The Algerian pharmaceutical market; specifics and characteristics

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Abstract

With a population of around 43 million at the end of 2018, Algeria retains the first position in the ranking of the population size in the Maghreb and the second place in North Africa. Thus the largest country in Africa presents itself as a juicy market for local or foreign pharmaceutical laboratories. The consumption of drugs by the Algerian population does not stop increasing from one year to the next, and this is because of several variables: a fairly visible demographic development, a rate of prevalence of non-communicable diseases which accelerates the latter years, generalized health coverage and acceptable health care for citizens, etc.

In Algeria, the turnover of the drug reached 3.8 billion USD by the end of 2018, which represents 4% of the world turnover. The year 2018 recorded 14.4% increase in imports or 2.17 billion USD, and this despite a fairly difficult economic situation facing successive governments. The share in value of local pharmaceutical production experienced a significant increase from 25% of the drug market in 2008 to almost 52% in 2018. The objective of this study is therefore to determine the specificities and characteristics of the different variables that constitute the equation of the pharmaceutical market in Algeria.

Key words: Drugs, pharmaceutical market, epidemiological transition, economic situation, Algerian health system.
INTRODUCTION

The drug is a product dedicated to human health. The pharmaceutical industry is today faced with two major challenges: the scientific and technical revolution, where Innovation, the driving force of the pharmaceutical industry, constantly redefines therapeutic progress by relying on renewed scientific knowledge; the tension created by the necessary balance between budgetary constraints and innovation, as well as financial or budgetary difficulties redefined the priorities of States in terms of the volume of funding, for therapeutic innovation (Lajoux, 2012).

The pharmaceutical industry is an important part of health systems worldwide. It includes many services and companies, public or private, which discover, develop, manufacture and market medicines for human and animal health (Gennaro, 1990). The pharmaceutical industry is mainly based on research and development (R&D) of drugs intended to prevent or treat various ailments or disorders. The different drugs have a very variable pharmacological action and toxicological properties (Hardmanet et Limbird, 1996), (Reynolds, 1989). The primary driver of the pharmaceutical industry is (R&D), supplemented by toxicological knowledge and clinical experience (Swarbick et Boylan, 1996).

If there is one industry that illustrates the growing grip of the financial markets, then it is the drug industry. Increasingly large and increasingly financialized, they have become machines for siphoning billions of dollars to redistribute them to shareholders, especially the big funds on Wall Street. During the last sixty years, the pharmaceutical industry has changed dramatically (Petitjean, 2019). Drug manufacturers are now among the largest multinationals in the world, alongside oil and car companies. The pharmaceutical sector also has its own form of "public guarantee": health insurance systems, and government support for research. It is largely thanks to this public guarantee that they have become what they are today: hyper-financialized monsters, which put themselves at the service of shareholders rather than patients.

The pharmaceutical industry is influenced by several dynamic factors of a scientific, social or economic nature. Many pharmaceutical groups are present in national and multinational markets, so their activities and products are subject to the laws, regulations and policies that apply to the development, manufacture, authorization, quality control and marketing of drugs in many countries (Spilker, 1994).

The Algerian pharmaceutical market is not immune to the turbulence of the international lobbies of the pharmaceutical industry, all local and foreign drug companies want to take the greatest advantage of this lucrative market. What differentiate a pharmaceutical market from one country to another are
the variables that influence the pharmaceutical equation. This paper is an attempt to illustrate how different is the Algerian pharmaceutical market from the global one and to identify variables that make it as such.

**DISCUSSION**

1. The global pharmaceutical market

In 2018, the global pharmaceutical market exceeded 1,205 billion USD, or 1,052 billion euro, up 4.8% from 2017. The US market remains the most important, with 45% of the world market, far ahead of the main European markets (Germany, France, Italy, United Kingdom and Spain), which achieve 15.7% of market share, Japan (7.1%) and emerging countries (China and Brazil), 10.4% (IQVIA, 2019).

Several countries present themselves, in recent years, as serious future competitors in the global pharmaceutical market, so classic drug producers can see their market share nibbled. So, if France remains the second European market behind Germany, however it sees its market share fall by 2.2 points in ten years, in this case France would lose two places by 2023, being overtaken by Italy and Brazil (Leem(a), 2019).

