

Prevention as a Factor of Economic Sustainability of Workplace Accident Insurance Programs

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ABSTRACT

In the scientific article, the positive impact of preventive accident insurance programs in the workplace is studied. Such programs are the most common and strategically significant type of social security in many countries. Insurance programs often include medical services, vocational rehabilitation, and benefits for injured workers or family members of deceased breadwinners. However, considering current trends, preventive measures aimed at stimulating the improvement of working conditions and occupational safety, active support, and funding of informational and preventive measures remain relevant.

The article provides an overview of the use of preventive measures in insurance programs and suggests improving their effectiveness in enhancing working conditions. Firstly, it is proposed to create a unified information database for monitoring insurance contracts, controlling insurance flows on an industry-specific basis, for each enterprise and specific profession, as well as supervising the completeness and quality of preventive measures and the timely provision of compensation to injured workers and rehabilitation measures. Secondly, within the framework of assessing insurance risk, it is suggested to implement comprehensive assessment of occupational risk through the insurance fund. The results of the occupational risk assessment will serve as the basis for applying a two-component insurance tariff, taking into account a surcharge if the working conditions are unsafe. Thirdly, it is proposed to provide occupational health and safety training through insurance financing.

Keywords: safe work, risk-oriented approach, insurance, industrial accident, prevention.

1. Introduction

Accident insurance in the workplace is an important tool for protecting workers and enterprises from potential risks that can lead to financial losses due to accidents. In this article, the term «accident insurance programs in the workplace and occupational diseases» encompasses social insurance programs, accident insurance, employer's liability insurance, employee compensation programs, workplace accident insurance programs,

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and others. In Kazakhstan, a unique model is implemented, established by legislation as mandatory insurance for workers against accidents that occur during the performance of their work (official) duties, incorporating the activities of commercial insurance companies.

An insurance program becomes effective when it fulfills all inherent functions: compensatory, rehabilitative, and preventive. Such insurance programs are equally necessary for workers, employers, and the government. They have a positive impact on the workers' quality of life and can contribute to maintaining the stability of labor relations. From the perspective of managing occupational risks, the preventive function of insurance is the most effective, as its implementation ensures the minimization of losses. Prevention is a proactive approach to risk management and the prevention of workplace accidents. It encompasses a wide range of measures and actions aimed at preventing hazards, training employees in safety rules, and analyzing and eliminating potential threats.

This article examines the role of prevention in improving workplace safety and minimizing risks, as well as its impact on the economic sustainability of insurance programs. To assess and control the effectiveness of workplace accident insurance programs, transparency in the operations of insurance companies is necessary, achieved through the formation of a digital contract database. This information base will allow the analysis of the volume and structure of insurance premium and payout cash flows, the amount of funds allocated for prevention in each industry, company, and insurance company. Additionally, the availability of data on compensation payments and rehabilitation expenses will create conditions for evaluating satisfaction with insurance coverage. Thus, conditions will be created for a more accurate assessment of the effectiveness of insurance programs and preventive measures, among others.

The aim of this scientific article is to investigate insurance flows, particularly in terms of funding preventive measures, their effectiveness, and their impact on the economic sustainability of insurance programs. The main focus will be on analyzing their potential in reducing the risk of accidents, which, in turn, can lead to cost savings in insurance and provide a more stable financial position for companies.

The objectives of the scientific article are as follows:

- To study the theoretical foundations of preventive measures and their application in the field of insurance against accidents in the workplace.
- To analyze statistical data and research related to the implementation of preventive measures in the context of insurance against accidents in the workplace, aiming to determine the correlation between prevention and the economic sustainability of insurance programs.
- To formulate recommendations for insurance companies and enterprises on the implementation of preventive measures to enhance the economic sustainability of insurance programs against accidents in the workplace.
- To discuss limitations and potential directions for future research in the field of prevention and its impact on insurance against accidents in the workplace, with the aim of expanding our knowledge and understanding of this topic.

