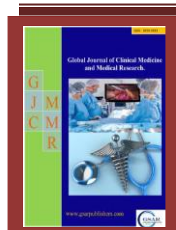

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OCCUPATIONAL HEALTH IN MOROCCO: ISSUES AND RECOMMENDATIONS

BY

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Abstract

Background

Despite the importance of occupational health, it seems to face several obstacles.

Objective

Take stock of occupational health in Morocco by shedding light on the main issues and highlighting recommendations in order to identify some avenues for improvement.

Methods

This is a descriptive cross-sectional observational study conducted among Moroccan occupational physicians using an online self-questionnaire. The analysis was descriptive.

Results

58.1% of physicians worked in the private sector, 69.76% practiced occupational medicine (OM) alongside healthcare medicine, 78.6% practiced OM part-time, and 21.4% full-time. 65.9% of physicians were not satisfied with their remuneration and 66.7% were professionally dissatisfied. 52.40% of physicians thought that OM is improving very slowly in Morocco and 90.5% noted that the concept of "OM" is generally not well assimilated by Moroccan employees and employers. The doctors found that the issues concerning occupational health in Morocco are linked in particular to the legal framework, the organization, and the OM practice including the status of the occupational physicians and to low awareness.

Conclusion

Need to undertake reform of the occupational health and safety system and promote occupational medicine.

***Keywords**: Occupational medicine; OHS; occupational physician, prevention, legislation; issues*

INTRODUCTION

Although work is a source of self-realization and fulfillment at work is a source of economic performance; it can impact negatively both workers' health and business functioning.

According to the International Labour Organization (ILO), every year, 2.78 million workers lose their lives due to occupational accidents (OAs) and occupational diseases (ODs); 2.4 million of these deaths are attributable to ODs and 374 million are victims of non-fatal OAs and ODs (1). In addition to the impact on worker health, the associated direct and indirect economic costs are significant. in Morocco, OAs generate a cost estimated at 4.25% of Moroccan GDP(2).

However, it would be possible to reduce or even avoid the workers' suffering by improving occupational health and safety (OHS) and therefore maintaining a safe and healthy working environment for all, which represents a fundamental element of social justice. Indeed, the Universal Declaration of

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Human Rights enshrines the right to work, health, and social protection. In this sense, the Moroccan labor code (LC) stipulates that everyone has the right to employment adapted to their state of health, their qualifications, and their abilities(3).

Referring to Convention 155, the term health, in relation to work, indicates not merely the absence of disease or infirmity; it also includes the physical and mental elements affecting health which are directly related to safety and hygiene at work.

Thus, an occupational health service according to recommendation no. 112 of the ILO(4) aims to ensure workers' protection against any health hazard which may arise out of their work or the conditions in which it is carried on; contribute towards the workers' physical and mental adjustment, in particular by the adaptation of the work to the workers and their assignment to jobs for which they are suited; and contribute to the establishment and maintenance of the highest possible degree of physical and mental well-being of the workers.

Despite the importance of occupational health (OH) in the workplace and despite Morocco's efforts in the field of OHS, we do not yet have a good quality OHS system, which has pushed us to question the obstacles which oppose the establishment of such system, particularly the development of OH, while knowing that few studies have focused on the subject in our context.

Thus, the objective of this study was to take stock of OH in Morocco while shedding light on the main issues and challenges and making recommendations in order to identify some avenues for improvement.

Methods

Study population and design:

This is a descriptive cross-sectional observational study which was carried out among Moroccan occupational physicians in October 2021.

The study population included Moroccan occupational physicians (OPs) practicing occupational medicine in Morocco. We used a list of emails to recruit them.

Data collection:

The data was collected from an online self-questionnaire in which the objectives of the study were explained. The data was collected while respecting the rules of anonymity.

Questionnaire:

The questionnaire collected data on socio-demographic and professional characteristics, in particular the practice of occupational medicine (sector, modes of practice, seniority), the evolution of occupational medicine, satisfaction with the exercise of this discipline, the issues and the means to be proposed to improve the practice of occupational medicine in Morocco.

Data analysis

Population Description:

Qualitative variables: number/proportion (frequency in %)
Quantitative variables: number, position measurements (mean, median), and dispersion (standard deviation, minimum, maximum). The description was numerical and graphic.

Association measure:

The Chi-square test of independence was used to look for possible associations between categorical variables (the association is statistically significant if the p-value < 0.05).

Software:

SPSS version 26 and Microsoft Excel were used to analyze the data and develop graphs.

