the aspect of reproduction.[9] That, in turn, produced reflexes in the health field, especially regarding women, who seem more concerned with their own health, due to them having more access to this kind of services. [10]

The level of education of an individual or a population group may represent an important social determinant with a potential risk of interference on the health field and/or on the process health-disease, in a way that it can directly affect the quality of life.[11] This statement is confirmed by data on the current study when it was observed a predominance of individuals categorized with incomplete higher education (63,9%).

Regarding blood pressure levels when compared to the variable of gender, the general prevalence of high blood pressure among men and women is similar, though it is higher on men up to the age of 50, reversing from the fifth decade forward. That is justified by the span of time after the menopause and its repercussions in the face of hormonal alterations on women that, possibly, explain the increase of blood pressure and, as a consequence, the prevalence of high blood pressure of them compared to men.[12,13]

The profile of these blood pressure levels presented in this study, related to the male population, show a similar relevance when an investigation highlighted that the lack of control of their blood pressure requires of health professionals a more keen action on the process of prevention, detection, and care to refer to the non-modifiable risk factors.[14]

Concerning the correlation between the increase in age and the elevation of blood pressure that were noted

on the analysis of the results, it was evident, as 408 individuals that resided in a city in the state of Paraná were evaluate, that 47,71% of people with ages between 50 and 59, showed higher prevalence of elevated blood pressure.[15] This fact itself being reinforced by the direct and linear relationship between the elevation of blood pressure with age, as 656 individuals were evaluated and 54,83% of them with ages between 60 and 70 were proved to have high blood pressure.[12]

These problems, along with the comorbidities that come with age, can be understood by the pathophysiological process of aging that is connected with the several anatomic and physiologic alterations which, in turn, makes so that the homeostasis of the organism becomes prone to changes in the cardiovascular system with drastic repercussions to the blood pressure levels.[16]

Findings of high glycemic levels associated with aging were also evidenced in other studies, such as the analysis of the period of time between 2002 and 2012 (n=8.551), with a predominance of high glycemic levels on people with ages between 40-59 years, followed by individuals with ages of up to 60.[1,17]

The correlation is preponderant since, besides the metabolism and hormonal alterations from the aging process, some researches related aging to the reduction of physical activities and increase of unhealthy habits.[18]

Higher blood pressure levels are connected to a prevalence of low education levels.[19] This data are backed up by an investigation where 424 adult and elderly people who were registered in the Primary Health Care (Atenção Básica em Saúde) of the city of Florianópolis (SC) in 2012 were interviewed. The results revealed that a higher percentage of these individuals with HBP and DM had education levels between 5-8 complete years of study, all of them belonging to economic class C, indicating the existence of inequities related to the lower social classes.[1]

In another research carried out in the west region of the city of Santa Maria/RS, the authors evaluated 436 registers in the Hiperdia System in a ESF (Family Health Strategy) and verified significant numbers of low education levels on the hypertensive and diabetic population, coming to the realization that 79,4% of those people had less than 8 years of study.[20]

There is a clear association between low education levels and a higher prevalence of chronic diseases, revealing the role of social inequalities in the process of getting sick. In this sense, it is important to note that, opposite to that, higher education levels can potentially be the guiding thread to the prevention of NCDs, since it can allow a bigger understanding of health actions, prevention of diseases and more access to services.[21] This, in turn, justifies higher means of SBP, DBP and capillary blood glucose in the evaluated people that were said to have finished elementary school.

CONCLUSION

Concerning the objective presented in this study, it was found that the epidemiological profile of the analyzed population is predominantly female, with ages characterizing them as young-adults with a single marital status.

Males presented the highest levels of blood pressure (SBP and DBP), being surpassed by women with regard to the clinical variable of glycemia.

Blood pressure levels and glycemic values, when associated with social variables have suffered the direct influence of its rates, with the level of instruction and advanced age playing a significant role.

It is noted as a limitation of the study the existence of many incomplete and/or incorrectly filled out forms. These records had to be discarded by the researchers due to their lack of clarifying and/or insufficient data.

Therefore, it is concluded that knowledge on the epistemological profile of a population represents a significant contribution to health care, considering the potential to fund the actions of healthcare professionals, having in mind the expansion of the healthcare network that is focused on the NCDs present in each Brazilian region.

