



issa

INTERNATIONAL SOCIAL SECURITY ASSOCIATION

# Technical Report 03

---

## Global cycle on challenges posed by occupational diseases

Results 2005-2007

**Stefan Zimmer**

Head of International Relations  
National Federation of Industrial Employment  
Accident Insurance Funds  
Germany

---

# **Global cycle on challenges posed by occupational diseases**

## **Results 2005-2007**

**Stefan Zimmer**  
**Head of International Relations**  
**National Federation of Industrial Employment**  
**Accident Insurance Funds**  
**Germany**

## **Technical Commission on Insurance against Employment Accidents and Occupational Diseases** **World Social Security Forum, Moscow, 10-15 September 2007**

---

The International Social Security Association (ISSA) is the world's leading international organization bringing together national social security administrations and agencies. The ISSA provides information, research, expert advice and platforms for members to build and promote dynamic social security systems and policy worldwide. An important part of ISSA's activities in promoting good practice are carried out by its Technical Commissions, which comprise and are managed by committed member organizations with support from the ISSA Secretariat.

This document is available on <http://www.issa.int/Resources>. For terms and conditions, please consult the ISSA website. The view and opinions expressed do not necessarily reflect those of the publisher.

## **Summary**

*The world of work is changing and this is impacting on the nature of occupational diseases. Globally, “old” and “new” occupational diseases are increasingly challenging the operations of employment accident and occupational disease insurance systems. The annual number of non-fatal work-related diseases has been estimated to be 160 million and 58 million of these cases cause at least four days absence from work. This has a significant impact on social security. So how do social security schemes cope with this phenomenon? Are they well equipped and prepared to confront the many problems they face? This session will focus on the main results of the cycle of seminars held throughout the triennium on the challenges of occupational diseases in three different regions. By doing so, it will draw attention to the pertinent questions and issues which resulted from the exchanges and debates during the seminars. This will concern, in particular, issues regarding the notification, registration and monitoring of occupational diseases. Moreover, the session will look into challenges related to the recognition of, and how to provide compensation for, the so-called “new” diseases.*

## **Introduction**

In the year 2003 the International Social Security Association (ISSA) Technical Commission on Insurance against Employment Accidents and Occupational Diseases organized the first in a cycle of four seminars on the challenges of occupational diseases, worldwide. A report on this seminar was presented at the ISSA General Assembly in Beijing, 12-18 September 2004<sup>1</sup>.

Positive feedback from ISSA members to the seminar - on its content matter and outcomes as well as on its methodological approach - motivated the TC to continue its strategy of organizing topically focused, intra-regional and small scale seminars instead of simply "globalizing" the debate on occupational diseases by means of large scale inter-regional events. This way, special regional distinctions could be addressed in the depth and breadth they merit. Furthermore, as especially the last seminar in Africa, in March of 2007 showed, the ISSA TC could bring together experts (some for the first time) from neighbouring countries to share mutual problems of a region, identify common concerns and formulate joint positions and calls for action. Relevance to the practical work of administrators was, at least, one priority of the cycle of seminars. Identifying solutions and good practices of practical relevance could be achieved far easier by addressing relatively homogenous concerns of a single region, and in one region after another.

It would certainly be futile attempting to summarize most of the roughly 70 technical presentations on challenges and good practices in preventing, rehabilitating and insuring occupational diseases in Latin America, Asia and Africa.

---

<sup>1</sup> <http://www.issa.int/pdf/GA2004/2zimmer.pdf>

However, this report presents at least some key findings of the three seminars organized between 2005 and 2007 in:

- Buenos Aires, Argentina, 27-28 April 2005.
- Shenzhen, People's Republic of China, 5-7 September 2006.
- Kribi, Cameroon, 13-15 March 2007.

## **Are occupational diseases a "global" challenge?**

It was at least the hypothesis of the Technical Commission that, despite regional particularities, not only certain commonly shared problems could be found, challenging social insurance in all regions alike. Also, at the end, some practically relevant methods and practices should be derived in order to propose - preferably simple - strategies to answer these challenges.

In itself, occupational diseases (ODs) are not a new risk to social security. In fact, ODs are covered by many systems throughout the world for several decades. However, today more so than in the past, this type of disease - in all its multiple forms and facets - poses a special challenge to social insurance. Problems already begin with an attempt to define the subject at hand. Definitions of occupational diseases are diverse and vary according to jurisdiction; after all, "occupational disease" is a legal and not a medical term<sup>2</sup>.

