# The Romanian health care sector, commercial opportunities and possibilities for cooperation

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Market study performed by Export Market Research

For the Embassy of the Kingdom of the Netherlands in Bucharest, Romania

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The Romanian health care sector, commercial opportunities and possibilities for cooperation
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# **Executive summary**

This report analyses the Romanian health care sector, the commercial opportunities and possibilities for cooperation at a governmental and institutional level. It was found that:

The Romanian economic and political landscape have risks and opportunities. The economy is growing at a fast pace, a middle class with disposable income is developing. Economic growth is mainly consumption based for a healthy economic development more investment is needed. Political instability is a risk.

The Romanian people have a low health status. The life expectancy at birth is among the lowest in the EU. Romanians die mostly from cardiovascular diseases, compared to the EU population. Risk factors are a poor diet, high fat consumption, smoking, alcohol consumption and little exercise.

The Romanian healthcare system performs poorly. The health system is not capable of generation more favourable health outcomes for its people. An obvious reason is the relatively low government budget for healthcare. Out of pocket expenses on medical goods and services are relatively high, indicating a lower level of public sector services. Doctors emigrate often to other EU countries. Healthcare services are relatively good in the urban areas, at the country side the people are underserved.

Romanian medical education is good, scientific research and R&D are very basic. Romanian medical students are among the best in the country due to a tough selection exam. Scientific research is hardly done at universities, mainly at institutes of the Romanian Academy of Sciences. Funding for research is limited both from Romanian sources and international sources. Research and Development is done at pharmaceutical companies and hospitals. Three viable bio-medical research clusters exist. Cooperation between universities and business is limited.

**Possibilities for cooperation at a governmental and institutional level** are in the field of health economics, health technology assessment, public health. Connecting Romanian scientific research and R&D to EU partners.

Commercial opportunities are mainly in the sales of medicines and medical devices. Romania has a relatively low domestic medicine production. A lot of medicines have to be imported. Consumption of medicines is below that in European countries. The distribution of medicines is the largest private healthcare sector. The private hospital sector is very dynamic, but operates on limited profitability. In the public sector the development of 3 new hospitals is announced, the most concrete plan is for a regional hospital near Cluj-Napoca.

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# Introduction

This market study into the Romanian healthcare sector was commissioned to Export Market Research by the Embassy of the Kingdom of the Netherlands in Bucharest, Romania. This study investigates the health of the Romanian people as well as the health care system in Romania. Based on these two subjects a deeper investigation is made into the commercial opportunities and the possibilities of cooperation in research and education.

The report is addressing multiple audiences. Inevitably there is some information that is not so relevant to every reader. The main audiences are:

- Commercial parties that are looking for export opportunities
- Readers from the governmental institutions and related
- Readers from a teaching and research perspective.

The guide for readers reads like this:

- 1. **Commercially interested readers**, chapters: 1: Introduction to Romania; 2: Health in Romania; 5: Business opportunities in the Romanian health sector; 6: Market entry and business culture; Conclusion; Annexes (for company profiles).
- 2. Readers from government, education and research, chapters: 1: Introduction to Romania; 2: Health in Romania; 3: The Romanian healthcare system; 4: Romanian health education, scientific research and R&D; Conclusion.

This report is a combination of desk research, field research and the experience of the author as an export manager for Romania. I have interviewed various experts in the field to complement the document and statistical analysis. I did to my best abilities without a prejudice and errors in representing data are mine. However, I can't guarantee the quality of all data used. In case where I have doubts or experts interviewed have doubts, it will be indicated in the sections concerned.

Writing about a country and its culture will lead to generalisations about that country, it does not include all aspects of Romania. That is unfortunate, but it was needed to give the reader information about how things work in Romania. Reality in all its shades can't be presented in this report.

Researching and writing about the health of people in a country leads inevitably to facts and conclusions about the health of the people in that country.

When writing about health these facts and conclusions become very personal as they concern the health of the Romanian people. Especially, it can lead to thoughts of the people in Romania that "we" (the Dutch) are thinking negatively about them or are patronising. This report has no negative intentions towards the people of Romania. However, it unveils a grim reality on the health situation in Romania.

Presenting the reality is part of the task at hand in this report. Do realise this is only one aspect of Romania as there are many more. Writing this report was at times a somewhat depressing exercise. I truly hope it will be a contribution to the improvement of health in Romania.

Eric J.C. Meijer

Utrecht, Bucharest, Iasi, September 2018

# Chapter 1: Introduction to Romania

Romania is an EU member country in the south-eastern Europe, bordering EU members Bulgaria and Hungary as well as the Black Sea. Romania joined the EU in January 2007, together with its neighbour Bulgaria. Its total land surface is 238,391 sq. km, about six times the size of the Netherlands.

With a population of 1.9m people, the capital city, Bucharest, is by far the largest city. The other main cities are Iași, Timișoara, Cluj-Napoca, Constanța, Craiova and Galati, all have a population of over 300,00. The country is divided administratively into 41 districts (judete) and the city of Bucharest. The district is the main regional governmental unit. Romania was a communist country between 1947 and 1989. The communist regime was overthrown during the 1989 revolution, which was a watershed event and the most important event in recent history. After the fall of the communist regime, Romania moved rather chaotically towards a free market economy and democracy. The next important event was the EU accession in 2007. Today Romania is a presidential democracy.

Figure 1.1 - Map of Romania



Source: CIA, The World Factbook

# 1.1 Economy

Romania is one of the fastest growing countries in the EU and the surrounding region. Economic growth has developed rapidly, especially in the last four years. In 2017, growth reached a high of 6.9%, just behind EU leader Ireland. Currently, Romanian growth is more than double that of the Netherlands (3.2%) and the EU average of 2.4% in 2017. At the same time, inflation has gone down from over 6% in 2010 to 1.1% in 2017. However, the IMF projects an inflation rate of 4.7% in 2018.

Table 1.1 - Main economic indicators

	2010	2011	2012	2013	2014	2015	2016	2017	2018
Economic growth rate (real GDP)	-2.8	2.0	1.2	3.5	3.1	4.0	4.8	6.9	5.1 (p)
Inflation rate (CPI)	6.1	5.8	3.4	3.2	1.4	-0.4	-1.1	1.1	4.7 (p)

Source: Eurostat, 2018 projections from IMF, (p=preliminary)

While the macro-economic numbers look positive, economic growth is based in reality on rising public sector wages and the greater consumption they have generated. This also explains the inflation increase projected for 2018. In line with the above, the government's budget deficit is growing, but still within the EU requirements.

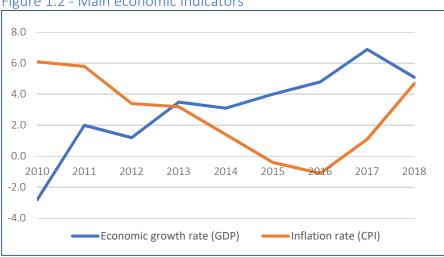


Figure 1.2 - Main economic indicators

Source: Eurostat, 2018 projections from IMF

In contrast with this high economic growth, the size of the Romanian economy is modest in absolute terms. In 2017, GDP was 188 billion euro compared to the Dutch economy of 733 billion euro. The GDP per capita – an indicator for the income per head of the population – grows rapidly reaching its highest level in 2017 at 9,600 euro.

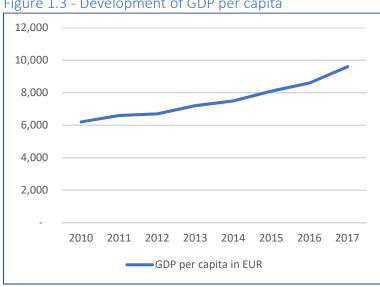


Figure 1.3 - Development of GDP per capita

Source: Eurostat

Still there is a large gap between Romania's GDP in 2017 and those in the Netherlands (42,800 euro) and the EU (29,900 euro). However, these figures do not take price differences into account: price levels in Romania are considerably lower than in the Netherlands.

Due to the central bank's policy of pegging the Romanian Leu to the Euro within a certain bandwidth, the exchange rate is relatively stable against the Euro. However, over the last year (July 2017/July 2018), the rate has declined by 1.8%, likely due to the growing economy and rising inflation.

# 1.2 Population

In 2017, Romania had a population of 19.6 million, making it the seventh largest in the EU and the second largest Eastern European EU member (after Poland). It is estimated that an additional 2.7 – 3.5 million Romanians live abroad (semi) permanently, the majority in Italy and Spain, and some in non-EU countries such as the United States and Canada. While many of them are seasonal workers, many have found permanent employment. Mainly because of emigration, the Romanian population declined by an annual average of 134,000 between 2006 and 2017. The degree of urbanization is relative: a large part of the population still lives in the countryside. The major urban centre is Bucharest, which has a population of 1.9 m, making it the economic centre of the country.

# 1.3 Government

President Klaus Iohannis is from the PNL (Partidul Naţional Liberal: National Liberal Party). The next presidential elections are due by the end of 2019. In January 2017, after the December 2016 elections, the current government assumed office as a coalition of the PSD (Partidul Social Democrat: Social Democratic Party) and the ALDE (Alianţa Liberalilor şi Democraţilor: Alliance of Liberals and Democrats). The PSD is by far the largest party in the coalition; ALDE has only a minor role.

Since it assumed office, the government has had three prime ministers. This is consistent with the pattern of instability of Romanian governments since the Revolution. One feature of this has been frequent and rapid changes in ministry positions, which also affect the current government, with senior PSD party leaders orchestrating constant changes in the composition of the cabinet. The animosity between the president, who was drawn from one major party (PNL), and a cabinet and parliament dominated by the other major party (PSD) has created an unproductive political landscape. Such political instability has for many years inhibited serious development and the execution of policy – in all fields, including healthcare, as we will see in chapter 3.

# Chapter 2: Health in Romania

# 2.1 Life Expectancy

Life expectancy at birth in Romania is the fourth lowest in the EU. Overall life expectancy is 75.3 years, considerably lower as in The Netherlands or the EU (81.7 years and 81.0 years respectively). On the positive side between 2000 and 2016 the life expectancy increased by 4 years in Romania. The gap in life expectancy between Romania and the Netherlands hardly closed over the same time span, as the Dutch life expectancy rose by 3.5 years. The following tables give an overview of the life expectancy for women and men.

Table 2.1 - Life expectancy of women.

Women	2000	2016
Romania	74.8	79.1
The Netherlands	80.7	83.2
difference NL-RO	5.9	4,1
EU average	n.a.	83.6

Source: Eurostat, unit: year

Most notably is that Romanian women are closing the gap with Dutch women, while Romanian men fail to do so. Main reason for this is that Romanian men engage more into behaviour that is a risk to their health, especially smoking and the consumption of large quantities of alcohol by predominantly older men.

Table 2.2 - Life expectancy of men and women

Men	2000	2016
Romania	67.7	71.7
The Netherlands	75.6	80.0
difference NL-RO	7.9	8.3
EU average	n.a.	78.2

Source: Eurostat, unit: year

# 2.2 Causes of death

Romanians live relatively short compared to other EU citizens. A measure for this is the standardised death rate per 100,000 inhabitants (the number of people that die per 100,000 inhabitants in a country, in a year). For Romania this is: 1,530 compared to 1,036 for the EU and 992 for the Netherlands. Romania has the second highest death rate in the EU. Table 2.3 provides an overview of differences in mortality by age and sex. The most notable difference between Romania and The Netherlands is the very high death rate for men under 65 years, to a lesser extent also for women under 65 years.

Table 2.3 - Summary causes of death in 2015

	Men		Women		
	Less than 65	65 years or over	Less than 65	65 years or over	
	years		years		
Romania	532	7,574	220	5,467	
Netherlands	185	5,311	137	3,824	
European Union	282	5,435	140	3,776	

Source: Eurostat, unit: standardised death rate per 100,000 inhabitants

The figure and table below divide the mortality into disease categories. The main causes of death in Romania are cardiovascular diseases and cancer. Combined, these two disease categories cause almost 80 percent of deaths. Cancer and cardio vascular disease have notable differences in prevalence between women and men. Cancer is more lethal for men and cardio vascular diseases for women.

Women

Figure 2.1 - Summary causes of death for men and women 2015

Men

Number of deaths: 134,525 Number of deaths: 124,456 Other External causes causes 5% 6% Respiratory diseases 7% Digestive. system 7% Cardio vascular

Source: Eurostat

Table 2.4 - Deaths per broad disease category

Disease category and ICD code	Men	Women	Total
All causes of death (A00-Y89) excluding S00-T98	134,525	124,456	258,981
Malignant neoplasms (C00-C97)	30,151	20,856	51,007
Endocrine, nutritional and metabolic diseases (E00-E90)	1,255	1,412	2,667
Dementia (F01-F03)	-	-	-
Diseases of the nervous system and the sense organs (G00-H95)	1,642	2,100	3,742
Diseases of the circulatory system (I00-I99)	71,161	82,647	153,808
Diseases of the respiratory system (J00-J99)	9,144	5,854	14,998
Diseases of the digestive system (K00-K93)	8,659	5,716	14,375
External causes of morbidity and mortality (V01-Y89)	7,505	2,236	9,741

Source: Eurostat

# 2.3 Cardiovascular diseases

Cardiovascular diseases account for the majority of deaths in Romania. The death toll of cardiovascular diseases is disproportionately high in Romania, when compared to The Netherlands and the EU

Table 2.5 - Mortality of selected cardiovascular diseases in 2015

Country	All cardiovascular diseases	Coronary artery disease	Heart attack	Stroke
Romania	955	325	118	270
Netherlands	275	62	37	67
European Union	381	127	46	85

Source: Eurostat, unit: standardised death rate per 100,000 inhabitants

The standardised death rate of cardiovascular diseases decreased by 8% in Romania between 2010 and 2015. The EU rate decreased by 4% in the same period, which means a modest catch up for Romania. Table 2.5 shows only selected cardiovascular diseases, there are several other categories. These are not included in the table because of doubts about their quality or informational value.