2. Literature review

Currently, there are sufficient amount scientific studies dedicated to examining the challenges of providing compensation under mandatory social insurance for accidents and occupational diseases. It is noteworthy that these scientific research studies were conducted by representatives from Harvard University, the School of Public Health, the World Health Organization, and the World Bank, namely Christopher J.L. Murray and Alan D. Lopez (Alan D, etc., 1996).

Overview analysis of specialized data sources shows the relevance of the scientific subject. Since the essence of insurance activity, principles, stages of development and legal regulation were considered in the works of the following scientists Eisenstein (Eisenstein H.A., 1912), K.A. Grave (K.A. Grave, etc., 19606), E.Yu. Gracheva, K.K. Yeshimov D.A., Zhuyrikov, L.N. Klochenko, N.V. Kornilova, N.V. Logvin, .A. Luntz, N.B. Mynbaeva, A.S. Pigolkina, V.K. Reicher, M.B. Smirnov, Y. Fogelson, A.I. Khudyakov, A.K. Shikhov and others.

Certain aspects of the theory and practice of accident insurance are devoted to the works of S.S. Alekseev, B.T. Bazylev, L.K. Bobrov, S.Y. Golovin, J.M. Narikbaev, E.N. Nurgalieva, and others.

Researchers working in various scientific and technical fields are still striving to develop a theory of accident etiology that would help identify, isolate, and consequently eliminate factors contributing to the occurrence of accidents or directly causing them. In this field, the theory of accident causation has made significant contributions and has found reflection in the research conducted by Abdul Rauf.

3. Methodology

This study employed a combined research approach that incorporated both qualitative and quantitative methods. Qualitative methods were utilized to gain a deeper understanding of the mechanisms and processes related to prevention in the workplace. This included conducting interviews with experts, analyzing documents and statistical data. On the other hand, quantitative methods were applied to quantitatively assess the effectiveness of preventive measures and their impact on the economic sustainability of insurance programs. This involved statistical analysis of data to derive meaningful insights. To gather data, a literature review of scientific publications, reports, and statistical data related to workplace prevention and accident insurance programs was conducted. Additionally, semi-structured interviews were conducted with representatives of organizations involved in workplace prevention and insurance. The interviews included questions about the implemented preventive measures, their effectiveness, and the economic sustainability of insurance programs.

4. Analysis

The continuous preventive identification of hazards begins at the conceptual design stage of any workplace, facility, product, or organization. It should continue as the project is further detailed and then transition into the implementation stage, ultimately

becoming an ongoing process throughout the entire life cycle to account for current, changing, and future operations (ISO 45001:2019, "Occupational health and safety management systems - Requirements with guidance for use," Annex A.6.1.2, Hazard identification and assessment of risks and opportunities).

The National Occupational Safety System, as part of the state monitoring of working conditions, includes the following measures aimed at preventing occupational injuries.:

- 1) Conducting training for managers and individuals responsible for ensuring safety and occupational health.
- 2) Conducting professional risk assessment (one of the components of occupational risk management in the occupational health and safety management system).
- 3) Control and monitoring of professional risk (one of the components of occupational risk management in the occupational health and safety management system), monitoring the state of production factors that affect the dynamics of accidents, using a risk-oriented approach.

Additionally, a separate measure aimed at preventing occupational diseases is the implementation of periodic medical examinations (within the framework of state regulation in the field of occupational health and safety).

Among the preventive measures taken by the employer, the following measures can be listed, directly affecting the prevention of occupational injuries:

- 1) The presence of an internal control system for safety and occupational health and a corresponding department (for enterprises with a workforce of over 50 people);
- 2) Equipping with comprehensive security systems (photo/video surveillance, access control system to production facilities, etc.);
- 3) Modernization of certain parts or individual elements of the core assets that directly affect the level of risk of occupational injuries.

Based on expert analysis, the most common causes of workplace accidents have been identified as follows:

- 1) The absence of clear procedures for responsible personnel regarding training and briefing on occupational health and safety, as well as insufficient awareness of the injured employee about occupational safety and health measures.
- 2) Imperfections in the state control and monitoring system of working conditions, as well as an ineffective internal system for managing occupational risks.