REFERENCES

1. Fagundes CN, Corso ACT, González-Chica DA. Perfil epidemiológico de hipertensos e diabéticos cadastrados na atenção básica em saúde, florianópolis – sc. RevPesq Saúde. 2017 [acesso 22 de maio de 2018]; 18(1):28-34. Disponível em: http://www.periodicoseletronicos.ufma.br/index.php/revistahuufma/article/view/7877/4871

2. World Health Organization. Non communicable Diseases Progress Monitor, 2017.Geneva: WHO; 2017 [acesso 22 de maio de 2018]. Disponível em: http://apps.who.int/iris/bitstream/handle/10665/258940/9789241513029-eng.pdf;jsessionid=D2BBCB2739ACF51131-DA8A5E399F0F4A?sequence=1

3. Brasil. Ministério do Planejamento, Orçamento e Gestão. Instituto Brasileiro de Geografia e Estatística - IBGE (Brasil). Pesquisa Nacional de Saúde: Percepção do estado de saúde, estilos de vida e doenças crônicas: 2013. Rio de Janeiro: IBGE; 2014 [acesso 22 de maio de 2018]. Disponível em: ftp://ftp.ibge.gov.br/PNS/2013/pns2013.pdf

4. Freitas PS, Matta SR, Mendes LVP, Luiza VL, Campos MR. Uso de serviços de saúde e de medicamentos por portadores de hipertensão e diabetes no município do rio de janeiro, brasil. Ciência & Saúde Coletiva. 2018 [acesso 18 de outubro de 2018]; 23(7):2383-2392. Disponível em: http://ref.scielo.org/mf83db

5. Brasil. Ministério da Saúde. Secretaria de Vigilância em Saúde. Departamento de Vigilância de Doenças e Agravos Não Transmissíveis e Promoção da Saúde. Vigitel Brasil 2017: Vigilância de Fatores de Risco e Proteção para Doenças Crônicas por Inquérito Telefônico. Brasília: Ministério da Saúde; 2018 [acesso 18 de outubro de 2018]. Disponível em: http://bvsms.saude.gov.br/bvs/publicacoes/vigitel_brasil_2017_vigilancia_fatores_riscos.pdf

6. Malta DC, Bernal RTI, Lima MG, Araújo SSC, Silva MMA, Freitas MIF, et al. Doenças crônicas não transmissíveis e a utilização de serviços de saúde: análise da Pesquisa Nacional de Saúde no Brasil. Rev Saúde Pública. 2017 [acesso 23 de maio de 2017]; 51 Supl 1:4s. Disponível em: http://ref.scielo.org/rbbtr2

7. Sato TO, Fermiano NTC, Batistão MV, Moccellin AS, Driusso P, Mascarenhas SHZ. Doenças crônicas não transmissíveis em usuários de unidades de saúde da família – prevalência, perfil demográfico, utilização de serviços de saúde e necessidades clínicas. Rev Brasileira de Ciências da Saúde. 2017 [acesso 20 de junho de 2018]; 21(1):35-42. Disponível em: http://www.periodicos.ufpb.br/ojs/index.php/rbcs/article/view/26510/16433

8. Guibu IA,Moraes JC, Guerra Junior AA, Costa EA, Acurcio FA, Costa KS, et al. Características principais dos usuários dos serviços de atenção primária à saúde no Brasil. Revista de Saúde Pública. 2017acesso 22 de novembro de 2018]51 Supl 2:17s. Disponível em: http://www.scielo.br/pdf/rsp/v51s2/pt_0034-8910-rsp-S1518-51-s2-87872017051007070.pdf

9. Botton A, Cúnico, SD, Strey MN. Diferenças de gênero no acesso aos serviços de saúde: problematizações necessárias. Mudanças - Psicologia da Saúde. 2017 [acesso 30 de julho]; 25(1):67-72. Disponível em: https://www.metodista.br/revistas/revistas-ims/index.php/MUD/article/view/7009/5608

10. Friedlander MR, Guimarães CRR, Fabichacki E. O perfil do usuário de uma unidade básica desaúde integrada a uma faculdade privada. Revista Desafios. 2016 [acesso 25 de agosto de 2018] 3(02):03-13. Disponível em: https://sistemas.uft.edu.br/periodicos/index.php/desafios/article/view/2055

11. Arruda NM, Maia AG, Alves LC. Desigualdade no acesso à saúde entre as áreas urbanas e rurais do Brasil: uma decomposição de fatores entre 1998 a 2008. Cad. Saúde Pública. 2018 [acesso 16 de novembro de 2018]; 34(6):e00213816. Disponível em: http://www.scielo.br/pdf/csp/v34n6/1678-4464-csp-34-06-e00213816.pdf

