

Comparative study of the role of municipalities in providing health care services

Estudio comparativo del papel de los municipios en la prestación de servicios de salud

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ABSTRACT

Introduction: One of the most important functions of municipalities as a public institution is to provide, maintain and promote the health of citizens. To improve the health of the community, we need to understand the function of the municipality in countries that affect the health and well-being of the population. **Material and methods:** This study is a comparative-descriptive study. After searching for databases and authoritative sources and documents, related research was introduced into the study. Considering the performance of municipalities in the provision of health services, 7 countries were selected as statistical samples. Finally, the comparative attitudes of selected countries based on the role of municipalities in providing health services, macroeconomic indicators and health economics were tabulated, compared and compared. **Results:** The municipalities of the selected countries in the provision of health services have been made in the form of four process factors, context, content and stakeholders, among which the health system infrastructure, government form, the degree of rehabilitation and the council system are considered as effective factors in the provision of health services. **Conclusion:** Development of cities and disproportionate facilities with the population, providing appropriate health services to the people is not possible except with the participation of all sectors, especially urban management. An overview of the experiences of the studied countries shows that the municipalities also play a key role in the development of the city as well as in the area of health.

Keywords: Comparative study; Health services; Municipalities (Source: DeCS-BIREME).

RESUMEN

Introducción: Una de las funciones más importantes de los municipios como institución pública es proporcionar, mantener y promover la salud de los ciudadanos. Para mejorar la salud de la comunidad, debemos comprender la función del municipio en los países que afectan la salud y el bienestar de la población. **Material y métodos:** este estudio es un estudio comparativo-descriptivo. Después de buscar bases de datos y fuentes y documentos autorizados, se introdujeron investigaciones relacionadas en el estudio. Considerando el desempeño de los municipios en la provisión de servicios de salud, se seleccionaron 7 países como muestras estadísticas. Finalmente, se tabularon, compararon y compararon las actitudes comparativas de países seleccionados en función del papel de los municipios en la prestación de servicios de salud, indicadores macroeconómicos y economía de la salud. **Resultados:** Los municipios de los países

seleccionados en la provisión de servicios de salud se han realizado en forma de cuatro factores de proceso, contexto, contenido y partes interesadas, entre los cuales se encuentran la infraestructura del sistema de salud, la forma del gobierno, el grado de rehabilitación y el sistema de consejos. considerados como factores efectivos en la provisión de servicios de salud. **Conclusión:** el desarrollo de ciudades e instalaciones desproporcionadas con la población, proporcionando servicios de salud adecuados a las personas, no es posible, excepto con la participación de todos los sectores, especialmente la gestión urbana. Una visión general de las experiencias de los países estudiados muestra que los municipios también juegan un papel clave en el desarrollo de la ciudad, así como en el área de la salud.

Palabras clave: Estudio comparativo; Servicios de salud; ciudades. (Fuente: DeCS-BIREME).

INTRODUCTION

Health is one of the primary needs of a community that plays an important role in improving the quality of

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life⁽¹⁾. One of health manifestations in the present age is health in cities. The urban space affects every aspect of health and well-being, so municipalities have been developing and planning to provide health in the city⁽²⁾. The study of the health system in terms of structure in different countries shows that municipalities play an important role in providing health services⁽³⁾. Studies have shown that health services in some countries, including Sweden, Finland, Norway, the Netherlands and Denmark, are designed to be provided regardless of social and economic position available to all citizens⁽⁴⁾. The health system in these countries is a 2-layer organized system that the responsibility for providing health services is shared between the municipality and the state, and municipalities are responsible for all primary health services⁽⁵⁾, so that health promotion and disease prevention and diagnosis, treatment and rehabilitation are among the duties of the municipality and the state is responsible for providing health care services in the special fields, including physical and mental hospitals⁽⁶⁾.

The results of studies show that although municipalities have heterogeneous characteristics, health care revenue plays an important role in municipalities' performance⁽⁷⁾. Public opinion polls to the quality of public services in the municipalities shows that health services along with social and educational services provided by the municipality are the most important components of providing quality services by municipalities⁽⁸⁾. Obviously, the provision of health services by municipalities has problems. By examining how municipal health services are provided by municipalities, it is observed that poor relationship between local and regional municipalities, lack of environmental health perception and lack of appropriate funding are among the most important obstacles to health services provided by municipalities⁽⁹⁾. Also, two factors for monitoring the management of municipal health care and the problems and weaknesses in monitoring health care are among the most important obstacles to health services development in municipalities⁽⁷⁾.

