

ROLE AND IMPORTANCE OF DISTRIBUTION OF MEDICATIONS IN THE DEVELOPMENT OF THE HEALTHCARE SYSTEM IN CROATIA: A CASE OF MEDICATION WHOLESALERS

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Abstract

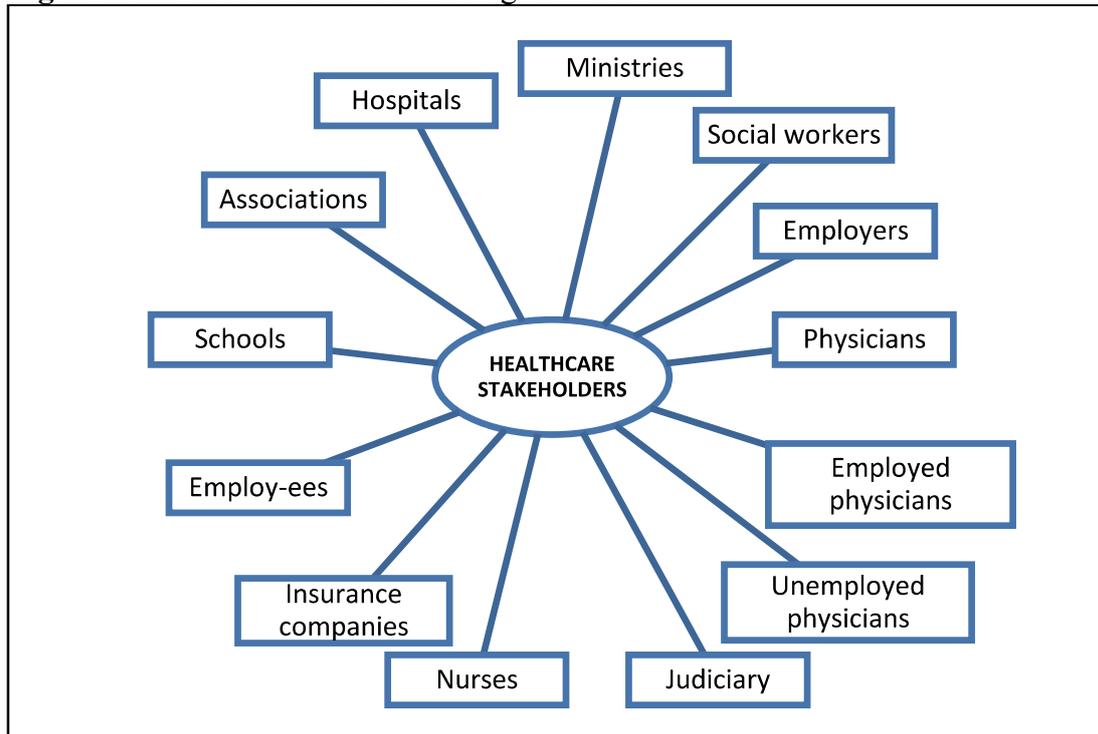
Healthcare within the health services, customers and operators providing these services is one of the most important economic activities of any state. Medications as products are the basis of the development for improving the quality of health services. In the past it was believed that the product is a medical procedure performed by the medical personnel. Today, medical product encompasses goods and services offered by the health institutions through specific health programmes that is again dependent on medications. In the logistic chain of medications the wholesalers have the most important role since the medication wholesale business is characterized by the megalogistic chains of distribution, which include all subjects starting from medication manufacturers to patients as users. With regard to the method and the type of activity and the number of subjects, the wholesalers are a part of the global logistics networks. In the Republic of Croatia the pharmaceutical market earns about 5-6 billion Croatian kunas annually, which shows the importance of this segment and the necessity to analyse the further development of the logistic distribution of medications through the convergence of standards of more developed countries in the European Union. In this paper we start with the assumption that, through further rationalization of the logistic distribution of medications in the form that combines optimal location, selected transportation routes and contemporary alternative selection of the transport units, we could influence the quality of the healthcare development in the Republic of Croatia. In this paper we analysed the secondary data and use the method of comparison, the case study method and the quantitative analysis of the fiscal indicators in the healthcare segment in the Republic of Croatia. The research results indicate that the positive implications for the healthcare system in the Republic of

Croatia may occur in the segment of prices reduction of medications through the rationalization of the logistic distribution of medications, which is a goal of this paper.