![Figure 1: The global pharmaceutical market in 2018](image)

**Source:** (IQVIA, 2019)

The global pharmaceutical market now weighs more than a billion dollars, remaining highly concentrated in the United States, which alone accounts for more than 45% of sales, a contrast to the share of Americans in the world population, less than 4.5% (IQVIA, 2019).
Regarding the top 5 best-selling therapeutic areas; they represent a non-negligible share which exceeds a third of the world market and 55% of its growth, these are: oncology (105 billion USD), diabetes (80 billion USD), autoimmune diseases (65 billion USD), pain treatment (46 billion USD) and respiratory diseases (43 billion USD) (Leem, 2019). In oncology, as in the field of autoimmune diseases, it is biological products that are driving growth, now representing a quarter of the global pharmaceutical market, drugs derived from chemistry being declining in value under the pressure of generics.

Among the main Western countries, France is the only country where the pharmaceutical market is not growing (www.egora.fr). The French situation is therefore very different from that observed with its neighbors since the Europe of 5 (Germany, Italy, Spain, United Kingdom and France) experienced a growth of 3% in 2017 (Heyer & Timbeau, 2018). Expressed in manufacturing price excluding tax, the French market in 2017 weighed some 27.5 billion euro; including 19.25 billion euro for pharmacy sales and 8.23 billion euro for hospital sales. These volumes are actually lower due to confidential discounts granted by healthcare companies, especially when the sales of a product exceed a certain threshold (www.egora.fr). In 2018, the French market should remain stable for the 7th consecutive year, despite the arrival of innovative drugs, especially in oncology. Their financing will be ensured by price reductions (480 million euro provided for in the social security financing law of 2020) and the development of biosimilar medicines (Institut du Sénat, 2020).
Figure 2: Global turnover in drugs 2001-2018 (billion USD)

Source: (IQVIA, 2019)

According to (figure 2), the turnover of the global pharmaceutical market has grown very rapidly over the past two decades: between 2001 and 2010, that is to say in ten years, the rate of evolution exceeded 120%; ditto for the second decade, so between 2001 and 2018, that is to say in 18 years, this rate of evolution crossed the bar of 200%.
Figure 3: The families of the best-selling drugs in the period 2008-2022 (billion USD)

**Source:** (https://fr.statista.com)

(*): Forecasts

The statistics in (figure 3) represent global pharmaceutical sales, including prescription and over-the-counter drugs, between 2008 and with forecasts until 2022, depending on the technology used for manufacturing. In 2011, biotechnology accounted for approximately 140 billion USD in sales generated by drugs, while conventional drugs had generated 463 billion USD (https://fr.statista.com).

Taking into consideration, that biotechnology allows the use of living systems and organisms to create pharmaceutical products.

The global generics market is expected to experience strong growth in the second decade of the 21st century, due to: the expiration of the patents for the best-selling drugs; efforts by governments and health service providers to contain costs; and the increase in health spending in emerging countries like India, China, Brazil, Turkey and South Korea, etc (Frost & Sullivan, 2019). These variables should contribute to the growth of generics. According to (figure 4), we can see the ranking of the top ten generic manufacturers in the world in 2018.
The current trend is towards less competitive and yet commercially attractive segments, such as generics which are difficult to produce as: specialty generics and biosimilars. Market leaders like Teva, Sandoz and Mylan are increasingly interested in biosimilars, as this segment has a competitive advantage and a very large profit margin (Frost & Sullivan, 2019). It should be noted that tighter regulations and price control measures taken by governments can be potential obstacles, so these factors tend to reduce the margins for generic manufacturers.

**Figure 4: Top 10 generic manufacturers in the world in 2018 (billion USD)**

**Source:** (Frost & Sullivan, 2019).
Despite recent mega-mergers, the global drug industry remains sparse, with the top five groups accounting for only 23.7% of the global market (Leem, 2019).