Concerning ethical aspects, informed consent was obtained in the form available on the website. The opinion of the ethics committee was not sought in accordance with Moroccan research law; this opinion is applicable to biomedical studies. data anonymity and confidentiality were respected.

Results

Socio-professional characteristics

We collected 43 usable questionnaires; 27 men (62.8%) and 16 women (37.2%) giving an W/M sex ratio of 0.59. 81.4% of participants are married. The average age was 52.55±10.74 years.

85.71% had a university diploma in OH, 9.52% had a specialty degree in occupational medicine through residency, 2.38% had a national specialty degree and 2.38% had a university certificate in OH.

58.1% worked in the private sector, 23.3% worked in the public sector and 18.6% worked in both sectors. The **figure 1** summarizes the data relating to the professional seniority.

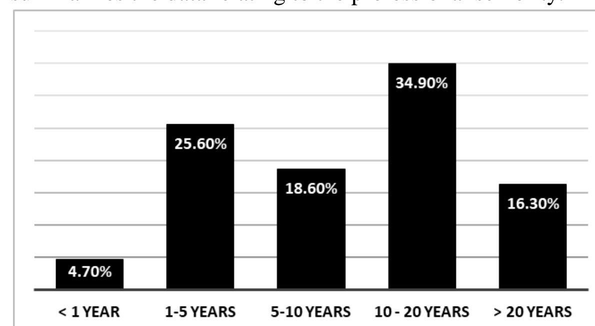

***Figure 1:** professional seniority of participants*

69.76% practiced occupational medicine (OM) alongside healthcare medicine. 78.6% practiced OM part-time and 21.4% full-time. For part-time work, the average hours worked per week was 13.83±10.26 hours (min=1; max=35) with a median of 12 hours. The average remuneration per hour was 418.28±128.58 dirhams (dhs) with a median of 500 dhs (min = 150 dhs; max = 600 dhs). 65.9% of doctors were not satisfied with their remuneration. Concerning job satisfaction; 66.7% were dissatisfied (%valid, n=22) and 33.3% satisfied (%valid, n=11). 52.40% of doctors thought that OM is improving very slowly in Morocco (***figure 2***).

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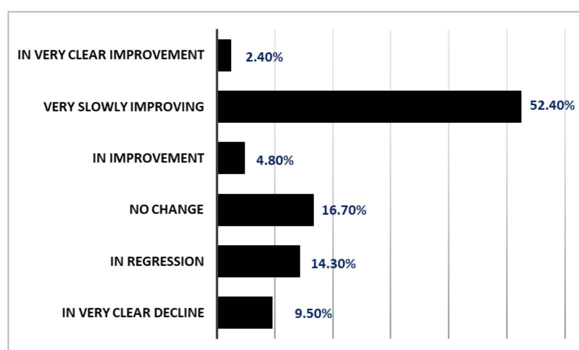

Figure 2: occupational medicine evolution in Morocco according to occupational physicians

88.4% of doctors found that the discipline is not well practiced in Morocco. 53.5% thought that the control of contracts carried out by the national order of doctors does not make it possible to regulate the profession of "occupational physician" while 25.6% thought that this control allows it and 20.9% do not know. 90.5% noted that the concept of "OM" is generally not well assimilated by Moroccan employees and employers.

100% (n= 43) found that the OH nurse is an important element of the multidisciplinary team. Also, 100% (% valid, n=29) thought that the OH nurse must receive specialized training in OH. concerning the number of nurses fixed by regulation, 63.33% thought that this number is insufficient, 23.33% thought the opposite, and 20% found that this number is not applied in practice. Note that 10% found that the nurse must accompany the OP in his missions regardless of the number of employees

Using Pearson's chi-square test, we found a statistically significant association between professional satisfaction and gender (p=0.012), female doctors were rather dissatisfied; and between professional satisfaction and professional seniority (p=0.016), satisfaction was inversely proportional to seniority.

Current issues concerning OHS in Morocco noted by participants:

57.7% of doctors found that the issues concerning OHS in Morocco are legal. The issues that were raised by OPs in the open responses are as follows:

- Legal problems:
  - No regular updating of legislative and regulatory texts
  - Need for application texts
  - Weak application of the laws in force
  - Need to adapt the OHS legal framework to the socioeconomic specificities of the country
  - Very limited legal arsenal in the public service
  - Informal sector not covered by OH
  - Issues relating to the OP's status (status is unclear, the OP is not well protected by law)
- Low OH coverage;
- A weak OHS culture;
- insufficient promotion of the discipline (it is not a priority);
- Lack of knowledge of OM by employers;
- Anarchic practice of OM;
- Lack of an OHS program and policy;
- Insufficient information-communication;
- Lack of means necessary for OM practice;
- Lack of statistics and data collection and analysis mechanism;
- Problem with training;
- Insufficient human resources.