Given that one of the most important functions of municipalities as a "social institution" is supply, maintenance and promotion of the health of citizens, there has been scattered efforts by Iranian municipalities to promote the fair development of health services networks in urban space, especially the city's margins. The existence of integrated systems of urban services and more sustainable financial resources based on people's participation, as well as the connection of the municipal council to the municipality, which monitors its performance and reflects the demands of the people in the health sector, is considered as an opportunity to improve the health of citizens through municipalities⁽¹⁰⁾. With the aim of improving the health service provision system, the

present study entitled "Comparative Study of the Role of Municipalities in the Provision of Health Services by Studying the Structure of the Health System of Selected Countries" examines the role and position of municipalities in providing health services and the experience of these countries in providing these services by municipalities to help managers and practitioners of health system of Iran to promote health care provision system.

MATERIAL AND METHOD

This study is a comparative study that has been conducted in 2018. Searching for electronic sources based on the keywords of Municipality, Provide, comparative model, effective factors development, health services, and selected countries, and combining these keywords in databases of google scholar, popmed, proquest, springer, SID, and scopus the given papers were found. The search period for papers was unlimited. 50 related papers were found.

Since the study population included countries in which municipalities played a major role in providing health services, the papers were selected that were closely related to the objectives of the study and the rest of the papers were excluded from the study. Finally, 7 countries were selected in this study: Sweden, Denmark, Norway, Finland, and Netherlands, based on the significant role of municipalities in their health structures, Turkey due to the similarity of its health structure to Iran, and the high presence of municipalities in the provision of health services, and finally Iran, and data related to health system of these countries was described and compared with the latest World Bank and World Health Organization tabulation data.

Ethical considerations: observing the principles of ethics at all stages of research and trusted use of references. Provide research information to managers and officials of the Ministry of Health and Medical Education.

RESULTS

The study countries include 7 countries: Sweden, Norway, Denmark, Finland, the Netherlands, Turkey and Iran. The political system of Sweden, Denmark, Norway and the Netherlands is a constitutional monarchy. The political system of Finland is the Socialist Republic, the political system of Turkey is Republic and the political system of Iran is Islamic Republic. The health sector is defined in all countries at the level of the Ministry of Health. Providing health services by municipalities in different types of health systems include social security system, national health system and health insurance funds. In all countries studied, the Ministry of Health is responsible for the

Table N°1. The feature of the studied countries

Country	Political System	Health System	Stewardship	References
Sweden	Constitutional monarchy	National Health System	Ministry of Health and Social Affairs	(11)
Denmark	Constitutional monarchy	National Health System	Ministry of Health	(12)
Norway	Constitutional monarchy Parliamentary	National Health Insurance	Ministry of Health	(13)
Finland	Socialist Republic	National Health System	Ministry of Health and Social Affairs	(14)
Netherlands	Constitutional monarchy	Consolidated Insurance System	Ministry of Health, Welfare and Sports	(15)
Turkey	Republic	National Health System	Ministry of Health	(16)
Iran	Islamic Republic	National Health System	Ministry of Health and Medical Education	(17)

Turkey has the highest (\$ 2141 billion) and Finland (\$ 247 billion) has the lowest domestic product (GDP), but this index, if compared to PPP, is the highest in Norway (\$ 61414) and Iran (20841) has the lowest value. Sweden's health sector's gross domestic product (11%) is the highest and Turkey (4.1%) has the lowest value among the studied countries. In terms of ratio of general government expenditure to total expenditure in the health sector (Table 2), Norway has the highest value (85.4%) and Iran has the lowest value (53.4%). In terms of out of pocket payment ratio index, Iran with

39.7 percent has the highest value and the Netherlands with 12.3 percent has the lowest value. The share of social security in providing health care expenditure in Turkey is 56.3%, and Iran with 26.9 is the next. There is no social security in Sweden and Denmark. In terms of index of the ratio of the health sector's private expenditure to total health expenditure, Iran has an active presence with 46.6% and Sweden has the lowest value with 14.6% among the studied countries. Table N°2 shows the comparative study of macroeconomic indicators of health.

