

Study of the public expenditure trends guide on health and its effects on health indicators in Iraq for the period (2004-2019)

Prof.Dr. Amal Asmar Zboon. & Nabaah kadhim hadi

Amel.zaboon@qu.edu.iq & Eco.post12@qu.edu.iq

Al-Qadisiyah University - College of Administration and Economics

Abstract

Various governments seek, through public spending, to achieve a set of goals, whether economic or social, so they seek, through one of its components, which is spending on the health sector, to raise the level of this sector and provide its most important requirements. Iraq is one of the countries that put spending on the health sector as a major requirement. One of the requirements of sustainable development to influence its economic and social dimensions by raising the level of health sector indicators in the country. The research relied on the descriptive analytical approach in presenting data and analyzing the results, as it was concluded that the weakness of public spending directed towards the health sector, In addition to the low percentage of this type of spending compared to actual public spending, it was reflected in the rates of development in its indicators, and thus the failure to achieve what the government seeks to raise the level of health services and improve the reality of this sector.

Key words: actual public spending, Iraq, the health sector.

Introduction:

Public spending in all its forms is the payments and purchases made by various parties of the state that the private sector cannot provide, or it is not among its duties to do without obtaining special profits for it, as it is important for the public benefit as a whole and not one of the tasks of the private sector, and examples are spending on infrastructure. Spending on defense, health, education and social protection, and all countries of the world strive to achieve progress in this type of spending in order to maintain public health, good education, and a decent standard of housing and food for all individuals under the auspices of the state. The health sector is one of the most important social sectors, especially in these The period in which epidemics and diseases abounded and their multiplicity, as well as the high cost of treatment, which consumes a large proportion of the families' budget, so the countries of the world, including Iraq, tended to improve the level of health and each country according to its financial capabilities and infrastructure in this field, especially that the health sector is one of the most important sectors that focus It has the sustainable development goals sponsored by the United Nations and implemented by Iraq and seeks to reach acceptable levels in it.

Research importance:

The importance of the research comes from the importance of the title of the topic, and that importance can be indicated by the following:

1. Shedding light on the importance of spending on health and allocating certain and increasing percentages annually in order to improve the public health level in Iraq.
2. Demonstrating the important role of the health sector in achieving sustainable development in Iraq, as it is the main element in achieving the rest of the general goals that the countries of the world seek to achieve.
3. Linking the health sector with other economic and social sectors through which community integration is achieved in terms of education, health and culture in Iraq.

Research problem:

We can define the research problem through the following question: Is public spending on health an important indicator to know the extent of interest in the health sector in Iraq for the period 2004-2019. What is its impact on health sector indicators?

Research Hypothesis:

The research stems from the hypothesis that public spending on health in Iraq has positive effects on the indicators of this sector and contributes to raising the level of health services provided by it.

Search objective:

The research aims to know the role played by public spending on health in Iraq to influence the indicators of the health sector in Iraq for the period (2004-2019) and the extent of its contribution to the development of these indicators.

Research Methodology:

For the purpose of reaching the goal of the research and verifying the hypothesis, the descriptive analytical approach was adopted in analyzing the research indicators based on data and information issued by the Iraqi official authorities in order to reach those goals.

Research Structure:

In order to achieve the objectives of the research, it was divided into: Three sections, the first of which came on a statement of the concept and importance of public spending, and social spending, as well as mentioning the most important justifications for social spending, including spending on health. The second topic dealt with public spending in Iraq, then spending on the health sector, as well as a statement of indicators for spending on the health sector. In Iraq and the analysis of these indicators, as for the third topic, it included the most important conclusions and recommendations.

The first topic: the conceptual framework of social spending

The first requirement: the concept and justification of social spending

First, the concept of social spending

Social spending is an important part of public expenditures as transfers and sums of money directed towards the sectors of education, health, housing, social protection, and the aim of which is to achieve economic and social purposes for the state. Therefore, it has witnessed a growing interest by many countries because of its importance in increasing the well-being of individuals and strengthening cohesion. social, and financial security.