The means that were proposed by the POs to improve the OM practice in Morocco are:

- Legal framework:
  - Improvement of the legislative and regulatory framework by including all sectors;
  - Application of the legal and regulatory system in force;
  - Regular updating of legislative and regulatory texts;
  - Organization of OM practice;
  - Exclusive exercise of OM without associating it with healthcare medicine;
  - Generalization of OM to the public sector and informal sector;
  - Strengthening labor inspection;
  - Establishment of standard pricing for OH services;
  - Improvement of OPs legal status: the legal status must be clearer while strengthening it (independence of exercise, OP protection in particular against dismissal, etc.)
- Creation of an OHS agency in Morocco;
- Valorization of OM;
- Promotion of OHS in Morocco;
- Raising awareness among employees about the benefits of OM and their role to play in prevention and involvement of all stakeholders on the importance of OHS: employers, HR managers, ministries of health and employment, employers, representatives of the most representative professional organizations of employers and trade union organizations of employees, order of doctors …;
- Encouragement of training in OM;
- Improvement of theoretical and practical training and impose continuing training for all those involved in prevention;
- Improvement of OPs working conditions;
- Provision of the OP with the necessary means to accomplish its missions.

Messages from participants

Among the messages sent to decision-makers by our participants regarding the promotion of the occupational physician profession, we find:

- "OM is a gain and not a burden for the company"
- "Make OM a protected medical specialty like all the others"
- "OM is a scientific discipline that must be well practiced"

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- "Ensure the independence and autonomy of the OP"
- "We must give the means to OPs"
- "The wealth of a country is that of its human resources which are the basis of the sustainability of businesses…"
- "Communication around the discipline"
- "OM is a necessity and not a luxury"
- "The human being remains the most important thing to be preserved";
- "Consider OM as a production tool"
- "Investment in human beings, particularly health, is the pillar of development"
- "There must be political will to remedy the current situation"
- "We must value discipline"
- "Raise awareness among employers to implement OHS, while reducing costs through tax incentives…"
- "Regulation. Basic training. Continuing education"
- "We must review the specialty, create and define a status for OPs, particularly specialist physicians through residency, to make this specialty attractive for young doctors (without a clear status, young doctors will not choose it as a specialty)"
- "Legislate, regulate and control".
- "Specify the OP status, extend the OM to all sectors"
- "Create an information and training bulletin"
- "Creation of group occupational health services"
- "OD insurance"

Discussion

Our results show that OH faces several challenges and different issues that hinder its evolution in our country.

A brief overview of the legal system:

In Morocco, OM is a preventive medical discipline whose exercise is governed by the law in force; which is the case in different countries. Morocco is committed to pursuing a policy of occupational risk prevention through the adoption and development of a legal arsenal in matters of hygiene, health and safety at work, including the Moroccan constitution of 2011 (5).

Since 1913, the law has required employers in the private sector to protect workers in the workplace. Thus, the code of obligations and contracts presents an embryonic regulation of the employment contract of which 4 articles have been reserved for OHS (articles 749 to 752) (6). Since then, other texts have followed one another.

In 2004, the entry into force of Law No. 65-99 relating to the LC represented real progress. It repealed all provisions to the contrary or relating to the same subject, including Dahir No. 1-56-093 of 1957 concerning the organization of occupational medical services.

The Moroccan Constitution of 2011 provides for several rights, some of which relate to OHS. Indeed, article 22 stipulates that "*the physical or moral integrity of anyone cannot be harmed, in any circumstances whatsoever and by any person whatsoever, private or public…*". The constitution also shed light on OAs/ODs *"...are within the domain of the law,...labor relations, social security, OAs and ODs... (article 71)*"(5);

The Moroccan legal system is mainly inspired by the French system but it is also based on international standards and conventions. In this sense, Morocco has ratified 65 Conventions, of which 49 are in force, 6 conventions have been denounced, 7 instruments abrogated(7). Morocco has not ratified Convention 155 of 1981 relating to OHS and C161 of 1985 relating to OH services, this could have facilitated the establishment of an OHS system.

