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The Truth about Health in Morocco: No Health without Workforce Development!

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As the novel coronavirus, or COVID-19, spreads throughout the world, we are confronted with stories and images of healthcare systems in the most developed countries strained to a breaking point. This presents a grave situation for countries like Morocco, where health infrastructure and governance are still catching up to standards set by Europe, North America, and East Asia. In response to this new global pandemic, King Mohammad VI announced some of the most aggressive measures in the region by restricting travel, closing nonessential shops and restaurants, and announcing a \$1 billion fund to ramp up healthcare infrastructure and

procurement in the country. But it is not the relentless spread of COVID-19 in Africa that worries King Mohammad, it is the virility and speed in which it is taking over Europe, where many Moroccan citizens live and work. Though Morocco may have reported fewer than 100 cases at the time of publication, uncontrolled community spread could set the Kingdom back a decade in development. We can only hope that the King's proposed fund hasn't come too late.

Beyond the global health crisis currently taking place, Morocco is in a phase of demographic transition affecting healthcare, economic sustainability, and youth employment. The

failure to include young people and increase their economic output is detrimental to generating growth and catching up with the developed world. The unemployment rate among youth 15-24 years old is 20 percent - twice as high as the national rate. It rises to 25 percent among graduates with bachelor's degrees and 60 Percent among those with masters and above.

And while many sectors of the economy aren't generating jobs or are becoming saturated, the Moroccan health sector, similar to other healthcare systems around the world, suffers from a shortage of human resources, which is desperately needed to increase efficiency and quality in healthcare. The present analysis of the current situation of the supply of medical and paramedical¹ professionals shows there are too few qualified individuals to cope with the increased demand for healthcare. This situation is exacerbated by retirements from the sector and the need to staff newly created health facilities. In addition, not only is the problem caused by an inadequate number of doctors and nurses, but is also because of geographic inequality in healthcare distribution. Indeed, differences in population density are important not only when observing health outcomes between regions but also within the same region.

This paper, which draws from an emerging literature on the subject, deals with socio-demographic characteristics, differences in the governance of the public and private healthcare systems, the education to employment transition and the role that the government plays in facing the cultural and institutional constraints on employment in the health sector.

The Moroccan healthcare system

The Moroccan population has almost tripled from 12.3 million in 1960 to 36 million in 2018 (39 percent living in rural areas).² During this period, the annual rate of population growth has decreased from 3.1 percent to 1.2 percent. This sharp reduction shows that the country will experience an accelerated aging process that will lead to a gradual increase in demand for healthcare services. In order to increase supply to meet the demand, there must be a considerable expansion of health infrastructure, equipment, and human resources.

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In order to guarantee access to healthcare for the whole population and to realize the right to health stipulated by article 31 of the 2011 Constitution, Morocco has implemented law 65-00 of basic medical care. This Act established two main social protection schemes: the basic compulsory health insurance (AMO), introduced in 2005, for employees in the public and private sectors, and the medical assistance scheme for low-income individuals (RAMED), that both partially covers healthcare cost of 62 Percent of the Moroccan population.³ A health insurance scheme for native and foreign students in private and public education and vocational training

