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OCCUPATIONAL HEALTH AND SAFETY IN GHANA: AN AGENDA FOR REFORM

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ABSTRACT

It is generally accepted that accident rates in industry, agriculture, construction and transport in developing countries are at a several times higher level than in the industrialized countries. This paper makes a case for addressing the occupational health and safety concerns of Ghanaian workers. It posits that current legislation in this area does not meet the standards of a modern workers' compensation system. It also draws attention to the need for useful information to guide policy and support legislation that focus on multiple strategies of injury prevention, control, treatment, and rehabilitation to reduce the incidence, health care costs, and lost productivity associated with work place injury.

INTRODUCTION

The greatest and most obvious ill-effect of work-related injuries and diseases is that they result in death or disabilities that occur to men and women in their most productive years when they are most likely to have a dependent family. Increased concern with work-related injuries and diseases and new awareness of remedial possibilities have motivated new legislation and reforms in the western world. In the United States for instance, a total of 41 states enacted major legislation to modify some part of their workers' compensation systems between 1992 and 1996 to control costs and improve the workers' compensation programs (Lemov, 1997). By contrast, the last major workers' compensation legislation in Ghana, for instance, was passed in 1987 (Ghana Publishing Corporation, 1987). The health and income security needs of the Ghanaian workers are no less critical than those of their counterparts elsewhere in the world. As Ghana, like most developing countries, seeks to be a part of the global economy, it is imperative that these needs are not sacrificed in return for liberal terms to attract foreign investment to enhance economic growth and development. This paper calls attention to the need to address concerns related to the inevitable occupational hazards that accompany productive activity in Ghana. It takes the position that any effective solution must seek both efficient injury prevention and the provision of income security for injured workers. The following presentation starts with an overview of the significance of workplace injuries and follows that with a description of the scope and nature of the work-injury problem in Ghana. Next, it summarizes the challenges posed by the lack of information and makes the case for the adoption of a regional approach to developing a safety program and a workers' compensation system that encourages safety, provides broad coverage of employees and of work-related injuries and diseases, provides substantial protection against interruption of income, and provision of sufficient medical care and rehabilitation services that will meet the needs of the manufacturer as well as those of

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workers. Finally, it presents a path for future course of action to implement these changes.

THE SIGNIFICANCE OF WORKPLACE INJURY

The hazards of the workforce may be looked at in terms of injuries, illnesses, and deaths from injuries and occupational diseases caused by or occurring in the workplace. The economic consequences of work-related injury or disease affect the worker, his/her family and employer, and society at large. If workers die because of work-related injury or sickness, their survivors lose the income they would otherwise have earned less the amount that would have been spent to maintain themselves during the remainder of their working career and retirement years. From an economic standpoint, even greater earnings loss can occur if the injury causes total and permanent disability rather than death because the worker must be maintained and the medical costs can be staggering. While part or all of the worker's economic loss may be transferred to the worker's employer under worker's compensation laws or employers' liability statutes, there are other less apparent indirect losses associated with industrial accidents. These may include extra cost due to overtime work necessitated by the accident, costs of learning period of new worker, loss of profit on contracts canceled, public liability claims, costs of excess spoilage by new employees. Society also loses the taxes that would have been paid by the injured employees, the products or services they would have produced, and the costs of commissions and courts administering workers' compensation and employers' liability (National Commission on State Workmen's Compensation Laws, 1973).

Acute injury that occurs in association with work is a tragedy of enormous proportions and can be measured by the number of workers who die or are hospitalized because of work-related injuries as well as by the injuries resulting in disability and lost work-days. In the United States, the overall cost of work-related injuries for 1996 is estimated at \$92.7 billion (Burton, Yates, and Blum, 1997, p. 4). These economic consequences do not take account of the emotional toll a death or disabling injury imposes on the worker's family. It is also estimated that each year about 330,000 workers worldwide, lose their lives in occupational accidents and as many as 250 million are injured. Further avoidable suffering is caused by 160 million cases of occupational diseases and an even higher number of threats to workers' physical and mental well-being. The continuation of this situation will have serious consequences both in terms of the deterioration of workers' health and the impact on the economy (Annan, 1997). Reflecting on these numbers, the United Nations Secretary General, Kofi Annan has observed that "the economic losses are equivalent to 4 percent of the world's gross national product; in terms of shattered families and communities, the damage is incalculable." He continues, "Policy makers and employers need to ensure that the provision of a safe and healthy working environment is a key consideration in all investment and production decisions, and that workers are involved in those decisions. This is an enormous task, for governments, employers and workers alike" (Annan, 1997, p. 1).

