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Kate Brown

Morocco has made significant improvements over the past decade in its health system. However, there is still a lot to be done before universal health coverage can be fully realized. The movement toward universal health coverage includes creating incentives that encourage doctors to practice in Morocco and increasing salaries to improve the patient–doctor ratio. This article explains the existing health-care system and what needs to be changed before implementing universal health coverage.

Introduction

The health-care system in Morocco has experienced several progressions over the past decade but still faces a multitude of challenges related to coverage, access, and quality of care. As of 2019, only 70% of the population had medical coverage, and in 2022 only 23% of Moroccans were completely satisfied with the country's health system, highlighting the necessity for a comprehensive plan that ensures equal access (Kasraoui, 2023, May 25). The life expectancy of Moroccan citizens was 76.3 years in 2018 and is expected to rise to 80.4 years in 2025, indicating that Morocco is moving in the right direction. However, there is still a lot to be done before universal health coverage (UHC) can be fully realized (World Health Organization [WHO], 2021).

As a member of the United Nations (UN), Morocco, along with the other 192 UN members, has committed to reaching UHC by 2030 as part of the 2030 Agenda for Sustainable Development. This agenda, created in September 2015, aims to address existing global inequalities and prevent anyone from being left behind. The agenda encompasses 17 Sustainable Development Goals, with the third goal focusing on "ensuring healthy lives and promoting well-being for all ages" (UN, 2015).

The advancement to UHC includes the creation of incentives to encourage doctors to practice in Morocco and increasing salaries to improve the patient–doctor ratio. Multiple plans have been made in consultation with the Ministry of Health and Social Protection, health organizations, and King Mohammed VI, but these plans need to be put into action. The driving factor that will enable the full realization of the plans and initiatives will be the availability of funds for health professionals and facilities.

Why universal health coverage

In 1948, the establishment of the WHO marked a significant milestone in the pursuit of health as a fundamental human right. The WHO is a specialized agency of the UN dedicated exclusively to global health and enhancing health-care access. It operates under a constitution that guarantees equal access to the highest attainable level of health without discrimination based on race, religion, professional status, and socioeconomic status (WHO, 2023, October 5). Morocco, as a member of the UN, is required to reform its existing health coverage system to make health care a fundamental right.

The WHO recommends the implementation of UHC to provide affordable medical services, effective and quality care, and essential medications and vaccines, thereby eliminating financial barriers to health care (UN, 2015). UHC makes it possible to access a full range of health-care services, including treatment, preventative care, and rehabilitation. To move toward UHC, health inequalities within a country should be tracked, especially within disadvantaged populations, enabling policymakers to accurately pinpoint areas requiring health-care reform. Subsequently, the data can be utilized to steer the creation of fresh initiatives and regulations.

To progress toward UHC, the WHO recommends that health systems transition to a primary health care (PHC) approach, with the potential to deliver 90% of UHC interventions and decrease overall financial hardship (WHO, 2023, October 5). This approach is particularly important in the context of Morocco, where individuals often face the difficult decision of whether or not to seek medical attention due to affordability.

Existing health-care coverage

The Moroccan national health system is made up of public, private nonprofit, and private for-profit sectors. The public sector encompasses the Ministry of Health and Social Protection as well as health services for the Royal Armed Forces. That ministry implements health policies established by the Moroccan government through hospital networks and PHC facilities. The private nonprofit sector includes the *Caisse Nationale de Sécurité Sociale* (*CNSS*) (National Social Security Fund). The private for-profit sector comprises a variety of health-care facilities, such as clinics, consultation offices, medical analysis laboratories, and dental offices (Zahidi et al., 2022).