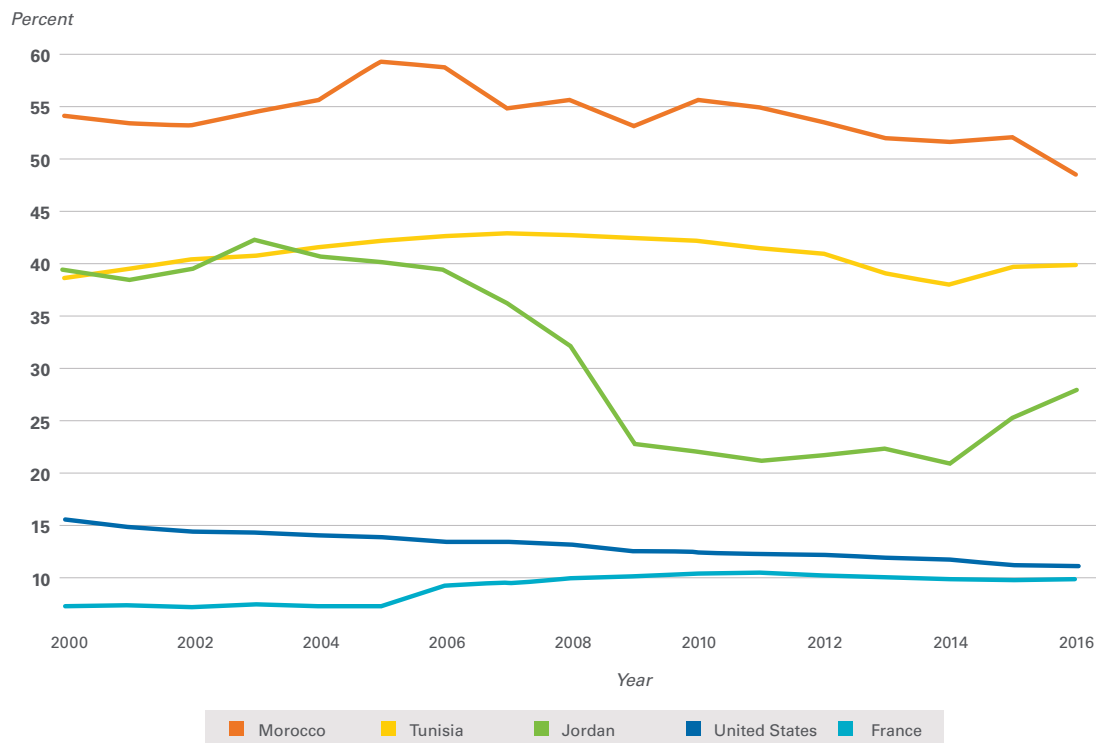


was introduced in 2015 which covers about 260,000 beneficiaries.⁴

The share of total health expenditure to GDP increased from 3.9 Percent in 2000 to 5.8 Percent in 2016⁵. Despite this increase, this share remains below the average of the WHO member-countries (6.5 Percent) and well below the average of OECD countries (8.9 Percent)⁶ The annual average expenditure on health per capita reached about \$171.4 in 2013, while the average for member-countries of WHO is \$302.⁷ Direct household - or

“out of pocket” - spending on healthcare remains very high compared to other countries at 53.6 Percent; indicating that families and individuals still contribute significant amounts of their healthcare costs from personal income. This could be explained by the low rate of medical coverage as well as the high price of the technology⁸; which means that obstacles still exist to accessing health services and that families are significantly exposed to financial risk from health emergencies.

(Figure 1) Out-of-pocket expenditure (Percent of current health expenditure)



Source: World Bank, 2019



The large number of uninsured can in part be explained by an inadequate national healthcare budget that falls below the standards set by the WHO...

The large number of uninsured can in part be explained by an inadequate national healthcare budget that falls below the standards set by the WHO, but also by inefficiencies in resource management in the healthcare system, especially in the distribution of human resources.

Public vs. Private

The health system in Morocco is largely organized into two sectors - the public sector represented

mainly by services provided through the Ministry of Health and those of the Royal Armed Forces, and private for-profit and nonprofit providers.

The public sector dominates the available supply with nearly 70 Percent of the total capacity. The number of public hospitals has increased from 52 in 1960 to 159 in 2019, with a bed capacity exceeding 25,000⁹. As for primary health care facilities, around 830 centers are located in urban areas while 1,270 centers are distributed in rural areas.¹⁰ The private sector occupies an important place in total household expenditure in healthcare, while only 5.6 percent of this expenditure is allocated to public hospitals¹¹. Moroccans prefer to pay for healthcare services in the private sector instead of less expensive public hospitals because of the quality of healthcare service and delays obtaining appointments. The problem of absenteeism of medical and paramedical staff was raised in the reports of the court of auditors. Private

