Cost-effective financing of social risks: The model of employment accident and occupational disease insurance

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<td>Accident Rehabilitation and Compensation Insurance Corporation (New Zealand)</td>
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<td>AUVA</td>
<td>Allgemeine Unfallversicherungsanstalt – General Institute for Insurance against Employment Accidents and Occupational Diseases (Austria)</td>
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<td>CNAMTS</td>
<td>Caisse nationale de l’assurance-maladie des travailleurs salariés – National Social Insurance Fund (France)</td>
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<td>CNPS</td>
<td>Caisse nationale de prévoyance sociale – National Social Insurance Fund (Cameroon)</td>
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<td>FAT</td>
<td>Fonds des accidents du travail – Employment Accidents Fund (Belgium)</td>
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<td>INAIL</td>
<td>Istituto Nazionale per l’Assicurazione contro gli Infortuni sul Lavoro – National Employment Accident Insurance Institute (Italy)</td>
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<td>INP</td>
<td>Instituto de Normalización Previsional – Welfare Administration Institute (Chile)</td>
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<td>INPS</td>
<td>Istituto Nazionale della Previdenza Sociale – National Social Insurance Institute (Italy)</td>
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<td>INSS</td>
<td>Institut national de sécurité sociale – National Social Security Institute (Burundi)</td>
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<td>ISPESL</td>
<td>Istituto Superiore per la Prevenzione e la Sicurezza del Lavoro – Higher Institute of Prevention and Safety at Work (Italy)</td>
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<td>OSH</td>
<td>Occupational Safety and Health Service (New Zealand)</td>
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<td>SUVA</td>
<td>Schweizerische Unfallversicherungsanstalt – National Accident Insurance Fund (Switzerland)</td>
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<td>WACI</td>
<td>Labour Welfare Services Association (Japan)</td>
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Foreword

The social insurance arrangements which have developed in individual countries reflect each country’s historical, institutional, cultural and financial circumstances. Whilst no blueprint can be recommended for all countries regardless of these individual circumstances, the ISSA aims to facilitate an understanding of key features of cost-effective financing of social risks in the hope that such understanding will motivate individual systems to improve their arrangements and will guide them in their ongoing reform process.

In the light of the economic pressure being experienced by social security in its entirety, the ISSA wanted to demonstrate the cost-reducing effects of targeted prevention and rehabilitation measures. On the occasion of the 24th General Assembly of the ISSA, it was decided to examine employment accident and occupational disease insurance to this end, and to include in the 1993-1995 programme of activities of the Permanent Committee on Insurance Against Employment Accidents and Occupational Diseases a study on Cost-effective financing of social risks: The model of employment accident and occupational disease insurance.

The study was intended to canvass:

1. differing approaches regarding the organization and scope of social insurance generally, but particularly of employment accident and occupational disease insurance (henceforth referred to as occupational risk insurance);

2. the development of an increasingly global approach towards health protection, in particular due to the widening of the health promotion concept, and the increasing difficulty of precisely defining the limits of occupational and non-occupational factors;

3. financial constraints which have reinforced the importance of prevention, health promotion and rehabilitation measures in restraining and reducing compensation costs.

The Reporter drew up a questionnaire which was forwarded to 26 member organizations likely to participate (respondents are listed in the Annex). In designing the questionnaire, every effort was made to present the questions in such a way that they would apply to the widely diverse social insurance systems throughout the world, or at least be intelligible to potential respondent organizations.

Covering such a broad topic necessitated a complex questionnaire. Whilst the emphasis upon open questions allowed the responding institutions to offer comment on those features and aspects which they regard as particularly pertinent to effective system performance, the resulting flexibility of response increased the burden on respondents. Despite the questionnaire’s length and complexity, however, 16 institutions representing 15 countries participated. The Reporter thanks all respondents for their constructive co-operation; and the ISSA Secretariat for its assistance and advice.
Financial provision against occupational risk is the oldest and most widespread form of social security. Whilst there are similarities between schemes and the cultural contexts in which they operate, there are also key differences.

A recent report examining options for reform of occupational risk insurance in Australia suggested that the crucial elements associated with effective system performance are not those connected with the formal structure; but that a complex mosaic of features impacts upon each system's dynamics and effectiveness. (1) Disentangling what variables make one system/scheme more «cost-effective» than another is no easy matter, particularly when no single feature (e.g. market structure, benefit structure, financial structure, coverage, eligibility and causality criteria etc.) seems a reliable predictor of performance.

Furthermore, the performance of individual systems/schemes cannot be evaluated in isolation from the cultural contexts in which they operate. Cultural differences with respect to work ethic, «groupism» and employment practices, for example, can rival market structure or the benefits regime in terms of impact on a scheme's cost-effectiveness, but are notoriously difficult to measure.

International comparative analysis of social insurance systems including specific schemes of occupational risk insurance is also frustrated by inconsistent definitions, and different means/standards of measurement, data collection and performance evaluation. To facilitate meaningful comparative analysis of the cost effectiveness of respective occupational risk insurance arrangements/schemes, further study is required not only on standardizing relevant definitions and measurements, but on developing a hierarchy of performance indicators to aid evaluation of system performance. Such study would need to be conducted sensitively, in order to avoid the impression of any preference for indicators that might appear to favour particular arrangements/schemes. The ISSA's Permanent Committee on Insurance Against Employment Accidents and Occupational Diseases would seem to be an ideal forum to initiate and coordinate such study and make recommendations to members. (2)

Given the various obstacles frustrating more sophisticated comparative analysis, the approach followed in the present report has been to use the respondents' «snapshots» of their respective schemes/arrangements of occupational risk insurance and occupational risk prevention to highlight those key features which contribute to efficiency and effectiveness in risk prevention and social insurance generally and in occupational risk insurance specifically.

The responses underline that:

- the relevant cultural and corporate commitment to efficiency and cost effectiveness and, consequently, to the use of effective prevention and rehabilitation measures, is a more important determinant of system performance than the formal structure or whether there is an integrated system of social insurance or a separate scheme of occupational risk insurance;
- the trend towards a more holistic health policy emphasizing prevention seems able to comfortably coexist with either of these system types;
it is not difficult to convince the providers of social insurance of the benefits of targeted prevention and rehabilitation measures, but the statistics with which to prove the cost-benefits are often unavailable.
1. The system of occupational risk insurance – its integration into or independence from other social insurance

1.1. Integrated social insurance versus independent occupational risk insurance

Internationally there is still considerable debate about the relative merits of an overall and integrated social insurance system as opposed to a separate scheme of insurance providing exclusively for occupational risks. The advantages of an integrated social insurance system can be summarized as:

- equity (universal coverage with equal benefits in cases of equal need);
- administrative efficiency, i.e. potential for administrative economies of scale, and relatively lower administrative and legal costs (due to not having to prove «work-relatedness»);
- increased difficulty in demarcating occupational-specific risk with the emergence of new forms of work organization (e.g. home-based telecommuting) and work injuries (e.g. stress).

Disadvantages of a fully integrated and universal system of social insurance can be summarized as:

- high cost of a universal system of benefit and care;(3)
- lack of causality between the origin and cost of injury risk (militating against financial transparency and acting as a disincentive to prevention and rehabilitation);
- potentially lower income replacement levels than available under occupational risk insurance.(4)

Respondents to the questionnaire were given an opportunity to comment on the respective advantages and/or disadvantages of the two types of system:

- a number of respondents expressed a clear preference, on grounds of social equity and administrative efficiency, for an integrated social insurance system;
- other respondents argued equally strongly for a separate/specialized system of occupational risk insurance on the grounds that it provided better links between prevention, compensation and rehabilitation; and that as a result it offered the potential to adjust the employer contribution to reward good occupational health and safety practice.
It is not possible at this stage to deliver an unequivocal judgement on the comparative efficiency of the two approaches. The degree to which occupational risk insurance is integrated with or independent from other social insurance varies considerably amongst respondents. Generalization about the relative merits of integration or independence is difficult – indeed misleading – without knowing more about the range of variables impacting on system/scheme performance. Theoretical discussions need to be empirically tested on the basis of agreed international benchmarks and performance indicators.

To better appreciate the differences among the various systems of risk insurance, the remainder of Part One below offers a country-by-country <<snapshot>> summarizing the occupational risk insurance scheme, its financial structure and its relationship to social security. Part Two examines how the employer contribution to occupational risk insurance is determined, including whether and to what extent the rate reflects the relevant risk. Part Three examines various features of the respective occupational risk insurance schemes including who and what is covered, whether there is access to civil law damages actions, and the proportion of administrative expenditure as a measure of scheme performance. Part Four looks at the occupational health and safety context and the use of effective measures of prevention and rehabilitation. Part Five examines the changing cultural context of occupational risk prevention and occupational risk insurance. Part Six draws some general conclusions, but reaffirms that the commitment with which the principles of prevention, rehabilitation and cost-efficiency are applied impact more on scheme performance than the structure of overall social insurance or of the scheme of occupational risk insurance.

1.2. The funding position

As noted throughout this report, different definitions and means of measurement and a dearth of relevant statistics frustrate comparative analysis of occupational risk insurance systems. Few respondents commented on the income/expenditure ratio of the occupational risk insurance scheme/s in such a way that facilitated comparative analysis with other schemes. Also, whether due to the inadequacy of the statistics, difficulty in obtaining relevant information, or to commercial <<discretion>>, few respondents with a separate scheme of occupational risk insurance commented on that scheme’s funding position, i.e. the extent to which the scheme holds reserves which cover future liability and costs over a corresponding period. Those that do hold such reserves are described as <<fully-funded>>. Those that do not, effectively defer a proportion of costs to later years or, as in the case of some public sector schemes, are subsidized from consolidated revenue. The lack of comparable statistics on the income/expenditure ratio and funding position of the respective schemes frustrates worthwhile comparative analysis of their «cost effectiveness>>.
1.3. Snapshots of each respondent’s social insurance context and occupational risk insurance scheme

In AUSTRALIA, an integrated and universal social insurance system was proposed in the 1970s by a Commonwealth inquiry, but efforts to introduce it proved abortive, and the proposal’s critics typically cited high cost and constitutional limitations. Occupational risk insurance remains quite distinct from other elements of social protection in Australia in terms of legislation, coverage, funding and administrative arrangements. Australia is a federation, and legislative and administrative responsibility for occupational risk insurance rests with individual State and Territory governments and, with respect to separate schemes covering Commonwealth employees and the seagoing maritime industry, with the Commonwealth Government. The fragmentation of responsibility for occupational risk insurance (commonly known in Australia as «Workers’ Compensation») has led to different provisions (e.g. benefit regimes, causality and eligibility criteria, financing and investment arrangements) in the different jurisdictions.

This has prompted recent efforts to achieve greater national consistency. Indeed, the main debate about how to improve the current occupational risk insurance system revolves around the perceived need for greater national consistency if not national uniformity in legislation, benefits and institutional arrangements, for reasons of both equity and economic efficiency. In 1994 an Industry Commission Report into Workers’ Compensation recommended a uniform scheme, and such reform is presently (1995) being pursued by the Heads of Workers’ Compensation Authorities in an attempt to achieve greater «national harmonization» between the different jurisdictions. It is presently too early to predict how effective this will be in achieving greater uniformity in access, benefits and rehabilitation policy.

During the last decade, the relevant legislation and schemes have already undergone significant reform, largely motivated by cost concerns. In general, there has been a shift to more government regulation of financing arrangements (particularly underwriting risks and the setting of employer contributions), greater emphasis upon prevention and rehabilitation, restrictions on access to «common law», and a shift from lump sum compensation towards weekly payments for incapacity to work.

The schemes make provision to cover employees whose employers are, for whatever reason, uninsured, and to recover relevant owed amounts. They also provide to meet the liabilities of any authorized insurer becoming insolvent. Their respective funds are typically controlled by government regulations or directly managed by government with generally conservative investment regimes. The occupational risk insurance schemes are predominantly funded by employer contributions, although not all schemes are fully-funded (i.e. not all hold reserves which fully cover future liability and costs over a corresponding period).

Experience in Australia suggests the cost effectiveness of maintaining a strong regulatory and claims management supervisory role for government in the occupational risk arena, particularly in the control of claims liability. Evidence also suggests that specialized claims
management authorities obtain cost efficiencies over decentralized claim determination/management, in both the private and public sectors.

Private insurers are playing an increasing role in providing insurance and/or claims management. However, Government intervention in occupational risk insurance is extensive in jurisdictions in Australia, with price competition in the private sector being strongly controlled, and with significant government monitoring of private sector operational performance. (5) Within this structure, private sector involvement typically does not result in the sacrifice of social objectives to the profit motive.

Australia has an unusual social security system in that it is funded through the general taxation system, rather than through employer and employee contributions. As enlarged upon below, the Commonwealth, which has responsibility for social security, fears that action by State legislatures to restrict access to occupational risk insurance will shift the costs of income support from the States/Territories to the Commonwealth. The States/Territories, for their part, argue that under a no-fault system of workers' compensation the employers' liability should be limited and that beyond a defined quantum the community – through the Commonwealth's social security and medicare programmes – should be responsible for the costs of occupational injury and disease.

In AUSTRIA, there are mandatory insurance schemes for illness, old-age, employment accidents and occupational diseases and for unemployment. Separate and autonomous insurance institutes administer the various cash benefits including sickness and disability benefits and old-age pensions and "in kind" benefits such as treatment for illness and work accidents. There is no general accident insurance scheme. Most employees (and many non-employees including students) are insured by Austria's largest accident insurance carrier, the General Institute for Insurance against Employment Accidents and Occupational Diseases (AUVA). Farmers and their family members working in the enterprise are covered by the special insurance scheme against agricultural accidents managed by the Farmers' Social Insurance Institute. Public servants also have their own insurance institutions covering occupational risks. Financing is through employer contributions. The funds are managed by AUVA and the other insurance institutions and invested according to relevant regulations spreading assets across the various federal states.

In BELGIUM, the National Sickness and Invalidity Insurance Institute manages sickness-invalidity insurance separately from employment injury risks in the private sector. Invalidity insurance and the health system are financed through State subsidies and social contributions by workers, job-seekers and family members. Worker disability compensation is paid for the first year, and is thereafter replaced by a disability allowance. Employment accident risk in the private sector is covered by private insurance companies which charge and collect premiums, provide compensation to victims, and are supervised by state regulatory authorities obliging them to hold at least 30 per cent of assets in securities issued or guaranteed by the State and to invest at most 10 per cent of reserves in bonds issued by international organizations, etc. Competition is believed to restrain employer contribution rates. If an insurer becomes insolvent, its obligations are assumed by the Employment Accidents Fund (FAT), a public supervisory institution financed on a pay-as-you-go basis. FAT ensures the indexation of benefits for pre-1988 employment accidents, confirms
agreements between the insurer and victim about how to settle claims, and covers certain special employment accident risks (e.g. maritime workers).

In **BURUNDI**, occupational risk insurance for employees in the private and semi-public (including military) sectors is managed by the National Social Security Institute (INSS), along with other types of social insurance including aged, invalidity and survivors' insurance. Whilst these latter types are financed by both employer and employee contributions, occupational risk insurance is financed exclusively by employer contributions. The system operates on a pay-as-you-go basis, but a reserve fully covers future liabilities, and a separate safety reserve has been established to stabilise contribution rates during economic fluctuations. Investments are placed by INSS according to prescribed security, liquidity (for short-term benefits) and profitability criteria.

In **CAMEROON**, the National Social Insurance Fund (CNPS) administers the three social security branches of: family benefits, old-age, disability and death benefits; and benefits in respect of occupational risks (loss of earnings payments; benefits in kind including medical expenses, pharmaceutical's and hospital care; and payment of pensions to the victims of accidents or their survivors). Like family benefits, occupational risk insurance is financed by employer contributions, whereas old-age, disability and death benefits are financed by employee and employer contributions. Although the system operates on a pay-as-you-go basis, the funds required for assigned pension are deducted from contributions and other income and held as reserves covering future expenses. The CNPS Board decides on investment of the occupational risk insurance fund, and it is general practice to deposit the payable funds in fixed term accounts. Investments are also made in real estate. Private sector involvement takes the concrete form of payment of contributions based on the earnings of the employees of the sector concerned. The enterprises concerned participate in the financing of the occupational risks branch through payment of their social contributions. Occupational risk insurance for government employees and for public-sector employees (who are not necessarily public officials) is administered by the State. The most immediate issue facing the Cameroon system is how to restrain costs. Various budgetary cuts (e.g. eliminating buy-back operations relating to long-term benefits awarded in respect of employment accidents) are being considered. Another issue is where to invest the mathematic reserves providing for long-term benefits, i.e. should the system be able to seek profitable investments abroad if the national economy does not afford such opportunities?

In **CHILE**, social insurance, in which the private sector plays an important role through the Pension Scheme Funds, is available to all workers. Benefits include disability pensions and health insurance for disability, as well as old-age pensions and unemployment benefits. With respect to occupational risk insurance, employers can chose between the state-run scheme, through the Welfare Administration Institute (INP), or the private sector but non-profit mutual benefit societies. These mutual benefit societies are free to set their own investment policy, but are bound to hold contingency reserves of at least 2 per cent of annual income and reserves for allocated pensions.

In **FRANCE**, protection against occupational risk is an integral part of the overall social protection system for all employees and, as such, is governed by the public social security institution. Social security is generally financed through employer and employee contributions, but only employers contribute to occupational risk insurance. This is provided
by the National Sickness Insurance Fund for Employees (CNAMTS), a public institution with monopoly coverage for those under the general scheme's compulsory insurance. CNAMTS invests insurance funds on behalf of the General Social Security Scheme. Specific schemes exist for mines, agricultural employees etc., and their funds are administered by the social partners under the control of the Ministry of Social Affairs. Coverage of occupational risk for employees in the non-agricultural sector is provided by Primary Funds (CPAMs), Regional Sickness Insurance Funds (CRAMs) and the General Funds, but in financial terms the risk is managed separately by the CNAMTS. In France, the private sector is involved in occupational risk insurance only when the employer opts to take out insurance against the financial consequences of his/her «inexcusable fault».

In GERMANY, the articulated social insurance system involves, inter alia, unemployment insurance (vocational and job counselling, the integration of disabled persons etc.), social insurance including sickness insurance and accident insurance, and, from 1 January 1995 care insurance. Unemployment, sickness and pensions insurance are paid at a 1:1 ratio by employers and employees, but contributions to accident insurance are paid exclusively by employers. The accident insurance, based on federal legislation, is operated separately from the other social insurance schemes. There are 34 industrial employment accident insurance funds and these belong to the National Federation of Industrial Employment Accident Insurance Funds. There are also: 54 federal, Länder or local authority level accident insurance institutes belonging to the National federation of Accident Insurance Institutes of the Public Sector. Agricultural workers, farmers and their spouses and family members employed in the enterprise are subject to compulsory insurance against agricultural accidents, managed by 20 insurance funds belonging to the National Federation of Agricultural Sickness Funds. There exists also an insurance against accidents for seamen. These funds are public law bodies supervised by the federal or Land Governments. The employment accident insurance funds are financed exclusively by employer contributions. The insurance funds in the agricultural sector receive a subsidy from tax revenue. Financing for public sector accident insurance institutes is predominantly from general tax receipts, although independent enterprises and private households pay contributions.

In the next few years, it is envisaged that German legislation concerning statutory accident insurance, whilst maintaining its basic structures, will be integrated into the Social Code which already contains the regulations for other branches of social insurance (sickness insurance, old-age pension insurance, care insurance).

The German National Federation of Industrial Employment Accident Insurance Funds:

- criticizes the argument that all forms of sickness and injury should be treated alike with equivalent levels of benefit irrespective of causation and liability;
- suggests that a system of single responsibility for accident insurance for everything related to employment accidents and occupational diseases achieves co-ordination, cost transparencies and cost-efficiencies that an integrated social insurance system could not;
- recommends that prevention, rehabilitation and compensation by means of cash benefits should come under the competence of a single system so as to create – in contrast to what is possible in an integrated system – a strong incentive for undertakings to prevent accidents and their inherent costs.
In Ghana, the social security scheme provides old-age and invalidity pensions and death/survivors lump sum benefits; it is voluntary for the self-employed (17.5 per cent of salary) and is financed from contributions at 5 per cent of salary by workers and at 12.5 per cent of salary by employers. Employment accident and occupational disease insurance is separate from general accident insurance and is obligatory for all employers except the armed forces. Private sector insurance is financed by employer contributions; the Government sector is financed from consolidated revenue. The National Insurance Commission regulates private insurers, who nevertheless manage fund investment.

In Italy, over twenty organizations have responsibility for social security. The National Social Insurance Institute (INPS) manages disability and old-age benefits, family allowances, unemployment benefits and cash benefits in the event of disease. The National Employment Accident Insurance Institute (INAIL), which is structured as an autonomous public authority service provider, is responsible for occupational risk insurance which is administered quite separately from other forms of social security and which is financed by employer contributions. INAIL directly manages investments according to statutory criteria. Investment types include property (property liquidity should not be inferior to 50 per cent of the total), fixed income securities, shares and other holdings, state annuities, and current account deposits.

