

The negative externalities associated with workplace accidents and occupational diseases covered by social security in Algeria

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Abstract:

This article aims to examine data related to workplace accidents and occupational diseases in Algeria, taking into account the negative implications for workers, businesses, and social security, facing financial and human challenges. The analysis of statistical data from CNAS will then be undertaken to assess the extent of workplace accidents and occupational diseases as well as the associated costs.

The results highlight an upward trend, emphasizing the effectiveness of occupational risk prevention. This study provides an analysis of the economic and social impact of workplace accidents and occupational diseases in Algeria, along with concrete measures to strengthen prevention and improve health and safety at work in Algeria.

Keywords: Occupational accidents, occupational diseases, CNAS expenditures, Algeria.

JelClassificationCodes: H51, H55, J28.

1. INTRODUCTION

The main objective of economic analysis is to study all costs, regardless of their nature and impact within the company, with the aim of optimizing economic and social gains for social security organizations, businesses, and workers. The World Health Organization (WHO) places great importance on the economic evaluation of costs related to occupational health and safety, advocating the use of cost-benefit analyses to inform intervention or investment decisions. This approach includes creating a cost table related to safety and health to monitor performance trends (WHO, 2004, P09).

The International Labour Organization (ILO) and the WHO join forces to establish strategies for preventing occupational risks, aiming to reduce rates of workplace accidents and associated costs. Global statistics from the ILO underscore the considerable human burden and high economic costs, estimated at 4% of GDP, due to workplace accidents and occupational diseases (ILO, 2005, p17). Direct costs attributable to workplace accidents in the European Union are estimated at 20 billion euros annually, leading to the loss of 149 million working days (AESST, 2002, p01). In regions classified as Established Market Economies, work-related cancer is the primary issue; it is also significant in China, likely due to the use of asbestos and passive smoking at the workplace. Accidents are the most significant component in the area referred to as Other Asia and Islands, with a substantial increase in China. China has the highest rate of respiratory diseases caused by mining work. Diseases of the circulatory system are a major factor in the Economies of Former Socialist Europe and the Middle East Crescent. India and Sub-Saharan Africa suffer, in particular, from communicable diseases related to work, while countries in the Latin America and Caribbean group demonstrate the prevalence of various concerning issues, with cancer and circulatory system diseases leading in mortality. The figures below depict total mortality by world region (ILO, 2005, p06).

In Algeria, the National Social Security Fund (CNAS) plays a crucial role in providing compensation in case of workplace accidents and occupational diseases. Investment in human resources also requires particular attention to occupational risk prevention, aiming to reduce workplace accidents, reconsider social costs, and improve labor productivity efficiency (Abderrahmane, 2023, p848).

The central issue of this study lies in understanding the impacts of costs related to workplace accidents and occupational diseases on social security organizations, businesses, and workers in Algeria. It involves exploring the economic and social implications of these incidents and assessing how occupational risk prevention can contribute to mitigating these impacts. In the context of this research, it has been formulated several hypotheses: Costs associated with workplace accidents and occupational diseases have significant consequences on the economic and social performance of businesses in Algeria. Additionally, investments in occupational risk prevention can play a crucial role in reducing costs related to workplace accidents and in overall improving labor productivity efficiency.

To address these questions, our methodology will be multidimensional. Firstly, a review of existing literature, including reports from the WHO, ILO, and other relevant sources, will establish a solid foundation. Subsequently, the analysis of statistical data provided by the National

Social Security Fund (CNAS) will assess the extent of workplace accidents and occupational diseases as well as the associated costs. This methodological approach aims to provide a comprehensive analysis of costs related to workplace accidents and occupational diseases in Algeria, while offering recommendations to mitigate these costs and improve workplace safety.

2. Workplace accidents and occupational diseases covered by the CNAS

The consistent increase in the number of workplace accidents and occupational diseases in Algeria underscores the urgency of implementing effective measures to prevent and manage these risks. In this context, the economic evaluation of occupational risks emerges as an essential tool, enabling management organizations to make informed decisions to enhance prevention and safety programs. Since the opening of the Algerian economy to foreign markets in the early 1990s, new social laws have been developed to address the risks faced by workers. These laws aim to ensure the protection and well-being of workers in a changing professional environment marked by greater integration into international markets. Economic evaluation of occupational risks is therefore crucial to adapt workplace safety policies and practices to this new economic reality, thereby contributing to reducing incidents and protecting the health of workers in Algeria.