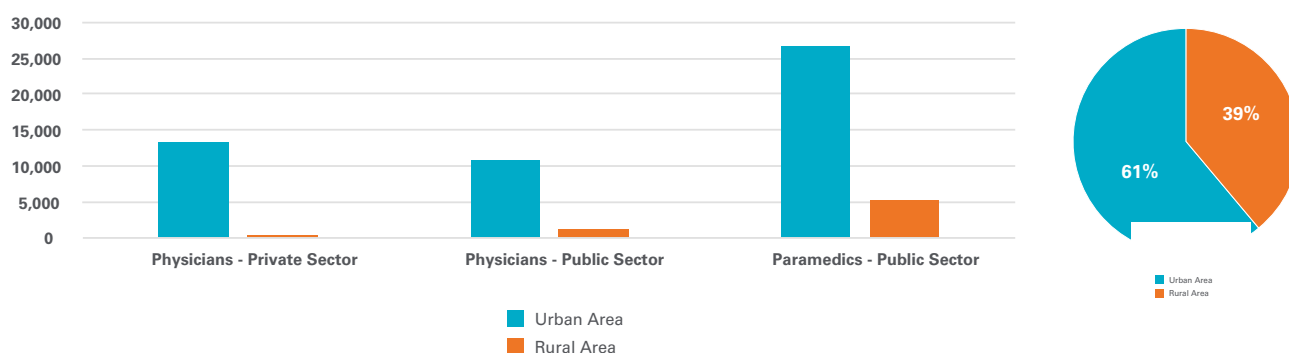


for-profit health providers are expanding rapidly and attract more and more public sector professionals because of their better working conditions. The number of private clinics in 2019 stood at 359 with a capacity of more than 10,346 beds. As for private medical offices, they went from 2,552 in 1991 to 9,671 in 2019¹². The Moroccan health sector is increasingly attracting foreign commercial groups wishing to take advantage of its liberalization; since the 2015 promulgation of Law 131-13, these groups worked to attain more investment and correct regional imbalances, which doctors and some NGOs are contesting.

The distribution of private healthcare provision throughout the country shows a significant imbalance between rural and urban areas and

between regions, skewing heavily toward urban centers. In fact, 52 Percent of these clinics are in developed regions¹³. Despite efforts to increase the available healthcare infrastructure, 20 Percent of the population is still more than 10 km from a health facility¹⁴, and indicators of availability and use of services are clearly at the expense of the rural sector. There is also an underutilization of curative services with less than 0.6 contact per person per year and a hospitalization rate in public hospitals of less than 5 percent¹⁵. This under-utilization can be explained by the shortage of human resources at all levels of the system as well as by the low quality of services.

(Figure 2) Distribution of Medical and Paramedical Staff in Rural and Urban Areas