## 2.4 Cancer

The overall standardised death rate due to cancer is not deviating very much from the EU average and is actually lower than the Netherlands. There is a growing trend of mortality due to cancer In Romania, while declining in EU and The Netherlands.

310 300 290 280 270 260 250 240 2011 2012 2015 2013 2014 Netherlands Romania European Union

Figure 2.2 - Mortality due to cancer

Source: Eurostat, unit: standardised death rate per 100,000 inhabitants

Table 2.6 - Mortality due to cancer

Country	2011	2012	2013	2014	2015
Romania	265	269	270	273	275
Netherlands	300	297	284	282	284
European Union	269	267	265	262	261

Source: Eurostat, unit: standardised death rate per 100,000 inhabitants

When taking a closer look at the cancer related deaths there are some noticeable differences with the rest of the EU.

Lung cancer is responsible for the majority of the cancer related mortality. The number of deaths per 100,000 inhabitants is at the EU average and below the Dutch level. However, in the Netherlands and the EU cancer mortality is slowly declining, in Romania it is slowly rising. An explanation for the lower cancer death rate may lie in the fact that people often die of cardiovascular diseases before they could die from cancer. This is supported by the high mortality due to cardiovascular diseases.

Table 2.7 - Lung cancer

Country	2011	2012	2013	2014	2015
Romania	53	53	53	54	55
Netherlands	72	69	68	67	66
European Union	56	55	55	54	54

Source: Eurostat, unit: standardised death rate per 100,000 inhabitants

Other types of cancer that have a higher incidence compared to the EU are cancers related to the mouth and surrounding area, stomach, liver, bile and bowel (colorectal cancer) and cervix uteri.

# 2.5 Other causes of death

Tuberculosis is much more observed as a cause of death in Romania compared to the EU, overall it is a minor cause of death (4.5 deaths per 100,000 inhabitants in 2015). Mortality due to disease of the digestive system and chronic liver disease are substantially more common compared to the rest of the EU. Chronic liver diseases caused 46 deaths per 100,000 inhabitants; the comparable number is 5 for the Netherlands.

The data analysis found two groups of diseases that are hardly reported: Mental and behavioural disorders and dementia.

Table 2.8 - Mental and behavioural disorders; dementia 2015

Country	Mental and behavioural disorders	Dementia
Romania	2	0
Netherlands	83	76
European Union	43	38

Source: Eurostat, unit: standardised death rate per 100,000 inhabitants

An explanation for the low reported mortality of these two disease groups is that they receive more attention in more developed Western European countries. The previously mentioned high cardiovascular mortality could explain the lower incidence of these disease groups. A patient with dementia is more likely to die from a cardiovascular disease than from dementia. Patients can suffer from two or more diseases, statistically they die from one. The diseases in the Romanian population are discussed in the next paragraph.

## 2.6 Common diseases

The previous paragraphs explained the causes of death. This paragraph presents for which diseases Romanians visit their doctor or stay in the hospital.

Skin and subcutaneous tissue Other diseases 5% Respiratory Cardiovascular system system 38% 6% Genitourinary system 7% Digestive Nervous system Musculoskeletal system 11% system 9%

Figure 2.3 - New cases of illness, by largest disease class in 2016

Source: National Institute of Statistics

The table above summarises the diseases that Romanians visit their general practitioner (GP) for. The data represent every new case a GP treats in his practice. Diseases of the respiratory system are by far the most common, followed by digestive system illnesses.

Table 2.9 - New cases of illness, by all disease classes in 2016

Disease	no. cases	
Respiratory system	5,535,843	
Digestive system	1,694,876	
Nervous system	1,326,752	
Musculoskeletal system	1,278,468	
Genitourinary system	976,746	
Cardiovascular system	861,540	
Skin and subcutaneous tissue	796,988	
Endocrine, nutritional and metabolic system	558,456	
Infectious and parasitic diseases	531,803	
Injury, poisoning, external causes	289,198	
Mental disorders	233,962	
Clinical and laboratory findings	232,617	
Diseases of the blood	178,732	
Neoplasm	98,856	
Pregnancy, childbirth	29,629	
Related to the perinatal period	10,720	
Congenital malformations	4,025	
Total	14,639,211	

Source: National Institute of Statistics

The pie chart and table above illustrate that the diseases Romanians visit their GP for are different from the fatal ones. The majority of GP visits are for diseases of the respiratory system (38%) and diseases of the digestive system (11%). Cardiovascular diseases - the major causes of death – account for 6% of GP visits. Cancer – the second cause of death – is subject of only 1% of GP visits.

Another source of information about diseases in Romania are hospitals. In figure 2.4 and table 2.10, are data regarding the number of patients that are dismissed from hospital after a minimum stay of one night (non-ambulatory patients). These data give another image when compared to the GP data. Patients are treated for problems with the cardiovascular system (14%), respiratory system (12%), digestive system (10%) and neoplasms (10%) in hospitals. Cardiovascular diseases are the main causes of death and also the most treated in hospital.

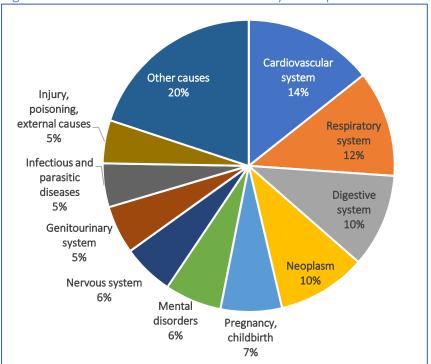


Figure 2.4 - Disease treated non ambulatory in hospitals

Source: National Institute of Statistics

Table 2.10 - New cases of illness, by all disease classes in 2016

Disease	no. cases		
Cardiovascular system	566,022		
Respiratory system	464,603		
Digestive system	409,327		
Neoplasm	389,932		
Pregnancy, childbirth	268,078		
Mental disorders	248,952		
Nervous system	223,811		
Genitourinary system	211,375		
Infectious and parasitic diseases	191,179		
Injury, poisoning, external causes	189,334		
Other causes	787,187		
Total	3,949,800		

Source: National Institute of Statistics

# 2.7 Risk factors

The relatively low life expectancy of Romanians is caused by behavioural factors. Most important risk factors are a low level of fruit and vegetable consumption; a high level of animal fat consumption and a low level of physical exercise. A recent Eurobarometer report on 'Sport and physical activity' in the EU countries, ranks Romania close to the bottom. Both for physical activity in daily life and sports Romania performs badly. Smoking is at par with the EU average, but there is no decline in the percentage of the population that smokes.

Problematic is the smoking among men, who smoke about four times more often as women and significantly above the EU average. Smoking among young girls has an upward trend. Alcohol consumption is at par with the EU average. Binge drinking among (older) men is a public health issue, about half of men reported episodes of heavy drinking in their life, the highest in the EU. Young boys are prone to early drinking. Combined these risk factors are a deadly cocktail for the development of cardiovascular diseases – the major cause of death in Romania.

Access to medical services is strongly divided between cities and the countryside, because of a lack of medical staff willing to work in rural areas. This also means that mortality in the countryside is likely to be higher than in urban areas. Underserved parts of the population mean that these will die sooner as "urban" people with better access to healthcare. People from the countryside – with a lower average income - might lack the finances for the substantial out of pocket payments needed in the Romanian healthcare system.

# 2.8 Discussion

Superficially the solution for the largest public health problem in Romania seems simple: adjust the diet, stop smoking, drink moderately and start exercising. However, in reality this is hard to achieve across the whole population. An incomplete picture of the challenges and problems: Healthy food is not that realistic because of financial reasons for major segments of the population. The increasing GDP per capita is not divided evenly over the population. Young people in the major cities can earn a good salary - especially in IT - but income levels in rural areas are on average a lot lower. For people with a low income, cheap fatty meats provide a lot of calories in winter. Exercising is becoming more common in the cities, the number of gyms is growing in the urban areas, but are mostly frequented by younger generations. In Romanian culture are some misconceptions about a healthy diet, for example the idea that eating large quantities of meat is healthy. However, there is an increasing awareness among parts of the population about healthy eating, traditional - high fat foods are sometimes replaced by a lower fat variety. Romania lacks health education at school and the role of the government in informing the population about health issues and options is marginal. Improving access to healthcare in the countryside requires government expenditure, which is in short supply while the budget deficit is increasing.

# Chapter 3: The Romanian healthcare system

## 3.1 Introduction

In theory, Romania has a universal health coverage system, which means that the Romanian government provides a specified package of health care services to the population at a certain cost level. The insurance contributions are collected through the employers, the fee is a percentage of the salary. The Health Fund contribution for the employer is 5.2% of the gross salary, for the employee 5.5% of the salary subject to income tax. In principle all health insurance contributing Romanians are entitled to free unrestricted health care, as well as certain categories of non-contributing citizens - especially children and pensioners. People outside these categories are only eligible for emergency medical care. In reality not all health care services are covered by the public system and additional out of pocket expenditures are required for certain treatments and medicine prescriptions. Private insurance schemes - common to the Netherlands - are of minor importance in Romania. Next to the public institutions there are a large number of private medical service providers e.g. dentists, hospitals, laboratories.

# 3.2 The public sector

Until the revolution healthcare was managed through a Soviet-Union style Semashko system<sup>1</sup>. After the revolution Romania slowly reorganised the healthcare system into a social health insurance system. In this system there are contractual relations between health care providers and health care insurance houses. In anticipation of EU accession in 2007 all existing legislation was abolished and brought together in Law 95/2006. This law has harmonized the national legislation with the EU *acquis communitaire*. Further legislative development has been limited. In 2012 a system overhaul was proposed to a Dutch model of regulated competition. The proposed changes were never turned into legislation due to popular protest, that led to the resignation of the Prime Minister.

The Ministry of Health is primarily responsible for healthcare in Romania. It is both responsible for the regulatory framework and policies as well as the management of the healthcare system at large. In the last 26 years the Ministry was headed by a total of 28 Ministers of Health, a very unstable political environment for the health sector. This instability in the leadership is partly an explanation for a lack of policy execution and unfavourable health outcomes for the Romanian people (see Chapter 2).

<sup>1</sup> A public healthcare system where the government provides and funds all healthcare to the citizens and medical staff are all employed by the government. Further characterised by a centralised, integrated and hierarchically organisation structure.

# 3.3 Health sector policy

The most recent health care strategy in Romania is 'The Romanian National Health Strategy 2014-2020: "Health for Prosperity" - community medical assistance'. It is structured around three strategic intervention areas:

- 1. "Public health" focusses on: health and nutrition of women and children; communicable diseases; prevention of non-communicable diseases through health programs;
- 2. "Health services" aims at improving access to quality and cost-effective health services;
- 3. "Cross-cutting measures for a sustainable and predictive health system" is a mix of various subjects: developing an inclusive, sustainable and predictable health system; increasing the efficiency of the health system; development of infrastructure at national, regional and local level.

See Annex A for more detailed list of subjects covered by the health strategy.

The strategy is accompanied by an action plan that details the steps to be taken to reach the goals, indicators for results and the required as well as secured budgets. Worth noting is that quite some budget is to be sourced from European Structural Funds. The strategy - if properly executed – is very ambitious. It addresses some of the major problems in Romanian healthcare, especially underdeveloped fields such as health economics rationalisation, access to healthcare and structural investments. The ambition level of the strategy is an important issue. Executing this strategy would involve major innovations and legislative changes of the health system. However, the Romanian health system is not very open to change from the public side, executing the health strategy is therefore a major challenge. The health strategy contains some odd choice in light of what was found in the previous chapter. For example an emphasis on not so problematic diseases like HIV/Aids at the same time cardiovascular – the main cause of death – are not an explicit subject of the strategy. The actual state of implementation of the strategy is unclear at the date of writing this report. The Ministry of Health did publish a first progress report for the year 2015. The health strategy was made by the previous government, the current government did not revise or replace it. The absence of further progress reports might be related to the change in government. Summarising, the health strategy makes reasonable sense on paper; the execution of it is limited in reality, as illustrated by the absence of progress reports for the last two years.

# 3.4 Organisation of the healthcare system

The healthcare system is divided in actors at the national level and the district level mimicking the administrative division of 41 counties (*judete*) and the municipality of Bucharest (total of 42 administrative units). The system is strongly centralised at the national level, where most decision making power is located. The district level is mainly responsible for the execution of decisions taken at the national level.

# 3.4.1 The national level

Actors at the national level are the Ministry of Health, the National Health Insurance House and the professional organisations.

# Ministry of Health

The Ministry of Health<sup>2</sup> (MS) is primarily responsible for healthcare in Romania. It is both responsible for the regulatory framework and policies as well as the management of the healthcare system at large. At the time of writing this report Sorina Pintea is Minister of Health, further there are five State Secretaries and two Undersecretaries of State.

The Ministry of Health is the central administrative authority in the health sector. In recent years their main responsibilities have not changed much. It is responsible for the stewardship of the system and for its regulatory framework, including regulation of the pharmaceutical sector as well as public health policies and services, sanitary inspection and the Framework Contract, which regulates the purchasing of health services. It is also in charge of monitoring and evaluation of population health, provision of public health education and health promotion, human resources policy and certain infrastructure investments.