The importance of social spending stems from the presence of many challenges facing societies, including more retirees, fewer workers, the effects of technology on work, and barriers to women's participation in the economy. Thus, the decline in social spending restricts the distribution of income from the higher-income groups to the lowest-income groups, and thus this type of spending enables the reduction of poverty and inequality, and helps low-income families to face economic shocks, including shocks resulting from demographic developments, technology and climate, Also, public investment in education and health boosts productivity and growth and reduces inequality in opportunities and income.

Accordingly, the most important definitions that were received about this concept will be addressed, as some defined it as all expenditures related to the social purposes of the state, the goal behind which is to redistribute incomes among individuals⁽¹⁾, the distribution is made according to the principle of social security and health care through the payment of these expenses to the covered individuals. It is in the form of cash, while others defined it as ((expenditures that are predominantly social in nature and whose main objective is to increase the level of welfare for members of society in general and the poor in particular)). And there are those who defined it as ((the expenditure that goes towards achieving social effects among individuals through a measure of culture, education and health care for individuals, in addition to a measure of social solidarity by helping some groups that suffer from certain conditions and need support, such as providing aid and subsidies to people with limited incomes. and the unemployed...etc. The most important items of these expenditures, related to education, health, culture and housing facilities))⁽²⁾, There are those who consider social expenditures “as long-term social investments that enhance human capital and innovation, promote gender equality and improve inclusive growth.” Human development, mainstreaming gender equality and promoting sustainable economic growth⁽³⁾, Social spending can also be defined as a broad concept that is not limited to the concept of social protection only, but includes spending on health and education, which is important in low-income and developing countries⁽⁴⁾. Since the increase in spending on the previous social sectors contributes to improving the quality of life, and this in turn leads to increased growth, so it is necessary to increase spending on health, education and social protection, because it will affect the productive capacity of the worker and thus will increase production. A type of government expenditure that is made free of charge with the aim of achieving the social dimension of public spending, such as supporting education and scholarships, study accommodation, school and university cafeterias, school transportation, housing support (social and rural) and providing assistance and solidarity by the state for certain groups (the elderly, the blind and the disabled). Provide subsidy for working conditions, which includes (small loans and youth employment) and there are other transfers to support prices))⁽⁵⁾. Thus we can express social expenditures as public expenditures directed to the basic social sectors to ensure the achievement of social and human development, we conclude from the above that spending Social has an important and main role in increasing the well-being of individuals and strengthening social solidarity among them, through the payment of pensions, despite their small numbers, but they make a difference. Between poverty and a decent life for the elderly, providing health care services that increase the lifespan of individuals, save them from death and improve their lives, and educational services, which are an essential pillar in building any society⁽⁶⁾.

Second: Justifications for social spending

1. Expenditure on education is a type of investment for several reasons, including education, which lays a foundation for sustainable economic growth by increasing productivity, because it is the most powerful tool that can reduce poverty. It also contributes to achieving sustainable development. Education also contributes significantly to reducing the phenomenon of poverty from through the distribution of wealth and income and the achievement of justice and equality in society, education is a human right that helps it stabilize the material and life aspects and is not limited to material and other benefits⁽⁷⁾.
2. Spending on the health sector is an important factor in raising the level of health services, as it is one of the most important factors that contribute to achieving sustainable development. The spending allocated to the health sector does not target profit, but rather aims to achieve

a general social benefit, so the funds allocated to this sector must be more comprehensive, covering a wider range of health services, includes the largest number of patients, and achieves the greatest degree of equality among the segments of society, in order to achieve the best returns and goals for which it was designed⁽⁸⁾.