Source: Based on data of the Ministry of Health

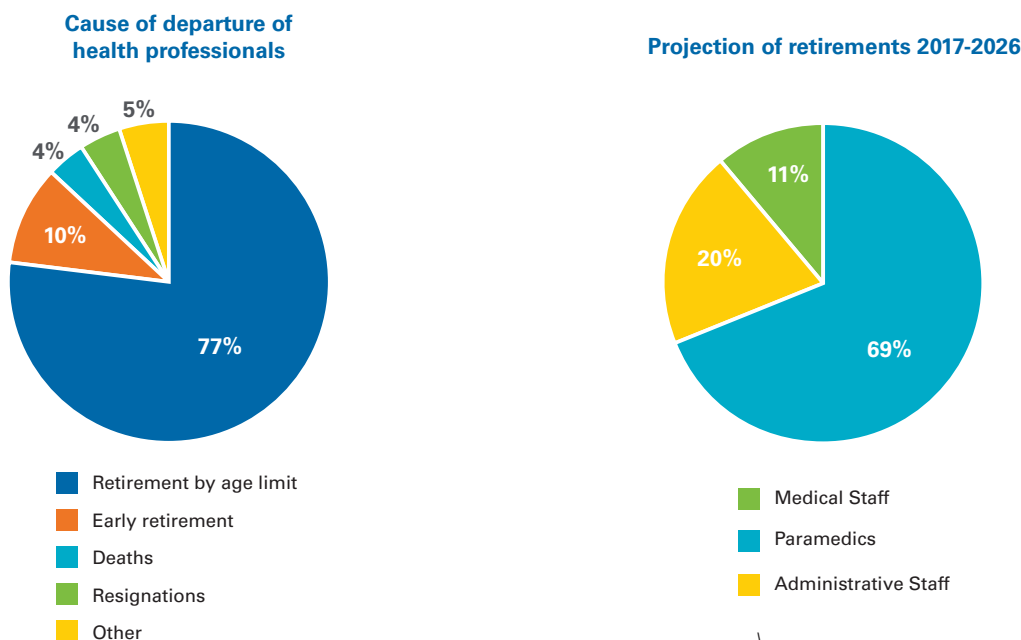
Shortage of Human Resources

The World Health Organization places Morocco among the 57 countries in the world that have an acute shortage of healthcare workers. This serious shortage of health professionals corresponds to large disparities in distribution between and within regions, and between urban and rural areas.¹⁶ Despite available infrastructure in both urban and rural areas, the number of medical and paramedical staff providing direct patient care in Morocco is well below the critical threshold of 4.45 care staff per 1,000 people required by the SDGs¹⁷; which is necessary to achieve the coverage level needed to meet the indicators set by the Sustainable Development Goals. In fact, the density of medical and paramedical personnel per

1,000 inhabitants barely exceeded 1.65 and should ideally be increased to achieve universal health coverage, and thereby strengthen the resilience of the national health system. The Ministry of Health estimates the deficit of medical staff at 32,387 and the paramedical shortage at 97,161¹⁸. This deficit is all the more problematic because public sector workers also work with private sector providers.

In addition to inefficient distribution, an analysis of the current supply of medical and paramedical personnel also shows a lack of quantity to cope with the increased demand for healthcare across the system. This situation has been exacerbated by retirements and the staffing needs of newly created health facilities, including hospitals and privately

(Figure 3) Departure causes and projection of retirements to 2026



Source: MoH. (2017). *Ressources humaines de la santé en chiffres*. p. 71.





developed facilities. This deficit will worsen over the next ten years with the retirement of 24 percent of acting paramedical staff: more than 8,500 people.

It should be added that - paradoxically in the state of scarcity described above - the Ministry of Health recruits graduates of public institutions through a competition of limited seats. However, the number of these candidates who actually get a position is capped by an inadequate budget. Thus, a large number of nurses and a number of doctors are not recruited at the end of their training and then are left jobless or go to the private health sector. Between 1993 and 2007, the Ministry of Health determined it needed more than 20,000 professionals. Yet, only 13,356 were hired during this period, which at the same time recorded 6,621 uncompensated retirements. Retirement and early retirement accounted for 87 Percent of all departures reported to the ministry¹⁹.

It should be noted that 4 percent of departures are related to resignations (medical staff: 19

percent, nursing and technical staff: 5 percent and administrative staff: 3 percent).²⁰ Those who resign usually go to the private sector or migrate abroad. In 2000, the Center for Global Development estimated the number of Moroccan nurses and doctors working in OECD countries to more than 11,000²¹. This figure must be updated, but given the trends of the last 20 years discussed above we can expect that the number of medical professionals working abroad has increased. Abdellaoui et al. (2017) assert that the emigration rate of Moroccan doctors to Europe (particularly in France) is 24%, with a number of Moroccan doctors practicing in France estimated at 5,106. The main causes cited by the authors are the better work environment and conditions for practicing professional medicine, and the financial advantages of working in Europe versus the country of origin.²²

Paramedical jobs in Morocco are also experiencing an identity crisis. Although the profession is an essential element in the healthcare system and plays a key role in the prevention and treatment

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of diseases in collaboration with doctors; nursing has long lacked respect, being considered a mere “performer” role without sophisticated theoretical training or practical skills. This mindset was instilled long ago and its legacy exists strongly today. Such stigma does not make the profession seem attractive to young people who want to pursue a diploma. Moreover, low wages and poor career advancement opportunities also make the profession unappealing²³. Salaries for paramedical personnel start only at the minimum wage level as defined by labor law. “Tips” are sometimes given by patients to ensure the quality of attention. It also contributes to the mindset that other professionals in the medical and healthcare field are inferior to doctors.

In addition to inferior pay, working conditions for paramedical staff are extremely difficult. This includes overload due to lack of staff, precariousness and lack of equipment, or insecurity following aggressive reactions from patients and their families.²⁴ Therefore, because of work overload, novice nurses find it more difficult to develop their knowledge and skills despite all the continuous training provided by private and public schools, in addition to employers (MoH for those working in the public sector).