In this regard, when determining the need for financing preventive measures to prevent and reduce the level of occupational injuries, the following measures are included as the main ones:

1. Training of managers and individuals responsible for ensuring safety and occupational health, as well as checking the quality of their training (proposed additional measure within the framework of state control and monitoring of working conditions).
2. Conducting an assessment of occupational risks and integrating the results into a centralized digital system for managing occupational risks (proposed additional measure within the framework of state control and monitoring of working conditions aimed at identifying enterprises with potentially high levels of occupational risk at all levels of management (enterprise/region/republic), followed by the development of recommendations for on-site inspections.

The potential amount of funds required to finance the training of managers and individuals responsible for ensuring occupational health and safety, from a portion of the insurance premium paid within the framework of the State Social Insurance Fund, was calculated based on:

□ According to the 2021 data from the State Statistical Committee, the total number of managers and individuals responsible for ensuring occupational health and safety is 609 people.

□ The estimated average cost of occupational health and safety training per person for 2022 is 66,000 tenge (Kazakhstani currency) for a duration of 40 hours.

□ Taking into account the requirement of undergoing training at least once every 3 years, the total cost was divided into three periods, resulting in a sum of 13,398,000 tenge.

The potential amount of funds required to finance the assessment of occupational risks (in the event of an accident), from a portion of the insurance premium paid within the framework of the State Social Insurance Fund, was calculated based on the following:

The total number of registered accidents in 2021, according to the State Statistical Committee, is 2,133 cases.

The potential average number of workers, broken down by professions and economic activities (according to the mentioned accidents), is 155 worker equivalents (a calculated average determined through expert analysis based on the breakdown of registered accidents by economic activities and the average statistical number of workers in those specific activities).

The estimated average cost of the occupational risk assessment service for 2022 is 20,800 tenge.

Based on these figures, the total amount calculated for financing the occupational risk assessment is 6,876,792,000 tenge.

The total amount required to finance priority preventive measures is 6,890,190,000 tenge, which represents 10.3% of the net amount of insurance premiums (based on the National Bank's data as of January 1, 2023, which amounts to 66,598,088,000 tenge).

The potential amount of funds required to finance rehabilitation measures from a portion of the insurance premium paid within the framework of the State Social Insurance Fund was calculated based on the total number of recipients of insurance benefits from insurance organizations, which is 3,077 individuals (according to official data from the National Bank as of January 1, 2023). The calculation takes into account the limitation of 250 MCI (Monthly Calculation Index), which amounts to 765,750 tenge. The total amount calculated for rehabilitation measures is 2,356,212,750 tenge, equivalent to 3.5% of the net amount of insurance premiums (based on the National Bank's data as of January 1, 2023, which amounts to 66,598,088,000 tenge).

5. Results

Insurance allows you to reduce the risks of individual enterprises by combining risks into a program that otherwise you would have to deal with yourself. Insurance programs against industrial accidents and occupational diseases are effective from the point of view of the theory of the lowest social costs, since insurance removes the uncertainty factor of the environment, prevention allows you to prevent and limit the risk.

Occupational accident insurance solves this problem, since otherwise the use of other solutions, for example, through the judicial system, costs society significantly more.

Insurance programs for workplace accidents and occupational diseases perform three interconnected functions that form a unified mechanism aimed at ensuring workplace safety. Firstly, they contribute to (or should contribute to) the development of preventive measures to reduce the number of workplace accidents and the incidence of occupational diseases. Secondly, if an accident or occupational disease has already occurred, they support the rehabilitation process aimed at enabling the affected individuals to return to work as soon as possible or find alternative employment if necessary. Thirdly, they also provide compensation for the losses that workers have incurred due to illness or disability. The prevention of accidents is effective when it results in a reduction of insurance claims and decreases the compensation payments made by employers, the government, and insurers. Implementing effective prevention programs contributes to reducing the frequency and severity of workplace accidents. This enables insurance companies to mitigate risks and losses, leading to lower insurance premiums for businesses. A safer work environment helps to reduce financial expenditures on insurance and enhances the economic efficiency of the business.