The second topic: the reality of spending on health and its indicators in Iraq

The first requirement: the reality of spending on health in Iraq

Public spending on the health sector is an integral part of the factors affecting this sector, and one of the indicators through which it is possible to identify the effectiveness of the spending policy of the Iraqi government, and Table (1) shows the actual public spending in this sector in the period (2004-2019). It is clear from this that the average growth rate of public expenditure on health for the period under analysis amounted to about (7%), which is less than the average growth rate of total actual public expenditure during the same period, which is about (11.4%), i.e. 4.4 percentage points less than included in fluctuations in rates. The annual growth of both sides, while the actual total public spending of the health sector witnessed an increase during the study period, as it rose from 1420 billion dinars in 2004 to 5759 billion dinars in 2010, achieving the highest annual rate of (39.3%) and the largest percentage of the total public spending. Which amounted to about (8.2%) during the research period and to 6173 its highest level in 2013. During the study period, the current year spending is dominated by the largest proportion of what is allocated to this sector in line with the government's direction to adopt an expansionary spending policy, especially for the year 2010, while annual growth rates were characterized. Public spending on the health sector has shifted between negative and positive at other times, reaching an annual growth rate of about (26.4%) in 2019, and accordingly the government's role in the real public spending side has declined through the decrease in the proportion of spending on the sector to total public spending to about (1.5%) at the end of the period in 2019, which had a clear impact on the decline in the volume of investment spending for it to approximately 1666.3 billion dinars in 2019 after it was about 6173 billion dinars in 2013 and consequently the decline in interest in this sector, with all that it was not. The percentages spent on the health sector are at a level that is commensurate with the rise in oil prices and the increase in public spending sources, especially spending on the health sector, which is underdeveloped according to health standards that we will see in later sections. A recent report by the World Health Organization (WHO) on global health expenditures reveals a rapid upward trend in global health spending, which is particularly evident in low- and middle-income countries, where health spending is growing at an average rate of 6% annually, compared to 4% in High-income countries, while it did not grow in Iraq, except in mostly negative rates in some years and does not indicate stable growth.

Table (1)
Annual Growth of Actual Total Public Expenditure and Public Expenditure on Health
for the Period (2004-2019)

Billion dinars

year	Actual public spending on health			annual growth%	Actual total public spending			annual growth%	Contribution 02:01 %
	current spending	investment spending	Total 1		current spending	investment spending	Total 2		
2004	1313	73	1386		29066	3051	32117		4.3
2005	1008	322	1330	-4	22471	3904	26375	-17.9	5
2006	1347	44	1391	4.6	32598	6209	38807	47.1	3.6
2007	1411	326	1737	24.9	29820	9211	39031	0.6	4.5
2008	2992	20	3012	73.4	39087	20316	59403	52.2	5.1
2009	3650	482	4132	37.2	45941	9649	55590	-6.4	7.4
2010	4625	1125	5750	39.2	54581	15553	70134	26.2	8.2
2011	5088	382	5470	-4.9	60926	17832	78758	12.3	6.9
2012	4609	312	4921	-10	75788	29350	105138	33.5	4.7
2013	5504	669	6173	25.4	78747	40381	119128	13.3	5.2
2014	4533	465	4998	-19	76742	35450	112192	-5.8	4.5
2015	5254	150	5404	8.1	51833	18565	70398	-37.3	7.7
2016	4817	228	5045	-6.6	51173	15894	67067	-4.7	7.5
2017	1133	10.9	1143.9	-77.3	59026	16465	75491	12.6	1.5
2018	1248	70	1318	15.2	67051	13820	80871	7.1	1.6
2019	1650	16.3	1666.3	26.4	87301	24423	111724	38.2	1.5
average				8.8				11.4	4.9

Source: Ministry of Planning and Development Cooperation, Central Agency for Statistics and Technology, Iraqi Economic Report, 2020, p. 24. And the Central Bank of Iraq, the General Directorate of Statistics and Research, various annual bulletins.

The second requirement: the reality of health indicators in Iraq

Health variables are one of the main goals that all countries seek to achieve, because a person cannot live in good health without the existence of sustainable and interactive development in all economic, social and environmental aspects, as the health index is an important indicator of sustainable human development, and through it services are provided The health of community members by treating and preventing diseases and taking care of public health. In view of what health constitutes as a major form of achieving social well-being, so the ease of access of the population to health services is one of the important indicators of the health

status, and the development of the health sector and attention to it is one of the most basic and important goals of the sustainable development process that contributes to the process of human building and upgrading and preparing him physically and mentally⁽⁹⁾, and maintaining and promoting the health status is fundamental to the human contribution to achieving sustainable economic and social development. The following is an analysis of some health indicators in Iraq for the period (2004-2019):