Table N°2. Macroeconomic indicators of health

Indicators	Unit	Norway	Sweden	Denmark	Netherlands	Finland	Turkey	Iran	References
GDP (in terms of purchasing power parity index)	billion dollars	324	505	296	899	247	2141	1691	WB
Per capita GDP (in terms of purchasing power parity index)	Dollar	61414	50208	51364	52503	44866	26519	20841	WB
The health sector's share of GDP	Percentage	10	11	10.3	10.7	9.4	4.1	7.6	WB
Per capita Health expenditure	Dollar	7464	5600	5497	4746	4005	455	366	WB
Per capita Health expenditure (in terms of purchasing power parity index)	Dollar	6222	5299	5083	5313	3996	996	1262	WB
Public health expenditure to total health expenditure	Percentage	85.4	83.7	84.1	80.70%	77.4	78.1	53.4	WB
Out of pocket	Percentage	17.5	15.2	15.8	12.30%	19.9	16.9	39.7	WB
Share of social security Insurance in health expenditure	Percentage	11	0	0	19.40%	13.3	56.3	26.9	WHO
Share of Voluntary Health Insurance in health expenditure	Percentage	0	0.6	201	5.90%	2.6	0	4.3	WHO
Per capita government spending on health	Dollar	6374	4685	4626	3831	3101	355	195	WHO
Per capita government spending on health (in terms of purchasing power parity index)	Dollar	5313	4433	4277	4288	3094	788	674	WHO
Private sector health expenditure to total health expenditure	Percentage	14.6	16.3	15.9	19.30%	22.6	21.9	46.6	WB

Table N°3 shows health macroeconomic indicators of selected countries. Norway with 82.5 years has the highest life expectancy and Iran with 78 years has the lowest life expectancy. Iran with 21.8 and 14.9 respectively, has the worst mortality rate for children under 1 and 5 years in the studied countries, with a slight difference Turkey is the next and Finland with 1.9 and 2.3 deaths per 1000 live births has the best condition. The number of physicians, nurses, and

hospital beds are among the most important indicators of health. Norway has 4.8 physicians and 17.7 nurses per 1,000 people with the best condition among the studied countries. Finland with 3.9 beds per 1,000 people has the highest number of beds and Iran with 1.5 beds has the lowest number of beds. Table 3 shows comparative study of macro indicators of health care in the studied countries.

Table N°3. Macro indicators of health care in the studied countries.

Indicators	Unit	Norway	Sweden	Denmark	Netherlands	Finland	Turkey	Iran
Life expectancy at birth	Year	324	505	296	899	247	2141	1691
Child mortality rate under one year	In thousands	61414	50208	51364	52503	44866	26519	20841
Child mortality rate under 5 years	In thousands	10	11	10.3	10.7	9.4	4.1	7.6
Average annual population growth	In thousands	7464	5600	5497	4746	4005	455	366
Number of doctors	In thousands	6222	5299	5083	5313	3996	996	1262
Number of Nurses	In thousands	85.4	83.7	84.1	80.70%	77.4	78.1	53.4
Number of Beds	In thousands	17.5	15.2	15.8	12.30%	19.9	16.9	39.7
Adult Literacy Rates	Total population	11	0	0	19.40%	13.3	56.3	26.9

Source: World Health Organization (2018), World Bank, Organization for Economic Co-operation and Development (2017)

The role of municipalities in providing health services to selected countries Sweden.

In 1992, the Swedish government carried out major reforms (ADEL), which gave the municipality a primary responsibility for the care of the elderly and financial incentives to reduce expenditure. More than half of the municipalities in Sweden assume responsibility for the provision of home health services previously provided by the city council and serve themselves. In 1995, the municipality was responsible for providing mental health services for long-term psychiatric patients. In 1970, the City Council in Sweden assumed the responsibility for outpatient services in public hospitals as part of Seven Crown Reform. In this plan, patients were requested to pay 7 kronas to the City Council for any outpatient counseling, and the City Council directly paid the remaining expenditure as health insurance authorities indicated. In 1980, under the 1974 basic legal reform, responsibility for all health services was assigned to the City Council. Since 1980, the general vaccination program has been the responsibility of municipalities⁽¹¹⁾.