HEALTH AND SAFETY AT THE WORKPLACE IN GHANA: AN OVERVIEW

According to Asuzu (1998), the concept of occupational health and safety came to all of West Africa largely through the British colonial industries. Occupational safety and health laws in the United Kingdom required that the same services be provided for the colonies. Thus the commercial and industrial interests that set up shops in the colonies ensured that safety and occupational programs were also in place. Since independence, Ghana has enacted several laws designed to provide for workers who are injured or diseased in the course of work. The current one, Workmen's Compensation Law of 1987, repealed the Workmen's Compensation Act of 1963, which had been amended by the National Liberation Council Decrees 86 in 1966, and 238 and 306 in 1968 (Government of Ghana, 1987). Thus, it would seem that at least in the 1960s there were several government efforts to improve occupational safety and health. The impact of these efforts are hard to measure directly in part because there are no existing data establishing the incidence, nature, and severity of injuries prior to 1987 to establish the counterfactual; that is, what would have been the injury situation had the laws not been passed. There are limited current data to illustrate some aspects of the incidence of injury since 1987.

Figure 1 illustrates trends of injury cases reported by the Ghana Department of Factories Inspectorate between 1987 and 1995. In general the trends reflect fluctuations in the number of lost-time injury cases. The cases declined by more than 50 percent from the 427 reported in 1987 to 210 in 1989 and moved up again to a peak of 444 cases in 1992. The average lost-time injury cases over the nine-year period was 323.

Table 1 shows that for all lost-time injuries sustained between 1987 and 1995, their most frequent cause (17 percent) was struck by falling object, followed by a miscellaneous category that includes hot metal burns, fires, explosions; injured person struck by article carried by another; attempt to move or deform article which is a fixture or clearly not portable, e.g. shaking a fixed structure (15.4 percent). Sprain and strain causes represent 14.4 percent and falls and slips make up 10.4 percent of the injuries. The four leading causes of injury together accounted for about 57 percent of all reported occupational injuries. Year-by-year comparison of injury causes shows minor fluctuations in their relative distribution with no apparent trend.

Figure 1: Occupational Injuries in Ghana (1987-1995)

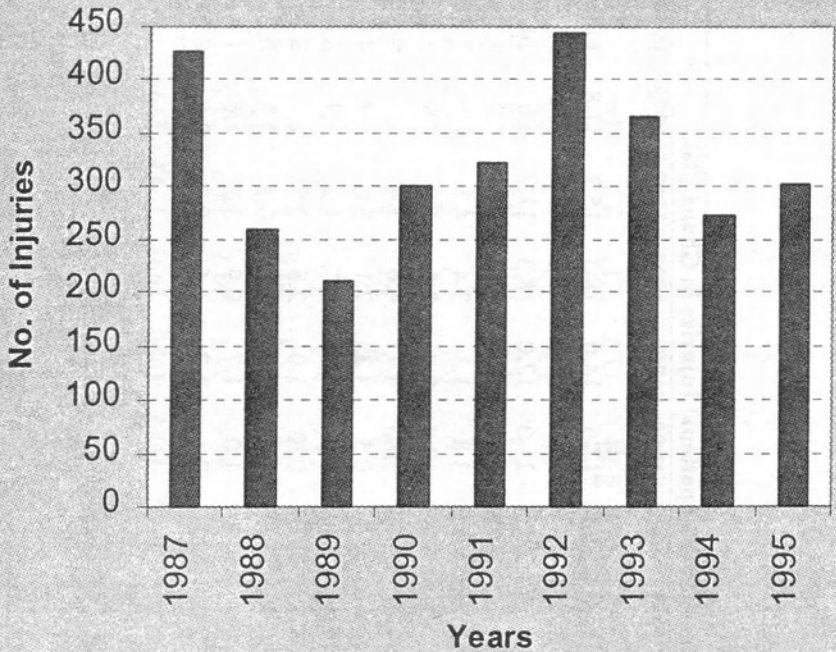


TABLE 1: Causes of Occupational Injuries in Ghana (%)