After a record 2015 in terms of mergers and acquisitions, political uncertainties dampened acquisitions for large laboratories in 2016, as did downward pressure on the prices of drugs. In 2017, the trend was confirmed, as in 2018 (see figure 5). Mergers and acquisitions/M&A transactions totaled 114 billion USD, half of which was fueled by Takeda Pharmaceutical's takeover of Shire in late 2018 (Leem, 2019). During the same year, Sano fi successively bought two biotechnology companies, Bioverativ then Ablynx, in order to strengthen itself in the treatment of rare diseases. At the same time, the American laboratory Celgene got hold of oncology specialist Juno Therapeutics. These structural changes in the global pharmaceutical market are motivated by:

The recent tax reform in the United States, increasing corporate income taxes from 35% to 21%, could accelerate the pace of mergers and acquisitions in the coming years;

Figure 5: TOP 10 pharmaceutical companies in 2017 and 2018 (billion USD)

Source: (Leem, 2019)
The bringing together of the major global groups is motivated by the achievement of economies of scale, thus strengthening their presence on the markets and coping with the pressure exerted on the prices of medicines by the public authorities; Mergers and acquisitions/M&A transactions seek other objectives not necessarily displayed as: the acquisition of new technologies such as biotechnology, covering other segments in developed countries such as self-medication, the acquisition of a sales force or distribution, implantation in a foreign country or on a continent;
Reducing the costs of acquisition operations, companies always find inexpensive solutions: agreements or alliances between them, calling on external subcontracting skills in research, development, and manufacturing;
Research also calls on new modes of network collaboration as between public research and private research or via international partnerships.

2. Socio-economic context of evolution of the Algerian pharmaceutical market

2.1 Socio-demographic context

With a population growth rate of 1.8% and a population of around 43 million in 2018 (see figure 6), Algeria retains the first position in the ranking of the population size in the Maghreb and the second place in North Africa (UNDP, 2018).

![Figure 6: Growth of the Algerian population 2017-2020 (million inhabitants)](image)

Source: (UNDP, 2018).

(*): Forecasts
The average age of the Algerian population remains stable at 27.5 years, with a relatively high life expectancy of 76.3 years. The United Nations Development Program / UNDP report of 2019, reported that: Algeria has been classified as "high" HDI, ranked 82nd out of 189 countries, with an index of 0.759, thus gaining three places compared to the 2018 ranking (UNDP, 2019). At the African level, the 2019 ranking places Algeria in 3rd place after the Seychelles and Mauritius. At the North African level, Algeria is in pole position thus ahead of countries like: Tunisia, Morocco and Egypt, etc.

2.2 Economic and regulatory context

The economic and regulatory context continued to weigh on the Pharmaceuticals sector, in particular on imports with the continued pressure on the quantities imported, as well as on the prices of pharmaceutical products. The Algerian economy is a rentier economy, which has always faced its increased dependence on hydrocarbons. Since 2014, the Algerian economy has been subject to two constraints: the fall in the price of hydrocarbons on the world market and a consequent drop in the production and sale of oil and gas.

The fall in oil prices from 2014-2016 begins from summer 2014, when the price of oil drops significantly, this trend continuing until 2016. This drop in prices reflects an imbalance on the oil market; indeed, world oil production is in overproduction during this period, that is to say that supply exceeds demand. From the year 2017, the price of a barrel knew a clear improvement above 50USD / barrel, compared to that of 2015 and 2016. During the two years 2018 and 2019, certainly the prices passed the bar of 60USD / barrel, but the producers remain pessimistic (see figure 7).
Since 2014, the inflation rate has continued to soar from year to year, although from 2017 onwards efforts have been made to control this rate, but to no avail (see figure 8). According to the IMF in its April 2018 report, inflation would be 7.4% in 2018 and 7.6% in 2019, the WB being more pessimistic announcing 8.1% in 2019 and 9% in 2020 (IMF, 2018), (WB, 2019). The official inflation rate is biased, before exploding it by product according to the consumption model by social strata (function of the stratification of national income), being additionally artificially compressed by subsidies, otherwise it would exceed 10%.
The year 2018 was characterized by the recovery in the price of oil, which had passed below the 40 USD / barrel mark in 2016 and which today is moving upwards, to slightly exceed the 70 USD / barrel mark. GDP growth remained very weak (1.4% in 2017 and 1.5% and 2018), largely impacted by the fall in hydrocarbon production (-2.4% in 2017 and -6.2% and 2018). The persistent imbalance in the balance of payments (-22 billion USD in 2017 and -18 billion USD in 2018) has led the authorities to impose severe restrictions on import trade (Ministère des finances Algérie, 2019).