Even more complex than the definition are possible causes of occupational diseases. In many cases (and increasingly so) work related factors increment the risk of a disease together with other, not work related factors. Work related factors also often aggravate an already established disease. It is this complex multi-causality of occupational diseases which makes them not only difficult to recognize and record, but also highly difficult to prevent and insure. All in all, ODs are a much more complicated matter to deal with than occupational accidents.

In summary, legal, administrative, environmental and geographical factors all influence the way ODs are prevented and insured in the various regions of the world. All these problems lead to the question whether there are in fact some globally shared characteristics of ODs which to address would be beneficial for social security systems around the world.

It was one clear result of all seminars in our cycle that administrators, work safety specialists, medical practitioners, workers and employers in all parts of the world are challenged alike by the growing complexity of the issue. The multi-causality of ODs, new and emerging types of diseases, the growing impact of informal work and migrant workers in a globalized economy

---

<sup>2</sup> Generally, such chronic ailments that are known to occur in a given body of workers in a given industry at a rate significantly higher than occur in the general population are labelled "occupational diseases". This also includes diseases that are only known to occur among workers in a given industry and nowhere else (such as black lung disease among coal miners). In these cases where work related factors are the only cause of a disease, its acceptance as an occupational disease generally does not cause any problem

all demand special attention paid to the problems and challenges associated with ODs in the beginning of the twenty-first century.

In the three seminars between 2005 and 2007, two challenges clearly demanded most attention and shall therefore be described in the following:

- One challenge is marked by the difficulties relating to reporting and recording ODs, especially ODs with long latency periods. This problem is complicated by certain new or emerging (so called "contentious") diseases which are difficult to attribute to the workplace (like work related mental disorders).
- Another challenge, aggravated by economic globalization, is posed by the attempt to expand the scope of coverage of accident insurance to risks formerly left uncovered in the "informal" sector. How can workers in the informal economy (in many cases the vast majority of the national workforce) be included in the system? How can these workers be granted access to occupational medical checkups, primary occupational healthcare, rehabilitation and compensation in case of a disease? This problem also has a flip-side. In case of successfully expanding the coverage, how can a system prepare for future claims by formerly uncovered workers without straining its financial resources? Claims, especially for diseases with long latency periods might build up a large financial burden for accident insurances in the (not so far) future, most of all in currently developing countries.

## Global data

According to estimates by the International Labour office (ILO) for occupational accidents and diseases, there are globally about 2.2 million work-related deaths, annually<sup>3</sup>. The - by far - largest share of work related fatalities is made up by fatal diseases: between 1.7 and 2 million deaths per year. Global statistics and estimations of this kind are methodologically questionable, but probably the only possible way to at least come close to the reality of occupational diseases, today. At least they offer an idea of the magnitude of the problem. However, they do not offer any information as to what kinds of occupational diseases are most prevalent in various countries. The concept of occupational diseases and the method of recording them depend on legal and administrative decisions in each country. This makes comparing national statistics on occupational diseases difficult, if not impossible.

It was confirmed more than once in our cycle of seminars that a most commonly recognized disease in country A might not even be recognized as an occupational disease in country B, even though it claims a similar number of victims. From a comparison of the two respective

---

<sup>3</sup> ILO (2005): Decent work - safe work. Introductory report to the XVIIth World Congress on Safety and Health at Work, Geneva, ILO.

national statistics on occupational diseases, any uninformed reader might draw the impression that country B provides healthier working environments with regard to the specific disease - simply because no cases are recognized and compensated. Consequently, figures from workers' compensation insurers show that in different countries very different occupational diseases top the claims statistics. It would be a great error if one would draw any quick conclusions from this data on the reasons for their prevalence. For instance, whether or not a country recognizes relatively more cases of "hearing loss" than another might simply be a result of different legal and administrative conditions - and not of relatively more workers exposed to noise at the workplace. The following table exemplifies the diversity of "most frequent" occupational diseases, according to countries.

	<b>Most frequent claims</b>	<b>Second most frequent claims</b>
<b>Argentina</b>	Hearing loss	Respiratory diseases
<b>China, People's Republic</b>	Pneumoconiosis (official share: 80 % of all ODs)	Acute and chronic poisoning
<b>Germany</b>	Skin diseases	Back diseases/hearing loss
<b>Korea, Republic of</b>	Musculoskeletal diseases	Pneumoconiosis
<b>Portugal</b>	Hearing loss	Diseases due to other physical factors
<b>Russia</b>	Respiratory diseases	Musculoskeletal diseases
<b>Sweden</b>	Musculoskeletal diseases	Diseases due to chemical substances
<b>United States</b>	Sprains, strains*	Back injuries/diseases*
<b>Zimbabwe</b>	Pneumoconiosis	n.a.