It should be noted that the legal texts are different depending on whether it is the private or public sector in favor of the first, the legal framework for OHS is in fact extremely poor and limited in the public sector. Thus, we can distinguish the sector subject to the labor code(3) and the sector subject to the civil service code(8).

A rapidly changing world of work, OAs/ODs and the challenges affecting OHS inevitably raise questions about the capacity of the current legal framework to protect the health and safety of workers in our context.

Issues (non-exhaustive list):

Despite the OH's importance in preserving and promoting the workers' health who represent an important capital and a source of performance; and despite the legal provisions, although insufficient, in force, the OH faces a set of issues and challenges including:

- **Absence of a national system for collecting and analyzing OAs/ODs statistics:**

According to the ILO, the costs of work-related health problems are estimated at 4% of global GDP (even 6% or more in certain countries)(9,10) which is the equivalent of 30.96% of Morocco's GDP(11). In 2022, the UK Labor Force Survey estimated that 185.6 million days were lost due to sickness absence, with an average of 5.7 days lost per worker(12).

12.2 million Moroccans are active workers, 10.7 million of whom are employed and 1.4 million unemployed (2022)(13). 369,635 companies recorded in 2021, compared to 342,1376 in 2020, an annual increase of 8%(14). Jobs declared to the National Social Security Fund in 2022 totaled 3,800,000(14), the informal sector accounts for more than 60% of employment in Morocco(15).

Concerning OAs/ODs statistics, it should be noted that there is a significant under-reporting in our context and that we do not have a national system of collection and statistical analysis making it possible to specifically collect data relating to OAs/ODs and their consequences in Morocco. In 2018, 50,525 OAs, causing 756 deaths, 36,561 cases of permanent disability, and 13,208 cases of temporary disability; OAs generate a cost estimated at 4.25% of Moroccan GDP(2).

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However, given the underreporting, these figures do not represent the real statistics of OAs in Morocco. Which prompts us to ask the following question: What is the real burden represented by OAs and ODs in Morocco?

- **A weak OHS culture:**

90.5% of participants noticed that the concept of "OM" is generally not well assimilated by Moroccan employees and employers, so in practice we note a confusion between OM and healthcare medicine, the role and the OP's missions are either unknown or poorly known, or ambiguous, which makes the OP's exercise even more difficult in our context. Several recent major incident investigations and reports consider weaknesses in safety culture as an underlying problem when trying to establish the causes of incidents(1).

- **Issues related to the legal framework:**

On the one hand, an inhomogeneous legal framework between the public and private sectors: there is in fact a significant disparity in the legal arsenal in these two sectors in favor of the private sector. The legal provisions in the public sector are very limited and there is not yet a framework OHS law including both sectors in our context. On the other hand, the insufficiency, gaps, and non-updating of a certain number of texts. Indeed, the effectiveness of labor laws is likely to decline when the assumptions and contextual conditions that inspired their creation no longer hold(16).

- **Low medical coverage in companies:**

This coverage does not exceed 5%(17), i.e. that 95% of workers do not benefit from OM coverage.

- **Very poorly covered public sector:**

Although it is the kingdom's largest employer, we note a weakness in OH in the public sector. Among the causes, we can mention the poverty of the legal system whose OH's provisions with its components in particular the OP's role are very poor (a few texts, sometimes difficult to find); the particularities of the public service in our context and a weak OHS culture... all this explains the low OH coverage of public service workers but also the difficulties encountered by POs in the exercise of their functions in this sector.

- **Occupational Medical Services Problems:**

The objective of occupational medical services (OMS) is to avoid any deterioration in the workers' health due to their work(3). Their functioning and organization are established by the law in force. However, certain provisions relating to their organization are ambiguous or even unrealistic, such as the obligation to create an independent OMS in companies when they employ at least 50 employees and in any company carrying out work exposing employees to the risk of OD, regardless of its numbers…(3). All these provisions are sometimes difficult to apply and sometimes completely unrealistic given the company's context. It would have been desirable to take the Moroccan context into consideration. Indeed, the demographics of the productive fabric remain largely dominated by microenterprises (88%) while large companies represent only 0.4%(14).

The creation of group OH-services would have been of great support for companies unable to have an independent OMS and a full-time OP. However, despite the entry into force of the LC since 2004, there is a virtual non-existence of group OH-services (just one).

