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## **ORIGINALES**

# Clinical and sociodemographic profile of users with chronic diseases in primary health care

Perfil clínico e sociodemográfico de usuários com doenças crônicas na atenção primária à saúde

Perfil clínico y sociodemográfico de usuarios con enfermedades crónicas en atención primaria de salud

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#### **ABSTRACT:**

**Objective:** to describe the clinical and sociodemographic life and health profile of users with chronic non-communicable diseases in Primary Health Care.

**Method:** cross-sectional study with 80 users with chronic diseases in Rio Grande do Norte. A validated form was applied between January 2018 and March 2020. The results were analyzed with relative and absolute frequencies and a 95% confidence interval.

**Results:** female users (87.5%), elderly people (51.3%), brown people (53.8%), informal employment (53.75%), incomplete elementary school (62.6%), income greater than one minimum wage (51.3%) prevailed. They were totally dependent on health care from the Unified Health System (93.85%) and were monitored by the Family Health Strategy (91.2%). As for health, the chronic diseases Hypertension (82.5%) and Diabetes Mellitus (56.3%) stood out; however (68.8%) the participants had no history of hospitalization due to a complication of the chronic disease.

**Conclusion:** aging is an important factor for the presence of chronic diseases, including hypertension and diabetes mellitus. Users had unfavorable socioeconomic characteristics, such as low levels of income and education, which can compromise their quality of life and negatively influence the self-care actions. The total dependence on the public health system draws attention, this should direct health actions and strategies to combat and control chronic diseases.

**Keywords:** Primary Health Care; Non-Communicable Diseases; Health Profile; Hypertension; Diabetes Mellitus.

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#### **RESUMO:**

**Objetivo**: Descrever o perfil clínico e sociodemográfico de vida e saúde de usuários com doenças crônicas não transmissíveis na Atenção Primária à Saúde.

**Método**: Estudo transversal com 80 usuários com doenças crônicas no Rio Grande do Norte. Aplicouse um formulário validado, entre janeiro de 2018 e março de 2020. Os resultados foram analisados com frequências relativas, absolutas e intervalo de confiança de 95%.

**Resultados:** Prevaleceram usuários do sexo feminino (87,5%), idosos (51,3%), pardos (53,8%), vínculo empregatício informal (53,75%), ensino fundamental incompleto (62,6%), renda maior a um salário-mínimo (51,3%), dependiam totalmente da assistência do Sistema Único de Saúde (93,85%) e acompanhados pela Estratégia Saúde da Família (91,2%). Quanto a saúde, sobressaíram-se as doenças crônicas Hipertensão (82,5%) e Diabetes Mellitus (56,3%), porém (68,8%) não possuíam histórico de hospitalização por complicação da doença crônica.

Conclusão: O envelhecimento é um fator importante para a presença das doenças crônicas, dentre elas a hipertensão e diabetes mellitus. Os usuários apresentaram características socioeconômicas desfavoráveis como baixos índices de renda e escolaridade que podem comprometer a qualidade de vida e influenciar negativamente as ações de autocuidado desses usuários. A dependência total do sistema público de saúde chama atenção, isso deve direcionar as ações de saúde e as estratégias de combate e controle as doenças crônicas.

**Palavras-chave:** Atenção Primária à Saúde; Doenças não Transmissíveis; Perfil de Saúde; Hipertensão; Diabetes Mellitus.

#### RESUMEN:

**Objetivo:** Describir el perfil clínico y sociodemográfico de vida y salud de los usuarios con enfermedades crónicas no transmisibles en la Atención Primaria de Salud.

**Método:** Estudio transversal con 80 usuarios con enfermedades crónicas en Rio Grande do Norte. Se aplicó un formulario validado entre enero de 2018 y marzo de 2020. Los resultados se analizaron con frecuencias relativas y absolutas e intervalo de confianza del 95%.

**Resultados:** Prevalecieron las usuarias (87,5%), adulto mayor (51,3%), moreno (53,8%), empleo informal (53,75%), primaria incompleta (62,6%), ingreso superior a un salario mínimo (51,3%), totalmente dependientes de la asistencia del Sistema Único de Salud (93,85%) y fueron monitoreados por la Estrategia Salud de la Familia (91,2%). En cuanto a la salud, se destacaron las enfermedades crónicas Hipertensión Arterial (82,5%) y Diabetes Mellitus (56,3%), sin embargo, (68,8%) no tenían antecedentes de hospitalización por complicación de la enfermedad crónica.