## National Health Insurance House

The National Health Insurance House<sup>3</sup> (CNAS) is an autonomous public institution that administrates and regulates the social health insurance system. Established in 1999, it decides on resource allocation from the National Health Insurance Fund (NHIF) to the District Health Insurance Houses (CAS); sets out annual objectives for its own activities and for the activities of the CAS; supervises and coordinates the activity of the CAS's it has the power to issue implementing regulations mandatory to all CAS's; and decides on the resource allocation between different types of care. It also elaborates the Framework Contract, which together with the accompanying norms, defines the benefits package to which the insured are entitled as well as the provider payment mechanisms.

# National Authority for Quality Management in Health Care

The National Authority for Quality Management in Health Care<sup>4</sup> (ANMCS) was created in 2015. Its tasks include: elaborating, in collaboration with the Ministry of Health, the National Strategy for Quality Assurance in Health; drafting legislative proposals to ensure harmonization with international regulations; elaborating accreditation standards, methods and procedures for health care providers; accrediting training and technical consultancy providers in the field of health quality management; evaluating, re-evaluating and accrediting health providers; monitoring that appropriate quality standards are in place in health care facilities at all levels of care; and performing research activities in the area of health services

<sup>&</sup>lt;sup>2</sup> Ministerul Sănătății, www.ms.ro

<sup>&</sup>lt;sup>3</sup> Casa Naţională de Asigurări de Sănătate, www.cnas.ro

<sup>&</sup>lt;sup>4</sup> Autoritatea Națională de Management al Calității în Sănătate, <u>www.anmcs.gov.ro</u>

quality. The National Commission for Hospital Accreditation (established in 2008) became part of the National Authority for Quality Management in Health Care when the latter was established in 2015. The Authority is under direct supervision of the Prime Minister who appoints its president.

# National Agency for Medicines and Medical Devices

The National Agency for Medicines and Medical Devices<sup>5</sup> (ANMDM) is a public institution operating as a legal entity subordinated to the Ministry of Health, following the merger of the National Medicines Agency with the Medical Devices Technical Office. The ANMDM develops national strategies and policies in the field of medicines and medical devices. The ANMDM is the national authority competent in the field of medical technology assessment, according to criteria developed by the Ministry of Health. The ANMDM is responsible for market authorization and surveillance of the safety of medicinal products on the market. But also for setting the prices for medicines and medical devices when reimbursed by the CNAS.

# Professional organizations

There are five main professional organizations: the College of Physicians, College of Dentists, College of Pharmacists, the Order of Nurses and Midwives, and the Order of Biochemists, Biologists and Chemists. These are responsible for: regulating their respective professions; controlling and monitoring of health care professionals' practice; and for training and accreditation. They have structures at the national and district levels. Membership in these organizations is mandatory for all health professionals who practise in Romania. The professional organizations have district councils and district branches at the local level.

# 3.4.2 The regional level

# District public health authorities

There are 42 District Public Health Authorities, one in each of the 41 districts and municipality of Bucharest. These are mainly responsible for carrying out the functions of the Ministry of Health related to population health at the local level. This includes: monitoring the health status of the population; developing, implementing and evaluating public health programmes; organizing health promotion and health prevention activities; as well as controlling and evaluating health care provision and the functioning and organization of health care providers.

# District health insurance houses

There are 43 District Health Insurance Houses, including the Bucharest Health Insurance House and one insurance house for the employees of the Ministries of National Defence,

<sup>&</sup>lt;sup>5</sup> Agentia Nationala a Medicamentului si a Dispozitivelor Medicale, <u>www.anm.ro</u>

Internal Affairs and Justice and the agencies related to national security. The DHIHs are mainly responsible for concluding contracts with health service providers at the local level and monitoring these contracts as well as certain quality aspects of service provision.

#### 3.4.3 Other institutions

# National School of Public Health, Management and Professional Development

The National School of Public Health, Management and Professional Development, Bucharest<sup>6</sup> (SNSPMPDSB) is a public institution dedicated to the education of public health professionals and through these activities, to the improvement of health, prevention of diseases and informed decision making by policy makers. SNSPMPDSB is providing courses on health services management and administration, and consultancy on public health institutions management.

# National Institute of Public Health

The National Institute of Public Health<sup>7</sup> (INSP) has six regional public health centres and four specialised national centres. Subjects covered by the national centres are: transmissible diseases; risk monitoring in communities; evaluation and promotion of health; statistics and information technology in public health.

# 3.5 Budget

The Romanian healthcare expenditures are among the lowest in the EU. Presented as a percentage of GDP it is 4.95%, compared to 10.58% of the Netherlands and the EU average of 9.92% in 2015. In this, Romania is the lowest ranked country in the EU. Expenditure adjusted for differences in purchasing power are EUR 865 per capita in Romania and EUR 3,857 per capita in the Netherlands.

Household out-of-pocket payments are relatively high in Romania, 21% of health care expenditures versus the Netherlands at 12% or the EU average at 15%. As a percentage of GDP the out-of-pocket payments are comparable 1.3% in the Netherlands and 1.1% in Romania. In total EUR 1.69bn is spent out-of-pocket on healthcare. This is partially due to incomplete coverage of the public healthcare system, but to a large extent it represents expenditures in private healthcare (private hospitals, dentists, and other private sector healthcare providers). The out-of-pocket expenses presented here do not include informal payments to healthcare providers in the public hospitals. It is very common in Romania to pay health care providers under the table for services or pay for medicines that are part of the treatment. These payments were already happening in the communist period and are still

<sup>&</sup>lt;sup>6</sup> Şcoala Naţională de Sănătate Publică, Management şi Perfecţionare în Domeniul Sanitar Bucureşti, www.snspms.ro

<sup>&</sup>lt;sup>7</sup> Institutul Naţional de Sănătate Publică, <u>www.insp.gov.ro</u>

practised. Patients hope to get a better treatment by making these payments. The informal payments themselves vary a lot, from a box of chocolates for a nurse to sums of money for a doctor.

# 3.6 Issues in the healthcare system

There are several "issues" in the Romanian healthcare system that cause the low health outcomes at the bottom of EU rankings.

# System wide issues

- 1. Funding of the system: as discussed above; in comparative perspective little money is spent in the public healthcare system.
- 2. *Management of the system:* due to political chaos and a fast-track turnover of ministers of health. Resulting in none or hardly any improvement of the system.
- 3. *Policies for the system*: the health strategy looks beautiful on paper, but execution of it is pretty much absent.

It is unlikely that these system wide issues will be changed in the short term. In the reality of today many Romanians are getting more and more disappointed in their country and leave. After the revolution, a flow of emigrants developed. By now 18.2% of the population emigrated<sup>8</sup>, both lower educated and higher educated people. Over a quarter (26.6%) of the population with a higher education left the country, this created a serious "brain drain" When these higher educated are asked why they do not want to return to Romania the political environment is one of the major reasons. Today the higher educated Romanians are finding quality jobs in western countries and sent their children to western universities. They no longer see a valuable future in their country of birth. Many Romanian doctors and other medical staff have left the country for a better future abroad. France has the largest inflow of Romanian doctors. The outflow of medical staff has led to shortages in Romanian healthcare.

# Access to medication and parallel trade

In Romania the price for medicines is set by the National Agency for Medicines and Medical Devices (ANMDM). For certain medicines the set price is so low, that pharmaceutical companies are withdrawing their medicines from the market by deregistering them with the ANMDM. A number of important medicines are not available on the Romanian market anymore, hampering the recovery of patients. The website of the Romanian Health Observatory (<a href="www.health-observatory.ro">www.health-observatory.ro</a>) has more information. It is estimated that pharmaceutical companies took 2,000 medicines off the market. The governmental interventions lead to a flourishing parallel market. Medicine priced in Romania at a relatively low price are exported to other countries where they are sold at the relatively higher price

<sup>&</sup>lt;sup>8</sup> For more information on this section see: The World Bank, Andrei Dospinescu and Giuseppe Russo; Romania – Systematic Country Diagnostic: background note – migration; 2018.

there (more details in paragraph 5.2.4). At the same time there was a parallel flow of medicines into Romania, for medicines no longer available on the Romanian market.

# Health information and decision making

Decisions about health by the various governmental institutions are taken without much linkage to the health needs of the population. In general decisions are not based on sound information or analysis. Health outcomes could be improved within the constraints of the limited budget by rational decision making. There is a centralised electronic information system Sistemul Informatic Unic Integrat (SIUI)<sup>9</sup> that connects healthcare providers to the CNAS. The system is far from perfect and is sometimes offline for several days. The system needs a major overhaul, as it is hard to work with and requires many levels of authorisation from the CNAS for approval of treatments. A lot of data is gathered but is not used and analysed. Development of health economics systems could substantially improve the quality of decision making. There are currently no mechanisms to measure the impact of health actions or programmes. It is impossible to evaluate, if such programmes are actually working. In the field of Health Technology Assessments HTA improvements can be made as well. The HTA functions are assigned to the National Agency for Medicines and Medical Devices, but are not yet fully implemented due to a lack of resources and expertise, as well as the unclear delineation of functions.

# Public health: prevention and screening

As seen in chapter 2, the main health risk factors in Romania are unhealthy eating (too much animal fats, too little fruit and vegetables), alcohol consumption, smoking and little physical exercise. This behaviour is on the one hand caused by socio-economic factors. The relatively poor part of the population can't afford healthy food, especially healthier meat products. On the other hand there are cultural factors. It is a common thought that eating large volumes of meat is good. To some extend there is also overcompensation from the communist times when people experienced serious shortages in daily food articles. Nowadays there is an abundance of food available, that is consumed somewhat too enthusiastically because it is available. Romanian school pupils are hardly educated in healthy behaviour at school. At the moment there are hardly campaigns to inform the public about healthy behaviour, improvements can be made.

There are very limited screening campaigns. Most notably one for cervical cancer. However, its result is limited, as women are not actively invited to participate. A preventive screen on diabetes resulted in many more patients diagnosed with the disease, illustrating underreporting in statistics and unmet health care needs.

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<sup>&</sup>lt;sup>9</sup> The system is complex, next to SIUI there are also the related systems: SIPE (Sistemul Informatic de Prescripție Electronică) and CEAS (Sistemul informatic al cardului electronic de asigurări de sănătate). It is outside the scope of this report to go into more details, for more information: <a href="http://siui.casan.ro/cnas/despre\_siui">http://siui.casan.ro/cnas/despre\_siui</a>

# Private hospitals

Romania has a large number of private hospitals, about one third is privately owned. Private hospitals are treating patients from higher income groups with relatively simple problems (gynaecology, ear, throat mouth), basically the low hanging fruit. People with a low income can't reach private medical care. Complex care is usually not delivered and in case of complications with these simple procedures, patients are sent to the public hospital. Result of this is that the public system gets a larger burden of complex cases. Private hospital charges the CNAS with the standardised rate and the patient an additional fee.

# Chapter 4: Romanian health education, scientific research and R&D

## 4.1 Health Education

Romanian education has been under pressure in the last years. The quality of high school students is one of the lowest in the EU. The PISA study by the OECD investigates the quality of 15 year olds in science, reading and mathematics. On all three subjects Romanian high school students score below the EU average. The reducing qualities of students are also seen in university education. However, there is a relatively small portion of students that scores excellent in international competitions. Many universities have dropped their standards and bribing is a common phenomenon. For example bribes to pass an exam, to get documents in time from the student administration etc. Total enrolment of Romanian students is around 400,000, of which 33,4000 in universities abroad. Parents are losing faith in the Romanian education system and send their children – in increasing numbers - to universities outside Romania. The Ministry of National Education<sup>10</sup> is in charge of all education in Romania.

The level of medical university education is not suffering from this general drop in the quality of academic education. Main reason for this is the nation-wide entry exam for medical schools, that is compulsory for all Romanian students, foreign students are exempted. The exam is meant to select only the best students and is the sole selection instrument for admittance into medical school. The best admitted students will also receive a government scholarship for the first year. The scholarship will be prolonged another year if the student has sufficiently high grades. The system is highly performance focused.

Romania has 10 universities offering medical education; six are medical universities, only offering medical education; the other four offer a broader range of subjects. All universities have faculties for medicine, pharmacy and dentistry (see Annex B: Medical faculties). The medical schools with the best reputation are:

- 1. Carol Davila University of Medicine and Pharmacy, Bucharest
- 2. Grigore T. Popa University of Medicine and Pharmacy, Iași
- 3. Iuliu Hațieganu University of Medicine and Pharmacy, Cluj Napoca

The medical schools are mainly involved in teaching, the training is of a professional level and has an upward trend. The high level of training is also due to internationally recognised curricula and university teaching staff who circulate among foreign medical schools. Medical schools receive a fee per student from the government. Another source of income are students from abroad who pay a tuition fee that is above the fee from the government. This resulted in programs not only in Romanian but also English and sometimes French<sup>11</sup>. Grigore

 $^{11}$  Foreign students are not uncommon in Romania, during communism, students from friendly "communist" countries studied in the country. For example students from Asia and Africa.

<sup>&</sup>lt;sup>10</sup> Ministerul Educatiei Nationale, www.edu.ro

T. Popa University has for example students from around 40 countries. The inflow of foreign students can result in capacity problems in the faculties. Romanian medical faculties hardly receive income from research grants, hence teaching is their main source of income and the focus of the faculties. This is different to Dutch medical faculties, where research and obtaining research grants are a major source of income.

Many universities that provide medical education, also offer education in related fields, such as nursing, midwifery, laboratory technician, dental hygienist, bioengineering, physiotherapy, nutrition and dietetics etc.