In Japan, the occupational risk insurance scheme covers nearly all workers, except public servants and mariners for whom there are separates schemes. The Workmen’s Accident Compensation Insurance Scheme (WACI) is quite separate from the social security system. It is managed by the Ministry of Labour, but is, in principle, fully financed by employer contributions, although the National Treasury can subsidize some of its expenses. The private insurance market can provide “top up” benefits and extra coverage, e.g. insurance against liabilities under the Civil Code such as for negligence damages greater than those covered by WACI. Japan enjoys low occupational risk insurance costs, despite a generous benefits regime, and there has been some speculation that cultural variables such as group identification (“groupism”) and a strong work ethic have significantly contributed to the low accident rate and, thereby, to relatively low costs. (7)

In New Zealand, a comprehensive and taxation-financed social welfare safety net of income support provides benefits in the event of unemployment and disease. New Zealand’s employment accident insurance (providing compensation for medical treatment, loss of earnings, social and vocational rehabilitation) is part of a national no-fault accident scheme covering all accidents, not just occupational ones. This system was introduced in 1974 and is recognized as having reduced litigation, because it ensures that the same relatively high earnings-related benefits are payable regardless of the nature of the accident. (8) However, it has been criticized in other quarters as creating “perverse incentives” which have increased the accident rate. (9)

The occupational risk insurance scheme is funded by employer contributions based on tax assessable earnings (including self-employed). It is operated by the Accident Rehabilitation and Compensation Insurance Corporation (ARCI), a Crown-owned entity, operated on a pay-as-you-go basis with a reserves policy covering the equivalent of six months’ claims expenditure, but with large unfunded liabilities. Reserves are invested in a variety of interest
bearing securities plus equities with some overseas investment to hedge against national
disaster. In New Zealand, private sector insurance is limited to top-up cover.

In SPAIN, the social security system comprises a general scheme that covers employed
workers in industry and services, and a number of special schemes (self-employed workers
in the rural and maritime sectors, coal-mine workers, domestic workers and students). The
system provides the classic social security benefits including health care, cash benefits in
event of sickness, benefits for permanent incapacity and during recuperation. The National
Social Security Institute manages its cash benefits, except for unemployment benefits and
non-contributory old-age and invalidity pensions. The system is financed from employer and
employee contributions and State subsidies. Occupational risk insurance, provided for by law,
is available from the National Social Security Institute or the employment accident and
occupational disease «mutualities» (non-profit bodies established by various employers solely
to insure against occupational risks). It is financed exclusively by employer contributions.
There are no formal investment criteria, but mutualities must obtain the authorization of the
Ministry of Labour and Social Security before making certain investments. The General
Social Security Supervisory Authority checks actual income and payments, investments and
assets, and verifies the accounts prepared by the National Social Security Institute.

In SWITZERLAND, there are various social insurance schemes covering contingencies such
as accidents, sickness, invalidity, death, old age and unemployment. Carrier responsibility
is divided among the Federal authorities, autonomous institutions and private insurance
schemes. The basis of employment accident insurance is the Federal Accident Insurance Act.
The law specifies which enterprises are to be insured with the Swiss National Accident
Insurance Fund (SUVA). Other enterprises may opt for private insurance arrangements with
any of a multiplicity of private insurance carriers registered with the Federal Social Insurance
Office and supervised by the Federal Council. The protection covers occupational accidents
and, for persons with a working week of at least 12 hours, leisure accidents. A separate
account has to be maintained for each branch of insurance (occupational accidents/non
occupational accidents). Occupational risk insurance is financed entirely by employer
premiums. Each insurance carrier invests its resources, but the Federal Social Insurance
Office can issue guidelines about the size of reserves.

In ZAMBIA, the scheme covers all workers who may be injured in the course of their
duties. Excluded are the military/police forces personnel and the civil servants. Employers
contribute to a fund from which all benefits are met. Compensation is based on the type of
injury and the employee’s earnings at the time of the injury. The employment accident and
occupational disease insurance structure is backed by an Act of Parliament and therefore does
not form part of collective bargaining agreements. It is separate from general accident
insurance.

1.4. Private sector involvement?

There is increasing private sector involvement in Australia (most but not all jurisdictions),
Belgium, Ghana, New Zealand and Switzerland. There is none in Austria, Burundi, France,
Germany, Italy, Japan Spain and Zambia; but a Bill is before the Italian Parliament which,
inter alia, would allow the private sector to provide forms of insurance integrated with and complementary to the compulsory scheme.

There is little unambiguous evidence that private sector involvement reduces overall costs, although there is anecdotal evidence to suggest that the operation of private insurers in a competitive market acts to restrain both administrative costs and the contributions charged on employers, and to improve service delivery standards. However Australian experience indicates that at least in the short-term private insurers may underestimate the financial and administrative complexity associated with employers' liability insurance. Recent years have seen damaging increases in claims ratios to the extent that in 1992 private direct insurers sustained an underwriting loss of AUD 17 million and in 1993 a loss of AUD 162 million.
2. Employer contributions to occupational risk insurance

2.1. Premium setting, rates and collection

In all respondent countries there is a direct employer contribution (commonly known as a "premium") to overall or occupational risk insurance.

Nearly all systems of occupational risk insurance grade premiums, particularly for larger companies, by the degree of risk. Fewer, but still a majority, grade the contribution according to actual claims experience, i.e. genuine experience-rating, but the degree varies considerably. The diversity and, in cases such as France, the complexity of premium determination arrangements involving graded risk and/or experience-rating makes it difficult to apply any standard measurement tool to outcomes.

Respondents were asked:

- to describe by whom and how premiums are determined;
- to summarize the current average premium (as a percentage of aggregate wages), the premium range, and the last decade’s trend in premium rates;
- whether the premium is experience-rated, and, if so, to describe any general or specific evidence that experience-rating has induced employers to improve occupational health and safety practice;
- whether there is a safety bonus/penalty system reflecting most recent claims experience, and/or any plans to further reward safer employers through contribution remissions or a safety bonus;
- to comment on perceived advantages or disadvantages of experience-rating.

The following "snapshots" summarize how premiums are determined in the various systems/schemes of overall or occupational risk insurance, and comment on the extent to which premium setting arrangements involve an occupational health and safety "nexus" (i.e. the extent to which they encourage/reward good occupational health and safety practice). The snapshots for Austria, Burundi, Cameroon and Ghana, which have no experience-rating, are necessarily short. It should be acknowledged that few occupational risk insurance schemes have devised means to give small firms adequate incentives to prevent accidents; although New Zealand’s bonus programme for smaller employers is one exception.

In AUSTRALIA, most jurisdictions have a statutory authority which sets or recommends maximum premium rates, although in Tasmania and the two territories these are set by private insurers. The rates usually apply to particular classifications of business and industrial activity and are based on aggregate wages. They tend to vary between jurisdictions, reflecting different claims experience, benefit levels, access to common law, administrative costs and actuarial modelling of claims experience. Most schemes involve an incentive for employers to control premium costs by preventing workplace accidents and occupational disease.
Premium rates in State/Territory jurisdictions are adjusted once or twice a year, based generally on claims cost experience, i.e. usually a mixture of individual employer experience and grouped industry sector experience. The trend in Australia has been towards increased weighting on direct/individual employer claims cost experience, although the degree of experience-rating varies amongst jurisdictions.

Some schemes supplement experience-rating with a safety bonus scheme to reward large employers with effective safety, rehabilitation and claims management systems; and in South Australia, early indicators of the performance of employers participating in the Safety Achiever Bonus Scheme show reductions in claims numbers and costs compared with non-participating employers.

The evidence of gradually reducing premiums and declining liability in jurisdictions in Australia strongly suggests that experience-rating improves occupational health and safety practice through raising awareness of the financial implications of poor occupational health and safety performance.

Premium estimates of Comcare Australia, the scheme covering the Commonwealth public sector, are based on actuarial assessments of the risk determined by Comcare Australia’s premium model. Claims experience is the primary determinant of the rate. Unlike grouping or rating systems used in other jurisdictions in Australia, the grouping system under Comcare Australia’s premium model links employers with similar claims experience rather than similar industry or occupational profiles. Average Comcare premium rates have declined since the system’s reform in 1989/90, from 2.6 per cent to 1.9 per cent, suggesting the success of this strategy. The annual premium covers payments to date and all future costs on claims incurred by the employer.

Average premium rates under State/Territory schemes range from 1.6 per cent to 2.9 per cent and have generally declined over the last decade after comparatively high rates were reached in the mid-'eighties. However current trends suggest that most jurisdictions – including the Commonwealth – are now facing upward financial pressures again, with increased concerns being expressed about a small minority of «long-tail» claimants who are not effectively being rehabilitated into the workforce. This, combined with only a modest reduction in the incidence of compensable injury, is now having an adverse impact on liabilities and premiums.

Premiums are generally collected by specialist authorities or licensed insurance corporations/companies. Most jurisdictions provide for an informal or formal review of rates or a formal appeal system.(10)

In AUSTRIA, there is no experience rating or bonus/penalty system. Employer contributions are set by law on a unitary basis and collected by the sickness insurance institutes. The average premium rate is 1.4 per cent, with the highest rate (1.9 per cent) applying to agricultural workers.

In BELGIUM, a contribution of 0.30 per cent of aggregate wages is paid by all employers covered by the National Social Security Office and is used to finance the Employment Accidents Fund. The percentage of 0.30 is set by Government decision. Moreover,
employers pay premiums to approved private insurance institutions to insure their staff against the risks of employment injury and commuting accidents. The premiums are calculated on the basis of the risks covered (based on accident statistics) mainly for large enterprises, while SMEs (small and medium enterprises) pay premiums which depend on the tariff applied by the insurance institution. The average for all risks in 1992 was 2.14 per cent of aggregate wages. There is no right of appeal against rates. Experience-rating with particular emphasis on the gravity rather than the frequency of employment accidents is believed to act as an incentive to improve occupational health and safety performance, although, as the respondent notes, cogent evidence is hard to provide. Other incentives to reward relatively safe employers are being considered.

In BURUNDI there is no grading or experience-rating. The 1 per cent rate which applied from the inception of the Scheme in 1962 was doubled in 1990.

In CAMEROON, rates are set by statutory decision on the basis of advice from the tripartite National Consultative Labour Commission which ranks enterprises according to «high», «medium» and «low» risk categories reflecting the relative degree of risk involved in their main activity. There is as yet no genuine experience-rating, but Cameroon is grappling with the difficulties of establishing a statistical information system that will enable its introduction. Companies can challenge their ranking and try to prove that they belong to a different group, but otherwise there is no avenue for individual appeal. Rates range from 1.75 per cent (low risk) to 2.5 per cent (medium) to 5 per cent (high), and have been amended twice since they were instituted. (In 1961, rates ranged from 1.5 per cent (low risk) to 15 per cent (high), and in 1972 rates ranged from 1.5 per cent (low risk) to 3.5 per cent (medium) to 9 per cent (high)). The National Social Insurance Fund collects premiums, and has been responsible for the administration of occupational risks throughout the country only since 2 August 1976. Previously they were administered by private insurance companies (except in the English speaking part of the country).

In CHILE, the mutual benefit societies’ premium rate range is 0.9 per cent-4.3 per cent. The average 2 per cent rate declined from an early ’seventies rate of 3.5 per cent, largely due to a declining accident rate. The Chilean Safety Association believes that the experience-rating element has improved occupational health and safety practice.

In FRANCE, rates are set according to employer size: less than 20 employees – a collective rate (a national rate according to the economic activity); 20-299 – a mixed rate (partly collective and partly experience-rated); 300 or more – a «real» rate specific to that employer. Rates range from 1 per cent (offices) to 35 per cent (dockers). The average rate has declined by over a fifth in the last decade. The premium can be increased significantly (up to 25 per cent, followed by 50 per cent or even 200 per cent) if there is persistent non-compliance with prevention measures prescribed by the Regional Sickness Insurance Fund. As enlarged upon in Part 4 below, France has a policy of concluding prevention contracts with enterprises with less than 300 employees, and the Regional Fund contributes 15-70 per cent of the programme’s funding in the form of advances which may be transformed into subsidies at the end of the contract if the prevention measures have been carried out. CNAMTS believes that the experience-rating element has encouraged improved occupational health and safety practice.
Decisions about employer contributions are the responsibility of the Regional Sickness Insurance Funds. Employers can appeal an assessment to the National Technical Commission; and in the event of an appeal to quash that Commission’s ruling, the case goes to the Court of Cassation. The Unions for the Collection of Social Security and Family Allowance Contributions collect contributions.

In GERMANY, the premium rate varies according to the average risk in the branch of the relevant activity and to accident record of the individual (i.e. there are contribution supplements for undertakings with a high accident record, and/or contribution rebates for those with a low accident record). Experience-rating also applies to the previous year’s injuries. Recent research reports have clearly indicated that experience-rating has induced measurable success in the prevention field. The National Federation of Industrial Accident Insurance Funds notes, however, that grading of the contribution according to accident risk in individual branches of activity and to claims experience is not taken to the point where every undertaking must ultimately meet the full costs of its employment accidents; and that, in its opinion, such an extension of the experience-rating principle would violate the insurance principle.

Premiums in the industrial employment accident insurance fund range from 0.79 per cent (administrative employment) to 5.79 per cent (inland waterway shipping); and the average rate is 1.43 per cent. This does not reveal anything about the range between individual employers, however, as in each fund there are sharp variations in both the risk category and the supplements/rebates. The trend over the last decade has been one of general decline in rates, from 1.46 per cent in 1980 to 1.36 per cent in 1990; although this increased to 1.43 per cent in 1992, largely as a result of the integration of the Länder of the former German Democratic Republic. Assessment can be appealed, resulting in an internal administrative review, with the social courts as the next step. Contributions are collected directly from employers by individual accident insurers. For the public sector, only local authority accident insurance institutes, Land accident insurance funds and those cities with their own accident insurance schemes raise contributions. Assessment and collection is covered by the constitutions of these bodies, and in most cases is based on population. In the case of allocated enterprises, the number of insured persons or the salary level are used for assessment.

In GHANA, the premium paid by employers to an insurance company is based on the number of workers and the nature of work. Insurers adjust rates and collect premiums ranging from 0.2 per cent to 5 per cent.

In ITALY, every firm in the industrial sector opens an insurance account with INAIL for each work process. Each «process heading» is grouped into ten homogeneous groups of risk, and the premium is the same for all headings of each class. The tariff rate for a work process heading is subject to variation within limits of plus or minus 35 per cent, depending on the specific company rate for the first three years of the preceding four year period. A collection authority assesses and collects premiums and then transfers the funds to the insuring authority. (In the agricultural sector, contributions are assessed and collected by an «assessment authority».) The premiums for wage-earning as well as self-employed workers vary according to the type of zone involved (e.g. less for mountainous and underprivileged zones). The average industry rate is 3.05 per cent. Appeals may be made successively to the
insuring authority's local unit, an external commission and the Ministry of Labour and Social Welfare.

In JAPAN, rates are prescribed for 53 different categories of industry. The premium range is 0.6 per cent – 14.9 per cent. For medium to large businesses, the rate can be adjusted according to the accident rate, but the experience rate cannot be 40 per cent more nor 40 per cent less than the industry rate.

In NEW ZEALAND, experience-rating has operated for only a year, and it is thought to be too early to judge whether it has induced employers to improve occupational health and safety practice, although anecdotal evidence suggests that it and a bonus scheme for small firms have noticeably increased employers' occupational health and safety awareness. The average premium rate is 2.32 per cent and the range is 1.1 per cent – 6.85 per cent, but any premium trend analysis would be of minimal value given the recency of reform. Appeal against premium classification is possible. Contributions are collected by taxation authorities, which act as a statutory agent for ARCI, and ARCI believes that this collection method has proved to be administratively efficient.

In SPAIN, premiums are determined according to the degree of risk in the industry or for the category of worker, and are fixed by Decree, which can be appealed through the Courts of Justice. Supplementary levies can be imposed on enterprises with continuing occupational health and safety risks. Premium rates are adjusted only with wage increases although, in exceptional cases, the rate may be reduced by up to 10 per cent for enterprises distinguishing themselves by the use of effective prevention measures. Premiums range from 0.9 per cent (workers on sick leave) to 13 per cent (mines), and are collected together with the other social security contributions by the General Social Security Treasury.

In SWITZERLAND, premiums reflect the level of risk (enterprises are grouped in risk classes and in different grades per class) and the standard of accident prevention. They can be increased for non-compliance with relevant regulations. The premium range is 0.5 per cent – 10.31 per cent and the 0.9 per cent average is the same as in 1983. There is a right of complaint/appeal. In addition, there is a supplement for administration costs and accident prevention activities. There is also a safety bonus/malus. The insurance carriers collect the premium.

In ZAMBIA premium rates are approved by the Minister of Labour and Social Security services. Employers have the right of appeal against the assessed rates. Rates can be adjusted by their impact on wages and when the beneficiaries fund needs supplementation. The current average employer contribution rate is 2.51 per cent, within a range of 1.5 per cent to 3 per cent.
2.2. Comment on experience-rating

Although no respondent was able to offer unambiguous evidence that experience-rating improves safety performance, respondents who apply experience-rating argued strongly for its efficacy in improving both safety consciousness and performance. The Australian, Belgian, Chilean, French, German and Zambian respondents noted the advantages of making a clear link between occupational injury experience (incidence and duration) and employer costs. Experience rating was also supported on the grounds of fairness.

As intimated by one respondent, however, taking experience-rating to the point where every undertaking meets the entire costs of its own employment accidents could be seen to compromise the insurance principle. Those countries who want to increase the extent of experience-rating in order to reap more of the benefits of the «occupational health and safety nexus», but without compromising the insurance principle, might usefully consider Comcare Australia’s premium setting model which links employers on the basis of similar claims experience.
3. The «who, what and how» of occupational risk insurance

3.1. Who is insured?

In each respondent country, employment accident and occupational disease insurance is compulsory for employers, except for Cameroon’s public sector employers, the Ghanaian armed forces and the Zambian military and police forces and civil service. No respondent system involves a requirement that a minimum period of service be served before employees qualify for coverage. In most jurisdictions, all full-time and/or «permanent» employees are covered, although different jurisdictions may apply different definitions of «employee» or «deemed employee» (Australia applies the «control test» concept). In countries including Austria and Australia, coverage is regardless of hours worked. In Belgium, all employees with employment contracts are covered. In Burundi, only those with permanent jobs are covered. In Cameroon, all salaried workers are covered. In Chile, a few categories of self-employed workers are also covered (e.g. taxi drivers, shop-keepers and small-scale miners), and forthcoming legislation will bring civil servants under the provisions. In France, protection has been extended by legislation to categories such as commercial travellers, representatives and sales agents employed on multiple contracts, and trainees. In Germany, insurance cover is also provided for people who have a status similar to that of wage-earners (e.g. unemployed persons reporting to authorities in due form, not economically active dependent persons) or persons who «in the same way as a wage earner» do temporary work in an undertaking, and persons who are doing work for the benefit of the community (e.g. persons providing assistance, blood donors, persons carrying out an honorary function). Schemes in several countries cover: unpaid voluntary workers (e.g. Germany); apprentices and trainees (e.g. France and the Swiss general accident scheme); school and/or tertiary students (e.g. Germany). The Swiss National Accident Insurance Fund also covers the non-occupational accidents of those working at least 12 hours per week.

Employment accident and occupational disease insurance is not compulsory for the self-employed in Australia, Burundi, Cameroon (where the self-employed are not accepted into the public scheme), Chile, Ghana, Japan and Switzerland; although there is considerable support in Burundi for extending the scheme’s coverage to self-employed workers, day labourers, temporary and seasonal workers. In Austria, occupational risk insurance is only compulsory if the self-employed are members of a chamber of trade; in France, it is only compulsory when the self-employed employ workers; in Germany, insurance is compulsory only if the need for social protection of the self-employed person is comparable with that for other employees (farmers, taxi drivers, etc.); and in Italy, it is compulsory for craftspersons and direct farmers. In some countries, including Australia, France and Japan, those self-employed who are not subject to compulsory insurance are able to seek private «life» or accident insurance.
3.2. Who can «self-insure»?

Under some systems of occupational risk insurance, selected large employers can opt to «self-insure», i.e. take full responsibility for administering their own occupational risk insurance. In Australia (except for the State of Queensland), Chile, France and Spain (but only for sickness benefit), selected employers who meet eligibility criteria can «contract out» of public schemes if they opt to be licensed to «self-insure» for occupational risk. Self-insurers process employee claims and manage funds from which they pay relevant benefits directly to employees, usually at the same rate and under the same eligibility criteria as a public scheme. Under some schemes, including most Australian ones, there are performance-related levy remission systems in self-insurers’ premium costs. Because self-insurers take responsibility for their own occupational risk, they constantly monitor claims patterns and their own liabilities, and therefore tend to be particularly conscious of the cost-benefits of effective prevention and rehabilitation measures.

3.3. Trends in benefit regimes and eligibility

Obviously, schemes with relatively low benefits are more likely to have lower costs; although, as suggested earlier, many variables impact on overall costs, and benefit differences cannot always explain significant cost differences. The questionnaire requested respondents to summarize the benefits regime and indicate whether certain benefits/services were covered. In the vast majority of respondent countries, cash benefits are earnings linked; and some schemes, including Chile and most in Australia, adjust pensions by movements in the consumer price index.

Cash benefit regimes have been discussed in at least one previous ISSA report, and the rationale for the relevant questions was to assess any changes or trends, rather than to regurgitate the detail of benefit regimes.