A new health law was promulgated in July 2018 (JORADP(a), 2018). This law foreshadows a reorganization of the health system, and aims in particular to broaden the role of the private sector by strengthening it, in order to supplement public sector resources, and meet growing demand driven by population growth and an increase in non communicable diseases.

### 2.3 The Algerian Pharmaceutical industry and economic challenges

Algeria is continuing its efforts to reduce the import bill for medicines used for several years. Imports of pharmaceutical products decreased from 2.5 billion USD in 2014 to 1.9 billion USD in 2017. We recorded a 14.4% increase in imports of medicine in 2018; it corresponds to 2.17 billion USD, for several reasons in relationship with the socioeconomic context in the last years (BIOPHARM, 2018). The share in value of local pharmaceutical production increased significantly from 25% of the pharmaceutical market share in 2008 to almost 65% in 2018 (OBG, 2018).

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**Figure 8: Inflation rate between 2014 and 2019**

*Source: (Ministère des finances Algérie, 2019)*

(*): Forecasts
Figure 9: The evolution of the Algerian pharmaceutical market in the period 2017-2022 (million USD)

Source: (IQVIA, 2019)

(*): Forecasts

The global drug market generates 1200 billion USD, half of which is generated in the United States, followed by the EU with approximately 200 billion USD (IQVIA, 2019). In Algeria, the turnover of the drug reached 3.8 billion USD, which represents 4% of the world turnover. We are thus a market fully in line with our region (IQVIA, 2019).

The Algerian pharmaceutical industry is in pole position to export, since there are currently 80 production units and 150 plans for new units, which is considerable (Tounsi, 2017). It is one of the sectors that are developing the best in Algeria, and these assets allow it to move quickly towards export, especially to the African continent.

The pharmaceutical industry in Algeria has grown by 17% in recent years, a rate not achieved by other sectors, from 473 million USD in 2008 to nearly two billion dollars in 2017. The state has been able, thanks to this progress, to reduce the import bill for medicines to 2 billion USD instead of 5 billion USD in 2008 (Kerrar, 2018). In order to reduce dependence on foreign laboratories, the public
authorities have set themselves the objective of achieving 70% coverage of national drug needs, developing local production of all types of drugs.

As for the Top 15 pharmaceutical companies which activate in Algerian, we were also surprised to find almost half of the laboratories with Algerian labels. Proof, if need be, of the health displayed by Algerian laboratories, in general, and Constantine (wilaya of eastern Algeria) in particular.

Let’s first look at the Algerian pharmaceutical laboratories which occupy the second places of the classification of this sector: we can begin by Pharmalliance, a company located in Algiers, specializing in the processing and manufacture of powders, in collaboration with several pharmaceutical companies worldwide; Then there is LDM Maghreb Diagnostic Laboratories, a Constantine’s pharmaceutical laboratory, created in 1997, partner of Glaxo Smith Kline, it manufactures English products on site with the parent compound, for a wide range of products, it provides also distribution and marketing; there is HUP Pharma, a young 12 years old laboratory, that has successfully penetrated a ruthless market, and is already distinguished by a remarkable presence, displaying around twenty pharmacotherapeutic classes (Bellagha, 2019).

We will not forget the legendary Algerian public laboratory Saidal, which distinguishes itself locally and internationally, by a very appreciable quality of its drugs, combined with unbeatable prices. The Saidal group was able to fare well in a very competitive market, placing itself as the first supplier to practically all pharmacies in the country.

Concerning the countries present on Algerian soil activating in the pharmaceutical sector: Algeria, which ranks at the top of the ranking with 47.54% of market share; the famous French labeled drug, occupies second place but only with 18.67% market share; Britain, the United States, Germany, Switzerland, Spain, Denmark, India, Italy, and other laboratories will follow (Bellagha, 2019).