Also, it was stipulated on the one hand that companies subject to the obligation to create an independent OMS must have an OP during all working hours…(3) without taking into consideration the nature and mode of business organization. On the other hand, it is the Moroccan legislator who sets the minimum time that the PO(s) must devote to employees(18) which is a source of ambiguity in practice.

All this partly explains why certain provisions are not easily applicable in practice. It would have been simpler to increase the number of employees requiring an independent OMS, which could resolve the problem of having a full-time PO. For example, France had revised this number and set it at 500 "*a group, company or establishment prevention, and OH service can be established when the number of employees monitored reaches or exceeds 500 employees*"(19).

Improving OHS performance requires careful planning and strategic choices, based on comprehensive information and analysis, when designing and implementing regulatory interventions(20).

- **Very insufficient or even absent multidisciplinarity in occupational health:**

The OH service should be made up of a multidisciplinary team formed according to the nature of the tasks to be performed(21) whose coordination is ensured by the OPs. These teams include, in addition to the OPs, occupational risk prevention workers (ergonomists, occupational hygienists, occupational psychologists, safety engineers, toxicologists, etc.), OH nurses, social workers, and generally any competent person in OH. Staff providing OH services must enjoy complete professional independence from the employer, workers, and their representatives, where they exist(22).

Despite the importance of this multidisciplinarity, OMS in Morocco are rarely multidisciplinary, the OP often carries out his missions alone and sometimes he is assisted by a nurse who is not specialized in OH.

- **Lack of specialist professionals in the field of OHS:**

Doctors specializing in OM, OH nurses, occupational psychologists, occupational hygienists, etc.

- **Occupational physicians:**

The OP plays an important role in prevention and constitutes the Keystone of an OMS, he ensures its functioning and coordinates the multidisciplinary team. Indeed, the LC stipulates that the functioning of OMS is ensured by one or more OPs and that these doctors must hold a diploma attesting

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that they are specialists in OM and must be registered on the roll of the Order of Physicians and be licensed to practice medicine. It also stipulates that the OP must, in all circumstances, carry out its mission in complete freedom and independence, whether towards the employer or the employees; he must only take into account the considerations dictated by his profession. In addition, the exercise of OM must be the subject of a contract between the OP and the employer respecting the rules of professional ethics in application of the LC's provisions(3,23).

It should be noted that physicians specializing in OM through residency are very few in Morocco (only 51), attractiveness is in fact negatively influenced by various factors (discipline unknown to young doctors, unclear status of the OP, no distinction between doctors holding a specialty diploma through residency and doctors holding a university diploma (UD) in OH; anarchic exercise of the discipline, lack of higher education teachers and OM university services, etc.).

On the contrary, UDs in OH are very attractive. Their holders (1553 physicians) can benefit from a procedure called "qualification" to be able to exercise the OM, this voice represented at the time of the entry into force of the LC a solution to the shortage of OPs. According to a Moroccan study, the choice of occupational health through UD was motivated for 93.2% by the absence of the competition for access to the specialty, for 78.7% of doctors in the public service by the obtaining the specialist's status and for 75.8% by the possibility of providing OH services in order to improve their financial situation and only 15.1% had chosen this discipline by vocation(24).

However, OM is a recognized medical discipline in its own right, which has its specificities and which requires specific and in-depth training. Carrying out the duties of an "OP" requires appropriate training. Indeed, certain OP's functions absolutely cannot be fulfilled by other actors(25).

It should be noted that there was only one OM university service in Morocco, and it was not until 2023 that another university service was created. This delay in creating other university services has heavily penalized the development of the discipline in Morocco. In fact, the lack of physicians specializing in OM and teacher-researchers can only negatively affect research and development and even the survival of the discipline.

- **Absence of occupational health nurses:**

Training for occupational health nurses is not provided in Morocco. However, a versatile nurse could not replace the nurse in OH, this professional should have a specific training to be part of the multidisciplinary OH team (identification/analysis of professional risks, carrying out prevention visits, actions on the Workplace…).

In our study, the POs found that the OH nurse is an important element of the multidisciplinary team and that he must receive a specialized professional training in OH. However, the Moroccan legislator did not mention this training. Note that the number of nurses or social workers, who must work full-time in an OMS, is fixed by regulation; this number depends on the nature of the company's activity and the number of employees(26).

