The causes and incidence of occupational accidents and ill-health across the globe

This report contains:

- A synopsis of the data and statistics produced by the International Labour Organisation, World Health Organisation and other organisations concerning work-related fatal and non-fatal accidents and fatal work-related diseases across the globe and in respect of nine named countries
- A description of the data and literature used as a basis for the evidence contained in the synopsis
- An analysis and explanation of the similarities and disparities in the performance of the nine countries studied
- An assessment of trends show over the ten year period up to and including 2001 concerning the type, number and incidence of the major causes of work-related disease or injury leading to death
- A summary of the headline measures those countries and international bodies as the ILO, WHO and the European Union, for example, have in place to reduce the number and incidence of cases of work-related ill-health and injury and a brief resume of any major successes to date
- Case studies featuring Non Governmental Organisations (NGOs) and businesses with global operations highlighting the measures they have in place to promote improvements to labour conditions across the globe and good health and safety among their own workers and those working for their contractors and suppliers.

Karen Pearson

Active Research

April 2009
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<td>Nigeria</td>
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In commissioning this report by Karen Pearson the British Safety Council wanted to highlight the injuries and cases of ill-health that occur worldwide each year, with a view to exploring opportunities to promote higher standards of health and safety risk management.

The ILO estimate that some 2.2 million workers die every year as a result of work-related ill-health and injury. In stark terms this is equivalent to killing the entire population of a small country. The vast majority of these deaths are avoidable and preventable – morally, politically, socially and economically these deaths are unacceptable.

Karen Pearson’s report draws on a wealth of statistics and data previously published by the International Labour Organisation (ILO) and the World Health Organisation (WHO) concerning work-related ill-health, injury and fatalities. The British Safety Council is determined to support and reinforce the information previously published by the ILO and WHO by not only spelling out the magnitude of the pain and suffering that poorly managed work and appalling working conditions cause to workers, their families and society but also the successful measures Governments, Non Governmental Organisations, businesses, trade unions have put in place to improve workers’ health and safety.

But there are clear and present signs that the tide is turning. We feature the work of the ILO and a number of companies – Volkswagen, Anglo American, Arco and Nokia – and two Non Governmental Organisations – The Centre for Corporate Accountability and the Ethical Trading Initiative – and the measures they have put in place to improve working conditions in a range of industries in a number of countries and to dramatically reduce the incidence of work-related ill-health and injury.

There is a growing movement of Governments, businesses, trade unions, NGOs and stakeholder groups who are determined to tackle this unacceptable blight that is killing, injuring and making ill many millions of workers each and every year.

We call on companies across the globe with good health and safety systems and performance to transfer their knowledge to supplier companies. This report shows that it is possible and is already happening.

The British Safety Council is committed to work with these bodies and organisations to achieve real and lasting change. We currently operate in over 50 countries across the globe – we are one of the leading providers of health and safety training and audit and environmental management in the world. We have already and will continue to put our money where our mouth is to help drive these necessary improvements. Together we can make a difference.
Health and Safety Performance in Selected Major Industrial Nations

EXECUTIVE SUMMARY

The British Safety Council wishes to highlight the number of work-related deaths, injuries and cases of ill-health that occur worldwide each year, with a view to exploring opportunities to promote higher standards of health and safety risk management.

This research report contains:

- A synopsis of the data and statistics produced by the International Labour Organisation, World Health Organisation and other organisations concerning work-related fatal and non-fatal accidents and fatal work-related diseases across the globe and in respect of nine named countries
- A description of the data and literature used as a basis for the evidence contained in the synopsis
- An analysis and explanation of the similarities and disparities in the performance of the nine countries studied
- An assessment of trends show over the ten year period up to and including 2001 concerning the type, number and incidence of the major causes of work-related disease or injury leading to death
- A summary of the headline measures those countries and international bodies as the ILO, WHO and the European Union, for example, have in place to reduce the number and incidence of cases of work-related ill-health and injury and a brief resume of any major successes to date
- Case studies of UK based company with global operations highlighting the measures they have in place to promote good health and safety among the workers of their own subsidiaries and their suppliers and contractors

Health And Safety Reporting

The first issue that this report highlights is the need for improved reporting of health and safety incidents such as fatalities due to accidents and ill health. The International Labour Organisation (ILO) considers that only a third of its members report reasonably reliable accident figures. The reporting of accidents is criticised but the situation in relation to cases of ill-health is far worse. Even those countries with a better reporting record are under-reporting the incidence of deaths due to ill health. In order to understand the scale of the problem fully, the reporting of work-related accidents and cases of ill health needs to be improved considerably.