**Conclusión:** El envejecimiento es un factor importante para la presencia de enfermedades crónicas, entre ellas hipertensión arterial y diabetes mellitus. Los usuarios presentaban características socioeconómicas desfavorables, como bajos niveles de renta y escolaridad, que pueden comprometer su calidad de vida e influir negativamente en las acciones de autocuidado de estos usuarios. Llama la atención la dependencia total del sistema público de salud, este debe orientar las acciones y estrategias de salud para el combate y control de las enfermedades crónicas.

**Palabras clave:** Atención Primaria de Salud; Enfermedades no Transmisibles; Perfil de Salud; Hipertensión; Diabetes Mellitus

## INTRODUCTION

The last decades of the 20<sup>th</sup> century were marked by major changes in its age structure, resulting from the demographic transition process due to the aging of the population, accompanied by the epidemiological transition process characterized by the increase in morbidity and mortality indicators from chronic non-communicable diseases (CNCD), which pose a major challenge to health systems<sup>(1-3)</sup>.

Chronic non-communicable diseases such as diseases of the cardiovascular system and neoplasms, are long-term diseases associated with the development of limitations and disabilities, generating organic changes and changes in life habits with the need for specific care, which involve health promotion actions and adoption of healthier lifestyle<sup>(1,4)</sup>.

In addition, these diseases are included as causes of premature death, promotion of work disability, financial impact on the family and decrease in productivity, thus generating negative impacts on the individual's quality of life<sup>(1-4)</sup>.

It is interesting to note that with the aging process and the population's lifestyle and changes in disease burdens, new health demands are observed, such as greater need for health services, longer hospital stays and constant monitoring<sup>(4-5)</sup>. Individuals with socioeconomic vulnerability, and with less access to health services are the most exposed to the risks of diseases<sup>(6)</sup>, making it imperative to urgently meet these demands by health services.

Evidence shows that in Brazil, CNCD are responsible for 75% of health care expenditures in the Unified Health System (SUS), making them a challenge for public management, with a consequent increase in demand for specific care and rising costs for the SUS, due to the chronicity of these diseases<sup>(1)</sup>.

In this context, in response to this demand, Primary Health Care (PHC) stands out as the best level of care focused on promotion and prevention on chronic conditions, given that its model is based on care integral and continuous, with preservation of the bond, co-responsibility and the longitudinality of care<sup>(2)</sup>.

Health care in PHC for the care of users with chronic diseases focuses on health promotion, prevention and control of complications, encouraging behavioral changes in lifestyle, which, although they do not promote healing, allow maintaining the disease under control and/or in better conditions, providing better quality of life and reduced impacts on the individual's functionality<sup>(7)</sup>. In this way, PHC can direct its actions towards comprehensive care capable of restoring health status, quality of life and the autonomy of the users and/or the community<sup>(2)</sup>.

The epidemiological profile of the users assisted informs us about the occurrence and involvement of CNCD, as well as the need for PHC to act in the prevention and control of these diseases based on the identification of determinants present in the lives of users. It is care that avoids and/or delays the onset of complications and disabilities, in addition to premature death related to chronic non-communicable diseases. Therefore, it is essential to identify the socioeconomic and health characteristics in the population that are directly related to the risk factors for diseases and chronic conditions<sup>(8)</sup>.

Therefore, it is necessary to prioritize the recognition of the socioeconomic and morbidity and mortality profiles of the population served, as well as the identification of the health services used by users, indispensable for the minimization of existing barriers and the operationalization of care through health promotion actions, risk prevention and injuries, to meet an epidemiological surveillance plan to control chronic diseases.

Given the above, the objective of this study was to describe the clinical and sociodemographic profile of life and health of users with chronic non-communicable diseases in Primary Health Care.

### **METHOD**

This is a quantitative, descriptive and cross-sectional study, guided by the tool Strengthening the Reporting of Observational Studies in Epidemiology (STROBE). This article comes from the post PhD project "Self-care of users with Chronic Non-Communicable Diseases and its relationship with socioeconomic conditions in the context of Primary Health Care".

The study was carried out from January 2018 to March 2020, in the ascribed area of the Family Health Unit (FHU), located in a neighborhood with a population of 110 thousand inhabitants located in the Western Sanitary District, in the municipality of Natal, Rio Grande do Norte. Regarding the community in question, the presence of an adult population in the reproductive phase of work, with people over 60 years of age on the rise, in addition to high rates of unemployment, crime and low levels of education and income is highlighted<sup>(9)</sup>.

Eighty users participated in the research. These were chosen in a sample defined by non-probabilistic sampling technique of the intentional type; the inclusion criteria were age greater than 18 years, registered in an area of the Family Health Unit, diagnosed with at least one CNCD, and in good cognitive conditions to maintain dialogue during the interview.