2.1 Workplace accidents

Exposure to occupational risk refers to the likelihood of a workplace accident occurring. Several definitions related to this concept have been influenced by the provisions of labor and social security codes. According to Abadlia F., a workplace accident is defined as any incident that results in a bodily injury attributable to a sudden and external cause, occurring within the context of an employment relationship (Abadlia, 2009, p551). Generally, two categories of accidents are distinguished: those of lesser severity and those considered as serious.

2.2 Work accidents without interruption

These less severe events involve injuries that, although requiring medical care, can be treated by the occupational physician or in a medical facility associated with the company. Often, these incidents do not necessitate a formal report but rather local medical attention. It was characterized by their less severe nature, not necessarily resulting in serious consequences for the health or well-being of the worker. The management of these situations can often be handled internally within the company, in collaboration with affiliated healthcare professionals.

2.3 Workplace accidents with interruption

Severe accidents lead to temporary disability, according to the definition established by (Margossian, 2006, p04). These incidents require periods of work interruption ranging from a few days to several months, with financial compensation proportional to the duration of disability. Accidents considered very serious result in a significant reduction in work capacity, sometimes associated with serious bodily injuries, making it impossible to continue professional activity. Unfortunately, some of these incidents may lead to deaths in the workplace or later complications.

The Labor Code considers a workplace accident as any event occurring to any employed or working person, regardless of the workplace location. The concept of a workplace accident is extended to journeys between the main residence, a stable secondary residence, or any other place regularly visited for family purposes, and the workplace. It also applies to travel between the workplace and places such as a restaurant or any other place where the worker usually takes meals. This coverage extends to the most direct route, unless a detour is justified by regular

carpooling. The definition of a workplace accident encompasses a wide range of situations, from incidents requiring a short period of interruption to those resulting in more severe disability or even tragic consequences such as death. Coverage also extends to job-related travel, highlighting the importance placed on workers' safety in various contexts.

2.4 Occupational diseases

Occupational diseases result from harm to health due to prolonged exposure to various risks, whether it was of physical, chemical, biological, or ergonomic origin. According to the CNAS, these diseases include poisonings, infections, and conditions presumed to be of occupational origin. The lists of presumed occupational origin diseases, the activities likely to cause them, and the duration of exposure to the corresponding risks are established by the social security system (CNAS, 2002, p08), emphasizing the importance of regulations in recognizing these pathologies. Sometimes, the symptoms of the disease only appear after a considerable period. Furthermore, the occupational cause of the disease may be unclear or challenging to identify among multiple potential risks. The criteria for classifying occupational diseases are defined by regulations and follow international standards of the ILO, whose initial tables were created in 1919.

These tables are established by ministerial decrees, regularly updated based on the evolution of medical and toxicological knowledge (Margossian, 2006, p06). The relationship between the workplace and the risk of exposure depends on the sector of activity; for example, a farmer is exposed to chemicals used against insects, while a hospital presents risks related to bacterial contamination. The recognition of occupational diseases is based on specific criteria, including:

- ✓ Inclusion in the pre-established tables of occupational diseases.
- ✓ The relationship with certain specified tasks in the tables corresponding to each disease.
- ✓ The onset of symptoms during the validity period of the waiting period.

To address the inherent complexity of attributing the occupational cause of a disease, social security legislation in Algeria has established medical, technical, and administrative conditions that must be strictly met to benefit from legal recognition as an occupational disease, accompanied by compensation (Bencherif, 2009, p02). This approach aims to establish a precise and objective framework to establish a formal link between the condition in question and the specific conditions of the workplace. According to these provisions, a disease can only be legally recognized as occupational and, therefore, compensated if it meets several strict criteria. Firstly, it must be listed in the official list of pre-established occupational diseases by the Algerian social security system. This list includes various conditions that may be related to the exercise of specific professional activities. Additionally, for recognition, the disease must be directly caused by the tasks indicated in the tables related to each condition. This condition implies a direct correlation between the performed professional activities and the manifestation of the disease. Finally, the disease must manifest itself during the validity of the waiting period established by the prevailing regulations. By establishing these conditions, the legislation aims to ensure a fair and objective approach based on medical and technical criteria. This approach helps clarify the procedures for evaluating and compensating occupational diseases, thus providing adequate protection to workers while avoiding potential disputes.