It’s also about education

According to the WHO, health workforce education systems around the world are not well equipped to respond to the challenges of the 21st century because of fundamental inadequacies related to outdated, static, fragmented, content-oriented curricula.²⁵ Currently in Morocco, there is a confusion between the degrees awarded and the positions filled due to staffing shortages in several health professions. Occasionally, nurses are hired for a position for which they aren’t qualified; in some cases, this can affect the quality of service or the safety of the patient. Such practice can be attributed to the lack of qualified professionals in some specializations because 1) youth generally choose diplomas that maximize job opportunities and 2) curricula and training are not updated according to what the healthcare sector needs.

There is also a difference in standards and output among public and private training institutions. According to the report on “Medical and Paramedical Demography in 2025”, paramedical training in Morocco is provided by the Health Care Training Institutes (ISPITS), which reports to the Ministry of Health. Public schools mainly submit to a three year training course after the baccalaureate, unlike the private schools which offer many specializations and students can graduate after one, two or three years. Care nurses (level bac+1) and auxiliary nurses (Bac+2 level) are currently exclusively trained by private schools.

In the labor market, public diplomas have more value than private diplomas and enrollment and graduation rates differ. There is no regulatory body that standardizes the graduation exam to verify if both candidates in public and private schools have



the equivalent qualifications and if those match with what the market needs. At the private level, some schools are accredited by the ministry of higher education and others are not. The level of knowledge of the graduates also differs depending on whether they attended a private or public school. Students are preselected for access to public schools through a highly competitive process and attendance is strictly checked during training. Enrollment in private schools is less restrictive and selective.

The training of paramedical staff from public institutions is conditional based on the available budget capacity. Since the Ministry of Health is obligated to recruit students trained in its affiliated schools, placements are thus reduced proportionally to the budget allocated by the Ministry of Finance. Despite the importance of public school diplomas, the number of ISPITS enrolled students for the 2015-2016 academic year was 1,720 which declined from more than 3,200 in 2014. The number of admissions in the first year has dropped due to the fact that the Ministry has not opened certain majors because of slow absorption of their graduates into the labor market.

For paramedical studies, private schools present more diversified offerings and take on more students, thus competing with the public system which offers a relatively limited number of seats. However, graduates of private institutions can not access jobs in the public sector unless it outsources certain positions to private companies. That is to say, there is no official avenue for privately trained paramedical staff to work in the public medical establishment, unless the ministry sub-contracts the service to the private sector. There is also an acute deficit of qualified paramedical staff

combining technical, managerial and social skills. The need for quality training is clearly demanded by employers, who end up training the recruited staff on the ground. Training in the private sector does not effectively meet the technical, relational and managerial needs of the sector. Current training courses, particularly in the private sector, are considered insufficient in relation to employers' expectations. Nursing diplomas issued by private schools are disputed and their graduates are excluded from public service recruitment. Professionals in the sector are asking for a system of accreditation of private schools, which would be subject to precise specifications, guaranteeing training courses equivalent to that of ISPITS, and the introduction of a national exam at the end of the year.

Healthcare employers raise many points of dissatisfaction with the level of training of paramedical staff. Paramedical graduates don't master French, which is the written language in health organizations, patient records, prescriptions, and reports. The language of education, from primary to high school, has been Arabic since the country achieved independence in 1956. The Arabization of education is part of a broader identity and cultural policy that has affected almost all areas of society. However, higher education remained mostly in French, which is believed to increase job market prospects for young people, with the exception of a few sectors. But young people often find it hard to support this linguistic transition when entering universities. The other cultural challenge is that mostly students who failed in other disciplines at a university or on the Baccaureate exam (the general education exam at the end of high school) choose to enroll in private paramedical schools. Most did not sufficiently master sensitive



techniques that require scientific skills, nor is it clear that the private institutes effectively measure and teach them.

Also, some practices essential to the profession and to the safety of the patient are not fully acquired, like hygiene and ethical standards. This deficiency is thought to be a result of poor training, usually based on didactic teacher-centered and subject-based learning. Khademi and Abollahpour (2014) argued that student-centered methods in healthcare studies have a significant advantage such as faster learning with more persistence, deeper understanding of the material, application of critical thinking or creative problem-solving skills and generating a positive attitude to the lesson. However the lack of ethical and hygiene standards is also related to internships and the quality of supervision that differs significantly in the private and public sector. In the public sector, training is done under supervisors of large public health facilities allowing paramedical staff access to sensitive services. In the private sector, internships are mainly in primary health centers with merely symbolic supervision.

