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# Dimensioning as a device for strengthening and consolidating the Family Health Strategy in Campinas

## Dimensionar como dispositivo para fortalecer y consolidar la Estrategia de Salud Familiar en las Campinas

## Dimensionamento como dispositivo de fortalecimento e consolidação da Estratégia de Saúde da Família no município Campinas

**ABSTRACT**
Objective: This study aimed to re-elaborate the dimensioning from the review of the adstrition of the clientele by Basic Health Unit, by age group and gender, and the definition of the population that should be assisted in each of these services. Method: To carry out the study, systematic meetings were held with coordinators of the technical areas of the Department of Health, district supporters, managers of the Basic Health Units and workers of the Department of Work Management and Health Education. Results: The study was developed in the qualitative dimension, with the description of work processes and the service portfolio, and also quantitative, in which we present the calculations by professional category. Conclusion: It allowed new meetings and new possibilities of transformation from a situational analysis, with adequacy of user adstrition and definition of allocation of professionals in basic health units and health teams of The Family.
**DESCRIPTORS:** Sizing; Public Health; Family Health Strategy; Unified Health System.

**RESUMEN**
Objetivo: Este estudio tenía como objetivo re-elaborar el dimensionamiento de la revisión de la adstrición de la clientela por parte de la Unidad Básica de Salud, por grupo de edad y género, y la definición de la población que debe ser asistida en cada uno de estos servicios. Método: Para llevar a cabo el estudio, se celebraron reuniones sistemáticas con coordinadores de las áreas técnicas del Departamento de Salud, simpatizantes de distrito, gerentes de las Unidades Básicas de Salud y trabajadores del Departamento de Gestión del Trabajo y Educación para la Salud. Resultados: El estudio se desarrolló en la dimensión cualitativa, con la descripción de los procesos de trabajo y la cartera de servicios, y también cuantitativo, en el que presentamos los cálculos por categoría profesional. Conclusión: Permitió nuevas reuniones y nuevas posibilidades de transformación a partir de un análisis situacional, con adecuación de la adstrición de usuarios y definición de asignación de profesionales en unidades básicas de salud y equipos de salud de La Familia.
**DESCRIPTORES:** Tamaño; Salud Pública; Estrategia de Salud Familiar; Sistema unificado de salud.

**RESUMO**
Objetivo: Este estudo teve como objetivo a reelaboração do dimensionamento a partir da revisão da adstrição da clientela por Unidade Básica de Saúde, por faixa etária e sexo, e a definição da população que deveria ser assistida em cada um desses serviços. Método: Para a realização do estudo realizou-se reuniões sistemáticas com coordenadores das áreas técnicas do Departamento de Saúde, apoiadores distritais, gerentes das Unidades Básicas de Saúde e trabalhadores do Departamento de Gestão do Trabalho e Educação na Saúde. Resultados: O estudo foi desenvolvido na dimensão qualitativa, com a descrição dos processos de trabalho e da carteira de serviços, e ainda quantitativa, em que apresentamos os cálculos por categoria profissional. Conclusão: Permitiu novos encontros e novas possibilidades de transformação a partir de uma análise situacional, havendo adequação da adstrição de usuários e definição de alocação dos profissionais nas Unidades Básicas de Saúde e nas equipes de Saúde da Família.
**DESCRITORES:** Dimensionamento; Saúde Pública; Estratégia Saúde da Família; Sistema Único de Saúde.

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## INTRODUCTION

The Family Health Program (Programa Saúde da Família - PSF) emerged in 1994 to transform health care and reorient the care model, with a focus on health promotion and disease prevention, in order to reorganize services, according to the principles of universality, integrality and equity of the Unified Health System (SUS).[1] In 2006, the PSF became known as the Family Health Strategy (Estratégia Saúde da Família - ESF). Since then, the ESF has achieved high population coverage in the comprehensive care of the population in Brazil, in 2006 and 2020, its coverage was 45,3% and 65,36% respectively.[2]

The municipality of Campinas, which has about 1.2 million inhabitants, is a regional center and a reference point for around 3.5 million people. Currently, according to the Municipal Health Plan of the Municipal Health Secretariat (Secretaria Municipal de Saúde - SMS), approximately 55% of the population needs all the assistance actions of the Unified Health System, however, the dimensioning was designed to meet 100% of the health care actions. collective health. In 2016, the ESF's assistance coverage corresponded to 49,22%. The goal is to expand 5% of this coverage, per year, between 2018 and 2021, with Primary Health Care (PHC) as the originator of health care and the coordinator of care, favoring the resolution capacity, the potential of offers of actions and services , the processes of territorialization and regionalization in health. [3]

Campinas has experienced, over the years, several assistance arrangements in the construction of the health system, standing out in the implementation of SUS nationally. In 2001, it implemented the PSF-Paidéia, seeking to adapt the PSF in a municipality with metropolitan characteristics and a multifaceted health care network. It was a challenge for all health, as it was about adding the PSF guidelines to the reality of a network that had a large number of specialists and not dismantling historical and consolidated achievements of the local system.[4] However, among other determinants and due to changes in the municipal government, the turnover of civil servants and the shortage of general practitioners, this health model has not been consolidated in the municipality.