Respondents were also asked to summarize any liberalization of cash or in-kind benefits over the last decade. The responses suggest that some schemes have continued to proceed incrementally to extend coverage and provide increased benefits. In Austria, there has been a trend towards extending the range of benefits; and in Italy, increased benefits have largely prevented the fall in premium rates that has also been a trend elsewhere. In Burundi, benefits have not been adjusted since the scheme’s inception, although actuarial studies are aimed at their revaluation.

In Australia in the mid-'eighties, reform within some state jurisdictions involved increasing cash benefits. More recently, however, as outlined below, financial constraints prompted restrictions on eligibility (e.g. journey claims) in some schemes as part of an overall strategy to reduce government and scheme liabilities.

Respondents were also asked to summarize any trend to change causation criteria or widen or narrow eligibility to coverage and benefits. In Italy, Constitutional Court judgements have, over recent years, extended the field of insurance coverage guaranteed to workers by INAIL by introducing the principle of «objective exposure to risk». In New Zealand, eligibility for
compensation for stress claims has been restricted. Some jurisdictions in Australia have recently changed or taken action to change the criteria relating to coverage of journey claims: Victoria and, more recently, Western Australia and South Australia withdrew such coverage. Since the Victorian scheme’s overhaul in late 1992, work has now to be a «significant contributing factor» for a health impairment to be covered, thereby eliminating coverage of journey claims and restricting coverage of stress claims by excluding from compensation entitlement a claim for stress due to transfer, demotion, reclassification, non-promotion, redeployment, retrenchment or disciplinary action. Queensland amended its legislation to a similar end in 1995. Another result of the Victoria reform was that benefits paid to workers who are partially or temporarily incapacitated will now be subject to a cut-off date, and thereafter the Commonwealth Government would pay social security if that worker satisfies relevant requirements (i.e. an income test, temporary incapacity to work, loss of income due to illness or injury).

The Commonwealth Government is concerned that such changes will result in an increase in relevant social security claims and will involve cost-shifting from the States’ workers’ compensation schemes to the Commonwealth’s social security and health programmes. This is a major issue confronting the Heads of Workers’ Compensation Authorities group in Australia as they seek to progress greater «national harmonization» of the workers’ compensation jurisdictions.

### 3.4. Coverage for commuting accidents?

In Australia, the motivation for excluding coverage of claims for commuting accidents from the scheme occupational risk insurance has largely been to contain costs for that branch of insurance, but some proponents have argued that to hold employers responsible for a risk over which they have little control dilutes the prevention «nexus». The cost-shifting involved in excluding most such claims from coverage by the occupational risk branch of insurance is much less a political issue in Australia than cost-shifting from the State/Territory to the Commonwealth level, because motor vehicle accident schemes are administered at the State level and are funded by a car-owner paid insurance levy. In the Commonwealth and some State/Territory jurisdictions in Australia (16), and in Austria, Belgium, Burundi, Cameroon, Chile, France, Germany, Ghana, Japan, Spain and Zambia injuries sustained in accidents which occur while commuting to and from work are covered by occupational risk insurance. In Switzerland, in the case of workers whose weekly hours are below 12 hours per week and consequently not subject to compulsory non-occupational accident insurance, commuting accidents constitute occupational accidents. Different systems apply different criteria, but most require the shortest route to be taken, with no interruption/deviation for non-work-related matters that are within the worker’s control (17), and either refuse coverage or limit benefits if the worker’s behaviour or intoxication significantly contributed to the accident.

In Belgium, the concept of journey to work has widened over the last decade. In Italy, commuting accidents are covered only where special conditions are met, e.g. compulsory routes or use of a means of transport authorized by the employer. In New Zealand, claims for commuting accidents have been shifted into non-work accident compensation, with benefit
levels identical to those for work accidents. If a motor vehicle is involved, coverage is through the motor vehicle account.

3.5. **Onus of proof and causality criteria**

Different occupational risk insurance systems apply different onus of proof and causality criteria. In some jurisdictions, benefits compensating for employment accidents or occupational disease can be refused or reduced according to any contributory negligence or lifestyle factors including alcohol abuse or the synergistic effect of smoking. The extent to which contributory negligence or self-inflicted injury affects compensation varies considerably. (18)

3.6. **Access to common law**

Common law actions are civil law actions by employees who have been injured at work or have contracted occupational diseases. With respect to employment accidents, common law actions may be viewed as reducing incentives for rehabilitation and as increasing total costs, particularly legal costs. In some systems, the denial of access to common law has been a quid pro quo of receiving occupational risk insurance benefits. (19) Most jurisdictions in Australia have restricted access to common law to cases of serious injury or death; only in Queensland, Tasmania and the Australian Capital Territory do full common law rights remain. Most European systems including Austria and Belgium restrict access to common law to cases where the intentional fault and/or wilful misconduct of the employer or the employer’s agent/delegate can be shown; although Italy and Spain are exceptions. In France and New Zealand the overall or occupational accident insurance system is an exclusive remedy (i.e. there is no access to common law). In Cameroon the possibility of proceedings for damages by the victim of an accident or his survivors against a third party responsible for the accident is foreseen but without prejudice to the right of direct action by the National Social Insurance Fund against that third party to recover benefits paid. Moreover, an out of court settlement between the responsible third party and the victim or his survivors cannot be opposed to the National Social Insurance Fund unless the latter was invited to participate in the settlement. Proceedings for the recovery of benefits paid fall within the ambit of ordinary civil process. Japan has no restrictions on access to common law but, like most systems with common law access, provides for reduced damages by the amounts of compensation already paid. Some systems restrict common law damages to economic loss (loss of earnings) or non-economic loss (pain and suffering) and place lower and/or upper limits on the damages payable. In Germany the injured person can claim compensation for personal damage against the employer only if the employer has deliberately engineered the occupational incident, or if the occupational accident has occurred whilst the person was engaged in the general traffic. Furthermore, the injured person will have a claim for compensation only against the accident insurance fund (this is what is called the «suppression of the employer’s liability»).
3.7. Scheme administration and computerization

For the vast majority of respondents, various aspects of scheme administration including claims management and a claims management approach integrating rehabilitation and compensation aspects, have been facilitated by the computerization of occupational risk insurance.(20) This has expedited claims processing in the vast majority of respondent schemes, particularly benefiting those schemes (including most Australian ones and those of Austria, Belgium, France, Ghana, Italy, New Zealand and Spain) which prescribe periods in which claims must be determined.(21)

3.8. Administrative expenditure

One measure often used to assess the cost-efficiency with which occupational risk insurance is administered is the proportion of total scheme expenditure devoted to administering the insurance. Respondents were asked to estimate this proportion, but such statistics are often not kept. Where they are, different definitions of what constitutes «administrative» expenditure (e.g. does it include policy and regulatory as well as claims management responsibilities?) and/or different means of measuring such expenditure (e.g. is it expressed as a proportion of annual programme expenditure, future liabilities and/or premiums?) frustrate the use of these estimates for comparative analysis purposes. The replies received reflected these different methods and showed that estimates ranged from 25 per cent to less than 5 per cent.(22) As suggested earlier, meaningful comparative analysis of occupational risk insurance arrangements/schemes and of their cost-effectiveness would be considerably facilitated by the development of a hierarchy of performance indicators by which to evaluate schemes. The proportion of expenditure on administering occupational risk insurance is likely to be an important performance indicator in any such hierarchy. A related measure, the proportion of workers' compensation expenditure which actually reaches the injured worker, is presently being developed in Australia by the Heads of Workers' Compensation Authorities.

Whilst Government monopolies may achieve economies of scale with respect to administration, this potential «must be balanced against the possible lack of dynamic efficiency that a monopoly may fall into».(23) As noted earlier, it is difficult to generalize about the impact of private sector involvement in occupational risk insurance, but many commentators believe that, in those systems involving substantial private sector involvement, such as in Belgium, the competitive environment acts as an incentive for insurers to restrain administrative costs.

Few respondents provided details of means used in their system or by their scheme to contain administrative costs, and no respondents offered comment on fraud control as an effective but fair cost control measure. Occupational risk insurance administrations in Australia are increasingly exploring the potential of fraud control in this respect, and a number of jurisdictions are already recording significant savings resulting from the more proactive fraud control (prevention, detection and prosecution) approach adopted in the last few years. The ISSA might consider the general issue of fraud control in occupational risk insurance as a
topic for future study/report, in order to publicize its potential as a tool in restraining costs without restricting access or benefits.

3.9. Settling disputes

Disputes about the determination of claims occur in nearly all jurisdictions, and dispute resolution processes vary considerably amongst respondents. Most systems provide some form of review, whether informal or formal; and in some jurisdictions this is followed by appeal to civil courts or a relevant labour or social tribunal. Medical professionals and experts usually provide advice on medical issues such as the state of permanent incapacity and, in particular, the degree of such incapacity or the anticipated date of recovery/healing.

Four State jurisdictions in Australia and several respondent jurisdictions offer some form of conciliation/mediation service as a «first step» in order to promote a non-adversarial environment in which to co-operatively resolve disputes about claims, rather than impose a settlement. Such services can significantly reduce a scheme's dispute-resolution costs. In Australia, for example, the Victorian Government, having been impressed by the relatively low dispute-resolution cost per dispute under New South Wales's scheme, decided to emulate that State's conciliation process.

At the Commonwealth level dissatisfied claimants or employers can, after seeking internal review from the administering authority (Comcare), proceed to the Administrative Appeals Tribunal. In certain systems with high legal costs, conciliation or mediation services can reduce expenditure on those cost items. In other systems, such as for example in Germany, the insurance institutes have committees (conflict committees) on which the employers and the insured persons are equally represented and whose decision must be requested before recourse is had to the Courts.
4. The prevention of occupational risks

4.1. The occupational health and safety context

The questionnaire sought detail and comment on the prevention or minimization of the risks of work-related injury and disease – often referred to as «occupational health and safety». Responses highlighted that:

- much has been done within respondent countries over the last few decades to improve overall occupational health and safety;
- international co-operation in sharing and publicizing the results of applied research into occupational risk prevention considerably facilitated this improvement.

In most respondent countries there is some «environmental scanning» of international research/literature concerning potentially hazardous materials, chemicals and work processes, and of developments in ergonomics, protective gear and work organization. Although a number of respondents reported that relevant risk prevention agencies in their country maintained on-going liaison with counterpart agencies in other countries and with international standards organizations, international co-operation concerning occupational risk prevention and occupational medicine needs to be fostered to confront emergent risks, and the ISSA can help promote such co-operation.

Most respondents concentrated on occupational risk prevention measures developed, encouraged, initiated and funded by the public sector or by occupational risk insurance authorities. Although most respondents explained succinctly how employee participation in occupational health and safety measures is encouraged or achieved (See 4.7 below), few alluded to the role of industrial managers (i.e. managers at the industry or enterprise level) in ensuring the effective implementation of occupational risk prevention measures at the workplace, such as introducing safer plant and machinery and developing safer work organization. Indeed, a question asking respondents to describe the trend over the previous decade in expenditure by enterprise management on occupational risk prevention (including the cost of investment in safer plant, equipment and work organization) was the only question not tackled by any respondent.

Governments and public sector organizations can play an important role in encouraging employers and enterprise managers to keep abreast of developments in occupational health and safety management systems, ergonomics, occupational medicine and stress control etc. and with advances in safer industrial plant/machinery, techniques and work processes and protective gear. One of the best ways of encouraging management to keep up-to-date with such developments and to adapt them to their workplaces is for governments and public sectors to publicize the potential cost benefits of effectively targeted occupational risk prevention measures. Unfortunately, no respondent offered the results of any cost-benefit analysis of the risk prevention measures quoted by them as reflecting increased awareness of the value of occupational risk prevention. However, information already prepared through statistical research completed in the respondent countries should be collected as it is likely
to show a distinct trend in enterprises’ expenditure on prevention and that there is an increasing awareness of prevention in the economy. The need for more cost-benefit analysis to prove and publicize the potential benefits of prevention is an area which the ISSA might like to consider as a topic for future study/report.

From the responses to the questionnaire, the dominant occupational health and safety debate appears to revolve around the respective merits of «New Robens» style occupational health and safety legislation versus a more prescriptive style/approach involving greater use of financial penalty and legal sanctions and more external control of the occupational health and safety process. New Robens style legislation differs from the first wave of Robens styled OHS statutes in that the «Duty of care» concept is strengthened, and through workplace committees and/or representatives, workers are provided with the power to effectively and directly intervene where unsafe practices exist. As suggested earlier, improved information about the cost-benefits of the experience-rating of occupational risk insurance premiums would significantly contribute to this debate.

How best to co-ordinate effort with respect to occupational health and safety is an issue within any country. In each respondent country a system (or, more accurately, a set of arrangements) for occupational health and safety protection has developed which reflects that country’s cultural and institutional circumstances. There is no single «Model» of institutions and arrangements that could be modified to optimize occupational health and safety outcomes in all countries. The commitment with which the goals of prevention and rehabilitation are applied, as well as the resources available to apply them, are ultimately more important than the institutional arrangements by which they are applied.

The following sections, and particularly 4.6 below summarize occupational health and safety arrangements in respondent countries, and, without holding any particular set of arrangements up for emulation, suggest those types of occupational health and safety measures most worthy of emulation in their own right and which are most likely, if and when their outcomes can be better measured, to demonstrate the positive financial impact of prevention measures.

### 4.2. Obligation to report employment injury and occupational disease

Having reliable statistics on the cause and nature of employment injury and occupational disease will obviously facilitate the development of better targeted occupational health and safety measures.

In most countries, and in all respondent countries except one, there is a legal obligation to report employment accidents/injuries and occupational diseases. Most respondent countries have developed standard employment injury notification sheets. Registration of all disease which may be of occupational origin is considerably less common, despite its potential usefulness in tracking disease aetiology and trends and in better targeting both research and prevention; and this is an area in which the harmonization of definitions and causality criteria, and the compilation of comparable statistical data, should be a priority.
In most countries, including Austria, Burundi, Chile, and France, employment injury and occupational disease statistics are based on compensated cases rather than on reported/suspected cases, although in some (e.g. Australia, Belgium, Ghana, Switzerland) they are based on both. Improved statistical reporting is necessary within some individual countries to facilitate comparative analysis of injuries and their incidence across occupations, industries or sectors of the economy. Also, the international standardization of the definition of occupational disease and of the collection and compilation of occupational injury and disease statistics would greatly facilitate the comparative analysis of causation and incidence that will ultimately improve occupational risk prevention by allowing the improved targeting of prevention measures to high-risk areas.

4.3. Occupational disease – definition, causality, record-keeping, research and prevention

Improved statistical collection and analysis are necessary to improve research into and understanding of occupational disease. How occupational disease is defined is important to the collection of statistics within individual countries and to the comparative analysis of statistics between countries.

Previous ISSA reports have discussed and assessed the various means used to identify/define occupational diseases.(26) There are «list» systems (e.g. Belgium, Italy and Spain), «legislative» systems and «mixed» systems (e.g. France and Germany), and each has its respective merits, although:

i. In some countries, the list system of defining occupational disease has been criticized as not being sufficiently flexible to take account of individual cases in which a disease which is not «listed» or «scheduled» can be proved to have been caused by work-related factors.

ii. A mixed system tends to offer more flexibility in recognizing such cases, and more speed in recognizing diseases:
   • emerging with the use of new chemicals, technologies and work processes;
   • better understood due to improved knowledge of disease aetiology and of the risks involved in certain chemicals, technologies or work processes.

What is important is not the precise definition system used, but the flexibility thereof.

As noted by previous reports, European countries tend to define occupational diseases on the basis of a cause-and-effect relationship. For example, in Germany the accident insurance institutions have a legal responsibility to check whether there is a sufficient probability of causal relationship with the work performed. As far as can be determined from current conditions, they must check whether:

1. there were processes under which the insured person was exposed to harmful effects;
2. the harmful effect found its statutorily significant cause in the insured activity;
3. the harmful effect in fact caused the health impairments.
For a disease to be recognized as an «occupational disease» in most countries: there must generally be a causal relationship to the specific agent/exposure; the disease generally occurs in connection with a specific activity in a specific occupation; and the disease occurs amongst the relevant group of employees with a frequency above the average morbidity for the rest of the population.(27)

In a majority of respondent countries, similar causation criteria apply both to employment injuries and to occupational diseases for compensation purposes, but the causal relationship is generally more strict with respect to occupational disease because it must be proved that the occupation significantly contributed to if not caused the disease, whereas employment accidents are usually covered, in the absence of significant contributory negligence, if they occurred during work or recognized recesses.

Illnesses associated with work-related stress are causing increasing concern from both the health and social insurance perspective and from the occupational risk insurance perspective. It is not only difficult to assess the extent to which employment makes a material or significant contribution to worker stress but also the degree to which matters of «industrial relations» (workplace organization, management practice, work process) are being transformed into «occupational health and safety». Problematical from the standpoint of both occupational medicine and insurance law are those conditions such as cardio-vascular disease or chronic fatigue to which stress is likely to be a contributor, but not a straightforward cause.(28)

The extent and thoroughness with which causality criteria are applied to both employment injury and occupational disease is important in identifying occupational risk and, therefore, in targeting occupational risk prevention. Also there was no response from Sweden, its experience of a particularly broad definition of causality and its subsequent review of that definition would be instructive in evaluating the respective advantages and disadvantages of different means of definition. The Swedish system's generous attribution of an occupational cause to any injury/illness in the absence of overwhelming evidence to the contrary has shifted illnesses compensable under other sections of the welfare system to the occupational programme. The negative impacts of this reversal of the usual burden of proof, including cost inflation of the occupational programme and discouraging or contaminating cause-evaluation and prevention, prompted calls for a tighter interpretation of causality.(29) Sweden's experience underlines the relevance of causality to both occupational risk prevention and to the cost-effectiveness of the system of occupational risk insurance.

Responses to the questionnaire that forms the basis of this report suggested that:

- there have not recently been any major changes amongst respondent countries with respect to the means of defining/recognizing occupational diseases;
- increasing importance is attached to the terms «work-related» or «work-associated»; and in some countries this has resulted in a trend towards extending coverage with respect to occupational illnesses.

Having defined which diseases are «occupational» or can, in certain circumstances, be regarded as «occupational», it is essential that accurate records of such diseases be kept and scrutinised in order to track emergent patterns of causality and disease and to facilitate
improved targeting of prevention measures. Some countries maintain registers of occupational disease in high-risk industries or occupations. Enhanced record-keeping of «notifiable» occupational diseases within countries could ultimately be followed by international registers of certain diseases and of contributing/causal factors; the ISSA may therefore want to consider encouraging their development.

As noted in a previous ISSA Report, scientific and technical developments, including the use of complex chemicals and the development of biotechnology, make it essential to monitor on an on-going basis the spectrum of work-related risks. (30) This would include the risks of the transmission of AIDS and hepatitis to health care, medical research and custodial workers.

In view of an emergent awareness of the potential risks of contracting biological infection in potentially high-risk workplaces, priorities should be:

- applied research into reducing the risk of biological infection, including the development of standard precautions and protocols;
- the medical surveillance of workers in potentially high risk areas and the establishment of a biological infection register;
- exploring how to record, maintain and share details of occupation-related biological infection for research and prevention purposes without breaching confidentiality guidelines.

Several respondents tacitly or explicitly acknowledged that their respective systems of occupational disease definition and occupational risk prevention have yet to come to grips with the need to track potential or emergent risk areas; and that their respective system of occupational risk insurance may therefore be slow to extend coverage to emergent occupational illnesses or diseases and to occupationally-acquired diseases.

The emergence of new occupational risks underlines the importance of training doctors and paramedical workers in the early diagnosis and treatment of occupational or occupationally-contracted disease. In many countries, there is relatively little training in the early detection and reporting of occupational diseases, and limited opportunity for specialized study in the diagnosis and treatment of occupational disease.

Increased national effort and improved international co-operation is necessary in:

- recording occupational diseases and analysing trends;
- evaluating the results of relevant research into technological change and its impact or potential impact upon occupational health and safety;
- developing a checklist by which to assess the occupational health and safety of new technology before its introduction (as recently developed in Japan – see 4.6 below);
- applied research concerning the handling of potentially hazardous and/or carcinogenic substances;
- training more medical and para-medical personnel in the diagnosis and treatment of occupational disease;
- the study of occupational disease and disease aetiology, including specialization opportunities in occupational medicine and medical research;
developing effective occupational risk prevention measures, including universal "handling" procedures or protocols with respect to chemicals, radioactive substances, biotechnology etc. and medical protocols regarding infectious disease;

- recognizing that occupational health is increasingly related not to the relationship between workers and their machines but to the relationship between workers and their fellow workers, managers and customers/clients and the organizational culture in which they interact.

The ISSA can play an important role in alerting member organizations, and, through them, respective national governments, of the priority that should be afforded to international cooperation in researching occupational risks and developing better targeted prevention measures.

4.4. **Health surveillance of employees as a tool of prevention**

Health surveillance of employees can be a useful tool in the early diagnosis and treatment of occupational disease, in deepening the understanding of disease aetiology, and in improving occupational risk prevention. In the past in some countries, pre-employment medical examinations were conducted to restrict relatively healthy workers access to certain desirable conditions/benefits including "permanency" and superannuation; but the use of medical check-ups for such non-prevention purposes is now rare.