The existing system of insurance against occupational accidents in Kazakhstan does not legislatively provide for the allocation of insurance premiums for compensation, rehabilitation, and prevention. However, insurance companies operating in this segment of the insurance market propose allocating 12% of the paid insurance premium for prevention and rehabilitation, with 6% allocated to each category. Considering the role and significance of prevention, it is suggested to establish a ratio of 10:2, with a larger portion directed towards accident prevention measures. This can include expenses related to assessing professional risks, safety and occupational health training, certification of specialists, technical expertise of occupational risk management systems, and other related expenditures. The responsibility for providing protective equipment primarily lies with the employer in accordance with national legislation. The remaining 2% of the funds will be allocated to rehabilitation, as these expenses are covered by the guaranteed social health insurance package.

Worldwide practice of insurance against accidents reflects the interest in financing preventive measures (Figure 1).

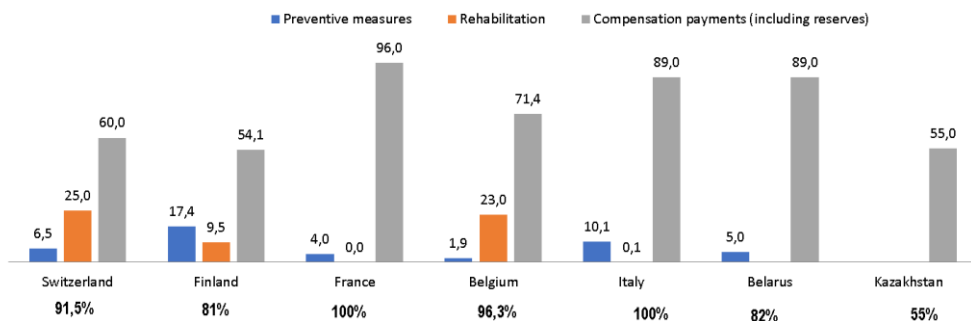


Figure 1. Structure of accident insurance costs

* Source: compared by authors

Due to the lack of detailed information on the distribution of financial flows (state budget, social transfers, funds from the Social Health Insurance Fund, private insurance companies, and employer contributions), it is not possible to provide an accurate assessment of the funding volume for rehabilitation and prevention.

The absence of centralized information on insurance contracts concluded makes it impossible to conduct a comparative analysis of the effectiveness of insurance coverage across industries, companies, and contracts, which poses challenges in monitoring their implementation. A unified information database would enable tracking of all insurance contracts, determining the extent of insurance coverage, policy durations, and other significant conditions. This would ensure transparency of financial flows and business processes and fully protect the interests of policyholders.

In many countries around the world, innovative approaches are being implemented to create a unified information database for monitoring insurance processes. For example, in Sweden, the "Allbalkong" system has been developed, which allows for the recording and control of insurance contracts for each enterprise. This system enables the tracking of insurance flows and risk management based on data about specific objects. With a unified information database, insurance companies have more accurate data to make decisions regarding the provision of insurance services based on the evaluation of insurance effectiveness and the measures stipulated in the contract.

Another example of international experience can be found in the Netherlands, where the transport insurance industry has implemented the "CVDM" (Centrum voor Diamant en Edelmetaal) system. This system ensures the monitoring of insurance contracts. With a unified information database, there is access to detailed data about each enterprise, profession, and specific case, allowing for effective risk management and the implementation of more efficient measures to reduce risks.

An important aspect of international experience is the supervision of the quality of insurance coverage provided to injured workers. For example, in Australia, the "WorkCover" system operates, which ensures supervision and control over insurance compensation to workers injured in workplace accidents. This system provides access to a unified information database where the compensation process and the provision of medical assistance are tracked. Thanks to this, the supervisory organization can guarantee timely and fair insurance protection to workers.

One interesting approach that can be implemented within the framework of effective insurance coverage for workplace accidents is the widespread assessment of occupational risk through an insurance fund. The idea is to use funds from the insurance fund to conduct an independent assessment of the occupational risk of different professions or industries as one of the preventive measures.

Let's take a closer look at the international experience of implementing such systems in several countries.