# 4.2 Bio-medical scientific research

Bio-medical scientific research is done at universities, hospitals, research institutes, companies and clusters (companies and clusters will be discussed in the next paragraph). At universities scientific research is of a very limited scope especially compared to the Netherlands. The focus of universities is on teaching because of their funding structure, the income earned from teaching is a lot higher as from research. Education funding is a more stable source of income as research funding, which is project based. Romanian - non-EU or other - funding is limited in available budget and timing. The granting process is slow, the award of grants can be postponed and budgets reduced, all for budgetary reasons. There is hardly structural funding.

Government grants are open for application by universities, research institutes and companies. For a limited number of grants and a limited grant amount there is a lot of competition (up to 90 contestants for 3 grants). Which makes writing the often large proposals not very interesting as many resources must be used to have a slim chance for a grant. EU research funding (Horizon 2020 etc.) subsidises research in fields that are not relevant to Romania. The subjects are not the health problems and diseases that Romania is facing and Romania has no institutes and researchers in requested fields. Romanian universities are sometimes minor contributors to a limited number of (small) international research projects. The quality of institutes and companies differs a lot, some have 1970's equipment others have a state of the art equipment. Procurement is for researchers a cumbersome task, tender limits can be lower as the official public sector limits, as low as 600 euro. The electronic tendering does not give freedom in the choice of equipment. There is no freedom to buy equipment of the same brand that is already installed in a laboratory. Purchases in a university must be listed a year in advance. That does not work with research where decisions are made halfway a research project and actual use of materials is hard to estimate in advance. Researchers are afraid to meet sales representatives out of fears of being accused of corruption. Many university rules hinder scientific research and do not contribute to an environment where research can thrive.

Most of the scientific research is done in the research institutes that are under the Romanian Academy of Sciences<sup>12</sup>. The academy has four research institutes in the field of bio-medical research:

- 1. Institutul de Cercetări Antropologice "Francisc I. Rainer", București
- 2. Institutul de Virusologie "Ştefan S. Nicolau", Bucureşti
- 3. Centrul de Imunologie, București
- 4. Centrul de Cercetari Biomedicale, Iași

# 4.3 Research and development

Biomedical research and development is of a limited scope in Romania. Most prominent are the research departments of some of the pharmaceutical production companies. Some of the pharmaceutical production companies have their own R&D department and medicine development. The best example is Antibiotice that has extensive research facilities and is also offering contract research services. The Romanian subsidiary of Gedeon Richter has a R&D

profile, claiming that 60 medicines have been developed and produced. In 2016 it opened a new centre for R&D in Târgu-Mureş, partially financed with European funds. Biotehnos (see: Annex E) is a R&D oriented pharmaceutical producer. It produces original drugs and pharmaceutical active ingredients, that are patented.

The innovation landscape in the bio-medical field is not widely developed, it lacks investment from the business side, openness to cooperation from the Case: bioROne - the first biotechnology cluster in Romania

bioROne is the first biotechnology cluster in Romania. It is located in the North-Eastern city of Iași. The inspiration for creating the cluster came from foreign examples, especially CIMIT in Boston US was inspiring. The goal of the cluster is to integrate actors in the biotech field to collaborate instead of each actor working on its own, to improve translational research and economic development. bioROne was founded by a group of 12 members, which includes top universities and research centres, key national or regional industry players, development agencies and strategic partners.

bioROne aims to act as a network and common platform to help maximise the innovation potential of North Eastern Romania, and strengthen the innovation process from an original idea to a product. bioROne has secured several project grants and research contracts, cumulative budget 50m euro, among others from the EU structural funds.

www.biotechnologie.ro

academic side and facilitation from the governmental side. However, there are a number of initiatives in the form of clusters of business, research and health institutions. A total of three clusters of companies, research institutions and hospitals are found<sup>13</sup>. The first bio-medical

<sup>&</sup>lt;sup>12</sup> Academia Românâ, <u>www.acad.ro</u>

<sup>&</sup>lt;sup>13</sup> Clusterro is the platform for clusters from various sectors in Romania: <u>www.clustero.eu</u>

cluster in Romania is bioROne (see the textbox). Cooperation in a cluster is today a mainstream organisation model, for bio-medical R&D.

The three main bio-medical clusters are in Romania:

- 1. bioROne biotechnology: www.biotechnologie.ro
- 2. RoHealth health and bioeconomy: www.rohealth.ro
- 3. iMAGO-MOL molecular imaging: <u>www.imago-mol.ro</u>

Commercialisation of knowledge (part of translational research) is very difficult, as there is no legal framework for translational research. Anti-corruption legislation and fear to be sued for corruption is paralysing sensible development in this field. Universities are afraid to receive money from companies, hence this inhibits any form of contract research. Governmental institutions are not helping when asked about the application of relevant laws, either no answer is given or a copy-paste from the law/regulation is given as answer. People are afraid to act. To further develop the clusters there is the need for a success story, that can act as role model.

# 4.4 Opportunities for cooperation

Cooperation between Romanian and Dutch governmental organisations, universities and institutes is possible in several fields.

- In Romania health economics is a highly underdeveloped field. Romanian healthcare
  can be improved substantially by making research based economic decisions. This can
  be done in many areas, for example decisions on the locations of new hospitals.
  Admittance of new medicines or medical devices to the Romanian market, and
  establishing if the costs are acceptable, instead of decisions based on private interests.
  The Netherlands has a number institutes that are specialised in this fields.
- 2. In the field of public health cooperation should be feasible. In the Netherlands extensive knowledge is available on public health and epidemiology.
- 3. Health technology assessment is underdeveloped in Romania and could use input from the Netherlands.
- 4. Romanian organisations in the field of scientific research and R&D are isolated from EU counterparts. Connecting Romanian scientific research and R&D to EU partners, can open new opportunities.

# Chapter 5: Business opportunities in the Romanian health sector

# 5.1 Total trade of Romania

Over the last 5 years, trade between Romania and the world is increasing at a rapid pace. Romania's global imports were strongly growing in the last 5 years. In 2013 imports totalled 55.3 billion euro, by 2017 they have risen to 75.5 billion. In 2017 they grew by 12% compared to the previous year.

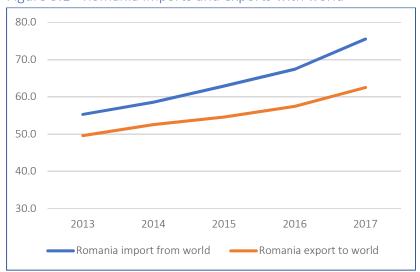


Figure 5.1 - Romania imports and exports with world

Source: Trade Map, unit EUR billion

Exports grew less fast than the imports, from 49.6 billion euro in 2013 to 62.5 billion in 2017. Exports of Romania lie below the imports. Compared to total Dutch exports of 577 billion euro in 2017, Romanian export is limited.

The major trade partners are Germany and Italy, for imports as well as exports. Germany is by far the largest trade partner, doubling in volume runner up Italy. The Netherlands are the 7<sup>th</sup> import partner of Romania and the 11<sup>th</sup> export partner. Romanian imports from the Netherlands are 3.0 billion euro and Romanian exports to the Netherlands are 1.6 billion euro. Trade between Romania and the Netherlands has a growing trend. Romanian imports of Dutch goods are rising since 2010 and accelerated since 2014. Between 2016 and 2017 they rose by 10%. Export and import products are mainly the same, with the exception that Romania imports a considerable amount of pharmaceutical products.

# 5.2 Trade in medical goods

## 5.2.1 Introduction

The trade classification does not have a category 'medical goods', they are spread out over the system. In this study medical goods are divided up in three main categories: pharmaceutical products, medical devices and other medical products (see Annex C: Classification of medical products). Pharmaceutical products are straightforward, medicines in various forms, category "Medicines in doses" are patient ready packaged medicines e.g. pills packaged in strips and boxes as sold in pharmacies. Medical devices contains all machine style medical products ranging from small equipment, orthopaedic implants to large scanning machines. The other medical products are a more diverse category. The most common denominator here is that they are mostly consumables and disposables. The major exception are medical furniture. To get an idea about the relative importance of the three categories see figure 5.2.

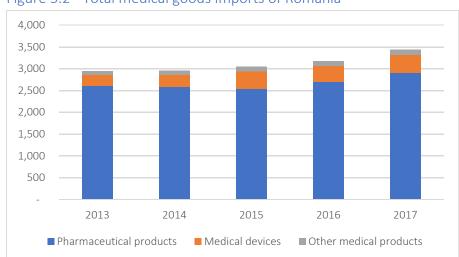


Figure 5.2 - Total medical goods imports of Romania

Source: Trade Map, unit EUR million

Table 5.1 - Total medical goods imports of Romania

Categrories	2013	2014	2015	2016	2017
Pharmaceutical products	2,609	2,576	2,537	2,693	2,907
Medical devices	248	288	400	373	403
Other medical products	79	91	108	114	127
Total	2,936	2,955	3,045	3,181	3,437

Source: Trade Map, unit EUR million

Medical products account for 4.6% of total Romanian imports. It makes it a relatively important import product, because Romania has relatively little domestic production of pharmaceuticals. Overall pharmaceutical products are the main component of the Medical product imports with a share of 84%, medical apparatus account for a share of 12% and other medical products 4%.

At third place in the Romanian imports from the Netherlands are pharmaceutical products with a share of 10.6% and a value of EUR 319.0m. All medical goods combined have a share in Romanian imports of 12.5% and a value of 378.2m euro.

Data on the exact size of the healthcare markets are not available. But reasonable estimates can be made by adding up the turnover of the larger companies in a specific category. For example the combined turnover of the 10 largest pharmaceutical distributing companies are an indication of the market size. Downside of this method is that not all companies are included, it excludes direct sales by domestic producers and foreign companies, also possible exports by distributors are not accounted for. Some cross contamination cannot be avoided, e.g. production companies that also run distribution and retail. A total market estimate cannot be given by using this method, but they are the best available data. For the year 2017 a figure of EUR 10.7bn was reported for the total pharmaceutical sector – including production, distribution and retail – actual drug sales are lower<sup>14</sup>, see next paragraph.

# 5.2.2 Pharmaceutical products distribution

The market for pharmaceutical products is underdeveloped compared to western markets. The largest 10 distributors had a combined turnover of 3.2bn euro in 2017 (see Annex D: Pharmaceutical distributors). Substantial sales and growth have been reported. A recent estimate reported a drug sales of 3.15bn euro in the year covering Q1 2017 to Q1 2018, an increase of 11.8% compared to the same period a year earlier. The largest segment are prescription drugs sales of 2.1bn euro, OTC sales were 686m euro and sales to hospitals totalled 368m euro<sup>15</sup>. It was also reported that the pharmaceutical market grew by 17% in the first quarter of 2018, compared to the same period in 2017<sup>16</sup>. The largest medicine distributors in 2017 were:

1. Mediplus Exim, Mogosoaia, turnover: 834.4m

2. Farmexpert, Bucharest, turnover: 634.1m

3. Fildas Trading, Bucharest, turnover: 571.4m

4. Farmexim, Comuna Balotești, turnover: 421.8m

5. Sanofi, Bucharest, turnover: 236.3m

Turnover of tenth largest distributor in Annex D Pharma is 25.5m euro. The size of the pharmaceutical distributors is large compared to other companies in the healthcare sector (see the next paragraphs) and also compared to the wider Romanian economy. Mediplus Exim is part of the medical conglomerate A&D Pharma Holding. Some other companies in this holding are Sensiblu pharmacies and A&D Pharma Marketing & Sales Services. Foreign ownership of these companies is quite common Farmexpert is part the Walgreens Boots

<sup>&</sup>lt;sup>14</sup> https://www.romania-insider.com/romania-pharmaceutical-market-2018

<sup>&</sup>lt;sup>15</sup> https://www.romania-insider.com/pharmaceutical-market-q1-2018

<sup>&</sup>lt;sup>16</sup> https://www.romania-insider.com/pharmaceutical-market-q1-2018

Alliance, Farmexim is part of the German PHOENIX group. Profit margins<sup>17</sup> of the pharmaceutical distributors are not high, they range from 1% to 4% for the top 3 distributors. The National Agency for Medicines and Medical Devices has the tendency to set the prices for pharmaceutical products relatively low. Which might explain the low profit margins.

# 5.2.3 Pharmaceutical production

Romania has a pharmaceutical production industry, in size not comparable to western multinational companies. The ten largest companies have a combined turnover of 610m euro (see Annex E: Production companies). The largest pharmaceutical producers are:

1. Terapia – Sun Pharma, Cluj-Napoca, turnover: EUR 144.0m

2. Zentiva, Bucharest, turnover: 98.4m

3. Bioeel, Targu Mureş, turnover: 73.1m

4. Ropharma, Brasov, turnover:73.0m

5. Antibiotice, Iași, turnover: 72.5m

The size of the companies is relatively large in context of the Romanian economy. With a turnover of EUR 144m, and employing 867 staff Terapia - part of the global Sun Pharma company - is considered a large business in Romania - in the world of global pharmaceutical companies not. Profitability in this sector varies from excellent to basic. Zentiva and Terapia are very profitable, with a margin of 19%, they both reach levels comparable to pharmaceutical multinationals. However, Bioeel and Ropharma score a profit margin of under 2%, Antibiotice is at 10% in the middle. Most of the pharmaceutical producers are manufacturing prescription drugs, over-the-counter (OTC) drugs, vitamins, dietary supplements and a minority also produces cosmetics. Antibiotice exports about one quarter of its production, mainly to neighbouring countries. The modest size of the medicine production is likely due to the tax clawback levied on medicine production companies. The tax – introduced in the wake of the recession in 2009 – is meant to pay for reimbursed medicines, and to reduce government expenditure on drugs.