In several respondent countries, health surveillance is used primarily as a preventive tool, but also to aid diagnosis and treatment and the determination of causality. In Chile, the Chilean Safety Association applies a policy of pre-employment assessment, in order to avoid exposing a worker to a labour environment unsuitable to his/her health, and to be in a position to monitor the condition of workers exposed to risks. In France, there are recruitment examinations, annual check-ups and check-ups after an absence due to employment injury or occupational disease. In Germany, a distinction is made between general occupational health supervision and special occupational health care for workers exposed to special accident and health hazards. In the case of general occupational health supervision, the employer has works' doctors available to him. Special occupational health care is provided by works' doctors or specially trained (and authorized) physicians who have knowledge of the special working conditions and the resultant hazards. The hazards that call for special preventative examinations are laid down in statutory texts or in the accident prevention regulations issued by the industrial employment accident insurance funds. Belgium also lays down in regulations provisions about the nature of medical check-ups.

In nearly all respondent countries, there is some monitoring of risks in the nuclear, mining, chemical, asbestos or asbestos-substitute, and lead industries, involving surveillance by enterprise-based medical advisers or by experts in the particular branch of occupational medicine and/or intensive study of relevant records. Medical check-ups usually take place before and after assignment to specific high risk tasks. In addition to this, in Germany, all employed persons who have been exposed to carcinogenic substances are offered, once they have been removed from exposure to the hazard, follow up occupational health examinations.
by the industrial employment accident insurance funds. Some respondent countries (e.g. New Zealand) have a register of notifiable diseases. Different countries keep registers of persons exposed to industrial noise or harmful substances: carcinogenic (e.g. Germany); asbestos (Belgium, Germany, Spain and, most recently, New Zealand); lead (e.g. Spain); ionising radiation (e.g. Belgium, Germany). These registers will be particularly useful in tracking occupational diseases with long latency periods.

4.5. Health care of employees

Respondents were asked whether occupational diseases are generally treated at the same health care establishments as non-occupational diseases, or by special clinics dedicated to the treatment of occupational disease or particular types of occupational disease, or by a mixture of these services. In most respondent countries, including Burundi, Cameroon, France, Germany, Italy, New Zealand, Switzerland and Zambia, occupational diseases are generally treated at standard medical facilities and health care establishments. Whilst specialized clinics or centres are not necessary for the effective treatment of occupational disease, opportunities for specialization in occupational medicine do tend to expedite diagnosis and, therefore, appropriate treatment.

4.6. The risk prevention context

In most countries from which replies to the questionnaire were received statistics on the number of employment accidents show a downward trend, although the relative extent to which this is due to prevention measures including experience-rating of premiums or to economic structural change cannot be estimated in the absence of more sophisticated measurement tools.

Respondents were asked to summarize their country’s:

- overall risk prevention context;
- occupational health and safety risk prevention arrangements, including enforcement arrangements and their cost-benefits;
- particular effort or significant developments/trends in the primary prevention of occupational disease (e.g. reduced exposure limits), secondary prevention (early detection of occupational disease in pre-symptomatic or reversible stages), or tertiary prevention (management of identified cases of occupational disease, and improved rehabilitation of victims);
- any other examples of industries or occupations in which targeted preventive measures have led to a significant reversal of the trend in employment injury and occupational disease.

The institutional arrangements for occupational risk prevention vary considerably among respondent countries. Italy, New Zealand and Switzerland each have an overall accident prevention body concerned with both occupational and non-occupational accidents, including traffic accidents.
All respondent countries have some sort of inspectorate which specializes in labour conditions and/or occupational risk prevention, but few respondents offered data about the inspector/worker ratio, and only one estimated savings resulting from inspectorate activities.

The respective responsibilities of the various organizations involved in risk prevention within each respondent country are summarized below.

In **Australia**, common law principles and occupational health and safety statutes place a «duty of care» on all employers with respect to their employees, and the employers' obligation involves the provision of safe premises, safe plant, and safe systems of work. Increased efforts are being made by governments in Australia to co-operate with respect to occupational risk prevention and to work towards uniformity of relevant law and practice, including the recording and notification of workplace incidents. The relevant legislation involves a hierarchy of enforcement provisions: from the issuing of provisional improvement notices requiring changes to the workplace; to financial penalties for breaches of prescribed safety standards; to cessation of work.

Occupational health and safety activities conducted by the public sector are funded on a programme basis (i.e. provision of general government funds for a particular and ongoing function). In some jurisdictions a levy is imposed on employers based on the size of the workforce. Others charge a fee for inspection and advisory services including occupational health and safety audits.

In New South Wales, the WorkCover Authority is an integrated occupational risk insurance and occupational health and safety body whose Injury, Prevention, Education and Research Grants Scheme supports the principle of early and safe return to work through rehabilitation, and is based on the concept of re-investing some of the employers’ premiums into practical prevention and rehabilitation. The South Australian WorkCover Corporation has a Safety Achiever Bonus Scheme which culminates in a safety awards night. Comcare Australia integrates workers' compensation and occupational health and safety in the Commonwealth jurisdiction, collecting an employers’ OH&S contribution on the basis of premium experience. Various organizations, notably the National Safety Council, offer awards and publicly recognized declarations of high achievement in occupational health and safety.

A wide range of public and private organizations engage in research aimed at preventing or reducing occupational risk. Given that Australia is a federation, co-ordination of effort is essential to minimize duplication. The Industry Commission is to present a Report on Occupational Health and Safety addressing this issue during 1995. As noted above, the various jurisdictions are already moving progressively to introduce «national uniformity» in legislation, regulations and codes of practice.

Key players in the occupational health and safety arena are the public sector organizations Worksafe Australia (32) and Standards Australia and the private sector National Safety Council. Individual employment accident bodies also conduct research and intelligence activities aimed at anticipating new occupational safety problem areas.

In **Austria**, the accident insurance institutions’ own accident prevention agencies conduct research on occupational accidents and diseases and direct preventive efforts accordingly, but
are limited to an advisory function. Universities and private associations also conduct research and safety promotion campaigns. Health insurance carriers provide early sickness diagnosis, preventative examinations and general public health campaigns.

Work safety standards are normally set by legislation. The Works Inspectorate, organized on a territorial basis for monitoring purposes, can stop production in the event of unacceptable risk. Its terms of reference include technical, hygiene and operating safety. It checks compliance, but the magistrature imposes fines for non-compliance. There are separate Inspectorates for mines and construction.

There are also possibilities for the workers' chambers to exercise control and co-operate in occupational health promotion and safety campaigns. The Standards Institute also plays a role through the standards it lays down, and which can be declared binding by the relevant Federal Minister. State-authorized testing agencies can examine and evaluate industrial equipment, machinery and safety equipment etc., but in general the identification of new risk-prone processes is largely left to practice. Most occupational health and safety activities are directly or indirectly financed by employers.

In BELGIUM, the general labour protection regulations establish requirements on employers regarding risk prevention training and risk reduction and on employees to take due care (e.g. use machinery correctly, wear protective clothing). They will gradually be developed into a code for well-being at work.

Occupational safety and the observance of the regulations is monitored by the Ministry of Employment and Labour. Although prevention is an employer responsibility and is largely financed by employer contributions, there are also a number of associations dealing with prevention issues. A technical committee on prevention, was established under the Employment Accidents Fund by Royal Order of 10 December 1987, and set up on 14 April 1994. It is charged with co-ordinating the insurance companies' risk prevention and occupational health and safety policy, including financial assistance to selected risk prevention projects, and determines to what extent and how joint efforts are possible. The Ministry of Employment and Labour may stop production in the event of unacceptable safety risk.

In BURUNDI, the INSS has a unit handling prevention of occupational risks. This unit, which can insist on the installation of protective equipment, may ultimately become a department for occupational risk prevention, with an important educative role. Whether a full-fledged department for the prevention of occupational risks should be established is a major policy debate in Burundi. INSS's occupational health and safety activities are financed through a deduction from late fees. A state-financed inspectorate service theoretically ensures compliance with statutory standards, but is small in relation to demand. Penalties are theoretically prescribed by law, but rarely enforced. The Ministry handling employment issues and the Department responsible for labour inspection also play an important education and prevention role with respect to occupational risk.

In CAMEROON, occupational risk prevention is provided for by statute and comes under responsibility of the CNPS, whose assistant inspectors for health and safety at work perform on-site inspections. The CNPS co-operates with the Ministry of Labour and Social Insurance
and its inspectorate. These authorities conduct health and safety campaigns and can stop production in the event of unacceptable occupational risk. There is no distinction between prevention and labour inspectors under the authority of the Ministry of Labour and Social Insurance. The assistant health and safety inspectors employed by the National Social Insurance Fund receive a different basic training.

Incentives such as financial awards, safety equipment and grants can be awarded to management's co-operating in relevant training and campaigns. Occupational health and safety activities are generally funded by a proportion of premium. Under current legislation, non-compliance with occupational health and safety statutes or regulations cannot result in premium-related penalties.

Little occupational health and safety research is conducted, but the proposed statistical information system will facilitate the targeting of prevention activities.

In CHILE, the Ministry of Health has units with experts in prevention and inspectors in charge of supervising companies covered either by INP or the mutual benefit societies. In parallel, prevention experts from the mutual benefit societies, who work in close contact with member companies, perform inspections; and their recommendations are binding. Unlike the state-run system, the mutual benefit societies conduct widespread occupational risk prevention programmes in Chile, spending just above 10 per cent of their total operating costs on prevention in 1992; but their activities concentrate upon known risks rather than identifying new risk-prone practices. The Chilean Safety Association emphasizes prevention rather than enforcement and offers a series of awards to members in recognition of good occupational health and safety practice. Although legally there is no high risk classification, it applies the concept and supervises/counsels members accordingly. The accident rate of its members has dropped from just over 35 per cent in 1969 to just under 12 per cent in 1992, and improved education and prevention activities would account for a considerable proportion of that drop. The Ministry of Health has authority to stop production in the event of unacceptable risk. In Chile, health care expenses arising from employment accidents and occupational diseases are funded from the employer contribution to occupational risk insurance; and specific sanctions for non-compliance can be supplemented by premium increases.

Recent prevention developments include the modification of exposure limits and the establishment by the Chilean Safety Association of an Ergonomics Unit.

In FRANCE, many bodies are involved in general health and safety risk prevention activities, including social security schemes, civil safety authorities and the Social Affairs and Labour ministries. The Higher Council for the Prevention of Occupational Risks acts as the co-ordinating body with respect to occupational risk. The CNAM-financed National Research and Safety Institute is a major spender on occupational risk prevention, and a variety of bodies co-operate in conducting occupational safety promotional campaigns. The major occupational health and safety players are labour inspectors (who deal with employment and occupational safety and can stop production in the event of major risk) occupational physicians and social security officials (advisory engineers and safety supervisors who deal with occupational health and safety risks and can also impose financial penalties for unsafe practices etc.). Failure to observe prescribed improvements can result in court orders and premium increases. Employees can also stop production in the event of imminent danger.
Since 1988, France has had a policy of concluding prevention contracts with enterprises with less than 300 employees in the context of agreements setting objectives for each occupational branch. This contract establishes a prevention programme for the enterprise which extends beyond the obligations laid down in the regulations.

In GERMANY, the legal basis of occupational health and safety is Government laws and orders, statutes of the accident insurance institutions, and collective agreements of the social partners involved in co-determination. The statutory accident insurance schemes take comprehensive measures to promote health and safety protection at the workplace. In this, they work with the statutory sickness insurance, the governmental industrial inspectors, the social partners, the organizations concerned with standardization, the technical supervisory services of the accident insurance institutions, research institutes, training establishments, etc. An Institute for Safety at Work was established by the employment accident insurance funds.

The technical supervisory service of the accident insurance institutions monitors the implementation of accident prevention in the undertakings and advises them on how to improve health and safety at work. It supervises all factors affecting accident prevention, irrespective of whether they involve specific provisions of government orders, regulations of the accident insurance institutions, or other rules and standards.

The accident insurance institutions must use all suitable means to counter the occurrence, recurrence or exacerbation of occupational disease. They also: provide special benefits to employees who must change employment to avoid an identified occupational risk; advise manufactures and users of working machinery; check technical equipment; collect statistics and conduct applied research; conduct intensive training; issue industrial medical precautions; promote first aid; conduct safety promotion campaigns and run safety competitions with bonuses and awards for good practice; co-operate with the sickness insurance institutions to improve health promotion activities in undertakings; and encourage medical and vocational rehabilitation. Their occupational health and safety activities are financed by employer contributions. Government industrial monitoring services are financed from public funds.

The competent technical monitoring officer and governmental industrial monitoring officers are authorized to issue instructions, including the stopping of production where there is risk of an accident or its repetition. They visit undertakings at different intervals, depending on the degree of risk involved, investigate accidents and co-operate in developing and updating accident prevention regulations. Where there is wilful or neglectful violation of an accident regulation, cash fines can be imposed.

It is envisaged that, under future employment protection law, there will be co-operation between technical monitoring services of the accident insurance institutions and the industrial monitoring service of the federal Länder, on a more intensive basis than previously. The training of technical supervisory officers will be broadened to equip them to take on the duties of labour protection managers and to focus on major sector and industry issues.

New technologies are analysed in detail in the special technical committees of the accident insurance institutions; so that appropriate prevention strategies are developed.

Significant developments in primary risk prevention in Germany over the last decade include:
• updating and in most cases lowering admissible limits for harmful substances at work and for physical effects;
• creation of a qualified examination and certification system for technical working equipment;
• further development of ergonomically designed personal protective gear, and the development of an information system to facilitate selection of appropriate gear;
• development of a model noise reduction programme;
• development of new information systems on harmful substances;
• development of specifically focused safety programmes for young employees.

Secondary prevention developments include:

• comprehensive extension of industrial medical coverage of all undertakings;
• investigation of potential risks and establishment of risk analyses.

Unfortunately there are no cost-benefit analyses of the relevant contribution of prevention measures.

There have been significant changes in the trend of employment injuries and occupational diseases in Germany over the last decade, including a large reduction in injuries resulting from certain types of accidents (e.g. explosions of compressors, accidents caused by machinery for printing and paper processing) and reductions for recognized occupational diseases in mining, stone quarrying, earth working and metal working.

In GHANA, there are numerous public sector organizations concerned with general risk prevention, and there are plans to concentrate risk insurance and risk prevention under the social insurance scheme administered by the Social Security and National Insurance Trust. With respect to occupational risk prevention, the Factories, Offices and Shops Act and relevant regulations form the legal basis. The Factories Inspectorate, financed from consolidated revenue, is the major organization primarily responsible for occupational health and safety. It promulgates occupational health and safety standards, issues regulations, conducts safety audits and inspections etc., conducts relevant worker education and training, and collects evidence for any prosecutions, but conducts little research into occupational health and safety. Generally, the overall focus is upon improved education, rather than increased penalties. Inspectorate staff may be trained locally (government financed) or overseas (international aid). The courts determine who can stop production in the event of unacceptable risk, decide upon sanctions, and impose fines.

In ITALY, accident and disease monitoring and prevention are run by the National Health Service through its own bodies: the Higher Institute of Prevention and Safety at Work (ISPESL), which researches and analyses occupational accident causes, conducts training, and approves, inspects and tests new installations; and the Local Health Units. Both are financed from consolidated revenue. The Act which instituted the National Health Service forms the legal basis of occupational health and safety risk prevention. The ISPESL, Local Health Units, the judicial police authority and the magistrature have authority to stop production in the event of unacceptable occupational risk. Sanctions range from fines to arrest. Prevention activities are carried out by organizations different from those which administer accident insurance, but INAIL contributes to occupational health and safety risk prevention in various
ways including: targeted accident statistics; research and analysis of occupational risk; experience rating of premiums; and plans for a system of financial incentives to encourage undertakings to institute safety planning.

JAPAN has an enviable occupational health and safety reputation. Several statutes, including one specifically covering coal mine accidents, lay down occupational health and safety standards. Financing of occupational monitoring and risk prevention activities is handled by the Labour Welfare Projects Corporation through private financial institutions operating on its behalf. WACI provides financial aid to accident prevention organizations.

Industry level industrial accident prevention associations (e.g. Land Transport, Construction Industry, Mining) can lay down regulations to be observed by members. These associations belong to the Japan Industrial Safety and Health Association (JISHA) which promotes voluntary prevention activities by employer groups and provides facilities for education and technical assistance. JISHA operates a laboratory which investigates chemical toxicity and associated health impacts.

The Research Institute of Industrial Safety provides safety consultation, technical guidance on industrial accident prevention, and systematic research of industrial safety, including accident prevention. Research results are made public through the Industrial Safety Technology Hall, an attached facility which publicizes advances in safety technology and risk prevention. There is also a University of Occupational and Environmental Health which trains industrial physicians.

The Labour Standards Bureau is set up directly under the Minister of Labour, and the Prefectural Labour Standards Offices are established in regional districts. The Labour Standards Inspection Offices are the «field» organization which conducts monitoring and inspections.

Occupational health and safety is primarily an employer responsibility in Japan, but the Government regulates employer compliance, promotes relevant research, and, through financial assistance and incentive programmes, encourages small to medium sized firms to improve occupational health and safety.

Japan has experienced problems resulting from the introduction of new technology with insufficient understanding of its potential implications. To obviate or minimize any repetition, it is taking a proactive approach by preparing a checklist to be applied during the development and introduction of new technology to enable employers and other interested parties to evaluate potential occupational health and safety problems before the technology’s introduction.

In NEW ZEALAND, ARCI is responsible for overall accident prevention. The Occupational Safety and Health Service (OSH) of the Department of Labour co-operates in occupational risk prevention. ARCI compiles relevant statistics, researches accident causes, provides an accident cause analysis service, develops and disseminates safety information, conducts safety promotion campaigns and otherwise generally stimulates interest in accident prevention. It does not, however, impose penalties for non-compliance. The courts impose fines and up to two year sentences if they find a breach of the Health and Safety Act 1992, which forms the
legal basis of occupational health and safety risk prevention, whilst associated regulations provide more specific guidelines. The major occupational health and safety organizations are ARCI and the Department of Labour's Occupational Safety and Health Service which administers the Act and its regulations and has power to set standards and conduct inspections/audits. Both conduct research and safety promotions. OSH is funded by employer levy collected by ARCI simultaneously with compensation premiums. ARCI co-ordinates prevention, but has no enforcement power. OSH inspectors can stop production in a hazardous situation.

New Zealand is focusing on education through identification of specific risks, on requiring employers and employees to assume increased responsibility for occupational health and safety, and on targeting high risk occupations/industries.

In SPAIN, an article of the Constitution specifically provides that «public authorities shall guard safety and health at work». Regulations and articles of relevant statutes further establish the worker's right to occupational health and safety protection. The Ministry of Labour and Social Security issues relevant regulations, as do other ministries within their respective areas of competence (e.g. health and industry). Industrial safety regulations are approved by the national Government without prejudice to the capacity of autonomous communities with legislative competence to introduce additional industrial safeguards for their respective areas. Employers guilty of actions or omissions contrary to the legal standards are liable to fines; and the State may also take measures to institute criminal or civil proceedings against those failing to prevent a specific danger in the workplace. In addition to supplementary levies on enterprises with continuing occupational health and safety risk, the General Social Security Act provides for an employer-payable surcharge of 30-50 per cent on all cash benefits deriving from employment accidents or occupational diseases where an enterprise has failed to comply with its occupational health and safety obligations; and the enterprise cannot insure itself against such surcharge obligations.

The standard-setting policy framework for occupational health and safety largely rests on joint action by the State, employers and workers and on employer/union collective agreements. At the enterprise level, staff delegates, works committees, safety and health committees and safety officers monitor, supervise and promote occupational health and safety, and there are worker representatives on the National Occupational Safety and Health Council and on similar bodies at regional and/or provincial level.

The other major occupational health and safety parties in Spain are:

- the Labour and Social Security Inspectorate which ensures compliance and can stop production if necessary;
- the National Institute for Occupational Safety and Health which is responsible, inter alia, for functions covering the management and supervision of the technical prevention activities (financed from consolidated revenue and subsidies from the European Union for specific co-operative projects);
- employment accidents mutualities which are directly competent for prevention and rehabilitation including safety inspections in enterprises belonging to them;
- the National Occupational Medicine and Health Institute and the National School of Occupational Medicine which provide advice and training.
Other entities include: the National Silicosis Institute; the Ministry of Health and Consumption and its subsidiary bodies including the Organization of Enterprise Medical Services; the National Toxicology Institute; the Technical Commission on Assessment of Occupational Diseases; the Occupational Disease Clinic; the Nuclear Safety Council; private health and safety associations (e.g. covering building, chemicals). Research and prevention-related activities are also conducted by labour and health administrations, trade unions and employment accidents mutualities. Clearly, co-ordination of effort is an important issue in Spain.

Over the last decade, Spain has made a major effort to incorporate into its legislation European Community Directives concerning prevention measures at work (machine safety, labelling and prohibition of toxic substances etc.). Over the last four years:

- there have been risk analyses of Spain’s most important industries;
- a national programme has been developed to validate tests for early detection of disease, involving a number of medical protocols concerning monitoring of the health workers exposed to specific risks (e.g. noise, back injury).