3. Variables influencing the Algerian pharmaceutical equation

3.1 Increase in the rate of non communicable diseases

The fight against the risk factors of non communicable diseases remains the best way to protect the population from these pathologies, the later are considered as real public health problems. Seven out of ten deaths worldwide are linked to non communicable diseases such as: cardiovascular diseases, diabetes, Alzheimer's disease, etc.

World life expectancy increased by more than 10 years between 1980 and 2015, reaching an average of 69 years for men and 78.4 years for women, according to this study, which collects data from 195 countries and territories. Among the 56 million deaths observed in 2015, 70% were caused by non
communicable diseases, often linked to lifestyle (diet, physical activity, tobacco, alcohol, etc.) (GBD, 2015).

The life expectancy of the Algerian population has crossed the bar of 77 years since 2018. So between 1980 and 2018, the Algerian individual has gained almost 19 years of additional years, since the average life expectancy in 1980 did not exceed the 58.20 year old, nineteen years later, this life expectancy has crossed the bar of 77.20 years old (WB, 2018).

Algeria is not immune to non-communicable diseases, so the prevalence rate of diabetes, for example, reached 14% in 2017. The evolution of the prevalence rate of diabetes in the Algerian population has been very worrying in recent years, since it went from 8% in 2003, then 10% in 2012, reaching 14% in 2017. As for high blood pressure/HBP, it has reached a worrying rate, a prevalence of more than 35% among adults (OMS, 2018).

Diabetes cost the National Social Security Fund/NSIF 54 billion dinars in 2017. It is a disease that costs the health system dearly, and spending is expected to increase in the future (Azzegag, 2018). This represents 28% of the budget allocated to reimbursing the drug, so there were measures to be taken to avoid or at least delay the onset of diabetes such as prevention in these different forms.

3.2 An efficient reimbursement system against chronic diseases

The El Chifa Social Security card is used to identify the insured person and his dependents, in order to assert their rights to Social Security benefits (Aissaoui, 2018). It includes personal information on the insured: state of health, medical monitoring, reimbursement of medicines and medical examinations. The number of Chiffa cards has currently reached 14 million ensuring social coverage to more than 39 million Algerians, since its entry into service in 2007, is revolutionary in terms of social insurance (MTESS, 2018). This type of social coverage is not provided by many countries around the world.

A decree published in the official journal gives the green light to the National Social Insurance Fund (NSIF) of employees to integrate mutuals into the third-party payer system. This opens the way to 100% reimbursement instead of 80%, currently, of the costs of drugs and medical care (JORADP$_b$, 2018). This Executive Decree No. 18-228 of September 24, 2018, provides in its article 8 to insert in the Chifa card data relating to the benefits of the mutual insurance of the insured.

This provision, which benefits the chronically ill, will be generalized to all policyholders. Previously, the insured, social security only covers 80% of the costs; the 20% is paid directly by the person before it is later reimbursed by his mutual. With this decree, the insured, which has mutual cover,
only has to present their El Chifa card to treat themselves and serve these medicines without spending a penny from their pocket.

Nine wilayas from Algerian territory were necessary for the study, a study which aimed to measure the behavior of the prescriber, pharmacist and patient, and their translation into market shares. For market share, it is good to illustrate the "good" figures for transactions covered by insurance. Apparently, El Chifa card works wonderfully since insurance provides significant cover for treatments subject to reimbursement.

It turns out that the share of sales under insurance, for all types of drugs, is 60.1% of the Algerian market, while the share of transactions based on a prescription sold is 78.2% (Bellagha, 2019). Surprising figures concerning self-medication; especially since the development of online "auscultations" and the proliferation of “virtual doctors”. The disclosure of information through the internet may further influence the pharmaceutical market of tomorrow.

### 3.3 Growth of the elderly population

Life expectancy at birth has increased by an estimated tenth of a point to reach; 77.7 years at the global level. Declined by sex, it is 77.1 years for men and 78.4 years for women at the end of 2018. The resident population in Algeria is estimated at 42.5 million inhabitants as of July 1, 2018. The natural increase recorded during the year reached 845,000 people, with a natural increase rate of 1.99%, recording a decline 0.1 point compared to 2017 (MIM, 2018).

