



## RESEARCH ARTICLE

## Evaluation of the Efficiency of Health Services in Al-Dabouni District in Wasit Governorate

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ARTICLE INFO	ABSTRACT
Received: May 8, 2024 Accepted: Jun 18, 2024	Health services are a set of health and curative services provided by the health sector at the level of any country, whether curative or preventive to members of society to maintain health, and countries attach great importance to these services because of their great impact on society and human health through the preparation of distinguished health bodies, global and national expertise and all requirements. Most Iraqi cities, including the study area, face a number of problems and challenges represented in the poor distribution of services in general and health in particular. In addition to its concentration in the center of cities and not taking into account planning standards in its distribution in line with the increase in population and their needs of these services, the research provides an extensive study on the reality of health services in Wasit Governorate (Dabouni district) based on the available data and relevant maps. For the purpose of assessing the efficiency of these health services, the currently available numbers of health services were compared with their counterparts according to local Iraqi standards, and the results of the analysis showed a low level of efficiency of health services in the governorate. Local standards were used to indicate the actual need of the health service in order to improve the health level in the study area.
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### INTRODUCTION

The process of evaluating the services provided has several meanings and definitions, sometimes it is defined as the process of detecting weaknesses in the level of services provided based on agreed standards, and then working to fix them, and sometimes defined as measuring and analyzing the service provided according to agreed foundations to identify weaknesses and strengths, and finally evaluation is defined as estimating the quantity and level of service provided in relation to specific criteria

Social services, which represent the most important part in the public services sector, have a great place in the lives of the population due to the services they provide in direct contact with the needs of the population and the development of their urban centers, which relate to society in terms of its composition and various functions in a way that no society can do without, health services are one of the most prominent social services needed by all contemporary human settlements without exception. Therefore, it is necessary to identify the nature of these services, their spatial distribution and efficiency for this Distribution, and knowing the planning and spatial factors affecting this distribution in order to identify the extent of their conformity or non-conformity with the standards

and to reveal the strengths and weaknesses in the nature of the spatial distribution of these services within the city.

### **Search problem**

The problem of the study was formulated under the following scientific questions:

- Are health institutions distributed in the district in a balanced manner with the population size at the level of residential neighborhoods in the city?
- Is the spatial distribution of these establishments compatible with the distance of access to the service by the residents in the city?

### **Research hypothesis**

The study assumes that the district of Dabouni suffers from a functional shortage in the volume of health services available due to the lack of health institutions in it, if not the lack of availability.

### **Importance of research**

- Knowing the reality of health institutions in Al-Dabouni district in light of the population increase.  
Identify the most important causes and obstacles that reduce the efficiency of health services in the judiciary and develop appropriate solutions to them.

## **RESEARCH METHODOLOGY**

The study adopted the descriptive analytical approach and comparison between planning standards and the reality of the state of health social services, and to determine the current need, in order to reach the results and recommendations of the study.

### **Spatial and temporal boundaries :**

Spatial boundaries: The administrative boundaries of Al-Dabouni district in Wasit Governorate.

Time Limits: The Health Services Study for 2023.

### **Concepts and terminology used in the study:**

#### **Services:**

It is a set of activities aimed at satisfying human needs in order to improve the human lifestyle, protect and raise its status directly and indirectly and does not lead to the production of goods directly, and is consumed by the population at the time when it is produced, managed and provided by the state or some individuals, as service activities are classified into two types: <sup>1</sup>

A – Non-material service activities: They are activities with social returns such as education and others.

B - Material service activities: These are the activities provided by economic establishments.

#### **Concept of services<sup>2</sup>**

The concept of (services) is one of the concepts that have received great attention recently, due to the increasing human need for these services, especially after the development of techniques and methods used in providing those services, and the interest in studying services was limited to the

<sup>1</sup>Abbas Ghali, Recreational Services for the Residents of Basra, Master's Thesis, College of Arts, University of Baghdad (unpublished), 1983, p. 1.

<sup>2</sup> Al-Dulaimi, Khalaf Hussein Ali, City Planning: Methods - Standards - Theories - Techniques, 2015, p. 38.

design aspects, as is the case for engineering studies that dealt with the study of the design of service buildings from schools, hospitals and recreational centers are called community or social services

### **Classification of services**

There are several classifications of services, including:

**1. Classification of services according to the spatial dimension:** They are classified into two main types according to the method of planning, and the place they occupy, namely:

**Community or social services (cadastral):** It means: education, health and recreation services, which are characterized as: cadastral services, i.e. occupying a specific area of the urban city <sup>land (3)</sup>.

