Pan American Health Organization
Regional Office of the
World Health Organization

REGIONAL PLAN ON WORKERS' HEALTH

Workers' Health Regional Program (OCH)
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Division of Health and Environment (HEP)

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"As we look to the future, we must always remember that human beings are not servants of economies. Rather, economic development and production must serve men and women. Occupational safety and health is a crucial means towards that end".

Kofi A. Annan
Secretary-General, United Nations

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REGIONAL PLAN ON WORKERS' HEALTH

EXECUTIVE SUMMARY

With the growing acceptance of the concept of sustainable development, there is an emergent view and global consensus that workers' health is key to the social and economic development and to the equitable well-being of the human population. In various national, regional and international fora, this issue has been discussed giving rise to resolutions, declarations, policy statements and instruments as well as other mechanisms for its integration into existing institutional systems and arrangements.

Over the last few decades, the adoption of various models of development, technological advancements and industrial changes have all reshaped the landscape of labor. Indeed, shifts from primarily mining and agricultural economies to industrial economies with an emphasis on trade and service activities have modified the composition and profile of the labor sector. Furthermore, there has been a social and economic fallout. In the Americas, this phenomenon is reflected by a steady growth of the informal sector, relatively low wages, greater job insecurity, the involvement of women and children (with marginal returns) and a growing social inequity. These developments coupled with occupational risk factors continue to jeopardize workers' health. Occupational accidents are one of the byproducts of these trends. In addition, there is now a recognized correlation between specific illnesses and diseases and certain types of work. Hence, the cost of occupational injuries and risks is an additional contributory factor to the social burden. In Bolivia and Panama for example, this cost is estimated at 9.8% and 11% of GDP, respectively.

It is against this background that this Regional Plan on Workers' Health was conceived. It proposes a multi- faceted, comprehensive and fully integrated approach to the health of workers in the Americas. Its objectives are, mainly:

"To contribute to visible improvements in the work environment, in living conditions, and in the health status as well as in the general well-being of workers by strengthening the technical and institutional capacity of the countries to develop effective prevention and protection policies for workers' health".

These objectives are intended to be achieved by focusing on four critical areas of workers' health; namely, enhancing the *quality of the work environment*, formulating regulatory *policies and legislation*, *promoting workers' health*, and delivering *comprehensive health services*. The recommended action plan is expected to be implemented through national, regional, and international cooperation. The Plan underlines the active support and participation of the key players and stakeholders in the region, including civil society, employers, workers, academic and scientific institutions, professionals, the State, as well as organizations working at all levels of action and decision-making.

PAHO has outlined its role and commitment to mobilize resources, empower, support, lead and assist the aforementioned players to bring about this Plan. It views workers' health as a critical component of its goal and motto: "*Health for All "*.

1. INTRODUCTION

In recent decades, most countries have pursued development models oriented mainly towards economic growth. Yet, such models have varied due to the incorporation of different approaches, which have included -*inter alia*- an emphasis on globalization, regional integration, privatization, rapid technological progress, and more recently, changes in social policy and the creation of a more flexible labor market. All these factors have had both positive and negative effects on occupational structures and have contributed either to the maintenance or to the exacerbation of existing inequities in the labor sector.

As the twenty-first century dawns, the countries in the Americas, like other countries around the world, face the urgent need to modify their models of development in order to avoid perpetuating the disparities between and within nations and to procure a safer, more prosperous future that satisfies basic needs and raises the standard of living for all.

The 1992 United Nations Conference on the Environment and Development (UNCED), held in Rio de Janeiro, Brazil, adopted sustainable development as its central theme and focused on the concept of meeting the basic needs of present and future generations. The UNCED Declaration of Principles sets forth these concepts in the following terms:

> *"Human beings constitute the center of concerns related to sustainable development. They have the right to a healthy and productive life in harmony with nature",*

and

> *"The right to development should be exercised in such a way as to respond equitably to the development and environmental needs of present and future generations".*

The concept of sustainable development has challenged and reshaped our traditional views on development. Now, there is a global consensus on the importance of workers' health as a key aspect of development and as a *si ne qua non* condition for the equitable social and economic well-being of human beings. The subject has awakened renewed concern and has been raised in international, regional and national fora where it is recognized that a workforce that enjoys health and well-being is an efficient contributor to human development.

This new interest led to the study of workers' health in the Americas, which revealed the existence of large economic and social inequities in the labor sector. Moreover, at the international and national levels alike, there exists a major institutional vacuum on the problem of workers' health, particularly in the informal sector.

The Pan American Health Organization (PAHO) is aware of its mission to promote preventative measures to protect the health of all in the Region of the Americas. In response to the current status on workers' health, it has seized the opportunity to structure and initiate technical cooperative actions in this area with a comprehensive

approach that is preventive, multisectoral and participatory. This endeavor led to the preparation of a Regional Plan on Workers' Health.

The complexity of the problem of workers' health requires the collaboration and participation of a variety of actors at both the national and international levels. With this in mind, the Plan has been conceived as a framework for the countries and for international cooperation. This framework allows the various actors to operate with a common perspective and to conduct synchronized interventions (national and international), thus optimizing the available resources for workers' health. The hope is that this will lead to results that are greater than the sum of otherwise individual and isolated efforts.

It is also expected that this initiative will contribute significantly to the improvement of equity and of other factors that affect the labor sector, and particularly the health of workers.

2. BACKGROUND: PAHO/WHO and other International Actors.

The multi-faceted problem of workers' health has engendered a growing concern in many international organizations, including PAHO/WHO. During the 1990s, this concern intensified due to changes in development models and their impact on living as well as working conditions, and due to emerging risk factors in the workplace and work environment, all of which affect the health of the working population.

The Governing Bodies of **PAHO**, aware of these problems and of the importance of workers' health, have included relevant actions in its programs directed at cooperation with the countries. Resolution XIV of 1990 adopted measures and modes of cooperation on workers' health and recommended the principal action areas for the Member Governments.

Resolution XIV: Resolution XIV establishes the following as specific action areas: policy formulation and evaluation; co-ordination among national institutions; development of various institutional workers' health-care arrangements (with special emphasis on health education, health promotion, primary health-care, and the inclusion of primary health-care at all levels of health services, including local health-care systems); community participation (employers and workers); training of human resources needed for the expansion of health coverage; incorporation of occupational health activities in health programs; establishment of information and epidemiological surveillance systems; and workers' participation in the adoption of healthy lifestyles.

The Strategic and Programmatic Orientations for PAHO 1999-2002, on environmental development and protection, include the following priority aspects of workers' health:

"To encourage the countries to take action on physical, biological, chemical and psychosocial factors, as well as organizational factors and dangerous production processes that adversely affect workers' health in both the formal and informal sectors. The technical cooperation of the Bureau will focus on:

- Strengthening the countries' capabilities to anticipate, identify, evaluate and control or eliminate risks and dangers in the workplace;
- Promoting the update of workers' health legislation and regulations, and the establishment of programs designed to improve the quality of the work environment;
- Fostering programs for health promotion and disease prevention in occupational health and encouraging better health services for the working population;
- Supporting programs aimed at protecting child workers exposed to environmental and occupational risks.

In 1994, the **Declaration of Occupational Health for All** drafted and signed by the collaborating centers in occupational health, was adopted at the second meeting of the World Health Organization (WHO). This Declaration served to support the preparation of the **Global Strategy on Occupational Health for All**, endorsed in Resolution WHA 49.12, and adopted by the World Health Assembly in May 1996. The Assembly further urged Member States to prepare national programs of occupational health for all, based on the global strategy, while paying special attention to the creation of comprehensive occupational health services for the economically active population, including migrant workers, light industry workers, those in unstructured sectors, as well as other groups with high occupational risks and special needs, such as working children.

The International Labor Organization (ILO) has produced a series of conventions and specific recommendations on occupational safety and health, as well as other related items in order to establish occupational safety and health standards that are duly complimented by codes of conduct and by practical recommendations. This organization has deployed multidisciplinary technical teams in the Region, which include experts on labor environment and labor conditions. The ILO also conducts the Program for Improvement of Working Conditions and the Environment (PIACT), adopted in 1984, and the Program for the Eradication of Child Labor (IPEC). Furthermore, it is preparing the Global Program on Occupational Safety, Health and Environment to be launched in 1999.

The **Earth Summit,** UNCED 1992 emphasized the need to safeguard health and safety in the workplace. Likewise, the **Pan American Conference on Health and Environment in Sustainable Human Development** (1995) widened the concept of sustainable development to include the avoidance and minimization of exposure to occupational, transportation and domestic risks.

The Summit of Americas I (1994) supports a basic package of preventative and public health services consistent with WHO/PAHO recommendations; i.e. universal and nondiscriminatory access to health services, and protection of the human rights of migrant workers, indigenous workers and their families. Likewise, the **Summits of Americas II** and **III** (1998 and 2001) reemphasized the safeguarding of the rights of migrant workers and their families through access to health services for the least protected populations and through the protection of the environment.

In 1997 the Third WHO Meeting of Collaborating Centers on Occupational Health and Health of Seafarers formulated the **Statement of Santafé de Bogotá: on occupational health in the renewal of Health for All** and gave a series of conclusions and recommendations, encouraging the WHO to promote in its member countries the

implementation of the global strategy on occupational health for all, at the regional, subregional, national and local levels, in such a way that the occupational health plans are a strong component of the renewed world strategy of Health for all in the 21st century.

The XIII Meeting of the **Health Commission of the Latin American Parliament** (1998) dealt specifically with Workers' Health and recommended that the topic be incorporated into the political agendas of the Summits of the Americas.

The Inter-American Conference on Social Security (CISS), through the Inter-American Commission on Prevention of Occupational Risks and the **Inter-American Center for Social Security Studies** promoted and sponsored various courses, meetings, debates and annual workshops on occupational safety and health, ergonomics, and epidemiology of the workplace, among others.

The **International Standardization Organization (ISO)** is the worldwide federation of national standardization agencies. Its purpose is to promote the establishment of standards for products and services and to foster mutual cooperation in intellectual, scientific, technological and economic activities. It developed the ISO standards, such as ISO 9000 and ISO 14000, which are international standards used to manage and assure product quality.

The 1998 Annual Meetings of the **World Bank** and of the **International Monetary Fund** addressed the topic "the social responsibility of multinational corporations" and noted that the developing countries still have a comparative advantage even when acceptable parameters for environmental and occupational health are adopted. This creates an economic rationale to factor workers' health into development projects.

In addition to the **World Trade Organization (WTO)**, whose role is to promote free trade among countries, there are several free trade areas and other integration mechanisms in the Americas such as those covered by the **North American Free Trade Agreement (NAFTA), MERCOSUR, CARICOM** and the **Andean Union**. These free trade agreements offer opportunities to advance and promote workers' health in corporations.

The mandates, resolutions and actions of international organizations stress the ever-increasing importance of workers' health given the inter-relationship between health, sustainable development and the human environment.

The complex interrelationship between health, work and the problems of the workers means that effective interventions in this field should be comprehensive and carried out intersectorally by the entities responsible for workers' health and well-being. Governmental institutions, non-governmental organizations, labor representatives, employers, public and private educational institutions and the community at large all have an important role to play in the promotion and maintenance of workers' good health.

This document is intended to facilitate a multidimensional concept of workers' health within PAHO and to provide guidance and coordination at the regional, subregional and national levels.

3. FACTORS DETERMINING WORKERS' HEALTH

3.1 New Models of Development

Over the last few decades there has been a widespread adoption of development models geared towards economic restructuring, reorganization of production and technological innovation, and towards an economic growth based on consumption and on the free-exchange of goods and services. These processes have led to a redefinition of the labor market. At the same time, they have spurred changes in the structure and composition of the workforce, in the organization of work as well as in labor relations, and they have further given rise to a new international division of labor. These developments are having a profound impact on conditions and risk factors in the workplace and in the environment.

3.2 Automation and Mechanization

Automation and mechanization have revolutionized the system of mass production, which emerged in the Industrial Revolution of the XVIII century (see Table I). Nowadays, we live in a period that has been coined as the "post-industrial revolution" in which advances in genetics and biotechnology have brought about a radical transformation of agriculture and livestock, polarizing this sector and replacing its traditional methods of cultivation with an export-intensive agro-industrial system. This new system is characterized by the use of modern equipment, pesticides and other chemical products leading, on the one hand, to increased productivity and, on the other hand, to health problems and environmental pollution. The system basically responds to the consumption patterns of the developed countries and integrates agricultural, industrial, and commercial phases of production – for example, cultivation of flowers in Chile, coffee in Colombia, bananas and sugar in the Caribbean –.