Key words: medication distribution, distribution channels, healthcare, medication wholesalers

1. INTRODUCTION

Healthcare is not only an economic activity, it represents a concept of primary healthcare, where people are not only voluntary buyers and users, but they have to use health services and medications for their treatment. By definition, healthcare is an activity aimed at protecting the health and treating the diseases and it is provided by the institutions and experts on health services (Anić, 1998, p. 853). The activities connected with health services are closely linked to the needs and desires. Health workers, who rethink the quality of health services, often ask themselves whether the users of their services really need everything they want. Ethics and professionalism requires from them to provide services that are really necessary. The most common examples have occurred recently in one of the most propulsive branches of medicine, the aesthetic surgery. It is an example how various TV shows and series, and celebrities affect the desires and "needs" of ordinary people, so that the visit to the surgery is considered as visiting the hairdresser. Operations in aesthetic surgery could turn terribly banal, and desires are often very unrealistic and then health professionals find themselves in the gap between the patient's wishes and needs. On the other hand, the desire is longing for something. The patient needs a medication for hypertension or an overweight person wants a remedy for loss of appetite and weight loss, and so there are different levels and types of health services. People who work in the healthcare system are also responsible for their patient's needs or desires. The basic responsibility of the health professionals lies in the quality of the care for their patients. The important thing is to listen to the patient and not to ignore their wishes, but the final decision is on the healthcare providers, because, ultimately, it is their responsibility. Apart from these concerns, there is also a doubt who the "buyers" of the health services are and who the people, especially the health workers involved in the chain of the healthcare system are. Figure 1 shows the potential market for the subjects in the health sector.

Figure 1. Market of the healthcare organisations

Source: Berkowitz (1996), p.10.

In general, the effects on healthcare can be considered broadly based on the following factors:

- stakeholders - *suppliers, management, clients, physicians, employers*
- environmental factors - *legal, social, technological, economic, competition*
- society as a whole.

Interest groups represent each part every hospital wants to establish business relations with. These are patients, physicians interested in certain type of health facility, social services interested in some adolescent programmes, insurance companies, and organizations providing certain healthcare programmes or contracted occupational health institutions. The third group includes suppliers, who represent medication and laboratory equipment sellers or technical services. For some hospitals physicians are also clients, for example, those working off-site, i.e. in the institutions providing some broader health services. In group practice physicians are shareholders or owners. In other organizations, physicians in charge of the operation rooms or emergency rooms are interested in equipment these suppliers offer. Regarding the environmental factors the health institution does not have much influence. The health institution cannot influence the trend of aging population, but it may develop a marketing strategy that will meet the needs of this trend. And also the legislation regulates the ordinance and requirements. Without respecting legislation not a single programme can be implemented in any institution. For example, some strategies to pay physicians for sending them to work in certain institutions are illegal. Social factors include demographic and cultural trends that health services must be sensitive of. The need for health protection is one of the most basic human needs, together with the need for food and drink. There is a great number of people in health institutions

seeking prevention, from general practitioners to different specialties.

2. SERVICES AND MEDICATIONS IN HEALTH CARE SYSTEM

In comparison with other branches of economy it is certainly difficult to determine precisely what the product in healthcare system is. Primarily, it is the medication as the most important product, which is defined by the pharmacy market, but also makes further correlations among other subjects in the healthcare system. The medication is any substance or combination of substances that is manufactured and aimed for the treatment or prevention of diseases in humans or animals, for the purpose of diagnosing, restoring, healing or modifying their physiological functions, as well as achieving other medical and veterinary justified objectives through Law on Medicines (2014). Medications can be also divided on the basis of the obtained permits for transport and as such they must contain one of the following designations:

1. Prescription medications, issued only on the basis of the valid prescription given by a physician, dentist or veterinarian, or at the request of the health institution.
2. Nonprescription medications (OTC).
3. Medications with psychotropic or narcotic effects, that are legally used for medical purposes or in accordance with the international conventions. They are prescribed in a special way and their prescription is subject to controls by the competent authority.
4. Alternative medications (homeopathic, herbal and traditional herbal medications).
5. Veterinary medications (intended exclusively for use with animals).