**Infrastructure services (linear):** They are services: water, electricity, sewage sewers, solid waste collection, telephone and roads, and are characterized by: they take a linear situation.

**Classification of services according to different criteria<sup>4</sup>:** A- Type criterion: This means the type of service, and here two types of classification can be included as follows:

**1- General classification:** Services are divided according to this classification into three sections (institutional services,

Social services and technical infrastructure services)

### **2- Detailed classification**

The detailed classification of services includes the following: , as it includes several types, including <sup>(5)</sup>:

**(Housing services, education services, health services, religious services, cultural services... etc.)**

There is a criterion based on the form and in this criterion can classify services according to the forms of phenomena on the surface of the earth and they take three main forms are point services such as (communication and electricity towers), cadastral services such as (police stations, schools, health centers, hospitals) and linear services such as (water networks, electricity networks, telephone networks, sewage networks<sup>6</sup>).

**Characteristics of services <sup>(7)</sup>:** Community services and infrastructure all share several characteristics, and they represent the main goal of their availability, including:

#### **1. Adequacy of services**

The provision of any kind of service must achieve efficiency in providing service to the entire population, and through planning in a manner consistent with the reality of population distribution and density, and be in accordance with the standards adopted in each type of service.

#### **2. Efficiency of services**

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<sup>3</sup>Ghoneim, Othman Mohammed, Planning Standards, Philosophy, Types, Methodology of Preparation and Applications in the Field of Urban Planning, Dar Safaa for Publishing and Distribution, Amman, First Edition, 2011, p. 26.

<sup>4</sup>Ghoneim, Othman Muhammad, Planning Standards, previous source , p. 26.

<sup>5</sup>Ghoneim, Othman Muhammad, Planning Standards, op. cit., p. 27.

<sup>6</sup>Ghoneim, Othman Mohammed, Planning Standards, op. cit., 2011, pp. 28,27.

<sup>7</sup>Moselhy , Fathi Mohamed, Geography of Services, Theoretical Framework and Arab Experiences, 1st Edition, Menoufia University Press, Egypt, 2001, p 103.

The efficiency of services depends on the type of machinery, equipment and techniques used in providing the service, the more advanced these technologies, the higher the efficiency of providing these services,

### **Service flexibility**

The flexibility of the service lies in several directions:

1. The service should have the ability to absorb the natural population increase for a period of time without affecting the normal per capita quota.
2. Absorbing the developments in the field of service without interruption or failure to provide it.
3. Perform its work normally even if there is a defect in part or part of it.

### **1. Security**

Safety is one of the important aspects in providing the service, it must be available correctly, and within considerations and standards to achieve this property, the location of the school, for example, must be in a place where the student is not exposed to risks, such as: crossing highways,

### **Harmony**

The design of the different facilities for services must be consistent with the prevailing environmental conditions, whether the characteristics of the site from the topography and climate, the nature of the distribution of land uses or the distribution of the rest of the other types of services.

### **Social services**

They are the services at which each or all of the community of the city or region meets to practice social activities or perform certain functions regularly, which makes the institutions that provide these services of great importance in achieving and developing social relations, which contributes to the creation of a sound civil settlement environment. These services are usually represented by educational institutions, health and recreational institutions and places of worship<sup>8</sup>.

This range of services includes education and health services. These uses are linked to residential use, i.e. they are an integrated process in uses, or the community services sector in general represents a real measure of the level of urbanization, progress and growth of society, the health, education and leisure sectors are important indicators of that growth, progress and advancement intended<sup>9</sup>.