First: the quantitative development of the number of hospitals and health centers

1. The quantitative development of the number of hospitals

Health is one of the important foundations for building human capacity, and therefore the art of the health status of the population in any country is an essential element in achieving economic development, so the Ministry of Health undertakes the main task in determining the level of health and care for individuals within a large organization of hospitals and health institutions affiliated to it, as well as institutions Affiliated to the private sector, as it is one of the indicators of development in the performance of the health sector, and therefore hospitals are that integrated part of the health system and perform the function of providing comprehensive health care, whether it is curative, preventive or rehabilitative for all individuals according to the perspective of the World Health Organization. The health sector, like other sectors, received its share of neglect that affected most service institutions in Iraq, following the successive crises that the country faced after 2003, which was represented by poor management and organization and the lack of security stability that still prevails to this day. Table (2) shows that the health sector in Iraq has received its share of neglect that affected most of its service institutions, and despite some improvement in the indicators that it is not commensurate with the amount of financial resources that were spent through huge budgets after 2003.

Table (2)

Population, Hospitals and Family numbers in Iraq for the period (2004-2019)

year	population	annual growth %	government hospitals	annual growth %	Population / Hospital (density)	Disability (hospital per 100,000 people)	Number of beds per 1000 people
2004	27138000		143		189776.2	89776	1.33
2005	27960000	3	145	1.4	192827.6	92828	1.3
2006	28808000	3	147	1.4	195972.8	95973	1.3
2007	29681000	3	156	6.1	190262.8	90263	1.33
2008	30581000	3	208	33.3	147024	47024	1.26
2009	31664000	3.5	220	5.8	143927.3	43927	1.27
2010	32490000	2.6	229	4.1	141877.7	41878	1.3
2011	33088000	1.8	231	0.9	143238.1	43238	1.3
2012	33725000	1.9	239	3.5	141108.8	41109	1.3
2013	34304000	1.7	255	6.7	134525.5	34525	1.3
2014	34819000	1.5	257	0.8	135482.5	35482	1.38
2015	35212000	1.1	253	-1.6	139177.9	39178	1.38
2016	36169000	2.7	260	2.8	139111.5	39112	1.3
2017	37139000	2.7	273	5	136040.3	36040	1.32
2018	38124000	2.7	281	2.9	135672.6	35673	1.3
2019	39128000	2.6	286	1.8	136811.2	36811	1.31
average		2.5		5	152677.3	52677	1.3

Source:

1. Ministry of Health (2007-2018), annual statistical reports, various pages.
2. The World Health Organization (WHO) (2010-2014) World Health Statistical Reports, different pages.
3. World Bank data site.
4. Ministry of Planning, Central Statistical Organization, annual statistical totals from (2006-2019).

The indicator of the population and the number of hospitals is one of the criteria of great importance in determining the share of hospitals in the population, and according to what was stated in the standard of the World Health Organization and the standard of the Ministry of Health that it was set at (100,000) people for each hospital, and it appears through the data contained in Table (19)) The number of hospitals is not proportional to the number of the population, it has exceeded that, especially since it was at the beginning of the period 2004 about 89,776 people, and this is a clear deficit in the ability to provide services to the population, and the deficit continued until the year 2006, reaching 95,973 people, which is the largest deficit recorded in the number of hospitals during The duration of the research (2004-2019) due to the lack of government interest during the period (2004-2006), and the deficit decreased to lower levels to reach about 36,673 people in 2018 and

39,811 people in 2019, which is also considered a large deficit according to international and local standards and a great pressure on hospitals. It is worth noting that the increase in the number of hospitals and their slow growth rates during the research period (2004-2019) can be attributed to the weak government interest in this sector, because the specifics directed were not and did not keep pace with the increasing population growth, not to mention that the Ministry of Health did not make good use of the investment allocations for building government hospitals, or the percentage of implementation in those budgets declined, and they were not used in a way that secures the development of the health reality, and one of the important requirements for providing health services in this field is (the number of beds) available in those hospitals, as it is clear from the indicator (the number of hospital beds per 1000 people) that it was modest and did not constitute importance or feasibility in providing services to the population. After it reached about 1.33 beds per 1000 people in 2004, it decreased to about 1.31 beds in 2019, which in itself is considered low and came in line with the number of hospitals, stressing the obvious demographic pressure on health services in this area due to the aforementioned reasons.