In volume, the resident population rose from 34.5 million to 42.5 million between July 1, 2008 and 2018, a gross increase of more than almost 8 million people (7987000 people) (MIM, 2018). The overlapping of the 2008 and 2018 age pyramids makes it clear that the demographic transition phase is still continuing (Aissaoui, 2017). This transition is reflected in the widening of the base of the pyramid and the narrowing of the 15-19 and 20-24 age groups (see figure 10).
Figure 10: Evolution of the age pyramid of the Algerian population between 2008 and 2018

Source: (MIM, 2018).

The share of people aged 60 and over increased from 9.1% to 9.3% over the same period. In volume, it reached a workforce of 3969000 people (166000 more people) compared to 2017 (MIM, 2018).

Declined by age group, it is 49.8% people under the age of 15 years old, and 15.4% people over the age of 60 years old people of working age (see figure 11).

Figure 11: Demographic dependency ratio between 1998 and 2018

Source: (MIM, 2018)
In the next years, new medical specialties such as geriatrics should appear in our hospitals, this specialty which takes care of the health problems of the elderly and the pathologies of aging. Geriatricians rarely practice as a liberal, and are therefore found in hospital departments or in follow-up care or rehabilitation establishments. So the consumption of drugs for this age group can make the drug consumption bill more exorbitant since the number of seniors will increase, and this is the counterpart of the gain of more years in our life expectancy here in Algeria or elsewhere.

3.4 Emergence of a new middle class ready to spend more on their health

Major changes affected the employment in Algeria in the period 2011-2013, on the socio-professional level, through the salary increases which benefited the different sectors. Managers and professional executives were the first to be affected by these salary increases, rises in waves which have induced transformations in the consumption pattern of Algerians.

Doctors, paramedics, municipal officials, teachers, bankers and many other sectors have seen their salaries improve significantly. At the same time, their aspiration for a better standard of living was clearly displayed. Purchase of cars (boom recorded between 2012 and 2013), subscription to different accommodation formulas (including promotional), schooling of children in private schools and in many cases trips across the country or abroad.

Although since the second half of 2014, the middle class scholarship has been melting like snow in the sun, a good part is devoted to maintaining or improving the health of individuals in this class. Fortunately, since July 2001, a device and set up to preserve the purchasing power of the middle class is the Reference Tariff / RT, it is determined by the drug reimbursement committee (JORADP, 2003). However, it was not really applied until April 16, 2006. At that date, 116 ICD (International Common Denomination) were affected out of a total of 1135 ICD reimbursable with a semi-annual update, as soon as three generic originals reimbursed are marketed (Snoussi, 2015).

Although the Reference Tariff / RT has preserved the purchasing power of the middle class, while it has increased the volume of drugs consumed. Since its introduction, we can observe a rapid increase in the number of drugs subjected to Reference Tariff / RT. In 2008, the notion of RT by therapeutic class was introduced. From its introduction, the list of medicines submitted to the TR therefore concerned 304 ICD (International Common Denomination). This list, updated in September 2009, brings the number of reimbursable ICD to 1300, which corresponds to more than 3500 brands (Snoussi, 2015). According to the list updated to March 18, 2018; 6191 specialties appearing on El Chifa list of social security drugs, 5935 or 95.9% of them are reimbursable. They are divided between 4796 generics and 1369 originals. There are 1255 products with reimbursement conditions
According to this list, Algeria is supplied with medicine from 39 countries. In terms of national production, 2230 specialties are produced locally with 2122 classified generics and 103 originals (Keddad, 2018).

3.5 Government policy on the pharmaceutical market

3.5.1 Dealing with illegal acts by producers

Marketing represents between 10% and 15% of the price of the drug, unlike other products, the drug is prescribed by a doctor, which makes the drug a special product in its marketing which must be used for continuing medical education (IQVIA, 2019).