Table I:
Stages of industrial development

1790	**FIRST INDUSTRIAL REVOLUTION**	
I.	**1760 – 1830:**	**Textiles, steam-powered machinery**
II.	**1830 – 1870:**	**Expansion of communications, railways, steel, cheap food**
1880	**SECOND INDUSTRIAL REVOLUTION**	
I.	**1880 – 1930:**	**Electricity, telephones, petrochemicals, assembly line production**
II.	**1940 – 1970:**	**Plastics, synthetic fibers, mass media, jet engine, multinational corporations**
1980	**THIRD INDUSTRIAL REVOLUTION**	
		Information science, new materials, biotechnology, clean production, business enterprises.

Source:

Keating, Giles and Jonathan Wilmot, *Prosperity or Decline,* CSFB Economics, August 1992

3.3 Degradation of the Agricultural Sector

Rural people have become *de facto* wage earners and there is a growing pool of temporary day laborers in the agricultural sector who may combine seasonal wage labor with cultivation of their small plots, as is the case with potato production in Venezuela and with cassava production in Ecuador and Peru. Approximately 75% of rural families in the Region lack arable land and most farmers combine subsistence production the field with temporary wage labor in more developed enterprises. The latter generally entails hazardous working conditions and low pay. In recent decades, there have been trends toward a proportional reduction in the agricultural work force, increased exposure to occupational hazards, and a change in the epidemiological profiles of agricultural laborers and subsistence farmers. Traditional problems of malnutrition, parasitism, and endemic diseases are found side by side with new problems such as occupational cancers, osteomuscular diseases and resistance to antibiotics.

The industrial sector in the Region has quadrupled its aggregate value at the expense of the agricultural sector, which now contributes on average merely 50% of the gross domestic product (GDP). This weakening of the primary sector of the economy has led to a surge of migration toward the cities as rural people go in search of work within the manufacturing and service sectors. As a result, in Latin America and the Caribbean, 75% of the population is now concentrated in the urban areas.

3.4 Changes in the Labor Market

The introduction of new technologies in the secondary and tertiary sectors of the economy has had an huge impact on the demand for and on the types of labor. Trends include a growing disparity and inequality between high-skilled and low-skilled labor, a demand for workers who perform multiple functions, an increase in the use of capital goods, and the introduction of shift labor in occupations where this phenomenon did not exist previously. Unfortunately, these technological changes have not been accompanied by a parallel increase in new jobs, for the new technologies tend to require fewer and more highly trained workers (this trend is often referred to as the so-called "jobless economic recovery"). The reduction in the economy's capacity to absorb the workforce has translated into an increase in unemployment, underemployment, and temporary or informal work, especially in the younger age groups, where the unemployment rate is twice the overall rate in the economically active population. All told, the number of unemployed workers is estimated at 10 million, with another 78 million considered to be underemployed.

3.5 Growth of the Informal Sector

This ineffectiveness of the global economy to create net jobs has led to the rapid growth of the informal sector, which increased its share of the workforce from 25% to 31% between 1980 and 1989 and may now exceed 50% in some places.

The health of unemployed workers and of those in the informal sector has not been studied. However, empirically speaking, unemployment has been related to several socio-economic and health problems such as domestic violence, homicide, suicide, mental illness, cardiovascular diseases, and gastrointestinal disorders, in addition to the loss of self-esteem and to the constant fear of poverty.

3.6 Technology – related increases to Environmental and Health Risks

Technology transfer has unquestionably contributed to economic development in recent decades, but it has also led to an increase in environmental and health risks. One concern is the rapid introduction of new chemical substances, products, and/or activities that have not yet been evaluated with regard to toxicological effects or industrial safety, or which have been exported from countries with stringent regulations to countries where lower standards prevail. Examples include the use of carbon bisulfide, vinyl chloride, asbestos, and certain pesticides, to name a few. The in-bond assembly factories and the industrial free zones provide examples of the economic and environmental transformation associated with industrial development.

4 Overall Impact of Changes in the Work Environment

Economic, social, political, and technological factors have led to changes in production processes, in the organization of work, as well as in labor relations, which have affected workers' health over the long term. While it is certainly true that the "average" well-being of workers has improved in comparison to 30 years ago, this average does not reflect the widening gap between and within countries, and between different population sectors. The ratio of per capita income of the rich and poor countries was 11:1 in 1960, and soared to 38:1 in 1985. Selected short-term socioeconomic data for the Region suggest the following trends:

- Slowing of the growth of the Gross Domestic Product (GDP) for the current quadrennial in comparison with the first quadrennial of this decade.
- Downward trend in inflation rates.
- Deterioration of labor conditions, with an increase in open unemployment and falling real wages.
- Trade balance is becoming positive.

In sum, external adjustment has been achieved at a high social cost.

5. CURRENT STATUS OF WORKERS AND OF WORKERS' HEALTH IN THE REGION

A review of the working population and of workers' health in the region reveals the following:

5.1 The Workforce and Work Profiles

5.1.1 Economically Active Population (EAP)

In 1996, the population of the Region of the Americas was estimated at 781 million, of which the estimated **economically active population (EAP)*** was 351 million – that is, 44.9% of the total population, composed of 201 million (57.3%) in Latin America and the Caribbean and 150 million (42.7%) in the United States and Canada [1]. The EAP is expected to continue to grow in Latin America and the Caribbean, reaching an estimated 270 million by the year 2025 (a 34% increase) [2].

***** The EAP does not include workers under 15 or people over 65.

5.1.2 Occupational Shifts/Changes

Since the 1950's, the countries of the Americas have shifted -at varied rates and degrees- their economy from being primarily agricultural and mining based to being relatively industrialized, with trade and service activities at their core. This shift has modified work profiles, and the developing countries of the region are consequently dealing with the dual work pattern of transitional economies, marked by an increasingly differentiated workforce among and within them. This workforce ranges from employees of multinational corporations to workers in the informal sector who barely make enough to survive. This situation accentuates the social and health inequities already in place.

5.1.3 Policy Changes

In Latin America, policies to promote labor flexibility, facilitated by reforms in the labor laws and in hiring regulations, have affected both job stability, working hours, vacation time and wages.

5.1.4 Unemployment

For the first time in Latin America, unemployment declined in 1997. Since 1989, the unemployment rate had been approximately 5.4%. It gradually rose to 8.8% in 1996, and fell to 8.3% in 1997 as a result of the economic recovery [3]. In 1999, however, the International Labor Organization (ILO) reckons that the unemployment rate for Latin America and the Caribbean was at approximately 10.8%. Natural disasters, the aftermath of the Asian financial crisis, and the expectation of a slower economic growth and higher interest rates in the United States are partly to blame for that increase.

5.1.5 Informal Sector

The ECLAC estimates that the percentage of the population employed in the informal sector (out of the total non-agricultural employment in Latin America) increased from 51.6% in 1990 to more than 56.7% in 1996 [4]. This figure ranged from 38% to 64%

between the countries. Eighty-five percent (85%) of new jobs created are in the informal sector, and this new form of employment is of poor quality [5]. Moreover, the outsourcing and informalization of the employment structure are seriously undermining the quality of jobs and reducing equity in terms of distribution of wealth and access to social services. In addition to the bio-psychosocial risk factors to which they are exposed, the workers in the informal sector often face a condition of personal insecurity on the streets and in their homes. Hence, family members who are directly or indirectly employed in this sector are also exposed to occupational risks.

5.1.6 Formal Sector

Employment in the formal sector is growing chiefly among traditional economic activities, consisting of small businesses (sometimes linked with medium-sized and large companies) and independent occupations that generally entail higher risks and more unstable working conditions.

5.1.7 Wages

With regard to wages, it is estimated that some 20% to 40% of the employed population in Latin America receive an income lower than the minimum required in order to meet basic necessities (food, shelter, education, and the like) [6]. The decrease in real household income, which stems from the decline in the purchasing power of wages, added to inflation, ramping unemployment and other factors compel many women and children to accept low-paying jobs that are often unstable and unsafe [7]. An added dimension relates to indigenous peoples. For example, the indigenous population of the Andes typically earns less than other workers affected to the same economic activity [8].

5.1.8 Women in the Workforce

It was estimated that 56 million women would join the workforce by 1995 [9]. Women's participation in the workforce rose from 37% to 45% between the 1980s and mid-1990s, while men's participation held steady at 78% to 79% [10]. Women generally work in more precarious positions than men and in some cases receive only 71% of the wages that men receive [11]. Like the rest of the working population, women are exposed to chemical substances (pesticides) and adverse physical conditions (heat and cold, heavy loads), as well as other problems deriving from temporary work. Women usually have a to support a double burden (that is, a paid work plus household chores), which exposes them to greater health risks [12] [13].

5.1.9 Child Labor

Some 25 million children work in Latin America. One out of every five people under the age of 18 is employed, of which half (50%) is aged between 6 and 14 [14]. In the United States, the number of child workers is estimated at 4 million [15]. In addition to the typical problems emanating from poverty, malnutrition, anemia and fatigue, child workers are also exposed to risks associated with unsafe and unhealthy conditions in the workplace [16] [17]. Among the most unacceptable forms of child labor are jobs in the mining

and the agriculture sectors, the informal tanning industry, street vending, and domestic service [18].

5.2 Risk factors

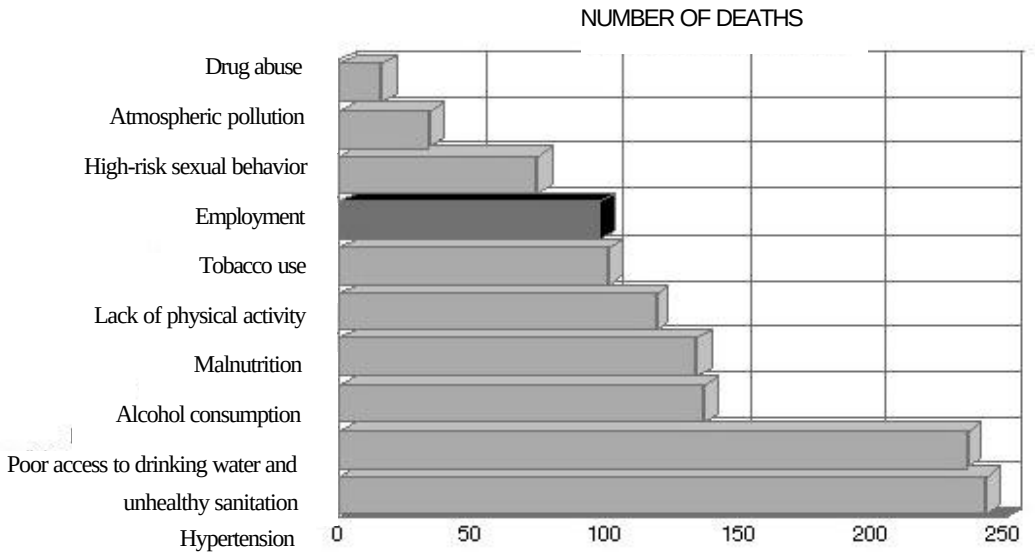
As discussed in Section 3, technological developments have brought major transformations in the means of production, resulting in new and varied forms of hazards in the workplace. A study by Leigh et al. [19] demonstrates the importance of occupation as a risk factor in mortality and potential disability-adjusted life years (DALY). The study concludes that, in 1990, among the principal risk factors for mortality in Latin America and the Caribbean, "occupational risks" ranked seventh in terms of years of life with disability and fourth in terms of years of potential life lost (figure 1). It is also interesting to note that, in 1990, occupational mortality was almost equal to mortality from tobacco use.