In the United Kingdom, there is a project called the "Health and Safety Laboratory" (HSL), which is funded through insurance contributions. HSL conducts research, collects data on workplace safety and health, and analyzes occupational risks. The project also develops measures to prevent accidents and provides funding for compensation and rehabilitation for injured workers.

In Germany, there is a system called "Berufsgenossenschaften," which combines industry-specific funds. Employers contribute insurance premiums to these funds, which are then used for assessing and preventing occupational risks. "Berufsgenossenschaften" conducts inspections at workplaces, develops preventive measures for ensuring safety and health, and also provides funding for compensation and rehabilitation for injured workers.

These examples demonstrate how different countries have implemented systems that focus on research, prevention, and compensation in the field of occupational safety and health. By funding such initiatives through insurance contributions or industry-specific funds, they aim to create safer working environments and provide support to workers who have been affected by accidents.

In Germany, there is a mandatory insurance system for workplace accidents. Part of the insurance premium paid by employers is directed towards financing occupational safety and health training. This allows for the provision of free or subsidized educational programs for workers in various industries. The training programs cover topics such as workplace safety and health fundamentals, professional skills, handling hazardous substances, and more.

Canada has the "WorkSafeBC" system, which assesses occupational risks and ensures safety and health in workplaces. The funding for the fund comes from insurance premiums, and its tasks include providing safety training and workshops, conducting inspections at workplaces, compensating injured workers, and facilitating rehabilitation.

These examples highlight how Germany and Canada have established systems that focus on mandatory insurance for workplace accidents and allocate resources towards education, risk assessment, safety training, and compensation. These initiatives aim to enhance occupational safety and health standards and provide support to workers in case of accidents.

In Canada, there is a workplace accident insurance system known as the "Workplace Safety and Insurance Board" (WSIB). A portion of the funds obtained from insurance premiums is allocated towards financing occupational safety and health education. WSIB provides funding for conducting training sessions, seminars, and courses on workplace safety and health. Workers and employers can access educational programs aimed at risk reduction and preventive measures.

Switzerland has the "SUVA" system, which is responsible for assessing and controlling occupational risks. Funding for the fund comes from insurance premiums, and "SUVA" conducts research, develops safety measures, provides compensation, and facilitates the rehabilitation of injured workers.

In the Netherlands, there is the National Institute for Health and Work (Nationaal Instituut voor Gezondheidszorg en Milieu), which conducts research and assesses occupational risks. Funding is provided through insurance premiums, and the institute provides recommendations and resources for risk prevention and supporting worker safety.

These examples demonstrate how Canada, Switzerland, and the Netherlands have implemented systems that involve financing education and training, risk assessment and control, compensation, and rehabilitation. These initiatives contribute to improving workplace safety, reducing risks, and supporting the well-being of workers.

In the Netherlands, insurance companies that provide coverage for workplace accidents offer their clients funding for occupational health and safety training. The training programs cover topics such as accident prevention, ergonomics, safety when working with hazardous substances, and other aspects of occupational health and safety. This allows employees to acquire the necessary knowledge and skills to work in a safe environment.

In Sweden, insurance companies that offer coverage for workplace accidents finance training and consulting in the field of occupational health and safety. Companies provide their clients with free or discounted educational programs, including seminars, trainings, courses, and consultations. The goal of these programs is to increase awareness of workplace risks, teach safe working methods, and contribute to the creation of a safe and healthy work environment.

In Australia, there is a workers' compensation system known as "WorkCover" that provides coverage for workplace accidents. A portion of the insurance premiums paid by employers is allocated to finance occupational health and safety training. "WorkCover" offers funding for conducting trainings, seminars, and professional development programs. Employers and workers can receive support and educational resources to enhance workplace safety and health.

Considering the international experience of implementing comprehensive professional risk assessment through insurance funds allows us to see a variety of approaches to this issue. Examples from the United Kingdom, Germany, Canada, Switzerland, and the Netherlands demonstrate successful implementation of such assessment systems, which contribute to improving the safety and health of workers, as well as providing compensation and rehabilitation for the injured. Similar mechanisms can be adapted and implemented in national insurance risk assessment systems with the aim of enhancing workplace safety and protecting workers' rights.