In SWITZERLAND, the SUVA and the Cantons are responsible for accident prevention. SUVA sets occupational health and safety standards, conducts safety audits, tests high-risk industrial equipment, monitors exposure, imposes penalties and, conducts research and promotion campaigns. Since 1974 the SUVA has been operating its own rehabilitation clinic, to which a second has been added recently. SUVA’s occupational medicine department monitors new occupational diseases occurring as a result of technological change.

In Switzerland, the technical and medical aspects of occupational safety are separate from the fields of labour legislation and industrial relations. Compliance is fostered by inspections, and there are approximately 12 inspection personnel per hundred thousand workers. There are no estimates of global savings as a result of Inspectorate activities, but individual occupational risk prevention programmes show a 3:7 expenditure to savings ratio.

Enforcement authorities under the Federal Accident Insurance Act can stop production if necessary. An enterprise failing to observe prescribed prevention standards and safety improvement measures can be closed. The majority of serious occupational accidents are investigated immediately after the occurrence of the accident by safety engineers or chemists.

The application of medical occupational disease prevention measures has been extended to all workers (independently of accident insurance carriers). SUVA calculates average levels of occupational disease annually and the new figures, usually showing a downward trend, are published. New guidelines have been issued for specific risks (e.g. machines, tools, materials, work procedures). New work methods have been developed to improve occupational health and safety in the building industry, and there is a major programme to reduce the number of occupational accidents in forestry.

Occupational health and safety activities are financed from supplements levied on accident prevention premiums. Incentives to improve occupational health and safety practice include credits at low interest rates.
Since 1984 there has been a Federal Commission for the Co-ordination of Occupational Safety. More recently, provisions were introduced regarding the consultation of occupational medicine and other occupational safety specialists in enterprises.

New technologies are ergonomically assessed, and the use made of new machinery and materials with potential risks (e.g. robots, cutting machinery, asbestos substitutes, biotechnology etc.) and of new work processes is closely monitored.

Accident prevention in non-occupational areas, and in particular in road and household accidents, is dealt with by the «Accident Prevention Advisory Centre», a foundation administered by the SUVA and the other accident insurance carriers.

In ZAMBIA the basis of occupational health and safety risk prevention is covered under statutory requirements as provided for under the Factories Act, the Workmen’s Compensation Act, the Mines and Minerals Act, the Environmental Protection Act, and the Public Health Act. The major organizations with primary responsibility for occupational health and safety are the factories Inspectorate under the Labour and Social Security Ministry, and the Mines Safety department under the Mines and Minerals Development Ministry. The Workmen’s Compensation Board also has a safety and health promotion unit which supplements the activities of the government organizations previously described.

4.7. How employee co-operation is encouraged/achieved

While the diverse respondents apply various means to foster and secure the co-operation of the workforce in prevention activities, in most countries there is a legal requirement on employees to collaborate in occupational health and safety activities. This is often supplemented by other structures enshrining workplace co-operation or offering incentives to induce employee co-operation. Most common are workplace committees. (33)

In Belgium, prevention tends to be disincentive oriented, but some insurance companies encourage it by running contests with awards. Co-operation in France is largely fostered through education and training; and in Ghana through education, training and incentive awards. In Italy, larger employers often operate mutually agreed occupational health and safety programmes, and labour contracts often provide incentives to safe behaviour, including awards or cash or in-kind rewards. In Japan, the emphasis of the five-year industrial accident prevention programmes is upon educating employees to co-operate in occupational health and safety initiatives. In Zambia bonus schemes are provided especially in the mining industry, and fines can also be imposed for violations, especially in the mining industry. Awards are made on Labour Day celebrations.
4.8. Occupational risk prevention – research, statistics and cost-benefit analysis

Nearly all respondent countries keep the more basic occupational health and safety statistics: only one respondent country does not collect and collate aggregate data on employment accidents/injuries and on occupational diseases; and only two do not keep a breakdown of employment injury statistics by injury classification, cause or industry. In all but two countries a breakdown of statistics is available showing the proportion of workers incapacitated due to employment injury and occupational disease and receiving occupational risk insurance benefits, social security-related income support (e.g. sickness benefit) or no income support. The institutional arrangements for collecting, analysing and applying these and other statistics obviously vary.(34)

The respondents of France, Germany, Italy and Switzerland report a consistent downward trend in employment accident frequency rates; and France reported a halving of the number of accidents giving rise to permanent incapacity between 1965 and 1991. Only Australia, Austria, Chile, Germany, Italy, Japan and Switzerland attempt to estimate the direct and indirect costs of employment injuries and occupational disease including the costs of material damage, lost production and reduced productivity, health care and vocational rehabilitation. France estimates direct costs.

The respondents of Cameroon, Germany, Ghana, Italy and Switzerland reported an upward trend in total expenditure on employment accident and occupational disease insurance over the last decade; but only Italy complied with the request to provide an index by which to measure and compare the trend.

There are broad differences in how occupational risk prevention is conceived by different countries, and therefore in how associated costs are estimated. For example, some countries include only the costs of accident prevention programmes; others include the costs of integrating prevention into the design stage and the production process. In most respondent countries, statistical reporting is generally inadequate with respect to expenditure on occupational risk prevention and to the estimated cost benefits of such expenditure.

The ISSA can play an invaluable role in encouraging member organizations to continue to improve the collection of adequate and comparable data relating to employment accidents and occupational disease, the direct and indirect costs involved, the costs of occupational risk insurance, and the costs and benefits of occupational risk prevention measures. The Association can also encourage improved commitment to and mechanisms for the international sharing of relevant statistics and research, and particularly of research demonstrating the overall cost-effectiveness of occupational risk prevention and healthy workplace programmes.
5. Occupational health and safety, and occupational risk insurance – the changing cultural context

5.1. A shift from compensation to prevention?

Australian, Austrian, French, Ghanaian and Spanish respondents to the questionnaire all perceive a shift in emphasis in their country over the last decade from compensation to prevention with respect to occupational injury/disease.

As emphasized by Germany’s National Federation of Industrial Employment Accident Insurance Funds, prevention is a particularly effective and sensible way to contain costs. Genuine prevention involves more than simple compliance with or supervision of the statutory provisions; it involves improved ergonomic and industrial design, workplace organization, and comprehensive education in risk prevention, as well as technical industrial safety measures. The commitment and co-ordination with which prevention measures are implemented are crucial to their effectiveness.

Prevention «by all appropriate means» has always been a priority of occupational risk insurance in Germany, where the accident insurance institutions:

- are given maximum freedom to innovate, especially in relation to psychological accident prevention through counselling, education and training and financial measures to promote research and practical improvements;
- see their future direction in more thorough education, motivation and counselling, in providing assistance in identifying potential risks or in carrying out analyses at the workplace, and in targeted support of the undertakings in relation to their primary duty to provide occupational health and safety protection.

The relevant stake-holders in Germany are reviewing how best to: evaluate risks; establish targeted risk analysis; publicize the possibilities and cost benefits of prevention; co-ordinate effort in these respects.

Burundi’s efforts towards occupational risk prevention are acknowledged to be tentative. Cameroon acknowledges that compensation rather than prevention has traditionally been emphasized; and that this is unlikely to change quickly given current cash flow problems pushing prevention activities into the background. Whilst a shift in emphasis to prevention is not currently foreseen in the Chilean public sector, the Chilean Safety Association and the Mutual Benefit Societies are placing increased emphasis upon prevention, as outlined in 4.6 above. Italy is organizing a more organic and effective system of occupational accident and disease prevention in order to overcome shortcomings of the Health Reform Act, which delegated competence in this field to the Regions; and there will be improved collaboration by INAIL in accident and disease prevention activities through a system of financial incentives, including premium reductions, for employers adopting approved safety plans. In
Ghana, the Government plans to facilitate a further shift towards prevention of occupational accidents in the new Social Security policy being envisaged. In Spain public policies are increasingly targeted at combating specific risks and at prevention training. In Zambia, a new Occupational Health and Safety Act is about to be introduced which will specifically address prevention. There has been a reduction in compensation claims over the last decade, due to increased safety awareness by employers and employees.

As also emphasized by the German National Federation of Industrial Employment Accident Insurance Funds, positive action to reduce the number and severity of health impairments needing compensation will assist occupational risk insurance and overall social insurance to finance itself even if the cost per case increases.

The responses to the questionnaire reflected a widespread and growing recognition of the importance and potential cost-effectiveness of prevention, and of the priority which should be accorded to developing effective occupational risk prevention strategies. Respondents offered few examples, however, of occupational risk insurance authorities diverting a proportion of income into research and prevention activities, and the ISSA may wish to consider how to encourage this development.

5.2. The importance of rehabilitation

Successful rehabilitation reduces both the social and compensation costs of employment injury and occupational disease. Responses to the rehabilitation-related questions suggest that the status of rehabilitation has grown considerably in the last decade amongst ISSA member organizations, even in those countries, such as Germany, where a return-to-work culture has long existed.

Whilst respondents provided valuable details concerning the respective rehabilitation arrangements within their countries, no respondent was able to provide estimates of total cost savings resulting from rehabilitation; although Comcare Australia, whose rehabilitation model is summarized below, reports that cost benefit analyses of workplace rehabilitation indicate a range of 9:1 to 12:1 benefit for every dollar invested.

The respective authorities responsible for employment accident and occupational disease insurance could usefully initiate and fund research to evaluate the cost benefits of effective rehabilitation; and the ISSA can play a valuable role in encouraging such research and in publicizing the cost-benefit potential of effective rehabilitation systems.

5.3. Snapshots of rehabilitation in respondent countries

Every respondent country offers some medical rehabilitation to the victims of employment injury and occupational disease, and in most respondent countries vocational rehabilitation is becoming increasingly important in improving return-to-work rates. It is rare for employees to directly contribute to medical (functional) or vocational rehabilitation. In most respondent countries compensation benefits for employment injury can be withheld if the
worker will not co-operate with the functional rehabilitation recommended; but the conditions concerning job retention and continued benefit during and after vocational rehabilitation vary significantly between countries. (35) Rehabilitation arrangements in individual respondent countries are summarized below.

In AUSTRALIA, most commentators agree on the importance of an efficient and fair system of workplace rehabilitation in restraining longer-term cost increases and facilitating/expediting the return of injured employees to suitable employment. Effective rehabilitation of injured workers is increasingly a key objective of administrators of occupational risk insurance in Australia, who are increasingly convinced of its cost-effectiveness.

Jurisdictions generally prescribe a period in which assessment for rehabilitation is conducted and to varying extents provide for the customization of rehabilitation plans/programmes to the injured individual, some jurisdictions using regular rehabilitation reports to track, measure and evaluate progress. Rehabilitation costs are indirectly borne by the employer, through occupational risk insurance premiums, but the extent to which the employer is directly involved in the rehabilitation process varies between jurisdictions.

Comcare Australia's rehabilitation model is firmly focused on ensuring a sustainable return-to-work, and emphasizes the following key elements of a successful return-to-work strategy for employers:

- early intervention – experience demonstrates that the earlier intervention starts, the quicker the employee returns safely to work;
- workplace-based management – a workplace case manager, who understands the organization's structure, co-ordinates all aspects of the notification of injury, assessment of the need for rehabilitation, assignment of an approved rehabilitation provider, consultation with the injured employee and his/her health practitioners;
- structured return-to-work plan – customized to the individual employee. The plan must have clear goals and specify the activities expected of each party thereto.

There is a hierarchy of options to get the employee back to work, i.e. essentially: same employer, same job; same employer, modified job; different employer, same type of job; different employer, different type of job. The return-to-work rate achieved under this model has consistently improved since its introduction, although the longer-term durability of the return-to-work is now being assessed.

Comcare Australia's model is a useful example of how the rehabilitation process can be designed in such a way that it:

- encourages the involvement of the social partners;
- facilitates employee understanding of the process including his/her role in it, and makes the employee feel both valued and consulted;
- gives both the employer and the employee a stake in making the process «work»;
- facilitates an early, safe and durable return-to-work;
- generates overall cost-savings several times the initial investment in rehabilitation.
In AUSTRIA, medical, occupational and social rehabilitation is provided for by law, although employers are not required to participate. A rehabilitation plan is drawn up and monitored by an interdisciplinary team, and progress reports are used. Rehabilitation is generally indirectly funded through employer contributions, but the costs are met directly by the relevant accident insurance institutes which co-operate with the labour market administration, state invalidity offices, social security authorities etc. There are workplace adaptation and retraining schemes in which the full salary and employer contributions can be met for up to four years. More victims of employment injury are accessing vocational rehabilitation.

In BURUNDI, rehabilitation is embryonic, although legislation provides for a rehabilitation system. In CAMEROON, the main emphasis is upon medical rehabilitation. The CNPS provides benefits for rehabilitation. Vocational rehabilitation is rare; employers generally preferring to make an accident victim redundant.

In CHILE, the Mutual Benefit Societies provide medical and vocational rehabilitation, usually in co-operation with the employer. Rehabilitation is mainly financed by employer contributions. The ACHS rehabilitation service also offers vocational rehabilitation, and 68 per cent of those who had undergone an ACHS rehabilitation programme have successfully returned to work, contributing to a consistent decline from 1980-1992 in the proportion of insured members receiving pensions. The National Health Service offers general rehabilitation services.

In FRANCE, victims of employment accidents or occupational diseases are entitled to special treatment with a view to their functional rehabilitation, where it appears that this treatment will facilitate healing or recovery from an injury or reduce permanent incapacity. Furthermore, if following an employment accident, victims are unable to perform their job or cannot do so without additional training, they are entitled to be admitted to a public or private establishment for vocational retraining or to be placed with an employer to learn a job of their choice provided they demonstrate the required aptitude.

The functional rehabilitation centres are health establishments, subject to ministerial approval and financed through «global endowment». The vocational retraining centres, also subject to ministerial approval, are medical/social centres financed on the basis of a «daily rate». Reimbursement is made through the primary sickness insurance fund (CPAM), in accordance with the directives of the departmental commission known as the Technical Commission of Vocational Orientation and Reclassification (COTOREP).

In order to facilitate the victim’s reclassification the CPAM may, upon receiving notice from the retraining centre and under certain conditions, pay the victim an end of retraining bonus or make him an honorary loan.

Furthermore, when employees are recognized as being medically unable to return to their previous jobs, the employer is obliged to propose another job suited to their capacities and as comparable as possible to the previous job. The occupational physician and staff delegates are consulted. The employer may obtain financial assistance from the State when, in order to accomplish this, he is required to rotate staff, reorganize working time, etc.
Any establishment or group of establishments in the same occupational activity and in which the staff is covered by a common general management agreement employing more than 5000 employees, is obliged, following medical advice, to provide job retraining and vocational rehabilitation to sick or injured employees of the establishment or group. Dismissal is possible only when reclassification within the enterprise is impossible.

In Germany, the accident insurance institutions have sole responsibility for medical vocational and social rehabilitation of the victims of occupational accident injuries and occupational diseases. As a general rule, the payment of a pension for reduced working capacity will be considered only after the completion and exhaustion of all rehabilitation measures (principle: rehabilitation prior to pension). The use of special industrial accident insurance association field workers (vocational aids) who start to visit the accident victim on a regular basis immediately after the accident, makes it possible to introduce targeted measures to achieve optimal medical, and where appropriate, vocational rehabilitation at the earliest possible date. In addition to this, a differentiated reporting and documentation system ensures a flow of information between the treating physician and the accident insurance institute on the status of the medical rehabilitation. In case where, in view of the severity and nature of the injury/occupational disease, the resumption of gainful employment does not prove achievable, it is possible to provide occupational rehabilitation measures such as, in particular, assistance in retaining a job, acquiring a job, basic or advanced vocational training or retraining. As an incentive to the employment of persons undergoing rehabilitation, regulations provide for the employment of severely disabled persons and the payment of benefits to the employer to help in the integration of a disabled employee.

In the public sector, the highest rate of increase in rehabilitation programmes was for those providing personal assistance to obtain or maintain employment. Such programmes have a high success rate.

In Italy, a range of rehabilitation services is provided by the National Health Service.

In Japan, rehabilitation services are provided by WACI and the Labour Welfare Corporation and are financed through employer premiums. The employers’ association manages the employment injury hospitals. The Government is implementing «vocational preparation training» in Local Vocational Centres. Wage subsidies are available to secure appropriate working conditions and encourage employers to employ partially incapacitated workers.

In New Zealand, rehabilitation was by no means a priority before the 1992 reforms. Personal rehabilitation Plans are now mandatory, and vocational rehabilitation is the priority. Services are stipulated in legislation, operated by ARCI and available to earners or «potential earners» (generally for a year but with possible extension to two years in certain circumstances). A screening process at the claims level selects potential rehabilitation candidates. Employers are not obliged to participate in the rehabilitation process, but generally do. Like Comcare Australia, ARCI uses a hierarchy of options to get employees back to work. «Work trials» are used as an employment incentive scheme, and ARCI continues to pay all or part of claimants’ compensation payments for a negotiated period (usually less than 3 months). Social rehabilitation (including entitlements to home help,
attendant care, child care, housing and vehicle modifications, aids and appliances, educational support, and training to «independent living») is governed through legislative regulation.

In SWITZERLAND, the accident insurance system must ensure and finance functional rehabilitation. Occupational rehabilitation (vocational guidance, placement, retraining, reinduction and training allowances) is organized by the invalidity (not accident) insurance scheme. There is no statutory requirement for employers to participate.

In ZAMBIA, employers are required to participate in occupational rehabilitation e.g. offering alternate employment after injury. The employer can choose the rehabilitation provider, as workplace based services are not available. Case managers co-ordinate services and progress reports are used. Rehabilitation services are financed by the Workmen’s Compensation Board by providing the basic requirements.
Conclusions

The Permanent Committee on Insurance against Employment Accidents and Occupational Diseases meeting in Nusa Dua, Denpasar, on 14 November 1995 on the occasion of the 25th General Assembly of the International Social Security Association (Nusa Dua, Denpasar, 13-19 November 1995),

Having taken note of the report on the theme Cost-effective financing of social risks: The model of employment accident and occupational disease insurance,

Adopts the following conclusions,

1. When considering the potential benefits of prevention and rehabilitation in addressing the human and economic costs of employment accidents and occupational diseases, it is necessary to take into account that prevention programmes usually have long lead-times and that rehabilitation programmes need to prove the durability of the return-to-work achieved. As a result their positive results, including the ultimate cost savings they deliver, may not be evident for some time after the initial expenditure. Too often the short-term costs are more evident than the medium-term benefits. Recessionary periods, liquidity crises and other financial pressures may constrain government expenditure on occupational health and safety and workforce rehabilitation even when their longer-term cost-effectiveness is well-understood by the relevant authorities.

2. Both governments and employers need to be convinced of the efficacy both of prevention and rehabilitation. To convince them, the relevant authorities – whether they be concerned with overall risk prevention, or with social insurance including occupational risk insurance – will need to be armed with properly conducted cost-benefit analyses. Both management and trade unions need to be persuaded of the socio-economic gains to be delivered through effective intervention in the protection and return-to-work of injured workers.

3. There seems to be a general consensus about the positive financial impact of preventive and rehabilitation measures on systems of compensation for employment injury and occupational disease. However, in order to support the argument that targeted prevention and rehabilitation measures can have cost-reducing effects across the various branches of social insurance, improved and unambiguous cost-benefit measures will need to be established and communicated to key decision-makers in the public and private sectors.

4. Inevitably, national developments with respect to overall risk prevention and to overall social insurance, reflect a country's particular historical, institutional, cultural and economic circumstances. Within this diverse framework governments and social insurance administrators/regulators share an interest in maximizing the administrative efficiency of their respective arrangements, and can be persuaded to adopt or adapt those features of other systems shown to be cost-effective.
Comparative studies can highlight such features. However, in order to facilitate meaningful comparative analysis of the outcomes of different sets of institutional arrangements, there will need to be increased effort to standardize definitions, measurements and relevant performance indicators. There would be advantages to the ISSA initiating and over-sighting a study into the standardization of definitions and measurements with a view to developing a hierarchy of performance indicators that can be used to facilitate international comparative analysis of scheme performance.¹

5. Comparative benchmarking is vital if the theoretical debate on whether or not occupational risk insurance should be fully integrated into the wider social insurance system is to be tested. At this stage it would appear that the crucial elements associated with effective system performance are not necessarily related to formal structure, but to the cultural, governmental and corporate commitment to efficiency, cost effectiveness and equity, combined with the willingness to experiment and innovate. The type of system seems less important than how it is implemented, including the dedication and operational effectiveness with which it is applied.

6. It is worth noting that several countries made positive reference to their increasingly global approach to overall health and safety risk prevention. However, few argued that an effective approach to occupational injury prevention and rehabilitation necessitated a system in which occupational risk insurance is integrated into a universal, 24-hour social insurance system which treats all types of sickness and injury alike and offers equivalent levels of benefit irrespective of causation and liability.

Indeed a significant number of countries argued strongly against complete integration of employment accident and occupational disease insurance with general social security schemes. They argued that causality between occupation injury and employer-funded benefit was a crucial incentive to targeted prevention, effective rehabilitation and research.