However it can be conclusively established that the product is a service through which medications come indirectly as usual forms of products from the standpoint of the production principles. In the past it was believed that the product is a medical procedure performed by the medical personnel. Today medical product includes goods and services offered by the health institutions through certain health plans, agreed and approved by a third party that usually pays for this product. Hospitals offer a wide range of services and goods. Larger hospitals offer hundreds, if not thousands of different procedures. Of course, additionally they also offer a variety of products such as medications, food, equipment, etc. It can be called a product mix of some health institution because it is a combination of services, products and ideas. The product in the healthcare system can refer to any product or service. The product is something that is tangible, based on a one-time purchase, while the service is a result of a process that lasts. In the USA the consumer healthcare products also include some products that are considered to be household necessities (toothpaste, condoms) in other parts of the world, together with the supplemental remedial products, medical and therapeutic equipment, which are sold in pharmacies without any special recommendation of a physician. It is difficult to conceptualise and quantify a service; it is intangible and difficult for the user to assess, especially when compared with tangible products. The service is much more personal, especially in healthcare. It is hard to be objective in evaluating the quality of services provided. The service is

inseparable from the manufacturer because it is delivered at the designated place. It is momentary, cannot be stored and doesn't have a so-called residual value.

Theoretically in the healthcare system every citizen is a potential user of health services. The user is the person who actually uses the product or service, but they are not the purchasers at the same time. The decision on receiving the services can be made by another person in the name of the patient (family members). That is the reason why health organizations are interested to address the wide range of customers, including patients, physicians (due to the possibility of sending patients to other institutions and other medical procedures), employees and other people and organizations that may purchase and order goods and services. That is also the reason why the identification of potential users in the healthcare system is much more difficult than in other service sectors, and also due to the large number of consumers there is a problem to fulfil their requirements because they all have different needs, desires and demands. The user of certain health services at the institution eventually becomes a client of the institution. The relationship with the client includes personal and long-lasting relationships. It is also evident that the healthcare today is more expensive and that the funds provided by the state are insufficient so the healthcare system has to enter the market, and the only way for better healthcare is improving the quality and differentiation of their services. Consequently, the two proprietary relations differentiated in the meantime, the public and the private, and they face the emergence of such diseases that require very expensive and effective research. The problems of increasing of existing diseases also arise, despite the fact that the medical science constantly develops and makes achievements in various research areas (cancer, cardiovascular diseases, infectious diseases, nutrition deficiency disease). Furthermore, an increasing number of people seek health care and health insurance (agricultural population), the emergence of increasing number of older people as a result of the aging population (users of health services mostly) and the development of medical science that leads to new diagnostic and therapeutic methods that increase health costs (such as laparoscopy, CT, NMR).

In the healthcare sector it is critical to define the costs of health services, as well as medications and this segment belongs to one of the crucial problems due to the fact that it has a great impact on the end-users, where a significant role is played also by the state in the form of co-financing of the healthcare. The decision making process of defining the costs of health services is shown in Figure 2.

Figure 2. Decision making process of defining costs



Source: Mihajlović & Kostić (2005), p.14.

In theory there are pricing strategies that have been rarely used in the past. The end users of the health services hadn't known the cost of services before they received them. The physicians have rarely taken the price into account when deciding on the therapy. For these reasons, the healthcare system gave only a few possibilities to the health institutions providing the services to patients to be competitive with the price. On the other hand, smaller providers had to include the pricing strategy in its business in order to ensure sustainability. Pricing is one of the most sensitive issues in the strategy of marketing communications of the health institutions with their patients. Defining the prices is a very complex process, especially if there is more competition in the market because then prices change frequently. In the healthcare system monopolies are often present and they dictate prices, and therefore the elimination of the monopoly must also be taken into account. It is present, in particular, in the delivery of medications and medical supplies. The health institutions should define objectives and possible methods that will enable their successful emergence on the market. Defining the demand for the service is another step in the hierarchy of defining the strategy of the objectives, which is followed by the cost estimation, the competition's price for the same or similar services, as well as a selection of methods for pricing to its final setting. The issue of defining prices of medications and healthcare services is particularly significant due to two proprietary relationships in offering services and the ways of financing such services. Since the market environment is still not established in the Republic of Croatia (a hybrid of public and private markets) there are certain ambiguities in the offers of the healthcare providers resulting in tolerance for certain irrationalities and illogical actions, visible in higher costs within the healthcare system. The starting point in forming the price is the trend in income size, i.e. purchasing power of the users. Furthermore, the population age structure is also important and the type and the desire to provide appropriate services, the quality of the health services, the competition, and the logistic distribution network which accompanies the health services provision. The economic policy measures of the state also have an impact on defining and setting prices. The psychological aspect of providing the health services is also important and it is associated with the decision of a user how much they are willing to pay for some service and to whom, and this