- **Parallel exercise of OM with healthcare medicine:**

In practice, we note that the practice of OM is often done in parallel with healthcare medicine and that full-time practice is very low and this is what was noted in our study. In this sense, another Moroccan study found that the OM's exercise was full-time for 12.9% and part-time for 76.6% and it also underlined that the exercise was parallel with healthcare medicine, 69.1% with general medicine and 7.4% with another specialty (pulmonology, cardiology, dermatology, emergency medicine, internal medicine, gastrology, otolaryngology, surgery, ophthalmology, gynecology)(24) which agrees with our results.

- **Absence of an official minimum pricing for OH services**

In our study, most doctors were not satisfied with their remuneration, which is in agreement with the other Moroccan study (72.8%)(24).

- **Insufficiency of scientific research:**

This insufficiency is observed generally in the field of OHS and specifically in the field of OM due in particular to the disorganization from which this discipline suffers in our context and the lack of OH professionals and means to do research.

- **Insufficiency of the Safety and Health Committees (SHC) and of the legal provisions concerning them:**

The SHC is important for the success of a health and safety approach in a company. However, we note that only 17% of companies have an SHC(2).

Also, certain related provisions are missing: election of delegates, term of office, training of SHC members, specification of tasks, particularities of the SHC for companies with a large workforce and/or having several sites.
In the public sector, there is no obligation to have an SHC, its constitution and operation depend solely on the will of those responsible, this will is itself dependent on the awareness' degree regarding OHS which is generally very weak.

- **Insufficient labor inspection system:**

Indeed, control of the application of laws and requirements concerning safety, hygiene, and the working environment must be ensured by an appropriate and sufficient inspection system(27). Labor inspectors should in fact receive adequate training to be able to carry out their missions correctly.

The management of the National Labor Market Observatory highlighted in its 2021 report that doctors and engineers responsible for labor inspection carried out 991 visits and

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issued a total of 94 formal notices and two fines. 24.4% of the establishments visited fall into the industrial sector, followed by the liberal professions and services sector with 22.1% and establishments in the construction sector with 17.4%(28).

- **Heavy weight of informal work accounting for more than 60% of employment in Morocco(15):**

The informal economy represents around a third of the global economy; in low- and lower-middle-income countries, more women than men are in informal employment. In Morocco, the informal sector continues to play a preponderant role in the national economy; national and international institutions estimate that between 60% to 80% of the employed active population carry out informal activity(29).

Recognizing that the informal economy, in all its forms, constitutes a significant obstacle to workers' rights, Recommendation No. 204 recommends taking measures to remedy the dangerous and unhealthy working conditions that often characterize work in the informal economy and promote OHS protection and extend it to employers and workers in the informal economy and that the integrated policy framework should focus on effective OHS policies(30).

- **Delay in the application of Convention 187:**

It concerns the promotional framework for OHS, the ratification of which represents an important step forward in OHS since it recommends promoting the continuous OHS improvement to prevent injuries and deaths attributable to work through the development of a national policy, of a national system, and a national program(31).

- **Changes in the world of work:**

Demographic changes, ways of organizing work, digitalization, the development and diffusion of new technologies (artificial intelligence, robotics, nanotechnologies, etc.), global crises (COVID-19 pandemic), climate change, and natural disasters (earthquakes, etc.). This rapid change in the world of work always has an impact on work and workers that must be taken into consideration. Employers, workers, and government authorities must therefore adapt continuously.

The labor government authorities must adapt in particular by making the necessary revisions and updates in order to improve and contextualize the legal framework allowing the protection of both work and workers, particularly their OHS, since the dynamism of the world of work is always accompanied by changes in working conditions, the emergence of new professional risks and the potential threat of risks with delayed effects whose impacts on physical and mental health are often insufficiently assessed. This dynamism explains the growing need for OH in order to preserve the workers' health.

- **Non-compulsory OD insurance:**

In 2002, Law No. 18-01(32) made insurance compulsory for OAs and ODs. However, the application of this obligation for ODs was canceled in 2003 by law 06-03. Thus, insurance remained compulsory only for OAs.