The initial contact with the users took place in the FHU waiting room, while they were waiting for care, with the support of the service's nurses; data collection, through a structured interview using a validated form<sup>(10)</sup>, containing questions about sociodemographic variables, history of the disease, requirements and competences of self-care and care of health professionals. At times, the interview took place at the users' home, and in these cases, there was a prior planning of the unit and support from family members.

The data collected, related to the socioeconomic variables of race/color, marital status, sex, religion, profession, education, income and housing conditions, in addition to clinics and health care services, were tabulated and organized in an Excel spreadsheet. Subsequently, they were analyzed using the Statistical Package for Social Science (SPSS) version 20.0. The descriptive statistical analysis of the data was presented by relative and absolute frequencies, and their respective confidence intervals (95% CI), in simple tables.

The study met the requirements of Resolution 466, of December 12, 2012, which regulates the standards for the development of research with human beings, and received approval from the Research Ethics Committee of the Federal University of Rio Grande do Norte (CEP-UFRN), under opinion number 3,002,347.

#### RESULTS

Among the participating users, 43 (53.8%) were brown, 31 (35.8%) were married, 70 (87.5%) were female, 50 (62.5%) were Catholic, 43 (53.75%) with informal employment, 50 (62.6%) with incomplete elementary education and 41 (51.3%) with income greater than one minimum wage, as seen in Table 1.

As for age, 39 (48.8%) of users were between 18 and 59 years old, with a mean age of 58.4 years; among the interviewed users, the youngest was 25 years old and the oldest, 85 years old, representing the minimum and maximum ages of the population studied.

Table 1 - Sociodemographic characterization of users with non-communicable chronic diseases treated at the Family Health Unit (n=80). Natal, RN, Brazil, 2020.

Characteristics	n	%	*95%CI
Race/color			
White	22	27.5	18.9 – 38.1
Brown	43	53.8	42.9 - 64.3
Black	8	10.0	5.1 – 18.5
No answer	7	8.7	4.3 - 17.0
Age Group			
18 to 59 years	39	48.8	38.0 - 60.0
60 or more	41	51.3	40.0 - 62.0
Marital status			
Single	13	16.2	9.7 - 25.8
Married	31	38.8	28.8 - 49.4
Widowed	16	20.0	12.7 - 30
Stable union	12	15.0	8.8 - 24.4
Divorced	8	10.0	5.1 - 18.5
Sex			
Male	10	12.5	6.9 - 21.5
Female	70	87.5	78.5 - 93.1
Religion			
Catholic	50	62.5	51.5 – 72.3
Evangelical	23	28.8	20.0 - 39.5
Other	7	8.7	4.3 - 17.0
Profession			
Formal employment bond	11	13.75	7.8 - 23.0
Informal employment bond	43	53.75	42.9 - 64.3
Others	14	17.5	10.7 - 27.3
No answer	12	15.0	8.8 - 24.4
Education			
No schooling	10	12.5	6.9 - 21.5
Incomplete elementary school	50	62.5	51.5 – 72.3
Complete primary education	6	7.5	3.5 - 15.4
Incomplete high school	2	2.5	0.7 - 8.7
Complete high school	6	7.5	3.5 - 15.4
Incomplete university education	4	5.0	2.0 - 12.2
Complete university education	1	1.3	0.22 - 6.7
No answer	1	1.3	0.22 - 6.7
Income			
Less than 1 minimum wage	6	7.6	3.5 - 15.4
1 minimum wage	28	35.0	25.5 - 45.9
More than 1 minimum wage	41	51.3	40.5 - 61.9
No fixed income	5	6.1	2.7 - 13.8
TOTAL	80	100.0	

n = number of participants; \*95%CI: 95% confidence interval.

Source: Prepared by the authors, 2021.

Regarding housing status, 69 (86.3%) lived in their own home, 52 (65%) had basic sanitation, and 80 (100%) had electricity and running water.

Table 2 – Characterization of housing for users with non-communicable chronic diseases, met at the Family Health Unit (n=80). Natal, RN, Brazil, 2020.

Housing characteristics	n	%	*95%CI
Housing condition			
Own house	69	86.3	77.0 - 92.1
Rented house	10	12.5	9.9 - 21.5
Other	1	1.25	0.22 - 6.7
Sanitation			
Yes	52	65.0	54.1 - 74.5
No	28	35.0	25.5 - 45.9
Electricity			
Yes	80	100.0	95.4 - 100.0
Running water			
Yes	80	100.0	95.4 - 100.0
TOTAL	80	100.00	

n = number of participants; \*95%CI: 95% confidence interval.