Continuing medical education is essential, health personnel must know what is going on in the world, knowledge does not stop at a country; it is universal. This training is sometimes done through visits by medical representatives to the 11000 pharmacies across the country and the 60000 doctors; this is where we need to look closely. We note that the, which prohibits manufacturers, importers and promotion companies from giving directly or indirectly to health personnel: bonuses, objects or material advantages (JORADP, 1992).

Medical training, whether in Algeria or elsewhere, is singled out because of a course focused on the curative, so the preventive is the last concern of doctors, especially specialists between them. The training of a general practitioner should not be stopped at the end of the road, like basic training or core curriculum. Instead, general practitioner training must focus on: prevention (primary, secondary or tertiary), the real health needs of the population, etc.

3.5.2 Strong pressure on drug price

A study carried out in 2018, significantly confirms one of the constraints faced by national producers, for the development of the Algerian pharmaceutical industry, and the realization of opportunities to penetrate the external market, namely the price of drugs. For which requests for revaluation of the prices of locally produced medicines have been requested. The study therefore focused on the analysis specific to each country, with the selection of ten therapeutic areas which represent 1.4 billion USD, or 63% of the global Algerian market. 51 molecules indicated in the treatment of: hypertension, diabetes, cardiovascular diseases, anti-inflammatory drugs and psychiatric diseases, whose bill was around 837 million USD in 2017 (40% of the market), and reimbursed by National Social Security Fund/ NSIF were affected by this study (Kourta, 2019).
According to the results of this study, with the exception of Turkey, the prices of medicines in Algeria are the lowest compared to the reference countries (France, Belgium, Spain, the United Kingdom, Greece, Turkey, Tunisia and Morocco). Prices in Algeria are notably lower than average prices in reference countries across the majority of therapeutic areas, regardless of chronic or acute therapeutic areas; cardiology is the only therapeutic area in which we observe a higher average price compared to the countries of this study, which have a strong reimbursement system, but the average prices are higher than in Algeria.

The results of the study also showed that the prices of most generics are lower than the average prices in the reference countries. These countries have adopted innovative mechanisms beyond price reduction to manage the cost burden, while encouraging innovation and investment. Algeria is the third largest market in the MENA region, which maintains steady growth of 6.6% to reach 4.1 billion USD in 2021.

The Algerian Ministry of Health demanded in 2019 local producers to further lower drug prices by 50%. Like this decision could threaten the local pharmaceutical industry, since producers have already announced the abandonment of several types of products precisely, because of their low profit margin. Instead of that, such a decision requires a broad debate between all stakeholders, in order to find a price that suits all parties.

CONCLUSION

Although local Algerian production supplies more than half of the drug needs of the Algerian pharmaceutical market, it saves at state 1.9 billion USD in imports. This sector can do better, by accentuating efforts on the real needs of the population, and by respecting the specifications and the fair price of the drugs fixed by the supervision, the latter which should not threaten the existence of the laboratories and the companies activating in this sector. These local companies must learn to make mergers and acquisitions either among themselves or with the large international laboratories.

The eastern region of Algeria, known as Constantine, is a center of excellence for the pharmaceutical industry, which brings together more than half of the companies producing drugs. If the stated objective of covering 70% of drug needs by local production by 2020 is more or less achievable, according to the various experts, the fact remains that the solidity of an industrial base is judged during a probable massive export of pharmaceutical products abroad, while respecting the various international standards.

Regarding the demand for pharmaceuticals, the plural transition which has characterized Algerian society since the early of 90s, continues until now to reshape the list and map of non communicable
diseases. Changes influencing the lifestyle of the Algerian are more and more visible, thus the gain of additional years, have led to chronic diseases: diabetes, high blood pressure/HBP, cholesterol, etc. or serious pathologies: cardiovascular diseases, breast cancer, etc. which put pressure on the health insurance funds and the various stakeholders in a highly criticized Algerian health system. Even the communicable diseases, which appear from time to time, the case of Covid-19 at this moment, create a visible imbalance in this pharmaceutical market.

Courageous decisions must be taken by Algerian officials to correct the situation, so serious debates must be launched on subjects such as: free healthcare, retirement age, public and private sector relations, prevention, self-medication, etc. which can only bring long-awaited solutions which resemble the opinion of all stakeholders in the Algerian health system.
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