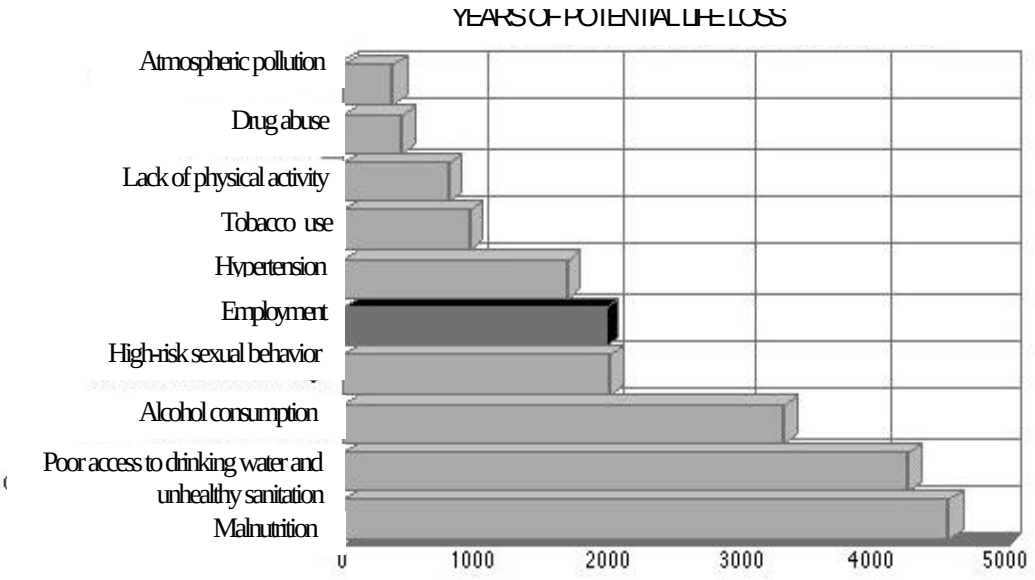
In its recent publication, *Health, Environment, and Sustainable Development: Five Years After the Earth Summit* [20], the WHO calls attention to exposures to risk factors in the workplace, highlighting among the principal risk factors; physical and ergonomic overload (which affect 30% of the workforce in the developed countries and from 50% to 70% of the workforce in the developing countries); biohazards (more than 200 agents); physical hazards (which affect 80% of the workforce in the developing and newly industrialized countries); and chemical hazards (more than 100,000 substances are used in the majority of economic activities. These include teratogenic or mutagenic chemical substances that are particularly harmful to maternal health and reproductive health) [21].

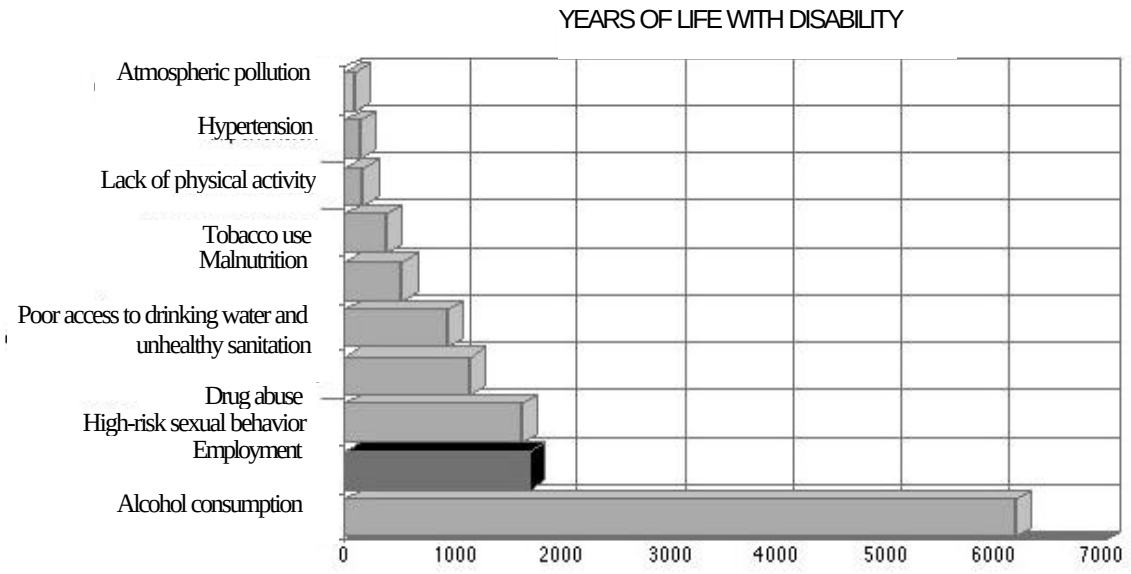
Social conditions and psychological stress are increasingly indicated as occupational risk factors affecting virtually the entire economically active population. The various risks to which workers are exposed imply major inequities that disproportionately endanger the health of the poorest and most vulnerable groups since these are the people who are employed in the most hazardous and the lowest-paying jobs with the least surveillance of those risks [22].

Figure 1*

Mortality Risk Factors, Years of Potential Life Loss and Years of Life with Disability in Latin America and the Caribbean, 1990


NUMBER OF DEATHS
Drug abuse
Atmospheric pollution
High-risk sexual behavior
Employment
Tobacco use
Lack of physical activity
Malnutrition
Alcohol consumption
Poor access to drinking water and unhealthy sanitation
Hypertension
0
50
100
150
200
250


YEARS OF POTENTIAL LIFE LOSS
Atmospheric pollution
Drug abuse
Lack of physical activity
Tobacco use
Hypertension
Employment
High-risk sexual behavior
Alcohol consumption
Poor access to drinking water and unhealthy sanitation
Malnutrition
0
1000
2000
3000
4000
5000



Ref: Leigh J. et al. Occupational Hazards. In: Murray CJL, Lopez AD, eds. Quantifying global health risks: The burden of disease attributable to select risk factors. Cambridge, Massachusetts; Harvard University Press; 1996

5.3 Morbidity and Mortality

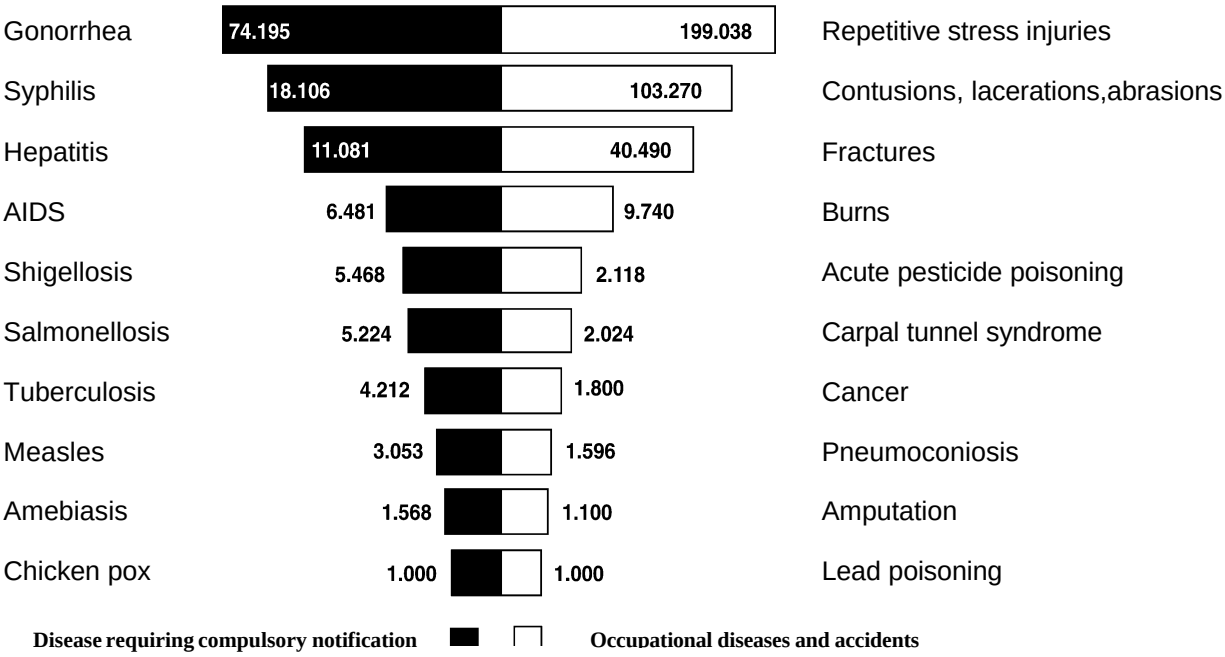
The social conditions surrounding employment, risks, growing social inequities, and other similar factors make the working population more susceptible to disease, more vulnerable to injuries, and more open to burnout and physical exhaustion [23].

The impact of these multiple factors on workers' health gives rise to an epidemiological profile typical of traditional occupational illnesses (occupational hearing loss, acute pesticide and heavy metals poisoning, skin and respiratory diseases), along with others recently associated with the workplace (cancer, occupational asthma, occupational stress, cardiovascular and musculoskeletal diseases, immunological conditions and diseases of the nervous system). Also important are re-emerging diseases (dengue fever, leptospirosis, malaria, and tuberculosis). Improvements in data collection on occupational morbidity and mortality will make it possible to describe the magnitude and nature of the problem.

In the State of California (U.S.A.), information on ten (10) reportable diseases has been consolidated and compared to ten (10) occupational diseases and injuries (Figure 2). Especially noteworthy is the magnitude of the most frequent occupational diseases compared to the diseases requiring compulsory notification.

Figure 2

NOTIFIED OCCUPATIONAL DISEASES AND ACCIDENTS, CALIFORNIA, USA 1989



1. Division of Labor Statistics and Research. Work Injuries and Illnesses. California, 1989. San Francisco Department of Industrial Relations, 1989.
2. Centers for Disease Control, Summary of Notifiable Diseases, United States, 1989. Morbidity Mortality Weekly Report 1989,38(54)

The ILO [24] estimates that thirty-six (36) occupational accidents occur every minute in Latin America and the Caribbean and that approximately three hundred (300) workers die each day as a result of these accidents. It also notes that nearly five (5) million accidents occur annually of which 90,000 (1.8%) are fatal.

With regard to occupational diseases, the WHO estimates that only 1% to 5% [25] of the cases are reported in Latin America and the Caribbean, because only those resulting in disability subject to indemnification are recorded. The traditional occupational diseases most reported in the region are occupational hearing loss, acute pesticide, heavy metals poisoning, and skin as well as respiratory diseases.

Studies on occupational mortality and morbidity in the United States conducted by Leigh[26] estimate that roughly 2% to 8% of all cancers are of occupational origin and that 10% to 30% of all types of lung cancer in men can be attributed to occupational exposure. In addition, some 5% to 10% of morbidity from cancer, cardiovascular, cerebrovascular, and chronic obstructive pulmonary diseases in working males aged 25 to 64 are work-related [27]. In Latin America and the Caribbean, chronic work-related diseases (such as cancer, cardiovascular and musculoskeletal diseases and neurobehavioral disorders) are not registered as such.

5.4. Cost of Occupational Injuries and Diseases

The available information on the cost of occupational injuries and diseases usually comes from Social Security expenses, which include the cost of health care, pensions and compensation for disabilities or death. Hence, the cost of occupational injuries and diseases in the sectors not covered by Social Security is not known. This burden falls on workers and their families and it increases the demand on the provision of health services.

In Costa Rica, the National Insurance Institute is solely responsible for managing occupational hazards and covers 56% of the country's workforce and 84.3% of the salaried population. This Institute reported that the direct cost (care and indemnification for occupational injuries and diseases) and the administrative cost for 1995 was US$ 50 million. This amounts to nearly 0.6% of the country's gross domestic product (GDP), excluding the indirect costs or the costs for the workers not covered by insurance programs [28].

Estimates in Bolivia[29] and Panama [30] for 1995 yield figures of 9.8% and 11% of GDP respectively for occupational injuries and diseases. The ILO estimates the cost of occupational injuries at as much as 10% of the GDP of the developing countries [31] and has calculated that if the countries reduced this figure by half they could pay their foreign debt [32]. In the United States, it was estimated that, in 1992, the direct cost (US$ 65,000 million) and indirect cost of occupational injuries and diseases amounted to US$ 171,000 million, divided as follows: cost of occupational accidents: US$ 145,000 million; and cost of occupational diseases: US$ 26,000 million. What's more, the latter figures are considered to be underestimated [33].