Source: Prepared by the authors, 2021.

As for the characterization of users' health, the results showed that, among the diseases mentioned, there were systemic arterial hypertension with 66 (82.5%), followed by diabetes mellitus, in 45 (56.3%) data shown in Table 3.

According to the care received from the health unit, 73 (91.2%) of the users interviewed were accompanied by professionals from the Units; with regard to registration and free access to medicines, 68 (85.1%) affirmed registration in a popular pharmacy and/or pharmacy of the Family Health Unit; another 55 (68.8%) denied previous hospitalization due to an CNCD, and still, 75 (93.8%) did not have a health plan, according to data recorded in Table 3.

Table 3 – Distribution of morbidity reported by users attended at a Basic Family Health Unit, in Natal-RN (n=80). Natal, RN, Brazil, 2020.

Characteristics	n	%	*95%CI
Chronic disease			
Systemic Arterial Hypertension	66	82.5	72.7 - 89.3
Diabetes mellitus	45	56.3	45.4 - 66.6
Osteoarticular	16	20.0	12.7- 30.0
Dyslipidemias	5	6.3	2.7- 13.8
Depression	4	5.0	2.0 - 12.2
Hyper/Hypothyroidism	3	3.8	1.3- 10.5
Pulmonary	3	3.8	1.3- 10.5
Venous ulcer	3	3.8	1.3– 10.5
Chronic Kidney Failure	1	1.3	0.2 - 6.7
Congestive heart failure	1	1.3	0.2 - 6.7
Gastritis	1	1.3	0.2 - 6.7
Vitiligo	1	1.3	0.2 - 6.7
Arrhythmia	1	1.3	0.2 - 6.7

Follow-up with the family health team						
Yes	73	91.2	83.0 - 95.7			
No	7	8.8	4.3 - 17.0			
Registration in a popular pharmacy/FHU pharmacy**						
Yes	68	85.1	75.6 - 91.2			
No	10	12.5	6.9 - 21.5			
No answer	2	2.4	0.7 - 8.7			
Has a Health Plan						
Yes	5	6.2	2.7 - 13.8			
No	75	93.8	86.2 - 97.3			
History of hospitalization for complications of chronic disease						
Yes	23	28.8	20.0 - 39.5			
No	55	68.8	57.9 – 77.8			
No answer	2	2.4	0.7 - 8.7			
TOTAL	80	100.0				

n = number of participants; \*95%Cl: 95% confidence interval; \*\*FHU: Family Health Unit; Source: Prepared by the authors, 2021.

## DISCUSSION

CNCD are one of the biggest public health problems in the world. These are diseases that strongly interfere in the quality of life of individuals and in health services, in addition to being responsible for more than half of the deaths that occurred in Brazil in 2017<sup>(11)</sup>.

Regarding the profile of users affected by CNCD, it was observed that the set of diseases and variables such as low income, low level of education and age affect the most vulnerable groups<sup>(12)</sup>. In Brazil, for example, it is clear that chronic diseases increase towards the most socially vulnerable segments<sup>(6)</sup>.

Related to the color of the participants, a study<sup>(13)</sup> observed a higher prevalence of CNCD among individuals of brown race (57.4%). A similar prevalence is pointed out in this study if the socioeconomic characteristics are compared. This fact may be associated with the similarities of the population characteristics where data collection was carried out.

Regarding the age group, it is important to highlight that in the context of the aging process of the population, the multiplicity of health needs expressed by the elderly people, in the face of greater exposure to CNCD, demands that health services be able to adequately meet the needs of disease prevention and control, as well as being able to promote active and healthy aging, from a perspective of autonomy and well-being, with health promotion activities<sup>(2)</sup>.

The results also showed that (87.5%) of the female users were diagnosed with some type of CNCD. Such prevalence corroborates the literature, which points to studies in which chronic diseases were found mainly in women. And this circumstance may be related to the fact that women use health services more, as well as the fact that women have a greater perception of the signs and symptoms of diseases and, consequently, greater demand for health services, physicians, exams, among others<sup>(6,14,15)</sup>.

The importance of campaigns for the promotion, recovery and empowerment of men's health is highlighted. In this sense, the Ministry of Health edits the National Policy for Integral Assistance to Men's Health (PNAISH) with the aim of promoting a closer relationship between men and health services, especially those aimed at PHC. This measure, associated with a health service that is receptive to the demands of these users, may reflect a greater use of the services offered in PHC and consequently influence the reduction of injuries and diseases<sup>(16)</sup>.