In 2002, the Moroccan government passed Law 65-00, establishing a basic medical coverage system that includes two distinct insurance plans: mandatory health insurance (*Assurance Maladie Obligatoire* [*AMO*] [Compulsory Health Insurance]) and a plan for those in the informal sector or populations not covered by the compulsory coverage (*Régime d'Assistance Médicale* [*RAMED*] [Medical Assistance Plan]) (Zahidi et al., 2022). AMO, introduced in 2005, is mandatory for employees and pensioners in both the public and private sectors. Its coverage ranges from 70% to 90% of the national reference rate (a rate set by each county that is used as a point of comparison), including maternity care, radiology, outpatient care, dental care, long-term illnesses, hospitalizations, eye care, medicine reimbursements, and oral care (ACAPS, n.d.). The AMO is divided into two national security funds that provide insurance for employees in certain sectors: the CNSS for private sector employees and pensioners and the National Fund of Social Welfare Organizations for state employees, Moroccan students, beneficiaries of CNSS services before AMO, and beneficiaries of voluntary leave (ACAPS, n.d.). In addition, participants in the CNSS do have the option to subscribe to private insurance. Citizens may decide to use private insurance because of the advanced quality of care that can be received at private facilities, indicating a gap in quality of care. Currently, reimbursement rates and benefit packages for both AMO funds are unequal, and these discrepancies are causing the health-care utilization rate to fluctuate between the two groups. The reimbursement rate for CNSS is lower than the reimbursement rate for the National Fund of Social Welfare Organizations in all types of medical services. As a result, that rate is 45% in the public sector and 18.5% in the private sector (Cheikh et al., 2019). Reimbursement rates for both funds must be matched for equal access to quality care; otherwise, the health-care utilization rate will continue to be unequal between the two groups.

RAMED, introduced in 2012, is for those working in the informal sector, and "those without sufficient resources to meet the costs of medical care, persons with disabilities unable to fulfill remunerated activity, residents of charitable institutions, hospices, and orphanages" (UN ESCAP, 2019). In 2017, an evaluation by the National Observatory for Human Development concluded that while RAMED is a helpful resource for reducing social inequalities in access to care, the program's funding is problematic, adding strain on public hospitals; more importantly, the poorest social group is still not included in this plan (Zahidi et al., 2022).

Currently, there are multiple systems in place catering to different groups of people. Each system, however, has varying levels of accessibility and quality, and 50% to 63% of the costs fall to the patients (Kasraoui, 2023, June 19). UHC does not propose implementing a single system for comprehensive access. Instead, it will enable adjustments that permit Morocco to incorporate the existing AMO and RAMED systems, thereby avoiding the need for extensive restructuring.

Current interventions

Morocco has developed some strategies to achieve UHC, incorporating suggestions from the King, the Ministry of Health and Social Protection, and the UN. Each of these plans outlines specific actions to move the country away from the current unequal health-care system to a system where everyone can access health care, regardless of an individual's social determinants of health, including socioeconomic status, neighborhood, or occupation.

In 2018, the Ministry of Health and Social Protection developed a comprehensive health plan to guide the country toward UHC. The *Santé* (Health) 2025 plan, based on guidance from the royal family, current global health trends, and previous commitments to governmental initiatives, is structured around three fundamental pillars. The first pillar aims to establish and enhance accessible health services for all individuals. This pillar includes measures to reduce the cost of medications, establish virtual health-care services, and restructure the public hospital network. Additionally, this pillar emphasizes the adoption of family medicine and the rehabilitation of general medicine. The second pillar focuses on fortifying national health and disease control programs. This pillar includes plans to strengthen prevention programs and enhance health monitoring, to reduce the inci-

dence of both communicable and noncommunicable diseases. Furthermore, it concentrates on expanding programs that meet the needs of diverse populations, such as women who need access to maternal and child health programs, victims of violence, individuals with disabilities, and prisoners. The third pillar of the health plan is dedicated to resource allocation and governance. It encompasses strategies aimed at enhancing the existing AMO and RAMED systems, at the same time addressing the pressing need for additional human health resources. This pillar seeks to restructure the Ministry of Health to establish a national health information system (Doukkali, n.d.). According to state estimates, the health plan will require an "investment of at least €2.2B to achieve the targets"; €179.9M of the total investment needed will come from government funds already put into place, the rest raised through public-private partnerships, international donors, and taxes (*Morocco ramps up*…, 2019). But 2025 is quickly approaching, and unfortunately, many changes still need to be made before UHC can be achieved.