7. Through its activities, the ISSA can reinforce the commitment of member organizations to the principles of prevention and to developing a fair and comprehensive system of social insurance. The Association can also play a valuable role in helping members evaluate the most appropriate arrangements for:

(a) the cost-effective and fair delivery of social insurance benefits, including medical and vocational rehabilitation;

(b) financing social risks including occupational risks;

¹ Australia, which like Canada and the United States, has a federal structure of workers’ compensation systems, has now agreed to a set of eight benchmarks against which to assess comparative performance in the management of compensable workplace injury. Those eight criteria — claim rate, claims turnaround time, average claim duration, average claim cost, funding ratio, average premium rate, return-to-work rate and dispute resolution/litigation rate — are to be trialed by the Heads of Workers’ Compensation over 1995-96.
(c) researching risk prevention, and facilitating its integration into the design and development of products, transport systems, machinery, plant and work processes etc.;

(d) maximizing national co-ordination with respect to prevention and rehabilitation activities;

(e) educating the managers of enterprises and undertakings about the potential cost-benefits of occupational risk prevention and of rehabilitation;

(f) facilitating the co-operative participation of employees in prevention and rehabilitation;

(g) facilitating international co-operation with respect to risk analysis and risk prevention, including occupational risk prevention;

(h) developing a hierarchy of performance indicators and benchmarks by which to assess the relative performance of different arrangements, systems and schemes of social insurance, including occupational risk insurance.
Footnotes


2. It is salutary to note, however, that such standardization is proving difficult even in the federation of Australia, where the States and Territories enjoy similar historical and cultural backgrounds.


5. In Australia, Queensland is the only State jurisdiction with no private sector involvement in occupational risk insurance. In other jurisdictions, the relevant legislation regulates private insurance providers by requiring them to be licensed or otherwise authorized to conduct such insurance. Each jurisdiction has rules about the type of policy that can be issued to employers, and which specify the employer’s relevant obligations (e.g. to keep records, take all reasonable steps to prevent injury, notify the insurer when an injury occurs). In the largest State, New South Wales, the Government regulator is the WorkCover Authority which sets premium levels and licenses private sector insurers to collect premiums and act as claims and funds managers, but not as underwriters. In the second largest State, Victoria, the Government regulator, also called WorkCover, currently retains the funds management power. The private sector is involved as «agents» for claims management and premium collection, but the State Government has foreshadowed moves to achieve a more competitive private sector delivery system and eventually to privatize the scheme «when its stability is assured». This may include the option of private sector insurance underwriting. Presently, however, the West Australian scheme remains the only mainland state scheme with full private sector involvement in underwriting, claims management and funds management. A commission licenses these private insurers and recommends maximum employer contribution rates, but insurers are free to offer rates discounted to up to 50 per cent of the recommended rate. South Australia is to allow private sector involvement under regulation from 1995-96. Schemes in the Australian Capital Territory, Northern Territory and Tasmania, where «approved» private insurers act as both claims administrators and underwriters and are free to set premiums, have the lowest level of government intervention of the jurisdictions in Australia. With regard to Commonwealth public sector employees, Comcare Australia is the regulator. The Federal Department of Finance is the sole funds manager and scheme underwriter. Currently, Comcare is the sole provider of claims management services, but a key review recommended that competition in this aspect be progressively introduced.
6. As a general rule, in Germany the industrial employment accident insurance funds are structured by branch of the economy; however, in the building and metalworking sectors they are also structured on a regional basis. Agricultural accident insurance is structured on a regional basis; the regional competence of the individual insurance institutes does not necessarily coincide with the borders of the Federal Länder. The accident insurance institutes of the public sector also have a predominantly regional structure, and the geographical responsibility of the majority of these institutes covers the area of an individual Federal Land.


8. ILO, *Social Insurance and Social Protection*, Geneva, 1993, p. 18. It does not, however, apply to incapacity for work due to sickness; and workers who simply fall sick receive a flat-rate sickness benefit, subject to a means test.


10. Under Comcare Australia, an employer who is dissatisfied with the rate estimate may seek a review by the Commission; and the Minister for Industrial Relations can conduct a further review if requested. The WorkCover Authority of New South Wales considers an appeal if the employer believes there has been an incorrect assessment. In South Australia, there is a review by a senior officer of the WorkCover Corporation to whom the Board delegates its authority; and formal appeals to a Board committee are rare. The Queensland Workers Compensation Board’s policy of open discussion of the principles used to set rates means that the option of formal appeal to the Industrial Magistracy is rarely taken up. Formal appeals in those states with a multi-insurer system are also rare, because dissatisfied employers can change insurer. In Victoria, one result of the late 1992 reform of the overall system was to discourage employers from contacting the regulatory agency about premium matters.


12. To become an approved self-insurer in Australian jurisdictions, an employer must demonstrate the capacity to meet prescribed prudential requirements or lodge certain funds with the government. In effect, self-insurance in Australia is restricted to quite large and, in some States, «blue-chip» companies. In the largest State, New South Wales, self-insurers must have at least 1000 employees. In South Australia, they must have at least 200 employees. Typically, the licensing authority demands regular reporting and open access to relevant records, and periodically audits self-insurers. Most Australian jurisdictions provide self-insurers with performance-related levy remissions, e.g. South Australian self-insurers are offered levy remission recognizing good performance against specified claims management, rehabilitation and occupational health and safety standards. Chile also monitors self-insurers’ performance, but offers no levy remission reward. In France, the larger enterprises/ establishments can take direct responsibility for all or part of occupational risk if they meet prescribed financial criteria and take out a precautionary security with a bank. Partial administration is generally limited to benefits for temporary incapacity, care and daily benefits, and these have to be equivalent to those under the General Scheme, whilst other benefits are
covered by the general social security system. In **Germany**, self-insurance is not available for private employers, but the accident insurance funds insure their own employees, as do the public accident insurance authorities (federal and Land governments, communes and local insurance associations). In **Japan**, many employers self-insure for obligations under labour agreements to provide higher benefits than available from WACI. In **Spain**, where self-insurance is limited to sickness benefits in cash and kind, self-insurers must have over 500 employees, as well as health care facilities of a certain standard, and must have concluded an agreement with an employment accident mutuality (these are not commercial insurers). Premiums may be reduced by up to 10 per cent to reward good prevention practice (as reflected in the accident incident rate over the previous three years).

13. The following percentages of respondents indicated that the cost of following benefits/services were covered:

- 100 per cent cover medical care including indispensable out-patient treatment
- 100 per cent cover admission to and stay in hospital
- 86 per cent cover nursing home care *
- 79 per cent cover necessary domestic nursing *
- 93 per cent cover ambulance *
- 100 per cent cover aids and appliances
- 86 per cent cover some form of mobility assistance *
- 57 per cent cover necessary home alterations *
- 43 per cent cover home maintenance **
- 93 per cent cover the full programme of functional (medical) rehabilitation
- 100 per cent cover funeral costs
- 50 per cent cover replacement labour (i.e. wage replacement)
- 50 per cent cover vocational retraining.

* percentage affected by one questionnaire respondent failing to answer this question;
** percentage affected by two respondents failing to answer this question.

**Japan** covers all these costs.


15. A compilation of the country by country summaries is available from the reporter on request.

16. In **Australia**, the schemes covering Commonwealth public sector employees and employees in New South Wales, South Australia and Queensland cover claims for commuting accidents.

17. However, some schemes also cover accidents occurring: between the workplace and the place of customary secondary residence (**France**); between the workplace and the place where meals are served (e.g. **Burundi** and **France**); between the workplace and
the place where wages are issued (Burundi) or collected (Germany); during normal recess periods away from work, including the lunch break (e.g. Germany and most jurisdictions in Australia). In Germany, certain deviations are protected, e.g. during group travel, to/from child care, to/from the family home (if it is not primary residence).

18. Whilst employment accident law in Australia is typically «no fault», claims under occupational risk insurance can be denied on the basis of clearly demonstrated reckless behaviour and wilful misconduct, e.g. if the injury was due to intoxication. Self-inflicted injury, other than suicide, also generally excludes workers from eligibility to compensation. In Austria, Belgium and Cameroon, if the cause is clear, benefits are not normally reduced to reflect any contributory negligence, but in Chile, contributory negligence can result in claims being refused. In France: there is a presumption that any accident occurring during work time and at the workplace is of an occupational nature, but benefits can be reduced if the accident is due to the victim’s inexcusable fault, although this is rare; there is no entitlement if the employment accident is due to the wilful fault of the victim (then compensated under the health insurance scheme). In Germany, insurance protection depends on work-related causes being a legally significant factor in producing health impairments, and the accident insurance institutions must therefore thoroughly investigate causes. Employers, doctors and sickness funds are required to provide them with the necessary information, provided that there are indications of the accident’s occupational nature. Insurance protection does not apply if factors such as alcohol abuse have been the sole cause of the impairment. If individuals, whether employers or employees, have caused an employment accident wilfully or by gross negligence they are held responsible for all expenditure that the accident insurance institution has to meet as a consequence; and there may also be criminal consequences in the case of culpable behaviour. In Ghana, benefit can be refused if it is proved that the employee was under the influence of drink or drugs, or the health impairment was caused by serious or wilful misconduct. In Italy, no compensation is payable with respect to employment injury where it is proved that there was criminal intent, severe culpability without criminal intent, or self-imposed risk. In Japan, self-inflicted injuries are not covered, and benefits may be reduced if the worker committed a crime or gross negligence. In Spain, benefits cannot be refused or reduced on account of contributory negligence unless the worker is guilty of intentional fraud or «rash imprudence». In Switzerland, benefits are refused if the injured person brought about the health injury intentionally. In the case of accidents in the accomplishment of a penal act, the cash benefits—but not the benefits of therapeutic costs—may be abridged and, in serious cases, refused.


20. Of respondent countries, only Ghana and Cameroon have not yet computerized their respective system of occupational risk insurance, and this is underway in Cameroon. Of those respondent systems where it is computerized:

- 100 per cent report that it has facilitated record-keeping
- 58 per cent report that it has improved identification of uninsured employers
• 100 per cent report that it has improved the availability of statistics and has enhanced statistical analysis
• 83 per cent report that it has facilitated provision of a claims analysis service highlighting areas of high risk and/or poor claims experience
• 83 per cent report that it has facilitated the calculation and collection of employer contributions
• 67 per cent report that it has facilitated identification and rectification of overdue accounts
• 83 per cent report that it has expedited claims processing
• 75 per cent report that it has expedited payment/cessation of benefits
• 67 per cent report that it has expedited any reimbursement to relevant agencies for any health care, rehabilitation or training services provided.

21. In Austria, charges can be brought before the relevant labour and social tribunal if the six month prescribed claims determination period is not met. In Belgium, late fees are charged if deadlines are not met; and in France, any unjustified delay in the payment of daily benefits, lump sums or annuities gives entitlement to a supplementary payment. In Italy, the requirement that INAIL pay legal interest acts to minimize late payment. In Germany, where exhaustive investigations are conducted, and where it is a basic principle that claims be determined as quickly as possible, the National Federation of Industrial Employment Accident Insurance Funds is of the view that a prescribed period covering all claims, regardless of complexity, would be undesirable.

22. Respondents from the following countries provided the following estimates: Australian Commonwealth – 18.5 per cent of premiums, 13.5 per cent of programme expenditure, 11.9 per cent of total outlays; Austria – 8 per cent of the overall occupational risk insurance budget; Belgium – 18.71 per cent of premiums; Burundi – 25 per cent of total expenditure; Chile – less than 5 per cent of total Mutual Fund expenditures; Germany – 8.8 per cent for the industrial employment accident insurance fund; New Zealand – 8-9 per cent.


25. In Australia, individual jurisdictions have such standardized notification, but significant progress has been made on a national uniformity project in which all jurisdictions will eventually record this information in a compatible form to be collated by the national occupational health and safety authority, Worksafe Australia.

27. ISSA, *Occupational diseases and possibilities of preventing them*, op. cit., p. 5. In France, for example, there is a presumption that a disease is occupational if that disease is listed in the schedule of occupational disease, is medically certified within the time-limit for its coverage and when the victim has been regularly exposed to risk. The occupational nature of diseases contained in the schedules can be established when they are directly caused by the usual work performed by the victim, even if one or more of the conditions enumerated in the schedule are not fulfilled or if the disease is not contained in the schedule; but in either of these cases the victims do not enjoy the presumption of the occupational nature of the disease. Decisions relating to the recognition of the occupational nature of an accident or disease are taken by the Primary Sickness Insurance funds, supported as appropriate by medical opinion and, in certain cases relating to occupational disease, by the Regional Committee for the Recognition of Occupational Diseases. Lifestyle factors are taken into account when examining claims for recognition of the occupational nature of the disease. In Switzerland, the disease must be caused «mainly» by occupational activity, i.e. «more than half».

28. In some countries, this has prompted general debate about the extent to which stress contributes to illness, and, more specifically, about whether stress conditions should be covered by the scheme of occupational risk insurance if there is reason to believe that there was a causal link with work. These difficult issues will no doubt continue to be the subject of vigorous debate in risk insurance circles and amongst affected parties. The apparent intractability of this often intense and bitter debate, however, should not be allowed to induce either fatalism or inertia – equal inhibitors of the development and application of a proactive prevention approach. Although stress is inherently complex and multi-causal, attempts to prevent, reduce or relieve it in the workplace are worthwhile from any perspective. In Australia Comcare Australia and Queensland are currently developing strategies to assist managers to help prevent/relieve stress in the workplace.


31. In Australia, there are no specialized hospitals for occupational disease, although some medical institutes and/or hospital centres specialize in certain occupation-related diseases (e.g. dust diseases) and, of course, there are medical practitioners including works doctors and rehabilitation providers who specialize in certain occupational diseases or illness, including occupational overuse syndrome. In Austria, where accident insurance institutions maintain their own hospitals and rehabilitation units for health care provision, occupational diseases are generally treated at standard medical facilities, except for a special clinic for internal occupational illness. In Chile, occupational diseases suffered by Mutual Benefit Societies members are generally treated in establishments belonging to the Fund, but when specialized treatment is unavailable there, patients are referred to standard health care centres. France's
consultation centres for occupational pathologies aim to detect occupational disease in pre-symptomatic or reversible stages. In Germany too, occupational diseases are generally treated at the same health care establishments and by the same doctors as are other diseases. Nevertheless there are two special clinics run by the industrial employment accident insurance funds, which are specially equipped for the management of pulmonary and respiratory tract diseases. In addition to this, an extensive network of eight employment accident insurance fund accident clinics has been built up; these deal not only with occupational accidents but also treat occupational diseases, especially those in which the clinical picture has surgical or orthopaedic ramifications. In Ghana, there are occupational health centres specializing in mining industry health impairments. Employees in Japan may be treated at specialized Workmen’s Accident Hospitals, or at other specially designated hospitals; or may choose to be reimbursed for the costs of treatment outside the public system. In Spain, occupational diseases are treated within the public health system, but within that system there is a hospital specializing in silicosis.

32. Worksafe is a tripartite body established by the Australian Government to develop, facilitate and implement national occupational health and safety strategy including standards development, guidelines, development of hazard-specific and industry-based preventive strategies, research, training, information collection and dissemination and the development of common legislative approaches.

33. In Australia, co-operation is fostered by workplace committees (their role and power varies across jurisdictions) and through targeted occupational health and safety promotion campaigns. In Austria, worker representatives (works councils) can be involved in occupational health and safety. In Cameroon, the workforce is encouraged to participate in prevention activities through membership in statutory health and safety committees set up in every company. In Chile, employee co-operation is fostered through the joint committees. In Germany the relationship and structures of co-determination have long fostered the active co-operation of the workforce in prevention. Co-determination involves statutorily prescribed co-operation of employees and their works representatives in the undertaking’s occupational safety committee and in inspections by supervisory offices, but, despite its legal underpinning, co-determination’s emphasis is upon encouraging rather than compelling participation. Regular education and training are integral to the principles and structures of co-determination. In Japan, health and safety committees (possibly separate committees for health and for safety) must be established; and about half their members are elected worker representatives. The committees investigate occupational hazards and actively participate in safety promotion. As noted above, in Spain, the collective co-operation of the workforce is fostered by the legal representatives of collective bargaining and occupational health and safety committees at the workplace (works committees or staff delegates, and possibly also trade unions in the enterprise) who may enjoy occupational health and safety supervisory and promotion rights.

34. In Australia, all occupational risk and/or occupational health and safety jurisdictions publish relevant statistics, usually in their annual reports which are submitted to the respective parliament. Ongoing co-operative efforts are being made to enhance the comparability of statistics from the various bodies/jurisdictions; and, with respect to
occupational health and safety statistics, all jurisdictions co-operate with Worksafe Australia which publishes a range of collated and comparative statistics. In Austria, statistics are drawn up by both accident insurance institutes and sickness and pension insurance institutes, and data is published annually in the Statistics Handbook of the Austrian Social Insurance Institute. In Burundi, they are collected by INSS's statistics department and compiled in an annual review of social security statistics. In Cameroon, a limited range of statistics is collected by CNPS's statistical unit and used by the department responsible for benefits. In Chile, individual Mutual Benefit Societies and, with lesser detail, the INP collect such statistics; the Superintendent of Social Security and the Ministry of Health later consolidate and publish them. In France, such statistics are compiled and published by the CNAMTS on the basis of data provided by the Regional Sickness Insurance Funds to the General Social Security Scheme. Other schemes (e.g. for mining and agricultural employees) compile statistics specific to the sector covered. In Germany, the accident insurance institutions and their federations collect and process such statistics, and the federations and the Labour and Social Affairs Department publish them. In Ghana, the Labour Department collects and processes these statistics, which are published annually. In Italy, which has a reputation for good data collection with respect to occupational risk, INAIL draws up and publishes such statistics. In Japan, the Research Institute of Industrial Safety and the National Institute of Industrial Health, established as institutions attached to the Ministry of Labour, collect and process them. In Switzerland, such statistics are collected by the compilation centre of the accident insurance scheme (SSUV) within SUVA.

35. Only France, Italy and Japan actually prohibit the dismissal/retrenchment of partially incapacitated workers undergoing rehabilitation, although:

- in countries including Australia, France, Germany, Italy and Japan, the combined effect of various employment law and customs is that employees generally return to their old jobs if functional rehabilitation is regarded as fully successful;
- in Switzerland there is protection against dismissal for a limited period in the event of incapacity for work;
- in most jurisdictions in Australia, and in Cameroon, France, Italy and Japan, if a partially incapacitated employee cannot return to the former duties, the employer must offer alternative duties or otherwise demonstrate inability to do so;
- there may be financial penalties for dismissing a partially incapacitated employee undergoing rehabilitation, e.g. one occupational risk insurance scheme in Australia provides for supplementary levies if the employment is terminated without its prior approval.

In some jurisdictions in Australia and in Germany, Japan and Switzerland, temporary wage subsidies encourage employers to employ partially incapacitated workers. In countries including Belgium, Italy (for silicosis and asbestosis) and Japan,
a transitional allowance is available to compensate the employee for the financial loss of moving to another job if the original employer cannot provide suitable employment. In Australia, Austria, Belgium, Italy, Japan, and New Zealand, benefits are maintained during the search for alternative employment. (In France, the insured persons who receive benefits are not regarded as capable of searching for alternative employment.) In Australia, Austria, Belgium, Cameroon, France, Italy, Japan and New Zealand, benefits are maintained during retraining. In Australia, Belgium, Japan and New Zealand, benefits can be suspended if a partially incapacitated worker refuses suitable alternative employment; and, in Australia, Belgium and Japan, if the partially incapacitated worker rejects recommended retraining. In Switzerland, in determining the level of cash benefit for workers employed part time, who are not actively seeking employment or who refuse to undergo retraining, the basis employed is what the insured person could probably earn.
Select bibliography

(in chronological order by publication date)


# Annex

**List of organizations having participated in the survey**

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<th>Organization</th>
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<td>Austria</td>
<td>Allgemeine Unfallversicherungsanstalt, Hauptverband der österreichischen Sozialversicherungs träger</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(General Institute for Insurance against Employment Accidents and Occupational Diseases, Federation of Austrian Social Insurance Institutes)</td>
</tr>
<tr>
<td>AU</td>
<td>Australia</td>
<td>Comcare Australia – Commission for the Safety, Rehabilitation and Compensation of Commonwealth Employees</td>
</tr>
<tr>
<td>BE</td>
<td>Belgium</td>
<td>Fonds des accidents du travail (Employment Accidents Fund)</td>
</tr>
<tr>
<td>BI</td>
<td>Burundi</td>
<td>Institut national de sécurité sociale (National Social Security Institute)</td>
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<tr>
<td>CH</td>
<td>Switzerland</td>
<td>Schweizerische Unfallversicherungsanstalt (Swiss National Accident Insurance Fund)</td>
</tr>
<tr>
<td>CL</td>
<td>Chile</td>
<td>Asociación Chilena de Seguridad (Chilean Safety Association)</td>
</tr>
<tr>
<td>CM</td>
<td>Cameroon</td>
<td>Caisse nationale de prévoyance sociale (National Social Insurance Fund)</td>
</tr>
<tr>
<td>DE</td>
<td>Germany</td>
<td>Hauptverband der gewerblichen Berufsgenossenschaften e.V. (National Federation of Industrial Employment Accident Insurance Funds)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bundesverband der Unfallversicherungsträger der öffentlichen Hand e.V. (BAGUV) (National Federation of Accident Insurance Institutes of the Public Sector)</td>
</tr>
</tbody>
</table>
ES - Spain  Federación de Entidades Gestoras de la Administración de la Seguridad Social Española (Federation of Administrative Bodies of Spanish Social Security)

FR - France  Caisse nationale de l’assurance-maladie des travailleurs salariés (National Sickness Insurance Fund for Employees)

GH - Ghana  Social Security and National Insurance Trust

IT - Italy  Istituto Nazionale per l’Assicurazione contro gli Infortuni sul Lavoro (National Employment Accident Insurance Institute)

JP - Japan  Ministry of Labour

NZ - New Zealand  Accident Rehabilitation and Compensation Insurance Corporation

ZM - Zambia  Workmen’s Compensation Fund Control Board
The legal and organizational framework of coordination of occupational risk prevention and compensation schemes

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Ministry of Labour and Social Security
Spain

Permanent Committee on Insurance against Employment Accidents and Occupational Diseases

Report XI
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Introduction

On the occasion of the 24th General Assembly of the ISSA (Acapulco, November-December 1992), it was decided to include in the programme of activities of the Permanent Committee on Insurance against Employment Accidents and Occupational Diseases for 1993–1995 a study on The legal and organizational framework of co-ordination of occupational risk prevention and compensation schemes.