Recommendations

- Adopt a framework law relating to OHS integrating the different sectors (public, private, informal); this law will lay the foundations for establishing a homogeneous national OHS policy in these sectors;
- Update the legal framework relating to OHS;
- Implement a strategy allowing the continuous improvement of the workers' coverage rate by OH services while making OA/OD insurance compulsory;
- Create a national system for collecting and analyzing statistics, particularly OAs/ODs;
- Develop public-private partnership regarding OHS;
- Opt for multidisciplinary OHS teams and provide them with the necessary equipment and resources;
- Establish minimum official pricing for OH services;
- Strengthen the OHS culture;
- Strengthen labor inspection while improving and harmonizing the labor inspection system;
- Promote quality of life at work in workplaces;
- Develop and promote OM: it is indeed imperative to review the status of OM and the conditions for its exercise, it would already be simple to consider it like other medical specialties by taking into account its particularities and by reviewing the training course. OH cannot develop without the development of OM;
- Clarify the OP's status while strengthening its protection;
- Develop scientific research;
- Improve training (basic and continuing): improve the POs' training; train OH nurses, workers in occupational risk prevention, labor inspectors...and establish a continuing training system;
- Establish Infrastructure for the OH's practice, in particular:
  - Creation of a Moroccan OHS agency whose main mission will be to establish the general architecture of the promotional framework for OHS in accordance with the provisions of C187;
  - Creation of group OH services and providing them with the necessary human resources and equipment: given the nature of the Moroccan economic fabric, certain companies (micro-enterprises++) cannot meet the obligation to have an independent OH service; the creation of this type of group could therefore remedy this problem;
  - Creation of university OM and occupational diseases services and providing them with the necessary human resources and equipment;
- Strengthen Social Dialogue;
- Motivate entreprises: motivations play an important role in running businesses. Socio-legal scholars have characterized enterprise motivations as legal, economic, social, and normative(20,33).

The relatively small sample size presents a limitation of our study. It is therefore necessary to carry out larger studies in the future.

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We adhered to the STROBE guidelines when writing this article.

Conclusion

Occupational health in Morocco faces several issues and challenges at different levels, which pushes us to sound the alarm.

Although it is a very interesting and challenging medical discipline, occupational medicine suffers from disorganization and a problem of specialty status, which negatively impacts its practice and makes it unattractive and little known; this situation calls on us to the need to put in place adequate measures to protect it and advance it.

Legal provisions regarding OHS have undeniably progressed over time. However, efforts must continue, in particular by revising and contextualizing the current legal framework, improving the OHS culture, and developing occupational medicine... A reform of the OHS system is therefore necessary, the guidelines and architecture of which must be carried out in consultation with the professionals and organizations concerned to guarantee its success and sustainability.

The workers' health constitutes one of the main levers of progress in the workplace. It must not be dissociated from the functioning of the workplace. OH undeniably represents a lever for socio-economic development that must be integrated at the highest level of entreprise management as a strategic pillar of performance.

List of abbreviations

ILO: International Labour Organization
OA: Occupational Accident
OD: Occupational Disease
OHS: Occupational Health and Safety
LC: Labor Code
OH: Occupational Health
OP: Occupational Physician
OM: Occupational Medicine
GDP: Gross Domestic Product
OMS: Occupational Medical Service
SHC: Safety and Health Committees
UD: University Diploma

References

1. International Labor Organization. Safety and health at the heart of the future of work - Building on 100 years of experience. 2019.
2. Health and safety at work: essential support for economic and social development. Economic, Social and Environmental Council 116th ordinary session. Morocco. November 26, 2020.
3. Dahir n° 1-03-184 of September 11, 2003, promulgating law n° 65-99 relating to the labor code.
4. R112 - Occupational Health Services Recommendation, 1959 (No. 112) [Internet]. [cité 2 avr 2024]. Disponible sur: https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:55:0::NO::P55_TYPE,P55_LANG,P55_DOCUMENT,P55_NODE:REC,en,R112,/Document
5. Dahir No. 1-11-91 of July 29, 2011 promulgating the text of the Constitution.
6. Dahir of August 12, 1913, forming the Code of Obligations and Contracts.
7. Ratifications of ILO conventions [Internet]. [cité 23 janv 2024]. Disponible sur: https://www.ilo.org/dyn/normlex/fr/f?p=NORMLEXPUB:11200:0::NO::P11200_COUNTRY_ID:102993
8. Dahir No. 1-58-008 of February 24, 1958, relating to the general status of the civil service. Morocco.
9. Hämäläinen P, Takala J, Kiat TB. Global estimates of occupational accidents and work-related illnesses. Workplace safety and health institute. 2017.
10. Takala J, Hämäläinen P, Saarela KL, Yun LY, Manickam K, Jin TW, et al. Global estimates of the burden of injury and illness at work in 2012. J Occup Environ Hyg. 2014;11(5):326-37.
11. World Bank Open Data [Internet]. [cité 21 janv 2024]. World Bank Open Data. Disponible sur: https://data.worldbank.org
12. Sickness absence in the UK labour market - Office for National Statistics [Internet]. [cité 21 janv 2024]. Disponible sur: https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/datasets/sicknessabsenceinthelabourmarket
13. Gauthier C. Site institutionnel du Haut-Commissariat au Plan du Royaume du Maroc. [cité 14 janv 2024]. Information note relating to the main characteristics of the employed active population in 2022. Disponible sur: https://www.hcp.ma/Note-d-information-relative-aux-principales-caracteristiques-de-la-population-active-occupee-en-2022_a3667.html
14. BANK AL-MAGHRIB [Internet]. [cité 22 janv 2024]. Publication of the annual report of the Moroccan TPME Observatory. 2023 edition. Disponible sur: https://www.bkam.ma/Communiques/Communique/2023/Publication-du-rapport-annuel-de-l-observatoire-marocain-de-la-tpme-omtpme
15. Site institutionnel du Haut-Commissariat au Plan du Royaume du Maroc [Internet]. [cité 22 janv 2024]. The predominance of the informal sector is symptomatic of an economy that is struggling to transform itself. Disponible sur: https://www.hcp.ma/Ahmed-Lahlimi-Alami-la-predominance-de-l-informel-est-symptomatique-d-une-economie-qui-peine-a-se-transformer_a3793.html
16. James P, Walters D. Health & safety at work: time for change. Institute of Employment Rights Journal. 2019;2(1):58-85.