In this context, SMS initiated, through the Department of Work Management and Health Education (Departamento de Gestão do Trabalho e Educação na Saúde - DGTES), in 2006, a study on dimensioning the workforce in PHC in order to solve the most frequent problems experienced in work management and try to qualify assistance to users. In 2013, this experience was selected by the InovaSUS Award, valuing good practices and innovation in health, promoted by the Ministry of Health, in the Department of Management of Work and Health Education, through the Department of Management of Work in Health (DEGTS). It was one of the experiences analyzed for the development of the methodology for the evaluation of good practices in work management in SUS by the Andalusian School of Public Health/Spain and by the Labor Management Innovation Laboratory in Health, created by DEGTS.[5,6]

The present study aimed to re-elaborate the dimensioning based on the revision of the clientele's distribution by UBS, by age and sex, and to define the population that should be assisted in each of these services, considering the following SUS principles: regionalization , equity, universality and integrality. Therefore, it was also necessary to reassess the social vulnerabilities of this population, maintaining the indicators of housing, education and income.

## METHOD

In 2017, SMS, in order to contribute to the construction of a more efficient

SUS and promoter of innovations in the search for equity and respect for the needs of the population, adopted the ESF assistance model. In this perspective, the review of this work of dimensioning the workforce in PHC began as a device for strengthening and consolidating the ESF, in a large city, with a network of structured and highly complex health services. We will discuss the methodology developed in the qualitative dimension, with the description of the work processes and the service portfolio, and, afterwards, the quantitative one, in which we will explain the calculations by professional category. We emphasize that the allocation of professionals in the Family Health teams (eSF) and by Basic Health Unit (UBS) includes data on the vulnerability of the territories and the health needs of users.

Through systematic meetings with coordinators of the technical areas of the Department of Health, district supporters, UBS managers and DGTES workers, new studies and new analyzes of the different areas and professional categories were carried out, in which parameters and indicators for quantification were redefined. health workforce. We emphasize that the participation of managers of UBSs qualified, in a relevant way, the whole process, insofar as they socialized the daily life of UBSs, the experiences lived in the assistance and the difficulties with the current dimension for the consolidation of the ESF.

Guiding questions were used for situational analysis and re-elaboration of the dimensioning: For whom? Users in the territories where they live and their health needs. What to offer? Installed services that meet users' health needs. Like? The organizational process of health services, where health promotion, prevention and recovery activities are carried out. Finally, how many? The professionals needed to provide qualified and resolutive assistance to users.

The questions - For whom? What? Like? How many? - allowed for new reflections and new developments. Who were the users who lived in the territory were analyzed, considering social vulnerability and epidemiological indicators.

**For the position of doctor (Family and Community Medicine), a 36-hour professional was assigned by eSF, varying the number of users per team according to the degree of vulnerability. This result was due to the multiplication of the number of eSF by a 36-hour professional.**

This resulted in the reorganization of service production processes, in order to meet the health needs of social groups, promoting more humanized and qualified health care. There was also an adaptation of the service portfolio offered in the PHC. Subsequent to all definitions and all rearrangements, mathematical calculations were performed, which resulted in the identification of the number of professionals needed to assist users with quality. [7]

## RESULTS

This study determined the number of users per eSF, and for low vulnerability areas, the enrollment was 4.000 inhabitants per eSF; medium vulnerability, 3.500 inhabitants per eSF; highly vulnerable, 3.000 inhabitants per eSF and, for rural areas, 2,000 inhabitants per eSF. By dividing the total quantity of the population assigned to a given territory by the population quantity according to social vulnerabilities, we obtained the necessary number of eSF for each UBS8. This result supported the dimensioning of all the professional categories that carry out their actions in the PHC, in line with the SMS guideline of expanding the ESF coverage in the city of Campinas.

For the position of doctor (Family and Community Medicine), a 36-hour professional was assigned by eSF, varying the number of users per team according to the degree of vulnerability. This result was due to the multiplication of the number of eSF by a 36-hour professional. From the total weekly workload, 20% was subtracted for educational activities, participation in meetings and home visits. The 80% of the day was distributed between programmatic and acute visits, varying from three to four visits per hour.

The nurse professional was dimensioned a 36-hour server by eSF, using the same parameters as the doctor's position. However, the division of the weekly workload was distributed between

20% for educational activities and meetings, 20% for administrative and supervisory actions for the nursing team and 60% for programmatic consultations and welcoming users, providing two to four consultations per hour. [8,9]

The calculation of nursing technicians was carried out based on the opening hours of the UBSs and assistance rear, so that, when the operation was less than 60 hours per week, two nursing technicians were dimensioned by eSF and four more rear professionals. The UBSs with operation equal to 60 hours per week were designed with three nursing technicians by eSF and five more rear professionals. The UBSs operating more than 60 hours per week were designed with three nursing technicians by eSF and six more rear professionals. The distribution of the day was 20% for administrative activities and meetings, 20% for participation in educational activities and 60% for individual assistance, with an average of four visits or procedures per hour.