In 2021, under the guidance of King Mohammed VI, a developmental model was designed to foster comprehensive growth in all sectors, including social, political, economic, and cultural, through a citizen-centric approach. Regarding health care, the model calls for expanding the existing system to address significant disparities within the sector. Currently, Morocco falls below the health standards established by the WHO, making it imperative to undertake these upgrades. The model represents plans to effectively implement UHC, ensuring that all citizens have access to a progressively evolving range of basic health services. To achieve this access, Morocco is actively working to establish a new territorial structure for the health-care system, to enhance access by overcoming existing geographical and temporal barriers (Special Commission on the Development Model, 2021).

Current health-care system demographics

To properly analyze demand for and utilization of the Moroccan health-care system, it is necessary to understand the country's current demographics and number of active health facilities. In 2023, the urban population of approximately 24.3 million people was served by 861 PHC facilities, whereas the rural population of 13.2 million had access to 2124 facilities. Even though rural areas are home to a population approximately half the size of the urban population, rural areas are vastly more decentralized, thereby requiring more facilities. Unfortunately, a greater number of facilities alone is not sufficient to provide services to that population. The optimal facilities are predominantly concentrated in urban areas like Casablanca and Rabat, leading to regional disparities in access to high-quality services (*Morocco ramps up*…, 2019). Along with a disproportionate number of quality facilities in urban areas, there is an unequal distribution of public physicians. In 2021, Casablanca, Marrakech, and Fez employed 57.4% of all physicians in the country (Ministry of Health and Social Protection, 2021), despite those regions being home to only 13% of the entire population (Worldometer, 2024). This disparity suggests fewer doctors per capita and the likelihood of fewer physicians in rural areas.

Health-care spending plays a crucial role in understanding the evolution of a country's health system over time. Health expenditure encompasses both private and public health insurance, research, and health-care facilities. From 2018 to 2020, Morocco witnessed growth in health expenditure both as a percentage of GDP (5.37% to 5.99%) and as spending per capita ($166 to $187). By way of comparison, in 2020, in Tunisia, Algeria, Egypt, and Spain, the health expenditures as percentages of GDP were 6.34%, 6.32%, 4.36%, and 10.89%, respectively. In 2020, the same four nations, respectively, expended $222, $215, $151, and $2900 per capita on health care. In sharp contrast, South Africa spent $490 per capita. Morocco's rising spending trend signifies its dedication to achieving UHC (albeit COVID-19 likely playing a substantial role in this escalation). Despite these trends in health expenditures, Morocco consistently reports the second-lowest total health expenditure compared to its neighboring countries (World Bank, 2024).

Furthermore, in 2023, to address the challenge of financial resources, the World Bank Board of Directors approved a $450M loan to support the Government of Morocco's health-care reforms. The aim of this loan aligns with the UN Agenda for Sustainable Development, emphasizing inclusivity and ensuring that no one is left behind (Kasraoui, June 19). In 2022, the Ministry of Health and Social Protection allocated $604M to restructure the existing health sector. These funds will facilitate the construction of health-care facilities and a boost in health-care workers' salaries. Looking ahead, the Moroccan government plans to augment the Ministry of Health's budget by 9.1%, which will support the addition of 5500 new positions within the Department of Health and the modernization of hospitals and existing equipment (Zouiten, 2023). Even with the current increase in spending, continued investment is necessary to fully reach the goal of UHC.

Despite the failed attempt of the King to implement compulsory coverage for all Moroccans by 2022, there have been a few notable achievements (Hekking, 2020). Life expectancy rose from 76.77 years in 2020 to 77.43 years in 2023 and is projected by the UN to reach 82.36 years by 2050. The 2023 life expectancy was slightly lower than Tunisia's (77.63 years) and Algeria's (77.50 years) but is predicted to surpass that of Tunisia and Algeria by approximately a half year in 2050 (United Nations - World Population Prospects, 2024). Part of this extension is due to the decrease in the Moroccan infant mortality rate. The current rate is 16.117 deaths per 1000 live births, a 16.68% decline from 2019. The infant mortality rate is expected to decrease by a further 10 deaths per 1000 live births by 2050. These positive trends are in part due to the rise in health-care spending per capita from 2017 to 2020, demonstrating the ongoing commitment of the country to advance its health outcomes and current system (World Bank, 2024).