6. APPROACH AND GUIDING PRINCIPLES OF THE PLAN

6.1 Approach

Taking into consideration the above-mentioned factors as well as the complexity of workers' health emerging trends, current needs and governing mandates, the Pan American Health Organization (PAHO) is promoting a comprehensive, fully-integrated approach through the Regional Plan on Workers' Health. The goal is to strengthen cooperation with and among the countries in order to accelerate prevention and control of the dangerous developments and of occupational hazards arising out of the new 'International Labor Order' and to promote and protect workers' health.

The Pan American Health Organization is fully cognizant of the need for a multisectoral interdisciplinary approach in order to successfully implement this plan. Thus, PAHO invites other international technical cooperation agencies to join in a dialogue based on four strategic areas: the quality of the work environment (primary prevention); regulatory policy and legislation; workers' health promotion; and the delivery of comprehensive health services in order to obtain and formulate a concerted strategy.

This Plan recognizes that national leadership (government and civil society) is central to the effort geared towards sustainable development in Workers' Health, for it is

a middle ground between regional actions, on the one hand, and local implementation, on the other hand.

6.2 Guiding Principles

The guiding principles of the Plan are:

Universality: Greater coverage of comprehensive health services (prevention, promotion, care and rehabilitation), for the Economically Active Population (EAP), and for workers in general.

Equity: Improvement in unfair living and working conditions. Equality of opportunity and access to quality work regardless of sex, age, ethnic group, or other considerations.

Participation: Active participation of workers in the formulation and implementation of plans and programs to protect their health and well-being in the workplace.

Consensus-building: Discussion and cooperation among all the sectors involved.

Comprehensiveness: Holistic approach to public health, including promotion, prevention, care, rehabilitation, and return-to-work programs.

Coherence: Direction of all efforts of the various entities committed to solving the problems identified toward a single focus and a pre-established articulated objective.

Timeliness: Precise solutions at the appropriate time.

It follows that the Plan's epicenter hinges on improving working conditions and environments based on productivity and on social equity, and in which the theory and practice of work reflect the human dimension needed for effective performance.

7. GENERAL OBJECTIVES OF THE PLAN

The general objectives of this Plan are:

7.1 ***"To contribute to an improvement in the working environment, living conditions, health, status and general well-being of workers in order to advance toward a sustainable human development based upon equity and social justice.";***

7.2 ***"To strengthen the technical and institutional capacity of the countries in order to develop effective prevention and protection policies for workers' health";***

7.3 **"T*o regulate and control working conditions in order to reduce risks and exposure to dangerous substances and agents"; and***

7.4 **"*To monitor and control compliance with established provisions for prevention and protection."***

8. SPECIFIC PROGRAMMING AREAS (Objectives, Action Plans, Expected Results and Activities)

Taking the strategic areas into account and in order to consolidate a preventive approach, the Plan envisages four (4) closely interrelated programming areas. Each consists of a specific objective, an action plan, expected results, and activities. The four programming areas are:

1. Quality of the work environment
2. Policies and legislation within the regulatory framework
3. Promotion of workers' health
4. Delivery of comprehensive services for workers' health

(See ***Appendix I*** for a summary of the results and activities for each program area.)

8.1 Quality of the Work Environment

8.1.1 Objective

Based on a primary prevention approach (elimination and/or control of risks) and responding to the multiplicity of risks and of working conditions adverse to workers' health, the **objective** is to:

Strengthen the countries' capacity to anticipate, identify, evaluate and control risks in the various work environments.

Successful primary prevention requires a scientific knowledge of the sources of occupational risks' generation and transmission, as well as of the magnitude of these risks. It also requires technical knowledge and practical application of this knowledge in order to identify and control risks. This implies creating groups of multidisciplinary experts who can contribute to a holistic approach to problem solving without minimizing participation of employers and workers.

In view of the fact that reliable information is scarce and sparsely disseminated, the Regional Plan submits a proposal for developing a strategy and systems to make

existing information more accessible for the comprehensive analysis of workers' health and of the working environment. It emphasizes the development of analytical tools to correlate socioeconomic, environmental and health indicators in order to monitor working conditions and define priorities so as to select the most effective risk control programs.

The Plan also promotes the use and development of appropriate instruments and methodologies to prevent and control occupational health hazards and adverse conditions. Integrating basic elements for a sustainable economic development, it also emphasizes adoption of clean production processes, assessment of appropriate technologies for control of risks, hazardous waste minimization and the reduction of risks in the use and production of chemicals in the workplace.

Furthermore, applied research is geared toward reducing the gap between current knowledge and the application of methodologies, instruments, and clean production processes.

8.1.2 Action Plan

To facilitate a work environment of quality, the following actions are recommended:

(a) Create awareness and train

Create awareness and train employers and workers in risk prevention and control.

(b) Improve surveillance and documentation systems

Improve systems for surveillance, registry and reporting on craft instruments, methodologies, standards and policies with the coordinated support of all pertinent entities.

(c) Develop information systems

Disseminate existing technical information in and among the countries through the establishment and support of information systems with inputs from the various international agencies and professional associations. The information systems thus implemented will need to intensify coordination through the Global Program of Health, Safety and Occupational Environment of the ILO, the Global Strategy for Occupational Health of the WHO and the International Program on Chemical Safety (IPCS).

(d) Enhance academic programs

Train human resources, including reviewing and updating curricula, support graduate-level programs and review teaching materials and the application of new educational methods (distance learning courses, etc.) in the fields of Industrial Hygiene, Occupational Safety, Ergonomics and Epidemiology with the collaboration of the network of WHO/PAHO' Collaborating Centers.

(e) Promote and support risk control initiatives

Promote and support initiatives aimed at the development and implementation of instruments and methodologies to control risk in the workplace, such as PACE and other intervention programs which are supported by international institutions and by financial as well as technical cooperation agencies.

(f) Develop study and research protocols

Develop study and research protocols directed toward preventative interventions,
reducing exposure to dangerous substances and agents in the work environment and the deployment of clean production technologies. These initiatives can benefit from the experience and knowledge of PAHO and its specialized centers, the ILO and other agencies of the United Nations system, the WHO Collaborating Centers and Development (World Bank) or Financial (International Monetary Fund (IMF) agencies too.

8.1.3 Expected Results and Activities

The aforementioned Action Plan, aimed at facilitating a work environment of quality, is expected to yield the following results and activities:

(a) Employers and workers that are both aware and trained in risk prevention and control

Employers and workers that are both aware and trained should make it possible to adopt measures for risk prevention and control. The strategic objective is to make the successful adoption of such measures and the training of these actors highly visible.

The achievement of this goal is based upon the creation of multipartite groups comprising representatives of employers, workers and government. Such groups will involve the participation of specialized national technicians organized in a concerted and participatory fashion, and whose functions and capabilities will focus on research, education and social communication.

Role of PAHO

PAHO will provide technical support to these groups by drawing upon its experience in preparing conceptual and methodological instruments, consultancies and missions, and by promoting the sharing of knowledge gathered from its various experiences. To this end, it will identify a network of specialists and institutions.

Role of National Groups

The national groups, with the support of PAHO, the Region and the countries, will:

- Conduct research through surveys assessing the problem or the quality of the working environment with particular emphasis on occupational hazards, and on the social, economic, productive, and environmental impact of hazards on workers,

firms, and countries. The perceived needs and psychosocial profiles of each group will also be studied.

- Process this information for its proper dissemination seeking sensitization and commitment at four levels:

  1. Employers and business circles, adapting information according to the size of the firm and to the productive sector.
  2. Government officials and political leaders, adapting the material by sector and geographical area.
  3. Workers, adapting the material in accordance with the level of responsibility and with the activities of workers' organizations.
  4. Administrative institutions of the workers' compensation insurance, that have been developing as a consequence of the social security reforms in the region.

- Prepare programs, operational strategies, methodologies, and appropriate educational material in accordance with the levels indicated above in order to provide training on how to improve the quality of the work environment.

- Systematize the experience, methodologies, and specialized human resources, nationally and regionally, in education, in grass-roots communication and in the management of the improvement of work environments. These will be the human resources responsible of the future sustainability of the project.

- Formulate projects that will ensure the financing of this process.

- Implement intervention models that will focus on occupational health, ergonomics, occupational safety and the organization of work.

- Design forms of work organization in harmony with the well-being of workers.

(b) Incorporate workers' health registration, notification and surveillance systems into systems existing at the various levels.

The incorporation of a registration, notification and surveillance system on workers' health into the existing systems (at the firm, locally, and at the national levels in Ministries of Health and in Social Security Institutions) is the most feasible way to extend coverage to new and unprotected labor sectors. The strategic objective is to avoid duplication and excessive bureaucracy and to create a sense of ownership by working with existing players.

The achievement of this result is based on the creation or stimulation of specialized technical groups at the national level. These groups will be responsible for organizing and managing a system for health and safety surveillance in the workplace at

various levels, for lobbying higher levels of authority to accept these proposals and for enlisting the participation of employers and workers.

Role of PAHO

PAHO will provide technical support to these groups by preparing conceptual and methodological instruments, consultancies and missions and by promoting the sharing of experiences. To this end, it will identify a network of the relevant specialists and institutions. PAHO's principal functions will be to:

- Prepare research protocols (hazard/harm) with specialists from countries in the Region and from its Collaborating Centers.
- Formulate instruments for promoting modes of work organization that are consistent with the well-being of workers and their families.
- Support technicians in the respective countries.
- Support the formulation of national plans and projects on workers' health surveillance (also at the regional and subregional levels) and on the management of technical/financial cooperation.
- Support the lobbying efforts by the designated groups in the respective countries for incorporating the workers' health surveillance system at all levels.

Role of National Groups

The national groups, with the support of PAHO, the Region, and the respective countries, will:

- Conduct a diagnosis of the national situation on surveillance systems.
- Develop practical and simple proposals for surveillance systems in health and safety, sentinel indicators and warning systems.
- Adapt protocols and guidelines to facilitate horizontal collaboration.
- Lobby the parties responsible at the various levels and disseminate the importance and positive impact of including safety and health surveillance systems in the workplace, in established systems, and /or where no system exists.
- Prepare for and conduct specialized human resource education in the management of surveillance systems in occupational safety and health at the various levels. The beneficiaries of this education program will be entrusted with the future sustainability of the project.
- Organize a specialized network to promote systematization, feedback and circulation of information and experiences at all levels.

(c) Systematization and dissemination of information at all levels.

A regional network of specialists in occupational safety and health and a regional network for sharing experiences as well as active and sustained research in the prospective countries are all integral to the unique characteristics and potential of Latin America. The strategic objective is to encourage and empower young researchers,

grassroots organizations, institutions, workers, employers, business circles, government officials, and others to share their knowledge and their experiences.

This will be put into operation through the regional network, which will access a specialized Web Page and a list of relevant topics and will provide feedback and exchange information. This project will be executed in a country with the appropriate technical conditions, resources, logistics and institutions. Once established, its management will be rotated. Finally, the project will be organized and administered by an inter-institutional team.

Role of PAHO

PAHO will provide technical and financial support for this project. In the medium and long term, it will gather resources for financial and technical cooperation and/or mobilize human resources in order to guarantee the project's success and sustainability.

The components and basic activities of this network will be to:

- Update a directory of institutions, specialists and actors in workers'health in the countries of the Region, which will be accessible through the Internet.
- Encourage input on the proposed topics so as to elicit information on experiences and seek questions and contributions to identify and ultimately finalize the topics for discussion .
- Promote a participation specialized in managing the discussions of the PAHO Collaborating Centers on given topics in order to promote systematization, feedback, and dissemination of the knowledge gained from experiences at all levels.
- Create and manage a Web Page on workers' health, based at CEPIS, which will be accessible and continuously updated with contributions from the network of institutions and specialists.
- Train specialized human resources in the management of information systems and in workers' health at the various levels. They will ensure the future sustainability of the project.
- Direct the human and financial resources of the actors and participating agents at each level, ensuring their financing at the minimum level.

(d) Appropriate and clean technologies for prevention and control of occupational risks

The identification, validation, and dissemination of appropriate and clean technologies should be the basis for risk prevention and control activities in companies and workplaces. The strategic objective is to ensure that the prevention and control of risk in the workplace involves getting business and management to adopt these technologies and internalize their advantages.