aspect is reflected in the prestige and capability of the user with regard to the stability of the quality of healthcare institutions and the fact whether the user was satisfied with the provided service and the courtesy of staff. Sometimes these factors are crucial in the choice of healthcare and health services, especially for those services outside of the domain of the compulsory healthcare. In the process of making decision about choosing the healthcare services the relationship of the physicians and the staff, price, confidence, expertise and discretion are all taken into account. The role of the wholesalers is also important having a significant impact on defining the quality of the health services, especially from the standpoint of the prices.

2.1. Consumption and expenditure in the health sector in the Republic of Croatia

In the Republic of Croatia there are about 4.3 million people, who are, depending on their status and age, registered as users of the healthcare services. The most important group of insurance holders are active workers, who make about 1.4 million people. The structure of the income for the healthcare system consists mainly of the income from contributions paid by the employees and they make up about 81% in the total revenue. Other significant revenues are those from the budget and the supplementary health insurance revenues. The revenues from the budget include the contributions for persons who are given a specific status under the Law on Compulsory Health Insurance (2013). The problem of consumption and expenditure is related to the fact that the negative growth in the number of pensioners against the active insurance users continues, so in 2015 to a single pensioner there is 1.38 active insurance user. Table 1 shows an overview of expenditures on healthcare by the type of insurance that people use in the Republic of Croatia for the year 2012 to the year 2015.

Table 1. Costs and expenses by the type of healthcare

Costs - expenses (in 000 HRK)	2012	2013	2014	2015
Mandatory healthcare insurance	18,028,001	20,247,831	19,128,774	18,829,544
Supplementary healthcare insurance	1,609,246	1,085,625	1,056,088	1,193,163
Health safety at work and professional diseases	103,204	85,373	74,796	78,587
Total – healthcare	19,740,451	21,418,829	20,259,658	20,101,294
Total of costs and expenses	22,604,919	24,202,834	22,836,871	22,746,178

Source: authors examine to <http://www.hzzo.hr/o-zavodu/izvjesca/> (accessed August 29,2016)

Costs and expenses by the type of healthcare in the Republic of Croatia may be analysed through a number of ways, regardless of the increase or decrease of the users in certain categories; the wholesalers take it into account when making plans medications and health products, as well as distribution itself. It is evident that the number of people who use mandatory healthcare insurance in the year 2015 compared to the year 2013 decreased by 9%, which indicates a certain disorders in financing, but also in payment by the owners of health institutions, which is, in this case, largely

the state. Table 2 is focused on the presentation of costs and expenses in the analytical records of healthcare, all forms of healthcare financial compensations and forms of material expenditures in the Republic of Croatia for the period from 2012 to 2015.

Table 2. Costs and expenses according to the financial indicators of the Croatian Health Insurance Fund by major categories of health service