## 5.2.4 International trade in pharmaceutical products

In the previous paragraphs it became clear that the production of pharmaceuticals is a lot lower than the distribution: production EUR 610m distribution EUR 3,235m. Inevitably the difference must come from international trade. In 2017 an import of 2,907m euro of pharmaceutical products was recorded and an export of 732m. Table 5.2 gives an overview of the Romanian imports of pharmaceutical products, divided into six sub product groups. The largest subgroup by far are the medicines in doses at 84% of total. Second are the blood products with a share of 17%. Medicines in doses show a continuous growth, blood products have a more varied development, but ending in 2017 on the highest level.

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<sup>&</sup>lt;sup>17</sup> Profit margin is here defined as: nett profit/turnover

Table 5.2 - Romanian import of pharmaceutical products

Code	Description	2013	2014	2015	2016	2017
3001	Dried glands and other organs	10	1	1	1	1
3002	Blood products	356	351	308	308	402
3003	Medicines in bulk	11	6	7	5	7
3004	Medicines in doses	2,173	2,161	2,163	2,314	2,429
3005	Dressing materials	14	16	16	16	18
3006	Other pharmaceuticals	44	40	42	48	50
Total import pharmaceutical products		2,609	2,576	2,537	2,693	2,907

Source: Trade Map, unit: EUR million

Competition in the export of pharmaceutical products to Romania comes from the countries with the largest market share <sup>18</sup>. The countries and their market share that export medicines in doses to Romania are: Germany 16%; Hungary 15%; The Netherlands 11%. For blood products: Switzerland 22%; Germany 18%; The Netherlands 13%; United Kingdom 12%.

## Parallel trade

Romania imports medicines in doses for an impressive 2.4bn euro in 2017. But Romania also exports a considerable amount of medicines: 699m euro in 2017. It does so while having a modest domestic production - in paragraph 5.2.3 Pharmaceutical production - it was found that the 10 largest Romanian medicine producers have a combined turnover of 610m euro. This would imply that the total Romanian medicine production is exported.

In reality the large medicine export is due to parallel trade. Medicines and medical devices are registered with The National Agency for Medicines and Medical Devices, that also sets their prices for the Romanian market. The prices are often set at a level below many other markets, in western and eastern Europe. This is exploited by distributors re-exporting medicines imported in Romania to countries with a higher price level. The main destinations for medicine exports from Romania in 2017 are: Germany: EUR 114.2m; Russian Federation EUR 88.2m; United Kingdom EUR 64.1m; Poland 57.6m; The Netherlands 25.8m.

The European Commission has set up infringement cases against Romania, Poland and Slovakia's parallel trade. Recently these cases were closed on the basis that parallel trade is not prohibited because of free movement of goods and services within the EU. However, the commission also expressed its concerns about the availability of medicines as a consequence of parallel trade<sup>19</sup>.

The parallel trade has serious implications for Romanian society. The outflow of medicines results in shortages of certain medicines, patients not receiving the medicines they need. Also

<sup>&</sup>lt;sup>18</sup> Competition comes essentially from other companies and not from countries. As statistics are unavailable on an individual company level, the aggregated numbers are the best indicator.

<sup>&</sup>lt;sup>19</sup> https://www.lexology.com/library/detail.aspx?g=278e89e2-5b83-4b8d-a8e8-701f1d10ad84

on the side of the international pharmaceutical companies this has implications, they must compete with their own product in some markets. Parallel trade and the low medicine prices have resulted in de-registration of medicines from the Romanian market by pharmaceutical companies. Doctors have less choice when prescribing medicines to their patients, who get a lower quality of care.

#### 5.3 Medical devices

The structure of the Romanian imports in the sub product group of medical devices is in Table 5.3. In 2017, the largest subgroup are instruments and appliances, share of 57%; second come the orthopaedic appliances, share of 20%. Both subgroups have a growing trend, but the radiation apparatus are on a decreasing trend.

Table 5.3 – Romanian import of medical devices

Code	Description	2013	2014	2015	2016	2017
9002	Optical products	10	9	12	10	22
9012	Microscopes	1	7	15	1	2
9018	Instruments and appliances	143	166	220	216	229
9019	Mechano-therapy appliances	15	18	25	23	24
9020	Respiration apparatus	1	2	4	4	6
9021	Orthopaedic appliances	49	55	68	76	81
9022	Radiation apparatus	29	31	56	44	39
Total import medical devices		248	288	400	373	403

Source: Trade Map, units EUR million

Supplying countries and market share of the imports of instruments and appliances are: Germany 32%; The Netherlands 13%; China 9%. For orthopaedic appliances they are: Germany 20%; The Netherlands 19%; France 8%. Germany is the most important competitor in both subgroups.

Distributors of medical devices are listed in Annex F: Distributors of medical devices. The combined turnover of these 10 companies is 121m euro. These are all Romanian companies and exclude international parties like Philips, Johnson and Johnson, Zeiss etc. Because the international players have set up their own distribution organisation. For a Dutch SME looking for a distributor in Romania they are not suitable partners, because these multinationals sell only their own products. The distributors do sell mostly western medical devices, but most often not from large multinational producers. The largest Romanian distributors of medical devices:

- 1. Diamedix Impex, Bucharest, turnover 21.1m
- 2. Sante International, Bucharest, turnover: 14.1m
- 3. Medical Technologies International, Bucharest, turnover 13.8m
- 4. Mediclim, Bucharest, turnover: 12.1m

The average size of the distributors is relatively low (around 12m), but their profitability is far from low. Diamedix and Medical Technologies International score a profit margin of 8%, but Mediclim at 21% and Sante International at 29% score very high.

## 5.4 Other medical products

Imports in Romania of the subgroup of other medical products is relatively small. The import of reagents has the largest share. Most reagents are imported from: Germany 40%, France 11% and Belgium 9%

Table 5.3 – Romanian import of other medical products

Code	Description	2013	2014	2015	2016	2017
3821	Cultures and media	3	3	3	4	4
3822	Reagents	58	65	73	81	92
401511	Gloves	5	4	4	5	6
48189010	Paper disposables	1	1	2	2	2
7017	Glassware	2	2	2	2	2
841920	Sterilizers	2	3	5	4	5
9402	Medical furniture	9	13	19	16	17
Total import other medical products		79	91	108	114	127

Source: Trade Map, unit: EUR million

Some companies from the list of medical device distributors also distribute reagents: Mediclim, Top Diagnostics and Rotest. (Annex F: Distributors of medical devices).

## 5.5 Healthcare service providers

The number of healthcare service providers developed rapidly in Romania between 1990 and 2016. In 1990 shortly after the revolution there were 9.665 'medical units' registered in Romania. All of them were public companies. By 2016, the total number of medical units had risen to 59.957 registered companies, out of which there are 6.414 public companies and 53.543 private companies. The National Institute of Statistics registers 32 types of health care organisations, the main - commercially interesting ones - are summarised in the table below.

Table 5.4 – Healthcare care organisations 2016

Organisation	Public	Private	Total
hospital	366	201	567
medical laboratory	2,021	1,988	4,009
specialised practice	-	10,754	10,754
general practice	22	11,252	11,274
dental practice	32	14,847	14,879
dental technique lab	15	2,248	2,263
pharmacy	399	7,403	7,802

Source: National Institute of Statistics

Most of these companies will be discussed in the sections below. The data presented represent registration of companies, it does not say something about their activity level or size in terms of employees or turnover.

#### 5.6 Hospitals

Romania has a mixed system regarding hospitals, both public and private hospitals are active. Figure 5.3 shows the development of the number of public and private hospitals between 2010 and 2016.

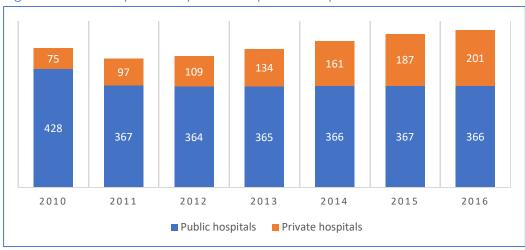


Figure 5.3 - Development of public and private hospitals

Source: National Institute of Statistics

After the revolution in 1989 Romania had 423 public hospitals. The first private hospitals emerged in the 1990's. In 2011 over 60 poorly performing public hospitals were closed. Since then the number of public hospitals stays stable around 365. The number of private hospitals is growing rapidly, rising from 75 in 2010 up to 201 in 2016. The private hospitals have the highest presence in the counties with the larger population centres: the city of Bucharest (43), counties: Cluj (22), Bacau (21), Constanta (19). The public hospitals are distributed more evenly over the counties with at least three hospitals in the smallest counties. The city of Bucharest has a total of 50 public hospitals, the largest concentration in the country. Please note that these data are the registered hospitals, it does not say something about the range of their service, quality or size in terms of number of beds or turnover or quality of care.

#### 5.6.1 Public hospitals

As discussed above, the number of public hospitals is stable since 2011. The current stock of hospital buildings comes from the 1980's or before. The only relatively recently built hospital is the Regional Institute for Oncology in Iași (<a href="www.iroiasi.ro">www.iroiasi.ro</a>). The building was funded by the Romanian government, the equipment through European Funds.



Regional Institute for Oncology in Iași, photo by author

Public hospitals receive their funding from the National Insurance House based on a set amount per treatment, similar to the Netherlands.

Some of the larger public hospitals are:

- 1. Spitalului Clinic Coltea, Bucharest: www.coltea.ro
- 2. Spitalului Clinic Județean de Urgență "Sf. Spiridon" Iași: www.spitalspiridon.ro
- 3. Spitalul Clinic de Urgenta "Sf. Pantelimon", Bucharest: <a href="www.urgentapantelimon.ro">www.urgentapantelimon.ro</a>

Most purchasing by public hospitals must be done via the Electronic System for Public Procurement<sup>20</sup> (SEAP). Suppliers have to go through a registration procedure to get access, after approval the supplier has to install a digital certificate. Without access to SEAP it is possible to search and view the tenders. A Central Public Procurement Unit is currently set up. The procedures for the award of public procurement contracts are: open bid, restricted bid, competitive dialogue, negotiation with or without prior publication of a contract notice,

<sup>&</sup>lt;sup>20</sup> Sistemul Electronic de Achizitii Publice: <a href="http://sicap-prod.e-licitatie.ro/pub">http://sicap-prod.e-licitatie.ro/pub</a>

request for tenders and design contest. The most frequently used procedures are the open bid and the request for tenders. To be successful in the award procedure on SEAP, all required steps must be executed meticulously in order not to be disqualified. It is extremely important to comply with all requirements as published on SEAP. In reality the system is not flawless, a common technique is to escape from the thresholds for procurement is splitting of the contracts in smaller contracts.

The current government has announced plans to build 3 new public hospitals. The first one is the Western Romania regional hospital<sup>21</sup> with a budget of 377m euro, to be built in Floresti near Cluj-Napoca and finalised by the end of 2023. The minister of health plans to submit a request for European funding in fall of 2018. The other two hospitals are to be built in Bucharest, both with a budget of 300m euro<sup>22</sup>. The first one in the capital's first district (sector 1), the other one in the northern area of Pipera.

#### 5.6.2 Private hospitals

The number of private hospitals has grown very fast. In 2010 there were 75 such hospitals and by 2016 their number had risen to 201. Private hospitals can claim treatments at the National Insurance House (CNAS). They also charge their patients a fee for services rendered on top of the fees received from the CNAS. They also sell services and products that are not part of the package reimbursed by CNAS. Clients/patients have to pay these from their household budget. Private hospitals aim at the wealthier parts of the population, who mainly live in the larger cities. Not surprisingly, private hospitals are mostly located in the largest population centres and especially in Bucharest.

The look and feel of the hospitals are more marketing influenced than public hospitals. Especially the larger ones, like Regina Maria are clearly in the consumer services market, as is evident from their website and buildings. Smaller hospitals have a less developed online marketing. The quality of private hospitals differs a lot, the larger hospitals have a broad spectrum of treatments, the smaller a limited offer. Websites of smaller hospitals can suggest that they offer a lot of specialties, the quality is often unclear. Private hospitals are market driven in their service to patients, generally the relatively simple care is offered. Care that people are willing to pay extra money for, for example care related to child birth. Romanians have a sympathy for children – like many other nations – thus are willing to spend money on pregnancy, child birth and child care services. Procurement in private hospitals goes without the electronic tendering compulsory for public hospitals. On the other hand private hospitals are commercial profit driven and will negotiate hard on price. In general, price is the first and foremost variable in purchasing decisions by Romanian companies.

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<sup>&</sup>lt;sup>21</sup> https://www.romania-insider.com/cluj-regional-hospital-finalized-december-2023

<sup>&</sup>lt;sup>22</sup> https://www.romania-insider.com/hospital-bucharest-district-1

The largest private hospitals in 2017 are:

1. Regina Maria, turnover: 120.6m

MedLife, turnover: 81.5m
 Sanador, turnover: 62.2m

4. OncoFort / Gral Medical, turnover: 23.0m

In Annex G are listed the 10 largest private hospitals. The combined turnover of these 10 was 337m euro in 2017. The private hospitals vary a lot in size. The four listed above are by far the largest, a lot of private hospitals have a modest turnover between 5 and 2 million euro. The large hospitals are all active in 3 to 12 cities, the small ones only in one city. Apart from the private hospitals, there are other commercial service providers such as clinics/medical centres or laboratories. It is estimated that the total private healthcare services market is 1.7bn euro in size and grew by 12% in 2017<sup>23</sup>.

