

**ANALYSIS OF THE PRIMARY HEALTHCARE UTILIZATION AND ITS
INFLUENCING FACTORS:
THE CASE OF THE CITY OF TIZNIT-MOROCCO**

**ANALYSE DE L'UTILISATION DES SERVICES DE SOINS DE
SANTÉ PRIMAIRES ET SES FACTEURS D'INFLUENCE :
CAS DE LA VILLE DE TIZNIT-MAROC**

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Abstract

This article aims to study the factors influencing the use of primary healthcare services utilization. It is a quantitative study carried out in the city of Tiznit-Morocco.

The study involved 300 people. Data were collected via a self-administered questionnaire from individuals residing in the city of Tiznit. Data processing and analysis were carried out using Jamovi software.

The results of this work show that there is a significant relationship between the utilization of healthcare services and various determinants, including age, sex, household size, cost of care, health insurance coverage, income, and household expenditure.

Keywords: City of Tiznit-Morocco; Demand of healthcare; Health economics; healthcare services utilization; healthcare supply; primary health care.

Résumé

Ce travail vise à analyser les facteurs influençant l'utilisation des services de soins de santé primaires. Il s'agit d'une étude quantitative qui s'est déroulée en 2023 au Maroc.

L'étude a été réalisée auprès de 300 personnes. Les données ont été collectées via un questionnaire auto-administré auprès des individus résident dans la ville de Tiznit. Le traitement et l'analyse des données ont été réalisées en utilisant le logiciel Jamovi.

Les résultats de ce travail ont montré qu'il y'a une relation significative entre l'utilisation des services de soins de santé primaires et différents facteurs d'influence dont parmi d'autres : l'âge, le sexe, la taille de ménage, la durée de la maladie, la présence d'une maladie chronique, la gravité de la maladie, le cout de soins, l'adhérence à une assurance maladie, le revenu et les dépenses ménagères.

Mots clés : Demande de soins ; Economie de la santé ; Offre de soins ; Soins de santé primaires ; Utilisation des services de santé, Ville de Tiznit-Maroc.

INTRODUCTION

Primary health care (PHC) holds immense importance in advancing health systems and assumes a pivotal role in realizing universal health coverage (WHO, 2008). The significance of primary care within health systems is widely acknowledged as the initial point of contact for patients. In fact, it occupies a strategic and coordinating position that profoundly impacts all other facets of the healthcare system.

In the Alma-Ata Declaration (1978), the World Health Organization (WHO) proclaimed that primary health care represents « the initial point of contact for individuals, families, and communities with the national health system, aiming to bring healthcare services in close proximity to where people reside and labor, thereby constituting the foremost component in an unbroken continuum of health safeguarding » (Verga-Gérard et al., 2018).

The declaration puts forth a comprehensive viewpoint on primary care, encompassing not merely the universal availability of healthcare but also the enhancement of living conditions to an acceptable standard, encompassing access to potable water, nourishment, and education. This primary care approach strives to advance social justice by ensuring equitable access to fundamental healthcare services for all individuals.

In Morocco, as outlined in a report released by the Ministry of Health and Social Protection in 2019, primary health care (PHC) is deemed as the most proficient and economical approach in attaining Universal Health Coverage (UHC) and realizing the Sustainable Development Goals (SDGs) to which the Kingdom of Morocco has pledged its commitment. Grounded in the principles of fairness and societal fairness, PHC ensures that the healthcare requirements of all population segments are addressed through the delivery of preventive, curative, promotional, and rehabilitative services throughout the entire lifespan.

In fact, ensuring access to essential healthcare services, particularly for marginalized communities, holds paramount importance in fostering development as it facilitates the mitigation of epidemiological risks and enhances overall well-being. In pursuit of this objective, the Moroccan authorities have enacted several reform initiatives, most notably the widespread implementation of compulsory health insurance (AMO) in 2018.

The High Royal Directions of Morocco have initiated a fresh impetus in the endeavor to bolster primary health care (PHC). In the Royal Message conveyed to the participants of World Health Day in April 2019, His Majesty King Mohammed VI underscored the significance of PHC reform, emphasizing «the imperative of instigating a renewed momentum to surmount various obstacles and constraints. Enhancing the primary healthcare system should serve as a fundamental pillar of this momentum, complementing the steadfast commitment to advancing toward universal health coverage by 2030» (Ezzrari et al., 2022).

Indeed, Morocco places significant emphasis on primary healthcare and all aspects related to care provision, such as infrastructure, accessibility rates in terms of geography and finances, equipment availability, and more. Furthermore, considerable attention is given to comprehending the «objective» circumstances of the population, including factors such as life expectancy, mortality rates, nutritional status, disease prevalence, screening practices, health-related behaviors, lifestyle choices, socio-demographic indicators, and others.