2. The quantitative development of health centers

Primary health care centers are considered as institutions that provide primary health care services, preventive, diagnostic, curative, and health promotion services to citizens, as well as working to enhance community participation through a network of primary and secondary primary health care centers, clinics and mobile health teams, and the following table (3) shows the numbers Population and health centers in Iraq for the period (2004-2019).

Table (3)
Number of population and health centers in Iraq for the period (2004-2019)

year	population	annual growth %	health centers	annual growth %	Residents / health center	Deficit/ (centers per 10,000)
2004	27138000		1800		15077	5077
2005	27960000	3	1809	0.5	15456	5456
2006	28808000	3	1820	0.6	15829	5829
2007	29681000	3	1839	1	16140	6140
2008	30581000	3	1989	8.2	15375	5375
2009	31664000	3.5	2168	9	14605	4605
2010	32490000	2.6	1331	-38.6	24410	14410
2011	33088000	1.8	2441	83.4	13555	3555
2012	33725000	1.9	2538	4	13288	3288
2013	34304000	1.7	2642	4.1	12984	2984
2014	34819000	1.5	2632	-0.4	13229	3229
2015	35212000	1.1	2680	1.8	13139	3139
2016	36169000	2.7	2669	-0.4	13552	3552
2017	37139000	2.7	2658	-0.4	13973	3973
2018	38124000	2.7	2765	4	13788	3788
2019	39128000	2.6	2805	1.4	13949	3949
average		2.5		5.2	14897	4897

Source:

1. The results of the general population census for the year 1997 and the results of numbering and enumeration for the year 2007.
2. The years (2010-2018) represent population projections, which are calculated according to new population assumptions.
3. The Ministry of Health (2007-2018), annual statistical reports, various pages.
4. The World Health Organization (WHO) (2010-2014) World Health Statistical Reports, different pages.
5. Ministry of Planning, Central Statistical Organization, annual statistical totals from (2006-2019).

The World Health Organization and the Iraqi Ministry of Health have set a standard that includes an indicator (a health center per 10,000 people). According to it, it is clear from the examination of Table (3) that there is a clear lack and modesty in the number of health centers in Iraq, after the density of health centers reached about 15077 people through the (population / health center) index in 2004, it increased to reach 24410 people and it did not keep pace with the successive increase in the population, the country's need was about 5077 people, which represents a significant deficit in the number of health centers and their failure to meet the needs of the growing population in conjunction with the increasing population growth, as the number of health centers of 1880 health centers in 2004 does not keep pace with the population of 217,138 thousand people in the year. The aforementioned itself, and thus constitute a great burden on primary health care centers, in addition to the fluctuating number of health centers, especially during the years (2004-2010),

which can be attributed to the lack of sufficient care and attention to establish, establish or develop these centers for the benefit of the majority, on the one hand, and given some of them were destroyed as a result of sabotage and terrorist acts, and others were neglected due to insufficient financial allocations directed to this area or to the state of security instability, on the other hand, and despite the increase in the number of these centers from 1,331 health centers in 2010 it reached 2,805 health centers in 2019 with fluctuating growth rates, but its density according to the criterion (population / center) was low despite its decline from 24,410 people in 2010, with a deficit of 14,410 people after subtracting the value of the criterion of 10,000 people per center to a density of about 13,949 people in 2019, with a deficit of about 3,949 people, which represents their need for health center services to provide primary care, meaning that the deficit in the number of health centers according to the international standard and the local standard amounted to about 3,949 people in 2019, which is below the level of the global and local standards, which requires securing one health center per 10,000 people.

Second: Birth indicators and life expectancy.

1. Birth Index (Raw Births)

Crude births are one of the main actors in the population change and one of the elements of population growth, and fall within the importance and study of plans and programs related to human development in the future, as it is required to secure health services for subsequent generations, including those under the age of five.