One contribution to these positive outcomes has been the movement, however slow, toward more affordable and quality care. As part of the UN sustainable development agenda, policymakers created a minimum number of required health workers, set at 4.45 per 1000 individuals. Although at the end of 2021, Morocco had only 1.64 health workers per 1000 individuals, that was a 0.13 increase per 1000 compared to 2011 (Rahhou, 2023). Having enough doctors is a necessity for UHC.

Because only "39% of people with a higher income are more satisfied with the country's health care system, compared to 12% of Moroccans who fall into lower income brackets," Pfizer in 2023 signed two agreements with the Ministry of Health and Social Protection to support the implementation of UHC as a response to the heightened partnership during the COVID-19 pandemic. The agreement sought "to contribute to the overall success of UHC projects through the improvement of management and healthcare." The agreement is aimed at strengthening Morocco's health ecosystem while expanding access to innovative medicines (Kasraoui, 2023, May 25). Together, these agreements, modest as they may seem, suggest Morocco is on the right path. Nonetheless, significant challenges face the nation if it is going to meet the goals laid out in the 2025 health plan irrespective of the precise date of achievement.

Barriers to UHC

The goal of the 2025 health plan is to provide a full range of services at minimal cost. However, several challenges, including shortage of human resources, unequal distribution of quality health facilities between urban and rural areas, and problems with the costs associated with upgraded health services, must be addressed before achieving UHC (Doukkali, n.d.). Despite the implementation of some reforms and subsequent increases in life expectancy, there remains a significant gap between the desired outcome and the current reality. The primary factor contributing to this disparity is the financial constraint faced by Morocco, hampering the country's ability to compensate workers in the new universal system adequately. Consequently, the shortage of health professionals is exacerbated, particularly in rural regions. Furthermore, the current inadequacy of equipment in rural clinics inhibits their ability to provide comprehensive care. These challenges, especially staffing shortages, hinder hospitals and clinics from functioning at full capacity, emphasizing the need for Morocco to offer everything that UHC can offer. Only then can health status and life expectancy progress at a greater rate.

Staffing shortages

Adequate numbers of professionally trained health-care workers and equitable distribution of those staff members between urban and rural areas are the paramount issues demanding immediate attention, as Morocco has not met the minimum requirement for health workers per 1000 individuals recommended by the UN. Staffing shortages hinder the ability to deliver high-quality care, resulting in prolonged wait times. The shortage of health professionals leads to other problems within hospitals, including lack of physical accessibility, long waiting times, rushed consultation time, and prolonged administrative procedures. If at least one of these hospital logistics is not functioning correctly, quality of care and patient satisfaction are impacted negatively (Frichi et al., 2020). Moreover, rural areas suffer from an insufficient number of doctors, forcing citizens to endure hours of travel to access the nearest health-care facility, and there is no guarantee that these facilities possess the necessary equipment to effectively treat their medical conditions. Consequently, individuals residing in these remote regions are deprived of regular medical consultations, leading to a decline in their overall well-being.

To tackle this issue, Morocco has initiated a program to augment the number of health professionals to 90,000 by 2025, up from 68,000 in 2022. The objective is to have 24 professionals for every 10,000 citizens by 2025, and 45 for every 10,000 citizens by 2030 (Latrech, 2022). This initiative does seem promising, but its feasibility is questionable due to the substantial financial resources needed to employ such a large number of health professionals.

Between 2011 and 2020, the number of health workers per 10,000 citizens in the private sector grew by 1.3, while in the public sector, the number of doctors per 10,000 citizens decreased by 0.3 (Rahhou, 2023). As of 2021, the public sector employed 12,896 doctors, whereas the private sector employed 14,199 doctors (Ministry of Health and Social Protection, 2021). Individuals who can afford private health care opt for it due to the obstacles to care in the public sector, including language, long wait times, inadequate equipment, and a shortage of health professionals. These barriers contribute to the reluctance of doctors to work in public institutions and even prompt some to leave the country to practice medicine (Rahhou, 2023). Although acknowledging the need for an increased physician workforce is essential, it is equally crucial to devise strategies to attract and retain doctors in public health-care facilities.