The operational strategy for achieving this result will be through creating and strengthening a national and regional network of databases on appropriate and clean technologies for prevention and control of occupational risks. This network should be easily accessible and should include employers, workers, public officials, PAHO/ILO, UNIDO, universities, and the PAHO Collaboration Centers.

This network will: (a) systematize a database on appropriate and clean technologies in occupational risk prevention and control, and (b) disseminate these technologies by diverse means, promoting their adoption and incorporation into the technology-based firms, which advise businesses.

8.2 Policies and Legislation within a Regulatory Framework

8.2.1 Objective

Given the current situation in which there is insufficient knowledge of the nature, magnitude and severity of problems on the health and well-being of the working population, the limited effectiveness of legal protection and the lack of implementation of policies and explicit plans, the following **objective** has been formulated for this area:

To encourage countries to strengthen their capacity to establish policies and laws on workers' health based on an ongoing analysis of the processes of reform, integration and globalization and to develop legal instruments to support the technical standards for surveillance and integrate them into the national health, social security and occupational safety plans.

8.2.2 Action Plan:

In order to achieve the objective of encouraging countries to formulate policies and legislation within a regulatory framework, the following action plan is recommended:

(a) Improve awareness

Carry out activities to improve the level of public awareness about the importance of workers' health. This requires formulating and implementing a communication and information strategy that complements regulatory policies and programs.

(b) Emphasize the role of the media

Emphasize the role of the media in increasing the awareness of workers, businessmen, and decision-makers and in helping to place the issue of workers' health on the political agenda.

(c) Train Trainers/Facilitators

Provide skills on how to inform and train workers and employers. While this will pose a fundamental challenge, it is a major way of making political and social leaders more sensitive to the troubling aspects of workers' health.

(d) Integrate workers' health in national policies and plans

In order for the countries to work on workers' health in a strategic and consistent way, they must be prepared and they must have implemented policies and plans in this area. This includes national plans on workers' health, which should be incorporated within the national health and other social development plans. Furthermore, subregional and regional initiatives should be developed within the

context of the intensifying processes of integration, the establishment of shared markets, economic blocs**,** and the general process of globalization.

(e) Introduce and/or update legislation

Update and increase the effectiveness of laws to protect workers' health. This Master Plan supports the enactment of national and international legislation for the prevention of occupational risks as well as effective mechanisms to ensure compliance. Both legislation and standards that complement international agreements and instruments to support harmonization and standardization processes are priority aspects of this Plan. In order to achieve the foregoing, it is very important to establish close relations with the legislative branches of the countries so as to develop a technically-grounded lobbying process.

(f) Develop training and education programs

Establish professional education and training programs for worker leaders and members of worker organizations.

(g) Strengthen research capability

Strengthen research and steer it towards priority issues for the Region, such as improvement in situations of inequity and protection of vulnerable populations (children, women, workers of the informal sector, migrants, refugees, national ethnic groups, and others). For the countries, research should also be extended to conducting economic and social assessments of the impact of accidents and of occupational diseases. Applied research and multi-center studies should also be encouraged.

8.2.3 Expected Results and Activities

The above action plan, which encourages countries to formulate policies and legislation within a regulatory framework, is expected to yield results and generate activities as follows:

(a) Workers' health incorporated into national, regional, and sub-regional plans and development policies.

PAHO will promote the incorporation of the issue of workers' health into plans and policies at the regional, sub-regional, and national levels. It will seek to increase the awareness of public and civil society about the importance of workers' health. PAHO seeks to promote the creation of participatory strategies that will make it possible to include workers' health as a component of health reform and social security within the framework of human and sustainable development. Placing the subject on the political agenda will require an emphasis on reaching the media with good information and suitable scientific support in order to make workers, entrepreneurs, and political decision-makers more sensitive to this important issue. Encouraging a proactive, consensus-building approach and the inclusion of workers' health into the various policy proposals will be fundamental and strategic in that regard.

The achievement of these results is based on promoting policy guidelines systematized by technical-political teams at the various levels in order to facilitate a national diagnosis and turn the guidelines into opportunities for consensus-building. Political decision-makers will ideally find it mandatory to refer to them when they seek to design innovative approaches at the local or national levels.

There should be special emphasis on disseminating and promoting the knowledge gathered from successful local and national experiences as a way of validating the proposals. Appropriate technical profiles of the proposal should be developed in order to establish strategic partnerships between technical entities or institutions and political decision-makers.

(b) Harmonize legal framework and instruments in social security and occupational health.

To attain this result, there will have to be adequate coordination between two institutions of the United Nations: **PAHO/WHO** and the **ILO.** The **WHO/ILO** Joint Committee considers it crucial to promote the compilation of existing legal instruments and to design a proposal for regulatory instruments, which can be harmonized at the regional, subregional and national levels, should be designed. This entity, which would be of a technical nature, would provide due support for the national initiatives promoted by various sectors, ranging from political decision-makers at all levels to civil society. It would also facilitate the design of regulatory frameworks of harmonization with the various approaches to integration. In that regard, rafting laws and regulations that complement international agreements and conventions (the product of the integration process) is a priority.

Within the national arena, Technical Committees should be created. These should be multi-institutional and interdisciplinary. One of their functions should be the ongoing monitoring and follow-up of the process of updating regulations on occupational health and safety. Moreover, mechanisms for the exchange of information on regulatory matters should be established at the level of these national committees so that all recent laws or regulations can be used as references for other regulatory preparation processes in the various countries.

The core of this modernization and regulatory updating process should be to vest occupational health and safety issues with greater effectiveness and better protection by law, recognizing it as a fundamental human right and emphasizing the prevention and control of occupational risk. Likewise, special attention should be placed on establishing mechanisms to ensure efficient and effective compliance with regulations.

(c) Capacity to apply concerted workers' health policy and legislation to workers and employers

With regards to this expected result, one of the strategic objectives is the establishment of a Pan American Congress on Workers' health, drawing on all the countries of the Americas and the various agencies of the United Nations. The Congress could also enlist the support of governments, the various Ministries and sectors involved, employer and worker organizations, academic institutions and NGOs. The central focus

of the Congress will be to advance the Declaration of Occupational Health 2008. This strategy includes the definition of this supranational entity which should strengthen and provide feedback for the national committees (which are technical/political consensus-building entities at the national level), thus obtaining an ongoing intervention in the formulation of policy and in the drafting of legislation.

One critical aspect is to incorporate guidelines on occupational health policy in the various plans and processes of health sector reform and the modernization of social security. This will generate consensus-building possibilities among employers, worker and State organizations for the adoption of workers' health policies. It is essential to establish closer relationship with the legislative branches of the respective States and to develop what should be properly called technically-grounded lobbying activities. Special emphasis will be placed on education and training activities directed at the representatives of workers' organizations and at events or seminars for representatives from the employer organizations.

8.3 Promotion of Workers' Health

The health promotion program both defines a multifaceted strategy for creating a healthy workplace and provides technical support to the other three programs (which are; work environment, policies and legislation and health services) in a variety of areas including advocacy, information dissemination and human resources development. Like other settings where PAHO has developed health-promoting initiatives (schools, cities, hospitals, marketplaces), the workplace can have a very positive impact on the health and well-being of workers, their families, communities and society at large. However, in spite of demonstrated benefits, current workplace health promotion (WHP) efforts reach a limited number of workplaces and workers in the Americas.

Workplace health promotion is broadly defined to include a variety of policies and activities that are designed to help employers and employees at all levels to increase control over and to improve their health. A healthy workplace addresses risk factors in the physical environment, but also acknowledges the combined influence of economic, organizational, psychosocial, personal and community factors on employees' well-being. In order to cover the enormous variety of sectors and modes of production, including informal, rural and migrant work, it may also be necessary to address the political context, environmental and trade policies, economic aspects such as wages and distribution of wealth, as well as the quality of housing and the access to health and social services.

Only when workers' health promotion becomes a part of national policy, organizational agendas and workplace personnel practice, will its chances for sustainability be enhanced. Therefore, the plan includes provisions for advocacy and policy development as well as skill-building for many relevant stakeholders such as government, business and industry, employer associations and trade unions, professional associations, non-governmental organizations and the community. The active involvement of all role-players is essential to increase the visibility of workers' health promotion within regional and national agendas.

8.3.1 Objective

"To encourage countries to apply the strategy for health promotion with a healthy workplace and healthy spaces approach, emphasizing the positive aspects of social work relations, the individual and collective development of workers and the strengthening of their organizational capacity for individual and community action in order to improve the physical, economic, and psychosocial work environment."

The healthy workplace and working centers approach provides an opportunity to resolve basic health problems through comprehensive activities based on the principles of occupational health and safety, sustainable human development, health promotion, human resources management, and environmental protection and conservation. Other key elements of this approach are: the creation of workplaces which foster well-being, the empowerment of individuals and communities, intersectoral cooperation, and the participation of key actors, emphasizing the worker's role as an active partner throughout the planning, development and evaluation of the process.

This approach regards health as a positive concept, emphasizing social and personal resources, as well as the physical and spiritual faculties. **Investing in the health, education, and welfare of workers is the cornerstone of building human capital for economic production consistent with social justice.**

The integration of occupational health services with the local, regional, and national health systems is essential and strategic in that regard. This approach requires, above all, the commitment and consensus of various interest groups, such as the employers and, of course, the workers themselves.

In order to take into account the wide range of sectors and modes of production, including informal, rural, and migrant work, it is necessary to address aspects such as the organizational and corporate work environment, the social areas outside and inside the physical workplace, the political position regarding public and private environmental and trade policies, economic aspects such as wages and the distribution of wealth, and finally, social aspects of the community, such as equality of housing, infrastructure, access to information services, etc. All this requires a consensus-building approach involving key actors, as well as coordination with other strategies and approaches such as primary environmental care, as well as the Health Cities and Health Communities strategy, among others.

8.3.2 Action Plan

Implementing the strategy for workers' health promotion, along with the previously outlined considerations, requires a coordinated effort in the local, national, regional, and global arenas geared towards the following activities:

(a) Develop and implement healthy workplace initiatives in multiple work-settings

Develop and apply the concept of healthy workplace and working centers recognizing the reality of the Americas and drawing from the experiences of healthy communities, cities, schools, and markets and other health promotion projects. This will

be carried out in direct collaboration with the managers of economic activities, workers' associations, government agencies, scientific and technical institutions, the community and social security institutions with the support of the PAHO/WHO Collaboration Centers, the health promotion programs of PAHO and WHO**,** and the specialized Centers of the Organization, in such a way that it will bear many similarities to the Healthy Companies Network (HeConet) initiated by the University of Heidelberg in Germany.

(b) Create a healthy workplace and working centers network

Create a regional network of healthy workplace and working centers as part of the system of global networks promoted by the WHO and integrated into the networks of the ILO and the European Foundation for the Improvement of Living and Working Conditions, with the dynamic involvement of social workers interested in the promotion of workers' health. This is to be the hub for dissemination of these concepts.

(c) Integrate the healthy workplace and working centers approach into existing systems and institutions

Incorporate the healthy workplace and working centers approach into national and local health systems, scientific and technical institutions, centers for the training of human resources, the ministries and other service providers with the support of technical and financing agencies for development.

(d) Seek the commitment and active support of all players and stakeholders

Develop models and methodologies to operationalize the healthy workplace and working centers approach in the Region through the commitment and participation of interested groups from the private sector, universities, WHO/PAHO Collaborating Centers, cooperation agencies, the PAHO/WHO Division of Health Promotion and Protection, and the specialized centers of the Organization. This is one of the most important logistical points of support for achieving this objective.

(e) Conduct training for all players and stakeholders

Training workers, employers, and managers to participate effectively in the Plan to promote workers' health with the support of scientific and technical institutions, employer and worker associations, national and international unions, chambers of industry and trade, NGOs and workers' compensation insurance administrators.

(f) Build community awareness and education

Disseminate information and encourage the community in promoting workers' health in collaboration with actors in the education system, local government, and non-governmental organizations. This will make it possible to seize strategic opportunities for policy design, legislation for a work environment of quality and for an improvement in the health services.