3. The financial impacts of workplace accidents and occupational diseases on the social security system

The assessment of occupational risks represents a challenging task, and this is where economic analysis makes an essential contribution by enabling occupational health stakeholders to estimate the associated costs. To better understand the economic repercussions of occupational risks, it is crucial to consider the utility of economic evaluation. Costs related to workplace accidents and occupational diseases are often perceived as difficult to assess. However, a portion of the costs associated with occupational risks remains elusive, with a frequent focus on direct costs such as annual insurance premiums, absenteeism, protective equipment, and the operation of prevention services. Indirect costs, also known as hidden or virtual costs, encompass potential loss of revenue and are often two to four times higher than direct costs. The indirect costs resulting from the deterioration of employees' health and safety are the most significant (Senghor, 2003, p07).

Some costs frequently escape economic calculations, such as transportation costs related to damages, costs related to suffering, and impacts on the families of victims of workplace accidents or diseases. Discrete costs incurred by the company at a given time differ from periodic costs, which recur over a specified period (Gosselin, 2005, p04). IRSST distinguishes between quantifiable costs, measurable by an appropriate accounting system, and irreducible costs, impossible to measure monetarily but characterizable by operational indices (IRSST, 2004, p06). Intangible costs escape monetary measurement and lack operational indices to assess their impact on the organization. Direct costs reflect expenses generally recorded in the company's accounting system following accidents, while indirect costs describe losses that are not necessarily accounted for. Considerable efforts have recently been undertaken by international organizations such as the ILO, WHO, and the European Foundation for the Improvement of Living and Working Conditions to revise the accounting of costs related to workplace accidents and occupational diseases.

4. Analysis of expenses related to workplace accidents and occupational diseases in Algeria

In Algeria, knowledge about occupational health remains incomplete, a observation shared by Kaïd-Tlilane N, who emphasizes the lack of studies on specific workplaces, leading to the under-recognition of certain diseases by social security organizations (Kaïd-Tlilane, 2009, p01). This gap is exacerbated by a lack of information and awareness regarding new technologies and substances handled by workers. To address this deficiency, the National Social Security Fund (CNAS) has established a system for monitoring workplace accidents and occupational diseases. Despite the implementation of laws aimed at improving working conditions since 1983, indicators of health and safety at work indicate a continuous deterioration of these conditions in Algeria.

The evolution of workplace accidents in Algeria is closely linked to the country's economic transition, with marked impacts in specific sectors. Specifically, the construction, metallurgy, and public works sectors account for nearly 70% of recorded accidents. These frequent incidents result in significant human and financial losses, impacting both businesses and social security. The healthcare expenses of the CNAS have experienced notable growth in recent years, reaching 132 billion Algerian dinars in 2006. Among these expenses, nearly 15 billion are allocated to the

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categories of "diseases, workplace accidents, and disability" (Bouchelagheme, 2009, p01). For a more detailed perspective, Table 1 provides a comprehensive analysis of the evolution of these expenses related to workplace accidents and occupational diseases in Algeria from 2001 to 2016.

Table 1. Evolution of expenses related to workplace accidents and occupational diseases in Algeria

Year	Amount (DZD)	Percentage Change
2002	7 880 458 737	-
2003	8 491 045 538	+ 7,75%
2004	9 734 701 000	+ 14,64%
2005	10 400 000 000	+ 6,83%
2006	10 610 223 790	+ 2,02%
2007	12 089 839 000*	+ 13,94%
2008	12 801 118 000*	+ 5,88%
2009	13 619 989 000*	+ 6,39%
2010	14 983 157 345	+ 10,05%
2011	17 367 672 407	+ 15,91%
2012	19 394 887 476	+ 11,67%
2013	21 853 682 989	+ 12,67%
2014	24 467 806 150	+ 11,96%
2015	25 625 569 000*	+ 4,73%
2016	27 257 848 000*	+6,36%

Source: Produced by Kandi Through the data(CNAS, 2014) &*(ONS, 2016).

The overall expenditures related to benefits paid for workplace accidents and occupational diseases across the entire national territory have been increasing throughout the entire period, rising from 7 billion DA to 27 billion DA from 2002 to 2016, despite the decrease in the number of deaths and occupational diseases from 2004 onwards. Throughout 2006 and 2007, expenditures experienced a significant increase for the first time, approximately 14%, going from 10 billion DA to over 12 billion DA. For the period from 2010 to 2011, the highest increase, estimated at around 16%, was observed. Between 2011 to 2014, there was a decrease in the rate of evolution of benefits for workplace accidents and occupational diseases by approximately 4%. Firstly, it can be observed that the rate of evolution of these benefits decreased in 2011 compared to 2012. This same rate remained constant between 2012 to 2014. From 2015 to 2016, it is noteworthy that the rate of evolution of expenditures related to workplace accidents and occupational diseases experienced a significant decrease, dropping from 11.96% to 4.73% from 2014 to 2015.