\*claims include occupational injuries<sup>4</sup>.

## Recognition, reporting and compensation of occupational diseases

In different countries, different work related illnesses are posing the greatest challenges, today. Results from a survey by our Technical Commission in 2003 show that the main challenge in Zimbabwe with regard to occupational diseases is posed by pneumoconiosis, followed by anthrax and lead poisoning; in Rwanda it is silicosis which also affects 37 per cent of miners in Latin America. In the Syrian Arab Republic, cancer diseases are seen as the biggest challenge for the next decade. Occupational cancer is also expected to be the biggest challenge in Argentina, as are back pain and occupational diseases related to psychological factors. In Japan "karoshi" - cases of suicide as a consequence of harder working conditions (in a good economy as well as in a bad economy) - have become a major concern, especially for the higher echelons of management. Many of these diseases bear the risk of going unrecorded and, consequently, without proper treatment and compensation.

<sup>4</sup> Sources: Munich Re Group (2002): Occupational Diseases. How are they covered under workers' compensation systems? Munich, Munich Re; Eurogip (2002): Occupational diseases in 15 European countries. Paris, Eurogip; ISSA Technical Commission on Insurance against Employment Accidents and Occupational Diseases (2006): Seminar III. Respiratory Diseases in Asia, Proceedings.

We found that especially in developing countries, underreporting is the biggest problem for insuring ODs. In our seminars we were able to confirm an observation in a publication from 1999 concerning the eleven countries of southern Africa (Botswana, Lesotho, Malawi, Mauritius, Mozambique, Namibia, South Africa, Swaziland, Tanzania, Zambia, Zimbabwe).<sup>5</sup> This paper specifically cites underreporting as a major problem in Africa. Underreporting in the Southern African Development Community has been estimated to be from two- to sevenfold. The most extreme distortions occur with respect to occupational diseases and, within this, to chemical- and mining related illnesses. Both are prone for underreporting due to their relatively long latency periods and because of the large share of migrant workers in respective sectors of the economy, for which statistical data is largely unavailable. "Here it is possible that the underestimate may be as large as 50-fold."<sup>6</sup>

We heard reports from countries like Gabon, which do not maintain any statistics on occupational diseases since the time the respective national insurances system was set up. Consequently, no ODs have so far been recorded. Other countries do register cases of ODs, but in fact only very few. In the case of Cameroon only 3 cases were reported in the last two decades.<sup>7</sup> In Tanzania, since the year 2000 only one case<sup>8</sup> of OD was compensated. Similar examples could be given in abundance. However, some systems recently stepped up their processes for recording and handling claims of ODs. In Gambia, for instance, exactly one case of an occupational disease had been reported between the introduction of the workers' compensation scheme in 1996, and the year 2003. Then, the system was reformed and between 2004 and 2006 a total of 11 cases was recorded.<sup>9</sup> In the seminar for the African continent, this fact was widely applauded as a great success, which tells a lot about the grade of accuracy in reporting occupational diseases experts are usually accustomed to in this region.

When assessing possible causes for rampant underreporting, experts from African and Asian countries quickly pointed towards their "outdated" lists of occupational diseases. In Cameroon, the list was last updated more than twenty years ago, in 1984. While this may seem a long time, in Gabon the list is exactly 40 years old, and in its current form dates from the year 1967. In Mali, the list has also remained unchanged since the 1960s. While the need for reforming and updating old OD-lists is obvious in these countries, it must be noted that this alone will not eliminate underreporting - maybe not even to a significant extent. Other reasons presented for underreporting hint to the fact that even victims to diseases already on the lists were not identified adequately. As additional reasons, insufficient diagnostics due to "too few" or "insufficiently skilled doctors" were given by experts in Latin America, Asia and

---

<sup>5</sup> Fultz, Elaine/Pieris, Bodhi (1999): Compensation for employment injuries in southern Africa: An overview of schemes and proposals for reform in *International Labour Review*, Vol. 138, No. 2.

<sup>6</sup> See footnote 5.

<sup>7</sup> Bowen, Georges Eric (2007): The compensation of occupational diseases in Cameroon. Conference paper for the IVth ISSA seminar on occupational diseases, Kribi, Cameroon, 2007.