8.3.3 Expected Results and Activities

Using the approach outlined above to promote workers' health will generate the following results and activities:

(a) Development of a strategy to create awareness within decision-makers and leaders in politics, business, labor, and public opinion about the social and economic importance of workers' health

Incorporating the topic of workers' health in the local and national policies of the countries will require increasing the awareness of political decision-makers. The strategic objective is to demonstrate the positive impact in political terms (governance, consensus, economic development, social equity, etc.). Tools for information dissemination and training shall be prepared by tripartite groups in the respective countries. These will include special fora, focus groups and informal meetings in addition to the development of written promotional material.

PAHO will support the education of these groups and the basic design of the pertinent instruments.

In the countries, the groups will be jointly organized with two (2) objectives:

* To achieve a multiplier effect (training of trainers, etc.)
* To utilize the strategy of health promotion and the concept of workers' health (quality of life, working and health conditions) to show at all levels the relationship between workers' health and socio-economic development.

(b) Incorporation of Workers' Health into the various levels of education

Workers' health education is the cornerstone to building a safety culture ranging from production and respect for the producer to our individual self-esteem. Orientation at the initial, primary and secondary levels will build consciousness and philosophy of life. Higher education would, moreover, provide scientific and technical knowledge for the management of workers' health problems. The strategic objective is to educate those who train the educators and to persuade the countries' educational policymakers.

PAHO will support the training of specialized groups as well as the basic design of the pertinent instruments.

In the countries, the groups will be organized in a coordinated manner with two (2) objectives:

* To develop educational curricula in workers' health that would be incorporated at all levels of formal education
* To promote education for the world of work as a basis for labor productivity based on the healthy workplace and working centers approach.

(c) Joint commissions of occupational safety and health functioning in promotion, surveillance, training, and communication activities related to risk prevention and risk control, and related to current regulations as well

The active participation of workers and their organizations for the promotion, surveillance, training and effective application of occupational safety and health standards are fundamental for success in the prevention and control of risks. The strategic objective is the empowerment of workers with regard to their right to life and to a safe and healthy work.

It is expected that this goal will be achieved through training human resources (specialists, promoters, etc.), drawing on the day-to-day experiences of groups that have been working in this area in the countries of the Region. PAHO's work will be oriented toward international technical/financial support promoting the capacity for communication between labor and business (consensus-building for workers' health) and links between Latin American labor organizations (as well as other organizations) and international labor organizations in Europe, the United States and Canada.

(d) Workers' health activities implemented in workers' organizations

The Plan considers it timely for the national groups, with the support of PAHO, to promote the following actions in workers' organizations:

- Prepare their own instruments for the identification, assessment, and control of environmental risks and the organization of work
- Adopt technologies for comprehensive improvement of working conditions and the work environment
- Design socio-epidemiological surveys on the workers themselves
- Promote worker validation, consensus and participation in solving their own problems
- Promote the creation of occupational health and safety committees or other forms of worker involvement
- Ensure real and effective worker participation in the planning, organization, supervision and control of programs for risk prevention and control

(e) Enhance the empowerment of workers and of the community

The fundamental activities to be promoted by the national groups, with the support of PAHO, are to:

- Raise the level of awareness of workers and communities regarding workers' health and its linkage with environmental conditions and the quality of life
- Encourage worker and community participation in national activities to promote workers' health in general policies on health and the environment, and specific programs for the prevention and control of risks and the organization of work
- Systematize and disseminate preventative, safe, and healthy practices drawing on the knowledge generated by experience with workers and community activities
- Design national and sectoral programs for the education of promoters and methodologies for preventive intervention
- Promote the sharing of experience-based knowledge with and between labor unions and the community

(f) Management of the enterprise with the healthy workplace and healthy spaces approach

The participation of business in the prevention and control of risks and in the creation of healthy workplaces and spaces are in its embryonic stages in the Region. Thus, it is necessary to embark on a comprehensive program on workers' health. Although workers' health can never be subjected to the laws of the market, or to the loss of fundamental human rights, occupational safety and health nevertheless provide a firm foundation for improving labor productivity and social equity.

The Business sector can promote the following actions:

- Assess the impact of occupational risks on the firm's productivity and operational costs
- Prepare efficiency, cost/benefit, and cost/effectiveness indicators
- Prepare indicators of prevention measures in the workplace
- Analyze investment in prevention measures, as well as their cost-effectiveness
- Structure a system for managing occupational risks to be used by firms,
- Adopt safe and healthy production technologies
- Prepare self-evaluation instruments, such as audits, verification lists, etc.
- Draft a code of ethics on workers' health

In addition to the participation of international, bilateral and other agencies, the achievement of expected results (d), (e), and (f) requires the national political will to seek technical, methodological and participatory mechanisms to ensure that the interested parties themselves are the ones who direct and lead the actions (employers, workers, and community). In this regard, PAHO assumes the role of catalyst, facilitator, and provider of technical support.

8.4 Delivery of Comprehensive Health Services for Workers

It is estimated that in developing countries, only 5% to 10% of the working population have access to full and efficient occupational health services. Existing services tend to employ a curative rather than a preventative or a promotional approach. This occurs despite the evident need for the latter and despite of the WHO's goal of Health for All and of the occupational health services agreements of the ILO. These establish that every worker has the right to safety and occupational health services, regardless of the economic sector, size of company, or of the type of work.

The Declaration of Alma-Alta (WHO) emphasizes the need to have primary care services located as close as possible to the places where people live and work with priority assigned to high-risk populations.

8.4.1 Objective

Strengthen the countries' capacity for expanding comprehensive workers' health services (promotion, prevention, care, as well as physical and social

rehabilitation) in or coordinated with national and local health systems and implemented by multidisciplinary teams

Occupational health services can be organized in different modes and levels depending, for example, on the size of the firm, the type of productive process, the occupational risks and the organization of the work. In accordance with Convention #161 of the ILO, health services in the workplace can be organized as services for a single firm or as services common to several firms so that, in keeping with national practice, they can be organized by:

- firms or groups of firms
- branches of government or official services
- Social Security Institutions
- any other agency empowered by the responsible authority
- a combination of any of the above

On this issue, Recommendation #171 of the ILO points out that the function of these health services, as they relate to work, is essentially preventative and relies on:

- Monitoring the work environment
- Monitoring workers' health
- Information, education, training, guidance
- First aid, treatment and health programs

Effective workers' health services require a holistic approach to public health. This should include: primary prevention in order to eliminate or control occupational risk factors; secondary prevention, for early detection and reversibility of health alterations induced by occupational exposure, and comprehensive rehabilitation which should include the rehabilitation (retraining, re-education, and return-to-work) of disabled workers into a safe and healthy work environment. Accordingly, these services require the intervention of several disciplines from the biomedical, environmental and social sciences, such as: medicine, nursing, occupational health and safety, ergonomics, physiotherapy, psychology, sociology, epidemiology and toxicology. This should be integrated within a multidisciplinary framework, which includes participation and feedback from workers and employers. Service delivery should be characterized by care that is timely, universal, of optimal quality and based on principles of equity and accessibility.

8.4.2 Action Plan

The delivery of comprehensive health services for workers is contingent on the following actions:

(a) Institute guidelines to include unprotected workers

Identify, develop and disseminate guidelines so as to organize comprehensive services geared toward obtaining greater access and coverage for unprotected workers, such as those in the informal sector, in small businesses, engaged in independent and rural work, and in other similar modalities. This should be done in direct collaboration with the Division of Health Systems and Services

Development of PAHO/WHO, the ILO, and the ISSA in the regional and international arena.

(b) Integrate workers' health services into primary care services

Incorporate workers' health services into existing primary care services in the countries drawing from current reform and modernization of the health sector, social security and the institutional development policies supported by international financing agencies such as the World Bank and the IDB.

(c) Provide training in the relevant disciplines

Provide training in the disciplines required for the adequate delivery of occupational health services in direct collaboration with the Program on Human Resources Education of PAHO/WHO, the government sector linked to education and health, the Collaborating Centers in human resources education, higher education institutions and the authorities responsible for workers' health services.

(d) Create collaborative networks

Establish collaborative networks at the international and regional levels seeking the assistance of experts in providing support services for workers' health and utilizing the specialized centers of PAHO, international programs such as INTOX and IPCS and the databases of organizations of the United Nations system.

8.4.3 Expected Results and Activities

The implementation of the above plan will yield results and give rise to activities as follows:

(a) The systems would have been incorporated in the Primary Health Care (PHC) of the existing health systems (Ministry of Health, SS) with universal coverage and full access for workers

The strategy of incorporating workers' health services into the primary health care services is designed to link up with current reforms and modernization of the health sector, social security and institutional development policies. The achievement of this expected result will be gauged from experiences that demonstrate the technical, social, and economic viability of the proposal through increased coverage and access, especially for the unstructured or informal sector. In this regard, the institutions providing health care should establish procedures and standards at the various levels so as to make it possible to meet the challenge of delivering healthcare services that are universal, timely, and of optimal quality.

It is in this context; PAHO will join the national institutions to:

- Incorporate the primary health care of workers into the health services network through appropriate mechanisms for expanding coverage and access, with special emphasis on the informal sector
- Safeguard the financing and programming autonomy of these services

- Establish procedures and standards that facilitate the treatment of workers at the various levels of care
- Establish rehabilitation programs for work (including return-to-work)

(b) Primary care and/or the specialized services of public and/or private health care enterprises would have incorporated systems for registry and reporting that are endowed with adequate human and technological resources

At the center of the strategy for achieving this expected result is the training of professionals who contribute to workers' health from the various disciplines. Simultaneously, a strategy should be devised for ongoing in-service training of specialized staff in public and private health firms alike and developing model programs or innovative curricula for reporting injuries especially in the registry systems. In this regard, programs should be established for collaboration with the WHO and PAHO, with government sectors linked to education and health, with private promoters and with initiatives from the firms and other specialized entities.

(c) The firms will have comprehensive workers' health systems involving employers and workers

PAHO promotes the implementation of participatory experiences in creating opportunities for consensus-building between employers and workers in both small business and micro-enterprises at the local, national, and regional levels. The promotion of participatory mechanisms, which involve workers and employers -such as health and safety committees in the firms- should be strengthened by linking them to processes for improving productivity and quality in the firms.

One element that should be developed is the orientation in the use of appropriate and low-cost methods and technologies in production processes which small and medium-sized firms would be inclined to adopt and transfer.

Mechanisms should be established for the integral rehabilitation, evaluation of impairment and return to work of disabled workers.

(d) Expansion of coverage to groups of less-protected workers

The growth of the informal or of the unstructured sector, of small business, of independent work and of other modalities creates the need to develop approaches and models of care that offer guidelines for organizing comprehensive services to permit broader access and coverage for such workers. In this regard, the protection of vulnerable populations must be a priority in order to overcome inequities in the access to services. Top priorities should be given to children and adolescent workers, workers in the informal sector, migrants and refugees and indigenous and rural populations.

Successful strategies that can be validated in the local arena should be promoted and disseminated at the level of the workers' health network to begin building cumulative processes and creating a multiplier effect of the experiences at a local level. These strategies should be presented and systematized in order to orient national or subregional interventions particularly within vulnerable sectors.

9. KEY AGENTS, ACTORS AND STAKEHOLDERS

The scope of workers' health, its importance in protecting people and for producing the goods and services that people require to live determine the dual process whereby human beings create the conditions both to sustain their society and to reproduce as species. In short, workers' health involves a process both of creation and of self-creation.

Workers' health makes all people their own actors and agents; they are a part of both the problem and the solution. Hence, the STAKEHOLDERS are represented by:

- **Civil society**: which needs to avoid the existence of occupational hazards
- **Employer organizations**: which are responsible for balancing economic values with the human values related to workers, the environment, and the community
- **Worker organizations**: which are responsible for making workers' health a strategic objective in their daily activities
- **Academic and scientific institutions**: which have a responsibility to conduct ongoing research on technological, economic, and social problems as key factors in affecting health and work.
- **The State**: which has the responsibility to formulate policy and a regulatory framework to enforce laws and regulations.
- **International organizations**: which are responsible for providing and facilitating technical, financial, and human resources support.
- **The administrative institutions of social security:** specifically the new workers compensation administrators, such as Argentina's ART or Colombia's ARP.

10. CRITICAL SUCCESS FACTORS

The successful implementation of this Plan requires:

- The active support of all the above agents, actors, and stakeholders.
- A paradigm shift in our concept of work, production and productivity.
- A genuine commitment to human and sustainable development.
- Access to the required resources.
- Willingness to become agents of change, and a genuine interest to network and share experiences, exchange information, develop ideas and initiative; and to work in a spirit of harmony and partnership.