Indeed, among the causes that can be identified regarding the rise in expenditures related to workplace accidents and occupational diseases, the lack of awareness of legislation by many workers leads the insured individual to report their accident or occupational disease to services other than those of occupational medicine, resulting in a significant number of illnesses being treated under health insurance for Social Security. It should be noted that the costs of external care and hospitalization in public establishments and those of social security are not included in these benefits. Lost workdays are considered costs borne by companies that thus lose significant

profit margins and a decline in production and worker productivity due to health impairments from accidents or occupational diseases. This explains that the loss of production capacity for a workplace accident is the product of the number of days of work stoppage multiplied by the average daily wage. The cost of loss of production capacity for an injured worker from a workplace accident increased with an annual growth rate of 13% during the period from 1992 to 2007 (Azri, 2009, p07), rising from nearly 3 thousand constant dinars in 1992 to 22 thousand constant dinars in 2007. The analysis of expenditures related to workplace accidents and occupational diseases in Algeria reveals several trends and contributing factors. Despite a continuous increase in expenditures over the years, it is crucial to examine the annual variations and the underlying reasons for these fluctuations.

- **Growth in expenses despite the decrease in serious incidents**

The study's findings highlight the growth in expenses even after the reduction in the number of deaths and occupational diseases from 2004 onwards. This suggests that other factors, such as an increase in unit treatment costs or changes in reporting practices, may influence expenses.

- **Significant increase in 2006-2007 and 2010-2011**

The substantial increases in 2006-2007 and 2010-2011 require specific attention to identify events or policy changes that could explain these peaks. It may involve new laws, changes in treatment protocols, or other influencing factors.

- **Decrease in the rate of evolution between 2011 to 2014**

The decrease in the rate of evolution of benefits between 2011 to 2014 requires an assessment of the prevention measures implemented or changes in the reporting of occupational accidents. This may also be related to successful awareness programs.

- **Impact of the lack of knowledge of legislation**

Workers' lack of knowledge of legislation and incorrect reporting of occupational accidents or diseases can contribute to increased expenses. Efforts to improve worker awareness and education may be necessary to mitigate these costs.

- **Economic consequences of lost days**

The analysis should focus on the economic consequences of lost days, including the impact on productivity, companies' profit margins, and production capacity. Targeted prevention strategies can be considered to reduce these indirect costs.

- **Evolution of the cost of loss of production capacity**

The progression of the cost of loss of production capacity for injured workers from occupational accidents from 1992 to 2007 needs to be examined in detail. The reasons for this increase, such as healthcare cost inflation, changes in compensation, or other factors, require specific analysis. In the context of expenses related to occupational accidents and diseases in Algeria, an integrated approach would involve considering all relevant aspects of the issue, including economic, social, health, and legislative factors, to gain a comprehensive and nuanced understanding. This allows for the development of more integrated and effective solutions, taking into account the multiple dimensions of the problem.

5. Social Consequences of Workplace Accidents and Occupational Diseases

An in-depth examination of the Algerian context reveals a concerning situation regarding workplace accidents, which are increasingly becoming more significant due to the immediate

social and human consequences it was generated in society. Statistics from CNAS (National Social Security Fund) in 2007 indicate that Algeria recorded no less than 56,000 workplace accidents, with over 32,000 resulting in work stoppages, including 9,862 classified as serious. The number of fatalities reached 983 cases. In addition, there were 986 cases of occupational diseases (Bouchelagheme, 2009, p01). Faced with this alarming situation, the control and assessment of occupational risks emerge as essential tools. Their dual objective is to enhance the social performance of Algerian companies and, at the same time, alleviate the financial burdens on social security. Data analysis also reveals a consistent upward trend in workplace accidents in Algeria, a dynamic closely linked to the evolution of the country's economic and social conditions.

Algeria, now equipped with considerable infrastructure and facilities, provides a conducive environment for harmonious and cross-sectoral development. Its diverse industrial fabric encompasses all branches of activities, with a marked predominance in manufacturing and processing activities. These sectors, given the high number of operational units, endow Algeria with a major role as an economic hub, significantly impacting professional activities and, consequently, the working conditions of employees. The evolution of workplace accidents and occupational diseases, as presented in Table 2, underscores the urgency of effective measures to mitigate these risks. The social and economic implications necessitate a proactive approach, combining awareness, implementation of enhanced safety standards, and improvement of mechanisms for reporting and addressing work-related accidents and illnesses. A coordinated commitment from governmental entities, businesses, and workers is essential to address this complex challenge and ensure a healthy and secure working environment in Algeria.