<sup>8</sup> Mtulia, Ali (2007): Compensation of occupational diseases. The Tanzanian experience. Conference paper for the IVth ISSA Seminar on occupational diseases, Kribi, Cameroon, 2007.

<sup>9</sup> Mtulia, Ali (2007): Compensation of occupational diseases. The Tanzanian experience. Conference paper for the IVth ISSA Seminar on occupational diseases, Kribi, Cameroon, 2007.

Africa alike. Other reasons may be found in a general unawareness of medical practitioners for work related causes of diseases and their lack of diagnostic training - not only in the field of occupational medicine.

Sometimes, in addition to these reasons, the insurance system itself may be cause of severe structural, administrative hindrances. What was reported from Tanzania in this respect may be seen as an example for many countries in the developing world - not only in Africa. The medical boards which assess cases of ODs, usually take between 6 and 8 months before even meeting to deliberate a case. "These lengthy procedures have discouraged many to claim for workman's compensation". Further reasons were presented why it was comparatively unattractive for workers to follow up on their claims. In the vast country of Tanzania (nearly twice the size of France) transport to the capital can be so expensive that it might simply be financially unattractive for an injured or sick worker to invest in a bus ticket in order to file a claim or follow up on it. "Sometimes you find that the costs that a worker incurs in the process of claiming for compensation are much higher than the compensation amounts to be paid".<sup>10</sup>

The deficient recognition of occupational diseases is further complicated by the fact that more and more diseases tend to be not exclusively caused by work, but are "work related". This makes it even more difficult to recognize any occupational background. The term "work-related disease" marks a broader concept than that of "occupational disease" since it refers to all diseases where work is a contributory cause. This concept combines work related and non work related factors. The annual number of non-fatal work-related diseases has been estimated by the ILO to be 160 million. The World Health Organization (WHO) estimates that 37 per cent of low back pain, 16 per cent of hearing loss, 13 per cent of chronic obstructive pulmonary disease, 11 per cent of asthma, and 8 per cent of injuries are related to work. Musculoskeletal and respiratory illnesses are among the most common types of work related diseases. It is seldom possible to prove that these illnesses arise solely from work. Consequently, countries vary greatly in their respective method of addressing these illnesses. Passive smoking, carpal tunnel syndrome, post-traumatic stress, depression and a few other potentially work related ailments currently dominate the debates on new occupational diseases in many countries, particularly in Europe. Despite the fact that in the European Union the focus of attention regarding work related diseases currently seems to be on mental disorders, it would be wrong to believe that stress, burn out and depression were only relevant to highly industrialized or high income countries. Neuropsychiatric conditions are in fact the most important causes of disability in all regions of the world, accounting for 37 per cent of years of healthy life lost as a result of disability (YLD) among adults aged 15 years and older. According to a study on global disease and risk factors between 1990 and 2001 depression is the leading cause of disability for males and females around the globe. The same study reveals that "more than 85 per cent of disease burden from non fatal health outcomes occurs in low- and middle-income countries, and South Asia and Sub-Saharan Africa account for 40 per cent

---

<sup>10</sup> Mtulia, Ali (2007): Compensation of occupational diseases. The Tanzanian experience. Conference paper for the IVth ISSA Seminar on occupational diseases, Kribi, Cameroon, 2007.

of all YLD".<sup>11</sup> These countries are generally the same countries with the lowest rates of workers covered by accident insurance - which poses other challenges.

## Challenges posed by the informal sector

As a legal term, "occupational disease" only applies to compensatable diseases caused by work. In order to be compensated for any such ailment a worker per definition has to be covered by a workers' compensation or accident insurance scheme. With respect to compensation, diseases caused by work in the informal (thus uncovered) sector usually do not appear in national statistics on occupational safety and health. Workers in the informal sector normally go without coverage and compensation. However, in many countries they make up the by far largest share of the national workforce. Especially in Asia, Latin America and Africa we find many countries where only a small fraction of the workforce is covered by social accident insurance.

### *Percentage of workforce not covered by workers' compensation system*

Pakistan	Egypt	Bangladesh	India	Venezuela	China	Thailand	Colombia
7.7 %	90.89 %	90 %	90 %	88 %	87.7 %	84.3 %	69 %

*Source:* ILO (2006): Occupational safety and health: Country profiles, Geneva, ILO.