The situation is even worse when we take into account that, in addition to basic skills, there are few new skills added according to the new needs or trends of the market. For example, Morocco has recently presented a legal framework for the practice of e-health; but in addition to the absence of any previous research evaluating the knowledge of students in health sciences, or evaluating the integration in the curricula, there are no new modules relating to the use of new technologies necessary to implement e-health.

New technologies for Health Workforce development

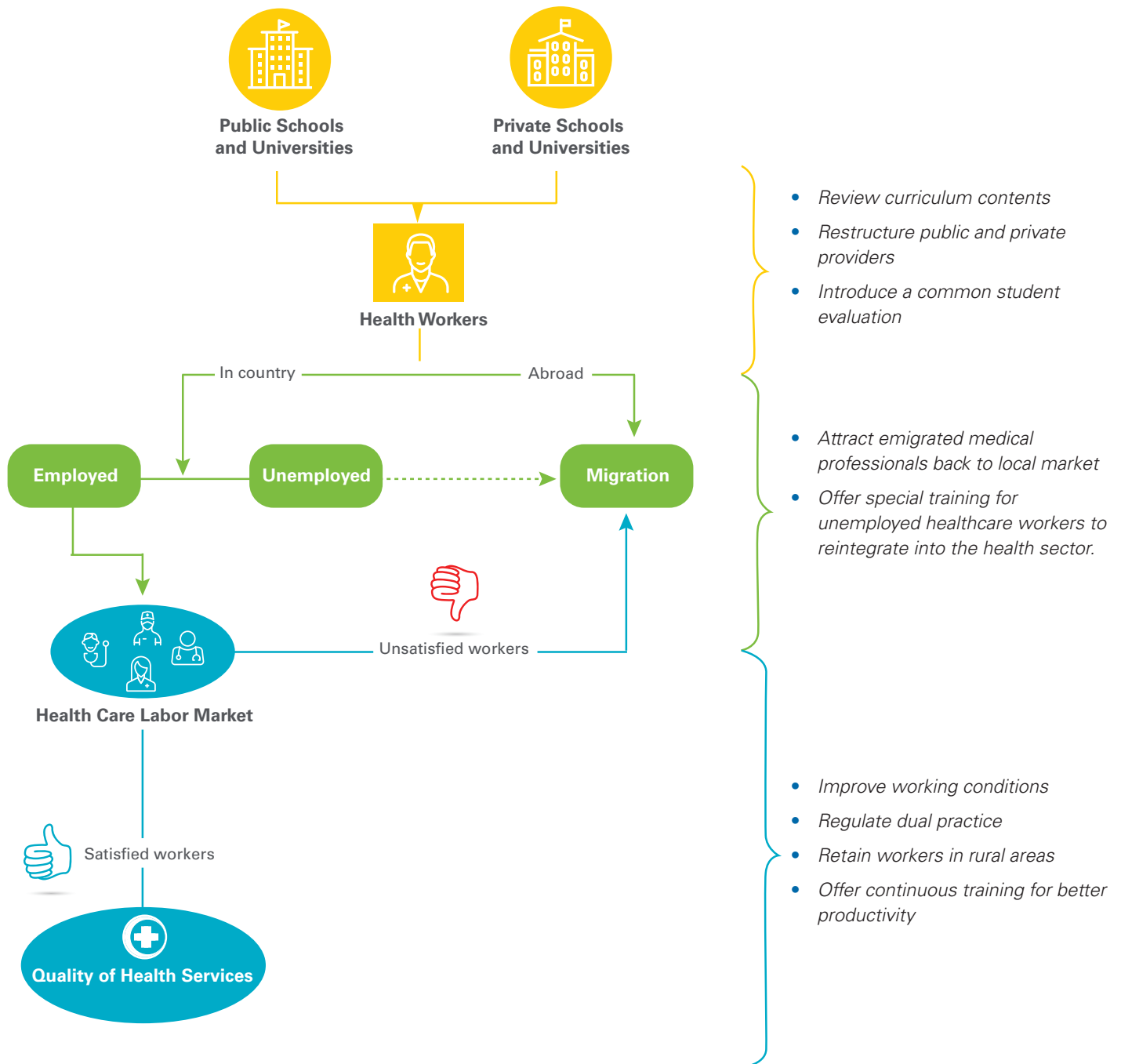
The use of information and communication technologies in medicine is a topic of great interest around the world and not just in Morocco. Indeed, digital health is one of the most hopeful areas for building health systems that can fill the gap in access to care, the shortage of human resources and the spread of universal health coverage. The Ministry of Health identifies “digital health” as a priority intervention in support of the 2025 Health Plan and in continuity with the various sectoral programs launched in recent years.