### **Social services as basic needs**

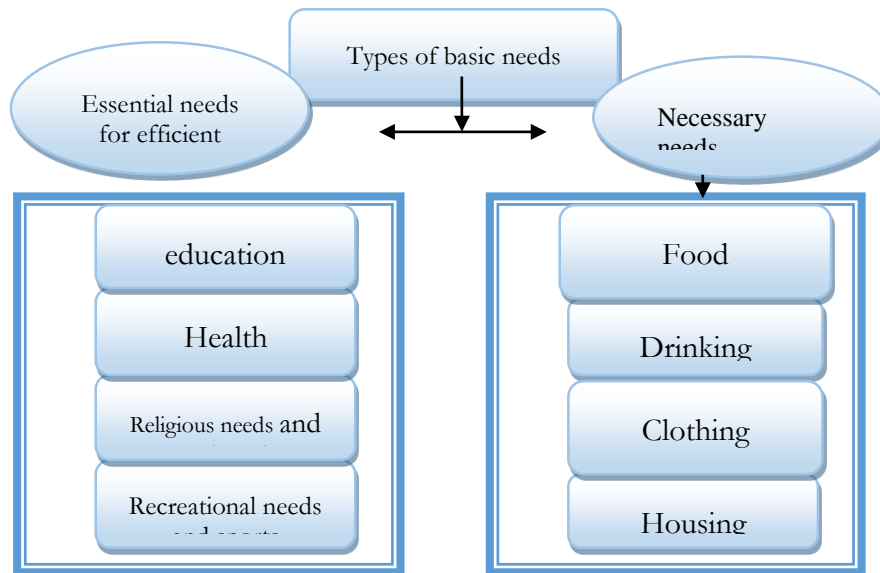
Social services are basic needs that can not straighten life without them, the service of housing or shelter is one of the necessary services to maintain life and without it can not human continue in life, while other social services such as education, health, religious, sports and recreational services and public administrative services are services that enable man as an individual and as a group and as a

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<sup>8</sup>Al-Jumaili, Riyadh Kazem Salman, Efficiency of Spatial Distribution of Community Services in the City of Karbala, A Study in the Geography of Cities, PhD Thesis (Unpublished), College of Education Ibn Rushd, University of Baghdad, 2007, p. 22.

<sup>9</sup>Al-Maaini, Abdul Qadir Muhammad Saud, The Role of Community Participation in Planning Health Services, Master's Thesis (unpublished) submitted to the Center for Urban and Regional Planning for Postgraduate Studies, University of Baghdad, 2012, p. 37.

community to perform life functions efficiently and enable him to live under decent and acceptable living standards, Figure 1<sup>10</sup>.



**Figure (1) Chart showing the types of basic needs (basic needs for life and social services) .Source: Researcher work based on Ghoneim, Osman Mohamed, Planning social services and facilities from an urban perspective, 2013.**

In order to analyze the health services in the study area to see the extent to which these services can meet the need of the population and the extent of their convergence with the standards and in order to be able to determine the efficiency of the health services provided, they must be analyzed by comparing the reality of the state of health services with the mentioned standards, so they will be relied upon in the spatial assessment of the efficiency of health services in the study area, which are the standards for health services approved in Iraq, Issued by the Ministry of Construction and Housing 2018, which the state seeks to achieve to reach a better level of health services.

### Health centers

The concept of primary health care as conceived by the World Health Organization (WHO) is "basic care available to all individuals and families within the community, and is an integral part of the health system and the comprehensive health development of the community".<sup>11</sup>

The spatial signature of health centers is in accordance with the planning indicators that depend on the health standards taken by the institutions of the Ministry of Health, and we will take into account the following indicators in the evaluation process:

### Health center / person indicator

The standard adopted by the Iraqi Ministry of Health (1/10000) health center / person, and to calculate the gap in health centers is compared with the standard.

<sup>10</sup>Ghoneim, Othman Mohammed, Planning Social Services and Facilities from an Urban Perspective, Dar Safaa for Publishing and Distribution, First Edition, Amman, 2013, p. 23.

<sup>11</sup>Basic Human Needs in the Arab World, United Nations Environment Program, translated by Abdul Salam Radwan, Knowledge World Magazine, No. 150, Kuwait, 1990, p. 213.

### C- Health Center Area Indicator

The analysis of the indicator of the area of health centers in the study area is according to two patterns, the first depends on the per capita share of health services, which is (0.066 m<sup>2</sup>)<sup>(12)</sup>, and the second depends on the area of the health center with (2000 m<sup>2</sup>) as a minimum according to planning standards.

When fixing the per capita total area of health centers (0.066 m<sup>2</sup>), so we will calculate the need for space according to the per capita share (m<sup>2</sup>) of health services and the percentage of their conformity to the indicator with the percentages assumed to be provided to the population of the study area.