Cause of Injury	1987	1988	1989	1990	1991	1992	1993	1994	1995	1987-1995
Struck by falling object	34.0	13.9	17.6	14.0	18.3	15.3	11.8	11.0	10.9	17.0
Miscellaneous (not classified elsewhere)	3.0	2.7	7.6	15.0	13.0	23.2	31.5	20.9	15.9	15.4
Handling goods in manufacture	12.4	10.0	21.0	17.0	18.3	11.7	6.0	14.7	23.2	14.4
Persons falling	15.5	16.6	11.9	9.7	8.7	8.1	7.9	8.1	7.6	10.4
Other vehicles	3.1	15.1	3.8	1.3	3.4	4.1	3.6	7.3	3.3	6.2
Other power-driven machinery	1.2	13.9	12.9	9.7	2.5	5.9	4.9	5.5	20	5.9
Stepping on or striking against object	1.6	5.0	10.5	4.7	4.6	3.4	2.5	0.7	5.3	3.9
Explosion	0.0	0.0	0.5	3.3	7.1	3.6	6.8	4.0	5.6	3.5
Lifting machinery	1.4	5.0	0.5	2.3	3.7	3.8	2.7	2.6	5.3	3.1
Circular saws	3.5	1.5	0.20	1.0	2.8	2.5	2.7	9.2	3.3	3.0
Use of hand tools	7.7	3.5	1.0	3.3	2.2	0.7	2.7	0.7	3.3	3.0
Molten Metal	0.0	0.8	1.0	1.7	0.9	3.2	1.6	1.8	2.6	1.6
Other woodworking machinery	2.6	0.8	2.4	3.7	1.5	0.2	0.5	0.7	0.7	1.4

Source: Department of Factories Inspectorate (1987-1995)

TABLE 2: Source of Occupational Injuries in Ghana (%)

Source of Injury	1987	1988	1989	1990	1991	1992	1993	1994	1995	1987-1995
Docks	9.8	38.2	52.4	23.7	20.7	18.7	17.5	17.9	23.2	22.6
Sawmills, joinery, general woodworking	21.8	11.6	6.2	24.0	26.0	13.7	18.1	18.7	12.9	17.5
Alcoholic drinking	0.2	1.2	4.8	15.3	27.6	15.1	24.7	21.2	22.5	14.9
Metal galvanizing, tinning, plating, and enameling	0.0	3.9	18.6	5.7	7.4	11.0	3.6	5.9	16.9	7.5
Metal conversion	0.0	11.6	0.0	9.7	3.1	5.9	9.3	9.9	4.6	5.9
Electrical stations	32.8	0.8	0.5	2.7	1.9	0.9	0.5	0.4	0.0	5.6
Iron, steel, and iron metal rolling	0.0	1.5	1.0	0.0	1.2	7.0	14.0	8.8	13.6	5.4
Cotton textile	0.5	1.5	4.3	3.0	5.6	8.3	6.6	5.1	1.0	4.1
Metal extracting and refining	10.3	10.0	3.3	0.0	0.0	0.5	0.0	0.0	0.3	2.8
Oil-cake, oil refining, and extracting	8.2	5.0	1.9	2.3	2.5	1.8	0.3	0.0	1.3	2.8
Other foods	0.2	0.8	0.0	0.0	0.9	11.9	0.5	0.0	0.3	2.1
Miscellaneous	16.2	13.9	7.1	13.7	3.1	5.2	4.9	12.1	3.3	8.8

Source: Department of Factories Inspectorate (1987-1995)

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Table 2 shows the number of lost-time cases and the percent of injuries in the major types of non-agricultural industries. As shown, workers in the docks, sawmills, and alcoholic drinks incurred more injuries than in any other industries. These three industries were notably and consistently higher than in all other industries and constituted about 50 percent of the total non-agricultural injuries during the nine-year period. This review of the limited injury data suggest the need to meet the challenge head-on before things really get out of hand. A discussion of some of the key issues involved in meeting the challenges of workplace injury concerns as well the measures some jurisdictions have taken to address them now follow.