Costs		2012	2013	2014	2015
1	Primary healthcare	2,969,982,492	2,813,172,420	2,979,279,712	3,029,168,732
2	Emergency medical care and medical transport	674,194,695	736,702,741	750,874,031	751,227,825
3	Prescription medication	3,303,254,909	5,436,581,830	3,260,776,283	3,113,501,649
4	Orthopedic devices	719,829,092	858,958,154	684,589,250	695,977,180
5	Hospital healthcare	7,913,133,635	7,453,178,373	6,376,797,089	8,551,840,306
6	Expensive medications	566,772,111	608,650,665	634,079,035	747,436,776
7	Specialist consultative healthcare	633,202,895	698,355,668	507,747,221	610,953,731
8	Supplementary healthcare	1,609,246,586	1,085,625,708	1,056,088,925	1,193,163,396
9	Settlement of liabilities	465,423,246	711,600,784	1,951,368,099	-
Total healthcare (1-9)		18,855,039,661	20,402,826,343	18,201,599,645	18,693,269,595
1	Illness and disability reimbursement	1,044,700,384	1,002,081,528	932,645,754	994,526,135
2	Maternity benefits - compulsory maternity leave	907,596,550	866,589,985	827,271,532	853,782,648
3	Other reimbursements	206,128,219	190,969,868	188,347,838	174,784,886
4	Specialization and interns	100,571,787	77,826,727	52,718,361	51,749,252
5	Compensation for pain, work injuries and occupational diseases	190,913,407	168,304,304	165,610,891	168,419,896
Total reimbursement (1-5)		2,449,910,347	2,305,772,412	2,166,594,376	2,243,262,817
1	Costs of employees	242,468,845	235,215,625	230,561,633	228,335,271
2	Material costs	88,512,501	191,936,680	128,947,932	97,500,958
Total material costs (1-2)		330,981,346	427,152,305	359,509,565	325,836,229
Total costs and expenses		21,635,931,354	23,135,751,060	20,727,703,586	21,262,368,641

Source: authors examine to <http://www.hzzo.hr/o-zavodu/izvjesca/> (access August 29, 2016)

This category of costs and expenses shows more specific indicators of needs that exist in the organization of the healthcare system in the Republic of Croatia, not only from the providers' viewpoint, but also from the users' perspective. In the category of costs and expenses from 2012 to 2015 visible is a slight but negligible increase in spending on primary healthcare, emergency medical care and medical transport and hospital healthcare. In relation to the fact that the number of people who use

mandatory healthcare insurance decreased, while the expenditure on primary healthcare increased, the role of the state is obvious, and in this case it has a significant negative impact on the future activities of the wholesalers. Further reduction of costs and expenses in the category of supplementary healthcare insurance also shows the same trends, regardless of the fact that almost all forms of reimbursements and other material expenses during the observed period are significantly reduced. Table 3 displays the records of costs and expenses according to the share of medications and orthopedic aids in total healthcare expenditures from 2012 to 2015.

Table 3. Costs and expenses in a way medications and medical products are purchased

Costs	2012	2013	2014	2015
Prescription medication	3,303,254,909	5,436,581,830	3,260,776,283	3,113,501,649
Orthopedic devices	719,829,092	858,958,154	684,589,250	695,977,180
TOTAL HEALTHCARE COSTS	19,740,453,244	21,418,831,286	20,259,659,961	20,101,295,820
The share of prescriptions in the healthcare costs	16.73%	25.38%	16.09%	15.49%
The share of orthopedic devices in the healthcare costs	3.65%	4.01%	3.38%	3.46%
TOTAL COSTS OF CROATIAN HEALTH INSURANCE FUND	22,604,919,347	24,202,834,953	22,836,871,790	22,746,178,850
The share of prescriptions in the healthcare costs	14.61%	22.46%	14.28%	13.69%
The share of orthopedic devices in the healthcare costs	3.18%	3.55%	3.00%	3.06%

Source: authors examine to <http://www.hzzo.hr/o-zavodu/izvjesca/> (access August 29, 2016)

This category of costs and expenses is important for wholesalers while planning the procurement of medications and medical products due to the fact that medications and certain medical products are prescribed and it is clear that once again there is a decrease of 9% in the consumption of prescription medications through from 2012 to 2015.