For the employment of Community Health Agent (Agente Comunitário de Saúde - ACS), an average of 750 inhabitants per professional was considered, with the possibility of the UBS manager stratifying users assigned by ACS based on the classification of social and epidemiological risk and according to the vulnerability of the micro-territories . For this category, it was established that 20% of the weekly workload would be used for educational, administrative and meetings and 80% for home visits, with the goal of making a family visit per hour, registering and monitoring the health situation of these users. [8]

For the oral health team (dentist and oral health assistant), the installed physical capacity was considered. The calculation used the number of existing dental chairs multiplied by the working hours of the UBS, divided by the workload of the professionals for 36 hours. Of this number, we consider 15% of the time for hygiene, disinfection and educational activities. Also, according to the established eSF coverage goal, physical capacity is assessed and, when relevant, the need for expansion is indicated. The calculation used was the same for dentists and oral health assistants because it is a work developed with four hands, during dental care to the user.

The position of pharmacist was dimensioned to work in the Extended Family Health Centers (Núcleos Ampliados de Saúde da Família - Nasf), linked in one at least and nine eSF at most. The pharmacist's work was organized in 50% of the day for individual care at the health unit and at home, 20% for management and 30% for educational actions and registration of professionals at the UBSs.

The health support agent (Pharmacy) was calculated based on the highest average of revenues dispensed in the last five years, by UBS, divided by the productive capacity of this professional. From a professional with a 36-hour workload, 15% was subtracted for storage, inventory control and educational activities. The rest of the hours were multiplied by the average of 12 recipes served per hour and, finally, multiplied by the average number of weeks in the year.

**In order to provide the number of professionals needed to recompose the Family Health teams, the municipality held public tenders in July 2019 for the respective positions: Assistant in Oral Health, Dentist, Nurse, Family and Community Physician**

## DISCUSSION

In order to provide the number of professionals needed to recompose the Family Health teams, the municipality held public tenders in July 2019 for the respective positions: Assistant in Oral Health, Dentist, Nurse, Family and Community Physician. Approved professionals are already being invited. Regarding the positions of Community Health Agent and Nursing Technician, at the time of publication of such notice, a previous competition with classified candidates was in force, which were invited to take over the existing vacancies.

All the professionals who make up the eSF must offer the population, in a uniform manner, a standard of essential services in family health units, called a service portfolio. SAPS/MS launched the Primary Health Care services portfolio (carteira de serviços da Atenção Primária à Saúde - CaSAPS) on December 18, 2019. This is a list to guide you

on the actions and clinical and health surveillance services that can be offered in PHC and will guide health actions, with multiprofessional performance and guiding services. [10] In the municipality of Campinas, the portfolio of services currently offered to the population includes: consultations in nursing, medical clinic, dentistry, pediatrics, gynecology and obstetrics, assistance services - such as medication dispensing; vaccination of adults and children; laboratory tests; biopsies; electrocardiogram; health surveillance; among others. [11]

Transparency in the set of actions offered allows users to inspect, evaluate and qualify PHC. Therefore, we note that the service portfolio, as well as dimensioning, can be an important management tool.

Several challenges were posed in the elaboration of this proposal. Among them, the following stand out: the scarcity of a specific literature on dimensioning in Public Health, specifically in Primary Health Care; the need to review and update the epidemiological and social parameters and indicators to reclassify the UBS vulnerabilities; the alteration of territorial maps, modifying the user registration by UBS; the modernization of the information system, allowing local access and permanent updating of human resources; and, finally, the reduced number of records of visits and consultations carried out by professionals, which caused distortion in outpatient production reports.

Within the scope of the SMS, several actions are being carried out with the objective of expanding and strengthening the Family Health Strategy: holding a public tender for various positions, to recompose and expand the eSF and Nasf; implementation of the Mais Médicos Campineiro Program - which aims to train family and community health doctors; implementation of multiprofessional residency in nursing and dentistry; and development of training and continuing education processes with the valuation of multi and interprofessional work.

All of these actions take place in order to improve health care in the various life cycles, with the implementation of processes related to access, agenda and territory management, in addition to the review and innovation of care protocols. The goal was to register 80% of the municipality's population by April 2020, however, due to the Covid-19 pandemic, this purpose has not yet been achieved.

## CONCLUSION

The adequacy of the dimensioning method in favor of the reorganization of the care model in the city of Campinas allowed new meetings and new possibilities for transformation based on a situational analysis, with adaptation of the users' allocation and definition of allocation of professionals in the Basic Health Units and in the Family Health teams. Currently, the possibility of expanding the information system is on the agenda to guarantee the efficiency and effectiveness of data and information. We also emphasize that this provision has qualified the negotiations between municipal managers in the budget definition related to the needs of hiring. ■

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