CHALLENGES IN ENSURING ADEQUATE HEALTH AND SAFETY IN THE WORKPLACE

The broad categories of causes of occupational accidents are behavioral and environmental. Unsafe personal behavior includes indifferent, reckless, or negligent attitudes; inadequate knowledge or skill; and careless or sloppy conduct or performance. Environmental factors cover unsafe physical conditions at the workplace such as improper guarding, defective substances or equipment, intolerable noise, excessive speed, unsafe procedures, unsafe housekeeping facilities, or improper illumination, ventilation, or apparel. They also cover stresses inherent in the work, materials, or the natural setting (National Commission on State Workmen's Compensation Laws, 1973). Studies show that approximately 45 percent of work injuries are due to careless behavior by workers while the other 55 are due to physical hazards like wet floors and improperly guarded machines (Wisconsin State Department of Labor, Industry, and Human Relations, 1971). The physical hazards can be prevented to a large extent; however, the degree of control exerted on careless behavior can only be very limited at best. In other words, accidents are bound to occur in the workplace and the effort to curb their occurrence should go hand-in-hand with the need to provide for the victims of work injuries.

Indeed, the United States Occupational Safety and Health Act of 1970 declares that the full protection of workers from job-related injuries or death requires adequate, prompt, and equitable system of workers' compensation as well as effective program of occupational health and safety regulation. Given that work-related injuries and diseases are caused by both employee behavior and the physical environment, the effort must be a two-pronged approach; one geared toward the employers' role in prevention, and another that creates incentives for workers to act carefully. A number of scholars have noted the need for ensuring safety in the workplace within the ambit of workers' compensation programs. Chelius (1977) long admonished the need to recognize the dual nature of the occupational health and safety problem and that an effective solution must seek both efficient injury prevention and the provision of income security for injured workers. Boden (1995) is convinced that worker's compensation laws can have an important role in promoting safety by mandating or fostering safety programs. A broader set of standards were developed by the 1971 blue-ribbon National Commission on State Workmen's Compensation Laws. The Commission

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recommended five objectives for a modern workers' compensation system:

- Broad coverage of employees and of work-related injuries and diseases
- Substantial protection against interruption of income
- Provision of sufficient medical care and rehabilitation services
- Encouragement of safety
- An effective system for delivery of the benefits and services

The first objective requires that coverage be extended to as many workers as feasible and that coverage be mandatory rather than elective. It also suggests protection for all work-related injuries and diseases. The second objective suggests that a high proportion of a disabled worker's lost earnings should be replaced by workers' compensation benefits. The expectation is that payments will be equitable and adequate, and that claims will be paid with reasonable promptness. The provision of sufficient medical care and rehabilitation services objective is designed to ensure that the injured worker's physical condition and earning capacity is promptly restored. Consistent with the above objectives, the commission also recommended economic incentives to improve the safety of working conditions and thus help reduce the number of work-related injuries and diseases. Finally, the Commission recommended an effective administrative delivery system in each state to support the attainment of the other objectives. While all the states have not adopted wholesale the total recommendations of the Commission, most have changed their workers' compensation statutes to reflect these basic objectives.

How does the Ghana Workers' Compensation Law, 1987 measure up to these objectives? Coverage under the law is quite expansive. Section 38(2) requires coverage for all employees in all industries except those employed in the agricultural or handicraft business with less than five employees. Section 28 provides for defraying the reasonable medical expenses both in and outside the country for injuries incurred on the job. The law, however, is silent on the provisions to rehabilitate the injured worker. With respect to protection against interruption in income, Section 2(2) of the law states quite clearly that an "injured workman shall not suffer any diminution of in his earnings while he undergoes treatment for injuries he has sustained through an accident arising out of, and in the course of, his employment" (Government of Ghana, 1987, p. 2).