These reforms have had a notable impact on healthcare provision, encompassing aspects such as healthcare pricing, the promotion of generic medications, and the establishment of healthcare facilities in both rural and urban areas. However, it is equally imperative to comprehend the demand for healthcare services in order to address any impediments that may hinder individuals from utilizing the healthcare system effectively.

Multiple factors influence the utilization of healthcare services, encompassing predisposing factors such as gender, patient age, age, and occupation of the head of the household, as well as household size, which contributes to the propensity to seek healthcare services. Ability factors, such as place of residence and proximity to healthcare facilities, serve to surmount physical barriers, while need reflects the expression of care demand (Andersen & Newman, 1973, in Adaskou, Houmam & Onbouh, 2021).

In 1963, Arrow founded a new discipline called health economics. Subsequent work and research contributed to the development of this new science through its application in the field of health care. Indeed, the transformation of demand for health into demand for care takes place in a context of uncertainty. Arrow likened healthcare to trust goods, whose consumer reaction function consists of a priori certification of health professionals.

Phelps & Newhouse (1974) developed a model that captures the behavior of healthcare consumers, who strive to maximize their satisfaction while adhering to their financial constraints. As health status is fraught with uncertainty, health-related expenses are typically covered by insurance. Consequently, individuals determine the optimal level of care by carefully weighing the marginal value of care against its marginal cost. Within this framework, the use of healthcare services exhibits a heightened sensitivity to the cost incurred by the individual, irrespective of insurance coverage. Thus, as the cost to the individual decreases, the healthcare services utilization correspondingly rises. However, this dynamic can potentially result in excessive consumption of care if it is made available free of charge, thereby giving rise to the issue of excessive demand.

A literature review reveals that the utilization of healthcare services is influenced by various factors, including income, cost of care, health insurance coverage, age, level of education, quality of care, accessibility to services, and previous health status (Houmam & Adaskou, 2023).

Indeed, it is crucial to scrutinize the behavior of individuals regarding their healthcare demands in order to formulate strategies that foster increased utilization of primary healthcare services and combat healthcare avoidance. In this regard, the objective of this study is to examine the factors that impact the utilization of primary healthcare services. Consequently, the research question guiding this investigation is as follows: What are the factors that influence the utilization of primary healthcare services in the city of Tiznit?

This research is structured into three main sections: The first section will concentrate on the literature review pertaining to the demand for care and its associated influencing factors. The second section will encompass the methodology, including sampling techniques and employed tools. Finally, the last section will center on analyzing and discussing the obtained results.

1. Method and tools

This study constitutes a quantitative investigation with the primary objective of delineating the factors that exert influence over access to primary healthcare services. The study was conducted within the city of Tiznit in Morocco between January 15 and June 15, 2023.

In practical terms, it is a rarity for a survey to encompass the entire target group population. Consequently, the desired sample size for this study encompassed 300 individuals.

To gather the requisite data, a self-administered questionnaire comprising closed-ended questions was employed. The questionnaire was structured into four distinct sections: the first section focused on health-related data and comprised 8 questions, the second section encompassed demographic information and consisted of 7 questions, the third section

explored dimensions relating to access to healthcare services through the inclusion of 9 questions, and the final section explored economic dimensions, comprising 5 questions.

To administer the questionnaire, we personally conducted interviews with the respondents at various locations in the city of Tiznit, including healthcare centers, markets, cafes, gardens, and residential areas. The duration of each interview ranged between 10 and 15 minutes, contingent upon the availability, understanding, and intellectual capacity of the interviewees. Furthermore, we chose to read and elucidate upon the content of the questionnaire during the interviews.

The collected data were subsequently entered and processed utilizing the Jamovi software. The Chi2 test was employed to assess the relationship between the utilization of healthcare services and the influencing factors affecting it.

2. Results and discussion

2.1. Results

2.1.1. Descriptive statistics

According to the results (Table 1), the majority of participants (61.7%) were women and 44% were between the ages of 20 and 40. 87.7% of participants came from urban areas and 12.3% from rural areas. The majority of those interviewed were single (47.3%) and married (47%). In terms of professional status, 42% of participants were unemployed, while 22.7% were students. 29.7% of participants are analphabetic, and 21% had primary education.