While international studies estimate the informal workforce in industrialized countries to be rarely larger than 10 per cent, it may reach 70 per cent in the developing world, sometimes even contributing the largest share to the gross domestic product (GDP).<sup>12</sup> In the third seminar on occupational diseases, in Buenos Aires in 2005, it was reported that in Latin America seven out of ten new jobs are created in the informal sector.<sup>13</sup> Similar, if not worse, problems occur in Africa. In Burundi, the National Social Security Institute insures only 8 per cent of the workforce - whereas 92 per cent are estimated to be informal and without any social security coverage.<sup>14</sup> In Tanzania (population of 36 million people) the workforce is estimated to be 10 million. Of these, only 1 million (10 per cent) are in formal employment and only 400,000 are insured by the National Social Security Fund.<sup>15</sup> In Asia, various countries encounter the same dilemma. In Vietnam, for instance, only 14.5 per cent of the workforce is covered by social security.<sup>16</sup>

<sup>11</sup> Lopez, Alan D.; Mathers, Colin D. et al. (2006): Measuring the global burden of diseases and risk factors, 1990-2001 in Lopez, Alan D./Mathers, Colin D. et al. (eds.): Global Burden of Disease and Risk Factors, Washington DC, Oxford University Press and World Bank.

<sup>12</sup> Rosenstock, Linda/Cullen, Mark/Fingerhut, Marilyn: Occupational health, in: Jamison, Dean T. et al. (eds.) (2006): Disease control priorities in developing countries, Washington DC, Oxford University Press and World Bank.

<sup>13</sup> Carlos A. Rodríguez (2005): Challenges in Latin America. Conference paper for the II<sup>nd</sup> ISSA seminar on occupational diseases, Buenos Aires, Argentina, 2005.

<sup>14</sup> Simbananiye, Béatrice (2007): The procedures for the recognition of occupational diseases in Burundi. Conference paper for the IV<sup>th</sup> ISSA seminar on occupational diseases, Kribi, Cameroon, 2007.

<sup>15</sup> See footnote 10.

<sup>16</sup> Nguyen Thi An Tho (2006): Introduction to occupational diseases in Vietnam. Conference paper for the III<sup>rd</sup> ISSA Seminar on occupational diseases, Shenzhen, China, 2006.

As was specifically addressed by experts from Latin America, the large share of informal workers somehow needs to be included in the (public) system of healthcare services. It is estimated, that only between 5 per cent and 10 per cent of workers in Latin America have access to adequate occupational healthcare services.<sup>17</sup> Accident insurance can play a crucial role in providing general practitioners - not specialized in occupational medicine - with at least some guidelines on how to recognize occupational diseases. By publishing and distributing "OD-bulletins" of not more than 3-5 pages, at least the awareness of doctors can be raised to inquire potential links of a disease with exposure at the workplace.

Some countries are working hard on expanding their coverage, also in the field of social accident insurance. The People's Republic of China, for instance, was already covering 90 million workers in the year 2006 (20 million more than only two years ago) and it aims at covering 140 million by the year 2010. Among the officially covered 90 million workers are 19 million rural migrating workers, a small fraction of what makes up the largest share of the informal sector in China.<sup>18</sup> The rapid expansion of coverage is good news for workers, both formal and informal. But this growing potential of future claims is also challenging compensatory capabilities of the social security system. China has to reckon with a growing number of claims for compensation of occupational diseases, especially by workers who until recently have not fallen in the scope of the system. Given that lung diseases have already become the most frequent occupational diseases in China and bearing in mind that some of them may have a long latency period (spanning even decades) it is very likely that in 10 or 20 years workers who are currently exposed to dust in coal mines or to asbestos in shipyards might file claims for occupational diseases. Therefore, provisions must be taken today in order to build adequate reserves for future claims.<sup>19</sup>

China's situation with many millions of migrating and informal workers is only exemplifying what might be the greatest challenge for workers' compensation systems with regard to occupational diseases in the next decades. In order not to be caught unprepared by rapidly growing claims volumes, accident insurances, especially in developing and transitional countries should take the necessary precautions - today.

## **How can insurances against employment accidents and occupational diseases answer these challenges?**

Among the numerous good practice solutions discussed in our seminars the following found the broadest consensus among the experts as relatively easy implementable practices of global applicability.

---

<sup>17</sup> See footnote 13.

<sup>18</sup> The number of rural migrant workers in China is estimated to range between 140 million and 190 million people.

<sup>19</sup> Li Dehong (2006): Pneumoconiosis in China – advances in prevention and control. Conference paper for the IIIrd ISSA seminar on occupational diseases, Shenzhen, China, 2006.