Sections 5, 6, and 7 of the law spell out compensation levels for different types of injuries. For instance, the amount for permanent total injuries correspond to 96 months earnings. Thus, employees who are permanently and totally incapacitated as a result of injuries collect a sum of money equal to eight years' of their current annual earnings. Compensation for injuries that render the employee permanently and partially incapacitated are paid based on a schedule of the percentage of the loss of earning capacity caused by that injury. For instance, loss of arm at shoulder is measured as 80 percent incapacity whereas loss of index finger is measured as 6 percent incapacity. Where the injury results in temporary incapacity, whether total or partial, the compensation is a periodical payment or lump sum calculated according to the probable duration in the degree of the incapacity. The

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periodical payment usually works out as the difference between the monthly earnings the worker was earning at the time of the accident and the monthly earnings which he or she is capable of earning, not to exceed 24 months. The schedules in the statute are comparable to those in the United States.

An significant shortcoming of this legislation is the adequacy of the compensation provided. Section 36 of the original legislation stipulates that compensation will be paid on no more than the first 25,000 cedis¹ of the worker's earnings for a year. Section 1 of a 1988 amendment to this law increased the amount to a ceiling of 125,000 cedis (Government of Ghana 1988). This amount obviously does not meet the substantial protection against interruption of income standard established by the National Commission on Workmen's Compensation Laws. The general practice today is that those who think they are inadequately compensated resort to the courts, which have tended to be more sympathetic to their plight. Finally, the legislation is silent on the promotion of safety in the workplace even though the Department of Factories Inspectorate develops guidelines and provides safety training. Clearly, there is a case to be made for an overhaul of the workers' compensation laws in Ghana as it does relatively little to adequately meet the needs of injured workers today.

AN AGENDA FOR REFORM

Occupational safety and health has been a key area of concern to the ILO since its inception in 1919. Despite the progress made in the improvement of working conditions and environment, and the efforts undertaken by all those concerned with occupational safety and health, there are still challenges, including inadequate information to educate workers, lack of enabling legislation in the area of occupational safety and health, inadequate infrastructures to promote and enforce occupational safety and health laws and regulation, and a lack of data on the prevalence and impact of accidents and diseases (ILO 1998).

I submit that the development process in Africa should go hand in hand with the need to protect our most important asset in the development process (i.e. human capital) from preventable injuries in the workplace and to take care of those who do get injured. Injury is a major health problem that needs to be addressed by multiple strategies: prevention, control, treatment, and rehabilitation. An important aspect of developing a comprehensive policy toward this end is to get better understanding of the injury situation of our workforce on the continent, and it starts with having complete and accurate data to inform and support policies.

Accurate and comprehensive data for all classes of work injury are needed to develop, improve, and evaluate prevention strategies. It should be possible to obtain basic data in time and in useful form on injury rates, lost workdays, fatalities, etc. among the major industry groups. It would be very useful to do a comparative analysis of occupational safety and health among significant demographic sub-groups (age, race, and gender) in Ghana on injured worker characteristics such as cause of injury, body part, and nature of injury. Data availability will help in estimating the prevalence of disability and its effects on

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economic well-being in Ghana, formulating public policy targeted at high-risk groups of people or industries as well as help in the efficient allocation of scarce resources. Also, it will help provide useful information for the efficient targeting of prevention resources. Moreover, availability of data that conform to modern standards could engender research programs designed to measure the efficiency, adequacy, and equity of workers' compensation programs.