From table 2, we can see that the majority of participants stated that the sick person or head of household has health insurance (62%), 42% of them have CNSS as their health insurance and 38% have CNOPS. With regard to monthly income, 41.7% have a monthly income of less than 2,500 MAD, 22.7% have an income between 2,500 MAD and 5,000 MAD, 24.3% between 5000MAD and 7500MAD, and the rest have an income of over 7000. For household expenses, 34.7% of participants have expenses of less than 2000 MAD, while 48.7% have expenses between 2000 MAD and 4000 MAD.

Table 1: Characteristics demographics of participants

Characteristics demographics						
Gender	Male			Female		
	38,3%			61,7%		
Age	Under 20 years	20 – 40 years	41 – 60 ans	More than 60 years		
	15,7%	44%	20%	20,3%		
Place of residence	Urban			Rural		
	87,7%			12 ,3%		
Education level	Analphabetic	Primary	High school college	High school Qualifying	Universitaire	
	29,7%	21,3%	20,3%	10,7%	17,7%	
Marital status	Single	Married	Divorced	Widowed		
	47,3%	47%	2,7%	3%		
professional status	Unemployed	Retired	Salaried	Public servant	Student	Independent
	42%	6%	5,7%	19,7%	22,7%	4%
Household size	1 à 2 persons	Entre 3 et 5 persons			Plus de 5 persons	
	12,7%	60,3%			27%	

Source: compiled by the author

Table 2: Socio-economic characteristics of participants

Socio-economic characteristics				
Health insurance	Yes		No	
	62%		38%	
Type of insurance	CNSS	CNOPS	Insurance Private	Other
	42%	38%	11.7%	8.3%
Coût total des soins	Less than 250 MAD	Between 250 and 500 MAD	Between 500 and 750 MAD	More than 1000 MAD
	15,3%	54.3%	15%	15,3%
Revenu mensuel	Less than 2500 MAD	Between 2500 and 5000 MAD	Between 5000 and 7500MAD	More than 7000 MAD
	41.7%	22.7%	24.3%	11.3%
Dépenses ménagères	Less than 2000MAD	Between 2000 and 4000MAD	Between 4000 and 6000 MAD	More than 6000 MAD
	34.7%	48.7%	10 %	5.7%

Source: compiled by the author

2.1.2. Inferential statistics

To study the relationship between the use of healthcare services and their factors, analyses were carried out using the Chi-2 test. This test was chosen because of the data represented by the responses after coding.

The analysis shows both significant and non-significant results. The following data present a summary of the main results of some of these comparisons ($P\text{-value} \leq 0.05$).

According to the results of the study (Table 3); there is a significant association between the use of primary health care and economic determinants: Health insurance ($P=0.042$), income ($P=0.047$), cost of care, and household expenses with a P-value of the same degree ($P \leq 0.001$).

Similarly, the study approved a significant association between the dependent variable and household size ($P=0.03$).

Furthermore; the association is very highly significant between primary healthcare demand and the presence of chronic disease ($P \leq 0.001$).

On the other hand, the association is not significant between the study's dependent variable and the following explanatory variables: gender and area of residence. The P-value results for these variables are as follows (0.07; 0.09).

2.2. Discussion

Following the presentation of the study results, and in order to better identify the factors influencing the use of primary health care services in Tiznit, we move on to the presentation of the discussion of the main results by confronting them with the theoretical and empirical framework.

With regard to gender, our study showed that the use of primary health care services is statistically very high among women ($P=0,07$). A study of healthcare utilization by Ezzrari et al (2007) showed that consultation rates are higher among women. Audibert & Mathonnat (2013), on the other hand, show that women in Mali make greater use of self-medication than men.

In contrast, Asada & Kephart (2007) found no link between gender and access to healthcare. They showed that in the cities of Niamey and Dakar, gender was not a factor in use, whatever the type of health facility.

Table 3 : Analyse de l'utilisation de services de soins de santé primaires et ses facteurs d'influence

Variables	Utilization of healthcare services		Bi-varied analysis
	Yes	No	P-value
Gender			
Male	91	25	0,07
Female	161	23	
Age			
Less than 20 years	36	11	0,024
20-40 years	109	23	
40-60 years	49	11	
More than 60 years	58	3	
Place of residence			
Urban		42	0,09
Rural	221	6	
Household size			
Less than 3 persons	36	2	0,034
3-6 persons	154	27	
Plus de 6 persons	62	19	
Health insurance			
Yes	163	23	0,042
No	89	25	
Income			
less than 2500 MAD	99	26	0,047
2500 - 5000MAD	59	9	
5000 - 7000 MAD	68	5	
More than 7000 MAD	25	7	
Cost of care			
Less than 250 MAD	158	5	< 0,001
250 - 500 MAD	44	2	
500 - 750 MAD	45	0	
More 7000 MAD	5	41	
Household expenses			
Less than 2000 MAD		26	0,010
2000 – 4000 MAD	78	14	
4000 - 6000 MAD	132	4	
More than 6000 MAD	30	3	
Presence of chronic illness			
Yes	92	23	< 0,001
No	160	46	

Source: compiled by the author

For age, the results show that the demand for care is significantly associated with this factor ($P=0,024$), in other words, it was found that people in the 20 to 40 age bracket are more likely to use primary health care services than others, such as Houffouet (2015), who showed that there is an impact of age on attendance at health centers. According to her, younger heads of households solicit health facilities more than older ones. Anderson et al (2012) have shown that the use of healthcare services is higher among children and the elderly than among younger people.