Denmark

In Denmark, health services can be identified as a decentralized system with primary and secondary care responsibilities at the local level. However, a re-centralisation process is under way, in which the number of regions has been reduced from 14 to 5 and municipalities reduced from 275 to 98. The health system is organized according to three levels of administration, such as governmental, regional and local levels. Planning and legislation is at the governmental and local levels. The government supervises the system as well as monitors financial performance and the municipality is responsible for disease prevention and health promotion⁽⁴⁾.

Netherlands

In the Netherlands, the government is not responsible for providing health care. The health private providers

are responsible for preparing these services and the government is responsible for providing access and monitoring the quality of these services. In the Dutch health care system, preventive care is mainly provided through public health services. The prevention of diseases and health promotion are among the responsibilities of municipalities. There are about 29 municipal health services that are provided by 443 municipalities across the Netherlands⁽¹⁷⁾.

Norway

The municipalities and voluntary organizations play an important role in providing welfare services and health care, and the role of government is limited. The beginning of the twentieth century has been characterized by increasing public responsibility on health topics at the government and municipality level. With increasing population and industrialization, hospitals were built especially in urban areas. These belonged to voluntary organizations, churches, municipalities or the government. Health insurance plans have been developed based on private plans. According to municipal health service law in 1982, the responsibility of all primary care services is for the municipality, since then municipal responsibilities have included environmental health services, nursing homes (since 1988), and caring for people severely handicapped (since 1992). Since 2012, the municipalities have taken more financial responsibilities for the clearance of patients from hospitals⁽¹⁸⁾.

Finland

Since 1870, the municipalities are the main responsible for providing health, social and educational services (except for university education) in Finland, and currently health care is based on the National Health Service System. These services are completed through the private sector. About 415 municipalities are responsible for organizing the health care system. They can provide services to their affiliated institutions or, jointly with the board of directors of municipalities, to

Table N°4. The role of municipalities in providing health services

Country	Roles	References
Sweden	1- Services providing for maternity and child, 2- The shareholder of corporate hospitals, 3- The owner of 10 hospitals, 4. Care for elderly and disabled 5. The administration of primary care centers and almost all hospitals, 6. Health education in schools, 7. Water health, 8. Nursing services at home, 9. Rehabilitation services, 10. Professional health services , 11. Health schools, 12. Environmental health	(11) (17)
	1- Disease Prevention and Health Promotion, 2- Child Care, 3- Nursing Services at Home, 4- Drug and Alcohol Treatment, 5- Dental Care for Children and Disabled, 6- Social Psychiatric Services,7. Care for the elderly, 8. Rehabilitation 9. Health schools, 10. Nursing homes, 11. Environmental health, 12. Most hospitals belong to municipalities, 13. Health education, 14. Environmental health, 15. Social services include welfare payments(Disability Insurance and Retirement Grants),	(4) (22) (11)
Norway	1-Nursing home services, 2- Long-term care, 3- Oral hygiene for children and other target groups, 4. Mental health, 5- Providing medicine for hospitals, 6- Emergency services, 7- Rehabilitation, 8. Organizing primary care 9. Environmental health, 10. Elderly care services, 11. Financing of first-line medicines for hospitals and nursing homes, 12. planning for health infrastructure, 13. Purchasing services from Hospitals, 14. Implementing regulations in non-sanitary areas (eg housing, training or employment), 15. Organizing and providing LTC.	(23) (18)
	1. Managing and organizing specialized hospitals; 2. Managing and organizing and financing municipal hospitals; 3. Children's care; 4- Caring for pregnant women, 5- Vaccination of children, 6- Oral health for children and target groups, 7- Providing dental services for all residents, 8. Purchase health care services (primary health services or specialized health services) from other municipalities, other hospital departments, private providers or third-party providers 9. Setting up ambulance services 10. Providing health services in elementary schools, colleges and high schools	(14) (19)
Netherlands	1- Prevention of diseases, promoting health and protecting health 2- 29 health services 3. Youth care institutions 5- Home care services	(24) (17)
Turkey	1. Environmental health, 2. Health food, 3. Health services in home, 4. Medical services through medical centers and outpatient clinics, 5. Oral health services, 6. Medical screening services, 7. Ambulance services for Patient, 8 training / counseling services, 9-funeral services 10-home health services 11- laboratory services 12- emergency services (integrated with 112 emergency health services of the Ministry of Health) 13- providing services by counseling and training center Istanbul (?SADEM) and the Istanbul Disability Center (?SEM), 14- Medical Centers, 15- Nursing Care Services, 16- Preventive Education / Prevention 17- Health and Safety Job, 18th Centers of Psychiatry	(20) (25)
	1- Holding Healthy City Symposium at Tehran University (1991), 2- Tehran Municipality since the beginning of 2006 create a new structure called Tehran Health Office under the supervision of the Deputy Social and Cultural Affairs of the Municipality. Based on this, all of the 22 municipalities of Tehran have a regional health office and in each period should be set up a place for community health center. 4. Establishment of municipal health clinics in metropolises of Tehran, Tabriz, Isfahan, Mashhad, etc. 5. Promoting health-oriented lifestyle among citizens. 5. Generating knowledge and information on health and social factors.	(10) (17) (26)