3. DISTRIBUTION OF MEDICATIONS IN CROATIA - THE CASE OF MEDICATION WHOLESALERS

The wholesalers are legal entities that organize the wholesale traffic of medications and medical products. The distribution chains in the pharmaceutical market go from medication manufacturers and / or importers, wholesalers, pharmacies to the consumer - the patient. The role of the wholesalers in this distribution chain is to ensure the delivery and transportation of medications to pharmacies and other healthcare institutions in the shortest period. According to the Law on Medicines and Medical Devices wholesalers may purchase medications from manufacturers of medications and medical products in domestic or foreign markets, or from other wholesalers. The wholesalers in the Republic of Croatia can deliver and sell drugs and medical products to the following subjects: pharmacies, hospitals, doctor's and other specified types of offices, optician shops, public health institutions, other specialised shops and stores in the area of health and other wholesalers. The largest customers are hospitals, since they have a large daily intensity of consumption of medications and medical products. The wholesalers in the scope of their activities have to respect the regulations that define the conditions for wholesale storage and transport of medications or medical products through the organization, execution and supervision of the storage and transport from the delivery stage of medications and medical products from the manufacturer to the end user. The wholesalers are, as organizational subjects, organized as wholesale logistic distribution systems whose business performance can be viewed through internal and external factors within the industry of logistic distribution systems, in this case focused on medications and medical products. In this case the wholesalers represent the frame for logistic system present in the pharmaceutical market. Internal factors of a company are: organizational culture and corporate identity, the concept of management and incentive schemes for employees, information-technology development of a company and other factors resulting from the activities in the economy, science and institutional and regulatory factors of the company. In Croatia, there is a great competition among wholesalers, since there are four wholesalers that hold 98% of the market distribution of medications and medical products, and these are: Phoenix Pharmaceuticals, Medika, Oktal Pharma and Medical Intertrade. The wholesalers' positions change within a competitive market due to changes in external and internal factors of entrepreneurship that are in the pharmaceutical industry usually dependent on market negotiations with repeat and new customers as well as changes in the payment obligations and legislation within the pharmacies and hospitals using the wholesalers' services. As an important criterium of wholesalers' performance from the standpoint of analysing the forms of logistic distribution of medications in the Republic of Croatia we take the positioning of the distribution and storage centers in accordance with their level of management. The differences come from the fact that the main warehouses are located in Zagreb and which results in better performance, considering that all the other medication warehouses are manual and are of the transitional character regarding their volume. The further distinguishing effects among wholesalers result from the segment of stock management, because the concept of reducing stocks and maintaining optimal levels of stocks is a difficult question to answer due to the fact that these are

medications and medical products, which have to be available in the market at any time. Other categories that distinguish the efficiency of the wholesalers start from the following distribution effects such as: transport distance in the distribution of medications, the number of people engaged in the distribution, the number of medication deliveries to the customers and the number of orders that are carried out during the year. Unrelated to the above parameters the EU prescribed the role (Toković, 2012, p.159) and activities by wholesalers with good distribution practices, taking into account the specificity of the product - medication and the needs the end users have. Consequently, the wholesalers must ensure optimal distribution chain and deliver medications regardless of the price, quantity, frequency and in accordance with the prescribed regulations of the institutions. The wholesalers as business entities represent a kind of healthcare industry that makes important impacts on the functioning of the healthcare system, but also on the processes to improve the health services. The most important business function of the wholesalers is distribution, so that the effects of the logistic distribution of services and medications are those having the most important role in generating future perspectives of the medication wholesalers.

3.1. Strategies for logistic distribution of services and medications in healthcare system

There are certain types of the logistic distribution strategies that are, in line with the position of the distribution routes, most frequently selected at the discretion of the storage and the means of transport to the end users in order to improve health services. Above all it is about the place strategy and particular alternative distribution channels. In the Republic of Croatia, there are 14 storages of medications. The logistic distribution centers for all wholesalers are located in Zagreb and these centers have automated, semi-automated and manual warehouses. In other Croatian cities there are manual warehouses. The system of the logistic distribution of medications is commonly analysed through the following parameters (Toković, 2012, p. 156):

- state of the stock - it is impossible to reduce the stock, because the medications must be available,
- transport distance in the medication distribution,
- number of people involved in the distribution of medications,
- number of deliveries,
- number of orders.

Since the pharmaceutical market changes in accordance with the state policies that continue to rationalise the healthcare costs, and together with it the costs for medications, the most optimal logistic distribution system of medications includes well chosen location and distance between the logistics and the warehouse centers and a cost-effective and profitable transportation. According to this, the most commonly considered strategies of the logistic distributions are the place strategy and particular alternative distribution channels.