Profitability in the private hospital sector is at best meagre, many report losses in 2017. It is not uncommon that a hospital runs with losses for several years in a row. For example from the top 5 largest hospitals: Regina Maria had for all legal entities combined a loss of 10m euro in 2017, Polisano lost 7.6m, MedLife reported a small loss of 0.5m euro. Sanador presented a profit margin of 4% and OncoFort / Gral Medical 3.5%. Working conditions for nurses for example, are less good in private hospitals compared to public hospitals, salaries are lower and shifts are longer. A study by ING<sup>24</sup> showed that salaries in public healthcare are 30% above the national average (public and private sector included).

At the moment, the private hospital sector undergoes a restructuring and consolidation. Probably due to the bad financial results of some hospitals. By the end of 2017 Regina Maria was the largest private hospital. In 2015, investment firm Mid Europa Partners acquired 100% of Regina Maria's shares. In 2016 Regina Maria acquired the Ponderas Hospital<sup>25</sup> in Bucharest. Generally Regina Maria is expanding rapidly by acquisitions and organic growth, it secured a European Investment Bank loan of 15m euro. A new hospital will be opened in Cluj Napoca in 2018 worth 15m euro<sup>26</sup>. Competitor MedLife is listed at the Bucharest Stock Exchange and controlled by a Romanian family. Also MedLife is growing organically and acquisition of healthcare companies, its most recent acquisition is Polisano hospital and clinics<sup>27</sup>.

### 5.7 Private medical clinics

Private clinics offer only ambulatory services and have no beds. The services included are usually general practitioner consults, laboratory analysis various scans. They offer also

<sup>&</sup>lt;sup>23</sup> https://www.romania-insider.com/private-healthcare-services-market-2017

<sup>&</sup>lt;sup>24</sup> https://think.ing.com/snaps/romania-wage-growth-remains-strong-again

<sup>&</sup>lt;sup>25</sup> http://www.mideuropa.com/media/news/2016/regina-maria-acquires-leading-hospital-in-bucharest

<sup>&</sup>lt;sup>26</sup> https://seenews.com/news/romanias-regina-maria-to-open-15-mln-euro-hospital-in-cluj-583382

<sup>&</sup>lt;sup>27</sup> https://www.romania-insider.com/medlife-buys-polisano-hospital-clinics

services for employees of companies, this is part of the compensation package. Usually it includes a subscription style medical check-up and general practitioner consults. Often a range of care packages is offered by the clinics. Employer's from bigger companies in especially IT offer this to their employees as part of their compensation package. Private medical clinics (see also private hospitals) are specialised in various analysis like MRI scans, imaging and related. They offer their services to the public as well as private and public hospitals.

### 5.8 Analytical service providers

In the field of Contract Research Organizations (Annex H: Medical service providers) limited activity is observed, the main player is Antibiotice that also produces medicines. A small number of medical software companies have been found.

Another type of service are the medical laboratories, these laboratories do analysis on human materials like blood or tissue samples. Analysis include haematology, microbiology etc. These service providers offer their services to public and private hospitals and are quite profitable. Annex H gives a list of medical laboratories.

## 5.9 Other healthcare providers

General practitioners usually work in a one to three person practice. The majority of their services are charged to the National Insurance House (CNAS). Since the revolution the number of dental practices has grown substantially, under communism independent dental practices were unknown. Dentist and dental technicians are private companies, funded mainly outside CNAS, patients usually pay at the dental practice. Dentists receive a (small) lump sum for the treatment of children and elderly people from CNAS.

## Chapter 6: Market entry and business culture

#### 6.1 Market entry

Opportunities in international business are an often used word. Romania has been described as a country with an abundance of opportunities the land of endless commercial chances. If that might have been true some years ago, it is not the case today. Today, market entry in Romania is a matter of good deep market research, both desk research and field research. Realistically it will take at least half a year before the first results will be visible, at least three field visits and a budget of minimally 25,000 euro spent on travel and related as well as hours spent on business development management.

Corruption is a significant problem in Romania. It is found in many branches of the government and public institutions. It comes in many forms and shapes from a little "present" to a nurse in the hospital to granting contracts to friends by politicians. For example the 3 new hospitals are at risk of corruption, construction contracts for the building might be granted to "friends". However, be prepared to encounter corruption in private sector companies as well. Purchasing managers are sometimes willing to accept a higher price level when they receive a bribe. This might only happen when purchasing is not done by the owner of the company. Transparency is an indicator for the quality of a potential business partner. Often a good start is the website. When it looks professional, lists fiscal numbers, bank details and is at least bilingual, some basic criteria are met for reliability. A bilingual website shows openness to potential partners from abroad.

For market entry there are three basic models in the healthcare sector.

Strategy	Description	Type of product
Distributor	Local party that that takes your	Products that circulate relatively quickly,
	product in its assortment and sells	smaller products with a relatively low
	it in the local market. The	value per product. The distributor needs
	distributor has your product in	to take them in stock and is not keen on
	stock. One or more distributors are	a large investment in inventory.
	possible, look at exclusivity and	
	region.	
Agent	Local party that sells but does not	Works best for products that have a high
	have stock of product. Usually	value per product and are often made to
	works for a commission.	order.
Direct sales	Sales from your own office with	Can work for all products, but requires a
	frequent travel to the market.	lot of time devoted to getting to know
		the market.

The market entry strategy depends highly on the market proposition of the exporting company as well as the Romanian market. Realise that a minimum requirement for success is that some structural variables are in line with each other. In the Romanian price driven market, it will be hard to get success with a high quality premium priced product. If a product

has additional functionalities, do not assume that a Romanian business will see the value, especially when that value comes at a higher price. Even if the extra functionality reduces labour cost, labour has a very different price in Romania than in The Netherlands.

In general, a local native partner works good, especially for a market with a great deal of government regulations that are often ambiguous and only available in Romanian. To understand and interpret these regulations and the local context it is very important to have local experience and knowledge. Especially for the registration of medicines and medical devices at the ANMDM local support is important.

#### 6.2 Business culture

When discussing the business culture of a country it is inevitable to present generalisations of a country and its people. On the one hand, these generalisations are a workable tool for non-natives, they guide you in unfamiliar territory. On the other hand, they do not show the complexity of a country and its people and can be perceived as an insult. When working with different cultures be aware of the question: "Are THEY different or are YOU different?"

Some generalisations about Romanian (business) behaviour, compared to the Dutch:

- 1. Romanians take everything personally, in The Netherlands you can have a 'business difference of opinion' that has no grave consequences for the interpersonal relation. Such concept does not exist in Romania.
- 2. A personal relation with a business partner is essential to become successful. It takes time to build up a trustful relation, don't expect success to soon.
- 3. Romanians have difficulty with uncertainty and ambiguity, resulting in strictly following rules, even if these rules don't make sense. If Romanians become flexible with rules they might become too flexible (corruption, fraud). A middle ground where you bend the rules a bit in a practical way without breaching the rights of others is difficult for Romanians.
- 4. Romanians are very expressive in communication and describe experiences in extremes something is good or bad there is no middle way. Romanians experience the Dutch temper as flat.
- 5. Romanians tend to think everything outside Romania is better, they suffer from a mild inferiority complex.
- 6. In negotiations, Romanians go all the way to get the best price. Where the Dutch think in partnerships where you give some and you get some Romanians go for the lowest price.
- 7. In Romania, a business lunch is taken between 12 and 15 hrs, can last two hours and is a warm meal (lunch is the main meal in the country).
- 8. Time is taken in a Mediterranean way, it is flexible, business partners coming late for a meeting should not be taken personal.

- 9. Hospitals have a hierarchical culture, where doctors are in the top branch.
- 10. Be aware of the difference between private and public hospitals. Private hospitals operate in a very commercial environment, public hospitals not at all.
- 11. The Dutch are good at refusing, Romanians avoid saying no. If you call a business contact, they rather not pick up the phone to avoid the confrontation of telling you they are not interested.

### Conclusion

The Romanian healthcare sector has its opportunities, but also its fair share of challenges. The following opportunities and threats can be concluded from the analysis.

## Opportunities

- 1. Large population of 19.6 million people;
- 2. Population has a low health status compared to other EU countries, giving possibilities for improvement;
- 3. Chances in the treatment of various highly prevalent diseases like cardio vascular diseases, cancer and respiratory system diseases;
- 4. A population with an increasing disposable income and relatively high out-of-pocket healthcare expenses;
- 5. Moderately increasing attention to health among the population;
- 6. Very significant import of medicines due to low domestic production;
- 7. Relatively low medicine consumption compared to western markets, but a fast growing market that is not yet saturated, giving growth opportunities.
- 8. Good quality medical education and doctors;
- 9. Development of health economics and health technology assessment.
- 10. Public health and prevention campaigns
- 11. Opportunity to outsource medicine production to Romania, now that outsourcing destinations like India face serious quality problems. Investment needed to upscale production.
- 12. A dynamic landscape of private hospitals and the announced development of three public hospitals;

#### **Threats**

- 1. Increasing income is unevenly distributed over the population, only a part of the population can afford better healthcare;
- 2. Low government spending on healthcare, incapacity to deliver healthcare goods and services to the population;
- 3. Governmental incapacity to deliver healthcare goods and services to the population;
- 4. Corruption and political instability;
- 5. Focus on price in procurement, less on quality;
- 6. Government policy on medicine pricing;
- 7. Parallel trade.

The economy is growing at a fast pace, a middle class with disposable income is developing. Economic growth is mainly consumption based for a healthy economic development more investment is needed. Political instability is a risk.

The Romanian people have a low health status. The life expectancy at birth is among the lowest in the EU. Romanians die mostly from cardiovascular diseases, compared to the EU population. Risk factors are a poor diet, high fat consumption, smoking, alcohol consumption and little exercise.

The Romanian healthcare system performs poorly, it is not capable of generation more favourable health outcomes for its people. An obvious reason is the relatively low government budget for healthcare. Out of pocket expenses on medical goods and services are relatively high, indicating a lower level of public sector services. Doctors emigrate often to other EU countries. Healthcare services are relatively good in the urban areas, at the country side the people are underserved.

Romanian medical education is good, scientific research and R&D are very basic. Romanian medical students are among the best in the country due to a tough selection exam. Scientific research is hardly done at universities, mainly at institutes of the Romanian Academy of Sciences. Funding for research is limited both from Romanian sources and international sources. Research and Development is done at pharmaceutical companies and hospitals. Three viable bio-medical research clusters exist. Cooperation between universities and business is limited.

Possibilities for cooperation at a governmental and institutional level are in the field of health economics, health technology assessment, public health. Connecting Romanian scientific research and R&D to EU partners.

Commercial opportunities are mainly in the sales of medicines and medical devices. Romania has a relatively low domestic medicine production. A lot of medicines have to be imported. Consumption of medicines is below that in European countries. The distribution of medicines is the largest private healthcare sector. The private hospital sector is very dynamic and should give opportunities, but operates on limited profitability. In the public sector the development of 3 new hospitals is announced. The most concrete plan is for a regional hospital near Cluj-Napoca.

Altogether the Romanian health sector offers commercial opportunities and possibilities for cooperation. Good luck!

## Annex A: Health care strategy

The Romanian National Health Strategy 2014-2020: "Health for Prosperity" - community medical assistance. Structure of the document subjects covered in detail (translation of table of contents, by author report)

Strategic intervention area 1: "Public health"

- 1. Improving the health and nutrition of women and children;
  - 1.1. Improving the health and nutrition of mother and child and reducing the risk of infant and maternal death;
  - 1.2. Reducing the number of unwanted pregnancies, incidence of abortion and maternal mortality through abortion;
- 2. Reducing morbidity and mortality through communicable diseases, their impact at the individual and societal level;
  - 2.1. Strengthen the capability of the national disease surveillance system for priority communicable diseases, rapid alert and coordinated response;
  - 2.2. Protect the health of the population against major diseases that may be prevented by vaccination;
  - 2.3. Reduce morbidity and mortality due to TB and maintain appropriate rates of screening and therapeutic results;
  - 2.4. Reducing the incidence of priority communicable diseases: HIV / AIDS and providing patients with antiviral treatments;
  - 2.5. Reducing the incidence of priority communicable diseases: hepatitis B and C and ensuring patient access to antiviral treatments;
- 3. Decreasing the growth of morbidity and mortality by non-communicable diseases and reducing their burden on the population through preventive national, regional and local health programs;
  - 3.1. Increasing the role and effectiveness of health promotion in reducing the burden of disease in the population in priority areas;
  - 3.2. Reducing the burden of cancer in the population by detecting it in its starting phase and reducing mortality in the medium to long-term through organized screening interventions;
  - 3.3. Improving the mental health status of the population;
  - 3.4. Protecting the health of the population against environmental risks;
  - 3.5. Ensure access to diagnostic and/or treatment services for special pathologies;

Strategic intervention area 2: "Health services"

- 4. Ensure fair access for all citizens, especially vulnerable groups, to quality and cost-effective health services;
  - 4.1. Development of community based services, integrated and comprehensive, mainly for the rural population and vulnerable groups including Roma;
  - 4.2. Increasing effectiveness and diversification of primary healthcare services;
  - 4.3. Strengthen specialty ambulatory services to increase the number of diseases treated in specialised ambulatory facilities reducing the burden of continued hospitalization;
  - 4.4. Improving peoples access to emergency medical services through strengthening the integrated emergency system and continuing its development;
  - 4.5. Improving the performance and quality of health services through regionalization / concentration of hospital care;
  - 4.6. Increased access to quality services for rehabilitation, palliative care and long term care, adapted to the demographic development of the population and the epidemiological developments of morbidity;
  - 4.7. Create a network of healthcare providers at the local, county and regional level;

Strategic intervention area 3: "Cross-cutting measures for a sustainable and predictive health system": priority areas

- 5. An inclusive, sustainable and predictable health system through the implementation of priority cross-cutting policies and programs;
  - 5.1. Strengthening the administrative capacity at national, regional and local levels and communicating the changes;
  - 5.2. Implement a sustainable human resource policy in the health sector;
  - 5.3. Implement a sustainable financial resources policy in health, cost control and financial protection of the population;
  - 5.4. Ensure and monitor the quality of public and private health services;
  - 5.5 Developing and implementing a drug policy based on evidence to ensure fair and sustainable access of the population to medication;
  - 5.6. Promoting health research and innovation;
  - 5.7. Cross sector collaboration for improving the health of the population, especially vulnerable groups;
- 6. Increase the efficiency of the health system by accelerating the use of modern information and communication technologies (E-health);
  - 6.1. Development of the Integrated Information System in the field of health through Implementing sustainable E-Health solutions;
  - 6.2. Increasing access to health services through the use of telemedicine health services;
- 7. Develop appropriate infrastructure at national, regional and local level to reduce inequality of access to health services;
  - 7.1. Improvement of the hospital infrastructure by the necessary remodelling of the hospital network through restructuring and rationalization;
  - 7.2. Improving the infrastructure of health services provided under the scheme of outpatient care, community health care, family medicine and specialized ambulatory care;
  - 7.3. Development of an integrated emergency services infrastructure;
  - 7.4. Improving the infrastructure of public health services.