The unattractiveness of a medical career

Currently, the path to becoming a doctor in Morocco spans seven years, including five years of education in medical school, one year as a trainee doctor, and another year working at a regional hospital. The latter serves the dual purpose of providing practical experience and addressing the existing shortage of doctors in remote rural areas.

Medical students in Morocco face significant financial challenges, leading to a situation where 70% of students in their final year plan on leaving Morocco to pursue their careers elsewhere (Sawahel, 2022). This exodus is part of a larger issue of workers going abroad, mainly to France and Spain, with a total of 27,000 Moroccans leaving the country in 2022 (Sahnouni, 2022). The migration of talent has an impact on the Moroccan health-care workforce, impeding its growth and development, thus preventing the country from reaching the minimum number of health-care workers needed to sustain the system.

Initiatives have been put into place to reduce the duration of medical training from 7 to 6 years (Latrech, 2022). Although these initiatives seemingly make it easier for students to become doctors, they do not address the problem of students not being able to support themselves. The change in training time also does not address the stress that students will be encountering now that they must take exams, complete internships, and write a thesis within one year instead of two (Tachfine, 2023).

In 2022, the National Commission of Medical, Dental and Pharmacy Students of Morocco conducted a study about the problems relating to "social conditions, the economic and financial situation of students" due to the rising number of uncertainties with the change of training and availability of funds for students. The survey revealed that 92% of students need to go to their families for financial support because they are unable to pay rent, buy appropriate clothing and equipment, or afford transportation to classes and internships. Students can apply for limited funding (living stipends) and scholarships, but these payments can be delayed, forcing students to adjust their lifestyle to support themselves. This reduced lifestyle includes skipping meals and never taking time off thus decreasing their quality of life in general. The overall decrease in quality of life "creates an environment that is poorly adapted to studies," often leading students to investigate different locations for studying (National Commission of Medical, Dental and Pharmacy Students of Morocco, 2022). Morocco needs to add to the funds available for medical stipends and scholarships to better support its doctors in training and to reduce the number of those leaving the country.

Lack of generalists

In Morocco, the absence of general practitioners and family medicine–oriented training is problematic. General practitioners play an essential role in providing continuous care to patients and conducting routine examinations. This practice not only ensures the well-being of patients but also directly aligns with general practitioners' mission to decrease the chances that their patients need further specialized care.

A greater number of general practitioners in the medical workforce is crucial for Morocco to adopt the PHC approach recommended by the WHO. Integral to PHC is that individuals receive consistent quality care throughout their lives instead of just receiving care for life-threatening issues. This approach aligns with the primary goal of increasing the number of health professionals; more broadly, a PHC approach works to address the social determinants of health that affect individual health outcomes (WHO, 2023).

Lack of funding

As discussed previously, the World Bank approved a loan to support Morocco in implementing health reforms. While this loan will help establish the new health-care system, steps still need to be taken to establish standard quality-of-care practices that lead to better health outcomes (Kasraoui, 2023, June 19).

In addition, the availability of funding influences health professionals' decisions when it comes to

choosing where to work and which sector to work in. For example, even with the introduction of improved training for general practitioners, many students still prefer to become specialists. This preference is driven by the fact that in the public sector specialist salaries are 50% higher than general practitioners' salaries. Although having a multitude of specialists might seem beneficial, it restricts the availability of basic essential care in both urban and rural areas, across public and private sectors (Fourtassi et al., 2021). Even though efforts can be made to advance the current medical school training process and curriculum, financial incentives play a crucial role in determining students' career choices. Inadequate monetary compensation remains a primary barrier to UHC.