By examining Table (4) and following the birth index (crude birth rate per 1000 live births), it is clear that the mentioned rate ranges between 28.6 live births in 2019 and 34.4 live births in 2004. This rate is considered high compared to the global average, especially in developed countries (), The rate has been in a state of fluctuation, even if it has been declining in recent years (2017-2019) (), and it is higher in the countryside than in the urban areas due to the social conditions and traditions affecting the rural areas, which adds more economic burdens on the family.

2. Life expectancy index at birth

The life expectancy at birth is expressed as the number of years the newborn child is expected to live when the prevailing patterns of death continue at birth and what they are throughout his life, the level of the basic health status of the population.

Table (4)
The development of crude births, deaths and life expectancy at birth in Iraq for the period (2004-2019)

year	Crude birth rate per 1000 live births	Crude death rate	Infant mortality under 5 years of age per 1000 live births	Life expectancy at birth
2004	34.4	6.2	32.8	68
2005	34.1	6.3	32.2	68
2006	33.9	6.1	31.5	65
2007	33.7	6	30.8	61
2008	33.6	5.7	30.1	68
2009	33.5	5.6	29.3	71.9
2010	33.3	5.5	28.5	72.8
2011	33.2	5.4	27.7	69
2012	32.8	5.3	26.9	72
2013	32.4	5.3	26.1	71.1
2014	31.8	5.3	25.4	72
2015	31.1	5.3	24.6	72.6
2016	30.4	5.3	23.9	71.2
2017	29.7	4.8	23.2	70.3
2018	29.1	4.5	22.5	68.4
2019	28.6	4.3	21.8	68.7
average	32.2	5.4	27.3	69.4

Source:

1. The years (2010-2018) represent population projections, which are calculated according to new population assumptions.
2. The Ministry of Health (2007-2018), annual statistical reports, various pages.
3. The World Health Organization (WHO) (2010-2014) World Health Statistical Reports, different pages.
4. Ministry of Planning, Central Statistical Organization, annual statistical totals for the years (2006-2019).

From Table (4), it is clear that the life expectancy at birth in Iraq ranged between 61 and 72.8 years during the research years, and accordingly it is considered high if we take into account the decrease in the number of deaths among infants from 32.8 in 2004, which represents the mortality rate of infants under the age of The fifth per 1000 live births, to reach 28.5 in 2011, and this is a result of improved living conditions as a result of high income levels and a decrease in the death rate in the year after 2009.

Third: mortality and infant mortality index.

1. Crude mortality index

The phenomenon of mortality is an important component of population change, and it is usually compared with births and through it it is possible to judge the composition of the

population and is affected by many economic, political, social and cultural conditions, and depending on the indicator (the number of deaths during the year per 1000 population), what is noted through the table Previous (4) that the death rate in Iraq decreased from 6.3 per thousand in 2004 to 4.5 per thousand in 2019 with an average rate for the whole period of about 6.6 per thousand due to the impact of the health sector, especially the health and government private sector, when compared to the first years of the research period, not to mention the openness to The outside world, the improvement of the standard of living, the growth of human development programs in most countries of the world, as well as the improvement of the health standard of citizens.

2. Infant Mortality Index

It represents the number of deaths of children under the age of one year for every (1,000) children born alive, and is used as a general indicator of the health level of the community, being a measure of environmental health with the probability of death between birth and the fifth birthday, and is calculated according to the following formula:
= (Number of child deaths before the end of the first year of life in a given year / Number of live births in the same year) * 100 One of those immunized against measles increased from 89% in 2014 to (95%) in 2017, in addition to that an estimated 70.9) ٪) of births are registered in governmental and private health institutions, while the remaining percentage of them, amounting to (29.1%) delivered outside those institutions, Reflects the increased ability to access health services, especially health care during childbirth.

Fourth: Indicators of human resources for health

1. Doctors

Physicians are a mainstay of the components of the health system. They are responsible for diagnosing patients and prescribing treatment by determining the procedures to be followed, such as clinical, laboratory and radiological examinations, as well as giving therapeutic and preventive instructions to get rid of various diseases. There are two indicators that can be relied upon in this field:

- Doctor index for each hospital.
- Population/doctor index.