#### Spatial signature of hospitals according to planning indicators

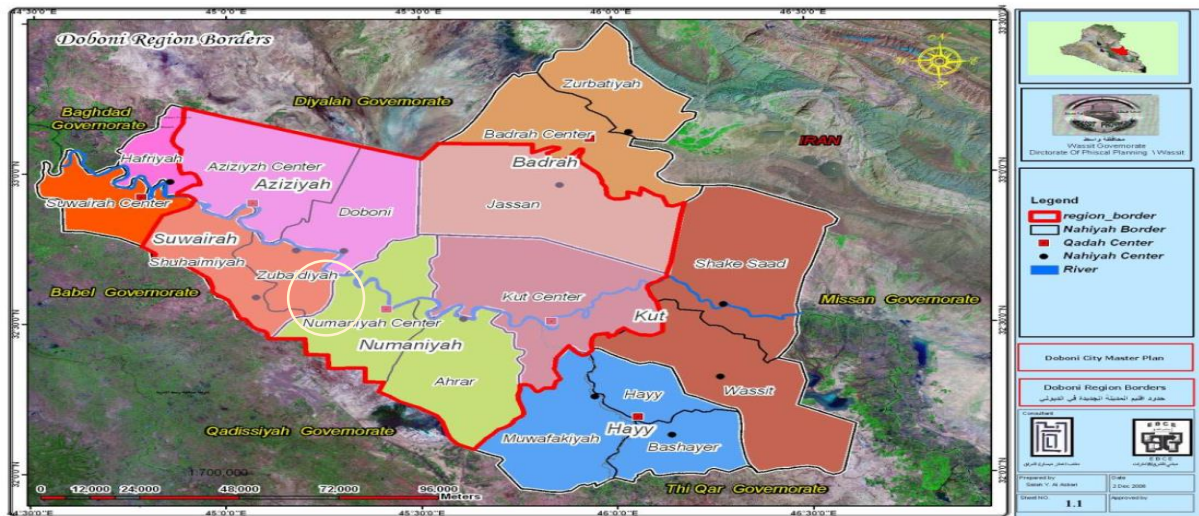
Reliance will be on the health indicators and standards adopted by the institutions of the Ministry of Health, and the standards of the Public Authority for Housing in the booklet of urban housing standards for the year 2018 and the use of these indicators and standards at the level of the study area, and we will take into account the following indicators in the evaluation process:

1. Service scope indicator.
2. Hospital/person indicator.
3. Hospital area index.

According to health standards and based on the above indicators, the study area does not need a hospital because there is a hospital in the Aziziyah district that provides its services to the study area (Al-Dabouni district).

**Study area:** Al-Dabouni district is located within Al-Aziziyah district in Wasit Governorate in Iraq, where the center of Al-Aziziyah district forms its western borders, Badra and Jassan district its northeastern borders, and the administrative borders of Diyala governorate its northern borders, while the Tigris River and the centers of the districts of Kut, Numaniyah and Zubaidiya form its southern and southeastern borders, see map (1)

**Map (1) showing the boundaries of Al-Dabouni district within the areas of Wasit Governorate**



Source: Ministry of Construction and Housing, Directorate of Urban Planning in Wasit, 2023

<sup>12</sup>Ministry of Housing and Construction, Urban Housing Standards Booklet, previous source, 2010, p. 11.

**Analysis of the reality of the health function in the district of Dabouni**

Al-Dabouni district has witnessed important developments in the health function, whether in the number of affiliates or in the number of buildings, especially in the recent period, due to the population growth, which is one of the main factors that directly affected its development, as the population of Al-Dabouni district is about 29,645 people, according to the estimates of the Central Bureau of Statistics for the year 2023, most of whom are residents from the countryside, where the percentage of rural population is 84% and urban about 16%, as in Table (1), where we notice in the last 5 years The percentage of the rural population is dominant in Dabouni, where most of the population is from rural and works in agriculture.