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17. World Day for Safety and Health at Work [Internet]. [cité 27 mars 2024]. Disponible sur: https://www.sante.gov.ma/Pages/Communiques.aspx?IDCom=109
18. Order of the Minister of Employment No. 3126-10 of November 22, 2010 setting the minimum time that the occupational physician(s) must devote to employees.
19. Labor Code. France. Edition of February 23, 2024.
20. Bluff E. The regulation of work health and safety. In Drahos P, éditeur. Regulatory Theory [Internet]. ANU Press; 2017 [cité 19 janv 2024]. p. 611-30. (Foundations and applications). Disponible sur: https://www.jstor.org/stable/j.ctt1q1crtm.47
21. Recommendation R171 - Occupational Health Services Recommendation, 1985 (No. 171) [Internet]. [cité 5 avr 2024]. Disponible sur: https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:R171
22. Convention C161 - Occupational Health Services Convention, 1985 (No. 161) [Internet]. [cité 5 avr 2024]. Disponible sur: https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C161
23. Dahir No. 1-15-26 of February 19, 2015, promulgating Law No. 131-13 relating to the practice of medicine.
24. Laraqui O, Laraqui S, Manar N, Ghailan T, Deschamps F, Laraqui CH. Santé et sécurité au travail au Maroc 60 ans après l'indépendance : état actuel, contraintes et perspectives. Archives des Maladies Professionnelles et de l'Environnement. 1 févr 2018;79(1):1-9.
25. Geraut C, Chamoux A. Rapport 22-04. Médecine et santé au travail. Loi du 2 août 2021. Attractivité vers cette discipline. Bulletin de l'Académie Nationale de Médecine. 1 mai 2022;206(5):571-8.
26. Decree No. 2-05-751 of July 13, 2005, taken for the application of the provisions of Articles 315 and 316 of Law No. 65-99 on the Labor Code.
27. Convention C155 - Occupational Safety and Health Convention, 1981 (No. 155) [Internet]. [cité 5 avr 2024]. Disponible sur: https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C155
28. The Labor Market in 2021. Directorate of the National Labor Market Observatory. 2022 edition.
29. Key measures to facilitate integration of informal enterprises into the formal sector and promote decent work in Morocco: Study report [Internet]. 2023 [cité 7 mars 2024]. Disponible sur: http://www.ilo.org/empent/areas/ef/WCMS_890278/lang--fr/index.htm
30. Recommendation R204 - Transition from the Informal to the Formal Economy Recommendation, 2015 (No. 204) [Internet]. [cité 5 avr 2024]. Disponible sur: https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:R204
31. Convention C187 - Promotional Framework for Occupational Safety and Health Convention, 2006 (No. 187) [Internet]. [cité 2 avr 2024]. Disponible sur: https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C187
32. Dahir No. 1-02-179 of July 23, 2002, promulgating Law No. 18-01 relating to compensation for occupational accidents.
33. Kagan R, Gunningham N, Thornton D. Fear, duty, and regulatory compliance: Lessons from three research projects. Explaining Compliance: Business Responses to Regulation. 1 janv 2011;37-58.

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