This initiative was amply justified in view of the timely need to gain a better understanding of the schemes for the prevention of and compensation for employment accidents and occupational diseases administered by member institutions of the Association, in order to try to improve their coordination, given the implications and social repercussions that stem from protection against occupational risks. In short, the idea was to undertake an analysis of the various key elements in this area, particularly with regard to legal and organizational systems, financing and benefits provided. Such an analysis would permit them to be closely compared with a view to their possible coordination. This is currently very relevant, especially with regard to planning for the future, for the Member States of the European Union, which on the basis of its population constitutes the largest social area after China and India.

The method used for gathering information for the report and conclusions was basically the same as that used for other studies of this kind. The main practical difficulty of such studies, apart from the subject matter itself, is the diversity and disparity of the data to be processed.

In essence, the method consisted in drawing up a questionnaire that contained a series of basic, sufficiently descriptive questions regarding the fundamental standards, institutional organization, and protection and financing schemes that each country applies with regard to the prevention of and compensation for employment accidents and occupational diseases.

Clearly, the relatively low number of replies received (roughly 60 per cent of the questionnaires submitted) limits the scope initially intended for the study. There was a much higher participation of the European countries, and within Europe, of the members of the European Union. There was also a reasonably acceptable level of response from the countries of Africa, Latin America, and Asia and the Pacific (see Annex).

It is therefore understandable that the conclusions of the study may present a certain bias and a lack of worldwide representativeness owing to the major influence of the schemes and information provided by countries in the two geographic areas mentioned.

Finally, it should be mentioned that the references made in the text of the present report to specific countries are based on the interpretation of the replies to the questionnaire supplied by member institutions in those countries. The replies have been translated from the languages of origin. It is possible therefore that the conclusions arrived at may not correspond precisely to reality, owing to problems of misinterpretation. Specific references are made when a particular institution specifically mentioned the subject referred to in its reply. It may be that other institutions also find themselves in similar situations, but as they did not mention it in their replies it was not known and is therefore not reflected in the report.
With the above in mind, what follows here is the final report on *The legal and organizational framework of co-ordination of occupational risk prevention and compensation schemes*, prepared from the data supplied by the various institutions that participated in the survey.
1. Analysis of the legal framework

1.1. The general legal framework

The first aspect that stands out with regard to the legal framework regulating the prevention of and compensation for employment accidents and occupational diseases in the countries under study is the length of existence of the basic standards that presently regulate these areas in almost all cases. This length of existence, however, should not be confused in all cases with obsolescence or inadequate means to respond to present social needs, rather it stems from, at least in the countries of Europe, a commonly accepted practice of setting up insurance against employment accidents before establishing other mechanisms of social protection.

In fact, most of the standards in force have their origin in provisions that date from the beginning of the present century and, in some cases, from the previous century (Germany: Employment Accidents Act of 1884; Italy: Act respecting insurance against employment accidents in industry of 1898). Logically enough, as was mentioned in the preceding paragraph this is more commonly the case in the European countries. In others, where social security systems were set up more recently, the standards pertaining to this field are more recent.

One consequence of this would seem to be the process of updating which, in some countries, appears to have come about to adapt the standards to present needs, either by partially modifying the standards or by drawing up other provisions that summarize and modernize all the previous standards. This process has given rise to cases of countries in which certain aspects of the prevention of and compensation for employment accidents and occupational diseases are regulated by recent standards. This is the case, for example, in Belgium: the New Code on well-being at work of 1993; Cameroon: Labour Code of 1992; Switzerland: the Federal Act respecting insurance against accidents of 1981; and the Czech Republic: the Act respecting insurance against sickness in sectors, branches and enterprises of 1992.

As regards the different branches of law which encompass specific standards on the prevention of and compensation for employment accidents and occupational diseases, most of the institutions which replied classified these standards as coming under social security law. Nevertheless, there is a fairly common distinction depending on whether the provisions refer to compensatory benefits for such risks, which would no doubt be classified as social security standards, or whether the provisions regulate prevention aspects, or more precisely, what could be referred to as «safety at work». The latter come under labour law, outside of social security standards. Another common occurrence in many countries is that within these prevention standards distinctions are made with regard to the different branches of activity, which usually have a specific standard that applies (safety in mines, in industry, in agriculture, for public servants, in the handling of specific substances, etc.).

The case of Germany warrants special mention in this regard. According to the German replies the relevant legal provisions are contained in various acts and areas of law, in
particular in the Social Code, in the Civil Code of 1990, in legislation regarding mandatory insurance for protection against employment accidents and occupational diseases, in law governing industries, in acts regarding safety at work and machine safety, as well as a number of other provisions of public law regarding safety and health of the worker in various premises and work areas. This would seem to indicate that the legal standards applicable to these concepts are spread throughout the different areas of law.

As for the obligatory content of legal standards on the prevention of and compensation for employment accidents and occupational diseases, those containing general requirements were distinguished from those which lay down a <<minimal framework>> which can be surpassed through collective bargaining or agreements between the parties concerned. It must be mentioned that this was in principle one of the most difficult questions to analyse owing to the different ways that it was interpreted by the institutions consulted.

In this regard there is in general a noticeable trend in the sense that all the standards, as is logical, are general requirements which have to be fulfilled. The main difference lies in the object and contents of the standards. While in almost all the countries from which replies were received standards on compensation (regulating various benefits) represent fixed schemes that can be altered only by the legislative bodies or governmental authorities, on the contrary, those on prevention (standards on health and safety at the workplace) fairly regularly lay down a <<minimum framework>> which it is obligatory to adhere to, but which can be surpassed on the initiative of the employer or by agreement between the employer and the workers.

The replies received from only two countries, Belgium and Spain, specifically mentioned that it was possible to increase compensatory benefits by paying an additional contribution premium to social security.

The minimum framework provided by standards on prevention can always be surpassed on the initiative of the parties. According to the questionnaires, the cases of Iran and Israel should be highlighted with regard to the process of surpassing these standards. These countries have institutional bodies composed of workers' and employers' representatives. The competence of these bodies varies. In the case of Iran, it includes the preparation of safety standards.

To complete this picture of the legal framework, reference must be made to the scope of application of these legal standards; in particular to see whether they apply generally to the entire workforce of a country or whether there are distinctions regarding certain criteria, the exclusion of certain groups, etc.

It appears to be fairly common for standards on prevention to apply generally to all enterprises and all workers, while those on compensation are applied within the scope of social security protection and, in some cases, even within the different social security schemes that exist within the general system. It is also fairly common for particular groups, such as civil servants, personnel in the armed forces and the clergy to be excluded from the general scheme (because specific standards apply to them).
The Czech Republic, Iran, Israel, and the United Kingdom are specific examples of countries that have a broader and more generalized scope of application of these standards. One should also mention Colombia, Senegal, and Spain, where no distinction is made for the occupational risks of self-employed or autonomous workers (except in Spain for those persons under the Special Agrarian Scheme), and they are protected by the general standards.

Particularly interesting cases are those of France, where wage-earners under the agricultural scheme are administered protection by the agricultural scheme itself, Spain, which also has a specific scheme for agricultural workers but it is administered by the general system, and Saudi Arabia, which has a branch of social security for occupational risks which has entered into force in stages, the last of which occurred in 1991 when the branch was extended to include all employers of at least ten workers.

1.2. Legal concepts of employment accidents and occupational diseases

In the different countries concerned, regardless of the nuances in each case that will be explained further on, there appears to be a fair amount of agreement, if not unanimity, regarding the integral elements of the legal concept of an employment accident.

In this sense, as would seem logical, the basic elements present in all the definitions analysed were the existence of an injury suffered by the worker and that the injury had been caused as a result of or during work. It is within this generic concept that the different countries introduce variations or specifications. For example, the replies received from Belgium, Burundi, Chile, Germany, Israel, Jordan, Mexico, Saudi Arabia, and Spain mentioned that accidents occurring on the way to or from work are included within the legal concept of an employment accident. This is similar to the case of Italy, where an accident that occurred when the worker was travelling on the orders or at the cost of the employer is considered an employment accident. The replies received from France and Italy state that the cause of the accident should be sudden and violent, although the French reply also indicates that the requirement for it to be violent has been done away with. Finally, in Spain it is also necessary for the work to have been done «for another person».

The case of Germany is special. The replies indicate that it has no legal concept of an employment accident, but it does have a «juridical concept» of an employment accident that is apparently based on the requirements of an «insured person» and an «insured activity». The concept of an employment accident is therefore regulated by law (an employment accident is an accident suffered by an «insured person» during an «insured activity») and is interpreted and determined through jurisprudence and administrative practice.

The case of Cameroon should also be mentioned. While one would think that it should be an aspect which is common to most countries, in Cameroon's reply to the questionnaire it is stressed that there is need to ascertain and verify in every case that the accident that occurred should be qualified as an «employment accident», irrespective of whether the accident might in theory correspond to the legal concept of such accidents.
As regards an occupational disease, there is also ample conformity in the legal definitions received from the various countries. Nevertheless, as well as the criterion that the illness should be caused as a result of the work, most countries include as a differentiating element that the illness must have been recorded in a previously established schedule or list, which must be legally approved in advance, which contains all the ailments considered to be occupational diseases. It would seem that this criterion is somewhat flexible in its application, since in cases where the ailment has not been expressly included in advance in the list of occupational diseases, it is possible in general for the worker to prove that the illness is occupational; in the cases of France, Germany and Italy, it is expressly stated that the list is of an «open» nature.

While in most countries the situation follows the above pattern, it should be mentioned that in Colombia no reference is made to any pre-existing schedules or lists of occupational diseases; only the legal definition is given. In the case of the United Kingdom, in spite of there being a list of occupational diseases, the scope of the criteria is quite wide, since the definition states broadly that an occupational disease is any injury, suffered by the worker as a result of the work, which does not correspond to the concept of an employment accident. Iran, which indicates that no legal concept of an occupational disease exists, is a special case.

To complete this section, reference should be made to the mechanisms foreseen in each country by which it is possible to change the legal definitions of employment accident and occupational disease in order to adjust to new situations that are constantly arising whereby injuries that previously were considered to be unrelated to work are now recognized as being caused by a particular employment activity.

As would seem obvious when dealing with mechanisms to change established standardized definitions, the procedure used in all the countries from which replies were received is the legislative initiative, whether directly by the legislative bodies or through a request from the governmental bodies responsible for this field. None the less, there are other possible mechanisms for additional changes. The second most common method was jurisprudence, which the replies from Belgium, France, Israel (although only for purposes of clarification), Italy, Mexico, Spain and Switzerland indicated was possible.

Of less frequent occurrence was the assumption that these definitions could be changed by the administrative practice of the management bodies. According to the replies, this was only possible in Switzerland for interpreting standards, in Mexico by means of a decision to an appeal of previous decisions, in Colombia by changing specific regulations, and in Saudi Arabia to add to the schedule of occupational diseases. In Burundi, it was indicated that administrative practice is the mechanism used for refusal, suspension or reduction of benefits, in specific cases in which it is thought that the requirements for full entitlement have not been met.

Germany presents similar, if not identical, aspects of both cases in respect of what was mentioned regarding the role that jurisprudence and administrative practice play in delimiting and specifying the juridical concept of an employment accident.
1.3. Legal protection mechanisms

This section is particularly important since it examines the specific mechanisms of the prevention of and compensation for employment accidents and occupational diseases which presently exist in the countries studied and deals with the various benefits provided and measures adopted regarding these risks.

It is also the part of the questionnaire which received the most detailed, thorough replies. For this reason, in order to be systematic and brief, it was decided, especially with regard to compensation, to check the conformity of benefits in the different countries and to mention only the differences observed.

First of all, as was mentioned in section 1.1 above, compensatory benefits tend to constitute a fixed, legally established scheme with regard to causes, conditions for entitlement, amounts, limits, etc., which in rare cases may be changed at will. In all the countries (with certain variations) the compensatory benefit scheme provided the following:

- benefits replacing earnings in the case of temporary incapacity for work;
- medical and rehabilitation benefits;
- permanent disability benefits, according to the degree of disability;
- other benefits and complementary benefits.

The provision of benefits replacing earnings is apparently applied everywhere and the procedures for applying it seem fairly uniform. The benefit is always determined as a percentage either of the worker's real wages during a previous period or of a predetermined "base" rate. It is also common for the percentage to vary depending on how long the benefit is received, and, regardless of the calculation mentioned above, for the actual amount of the benefit to be subject to a maximum limit. The differences between the benefits provided in each country are with regard to the percentage of the earnings that the benefit covers (Senegal: 50 per cent of wages for the first 28 days and two thirds for the rest; France: 60 per cent for the first 28 days and 80 per cent for the rest; Switzerland: 80 per cent; Belgium: 90 per cent; Colombia: 100 per cent for the first 180 days and two thirds for the rest; etc.) the maximum length of time that a benefit may be received and, where such is the case, the ceilings applicable to the amount that can be received in excess of the relevant percentage rate.

The United Kingdom is a special case because rather than using the criterion of replacing earnings, it generally uses that of the loss of a faculty. In addition, it distinguishes between different types of benefit in this case depending on the type of workers.

Medical and rehabilitation benefits are normally defined very broadly, including all the necessary medical treatments, as well as protheses. There are a number of special cases. In Burkina Faso it is possible to replace medical care with a cash payment. In Senegal, the provision of medical care is presently under consideration, and in the Czech Republic there seems to be an exception to the right to receive medical care in the case where the accident was caused by the patient. Also, the institutions of certain countries (Belgium, Burkina Faso, Cameroon, Chile, France, Germany, Israel, New Zealand, Spain, Switzerland, and the
United Kingdom) refer expressly to the inclusion of rehabilitation and vocational rehabilitation measures.

Although certain institutions did not specify the precise compensation mechanisms for permanent disability benefits, the risk nevertheless seems to be protected everywhere. The usual practice is to distinguish between the degree of disability and to provide an income that meets the needs of the worker as long as the degree of disability exceeds a certain percentage. In Italy, an income is provided for a minimum reduction in working capacity that exceeds 10 per cent; in Burkina Faso, for one that is equal to or exceeds 15 per cent; in Israel for one that exceeds 19 per cent; in Germany for a reduction of at least 20 per cent and in Colombia exceeding 20 per cent; in Belize and Mexico for a reduction of 25 per cent or more; in Saudi Arabia and Jordan of 30 per cent or more; in Chile of at least 40 per cent and in Burundi of 66 per cent or more. There are other methods of determining degrees of disability, as in Spain, where they distinguish between incapacity for the usual work and that for any type of work.

It has already been mentioned that the benefit provided in this case is a pension as long as the disability exceeds a certain degree. In the case of France, however, the pension may be replaced by a lump sum. In Germany, too, this type of replacement is possible if certain specific conditions are met and in the case of a reduced pension if the person concerned so requests. This is somewhat similar to the case of Mexico, where the worker can choose between a pension or receiving a lump sum when the degree of disability is from 25 to 50 per cent. For degrees of disability which are below the limit granting entitlement to a pension, a single cash benefit is usually determined, although it does happen that a specific benefit exists in this case.

Finally, the benefits that were referred to as «complementary» were the most varied and diverse. Several countries included in this category the permanent disability benefits (when the degree of disability is low and does not grant entitlement to an income) mentioned in the preceding paragraph, which are provided through various mechanisms. These compensatory benefits take a number forms, small benefits that supplement all the previously mentioned ones (burial costs, the cost of transportation to receive medical care, etc.), and other types of benefits that generally would enter into the domain of social assistance (the modification of living quarters for disabled persons, educational allowances for children, etc.). It is important to mention that only the institutions of Belgium, Belize, Chile, France, Germany, Israel, New Zealand, Saudi Arabia, Spain, and Switzerland specifically refer to the existence of survivors’ benefits (usually pensions) in the case of the death of the worker. However, it is thought that this lack of information may be due to a misinterpretation of this part of the questionnaire, since in general this type of benefit seems to be well established nowadays in countries other than those mentioned.

In general, it should be pointed out that the replies received from a number of countries (Belgium, Belize, Chile, Colombia, France, Germany, Iran, Italy, Mexico, and Spain) indicated that there were differences between benefits for employment accidents and occupational diseases and those for common illnesses and non-work-related accidents. Usually the benefits were better for occupational than for common risks. According to the reply from Belize, there is no entitlement to medical care in the case of common risks.
Another group of replies (France, Mexico, Spain, and Zambia) indicate that higher rates or additional sums are added to the cash benefits provided when it can be shown that the accident was attributable to a lack of safety measures in the enterprise or negligence on the part of the employer. Such supplementary costs would be borne by the employer at fault. In other cases (Belize, France, Germany, Iran, Saudi Arabia, and Senegal), there are no supplements to the benefits, but in such circumstances the guilty employer must bear the cost of the benefits. In addition, in the case of Germany the bodies administering insurance against employment accidents could demand reimbursement of the benefits from the enterprise found responsible.

There seems to be a general trend in the different countries for the existing legal mechanisms of prevention to provide compulsory recommendations. These are only minimum requirements, however, and they may always be surpassed at the initiative of the employer, who is responsible for safety in the enterprise. It also seems to be fairly commonplace for each country, depending of course on its geographical location or political relationship, to adapt its own legal standards on prevention to the existing international or supranational instruments.

As was already mentioned above, it is generally the employer who is responsible for safety measures in the enterprise. In some countries, this responsibility may require the employer to bear the costs of accidents that occurred owing to the lack or deficiency of safety measures. In this case, the employer must reimburse the institutions that covered the costs of the injured workers. The case of Germany is significant in this respect. According to the information received and in keeping with what has been stated above, the bodies administering the insurance can require the employer to reimburse the full costs incurred from an accident when it can be proven that the accident was caused intentionally by the employer or owing to apparent negligence.

Workers are required to respect the general and specific safety measures established for the enterprise or for the particular work done. They are also supposed to report any symptoms they have which could indicate the existence of an occupational disease.

In the replies received from the different countries it seems that the role of the State or governmental authorities is generally thought to be to provide monitoring bodies and to promote all activities related to the prevention of employment accidents and occupational diseases and, in general, everything involving health and safety at the workplace. Reference should once again be made to Germany, which in its comments states that the same institutions that are responsible for insurance against employment accidents and occupational diseases are required to ensure by all possible means prevention of such risks, even going so far as to enact provisions in this regard.

Nevertheless, in spite of this general agreement and regardless of any particular cases that exist, the replies of only eight countries (Belgium, Burkina Faso, Colombia, Germany, Israel, Italy, Mexico, and Switzerland) specifically mentioned that standards existed establishing the compulsory training of workers as an instrument of prevention.

To end these comments on prevention, it would be appropriate to mention the mechanisms which are applied in the different countries to encourage the adoption of prevention measures.
Most respondents confirm that the standards on prevention should be respected since they constitute a legal obligation. In cases of non-compliance the usual corrective measures for legal violations are applied (fines, financial responsibility for the damages caused, and even prison sentences). Few institutions refer to the existence of mechanisms or specific policies which promote or give incentive to the adoption of measures over and above the compulsory minimum legal requirements.

The replies received from Belgium, Chile, Colombia, the Czech Republic, France, Germany, Italy, Mexico, New Zealand, Senegal, Spain, Switzerland, and the United Kingdom indicate that they have established mechanisms to give incentive to the adoption of prevention measures in enterprises. These usually consist of additional charges on contributions to cover risks in cases where there is a high rate of accidents, and of reductions of contributions when the opposite is true. In some cases, these mechanisms contain an additional incentive, such as in France where there is a policy of reimbursing costs, subsidies or loans at a low interest rate for enterprises with low accident rates. In Chile, Germany, Italy (certain economic sectors), and Mexico the contribution rate is established for the risks concerned in relation to the enterprise’s previous accident record.
2. Institutional framework

The analysis of this aspect was one of the most complex tasks of the present study. An attempt was made to keep the questions in the questionnaire as generic as possible in order to obtain without difficulty an adequate picture of the institutions responsible for the prevention of and compensation for employment accidents and occupational disease in the various countries. Apparently, however, it was impossible to get around the existing peculiarities, which posed certain problems when it came to drawing conclusions.