provide health services or purchase services from the private sector. All municipalities are legally obliged to maintain health centers for the provision of basic health care services, either by themselves and / or jointly through the local federation of municipalities. The physicians in health centers are usually considered as municipal staff and paid by the municipality. In Finland, the political and administrative systems of the country are more or less centralized. Foreign relations, tax collection and legal institutions, and such matters are considered as government activities, while welfare services are usually delegated to municipalities⁽¹⁹⁾.

Turkey

In recent years, preventive, therapeutic and rehabilitation services in Turkey have become very important. As the most important responsibility for achieving this goal of the Ministry of Health, the support and cooperation of other institutions and organizations in the form of multi-sectoral approach is inevitable. The municipalities are undoubtedly the most important institutions and organizations. In addition to existing services, the municipalities have provided more

services for health promotion. Healthy city projects are the best example of these efforts. Therefore, there are policies for promoting health and encouraging citizens to cooperate with local and health managers to create healthy and healthier cities. The municipality has various responsibilities, including environmental health, economic development and urban transport. In Turkey, the municipalities can increase their revenues by economic activities as well as special taxes. Since 2003, when the Health Promotion Plan in Turkey was formally launched, special emphasis was placed on empowerment of municipalities and the assignment of specific health-related roles by the central government⁽²⁰⁾.

Iran

The health system of Iran is organized at three levels of the country, province and city that provide health services in 3 levels of primary, special and specialized medical and rehabilitation health care services. The health homes and centers, rural and urban health centers, and public and specialized hospitals provide the services. Although the health system of Iran has

progressed over the past three decades, it still faces challenges in terms of quality, efficiency, and justice⁽²¹⁾. In Iran, metropolitan areas such as Tehran and Tabriz have seriously entered health sector. Tehran Municipality has particularly addressed health holding Healthy City Symposium at Tehran University since 1991, and since the beginning of 2006, a new structure called Tehran's Health Office was established under the supervision of the Social and Cultural Affairs Department of the Municipality. Accordingly, all of the 22 municipalities of Tehran municipality have a regional health office, and at each stage a place should be set up in the name of the community health home. For example, Tehran Municipality, consistent with its strategic plan and in order to integrate health services in the city and its fair development, formed the Health Management Committee of Tehran in the presence of experts and with the participation of the Iran University of Medical Sciences and Health Services, started a project of development of primary health services in large cities based on social components of health led to an initiative titled Health Management Center of District 9 in 2010⁽¹⁰⁾. Table N°4 on the role of municipalities in providing health services in the studied countries.

DISCUSSION

In many types of systems, including the social security system, the national health system and the health insurance fund, the health sector is the responsibility of the Ministry of Health, the government monitors the health and treatment process and formulates policies, and at lower levels health care is provided by municipalities. The study results of Oliveira and Passador (2016)⁽⁷⁾ show that although municipalities have heterogeneous characteristics, health care income plays an important role in municipal performance. Gita (2012)⁽⁸⁾ reviewed public opinion about the quality of public services of municipalities, and concluded that health services, along with social and educational services provided by the municipality, are the most important components of providing quality services by municipalities based on a model for the development of public service quality of the municipalities of Lithuania.