## Annex B: Medical faculties

Note: included are the main faculties: medicine pharmacy and dentistry. Many universities also have courses in related fields. Student numbers are the students in the Romanian language courses, excluding students in English or other language courses

#### Carol Davila University of Medicine and Pharmacy

www.umfcd.ro

Facultatea de Medicina Generala

Bulevardul Eroii Sanitari, nr. 8, sector 5, Bucuresti

students: 752 Facultatea de Farmacie

Strada Traian Vuia, nr. 6, sector 2, Bucuresti

students: 186

Facultatea de Medicina Dentara

Calea Plevnei nr. 17-23, sector 5, Bucuresti

students: 236

## Grigore T. Popa University of Medicine and Pharmacy

#### www.umfiasi.ro

Facultatea de Medicina

Str. Universitatii, nr. 16, lasi, Tel: +40.232.301.615

students: 480 Facultatea de Farmacie

Str. Universitatii, nr. 16, 700115, Iasi, Tel: +40.232.301.623

students: 117

Facultatea de Medicina Dentara

Str. Universitatii, nr. 16, lasi, Tel: +40.232.301.618

students: 216

Facultatea de Bioinginerie Medicala

Str. M.Kogalniceanu, nr. 9-13, 700454, Iasi, Tel: +40.232.213.573

students: 189

## Iuliu Haţieganu University of Medicine and Pharmacy

#### www.umfcluj.ro

Facultatea de Medicina

www.medicina.umfcluj.ro

Str. Louis Pasteur nr 4, et 1, 400349 Cluj-Napoca, Tel: +40-374-834-114

students: 360
Facultatea de Farmacie

www.farmacie.umfcluj.ro

Str. Louis Pasteur 4, et.2, 400349 Cluj-Napoca, Tel: +40-264-406-845

students: 161

Facultatea de Medicina Dentara

www.meddent.umfcluj.ro

Str. Louis Pasteur nr 4, et 2, 400349 Cluj-Napoca, Tel: +40-264-406-844

students: 144

### University of Medicine and Pharmacy of Târgu Mureș

#### www.umftgm.ro

Gheorghe Marinescu 38, 540139, Tirgu Mures, Mures, Tel: +40 265 215.551

Facultatea de Medicina students: 310 Facultatea de Farmacie

students: 170

Facultatea de Medicina Dentara

students: 130

#### Victor Babeş University of Medicine and Pharmacy

#### www.umft.ro

Piața Eftimie Murgu nr.2300041, Timișoara, Tel: +40.0256.204.400

Facultatea de Medicina students: 431

Facultatea de Farmacie

students: 107

Facultatea de Medicina Dentara

students: 172

## University of Medicine and Pharmacy of Craiova

www.umfcv.ro

Str. Petru Rareş nr. 2-4200349, Craiova

Facultatea de Medicina

Tel: 040351443565, e-mail: medicine@umfcv.ro

students: 320 Facultatea de Farmacie

Tel: 040351443507, e-mail: pharmacy@umfcv.ro

students: 105

Facultatea de Medicina Dentara

Tel: 040351443502, e-mail: dentistry@umfcv.ro

students: 135

#### **Ovidius University**

www.univ-ovidius.ro

Facultatea de Medicina

www.medicina.univ-ovidius.ro

Aleea Universității, nr. 1, Corp B900470, Constanta

students: 200
Facultatea de Farmacie

www.farmacie.univ-ovidius.ro

Str. Căpitan Aviator Al. Șerbănescu, nr.6, Corp C, Constanța

students: 93

Facultatea de Medicina Dentara

www.md.univ-ovidius.ro

Str. Ilarie Voronca nr.7, Constanța

students: 97

#### Lucian Blaga University of Sibiu

www.ulbsibiu.ro/ro/facultati/medicina

Str. Lucian Blaga, Nr.2A, 550169, Sibiu, Tel: +40 269 21.23.20

e-mail: medicina@ulbsibiu.ro

Facultatea de Medicina students: 120 Facultatea de Farmacie

students: 60

Facultatea de Medicina Dentara

students: 30

### Vasile Goldiş Western University of Arad

www.uvvg.ro

Str. Liviu Rebreanu, nr. 86, 310414, Arad

Facultatea de Medicina

http://medicina.uvvg.ro/

Tel: 040257259691, e-mail: medicina@uvvg.ro

students: 360 Facultatea de Farmacie

http://farmacie.uvvg.ro/

Tel: 040257259850, e-mail: farmacie@uvvg.ro

students: 300

Facultatea de Medicina Dentara

http://medicinadentara.uvvg.ro/

Tel: 040257259853, e-mail: medicinadentara@uvvg.ro

students: 540

## University of Oradea

www.fmforadea.ro

Str. Piața 1 Decembrie, nr. 10 Oradea, Bihor

Facultatea de Medicina

students: 150
Facultatea de Farmacie
students: 60

Facultatea de Medicina Dentara

students: 85

# Annex C: Classification of medical products

Product group	product code	short name
Pharmaceutical products	3001	Dried glands and other organs
	3002	Blood products
	3003	Medicines in bulk
	3004	Medicines in doses
	3005	Dressing materials
	3006	Other pharmaceuticals
Medical apparatus	9002	Optical products
	9012	Microscopes
	9018	Instruments and appliances
	9019	Mechano-therapy appliances
	9020	Respiration apparatus
	9021	Orthopaedic appliances
	9022	Radiation apparatus
Other medical products	3821	Cultures and media
	3822	Reagents
	401511	Gloves
	48189010	Paper disposables
	7017	Glassware
	841920	Sterilizers
	9402	Medical furniture

Source: Trade Map, short names compiled by author

# Annex D: Pharmaceutical distributors

name	Mediplus Exim
website	www.mediplus.ro
address	133 Ciobanului St.
	077135 Mogosoaia
	Tel: 00 40 3017474
	e-mail: office@adpharma.ro
turnover	EUR 834.4m
employees	1002
other	Distribution of pharmaceutical and para-pharmaceutical products to pharmacy
	clients and hospitals. It also offers logistics services and marketing support to the
	suppliers. The company is part of A&D Pharma Holdings N.V.

name	Farmexpert	
website	www.farmexpert.ro	
address	Str. Amilcar C. Sandulescu, nr. 7	
	060859, Bucuresti	
	Tel: 0040 21 407 77 11	
	e-mail: office@farmexpert.ro	
turnover	EUR 634.1m	
employees	959	
other	Distribution of pharmaceutical products for pharmacies, hospitals, institutions, and	
	doctors. It distributes drugs and para-pharmaceutical products, OTC medicines,	
	prescription drugs, and food supplements; and personal care and medical devices.	
	The company is part of Walgreens Boots Alliance, Inc.	

name	Fildas Trading
website	www.fildas.ro
address	Soseaua Chitilei No. 60-62
	Bucharest
	Tel: 08008 345 327
	e-mail: linia.verde@fildas.com
turnover	EUR 571.4m
employees	895
other	Operates as a pharmaceutical wholesale distributor.

name	Farmexim
website	www.farmexim.ro
address	Str. Malul Roșu nr. 4
	077015 Comuna Balotești
	Tel: 00 40 21 3082500
	e-mail: office@farmexim.ro
turnover	EUR 421.8m
employees	794
other	Import and distribution of pharmaceutical products, part of German PHOENIX Group.

name	Sanofi
website	<u>www.sanofi.com</u>
address	Str. Gara Herastrau 4 B
	Bucharest
	e-mail: webform op site
turnover	EUR 236.3m
employees	170
other	Distribution organisation of global pharmaceutical company Sanofi.

name	Roche Romania
website	www.roche.ro
address	Piata Presei Libere, nr.3-5
	013702 Bucuresti
	Tel: + 40 21 206 47 01
	e-mail: romania.info@roche.com
turnover	EUR 174.1m
employees	183
other	Offers oncology-related, viral hepatitis B and C, anaemia drugs and anti-viral drugs. It
	offers its products through tenders, pharmacies, and hospitals. Also produces
	pharmaceuticals in Romania.

name	Europharm Holding
website	www.eph.ro
address	14 Viilor Street
	Bucharest
	Tel: +4021 302 8 100
	e-mail: eph.distributie@eph.ro
turnover	EUR 156.1m
employees	421
other	Distributes pharmaceutical products.

name	Romastru Trading
website	www.romastru.ro
address	Strada Biharia 67-77
	013981 București
	Tel: +40 21 233 2760
	e-mail: office@romastru.ro
turnover	EUR 114.7m
employees	220
other	

name	Farmaceutic Remedia Distribution & Logistics
website	www.remediadl.ro
address	Bd. Metalurgiei nr. 78
	041836, Bucuresti
	Tel: +40 21 321 1640

	e-mail: office@remedia.ro
turnover	EUR 66.9m
employees	202
other	Involved in the wholesale distribution of drugs to pharmacies, and public and private hospitals and clinics; and provision of services, including logistical services, recordings, promotion and marketing of drugs, etc., as well as drugs registration services. It also operates a chain of pharmacies in Romania.

name	Pharma
website	www.pharma-iasi.ro
address	Sos. Bucium 73E
	lasi
	Tel: +40 232 242101
	e-mail: secretariat@pharmaiasi.ro
turnover	EUR 25.5m
employees	137
other	Distributor of pharmaceuticals and para-pharmaceuticals.

# Annex E: Production companies

## Pharmaceutical production

name	Terapia – Sun Pharma
website	www.sunpharma.com/romania
address	124 Fabricii Street
	400632 Cluj-Napoca
	Tel: +40 264 501105
turnover	EUR 144.0m
employees	867
other	Terapia is the largest generic pharmaceutical production company in Romania. With a large product portfolio and a state-of-the-art manufacturing facility in Cluj-Napoca

name	Zentiva
website	<u>www.zentiva.ro</u>
address	Bvd. Theodor Pallady, nr. 50
	București
	Tel: +40 374 113 600
	e-mail: <u>zentivaRO@zentiva.ro</u>
turnover	EUR 98.4m
employees	511
other	Producer of generic medicines

name	Bioeel
website	www.bioeel.ro
address	Str. Bega Nr.5
	Targu Mureş
	Tel: + 40 265 246335
	e-mail: webform on site
turnover	EUR 73.1m
employees	217
other	Produces around a 100 products: prescription medicines, OTC, vitamins, supplements
	and cosmetics. Both own brand and private label.

name	Ropharma
website	www.ropharma.ro
address	Iuliu Maniu str. 55
	500091 Brasov
	Tel: +40 268 547 230
	e-mail: office@ropharma.ro
turnover	EUR 73.0m
employees	745
other	Production/distribution of drugs, dietary supplements, milk powder. Chain of
	pharmacies and a multidisciplinary hospital.

name	Antibiotice
website	www.antibiotice.ro
address	Strada Valea Lupului 1
	707410 lasi
	Tel. +40 232 209 000
	e-mail: office@antibiotice.ro
turnover	EUR 72.5m
employees	1,420
other	Antibiotice manufactures internationally certified generics to increase the access of
	patients, physicians and pharmacists to more affordable health care services. Partially
	government owned.

name	Biofarm
website	www.biofarm.ro
address	Str. Logofătul Tăutu nr. 99
	031212 București
	Tel: +40 21 301 06 00
	e-mail: office@biofarm.ro
turnover	EUR 36.5m
employees	389
other	Produces prescription medicines, OTC, vitamins and supplements.

name	Labormed Alvogen
website	www.alvogen.ro
address	Bd. Theodor Pallady nr. 44B
	032266 Bucureşti
	Tel: +4 021 318 03 77
	e-mail: info.romania@alvogen.com
turnover	EUR 35.2m
employees	275
other	Produces complex generic medicines, OTCs and biosimilar products.

name	Gedeon-Richter
website	www.gedeon-richter.ro
address	Str. Cuza Vodă nr. 99-105
	540306 Târgu-Mureş
	Tel: +40 265 264 067
	e-mail: office@gedeon-richter.ro
turnover	EUR 33.1m
employees	551
other	Produces medicines for the treatment of cardiovascular, dermatological,
	rheumatologic diseases, central nervous system, extended portfolio related to the
	field of gynaecology and family planning. 60 medicines have been developed and
	produced by the Gedeon Richter Romania subsidiary. In 2016 opened a new centre
	for R&D in Târgu-Mureş, partially financed with European funds.