The first general comment that can be made is that, depending on what the body is responsible for, it is possible to distinguish between bodies that come directly under governmental authority and other institutions, both public law and private. This is particularly relevant for compensation, since there are different organizational systems in which, as well as the governmental bodies, public law institutions or even private firms participate, with or without the aim of making a profit. As a result of this situation, certain countries may have complex organizational structures to administer compensation for employment accidents and occupational diseases, depending on whether the institutions have full or partial direct responsibility for these risks, whether they work in cooperation with the governmental bodies, or whether they merely carry out the functions of a complementary insurance.

Belize, Spain (with the particular features that will be examined below), Sweden (also with specific features) and the United Kingdom report that prevention and compensation come directly under governmental authority. There are additional systems in Sweden based on negotiations between the partners on the labour market. In Burundi, France, Iran, Israel, Italy, and Zambia the governmental authorities are responsible for prevention, while compensatory benefits are administered by public law corporations or firms that are usually under governmental authority. Finally, in Burkina Faso, Cameroon, Chile (also with specific features), Colombia, Mexico, New Zealand, and Saudi Arabia, both prevention and compensation are administered by public law institutions coming under governmental authority.

The cases of those countries which, for certain organizational reasons, do not fit into any of the above categories should also be mentioned briefly.

In Germany and Switzerland, both prevention and compensation are entrusted to specific institutions responsible for insurance against employment accidents and occupational diseases, which are independent and established as public law bodies. They are self-administered and managed with the help of workers’ and employers’ representatives. In Switzerland, private institutions also provide mandatory insurance, so that Switzerland refers to its institutional scheme as «a dual system made up of manifold bodies».

Belgium constitutes a special case with its mixed system. The responsibilities are shared between the State and specific organizations (one for employment accidents and the other for occupational diseases), along with coverage by private insurance institutions.
In the United Kingdom, irrespective of the allocation of responsibility referred to earlier, the principle in effect is that of the employer's civil liability for accidents suffered by his or her workers. For this reason all employers are required to have a private insurance policy for their workers to cover these risks since the applicable social benefits are limited. Only workers in the public service are excluded from this coverage as the public administration is directly responsible for injuries due to accidents.

The case of the Czech Republic is also different. While public organizations exist that are responsible for supervising insurance against employment accidents and occupational diseases, the actual management is entrusted to three commercial insurance companies, which administer this compulsory public insurance. In addition, the Czech Republic indicates that as of 1996 the system described will be replaced by management through a non-profit insurance company that specializes in insurance against employment accidents.

The work injury insurance in Sweden is general and publicly administered. All employees are covered. Before 1993 the insurance covered short-term sickness with a 100 per cent compensation level. As from 1 July 1993 this has been changed. During short-term sickness due to work-injury sickness cash benefit is paid from the sickness insurance. The compensation level from this scheme is lower and a one-day waiting period exists. However, amnities due to work injuries and occupational diseases are still paid from the work injury insurance scheme. A commission is now looking for future solutions to the sickness - work injury - and disability insurances. This commission is expected to put forward its report in 1996.

In Senegal, there is a Social Security Fund, which is considered a «private law» institution, and which has workers’ and employers’ representatives on its board.

It should also be mentioned that only the replies received from Germany, Israel, and Switzerland state specifically that the institutions they have for covering the risks of employment accidents and occupational diseases are different from those that cover the other risks included in the social security system.

According to the replies received, it is possible to obtain insurance against the risks with which this study is concerned through private institutions (usually insurance companies) in only ten countries. Those whose respondents clearly referred to this possibility in the affirmative are: Belgium, Burkina Faso, Colombia, Iran, Israel, Italy, Mexico, New Zealand, Switzerland and the United Kingdom. However, those of only Belgium, Burkina Faso, Colombia, and Iran mentioned that this possibility was not solely a means of supplementing the compulsory public insurance, keeping in mind also the peculiarities described in previous paragraphs regarding the system of the United Kingdom.

Chile and Spain are special cases as they have private institutions which administer insurance against employment accidents and occupational diseases. These institutions are set up as associations of employers, with the special exception that in Chile they are managed by boards with an equal representation of employers and workers. In addition, it is possible in certain cases for individual enterprises to administer this insurance.
In Spain, these management possibilities are viewed as a form of «collaboration» with the public social security system; however, with regard to individual enterprises, the possibilities are limited to administering temporary disability benefits (temporary replacement of earnings and medical care). Yet neither of these cases can be regarded as the administration of a private insurance, since the insurance is regulated on a public basis and its basic conditions (contributions, although in Chile these may be modified by every institution, and benefits) are the same as those applied in the general public coverage. The only private element is the administering body, which in fact is subject to supervision by the governmental bodies.

In the Czech Republic, public insurance against these risks is also administered by commercial insurance companies, much like the schemes that were described above.
3. Financing mechanisms

It was also difficult to analyse this section because precise answers to the questions were too often lacking. Therefore as in the previous section conclusions will only be meaningful regarding those aspects that were dealt with in a more general way. What follows will be limited to those aspects.

This said, it should be pointed out that there is once again a distinction between compensation and prevention. In fact, in the previous section it was seen that in several countries prevention was covered by governmental bodies. This would naturally mean that these activities would be financed through the national budget. As for compensation, which can be entrusted to other bodies outside the state public institutions, it is financed through social insurance contributions. This is the case, with a few variations, in Iran, Israel, Italy, Spain, and Zambia.

The replies received from Burkina Faso, Burundi, Cameroon, Chile, Colombia, Germany, Jordan, Mexico, and Switzerland indicate that the financing of prevention as well as compensation is fully carried out through social insurance contributions separately from the national budget. In the case of Germany, however, reference is made to what are called federal, regional or municipal «executing bodies», which are independent public sector insurance institutions that are financed through taxes. These institutions cover civil servants and federal, regional and municipal workers, as well as a few other specific groups.

The cases of Saudi Arabia and New Zealand are worth mentioning for their peculiarity. In Saudi Arabia, it is laid down expressly that the State will allocate the necessary funds from the national budget to cover any deficit that might occur as a result of an insufficient inflow of social insurance contributions. This is basically the same system that is applied in Sweden. In New Zealand, there is a system of «four accounts» (employers, earners, motor vehicles, and non-earners). Each account is financed through contributions or taxes. Each account therefore has its own plan of prevention against accidents and diseases, financed by the deposits in each of these accounts, which in the case of employers, earners and motor vehicles is financed at the cost of the employers, earners and owners of motor vehicles, while for non-wage-earners the State pays as part of its rehabilitation and insurance scheme.

The Czech Republic is also a special case. According to the information received, the financing of compensation for these risks is carried out through the employer’s compulsory contributions paid to three commercial insurance companies which administer insurance against employment accidents and occupational diseases. This contribution is determined legally and is compulsory, but seemingly is not regarded as a social security contribution. Nevertheless, if the companies administering the insurance come up with a loss, it will be covered with funds from the national budget, which also receives any surplus that is generated. No additional information was provided about how the change in the institutional management framework that was referred to in the previous section, which will take place in 1996, will also alter this aspect of financing, if indeed such a change is foreseen.
When the financing is through social insurance contributions it is also almost always the employer who is responsible for paying the contributions for occupational risks. One exception is Belize, where both employers and workers contribute.

With regard to the possibility of financing this protection through contributions to private institutions, the situation is logically in keeping with what was mentioned about those types of institutions in the section on the institutional framework. In this sense, apart from the possibilities of complementary insurance that were outlined in that section, Belgium and the United Kingdom should be mentioned as cases that offer such generalized coverage; although the case of Switzerland, where contributions are paid to private institutions to cover protection of the agricultural and service sectors, should also be mentioned.

Chile and Spain should also be singled out since, as was mentioned in the previous section, it is possible to obtain insurance against these risks through private institutions, which receive a transfer of the appropriate share of contributions for financing purposes.

Nevertheless, in spite of the fact that coverage was provided by private institutions, in the cases described above the principle of financing through the contributions of employers was generally maintained.

As the information received was too varied, it was difficult to analyse the various mechanisms used for determining the procedure and the contribution rates that are used to cover employment accidents and occupational diseases. This was also true regarding the share of total social insurance contributions which employment accident and occupational disease contributions represent in the different countries.

In this sense it should be pointed out that in determining the level of contributions the major factor at present seems to be the risk presented by different work stations. It also seems fairly common for countries to have tables of rates, describing the different types of work possible and the different risks involved, which can be used to determine the exact rate that is applicable. The replies received from Chile, Colombia, Germany, Italy, New Zealand, Spain, and Switzerland specifically mention that contribution rates are determined by applying this criteria of different degrees of risk, and in Chile, Germany, Italy, and Switzerland the rates are increased or reduced depending on the enterprise’s previous accident record.

On the contrary, the level of contributions for these risks is fixed as a percentage of wages, meaning that the potential risk for the work done is not regarded as the only determining factor, in Mexico (it varies from 0.35 to 10.03 per cent), in Belgium, Saudi Arabia and Jordan (2 per cent), in Iran (3 per cent), and in Burkina Faso (2.5 per cent). In Belgium the premiums paid to private insurance institutions vary according to the risk insured (from 0.08 to 22 per cent); the contribution rate paid to the Employment Accidents Fund is equal to 0.3 per cent of total wages.

Finally, irrespective of the procedure used to determine contributions, it would be useful to indicate the share of total social insurance contributions represented by the contributions of some countries’ institutions for covering the risks of employment accident and occupational disease. In Germany, the share is estimated at 3.75 per cent, in Spain 7.71 per cent, in
Switzerland 10 per cent, in Israel 4.5 per cent, in Chile 9 per cent, in Colombia 9.67 per cent and in Burkina Faso 10.85 per cent.
4. Closing comments

4.1. General

As a matter of principle it is necessary to note that occupational risk prevention schemes in different countries have a number of important aspects in common regarding the legal principles on which they are founded and the basic machinery whereby protection is provided in practice.

This may be a result of the fact that, as occupational accident insurance is in general the oldest of the established systems of social protection in various countries, extensive experience has now been acquired of its management, in many cases moreover by institutions that are now of a specialized nature. This has resulted in today's technically advanced protection schemes, at least in most European countries, which over the years have served as a model to inspire other countries, and which can draw on abundant information as a basis for possible modifications in the future.

With this in mind, we must first conclude that, although in the field of social protection the view must be held that any established system is in principle capable of improvement to the extent that it can expand its mechanisms for the prevention of accidents and eliminate or offset their consequences, and in short improve the well-being of those covered by the protection it offers, nevertheless in most cases the present-day differences between established mechanisms of protection in different countries do not derive from exclusively technical aspects, but from the political and economic circumstances prevailing in each country at the given moment, which determine the scope of social protection in general, and not only in a single branch such as occupational risk insurance. It is thought that such circumstances may constitute the main difficulties involved in achieving, with an acceptable degree of effectiveness, the practical «coordination» of different established systems, which is the aim of the present exercise, since conclusions and recommendations of a technical nature will be limited by political and economic factors.

4.2. Findings of the survey

In view of the above, as the aim of this study was to analyse the legal and institutional frameworks in which the prevention of and compensation for employment accidents and occupational diseases operate in the countries studied in order to permit their comparison and possible coordination, in this section those points will be briefly summarized which, according to the replies to the questionnaire and the additional information supplied, were most similar in the different occupational risk systems applied in the various countries. These common points may perhaps already provide a firm basis for the targeted task of coordination. The major differences between the systems, which are points to consider when analysing the practical possibilities of coordination, will also be mentioned, and recommendations will be made on individual aspects where possible. The main points are the following:
Most of the basic legal standards that currently regulate these risk schemes in the different countries are of long standing, largely due to the fact that insurance against employment accidents and occupational diseases was the first form of social protection machinery established. This has made it necessary to begin an updating process, which only certain countries have undertaken for the time being.

In general, standards on compensation are found grouped together under social security law, while those regulating prevention tend to be spread throughout the various branches of law, especially when specific standards are established for particular types of work or branches of activity.

In most cases, standards on compensation represent a closed scheme with specific recommendations that apply generally, and which can only be changed at the will of the State (legislative bodies or the executive branch). Standards on prevention, however, constitute a minimum framework which must be respected, but which can be surpassed or improved on the initiative of the employer (directly responsible for prevention measures in the enterprise) or by agreement between the employer and the workers. In certain cases, it is even possible for employers and workers to develop standards on prevention.

As mentioned, the scope of application of prevention standards tends to cover all enterprises and workers in general. Compensation standards, however, apply to workers, with some exceptions, who are covered by the appropriate insurance for the particular risks involved. The reason for such limitations would seem in various countries to be the underlying "principle of the responsibility of the entrepreneur or employer", as a result of which the groups excluded from such specific protection are normally self-employed workers in particular or employees where the employer is the State itself.

There is a fairly marked conformity with regard to the legal concepts of employment accidents and occupational diseases. The main difference regarding employment accidents is the scope or limitation given to this concept (inclusion of accidents when the worker was travelling to or from work, admission of certain symptoms of ordinary illness if the ailment occurs at the workplace, etc.). For occupational diseases, the difference usually concerns the contents and possible extension of the commonly-found list of all ailments regarded as occupational diseases in a given country.

Compensatory benefits, which differ greatly from one country to another in relation to their content, nevertheless generally conform to the following basic pattern:

- financial benefits for temporary incapacity for work (benefits replacing earnings);
- medical, rehabilitation and recovery benefits;
- financial benefits for permanent incapacity for work;
- other benefits and complementary benefits (for the death of a worker, assistance, and various types of complementary benefits).
Benefits for temporary incapacity for work are applied everywhere. The differences (which are fairly large) concern the amount of assistance, whether or not there are maximum limits to the amount, and whether there is a maximum possible duration.

Barring certain specific exceptions, it is the medical and rehabilitation benefits that are the most uniform, although they are usually defined very broadly to cover the full treatment of the worker, including any prostheses that may be necessary. Nevertheless, it is less common for vocational rehabilitation measures to be included in such benefits.

Financial benefits for permanent disability are also applied everywhere, usually consisting in a pension or income granted to the worker. There are, however, important differences between the various countries regarding the degree of incapacity necessary for entitlement to such pensions. When the necessary degree is not reached, the worker usually receives a single lump-sum benefit, although in some countries such cases are granted an allowance, which could be regarded as an extended benefit for temporary incapacity.

The section on other benefits and complementary benefits offers the most diversity. This section includes financial benefits (pensions) for immediate family members and in the event of the death of the worker. Some countries include benefits for permanent disability when the degree of incapacity is insufficient for entitlement to a pension, and there is also a broad scheme of complementary benefits which in some cases would seem to enter into the concept of «social assistance».

In all countries, employers are responsible for prevention measures in their enterprise, and it is the worker’s duty to comply with such measures. It is not a very widespread practice, however, to require workers to be trained in the field of prevention as a means of promoting safety.

Nor are any specific mechanisms common which serve as incentives for the employer to adopt or improve prevention measures.

There is no common system in the different countries with regard to the institutional framework. The bodies that administer and regulate the prevention of and compensation for these risks may be governmental authorities, public-law institutions, and even private institutions. Most often, there are mixed systems of administration in which more than one of the above-mentioned bodies participate. The main element these countries have in common in this regard is that, while the institution actually carrying out the administration is independent, it is monitored or supervised by public bodies.

It should be mentioned in connection with the institutional framework that, although not a very widespread practice, employers and workers participate in the management of the various bodies administering these benefits and, also in specific cases, there are management bodies outside the bodies administering general social protection.

One salient and more generalized feature of financing is that it is the employer who is responsible for paying the necessary contributions for these risks. In certain circumstances the employer’s responsibility includes another component in addition to
the obligation to pay the insurance contributions, as such responsibility is greater where the employer is negligent or if safety measures in the enterprise are lacking, in which case the employer usually becomes fully responsible. It then also becomes the duty of the guilty employer to reimburse the costs.

- Nevertheless, the financing is a reflection of the institutional framework: this affects the allocation of responsibility for the management of such contingencies between different bodies and institutions. In some countries part of the protection is financed directly out of the State budget. In the cases studied, this arrangement usually applies to the prevention aspect, but hardly ever to compensation, and is limited to institutionalized schemes in which responsibilities are directly assigned to bodies forming part of the State administration.

- There is also a feature of the process of determining contribution levels for these risks which is the same in many countries. It involves taking into consideration the risk factors for each job to determine contribution rates, which in certain cases may also vary according to the enterprise's previous accident record. This acts as a correctional element that provides an incentive for the enterprise to improve security measures and to prevent accidents and diseases.
Conclusions

The Permanent Committee on Insurance against Employment Accidents and Occupational Diseases meeting in Nusa Dua, Denpasar, on 14 November 1995 on the occasion of the 25th General Assembly of the International Social Security Association (Nusa Dua, Denpasar, 13-19 November 1995),

Having taken note of the report on the theme *The legal and organizational framework of coordination of occupational risk prevention and compensation schemes*,

Adopts the following conclusions:

1. It is obvious that any improvement sought in the coordination of the legal and institutional frameworks of schemes for the prevention and compensation of employment accidents and occupational diseases, within an organization such as ISSA, can never be fully achieved independently of the specific political and economic circumstances prevailing in individual countries at any one moment, despite the degree of specialization that applies to occupational risk insurance.

2. Despite this important limitation, it is also thought that certain aspects of existing protection schemes, common to most countries, could be addressed as a target for improved coordination, so as, to the extent possible, ultimately to bring them into line with models which, regardless of other considerations, have proved most effective over the years.

3. Despite the rationalization measures that have been introduced in certain countries, standards do seem to be rather dispersed in this area, especially as regards prevention. It would therefore seem advisable to have a specific and uniform standard-setting text of a general nature, without disputing the need of certain industries or activities for specific preventive standards based on features peculiar to them or the special risks they involve.

4. Despite the common features of the different elements comprising the legal concepts of employment accident and occupational disease in different countries, in practice their application seems to differ considerably with regard to the scope and flexibility of the concepts involved, and it may be advisable to adopt more standardized definitions, especially where the designation of a risk as occupational entails different levels of benefits.

5. The specialized nature of occupational risk insurance, and in some cases the assignment of its management to different specialized institutions, is increasingly cited as an important advantage for this branch of social protection. However, in some countries such specialization might prove an obstacle to the universalization of benefits, as certain categories are specifically excluded from this form of insurance. An analysis might be useful of such situations and their specific causes so as to achieve greater uniformity of protection mechanisms where the risks to be covered are comparable.
6. It seems today that most occupational risk protection systems continue to be based on the principle of the employer's liability, so that the employers themselves have to obtain coverage for the risks faced by their workers. This situation is particular for this branch in comparison with other branches of social security.

7. Although there seems to be growing interest in preventive measures as the most appropriate form of activity for occupational risk insurance both to reduce accident rates and to offset the consequences of accidents, the training of workers as a measure to prevent occupational risks is not very widespread and does not seem to receive sufficient attention, and it therefore seems advisable to give greater weight to this aspect of training.

8. In certain countries systems of financing occupational risk insurance have been operating for some time now, with apparent success, which adjust the types of contributions paid exclusively by employers on the basis of the enterprise's accident record, increasing contributions for high accident rates and correspondingly reducing them for low ones. Although there also seems to be general interest in encouraging enterprises to adopt all possible measures to reduce the incidence of accidents, only rarely does this result in concrete mechanisms, and studies might be made of the possibility of using those mechanisms already operating in a number of countries and of their possible adaptation elsewhere.
Annex

List of institutions having participated in the survey

Africa

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<tr>
<th>Code</th>
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<tr>
<td>BF</td>
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<td>Institut national de sécurité sociale (National Social Security Institute)</td>
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Asia and the Pacific

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<td>Jordan</td>
<td>Social Security Corporation</td>
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</table>
NZ - New Zealand  Accident Rehabilitation and Compensation Insurance Corporation

SA - Saudi Arabia  General Organization for Social Insurance

Europe

BE - Belgium  Fonds des accidents du travail  
(Employment Accidents Fund)  
Association nationale pour la prévention des accidents du travail (ANPAT)  
(National Association for the Prevention of Occupational Accidents)

CH - Switzerland  Schweizerische Unfallversicherungsanstalt (SUVA)  
(Swiss National Accident Insurance Fund)

CZ - Czech Republic  Ministry of Labour and Social Affairs  
Ministry of Health

DE - Germany  Hauptverband der gewerblichen Berufsgenossenschaften e.V.  
(National Federation of Industrial Employment Accident Insurance Funds)  
Bundesverband der Unfallversicherungsträger der öffentlichen Hand e.V. (BAGUV)  
(National Federation of Accident Insurance Institutes of the Public Sector)

ES - Spain  Federación de Entidades Gestoras de la Administración de la Seguridad Social  
(Federation of Administrative Bodies of Spanish Social Security)  
Dirección General de Ordenación Jurídica y Entidades Colaboradoras de la Seguridad Social  
(General Directorate for Legal Affairs and Cooperation of Social Security Institutions)

FR - France  Caisse nationale de l’assurance-maladie des travailleurs salariés (CNAMTS)  
(National Sickness Insurance Fund for Employees)
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<td>Istituto Nazionale per l’Assicurazione contro gli Infortuni sul Lavoro (INAIL) (National Employment Accident Insurance Institute)</td>
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<td>Istituto Superiore per la Prevenzione e la Sicurezza del Lavoro (ISPESL) (Higher Institute of Prevention and Safety at Work)</td>
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