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BACKGROUND & OBJECTIVES

- To index the healthcare systems in the Maghreb countries (Algeria, Morocco and Tunisia), highlighting the opportunities and the challenges of these countries, and to provide an overall view of the progresses made and the shortcomings that persist.
- The Maghreb countries constitute a homogenous geopolitical, cultural and human unit. Health systems in the three countries are based on structures inherited from the former (French) colonial system and have developed more or less in a similar fashion.
- Populations of the Maghreb countries are increasingly expecting access to quality healthcare services, along with effective healthcare systems. Governments must therefore live up to these expectations while managing expenditures on health, which is set to increase significantly, particularly due to the rise of new emerging diseases.

METHODS

A descriptive comparative approach of healthcare systems in the three countries, based on data from sources¹⁻⁷ with an established methodology and descriptive healthcare data from the World Health Organization (WHO) database⁸.



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RESULTS

The population of the Maghreb will increase from 102 million to 132 million by 2050, a predicted growth of one million/year. The current population is mostly centered in Algeria and Morocco, accounting for 77%. Annual healthcare expenditure per capita is 447.9\$, 776.8\$ and 854.6\$ in Morocco, Tunisia and Algeria, respectively. The average infant mortality rate per 1000 live improved to 10.9 in Tunisia, 16.8 in Morocco and 18.9 in Algeria. Maternal mortality rates have dropped to 43 and 48.5/100 000 births in Tunisia and Algeria, respectively while remaining relatively high in Morocco: 72.6. Number of hospital beds/1000 inhabitants is only 1.1 in Morocco, 1.9 and 2.9 in Algeria and Tunisia, respectively. The number of physicians/1000 people was 0.73 in Morocco, 1.3 in Tunisia and 1.72 in Algeria. This remains considerably low compared to the 3.9/1000 in Europe. The Maghreb countries are currently facing an exodus of physicians, mainly to France, which represents 7.1% and 10.7% of Tunisians and Moroccans, respectively, and more than 24% for Algerians. This situation due to the gap between the supply and demand of health care that exists in developed countries constitutes a real time-dealy threat to the 3 countries.

Table 1. Profile of the Maghreb Countries^{8,9}

		ALGERIA	MOROCCO	TUNISIA
Population size (in thousands)	2020	43 851	36 911	11 819
	2018	42 228	36 029	11 565
Annual Population Growth	2021	1.7	1.1	0.8
Population living in Urban areas (%)	2021	74.26	64	70
Life Expectancy (Years) both sexes	2020	77.1	73.0	77.0
Population Proportion – Ages 65 and above (%)	2021	6	7	9

Table 2. Mortality and Prevalence of Infectious Diseases and Non-communicable Diseases (NCDs)^{9,11}

		ALGERIA	MOROCCO	TUNISIA
Adult Mortality rate (probability of dying between 30-69 years %)	2019	13.9	24.1	15.7
Under-Five Mortality rate (per 1 000 live births)	2020	23	19	17
Prevalence of HIV (per 1000 uninfected population)	2020	0.04	0.02	0.03
Prevalence of Tuberculosis (per 100 000 population)	2020	59	98	36
Total NCD mortality (%)	2019	79%	84%	86%
Total mortality with Ischemic Heart diseases (per 100 000 population)	2019	126.56	211.89	176.56
COVID-19 Confirmed cases	2023	271 613	1 272 733	1 152 033
COVID-19 Mortality- Cumulatif total	2023	6881	16 296	29 363

DISCUSSION

Despite recent efforts to improve access to healthcare services, the Maghreb countries continue to face significant challenges in their healthcare systems. By 2050, the population is predicted to reach 132 million, with an annual increase of one million people¹⁰.

From an economical standpoint, healthcare expenditure per capita varies significantly among the Maghreb countries but remains relatively low compared to the gulf countries for example. This difference in spending can impact the quality and accessibility of healthcare services in each country, as well as their ability to invest in new technologies and innovations. From a workforce standpoint , Morocco has one of the lowest figures in the world in terms of doctor coverage, with only 0.73 physicians per 1000 inhabitants. A significant number of doctors choose to leave for France and Europe, with Algerian doctors practicing in France accounting for 24% of the total doctors in the country². This exodus of healthcare professionals exacerbates existing workforce shortages, making it more difficult to provide adequate healthcare services to the population.

From an epidemiological standpoint, non-communicable diseases (NCDs) are a significant challenge in the region, with diabetes, cardiovascular disease, and cancer being the leading causes of death. NCDs accounted for 79% and 86% of proportional mortality due to NCDs in Algeria and Tunisia respectively¹¹. However, these data need to be updated according to the post COVID-19 context. Several factors contribute to the high prevalence of NCDs, including urbanization, aging populations, unhealthy diets, physical inactivity and the widespread tobacco use.

Furthermore, the COVID-19 pandemic has further strained the already fragile healthcare systems in the region. It highlighted the need for better infrastructure, medical equipment, and training of healthcare professionals to ensure a more efficient response to health crises in the future.

CONCLUSION

Despite the considerable progress made, the Maghreb countries still face major challenges. Doctor migration, rising cost of care and endemic infectious disease outbreaks constitute a huge hurdle on the already overburdened yet resilient healthcare systems.