Another important future direction should focus on paying close attention to the injury situation, but more so within the context of workers' compensation as described in the previous section. There are several reasons why it is important to pay closer attention to occupational injury situations. First, whether in both public policy or at the individual company level, costs play a significant role in decisions affecting occupational health. As often happens, the cost of preventing injury is usually given greater weight than the money that would be saved through medical costs and increased productivity. In the long term, it is cheaper, both in human terms and the economic benefits to prevent an accident than to treat the injured. A second factor is the lack of commitment to injury prevention. As in most countries in Africa, Ghana lacks the multidisciplinary and multiorganizational approach to preventing occupational injury. Funds for research and training programs are scarce, and the lack of well-trained people in injury epidemiology and safety engineering is a real problem. While there is almost universal shortage of occupational health and safety experts, most countries outside the developed world have critical needs to feed (Rantanen, 1997). To underscore this last point, Sakari (1997) notes that only three countries – Egypt, Kenya, and South Africa – have a formal training program in occupational health even as the desire and pace of industrialization is increasing and with it the need for such services. It should not be that difficult to establish similar training programs within the medical and allied health institutions in Ghana.

Most occupational injuries are avoidable and could be prevented if known strategies were implemented widely. Strategies to reduce the number of injuries must be aggressive, directed, and supported by all who have a responsibility or interest in protecting workers, including workers themselves. Interdisciplinary action is crucial; governments, industry, labor, universities, workers, and the public must focus on this problem and coordinate their efforts to solve it. The International Labour Organization has contributed significantly toward what we know about the status of occupational health and safety in Africa today with its sponsorship of conferences and development of technical bulletins for public consumption.² The ILO's task is rather daunting and Ghana needs to take the initiative to address this issue of concern to the critical component of the production process, labor.

Recognition of the existence of an occupational health and safety problem on the part of the member countries holds the key to initiating any serious efforts. Serious thought must be given to forming a commission to undertake a comprehensive study and evaluation of occupational safety and health programs within the context of national workers' compensation laws in order to determine if such laws provide adequate, prompt, and equitable system of compensation. The commission can also be empowered to develop

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guidelines for collecting standardized data on a systematic basis to facilitate research to guide policymakers. The commission can tap into previous work done by the ILO and its sister organization, the International Occupational Safety and Health Information Center (CIS). The ILO provides technical support to the African Labour Administration Center (ARLAC) based in Harare as well as operate regional and area offices in different subregions of the continent. Private as well as governmental bodies in the United States such as the International Association of Industrial Accident Boards and Commissions (IAIABC), the Workers' Compensation Research Institute (WCRI), and the Occupational Safety and Health Agency (OSHA) have a lot to offer in this area. In addition, the work of the National Commission on State Workmen's Compensation Laws can serve as a working document to guide future direction in this area.

CONCLUSION

Modern industrial societies use a mix of government programs to address the consequences of work-related injuries on the earning capacity and economic well-being of their citizens and providing adequate and equitable compensation should be a major first step in addressing the needs of injured workers in Ghana. While transfer programs to replace lost income is necessary, other important employment-centered programs can be used to offset the effects of the impairment or to encourage employers to hire people with disability. These programs can range from mandatory rehabilitation to direct intervention in the job market on behalf of injured persons. In an extreme example, Sweden provides government jobs to people with disabilities who are not employable in the private sector. While this approach may be untenable given the current climate of cutbacks in government employment in most developing economies including Ghana, efforts to provide a degree of employment protection in both private and public enterprises for disabled persons will be a step in the right direction.

As we move into the next century, the necessity to meet the needs of the population of the continent requires innovative approaches to improving manufacturing technology. The thesis of this paper is that the push to improve manufacturing technology in Ghana should be matched by equal attention to the inevitable occupational hazards that accompany manufacturing. It emphasizes, however, that occupational safety and health issues are better dealt within the context of a comprehensive workers' compensation system that ensures both efficient injury prevention and the provision of income security for injured workers.

NOTES

1. The current exchange rate of the local currency as of July 1998 is approximately 2,300 cedis to one United States dollar (*West Africa*, 1988, p. 587).
2. As an example, there is a 1983 ILO publication *Accident Prevention: A Workers Educational Manual* devoted almost exclusively to workers in manufacturing industries. There are several other books on various aspects of safety for other occupations.

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