Table 2. The evolution of workplace accident reports in Algeria

Year	Reported Workplace Accidents	Percentage Change
2002	45 977	+ 7,99 %
2003	49 629	+ 7,35 %
2004	46 399	- 6,58 %
2005	49 643	+ 6,99 %
2006	50 097	+ 1 %
2010	49 898	-
2011	50 137	+ 0,4 %
2012	52 371	+ 4,4 %
2013	57 163	+ 9,1 %
2014	58 179	+ 1,7 %

Source:(CNAS, 2014).

The evolution of workplace accident reports in Algeria from 2002 to 2006 followed a dynamic trajectory. Starting at 45,977 reports in 2002, their number steadily increased to reach 50,097 in 2006, reflecting an overall growth of 9%. However, this progression was not uniform, as a slight decrease of 6.58% was recorded in 2004, where the number of accidents dropped to 46,399 compared to the previous year. This decline was compensated by a significant growth in

2005, with 49,643 reports, marking a 7% increase. The positive trend continued in 2006, albeit more modestly, with a 1% rise. The year 2013 marked a peak in the number of reported workplace accidents, reaching an unprecedented level during the period from 2001 to 2014. This increase may indicate persistent challenges in workplace safety or increased awareness leading to better incident reporting. Table 2, providing a multi-year perspective, confirms this upward trend but also highlights annual variations. The positive percentage changes observed during this period suggest a consistent increase over time, with notable peaks in 2013. The decrease recorded in 2004, though an exception, can be explored to identify contributing factors to this decrease. The absence of data for the years 2007, 2008, and 2009 limits our ability to provide a comprehensive view of this specific period. Validation from external sources, such as the International Labour Organization, would be crucial to ensure the credibility of the available information. This detailed analysis reinforces the need for ongoing monitoring and understanding of trends to inform workplace safety policies, highlighting the importance of adapting to changes in the professional landscape.

Table 3. The evolution of reports on workplace accidents with fatalities in Algeria

Year	Workplace accidents with fatalities	Percentage Change
2002	721	-
2003	723	+0.28%
2004	697	-3.59%
2005	698	+0.14%
2006	667	-4.44%
2007	913*	+36.79%
2008	912*	-0.11%
2010	382	-58.33%
2011	365	-4.45%
2012	363	-0.55%
2013	322	-11.30%
2014	352	+9.32%

Source: Produced by Kandi Through the data (CNAS, 2014) & (ILOSTAT, 2017).

The evolution of workplace accident reports in Algeria from 2002 to 2006 experienced a significant progression, increasing from 45,977 to 50,097. There was a slight decrease in 2004, recording 46,399 accidents, representing a 6.58% decline compared to 2003. This decrease was followed by a marked increase in 2005, with 49,643 reported accidents, reflecting a growth of 7%. The upward trend continued in 2006, with a modest increase of 1%. However, the year 2013 marked an unprecedented peak during the period from 2001 to 2014. Table 3, providing an overview of the evolution of workplace accident reports in Algeria over several years, reveals a general upward trend punctuated by annual fluctuations. The positive percentage changes recorded from 2002 to 2014 suggest consistent growth over time, with notable peaks in 2013. The decrease observed in 2004 constitutes an exception to this upward trend.

Analyzing the percentage changes, a significant fluctuation is observed over the years. The 6.58% decrease in 2004 can be interpreted as a positive response to prevention efforts or

improved working conditions. In contrast, the 7% increase in 2005 and the continued growth in 2006 could indicate persistent challenges in workplace safety. The year 2013, marked by an exceptionally high percentage change, requires examination to understand the underlying factors contributing to this increase. The data presented in the table highlight the need to adopt flexible and adaptive approaches when formulating workplace safety policies. It is essential to remain vigilant in the face of specific trends observed during each period. This flexibility would better address annual fluctuations in workplace accident reports and adjust prevention measures based on the particular challenges encountered. A careful analysis of percentage changes reveals significant variations from year to year, emphasizing the importance of a proactive and tailored approach to ensure long-term worker safety.