12. Santos ABV, Barreto VP, Oliveira SM, Gomes CAM, Viana KM, Brasil BO, et al. Perfil epidemiológico da hipertensão arterial sistêmica na população de cajazeiras, Paraíba. Rev Brasileira de Ciências da Saúde. 2013 [acesso 18 de outubro de 2018]; 17(3):253-262. Disponível em: http://www.periodicos.ufpb.br/ojs/index.php/rbcs/article/view/13083/9807

13. Chagas JAS, Almeida, ANF. Caracterização epidemiológica de pacientes hipertensos usuários de uma unidade básica de saúde da região norte. Estação Científica. 2016 [acesso 18 de outubro de 2018]; 6(2): 105-116. Disponível em: https://periodicos.unifap.br/index.php/estacao/article/view/2721/jassicav6n2.pdf

14. Dantas RCO, Paes NA, Silva ATMC, Valenti VE, Mora JAO, Chambrone JZ, et al. Determinantes do controle da pressão arterial em homens assistidos na atenção primária à saúde. O mundo da saúde. 2016 [acesso 23 de outubro de 2018]; 40(2):249-256. Disponível em: http://bvsms.saude.gov.br/bvs/periodicos/mundo_saude_artigos/controle_pressao_arterial.pdf

15. Radovanovic CAT, Santos LA, Carvalho MDB, Marcon SS. Hipertensão arterial e outros fatores de risco associados às doenças cardiovasculares em adultos. Rev Latino-Am Enfermagem. 2014 [acesso 23 de outubro de 2016]; 22(4):547-553. Disponível em: http://ref.scielo.org/qc8ktd

16. Macedo JL, Assunção FD, Pereira IC, Oliveira ASSS, Assunção MJSM. Perfil epidemiológico da hipertensão arterial em um município maranhense. ReonFacema. 2017 [acesso 26 de outubro de 2018]; 3(4):693-698. Disponível em: http://www.facema.edu.br/ojs/index.php/ReOnFacema/article/view/250/148

17. Araújo Filho ACA, Almeida PD, Araújo AKL, Sales IMM, Araújo TME, Rocha SS. Perfil epidemiológico do diabetes mellitus em um estado do nordeste brasileiro. RevFundCare Online. 2017 [acesso em 26 de outubro de 2018]; 9(3):641-647. Disponível: http://www.seer.unirio.br/index.php/cuidadofundamental/article/view/5531/pdf_1

18. Iser BPM, Stopa SR, Chueiri PS, Szwarcwald CL, Malta DC, Monteiro HOC, et al. Prevalência de diabetes autorreferido no Brasil: resultados da pesquisa nacional de saúde 2013. EpidemiolServ Saúde. 2015 [acesso 28 de outubro de 2018]; 24(2):305-314. Disponível em: http://ref.scielo.org/xmj44k

19. Sousa LL, Alves ELM, Valle ARMC, Lago EC. Análise do perfil epidemiológico de idosos hipertensos cadastrados no programa hiperdia. RevEnferm UFPE. 2016 [acesso 30 de outubro de 2018]; 10(3):1407-1414. Acesso em: https://periodicos.ufpe.br/revistas/revistaenfermagem/article/viewFile/11081/12523

20. Pereira C, Marinho M, Cassola T, Seerig AP, Mussoi TD, Blumke AC. Perfil epidemiológico de hipertensos e diabéticos em uma estratégia da saúde da família de santa maria/rs. Ciências da Saúde. 2014 [acesso 30 de outubro de 2018]; 15(2):195-203. Disponível em: https://www.periodicos.unifra.br/index.php/disciplinarumS/article/view/1078/1022

21. Lima RN. Desigualdades sociais na prevalência das doenças crônicas e nas limitações das atividades diárias que causam: uma análise da população brasileira. Dissertação [Mestrado em Saúde Coletiva] – Universidade Federal de Santa Catarina; 2016.

22. Schultz CP, Guerini E, Oliveira MR, Oliveira ACDC. Perfil epidemiológico dos servidores de uma instituição federal de ensino superior do sul do brasil. Rev Brasileira de Tecnologias Sociais. 2016 [acesso 3 de novembro de 2018]; 3(1):25-40. Disponível em: https://siaiap32.univali.br/seer/index.php/rbts/article/view/9747/5479

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