Morocco has formalized a legal framework to regulate teleconsultation and telemedicine by allowing doctors to practice telemedicine as a full-fledged medical activity that can be reimbursed by social welfare organizations. In his opening speech at a conference on medical technology in Africa, the representative of the Ministry of Health argued that Morocco is planning heavy investment in innovation and experimentation in telemedicine and e-health in all 12 regions of Morocco.²⁶ Such investment would improve access and equity of care at a lower cost and provide better treatment with increased comfort and safety for the patient.

It is assumed that all graduates and healthcare professionals will have the basic professional skills needed to implement the e-health agenda. The significant need for new digital skills for human resources for health (HRH) was observed by Lapão and Dussault.²⁷ This has implications for the education of health workers as well as



(Figure 4) Recommendations for Health Workforce Development in Morocco



the management of health services. Therefore, e-health related competencies in current curricula and continuous training according to the different areas of professional practice should be addressed. In addition, the healthcare workforce should be actively and continuously included in the development and deployment of e-health solutions.²⁸

Conclusion

Over the past ten years, the health sector has undergone several reforms, including scaling up its human resources in order to achieve the sustainable development goals regarding health and to progress towards universal health coverage. However, the country has witnessed considerable population growth and an epidemiological transition that will result in a large elder population needing consistent medical care. Geographical imbalances in the distribution of medical and paramedical healthcare staff is also a barrier. Furthermore, both the Ministry of Health and the WHO agree that health workers do not acquire all the necessary competencies for the quality of services required to meet the needs and expectations of the population. The development of human resource policies seems to be a crucial step to foster the implementation of health services reforms. As the current COVID-19 crisis shows, a robust system for training and certifying medical and paramedical professionals is absolutely indispensable for dealing with health emergencies as well as improving overall healthcare standards.

On this point, it is essential that public and private healthcare education providers adopt a qualifications

framework at the national level that standardize the skills mix needed by the healthcare market. This should include application of national standards across both public and private healthcare training establishments and institutions, and a common student evaluation used in both systems, so that employers can be sure of the abilities of candidates. In order to improve the quality of training, it is imperative to adopt interactive pedagogical strategies, which are shown by research to improve learning outcomes. And to introduce modules for social and professional skills in addition to technical competencies - especially for paramedical staff - to ensure quality and adaptability of healthcare services.

The public healthcare training system could also become more flexible by adopting a modular or partial diploma after some years of training, similar to those offered by the private training system. This allows paramedical staff to enter the market and return to specialize when they have gained experience. The decision making power granted to lesser trained staff should of course be limited. The selection and recruitment methods of both systems must be addressed. The public system needs to increase its placements for paramedical candidates and the private system must increase its recruitment standards. The combined investments of both sectors will produce the new numbers of qualified staff and the skills required of the future healthcare workforce.

Aside from the education component, it would also be wise to improve the structure and complementarity of the public and private systems and to address the disparity between different regions. This situation requires better workforce



planning and improving work conditions within the country and in underprivileged areas. The issue of worker mobility also must be dealt with by allowing public and privately trained paramedical staff to work in both healthcare systems. There shouldn't be a human resource shortage in the public system because of a lack of compensation, and a skills shortage in the private system because of a lack of quality standards. Ultimately, the human resources framework, as a strategic asset in healthcare organizations must be given considerable investment. Paramedical staff should earn starting salaries well above the minimum wage in order to attract talented candidates. Continuing training should also be increased, and certain skills recertified after a number of years, so that the skills in the labor force meet the needs of the population and increase quality of healthcare services, thus strengthening the overall health system.

The opinions expressed in this article are those solely of the author.



Endnotes

- 1 In the context of the Moroccan and most North African healthcare system, medical staff refers to most doctors and specialists, while paramedical staff includes nurses and technicians.
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