## **Ensure sound reporting, motivate to report**

The obligation to report occupational diseases should not rest exclusively with workers and employers. All parties involved should either be obliged (e.g. employers, doctors, health insurance) or allowed (workers, dependants) to file a suspicion of an occupational disease with the relevant authority. Also, they need to be enabled to do so, e.g. by filling out simple, one page report sheets. Doctors might even receive a small remuneration in order to reward their diligence required in diagnosing work related ailments.

## **Strengthen diagnostic quality**

Keeping medical practitioners regularly informed on occupational diseases can be quite simple. Even short information sheets (3-5 pages) may be sufficient to keep doctors up to date on new developments. These information sheets can be made available to doctors in the public healthcare system, summarizing some key features of all or at least the most common diseases on the national list. This enhances the doctor's ability to detect any relation of a disease to the workplace and reduces the number of victims going without adequate diagnosis.<sup>20</sup>

## **Follow up on exposed workers**

Accident insurances in several countries collect data on workers exposed to certain hazardous substances which might lead to occupational diseases after a long latency period (e.g. asbestos related diseases). The Korean mesothelioma surveillance-system, run by the Korea Occupational Safety and Health Agency (KOSHA) is only one (non European) example.

In order to continuously monitor the state of health of workers exposed to dangerous substances (even after they left their job or went on retirement) post exposure medical examinations are a most useful tool. The German "Central Registration Agency for Employees Exposed to Asbestos" (ZAs), for instance, collects data on exposed workers and organizes regular medical examinations. ZAs registers formerly or currently exposed workers, organizes follow-up and post-exposure examinations and stores all relevant data. For workers, participation is voluntary; expenses are borne by the German accident institutions. The benefit lies in the reduction of under-reporting of occupational cancers. Without such registry, fewer cases of occupational cancers would be reported and substantiated.

## **Review/update lists on occupational diseases**

Regularly update the national list of occupational diseases. Especially in Asian and African countries the updating of OD-lists was given high priority. If social insurance compensation is

---

<sup>20</sup> Examples for short "OD-bulletins" (in German language) can be found on the Internet under: [http://arbmed.med.uni-rostock.de/bkvo/mb\\_list.htm](http://arbmed.med.uni-rostock.de/bkvo/mb_list.htm)

limited exclusively to diseases on an out-of-date list, workers will not be able to find adequate compensation.

## **Foster prevention of occupational diseases**

Another "good-" if not "best-practice" is prevention. Prevention is definitely a universally adaptable way to reduce cases of occupational diseases. Even in countries with out of date disease lists, prevention can play a crucial role in reducing the number of victims to diseases, not (yet) on the list. In various countries, where certain risks are not subject to insurance coverage, the same insurers may, nevertheless, engage in preventing these very same risks. It can be deduced that prevention "pays" even in these markets, since it contributes to averting greater expenses to the society. In Germany, for instance, accident insurance carriers are obliged by law to prevent all work related health risks, which also include risks not legally qualified either as "occupational accidents" or "occupational diseases". This benefits also other insurances, such as retirement and general health care insurance, since - due to effective accident insurance prevention - fewer workers fall ill or seek early retirement.

## **Offer incentives**

Through a contribution system of rebates and premiums accident insurances are able to motivate employers to take prevention seriously. An investment in safer workplaces by the employer - subsidized by lower contributions for accident insurance - can be beneficial for both workers and employers. Even young or newly reformed accident insurance systems adhere to this strategy, as the example of the People's Republic of China shows. The bottom line is that linking prevention to accident insurance compensation enables effective mechanisms which not only reduce accidents at work and occupational diseases but also provide an incentive for employers to boost preventive activities in an enterprise. Thus, prevention not only "pays", but it pays even double. It is the most suitable strategy to cope with the growing challenges posed both by "old" and "new" occupational diseases, around the world.

## **Additional Information**

- A summary of the first seminar (Europe, 2003) can be found under:  
<http://www.issa.int/pdf/GA2004/2zimmer.pdf>

For an overview of reports presented in the three seminars between 2005 and 2007, please refer to:

- Seminar II (Latin America, 2005):  
<http://www.issa.int/engl/reunion/2005/BuenosAires/2presentations.htm>
- Seminar III (Asia, 2006): <http://www.issa.int/engl/reunion/2006/Shenzhen/2reports.htm>
- Seminar IV (Africa, 2007): <http://www.issa.int/engl/reunion/2007/Kribi/2reports.htm>