It is noted from the data in Table (5) that the number of doctors working in health institutions, both specialization and non-specialized, amounted to about 16,022 male and female doctors in 2004, which increased to about 37,400 male and female doctors in 2019. While the density of (residents/doctors) reached about 1694 people in 2004, and decreased to 1049 people per doctor in 2019, which indicates the presence of pressure in the population's absorption in terms of providing medical services, according to the international standard (one doctor per 1000 people) in the average period (2004-2019), which amounted to about 4111 people and about 912 according to the standard of one doctor per 500 people, and this is considered high and constitutes a great pressure. This gives a negative indication and generates great pressure on doctors compared to the population, and thus reflects negative effects on the level of health service provided to the population, whether in terms of diagnosis or treatment.

Table (5)

The development of the number of doctors and hospitals in Iraq for the period (2004-2019)

Source: Ministry of Health (2007-2018), annual statistical reports, different pages. Ministry of Planning, Central Statistics Organization, annual statistical totals for the years (2006-2019).

2. Health professionals

Health professionals are an important part of the health human resources supporting the provision of health care along with doctors and nurses, and it includes laboratories, radiographers, physician assistants and pharmacists.

Based on the data contained in Table (6), it is noted that the number of health professionals in government health institutions amounted to about 21,843 in 2004, and increased to about 84,500 people in 2019, with fluctuating annual growth rates, the lowest of which was about (-17.3%) in 2015 and above 52.5% in 2007, and on average for the entire period under consideration, the growth amounted to about 10.7%, and based on the indicator (population / health profession), it becomes clear that there is a clear decline, which is a positive matter, as the percentage of the indicator has decreased from 1242 (population / Health profession) in 2004 to 1225 (population / health profession) in 2006, then to 463 (population / health profession) at the end of the period (population / health profession), which indicates the development in this field for the involvement of graduates of health institutes in classes Hospitals and health centers, although those percentages did not reach the required level according to the international standard that provides for the availability of a health professional for every 400 people of the population, while the local indicator stipulates the availability of a health professional for every 500 people of the population, which is an indicator of the relationship between the population and its need for health care. Those with health professions, according to which the researcher concludes that the country really needs to have more than the mentioned numbers to fill the deficit Health care, which tends to fluctuate the balance between the actual need and the importance of delivering health services represented by health care services from health professionals.

Table (6)
The development of the number of health professionals in Iraq for the period
(2004-2019)

year	population	number of doctors	annual growth%	Number of government hospitals	A doctor for every hospital	Residents/ Doctor	doctor for every 500 people	doctor per 1000 people
2004	27138000	16022	-	143	112	1694	1194	694
2005	27960000	16788	4.8	145	116	1665	1165	665
2006	28808000	16518	-1.6	147	112	1744	1244	744
2007	29681000	15994	-3.2	156	103	1856	1356	856
2008	30581000	19334	20.9	208	93	1582	1082	582
2009	31664000	21491	11.2	220	98	1473	973	473
2010	32490000	23489	9.3	229	103	1383	883	383
2011	33088000	24533	4.4	231	106	1349	849	349
2012	33725000	27252	11.1	239	114	1238	738	238
2013	34304000	29616	8.7	255	116	1158	658	158
2014	34819000	28592	-3.5	257	111	1218	718	218
2015	35212000	25378	-11.2	253	100	1388	888	388
2016	36169000	25801	1.7	260	99	1402	902	402
2017	37139000	29860	15.7	273	109	1244	744	244
2018	38124000	33436	12	281	119	1140	640	140
2019	39128000	37400	11.9	286	131	1046	546	46
average			6.1	223.9375	109	1411	912	411

Source: Ministry of Health (2007-2018), annual statistical reports, various pages. World Health Organization (WHO) (2010-2014) World health statistical reports, various pages. Ministry of Planning, Central Statistical Organization, annual statistical totals from (2006-2019).