In the final analysis, human and political wills are critical to the success of this Plan.

APPENDIXES

FRAME 1: LOGICAL FRAMEWORK OF THE REGIONAL PLAN ON WORKERS' HEALTH

QUALITY OF THE WORK ENVIRONMENTS

OBJECTIVES	*INDICATORS*	*SOURCES OF VERIFICATION*	*ASSUMPTIONS*
GOAL Contribute to the improvement of working conditions and environments[v], and of workers health in the countries of the region, supporting their human and sustainable development	• By 2015, reduce the rate of fatal work-related accidents in the countries of the region by 30%. • By 2015, reduce the rate of non-fatal work-related accidents in the countries of the region by 50%. • By 2015, reduce the rate of professional diseases diagnosed with assurance in the countries of the region by 30%. • By 2015, reduce by 10% the costs of occupational health in the pilot countries, institutions and enterprises.	• Basic study, report on the systematization of basic data (PAHO) • Evaluation of the impact at 7th year of implementation of the Plan	
OBJECTIVE 1 Strengthen the capacities of countries to prevent and control risk factors in distinct working environments.	• By 2008, all the countries of the region will have systems of epidemiological surveillance on EWC and WAPD[vi] according to the norms established by PAHO, the ILO and other competent authorities. • By 2008, all the countries of the region will have national and sectoral programs directed at workgroups exposed to severe risk factors, for their prevention and control, headed and monitored by qualified personnel.	• Basic study, report on the systematization of basic data (PAHO) • Final evaluation of the Regional Plan • Country statistics	• The political, social and working conditions are stable in the countries. • Natural factors remain stable.

[v] Environmental and working conditions: EWC.
[vi] Work-related accidents and professional diseases: WAPD.

RESULTS	By 2008:	***SOURCES OF VERIFICATION***	***ASSUMPTIONS***
1.1 Strengthen the capacities to prevent and control occupational hazards	1.1.1 All the countries will have workplace inspections that abide by Convention 81 of the ILO. 1.1.2 In all the countries there will be at a minimum 1 labor inspector for 30 thousands workers 1.1.3 In all the countries there will be training programs certified by a competent organization (PAHO/ILO) in the field of workers' health	Report from the labor inspections in the countries Basic study about the training of human resources in the region Final evaluation report of the Regional Plan	The governments and employers of the countries of the region make the political decision to improve the health and safety of the workers
1.2 Incorporate registration, notification and surveillance systems on workers' health and social security systems	1.2.1. By 2005, all the countries in the process of integration will have adopted common definitions about WAPD 1.2.2. By 2005, all the countries in the process of integration will have adopted common notifications registrations and statistics on occupational injuries. 1.2.3. l0 countries of the region will be using instruments to collect information about WAPD in the "informal sector" and minor workers.	Report on notification and surveillance in workers' health in the countries of the region Basic study about notification and surveillance in the countries of the region Final evaluation report of the Regional Plan	
1.3 Establish information systems on workers' health	1.3.1. By 2002, PAHO's network (RST-LAC) will have a stable budget for its adequate functioning. 1.3.2. By 2005, the Virtual Library on workers' health will be completed, updated and linked to global information networks, generating over 10 thousands visits per year 1.3.3. By 2008 there will be virtual courses and distance education at various levels that will have trained at least 5,000 individuals in the countries of the region	Report on the RST-LAC. Report on PAHO's Virtual Library on workers' health. Final evaluation report of the Regional Plan.	
1.4 Train personnel and transfer appropriate and clean technologies for the prevention and control of risks	1.4.1 By 2003, PAHO will have created a database about appropriate technologies in workers' health at the disposal of the countries of the region 1.4.2. By 2008, at least 1,000 recommendations from the database will have been applied in 50% of the countries of the region at a rate of 200 per year	Basic study and report about appropriate technologies in workers' health and their application	

POLICIES AND LEGISLATION

OBJECTIVES	*INDICATORS*	*SOURCES OF VERIFICATION*	*ASSUMPTIONS*
GOAL Contribute to the improvement of working conditions and environments, and of workers health in the countries of the region, supporting their human and sustainable development	• By 2015, reduce the rate of fatal work-related accidents in the countries of the region by 30%. • By 2015, reduce the rate of non-fatal work-related accidents in the countries of the region by 50%. • By 2015, reduce the rate of professional diseases diagnosed with assurance in the countries of the region by 30%. • By 2015, reduce by 10% the costs of occupational health in the pilot countries, institutions and enterprises.	• Basic study, report on the systematization of basic data (PAHO) • Evaluation of the impact at the 7th year of implementation of the Plan	
OBJECTIVE 2 Strengthen the capacities of countries to establish policies and legislation that are updated, enforceable and integrated to national plans.	• By the end of 2008, 10 governments will have included in their national plans and budgets policies and standards in favor of workers' health. • By the end of 2008, 10 governments will have proclaimed, at the highest executive or legislative level, the creation of national planning and coordination institutions on workers' health.	• Basic study, report on the systematization of basic data (PAHO) • Final evaluation of the Regional Plan • Country statistics	• The political, social and working conditions are stable in the countries. • Natural factors remain stable.

RESULTS	By 2008:	***SOURCES OF VERIFICATION***	***ASSUMPTIONS***
2.1 Incorporate workers' health in the national, sub-regional and regional development plans and policies	2.1.1 10 national, 2 sub-regional and 1 regional plans will work efficiently with an adequate budget.	Basic study and report on the workers' health plans in the countries of the region Final evaluation report of the Regional Plan	The governments and employers of the countries of the region make the political decision to improve the health and safety of the workers
2.2 Harmonize the legal framework and other instruments with respect to occupational health and safety at the national, sub-regional and regional levels	2.2.1 By 2008, 10 countries of the region will have adopted and updated polices, legislation and standards on health and safety at work that abide by the ILO Conventions and PAHO's recommendations, integrating them into their national plans.	Report on the legal framework of the countries on workers' health. Final evaluation report of the Regional Plan	
2.3. Establish national capacities in order to apply concerted policies and legislation on workers' health.	2.3.1 By 2008, all the countries of the region will have operational inter-institutional and tripartite mechanisms of coordination on health and safety at work for the planning, execution, control, follow-up, update and improvement of policies, standards and recommendations	Report about the countries' institutions of coordination on workers' health Final evaluation report of the Regional Plan	

PROMOTION OF WORKERS' HEALTH

OBJECTIVES	***INDICATORS***	***SOURCES OF VERIFICATION***	***ASSUMPTIONS***
GOAL Contribute to the improvement of working conditions and environments, and of workers health in the countries of the region, supporting their human and sustainable development	• By 2015, reduce the rate of fatal work-related accidents in the countries of the region by 30%. • By 2015, reduce the rate of non-fatal work-related accidents in the countries of the region by 50%. • By 2015, reduce the rate of professional diseases diagnosed with assurance in the countries of the region by 30%. • By 2015, reduce by 10% the costs of occupational health in the pilot countries, institutions and enterprises.	• Basic study, report on the systematization of basic data (PAHO) • Evaluation of the impact at the 7th year of implementation of the Plan	
OBJECTIVE 3 Strengthen the capacities of countries to apply health promotion strategies with a proactive and comprehensive focus centered on healthy workplaces and work stations	3.1 In all the countries of the region there will be a 20% increase in the percentage of workplaces that meet the EWC standards and other systems established by the national competent authority.	• Basic study, report on the systematization of basic data (PAHO) • Final evaluation of the Regional Plan • Country statistics	• The political, social and working conditions are stable in the countries. • Natural factors remain stable.

RESULTS	By 2008:	***SOURCES OF VERIFICATION***	***ASSUMPTIONS***
3.1 Sensitize leaders in politics, business and labor as well as the public about the social and economic importance of workers' health	3.1.1 In all the countries of the region there will be a 50% increase in the percentage of work centers with health and safety programs that meet standards and systems established by the national competent authorities.	Report about the governmental, business and labor participation in workers' health in the countries. Final evaluation report of the Regional Plan	The governments and employers of the countries of the region make the political decision to improve the health and safety of the workers
3.2 Incorporate workers' health in different levels of formal education.	3.2.1 In all the countries of the region contents with respect to the prevention and care of health at work will have been incorporated in the formal and informal education.	Report on workers' health in the education systems of the countries Final evaluation report of the Regional Plan	
3.3. Sensitize and train businessmen and other leaders in the prevention and control of occupational hazards and their importance for the productivity of the workforce	3.3.1 There will be a fivefold increase in the number of enterprises that have health and safety programs, in 15 countries of the region 3.3.2. In 15 countries, employer organizations implement training programs in the management of workers' health directed at businessmen.	Report on the business participation and action in workers' health in the countries Final evaluation report of the Regional Plan	
3.4 Ensure the empowerment and the participation of workers and communities in the control of occupational hazards.	3.4.1 In all the countries of the region there will be accessible alphabetization programs for the workers 3.4.2 In all the countries there will be a threefold increase in the rate of health and safety committees functioning efficiently inside the enterprises	Report on the labor participation and action on workers' health in the countries. Final evaluation report of the Regional Plan	
3.5 Establish business management models with an emphasis on healthy workplaces and work stations	3.5.1 In all the countries of the region there will be a fivefold increase in the number of enterprises or work centers that are certified as healthy enterprises	Report on the certification of healthy enterprises in the countries Final evaluation report of the Regional Plan	

COMPREHENSIVE WORKERS' HEALTH SERVICES

OBJECTIVES	*INDICATORS*	*SOURCES OF VERIFICATION*	*ASSUMPTIONS*
GOAL Contribute to the improvement of working conditions and environments, and of workers health in the countries of the region, supporting their human and sustainable development	• By 2015, reduce the rate of fatal work-related accidents in the countries of the region by 30%. • By 2015, reduce the rate of non-fatal work-related accidents in the countries of the region by 50%. • By 2015, reduce the rate of professional diseases diagnosed with assurance in the countries of the region by 30%. • By 2015, reduce by 10% the costs of occupational health in the pilot countries, institutions and enterprises.	• Basic study, report on the systematization of basic data (PAHO) • Evaluation of the impact at the 7th year of implementation of the Plan	
OBJECTIVE 4 Strengthen the capacities of countries to improve the coverage, adequacy and comprehensiveness of workers' health services.	• By the end of 2008, there will be a 10& increase in the access to occupational health services in all the countries	• Basic study, report on the systematization of basic data (PAHO) • Final evaluation of the Regional Plan • Country statistics	• The political, social and working conditions are stable in the countries. • Natural factors remain stable.

RESULTS	By 2008:	***SOURCES OF VERIFICATION***	***ASSUMPTIONS***
4.1 Extend the coverage and increase the access to comprehensive workers' health services integrated to national health and social security systems	4.1.1 All the countries will have working programs integrating occupational health in primary health care in the health and social security sectors. 4.1.2 All the countries will be operating programs of health services that will cover workers in the informal sector	Informe sobre cobertura de salud de los trabajadores en los países. Final evaluation report of the Regional Plan	The governments and employers of the countries of the region make the political decision to improve the health and safety of the workers
4.2 Improve the human and technological resources in public and private services specialized on workers' health	4.2.1. All the faculties of medicine and engineering will have incorporated knowledge on workers' health in education programs. **4.2.2**. All the countries will have the means to train specialists in the field of prevention through courses of under and post graduate and others recognized by the ILO/PAHO	Informe sobre formación de recursos humanos en salud de los trabajadores en los países. Final evaluation report of the Regional Plan	
4.3 Establish the participation of workers and employers in comprehensive health systems inside the enterprises	4.3.1. By the year 2006, 70% of workers in 10 countries will be able to ensure comprehensive health services by having regulated and developed mechanisms for their direct participation.	Informe sobre participación empresarial y laboral en salud de los trabajadores de los países. Final evaluation report of the Regional Plan	
4.4 Extend health coverage to workers currently unprotected	4.4.1. All the countries of the region will have implemented preventive and promotional programs on EWC and systems directed at the informal sector	Informe sobre cobertura de servicios de salud de los trabajadores de los países. Final evaluation report of the Regional Plan	

FRAME 2: ACTIVITIES PER PROGRAMMATIC AREAS (OBJECTIVES AND EXPECTED RESULTS OF THE PLAN)

GOAL

Contribute to the improvement of working conditions and environments and of workers' health in the countries of the region, supporting their human and sustainable development.