The authors of the article discuss methods and mechanisms that can be used to create a unified information database for monitoring insurance contract agreements, controlling insurance flows by industry, each individual enterprise, specific profession, as well as supervising the timely provision of compensation to the injured worker and the provision of rehabilitation measures:

1. Data standardization: Developing universally accepted standards and data formats for information exchange between insurance companies, enterprises, regulatory bodies, and other stakeholders. This will ensure consistency and compatibility of information, which is the foundation for creating a unified information database.
2. Centralized platform: Establishing a centralized platform where data on insurance contracts, insurance flows, enterprises, professions, compensations, and rehabilitation measures can be collected, stored, and processed. This platform should be accessible to all stakeholders and ensure the security and confidentiality of data.
3. Utilizing modern information technologies: Applying modern information technologies such as cloud solutions, big data analytics, artificial intelligence, and blockchain to effectively process large volumes of data, provide fast access to information, and enhance data analysis accuracy.
4. Process automation: Implementing automated systems that enable real-time data collection and processing. This allows for monitoring and controlling insurance flows, as well as ensuring timely compensation and provision of rehabilitation measures.

5. Collaboration and data sharing: Establishing mechanisms for collaboration and data sharing among insurance companies, enterprises, regulatory bodies, and other stakeholders. This improves the accuracy and completeness of information and helps prevent potential duplications and errors.

6. Legislative support: Creating legislative norms and standards that require insurance companies and other market participants to provide information in the unified information database. This provides the legal basis for the establishment and functioning of such a database..

All of these approaches and mechanisms should be considered as a whole and adapted to the specific nature of the insurance industry to ensure the effective implementation and functioning of a unified information database.

Risk assessment plays a crucial role in the insurance field, and foreign countries actively employ innovative methods for more accurate risk determination and management. One effective approach is the comprehensive assessment of professional risk through an insurance fund. Let's consider examples of international experience in implementing such a risk assessment system.

Comprehensive assessment of professional risk can be beneficial for an insurance company in several aspects. Firstly, it allows for a more accurate risk assessment for each specific profession or industry. Traditional methods of risk assessment may be insufficiently flexible and inapplicable to some new professions or industries. Conducting independent assessment of professional risk using funds from an insurance fund enables consideration of the specific characteristics of each profession and provides more accurate data for calculating insurance premiums.

Secondly, widespread assessment of professional risk enables insurance companies to identify and analyze new trends and risk factors. Through accumulated statistics and data obtained from assessments, insurance companies can identify and analyze changes in risk for different professions. This can help companies respond more effectively to changing conditions and introduce new insurance products or policy terms.

The third aspect is related to providing additional support for clients. Conducting widespread assessment of professional risk allows insurance companies to improve client awareness of potential risks associated with their profession. A more accurate risk assessment and provision of relevant data to clients can help them better understand their insurance needs and take appropriate measures to manage risks.

However, the implementation of widespread assessment of professional risk through the insurance fund also presents certain challenges. Firstly, it is necessary to ensure proper financial stability of the insurance fund so that it can fulfill its functions over an extended period of time. Additionally, a reliable and objective methodology for assessing professional risk needs to be developed to minimize potential distortions and unfairness in calculating insurance premiums.

The implementation of widespread assessment of professional risk through the insurance fund can be a useful tool for insurance companies in risk assessment. It improves the accuracy of assessment, identifies new risk factors, and provides additional support to clients. However, careful consideration of the financial stability of the fund and the development of a reliable assessment methodology are essential for the successful implementation of this approach.

Let us consider the ways to implement such a system that would effectively assess professional risks, provide compensation to injured workers, and offer them rehabilitation support.