Chapi (2011)⁽⁹⁾ also by examining the provision of urban health services by municipalities in South Africa, considered the lack of a relationship between local and regional municipalities, perception of environmental health and appropriate funding as the most important obstacles to health care. Oliveira et al. (2016)⁽⁷⁾ by analyzing health care monitoring practices of the local government and its relationship with nursing conclude that two factors of monitoring the management of municipal health care and the problems and weaknesses of monitoring health care by municipalities are among the main obstacles to the development of

health services by municipalities.

The most important characteristics of successful countries in the field of health care are the participation of the majority of public sectors and NGOs in providing and financing the health system and reducing the amount of direct out of pocket payment of people. In the studies conducted by Schiötz (2006), Berg (2003), and Jhanson (2005), the important role of the municipality and voluntary organizations in the provision of welfare services and health care has been mentioned. Massoudi Asl and Behbahani (2015)⁽¹⁷⁾ in a study stated that more than half of the municipalities in Sweden assume responsibility for providing home health services previously provided by the city council and serving themselves. The health system in that country is based on taxation, and local and municipal levels can get their health income from receiving people's taxes.

Christiansen and Vrangbæk (2018)⁽¹⁹⁾ in a study stated that the Danish health system was a relatively decentralized system with primary and secondary care responsibility at the regional and municipality levels and municipalities can establish health centers to provide citizens with health services. In Finland, since 1870, municipalities are the main responsible for providing health, social and educational services (except for university education), and currently health care is based on the National Health Service System. In the Netherlands, the government is not responsible for providing health care. The health private providers are responsible for preparing these services and the government is responsible for access and monitoring the quality of these services.

In the Dutch health care system, preventive care is mainly provided through public health services. Prevention of diseases and health promotion are the responsibilities of the municipalities. In Turkey, each geographic region has a municipality, and mayors and members of the local councils, together along with members of the provincial council and village governors are elected in the local elections according to the direct vote. Tatar et al.⁽²⁵⁾ in a study examining the health care structure of Turkey in 2011 stated that since 2003, when the health promotion plan started officially in Turkey, special emphasis was placed on empowerment of municipalities and the assignment of specific health-related roles by the central government and the municipalities that have played an important role in providing health services have also focused on maintaining and improving health. Recent reforms of Iran's health system focusing on achieving a comprehensive coverage of health, increasing equity and reducing out of pocket payment of people are consistent with the policies of the health system of the country, communicated by the Supreme Leader, as well as the macro policies of the system, focusing on

improving health services for people and sustainability evaluated as achievements of the country⁽²⁶⁾.

The comparison of the studied countries reflects the role of social, economic, and cultural structures governing the health system, which stimulates the participation of public institutions such as municipalities into health sector, and the more these laws are more intrinsic to the social, economic and cultural structure, the more successful it will be. Today, due to the development of cities and the lack of fit of the facilities available to the population, providing appropriate services to people in different areas is possible only with the participation of all sectors, especially urban management.

The area of health is also not an exception to this general rule, and it is impossible to organize this area, regardless of inter-sector activities. One of the areas where municipalities can play an important role in promoting the health of the community and citizens is the health area, such as the proper location for the construction of new hospitals, strengthening hospitals, traffic management in hospital spaces and the construction of parking, the construction of dormitories and companion homes with the help of the benefactors and the private sector, provision of required land and issuance of permits for the construction of health care centers by the benefactors, cooperation in the implementation of environmental health plans, development and strengthening of the urban health network, the establishment of the electronic health record of citizens, disposal of hospital waste, cooperation in the field of social harm, and finally the provision of resources needed to increase the capacity of hospital beds in addition to developmental activities and attention to urban development, also play a role in the field of health. Obviously, the participation of Iran's municipalities in health sector requires a change in attitudes of authorities and a gradual move. And efforts to develop health infrastructure and participation in this sector are definitely among the most important indicators in the practice of the social duties of this public institution.

Conflict of interests: authors declared no conflict of interest.

Financing: self-financing.

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Peer review

Received: 2019/11/15

Accepted: 2019/12/15