Recommendations

To counter the current barriers to UHC, Morocco will need to adopt a multifaceted approach. First and foremost, to achieve the success and accessibility of the UHC plan for all individuals in Morocco, the Ministry of Health and Social Protection and the King must prioritize expanding existing resources and addressing the underlying causes of health-care inequalities. Given the missed target of providing UHC by 2022, Morocco needs to realign its priorities. The country should concentrate on identifying the factors that contribute to health inequities, namely the social determinants of health. These determinants encompass nonmedical elements, such as socioeconomic, demographic, and cultural factors that include education, housing, age, occupation, and food access, all of which significantly influence individual health outcomes. Morocco should focus on these determinants as a key aspect of its health-care strategy (WHO, 2021). Bouzaidi and Ragbi (2024) performed an analysis of access to health-care services in Morocco and an individual's social determinants of health. Their study revealed that individual demographic and socioeconomic factors do significantly affect behavior when it comes to seeking care. As a result, public education programs and campaigns should be created to educate policymakers on the effects that determinants of health have on an individual's overall well-being. Furthermore, as highlighted by Mahdaoui and Kissani (2023), it is crucial to establish a collaborative system that fosters cooperation between the public and private health-care sectors. This collaboration would enable the pooling of resources to bridge the gaps in health-care provision, particularly in public and rural hospitals. Morocco must recognize the disparities between urban and rural resources and develop comprehensive plans that ensure equitable health-care services regardless of the geographical location of health facilities. Collaboration can also help establish a PHC approach across all facilities.

Second, initiatives aimed at enhancing the current retention rate of Moroccan medical students and encouraging them to practice within the country are crucial. Medical students completing their studies in Morocco and then choosing to practice medicine abroad pose a disadvantage to Morocco's health-care system, requiring the training of more doctors than necessary. Various measures can be implemented to address this issue, such as increasing wages for students who choose to remain in the hospital where they underwent training and imposing financial obligations on students moving abroad for practice. Moreover, offering benefits like housing, child support, and improved work amenities for those who study and practice medicine in Morocco can motivate them to stay. Training guidelines for the six-year schooling plan need to be identified to decrease student stress regarding the workload students now must complete in their sixth year (Tachfine, 2023). A collaborative effort among medical schools and hospitals is needed to create definitive guidelines, assuring students that they can complete their degree in six years without overwhelming stress.

Third, to address the existing gaps between rural and urban access to care, Morocco needs to turn to possible alternatives and ways to restructure the availability of resources. One way to address the shortage of health professionals, especially in rural areas, is the introduction of telemedicine. Providing training to residents in rural areas on using telehealth applications and scheduling appointments can empower them to access medical advice irrespective of location. Telemedicine, available to 90.7% of Morocco's internet-using population in 2024, offers a practical alternative when traveling to a clinic is not feasible (Galal, 2024). To attract doctors to rural areas, incentives such as free housing, grocery stipends, and financial support can be introduced. Additionally, keeping obligations in medical school training to work in a regional hospital for a specified duration can expose them to general practitioner roles. This initiative would help decrease the chances that patients need further specialized care because general practitioners are readily available and continued care easily accessible. The driving force behind decreasing staffing shortages, however, is the availability of funds, which can be expanded to augment salaries and enhance the quality of

equipment and facilities. These funds can be used to compensate workers adequately in the new universal system, leading to an overall increase in patient satisfaction and quality of care. Adequate compensation hopefully will encourage doctors to stay in their current occupation versus working abroad for a better salary. Following the example of the Pfizer partnership (discussed previously), Morocco should prioritize establishing more agreements of this nature. Collaborating with pharmaceutical companies will not only contribute to the enhancement of health-care services but also foster mutual benefits for both parties involved.

In conclusion, while progress toward UHC is in motion, further steps need to be taken. The single most important step, one that will encompass specific recommendations, is adding to the amount of money available to support more doctors and to improve the quality of facilities and equipment. South Africa's annual expenditure, $490 per capita, is a more realistic target for Morocco compared to that of its close neighbor Spain. To meet this target, it would be necessary to increase health-care expenditure as a percentage of GDP by at least 2.50%. Only then will Morocco fully realize UHC.

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