3.1.1. The place strategy

The place refers to the method of distribution of goods and services. It represents how, what way and where the product is accessible to the end user. In the healthcare system it refers to the place where services are provided and medications distributed. An important factor for the place is a distribution channel, i.e. the moving of goods or services from the producer to the user. There are some important decisions, which are included in the distribution channels, and they are based on the following factors: how the product is distributed, who performs that functioning within the channel, what coverage of the channel is needed and how the channel can be controlled. Different channels are used for the delivery of health services and medications. Primary healthcare institutions (health centres, infirmaries, health stations) are located close to the patients, while the other levels of healthcare institutions are usually concentrated in the medical centres no matter their proximity to the population. Emergency services are a combination of distribution methods, so we have them at the institutions of primary and also secondary healthcare. In the production era there was little importance given to the location of the hospital. Many activities were carried out in hospitals and patients are expected to travel to the hospital. In the early nineties, in the USA, hospitals wanted to take control of the distribution channels of the service providers at the primary care level. But soon they realized that this was not easy and they gave it up. The focus has shifted from as many hospital days to the quality of service and location. If the service is efficient the user did not mind if this institution is near his home.

3.1.2. Alternative distribution channels

All medical institutions have to decide how many other organizations are needed in distribution of their products or services. Direct channel is the one where there is no intermediary between the manufacturer and the end user. In the healthcare system an example of a direct channel is primary healthcare, where there is no one between a physician and a patient (Manufacturer→User). Indirect channel requires intermediaries between the manufacturer and the end user, for example these are medications and supplies for health institutions (Manufacturer→Wholesaler→Retailer→End user). Tertiary but also secondary healthcare is an example of the channel (Clinical Hospital Centre→General Hospital→Specialist→General Practitioner→Patient). An example is the clinical hospital centre where intermediaries are general hospitals, specialists and general practitioners. All of them are involved in the earlier stages of diagnosing, intervention and care (Berkowitz, 1996, p.10). The role of the intermediary is to bring a product or a service to the user. For example, a general practitioner can offer their clients a service of availability for 24 hours and, if necessary, making home visits, for a certain fee. Nowadays intermediary is very useful in the industry of medications and medical disposables because they make these products more accessible to the end users. The persons responsible for the distribution management should decide how the service will be available to the end users. It includes a lot of questions regarding the number of infirmaries and health stations at a health centre. If there are two or more

participants in the channel there is a possibility of some disputes. Also, we know that conflict can arise between the employees of the hospital administration and the medical staff. The conflict is possible between the Croatian Health Insurance Fund and the physicians or the hospital administration. For each distribution the intensity of the distribution is essential and in the consumer industry it is divided into: intensive, selective and exclusive. The main conditions in the selection of the distribution intensity is the user and their decision how much energy they are willing to spend while searching for a service. Intensive distribution is characteristic for primary healthcare, where the patient has their physician who is constantly on their disposal without any major restrictions. Contrary to the intensive distribution is exclusive one, where the service is offered at very few places. In the healthcare system, this type of distribution usually belongs to highly specialized institutions. In the healthcare system selective distribution is at the hospital level. Often some specialized hospitals due to their good reputation and demand for their services open particular programmes in other places (off-site). Further efforts for rationalization and optimization of the logistic distribution of medications and medical services are aimed at redefining distribution functions that depend on the final determination of the number of distribution centers through the location that is optimal not only within the country but also in the wider region, and according to this the process of the transport of goods is defined within the distribution system directed to the end users and health institutions. Another tendency in the process of optimization of logistic distribution of medications is focused on minimizing the costs of medication distribution, where the distribution of medications still represents the core business activity of the wholesalers.

4. CONCLUSION

In the healthcare sector the role of the wholesalers is very important, considering the fact that the main activity of the wholesaler is based on the traditional logistic services, it is clear that the wholesalers' business can be influenced only in the area of rationalisation of logistic distribution services. In other words, the appropriate logistic activities should be prepared in accordance with modern development trends in healthcare, starting from the involvement and importance of medications to the optimization of health services in the already explored and defined markets, but also adapt the same to certain market segments. This means increasing the quantity of logistic services, but also the quality of logistic services, which is primarily focused on the continued improvement of post-sales activities of wholesale with the emphasized investment in modern information technology. It can be concluded that once again the principle of the universal applicability of logistic distribution principles is confirmed. Taking into account the increasing number of activities within the competition wholesalers in healthcare, it is evident that the wholesalers have an increasingly important role in the daily work of healthcare institutions, as well as a significant impact on the improvement of health in the Republic of Croatia.

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