- **Legislative framework and regulation:** The first step is the development and adoption of relevant legislative acts that define the responsibilities of insurance companies, employers, and the government in the field of professional risk assessment. It is important to establish clear rules and standards for conducting risk assessment and determine mechanisms for compensation and rehabilitation for injured workers.
- **Establishment of a specialized insurance fund:** To implement the system of professional risk assessment, it is necessary to create a specialized insurance fund. This fund will be financed through insurance contributions paid by employers. The fund will be used for risk assessment, inspections at workplaces, compensation for injured workers, and rehabilitation support.
- **Training and consulting:** To successfully implement the system of professional risk assessment, training and consulting for employers and workers are necessary. This will help increase awareness of workplace safety and health, as well as methods of risk assessment and accident prevention. Governmental and non-governmental organizations can provide training programs and consultations in this area.
- **Monitoring and data analysis:** An important aspect of implementing the system of professional risk assessment is monitoring and data analysis. Collected data on accidents, illnesses, professional risks, and their causes should be analyzed to identify trends and improve prevention measures. Regular monitoring will allow for the improvement of the assessment system and the implementation of appropriate measures to reduce risks.
- **International cooperation:** Kazakhstan can actively collaborate with international organizations that have experience in professional risk assessment. This will enable learning from the best international practices, using advanced methodologies and approaches, as well as establishing contacts for information and experience exchange.

The implementation of comprehensive professional risk assessment through an insurance fund in Kazakhstan is an important step towards ensuring the safety and health of workers. Legislative regulation, the establishment of a specialized fund, training and consulting, data monitoring, and international cooperation - all these factors contribute to the successful implementation of the risk assessment system. Examples of successful implementation of similar systems in other countries confirm their effectiveness and significance in ensuring the safety and protection of workers' rights in Kazakhstan.

Training in the field of occupational health and safety is an important aspect of ensuring the safety and well-being of workers. It helps prevent workplace accidents, reduce health risks for workers, and comply with relevant regulatory requirements. However, many organizations face limitations in financing occupational health and safety training, especially in the case of small and medium-sized enterprises.

It is proposed to consider the possibility of financing occupational health and safety training through the insurance fund. The idea is to use funds from the insurance fund to support worker training and ensure occupational safety. Under such a program, insurance companies can provide subsidies or reduce insurance premiums for organizations that actively invest in training their employees on occupational health and safety matters.

This approach has several advantages. Firstly, it contributes to the improvement of professionalism and knowledge in the field of occupational health and safety. Training allows workers to understand the risks associated with their work and learn to apply appropriate safety measures. This can significantly reduce the number of accidents and increase overall work process efficiency.

Secondly, financing occupational health and safety training through the insurance fund helps alleviate the financial burden on organizations. Many companies, especially small and medium-sized enterprises, may face limitations in funding training and implementing occupational health and safety programs. Providing subsidies or reducing insurance premiums enables them to access necessary resources and training.

However, certain aspects need to be considered when implementing such a program. Firstly, it is important to establish clear criteria and standards for occupational health and safety training to ensure high quality and relevance of programs. Proper evaluation of the effectiveness of training and its impact on reducing workplace risks is also required. This will help insurance companies and organizations assess the effectiveness of financing and make necessary adjustments to training programs.

Funding occupational health and safety training through the insurance fund is a potentially beneficial initiative. It contributes to the improvement of professionalism and workplace safety, reduces the financial burden on organizations, and helps to reduce accidents. However, careful planning and evaluation of program effectiveness are required to ensure their successful implementation.

Funding training through insurance funds is an effective mechanism that promotes awareness of workplace safety and the development of professional skills. Let's consider ways to develop occupational health and safety training through insurance funding in Kazakhstan.

Implementation of mandatory accident insurance: One way to develop occupational health and safety training in Kazakhstan is through the implementation of a mandatory accident insurance system. This would establish insurance funds that can be used to finance training in the field of occupational health and safety. Employers can contribute insurance premiums, a portion of which would be allocated to employee training.

1. Partnership between insurance companies and educational institutions: Collaboration between insurance companies and educational institutions is another important way to develop occupational health and safety training. Insurance companies can establish partnership agreements with educational institutions to provide free or subsidized educational programs in the field of occupational health and safety. This will enable employees to access quality training without additional financial burden.

2. Establishment of specialized occupational health and safety centers: In Kazakhstan, a program can be developed to create specialized occupational health and safety centers funded by insurance funds. These centers would offer training, consultation, and expert support in occupational health and safety for employers and workers. They can develop and implement innovative training methods, conduct research and risk analysis, and assist in developing workplace safety programs.