Regarding the education variable, it can be seen that most of the interviewed users had incomplete elementary education. Similar results were found in the literature<sup>(17)</sup> which indicate that most individuals surveyed had high school (30.3%), followed by elementary school (25.6%). Such findings were related to the fact that low levels of education can impair the prevention of CNCD and their risk factors, since it makes it impossible for the individuals to seek knowledge to promote health<sup>(18)</sup>, as well as other forms of prevention of diseases.

Other similar results(19) indicated the high level of education as a factor to be appreciated in the context of CNCD prevention, since these people tend to follow a healthier diet, reduce tobacco use, and perform more physical activities. Therefore, among health professionals, schooling is considered an important factor in the development of health education activities in PHC<sup>(20)</sup>.

The most prevalent CNCD are: cardiovascular diseases, cancer, Diabetes Mellitus and chronic respiratory diseases. They are responsible for more than half of all deaths in the world. Data from the National Health Survey (NHS) reveal that almost half of the population declares to be affected by at least one CNCD<sup>(15)</sup>. Hypertension is the most cited condition. This disease is characterized by sustained blood pressure levels above the normal blood pressure standard and is usually associated with organ functional alterations and/or metabolic alterations<sup>(21)</sup>.

Diabetes Mellitus, in turn, corresponds to a set of metabolic alterations resulting from problems in the action and/or secretion of insulin. As a result, there is a serum hyperglycemia that, if left untreated, can cause acute or chronic complications in the cardiovascular, kidney and neurological systems. When associated, these two conditions present greater risks for the development of kidney disease, coronary heart disease, heart failure and cerebrovascular accident<sup>(21)</sup>.

The PHC, through its health teams, develops actions to promote self-care, enabling the expansion of learning, as well as changes in lifestyle. In this way, aiming to train individuals for self-care so that they can present better clinical results, in their health status and better quality of life<sup>(21-23)</sup>. Therefore, PHC should encourage the development of practices that enable the reduction of modifiable risk factors, such as overweight, obesity, sedentary lifestyle and smoking<sup>(24)</sup>.

Difficulty in accessing health services for the population of this study was not an important risk factor, since 91.2% of respondents said they were accompanied by professionals from the Family Health Unit. In addition, 94.3% reported free access to medication for the treatment of chronic diseases, corroborating the results of a similar study<sup>(25)</sup>. However, the WHO<sup>(26)</sup> highlights the difficulty in accessing and using health services as the main barrier to coping with CNCD.

Regarding hospitalization for complications of chronic disease, 68.8% of the interviewed users did not need hospitalization, which may be a reflection of the coverage given through the assistance model of the Family Health Strategy (FHS), since that this model demonstrates lower rates of hospital admission<sup>(27)</sup>. It is a model aimed at prevention and health promotion, being guided by a multidisciplinary team with the participation of the community, which, once capillarized to the community, is able to benefit the most vulnerable users, preventing them from being referred to other levels of health care unnecessarily<sup>(24)</sup>.

In the results of a national cross-sectional study, a majority of users were female, of mixed race, married or in a stable relationship, without health plan, with social classification C and only with elementary education. As for the frequency of chronic diseases, hypertension, dyslipidemia, osteoarticular diseases (such as arthritis/arthrosis), depression and diabetes were the most cited by users<sup>(23)</sup>. These results, when compared to those of this study, identify similarities related to socioeconomic characterization and diseases evidenced by most users affected by CNCD.

These findings made evident the need to act on the conditioning factors and social determinants of health, in order to resolve inequalities and enable an integral and longitudinal approach to risk factors and CNCD<sup>(28)</sup>.

The importance and impact that PHC can have on the care of users with CNCDs is clear, highlighting prevention and health promotion practices. However, it is necessary to improve the monitoring of chronic diseases in PHC, in order to enable better planning and monitoring of the treatment of these users.

#### CONCLUSION

The clinical and socioeconomic profile observed was characterized by elderly people with high prevalence of hypertension and diabetes mellitus as the main CNCD, but without a history of hospitalization due to a chronic disease complication. These users had low levels of income and education that can compromise their quality of life and negatively influence the self-care actions.

Most users are totally dependent on the SUS and have access to the health service, based on monitoring with the family health team, which should guide health actions and strategies to combat and control chronic diseases.

Regarding the limitation of this research, the sample size is highlighted, due to the majority of the interviews being conducted only with the users present at the Family Health Unit. In addition, as this was a cross-sectional study, the findings did not allow the establishment of causal relationships, due to the cross-sectional design used.

Another limiting factor was the impossibility of a longer time for the data collection period due to the health emergency related to the COVID-19 pandemic decreed in March 2020 by the WHO.

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