The third topic Conclusions and Recommendations

The two researchers reached a set of conclusions and recommendations, the most important of which can be mentioned as follows:

First: the conclusions

1. Public spending is an important financial policy tool that contributes to satisfying public needs. Therefore, different governments seek through public spending to achieve a set of goals, whether economic or social.
2. Spending on the health sector contributes to raising the level of services provided in this sector and works on the development of indicators, as it is one of the most important factors that contribute to achieving sustainable development for any country within the directions of the United Nations.
3. The spending allocated to the health sector in Iraq is not aimed at profit, but rather aims to achieve a general social benefit, and it has a positive impact on the provision of public services to individuals in Iraq.

4. The increase in public spending on the health sector contributes to keeping pace with the needs resulting from the increase in population and other life requirements that have a major role in completing the general needs of individuals.
5. Despite some improvement in some indicators of the health sector in Iraq, it is not commensurate with the amount of financial resources that were spent through huge budgets after 2003.

Second: Recommendations

1. The need for public spending to be directed towards the economic and social sectors at increasing rates that take into account the growth rate of the population and the actual need in addition to emergency and other cases, especially the health sector, which is one of the important sectors.
 2. The necessity for Iraq to strengthen the goals that set health spending as a major goal of sustainable development requirements to influence its social dimensions, especially health, to advance the level of health sector indicators in the country.
 3. Iraq must restore public confidence in health institutions and provide them with medical supplies by increasing investment allocations directed towards developing the health sector.
 4. The need to focus on achieving the goals of health indicators in Iraq of all kinds in line with the international standards followed.
-

Sources approved for research

First - the books

1 - Amal Saleh Al Kaabi, and Sabah Sakban, Journal of Basra Literature, University of Basra, Issue 96, Volume 1, Year 2021

2- Aladdin Alwan, Health in Iraq: The current health situation and new visions, Ministry of Health, 2nd Edition, 2005.

3 - Abbas Fadel Al-Saadi, Population of the Arab World - A Study of its Demographic Features and Geographical Applications, 1st Edition, Amman, Al-Warraq Publishing and Distribution, 2001.

4 - Abbas Fadel Al-Saadi, Population Geography, Part One, University of Baghdad, 2002.

5 - Zainab Hussein Awadallah, Principles of Public Finance, New University House, Alexandria - Egypt, 2008.

6 - Saeed Abdullah Othman, Public Finance, a Contemporary Analytical Introduction, University House, Beirut, 2008.

7 - Khaled Shehadeh Al-Khatib, Ahmed Zuhair Shamiya, Foundations of Public Finance, Wael House, Amman - Jordan, 2003.

8 - Abdullah Zahi Al-Rashdan, The Economics of Education, Dar Wael, third edition, Jordan, 2008.

Second: Foreign sources:

9 - Joos Moig and S.mahendra Dev, Social Sector Prioritics : An Analysis of budgets and Expenditures in India in the 1990s, Development policy Review, 2004

Third: Translated sources

-
1. Yusra Mahdi Hassan, The Impact of Public Expenditure and Public Revenue on Some Non-material Constituents of Social Development in Iraq for the Period 1985-2008, Journal of Economic and Administrative Sciences, University of Baghdad 2010.
 2. Khamis Kaid, Social Expenditures and Economic Growth Outside the Hydrocarbons Sector in Algeria, A Standard Study for the Period (1890-2013).
 3. ESCWA, Framework for Monitoring Social Expenditures in the Arab Countries as a Tool for Budget Support and Fiscal Policy Reform, United Nations, Economic and Social Commission for Arabs of Asia, Beirut, 2019.
 4. The World Bank, Data Bank, available at: <http://databank.worldbank.org>.
 5. The Central Bank of Iraq, General Directorate of Statistics and Research, Annual Economic Report.
 6. Ministry of Planning and Development Cooperation, Central Agency for Statistics and Technology, annual economic report.
 7. The Ministry of Finance, the general budget law for different years.
 8. Iraqi Ministry of Health, National Health Policy, 2014.
 9. Arab Planning Development Report, Al-Asriya Press for Publishing and Distribution, 2013.