3. Exchange of experience with foreign countries: Kazakhstan can collaborate with foreign countries that have a well-developed system of occupational health and safety training funded by insurance. Such an exchange of experience will allow learning best

practices, principles, and training methods that can be adapted and implemented in the Kazakhstani system. For example, organizing professional exchanges in the field of occupational health and safety, attending international conferences and seminars, and forming partnerships with foreign educational institutions.

4. Creation of online learning platforms: Online platforms for occupational health and safety training are an effective and accessible tool that can be implemented in Kazakhstan. Insurance funds can finance the creation and development of such platforms, where workers can receive education and certification in occupational health and safety. This will reach a wider audience, including remote workers and small enterprises.

Foreign experience shows that funding occupational health and safety training through insurance funds is an effective mechanism for enhancing professional skills and awareness of workplace safety. Concrete examples from Germany, Sweden, Canada, the Netherlands, and Australia demonstrate that this funding model contributes to the creation of safe and healthy work environments, risk reduction, and overall improvement in workers' well-being. Implementing a similar approach in Kazakhstan can yield positive outcomes in the field of occupational health and safety and contribute to the establishment of a safe and healthy work environment.

6. Conclusions

This scientific article delves into the realm of workplace accident insurance programs with a specific focus on the preventive aspects that contribute to economic sustainability. Preventive measures within workplace insurance programs are pivotal in ensuring the well-being of employees and the financial stability of both workers and organizations. While insurance programs encompass various dimensions such as compensation, rehabilitation, and liability, prevention emerges as a proactive approach that holds immense potential in minimizing risks and fostering safe working environments.

The study highlights the contemporary significance of preventive measures in the workplace, especially in the context of improving working conditions and enhancing occupational safety. The article advocates for the continuous advancement of prevention strategies, citing them as not only relevant but essential in the face of evolving work dynamics and emerging risks.

Several key recommendations are presented to enhance the effectiveness of preventive measures within insurance programs. The proposal to establish a unified information database for monitoring insurance contracts, controlling insurance flows, and supervising the implementation and effectiveness of preventive measures is pivotal. This approach aligns with the modern digital landscape, enabling transparency, analysis, and evaluation of the insurance programs' impact.

Moreover, the concept of comprehensive assessment of occupational risk within the insurance fund adds a layer of sophistication to risk assessment. By considering occupational risk as a determining factor in insurance tariff application, the article suggests a system that promotes safer working conditions and incentivizes risk reduction.

The integration of occupational health and safety training through insurance financing emerges as a strategic recommendation, fostering a culture of knowledge and awareness.

This not only improves employee competency in adhering to safety protocols but also aligns with the preventive approach, further strengthening workplace safety.

The article's methodology, a combination of qualitative and quantitative approaches, provides a well-rounded foundation for understanding the complex interplay between insurance programs and preventive measures. This allows for a nuanced examination of the theoretical underpinnings, statistical data, and practical implications, resulting in a comprehensive view of the subject matter.

In conclusion, this article underscores the pivotal role of preventive measures within workplace accident insurance programs. As workplaces evolve and new challenges emerge, the proactive approach to prevention remains indispensable. By embracing the recommendations outlined in this article, insurance programs can not only mitigate risks and reduce costs but also foster a culture of safety, benefitting workers, employers, and the overall economy.

The article offers insights into the implementation of preventive measures within insurance programs and suggests strategies to enhance their effectiveness in promoting better working conditions. Firstly, the establishment of a unified information database is proposed to monitor insurance contracts, oversee industry-specific insurance flows, and ensure the completeness and quality of preventive measures, as well as timely compensation and rehabilitation for injured workers. Secondly, a comprehensive assessment of occupational risks through the insurance fund is recommended as part of evaluating insurance risk. This assessment would serve as the basis for applying a two-component insurance tariff that includes a surcharge for unsafe working conditions. Lastly, the article advocates for providing occupational health and safety training through insurance financing.

Overall, implementing these proposed measures can contribute to the advancement of preventive accident insurance programs and the continuous improvement of working conditions.

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