name	Biotehnos
website	www.biotehnos.ro
address	Strada Gorunului, Nr. 3-5
	Otopeni
	Tel: + 40 031 7102402
	e-mail: office@biotehnos.com
turnover	EUR 21.1m
employees	144
other	R&D oriented pharmaceutical product producer. The main activity of the company is
	production of original drugs and pharmaceutical active ingredients, from both animal
	and plant origin. Has its own products and patents.

name	Fiterman Pharma
website	www.fitermanpharma.ro
address	Pacurari, no. 127
	700544, lasi
	Tel: +40 232 252 800
	e-mail: office@fitermanpharma.ro
turnover	EUR 14.2m
employees	171
other	Manufacturer of drugs, medical devices, dietary supplements and dermo-cosmetics.
	Developed and manufactured over 100 products that cover 15 therapeutic areas.

name	Laropharm
website	www.laropharm.ro
address	Sos. Alexandriei 145 A
	Bragadiru
	Tel: +40 213693202
	e-mail: contact@laropharm.ro
turnover	EUR 9.3m
employees	236
other	Produces around 90 products: prescription drugs, non-prescription medicines, OTCs
	and dietary supplements

## Other production

name	Deltamed
website	www.deltamed.ro
address	Ferma 8 Hala 15
	407310 Gilau
	Tel: +40 264 371 568
	e-mail: : office@deltamed.ro
turnover	EUR 15.2m
employees	46
other	Manufacturer and distributor of ambulances, fire trucks, command points and
	vehicles for people with disabilities

# Annex F: Distributors of medical devices

name	Diamedix Impex
website	www.diamedix.ro
address	Str. Fabrica de Glucoza nr. 15A, cladirea A4,
	020331, Bucuresti
	Tel: 021-66.888.66
	e-mail: office@diamedix.ro
turnover	EUR 21.9m
employees	121
other	Distributor of reagents, consumables and equipment for the clinical laboratory.

name	Sante International
website	www.sante.ro
address	Str. Mantuleasa nr. 33
	Bucuresti
	Tel: + 40 212520401
	e-mail: <u>contact@sante.ro</u>
turnover	EUR 14.1m

employees	65
other	Distributor of large number of medical products ranging from large analysers to
	smaller equipment. Extensive distribution network.

name	Medical Technologies International
website	www.mti.mt-intl.ro
address	206D Calea 13 Septembrie
	050734, Bucharest
	Tel: + 40 21 330 11 30
	e-mail: office@mt-intl.ro
turnover	EUR 13.8m
employees	78
other	Distributor of medical orthopaedic equipment, designed for total and revision arthroplasty procedures, also a major player in the category of products for arthroscopy, sports medicine and equipment dedicated to the operating room and medical offices.

name	Mediclim
website	www.mediclim.ro
address	Matei Basarab nr. 47
	030671 Bucuresti
	Tel: +40 21 322.64.67
	e-mail: office@mediclim.ro
turnover	EUR 12.1m
employees	77
other	Import and distribution of laboratory equipment and reagents, technical assistance and specialized service. The areas in which Mediclim offers solutions are
	Microbiology, Immunology, Transfusion / Hematology, Biochemistry / HPLC,
	Molecular Biology and Infectious Waste Neutralization

name	Novaintermed
website	www.novaintermed.ro
address	Strada Drumul Potcoavei Nr. 5A,
	077190 Pipera-Tunari,
	Tel: + 40 031 401 10 90
	e-mail: <a href="mailto:secretariat@novaintermed.ro">secretariat@novaintermed.ro</a>
turnover	EUR 11.3m
employees	71
other	Supplier in the clinical, industrial and research laboratory field.

name	Medicare Technics
website	www.medicare.ro
address	Str. Valea Merilor Nr. 30
	011272, Bucuresti
	Tel: +40 21 222 6774
	e-mail: office@medicare.ro

turnover	EUR 10.4m
employees	26
other	Distributor of medical devices, neurosurgery, hospital equipment: complete surgery rooms, surgical tables, electrosurgery equipment, patient monitoring, medical furniture, ophthalmic equipment, cardiology equipment, devices for sterilization and disinfection of medical instruments, maintenance and service.

name	Tehno Electro Medical Company (TEMCO)
website	www.temco.ro
address	Str. Calusei nr. 69A
	Bucuresti
	Tel: +4021252 46 50
	e-mail: office@temco.ro
turnover	EUR 9.6m
employees	48
other	Distribution/manufacturer and service of medical equipment.

name	Top Diagnostics
website	www.topdiag.com
address	Str. Şipotul Fântânilor, nr. 8. Sector 1
	010157, Bucuresti
	Tel: +40213100774
turnover	EUR 9.4m
employees	50
other	Distributor of clinical and research laboratory field: laboratory solutions, molecular
	diagnostics suppliers, point of care suppliers

name	Medicarom Group
website	www.medicarom.ro
address	Intrarea Glucozei Street, no. 37-39
	023828, Bucharest
	Tel: +40 21 242 44 77
	e-mail: office@medicarom.ro
turnover	EUR 9.3m
employees	59
other	Through its subsidiaries (Rotest, SanProdMed, MedCenter, Infoworld Software),
	engages in the businesses of medical services, as well as import, marketing, and
	distributing of medical products for health systems.

name	RoTest
website	www.medicarom.ro
address	Intrarea Glucozei Street, no. 37-39
	023828, Bucharest
	Tel: +40 21 242 44 77
	e-mail: office@medicarom.ro
turnover	EUR 9.0m

employees	41
other	Suppliers for the laboratory sector in Romania; equipment and products cover: Dry
	Biochemistry, Wet Biochemistry, Immunology, Coagulation, Haematology,
	Microbiology. Own service department that provides the installation and the
	functioning of the laboratory equipment.

# Annex G: Private hospitals

name	Regina Maria
website	www.reginamaria.ro
address	Piata Charles de Gaulle 15
	011857, Bucuresti
	Tel. +40 21 204 04 00
	e-mail: office@reginamaria.ro
turnover	EUR 120.6m
employees	2.205
other	Conglomerate of multidisciplinary hospitals clinics. Has branches in 13 cities. Data
	include the Stem cell bank, Euroclinic hospital and the in 2016 acquired Delta Health
	Care.

name	MedLife
website	www.medlife.ro
address	Calea Victoriei 222
	București
	Tel. +40 21 4084000
	e-mail: office@medlife.ro
turnover	EUR 81.5m
employees	1.745
other	Conglomorate of multidisciplinary hospitals, active in 13 cities, also offering
	laboratory and imaging services. It runs also a chain of pharmacies.

name	Sanador
website	www.sanador.ro
address	Strada Doctor Iacob Felix 32
	011038, București
	Tel. +40 21 206 34
	e-mail: <u>frontdesk@sanador.ro</u>
turnover	EUR 62.2m
employees	1.220
other	Biggest multidisciplinary private hospital in Romania. It contains 3 clinics (Victories,
	Decebal & Băneasa) and two medical laboratories. This hospital has a capacity of
	approximately 402 beds.

name	OncoFort/Gral Medical
website	www.oncofort.ro
address	Str. Traian Popovici nr.79-91
	Bucuresti
	e-mail: contact form on website
turnover	EUR 23.0m
employees	518
other	Includes 3 hospitals mainly specialised in onclology, combined with laboratory
	services and imaging active in multiple cities.

name	Spitalul Monza
website	www.spitalulmonza.ro
address	Str. Tony Bulandra 27C
	021967, Bucuresti
	Tel. +40 31 225 25 00
	e-mail: info@spitalulmonza.ro
turnover	EUR 16.7m
employees	216
other	Multidisciplinary hospital also available for complex healthcare. This hospital has a
	capacity of approximately 134 beds.

name	Arcadia Medical
website	www.arcadiamedical.ro
address	Str. Sararie 38 E
	700116, lasi
	Tel. +40 232 202 000
	e-mail: info@arcadiamedical.ro
turnover	EUR 16.0m
employees	481
other	Multidisciplinary hospital, specialty in obstetrics, gynaecology, paediatrics and new
	born. This hospital has a capacity of approximately 145 beds. It is a group of 3 legal
	entities Arcadia Medical, Hospital and Policlinic.

name	Spital Pelican
website	www.spitalpelican.ro
address	Str. Corneliu Coposu 2C
	021174, Oradea
	Tel. +40 259 444 444
	e-mail: office.oradea@spitalpelican.ro
turnover	EUR 8.9m
employees	234
other	This hospital is multidisciplinary and has a capacity of approximately 126 beds.

name	Nova Vita Centru Medical
website	www.nova-vita.ro
address	Str. Liviu Rebreanu 29

	540151, Mures
	Tel. +40 265 266 112
	e-mail: receptie@nova-vita.ro
turnover	EUR 5.9m
employees	198
other	Over 34 medical specialties. This hospital has a capacity of approximately 159 beds.

name	Polaris Medical
website	www.polarismedical.ro
address	Strada Principalã
	407062, Cluj-Napoca
	Tel. +40 264 323 390
	e-mail: office@polarismedical.ro
turnover	EUR 3.3m
employees	212
other	Contains several medical rehabilitation departments: cardiovascular, neurology &
	psychiatry. Also, palliative care is offered. This hospital has a capacity of
	approximately 180 beds.

name	Elytes Hospital
website	www.elytis-hospital.ro
address	Str. GH. Saulescu 43A E
	700010, lasi
	Tel. +40 332 803 783
	e-mail: info@elytis-hospital.ro
turnover	EUR 3.1m
employees	58
other	Multidisciplinary hospital, with a capacity of approximately 146 beds.

# Annex H: Medical service providers

## Contract research organisations

Name	Antibiotice
website	www.antibiotice.ro
address	Strada Valea Lupului 1
	707410, lasi
	Tel. +40 232 209 000
	e-mail: office@antibiotice.ro
turnover	EUR 72.5m
employees	1.420
other	It has a research unit authorized by the Romanian Ministry of Health which develops
	clinical trials with no therapeutic benefit (phase I studies and bioequivalence studies).
	It provides comprehensive clinical services at a high scientific level, starting from

	designing and getting the study authorizations to the preparation of the final reports,
l	geared toward meeting the needs of the clients.

name	PPD Romania
website	www.ppd.com
address	West Gate Park Building H3, Floor 2, 24 Preciziei Blvd
	062204 Bucharest
turnover	EUR 5.6m
employees	77
other	PPD offers central lab services, bioanalytical services, biomarker discovery services, assay development services, cGMP analytical services, CMC consulting, and pharmacology services

name	Chiesi Romania SRL
website	www.chiesi.ro
address	10, Venezuela Str, District 1
	01183 Bucuresti
	Tel. +40 21 202 36 42
	e-mail: office@chiesi.ro
turnover	EUR 2.9m
employees	30
other	Offers drug development, drug discovery, and clinical trials.

## Software services

name	InfoWorld
website	<u>www.infoworld.ro</u>
address	Intrarea Glucozei nr. 37-39
	023828, Bucharest
	Tel: +40 21 243 0590
	e-mail: info@infoworld.ro
turnover	EUR 5.7m
employees	224
other	Provides integrated information solutions to the medical sector, with an installed
	base of more than 100 public and private health care facilities, over 4.000
	workstations in use and more than 10.000 users.

name	RomSoft
website	www.rms.ro
address	Chimiei 2 bis, Excel Business Center
	700391, lasi
	Tel: +40 232 266831
	e-mail: office@rms.ro
turnover	EUR 2.6m
employees	76
other	Software developing company of laboratory automation software.

## Analytical services

name	Synevo
website	www.synevo.ro
address	Str. Industriilor, Nr. 25
	077040 Chiajna (close to Bucharest)
	Tel: 021 407 07 00
	e-mail: office@synevo.ro
turnover	EUR 46.1m
employees	898
other	Analytical laboratory chain, 16 laboratories and 90 collection points all over the
	country. Large number of laboratory tests e.g. microbiology, haematology,
	immunology etc.

name	Sante
website	www.clinica-sante.ro
address	Strada Ion Băieșu C3
	120037, Buzău
	Tel: +40 238 711 044
	e-mail: office@clinica-sante.ro
turnover	EUR 17.3m
employees	731
other	Analytical laboratory, large number of laboratory tests. Claims to be active in 40
	counties.

## Private medical clinics

name	Medicover
website	<u>www.medicover.ro</u>
address	Str. Modrogan Nr. 20
	Bucuresti
	Tel: + 40 21 310 16 99
	e-mail: office@medicover.ro
turnover	EUR 25.6m
employees	675
other	Broad medical service provider (not a hospital). Services range from analysis to
	services for employees of companies (part of benefits package) and insurances.

name	Hiperdia
website	www.hiperdia.ro
address	Str. Poarta Schei 31
	Brasov
	Tel: + 40 21 3021160
	e-mail: office@hiperdia.ro
turnover	EUR 22.4m
employees	471

other	Specializes in medical imaging investigations: MRI, Tomography, Ultrasound,
	Radiology and Mammography. Laboratory analysis and specialist medical
	consultations complement the medical services offered. Active in 13 cities.

## Commercial service provider

name	A & D Pharma Marketing & Sales Services
website	www.adpharma-ms.com
address	Strada Ciobanului, nr. 133
	077135 Mogosoaia
	Tel: + 40 372 072 132
	e-mail: <u>business.development@adpharma.com</u>
turnover	EUR 57.7m
employees	227
other	Offers a full range of services in market access, regulatory affairs, distribution, sales
	and marketing for its strategic partners. It is part of the A&D Pharma Group.

## Information sources

#### Statistics

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