PROGRAMMATIC AREA 1: QUALITY OF THE WORK ENVIRONMENT

OBJECTIVE 1: Strengthen the capacities of countries to prevent and control risk factors and distinct working environments

RESULTS	***ACTIVITIES***
1.1 Strengthen the capacities to prevent and control occupational hazards at all levels of responsibilities.	- Incorporate in the curricula, at all levels of teaching in the related basic professions, content for the identification and control of risks - Training of employers and workers - Technical and institutional training in the fields of hygiene and safety at work - Dissemination of methods of inspection and intervention that are practical, simple and effective - Develop models of intervention that emphasize the control of hazards - Promote the creation of mixed health and safety committees for surveillance in workplaces
1.2 Incorporate registration, notification and surveillance systems on workers' health in national health and social security systems	- Establish diagnosis of the country situation in surveillance systems in health and safety at work - Develop practical and simple notification, registration and surveillance systems on workers' health in the national, local, sectoral and enterprise levels - Design protocols for research on hazards/injuries; identify and prioritize sentinel indicators and alert systems
1.3 Establish systems to gather and disseminate information on workers' health	- Create and maintain a discussion list through the Internet of workers' health in the region - Promote the consolidation, feedback and dissemination of experiences at all levels - Maintain up to date the website on workers' health in the CEPIS server - Train human resources specialized in the management of information systems on workers' health at different levels - Develop documentation and information networks - Maintain a directory of institutions, specialists and actors in workers' health throughout the region
1.4 Train personnel and transfer appropriate and clean technologies for the prevention and control of hazards	- Identify, validate and disseminate appropriate and clean technologies for the prevention and control of hazards in enterprises and workplaces - Build and strengthen a national and regional network of databases on appropriate and clean technologies for the prevention and control of hazards, which would be accessible for dissemination purposes - Adopt and apply standards conductive of clean and safe technologies - Train specialists in clean and safe technologies in order to advise enterprises

PROGRAMMATIC AREA 2: POLICIES AND LEGISLATION

OBJECTIVE 2: Strengthen the capacities of countries to establish and apply policies and legislation that are updated, enforceable and integrated into national plans.

RESULTS	***ACTIVITIES***
2.1 Incorporate workers' health in national, sub-regional and regional plans and policies	- Identify policies that are related to living and working conditions of the economically active population - Promote the approval and application of international labor standards, as well as those referring to environmental quality - Assess the institutions that are responsible of creating national policies and laws in concerted manner - Create a diagnosis of policies and legislation that include individual and collective workers' rights; evaluate the costs due to the damage done to the workforce and to the environment through working processes
2.2. Harmonize the legal framework and other instruments with respect to occupational health and safety at the national, sub-regional and regional levels	- Formulate and implement laws, rules and technical standards relating to workers' health - Develop, promote and disseminate instruments of homologation and implementation
2.3. Establish national capacities in order to apply concerted policies and legislation on workers' health	- Promote the establishment of technical sub-regional commissions on workers' health - Create technical national commissions on workers' health - Define instrument and indicators for the making of policies and legislation - Include workers' health in all fora on globalization and economic integration - Strengthen regional and sub-regional parliamentary instances and encourage debates and interventions specifically on workers' health issues - Create instances of bargain between workers, employers and government representatives with decision-making capacities

PROGRAMMATIC AREA 3: PROMOTION OF WORKERS' HEALTH

OBJECTIVE 3: Strengthen the capacities of countries to apply health promotion strategies with a proactive and comprehensive focus centered on healthy workplaces and work stations

RESULTS	***ACTIVITIES***
3.1 Sensitize leaders in politics, business and labor as well as the public about the social and economic importance of workers' health	- Produce dissemination and training instruments to be used by specialized groups in the countries - Train the human resources belonging to these specialized groups and create the basic design of the corresponding instruments - Develop and implement communication strategies in workers' health - Disseminate indicators on social and economic costs for enterprises with regard to workers' health - Develop communication campaigns on workers' health for the effective participation of employers in this field
3.2 Incorporate workers' health in different levels of formal education	- Incorporate workers' health in distinct levels of formal and informal education and training - Train instructors and direct educators and convince decision-makers about the education policy of the countries - Produce educational materials on workers' health according to the different levels of education and training
3.3. Sensitize and train businessmen and other leaders in the prevention and control of occupational hazards and their importance for the productivity of the workforce	- Elaborate programs of technical assistance for the compliance of workplaces with international quality standards - Elaborate programs for strengthening the management capacity with a focus on healthy workplaces - Strengthen the technical capacities of human resources in methodologies of health promotion and negotiation with the business sector - Educate employers about the re-integration of workers with disabilities
3.4 Ensure the empowerment and the participation of workers and communities in the control of occupational hazards	- Create awareness in workers and the community about workers' health and its relation with the quality of living conditions - Promote the participation of workers and the community in the identification, evaluation and control of hazards, as well as the control of the organization of work - Systematize and disseminate healthy and safe practices through the knowledge acquired form the participation of workers and the community - Mobilize education and communication technologies - Elaborate guides and manuals
3.5 Establish business management models with an emphasis on healthy workplaces and work stations	- Elaborate an instrument of valuation of working conditions and environments - Promote the formation of workers' health committees and other forms of intervention in labor organizations - Prepare labor organizations for the identification, evaluation, control and application of techniques for the improvement of working conditions and environments - Encourage the assessment, consensus and involvement of workers and the community in the solution of problems

PROGRAMMATIC AREA 4: COMPREHENSIVE HEALTH SERVICES

OBJECTIVE 4: Strengthen the capacities of countries to improve the coverage, adequacy and comprehensiveness of workers' health services

RESULTS	***ACTIVITIES***
4.1 Extend the coverage and increase the access to comprehensive workers' health services integrated to national health and social security systems	- Develop a framework of reference for primary care in workers' health - Promote the establishment of appropriate mechanisms to increase health coverage and accessibility in terms of its relation to work with a special emphasis on the informal sector - Encourage health institutions (public and private) to establish procedures and standards that would facilitate health services to workers at different levels of service, such as those with regard to promotion and rehabilitation - Ensure the financial and programmatic autonomy of the services - Establish programs of professional rehabilitation and of labor re-integration for workers with disabilities
4.2 Improve the human and technological resources in public and private services specialized in workers' health	- Include training on workers' health in the models and plans of the curricula of health professionals (under and post graduate) with an emphasis on public health and epidemiology - Include within the formation and training in other disciplines basic programs and courses about the relationships between production processes, work and health. - Strengthen the continuous education of health personnel in topics relating to workers' health - Include activities from comprehensive workers' health services in the network of the provision of assistance health services and incorporate appropriate technologies according to the levels of services
4.3 Establish the participation of workers and employers in comprehensive health systems inside the enterprises	- Look for areas of agreement between employers and workers - Enhance participation mechanisms for workers and employers alike, and establish health services in the workplace (Convention 161, ILO) - Develop and promote the use of low-cost preventive methods and technologies - Develop mechanisms for the re-integration of workers with disabilities
4.4 Extend health coverage to workers currently unprotected	- Identify and quantify the most vulnerable and least protected working population - Develop models of health coverage, within and out of the formal health and social security system, with their financing schemes

ENDNOTES

[1] World Development Indicators 1998 CD-ROM, Worldbank

[2] World Bank. World Development Report 1995; Workers in an integrating world. Washington DC: World Bank 1996

[3] Banco Interamericano de Desarrollo. Informe Anual 1997

[4] Comisión Económica para América Latina y el Caribe. Balance preliminar de la economía de América Latina y el Caribe. Santiago, Chile: CEPAL; 1995

World Health Organization. Summary Report of the Third Meeting of the WHO Collaborating Centres in Occupational Health and Health of seafarers. Santafé de Bogotá, DC Colombia, April 15 –18, 1997.

[5] Organización Internacional de Trabajo. Panorama Laboral 1997. Ginebra: OIT; 1997

[6] Comisión Económica para América Latina y el Caribe. Balance preliminar de la economía de América Latina y el Caribe. Santiago, Chile: CEPAL; 1995

[7] Condiciones de Salud en las Américas, OPS Washington 1994

[8] World Bank. World Development Report 1995; Workers in an integrating world. Washington DC: World Bank 1996

[9] Centro Latinoamericano de Demografía. Población Económicamente Activa 1970-2000. Boletín Demográfico, 1992;25(49):17

[10] Acevedo D. Mujer, trabajo y salud, tendencias e inequidades de género. OPS, 1997. Washington, DC: Organización Panamericana de la Salud; 1997

[11] World Bank. World Development Report 1995; Workers in an integrating world. Washington DC: World Bank 1996

[12] Messing K, et al. Evaluation of exposure data from men and women with the same job title. J Occup Med 1994;8

[13] Seifert AM. Estudios sobre los empleos y las condiciones de trabajo de las mujeres en diferentes sectores productivos. Taller de Información sobre la Red: Mujer, Salud y Trabajo. Barcelona 1996

[14] OPS. Salud de los Adolescentes. Washington DC 1997 (Documento CD40/21)

[15] UNICEF: Estado Mundial de la Infancia. Nueva York: Oxford University Press; 1997

[16] WHO. Children at work: Special Health Risks. Geneva: WHO; 1987.(Technical Report Series 756)

[17] UNICEF: Estado Mundial de la Infancia. Nueva York: Oxford University Press; 1997

[18] Quesada Fagundes TL. Trabajo, estrategias de supervivencia y la salud de los niños y niñas en los países de las regiones de las Américas. Washington DC: OPS 1994

[19] Leigh J, et al. Occupational Hazards. En: Murray CJL, López AD, eds. Quantifying global health risks: The burden of disease attributable to selected risk factors. Cambridge, Massachusetts: Harvard University Press; 1996

[20] Health and Environment in Sustainable Development; five years after the Earth Summit. WHO Geneva 1997

[21] Health and Environment in Sustainable Development; five years after the Earth Summit. WHO Geneva 1997

[22] Barten, F. Environmental lead exposure of children in Managua, Nicaragua. An urban health problem. University of Nijmegen, 1994

[23] Betancourt, O, La Salud y el Trabajo; CEAS; OPS Ecuador 1995

[24] Yearbook of Labour Statistics, ILO Geneva 1995

[25] World Health Organization. Global Strategy on occupational health for all. The way to health at work. October 1994, Beijing, China. Geneva: WHO 1994 (Document WHO/OCH/95.1)

[26] OPS 1998; Informe del proyecto de sistematización de datos básicos sobre la salud de los trabajadores en países de las Américas: Barbados, Brasil, Colombia, Costa Rica, Chile, Jamaica, México, Panamá, Perú, Venezuela. Varillas W, Eijkemans G, Tennassee M, Emmett E.

[27] Leigh JP, et al Occupational Injury and Illness in the United States, Estimates of costs, Morbidity and Mortality. Arch Intern Med 1997; 157(14):1557-1568

[28] OPS 1998; Informe del proyecto de sistematización de datos básicos sobre la salud de los trabajadores en países de las Américas: Barbados, Brasil, Colombia, Costa Rica, Chile, Jamaica, México, Panamá, Perú, Venezuela. Varillas W, Eijkemans G, Tennassee M, Emmett E.

[29] Nassif Issa M. Salud Ocupacional. La Paz: Organización Panamericana de la Salud, Universidad Boliviana Mayor de San Andrés; 1996

[30] Eijkemans G, Díaz Mérida F. Panorama de la Salud de los Trabajadores en Panamá. Cuadernos de la Representación OPS/OMS en Panamá 1995; 3:83-96

[31] World Health Organization. Global Strategy on occupational health for all. The way to health at work. October 1994, Beijing, China. Geneva: WHO 1994 (Document WHO/OCH/95.1)

[32] Tennassee M. Situación Actual y perspectivas de la Salud Ocupacional en América Latina. Salud de los Trabajadores (Venezuela) 1995;3(1)

[33] Leigh JP, et al Occupational Injury and Illness in the United States, Estimates of costs, Morbidity and Mortality. Arch Intern Med 1997; 157(14):1557-1568.