With regard to household size, our study showed that the demand for care is significantly associated with this factor ($P=0,034$). Indeed, the greater the number of people living under the same roof, the lower the demand for care. The same results were endorsed by Meunier (2023), who found that larger families had lower levels of ambulatory care and drug consumption. According to the results of this study, the number of persons in a household influences the demand for care by the members of that household, and in particular that of children. Philippe et al. (2015) show in their study that household size influences the use of healthcare services. On the other hand, Ezzrari et al (2022) showed that household size does not influence the likelihood of a sick person seeking care.

With regard to adherence to health insurance, our study showed that health insurance influences the utilization of healthcare services (0,042). Similarly, Ezzrari et al (2007) and Khoali et al. (2022) have shown that the possession of social security coverage has a positive impact on the rate of medical consultations following illness or injury. This can be explained by the fact that having health insurance and belonging to a health mutual could lead households to make more use of modern health facilities. Guend and Tesseron (2009), on the other hand, have argued that having health insurance has no impact on the consumption of medical care in Quebec.

For household income, our study showed that this factor influences highly the access to primary care ($P = 0,047$). Numerous empirical studies show that income influences the demand for care, but they suggest that as people become wealthier, they demand more and better care and more expensive care. Tanti-Hardouin (2007) revealed that demand for health care is correlated with income (individual and household income). Furthermore, Kukla et al. (2017) showed that household income has a significant impact on healthcare expenditure. Mwabu et al. (1993) reported that household income has an influence on their choice to use healthcare facilities in case of need.

Our study also showed that the cost of care influences the use of primary healthcare ($< 0,001$). This result is in line with Houffouet (2015), who showed that the cost of care influences healthcare use. The study realized by Youness et al. (2018) shows that this factor influences the utilization of healthcare services. Andersen & Newman (1973) find that high healthcare expenditure makes individuals less likely to use primary healthcare services. This leads them to look elsewhere for alternatives. Similarly, Wellay et al. (2018) reported that cost influences the use of healthcare services.

With regard to health status, the presence of chronic disease is a factor significantly associated with the demand for primary health care ($< 0,001$). Ezzrari et al (2022) made the same observation, and their results also show that the type of illness has an impact on the use of PHC. An individual suffering from a temporary illness will seek care more frequently than someone with a chronic illness. What's more, if the illness persists, the use of modern care is all the more likely.

In short, the study showed that the use of primary health care is associated with a range of factors influencing individuals' healthcare demand behavior in the city of Tiznit.

Conclusion

The availability of primary healthcare services constitutes a fundamental aspect and outcome of human development. At the microeconomic level, enhanced health plays a pivotal role in enabling individuals and households to break free from poverty and bolster their productive capabilities.

Primary healthcare assumes a crucial role in catering to individual needs, ranging from preventive measures to curative treatments, as well as rehabilitation and palliative care, all within close proximity to their everyday environment.

The primary objective of this study is to comprehensively grasp the diverse determinants that influence the utilization of primary healthcare services within the city of Tiznit. To achieve this aim, we conducted a quantitative explanatory study

involving a sample of 300 individuals residing in the town of Tiznit. Data collection was facilitated through the use of a questionnaire, while data processing and analysis were carried out utilizing the Jamovi software.

Based on the study's findings, a robust and significant correlation was established between the utilization of primary healthcare services and the following factors: age, gender, household size, cost of care, health insurance coverage, income, household expenditures, and presence of chronic conditions. These outcomes align with the synthesis of numerous previous studies addressing this very issue.

Furthermore, a comprehensive overview was presented encompassing all the dimensions that are likely to exert influence over healthcare consumption and utilization. This overview underscores the utmost significance of socio-economic, socio-demographic, health-related, and healthcare supply-related dimensions in shaping the healthcare consumption function.

In summary, the utilization of primary healthcare services is influenced by a multitude of factors. Public policymakers are called upon to duly consider these factors, as they hold particular importance in ensuring optimal conditions for enhancing individuals' health and well-being.

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