Table 4. The evolution of reported occupational diseases in Algeria

Year	Reported Workplace Accidents	Percentage Change
2002	898	-
2003	1 000	+11.25%
2004	847	-15.30%
2005	853	+0.71%
2006	941	+10.31%
2010	514	-45.41%
2011	521	+1.36%
2012	516	-0.96%
2013	640	+24.03%
2014	638	-0.31%

Source: (CNAS, 2014).

The evolution of reported cases of occupational diseases in Algeria, as presented in Table 4, provides an interesting perspective on the temporal dynamics of these incidents during the period 2002-2014. This analysis highlights significant trends and allows for relevant observations on occupational health in the Algerian context. In 2003, the number of reported occupational diseases increased substantially by 11.25%, reaching 1,000 cases. However, this growth was quickly followed by a significant contraction in 2004, with a decrease of 15.30% compared to the previous year, bringing the total to 847 cases. In 2005, although the number of reports slightly increased with a 0.71% rise, the upward trend was relatively modest. From 2006, a period of more sustained growth began, with an increase of 10.31% compared to the previous year, bringing the total to 941 cases. The following years witnessed relative stability, with marginal fluctuations and a slight decrease in 2012 (-0.96%). The year 2013 stood out with an exceptionally strong growth of 24.03%, propelling the number of reports to 640 cases. This peak may indicate an increase in awareness, better identification of occupational diseases, or changes in reporting practices. In 2014, the number of reported occupational diseases marginally decreased by 0.31%, remaining generally stable compared to the previous year.

6. Prevention of Workplace Accidents and Occupational Diseases

The prevention of workplace accidents and occupational diseases is of crucial importance

for occupational health and safety. The fundamental objective of this strategic approach is to anticipate, reduce, or even eliminate professional risks that could compromise the health of workers, while limiting negative repercussions on economic and social levels. It also aims to minimize the financial and human losses associated with these accidents and diseases, thereby impacting the economic viability of companies, necessitating economic restitution for workers' health, and influencing their socio-professional lives. This compelling reality now urges companies to actively integrate the prevention of health-related risks for workers as well as the improvement of working conditions. The benefits of prevention are doubly advantageous. Firstly, it results in significant economic gains for insurance companies operating in the field of prevention. Secondly, prevention contributes to reducing costs associated with the management of professional risks. This observation reinforces the importance for companies to adopt effective preventive strategies to ensure their economic viability and protect the health of their employees (Guiol, 2007, p23).

Workplace health represents one of the major challenges of prevention and health promotion (Toussaint, 2006, p33). This statement highlights the need to establish policies and practices conducive to health within professional environments, with a positive impact on the well-being of workers. It is worth noting that the implementation of a prevention approach in a company requires knowledge of the professional risks to which workers may be exposed. Thus, the identification, assessment, and proactive management of these risks become crucial elements in the context of a comprehensive strategy for preserving health and safety in the workplace. The prevention of workplace accidents and occupational diseases generates substantial economic benefits. Costs related to compensation, healthcare, and sick leave decrease considerably. Moreover, companies investing in prevention programs often observe an improvement in productivity, a reduction in financial losses, and strengthen their reputation as a responsible employer.

7. CONCLUSION

The detailed analysis of statistics from the National Social Insurance Fund has highlighted a gradual increase in reported workplace accidents and occupational diseases, characterized by annual fluctuations and observed peaks over time. Concurrently, this analysis has clearly demonstrated the utility of occupational risk prevention to reduce both the number and associated costs of workplace accidents and occupational diseases. It has become evident that favorable working conditions not only enhance the productivity and profitability of workers but also encourage companies to adopt preventive measures rather than bear the expenses related to economic restitution. In this perspective, strengthening priority actions in terms of health and safety at work becomes imperative, requiring substantial investments in appropriate material, financial, and human resources. The design of prevention programs must be dynamic, adapting to the evolving nature of work organizations and new technologies. The integration of prevention into labor relations has become a necessity, fully embedded in the overall strategy of each company. A prevention policy, based on various interactive measures, proves crucial for the effective management of the consequences of occupational risks.

To continually improve workplace safety in Algeria, several recommendations emerge from the study. Firstly, it is crucial to encourage companies to invest more in occupational risk

prevention programs. These investments aim not only to reduce costs related to workplace accidents but also to enhance productivity and strengthen corporate social responsibility. This proactive approach could be supported by tax incentives and revised legislation reinforcing workplace safety standards. Awareness and training play a crucial role, requiring intersectoral initiatives involving the public and private sectors, insurers, and healthcare professionals. Concurrently, the promotion of best practices and regular evaluation of prevention programs will contribute to establishing a culture of prevention in Algerian companies.

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