**Table 1: Population of Al-Dabouni district for the last 6 years**

Total Population	Rural population			Urban Population			Sunnah
	Female	males	sum	Female	males	sum	
25959	10948	10904	21852	2045	2062	4107	2018
26666	11246	11201	22447	2101	2118	4219	2019
27392	11552	11506	23058	2158	2176	4334	2020
28122	11860	11813	23673	2216	2233	4449	2021
28873	12177	12128	24305	2275	2293	4568	2022
29644	12502	12452	24954	2336	2354	4690	2023

Source: Preparation of the researcher based on the data of the Central Bureau of Statistics / Ministry of Planning / unpublished data.

**Health centers**

The concept of primary health care as portrayed by the World Health Organization (as the basic care available and available to all individuals and families within the community, and it is an integral part of the health system and the comprehensive health development of the community), for this health centers are the first nucleus to provide medical service at the level of neighborhoods, shops and villages, These centers make health files for all families that fall within the scope of the centers' service to follow up on the health status of members of each family.

There is one government health center in Dabouni that serves the urban center and the countryside, which is affiliated with the Azizia health care sector, the area of the center is 1000 m2 and is built on a land area of 2875 m2, reviewed annually approximately (75000) references, 200 references / day, see map (2)



Map (2) Dabouni health center  
Source: Directorate of Urban Planning in Wasit

The health center is located in the urban center and is the only one in the rural district that has a health home that lacks the simplest services and its services are limited to simple medical consultations and medication and is reviewed annually by approximately 300 patients / year. In order to know the required number of health centers in the city of Dabouni, we will adopt the following indicators:

### First: Health center / person indicator

The number of health centers in the study area as a reality is the case of only one health center that provides a service to a population of (29,645) people, noting that the standard adopted by the Iraqi Ministry of Health is (1/10,000) health center / person, and to achieve this criterion and according to the population, the number of health centers required is 3 health centers in rural and urban areas, as shown in Table (2)

**Table: Number of health centers required by criterion**

Gap	The required number according to the standard	Number of health centers in existence	Population	Administrative Unit
0	1	1	4690	Urban Center
2	2	0	24954	Rural villages

### The research source based on Iraqi standards and the data of the Wasit Planning Directorate,

The urban center has a population of 4,690, while the rural villages have a population of 24,954. There is one health centre in the urban centre, while there is no health centre in rural villages. The required number of health centers refers to the recommended number of health centers for each administrative unit. It depends on the number of inhabitants as there is one health center in the urban center, which is sufficient to meet the needs of the urban population and there is no health center in rural villages, which represents a lack of health services. Based on the standard of health centers, we need two health centers in the countryside.

### Second: Health center area index

The analysis of the indicator of the area of health centers in the study area depends on the per capita share of health services, which is (0.066 m<sup>2</sup>), when fixing the per capita total area of health centers (0.066 m<sup>2</sup>). لذلك سوف ندرج Table (3) shows the actual need for the areas of health centers according to the per capita share (m<sup>2</sup>) of health services and the extent to which they match what is in the current reality.

**Table 3: The available area of health centers in Al-Dabouni and the actual need**

Gap	Space required by standard	The available space is a reality	Population	Administrative Unit
No	307	1000	4690	Urban Center
1646	1646	0	24954	Rural villages

### The research source based on Iraqi standards and the data of the Wasit Planning Directorate,

We note from Table (3) above that the available space for the health center in the urban center is sufficient and meets the current and future needs of the population, but for the countryside there are



no health centers, so we need a health center with an area of 14646 m<sup>2</sup>, or two centers with a smaller area

## CONCLUSIONS

1. Health centers are public institutions that provide health services to a large segment of citizens and these centers consume significant human and material resources, so it is necessary to have an efficient use of these resources.
2. Poor efficiency of the service provided in the health center due to the great pressure on its services
3. The planning standards (health center / person) are within the standards in the study area and commensurate with the number of residents, as they are sufficient as a reality of the situation of health centers in urban areas, but rural there is no health center and that the rural population depends on the health center in urban areas, which causes great pressure on it and does not provide its services well.

## Recommendations

1. The study proposes to support and strengthen the existing health center and raise the efficiency of its performance of health services.
2. Establishing advanced and model health centers to meet the need for health services in rural and urban areas
3. Redirecting and restructuring the resources of the health institution for the purpose of achieving better performance and competitive advantage in the medical and health environment
4. Preparing studies and research projects in order to develop health services in all health centers in the districts and suburbs of Wasit Governorate

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