The ILO has called for signatories to its Promotional Framework For Safety And Health to include targets and indicators of success in their national plans. In order to do this, many will have to put in place more robust reporting systems.

The Global Picture

The most recent estimates available from the ILO suggest that around 2.2 million people die due to work-related accidents or illness each year. 350,000 of these deaths are due to accidents and the rest are due to occupational illnesses and diseases. On top of this, the ILO estimates that there are 264 million non-fatal...
accidents each year that result in a 3+ day absence from work, and 160 million people with work-related illnesses. The ILO believes that the cost of work-related ill health and accidents costs the world 4% of the global GDP or $1.25 trillion US dollars.

The regions of the world that perform best, with the fewest accident fatalities, are the Established Market Economies (EMEs), the Former Socialist Economies (FSEs) and the Middle Eastern Crescent (MEC). China, considered as a region in its own right, is the worst performer in terms of the overall number of accident fatalities, although there are many individual countries that have worse fatality rates per 100,000 workers.

Accidents, however, are thought to account for only 19% of global work-related deaths, the remainder being due to illnesses and diseases. The biggest killers, along with accidents, are cancer, circulatory diseases and communicable diseases. However, different diseases are more prevalent in different parts of the world. For example, communicable diseases are more common in Sub-Saharan Africa and India, whereas circulatory diseases are more common in the Former Socialist Economies and the Middle Eastern Crescent, and cancer is the main killer in the Established Market Economies and China. It is important to bear in mind that although millions of workers suffer from diseases many are not caused by work but nonetheless limit workers’ ability to work effectively.

In terms of the cost of ill health and non-fatal accidents, rather than fatalities, then musculo-skeletal conditions represent the biggest problem. They account for 40% of the total costs incurred. This is due to the fact that problems such as low back pain can cause long absences from work and become a major financial burden for society. Accidents account for 14% and heart disease accounts for 16% of the total costs.

**Country Comparisons**

Of the ten countries examined in the report, the UK has the lowest fatal and 3+ day accident rate. The USA has the second lowest but this is still significantly higher than the UK.

China and India together are estimated to account for over 100,000 accident-related deaths and almost 100 million 3+ day accidents, although the fatality and accident rates for these countries are not the worst of the countries reviewed.

The developing countries, in particular Indonesia, Brazil, Nigeria and South Africa clearly have the most ground to make up but there is still room for much improvement in every single country.

Different sectors produce more deaths in different countries. For example, in China more fatal accidents occur in the mining sector while in Indonesia there are more fatalities in the manufacturing sector. In the UK, the construction sector accounts for more fatal accidents than any other sector and in Poland the agriculture sector claims more lives due to fatal accidents. This, coupled with the different prevalence of diseases and illness, indicates that, while global initiatives on health and safety are welcome, each country needs to put in place plans to tackle its own particular problem areas.

It is often argued that poorer countries, and companies, cannot afford to invest in health and safety improvements. However, evidence from the Global
Competitiveness Report and the ILO indicates that countries with lower accident rates also tend to be the most competitive. This evidence refutes the argument that poorer countries will become less competitive if they invest resources in improving health and safety.

Initiatives and Successes

This report includes a summary of the headline measures those countries and international bodies as the ILO, WHO and the European Union, for example, have in place to reduce the number and incidence of cases of work-related ill-health and injury and a brief resume of any major successes to date.

The ILO is playing a leading role in encouraging countries to improve their health and safety record by developing national systems and programmes so that the countries are in a better position to tackle their particular problems. There, are however, examples of progress being made both by Governments and individual companies in many countries around the world.

The UK has national health and safety targets and it is currently on track to meet its target for reducing fatalities and non-fatal major injuries, although it is unlikely to meet its work-related ill health targets on the number of days lost due to injuries or ill health.

The Brazilian Cooperation Agency is running a project with the Canadian International Development Agency to help SMEs to integrate health and safety into their culture.

This report includes case studies featuring Government, business – Volkswagen, Anglo American, Arco and Nokia - and Non Governmental Organisations (NGOs) – the Centre for Corporate Accountability and the Ethical Trading Initiative - highlighting a number of measures they have in place to promote improvements to labour conditions across the globe and good health and safety among their own workers and those working for their contractors and suppliers. Some of these initiatives have already resulted in major improvements in working conditions generally and health and safety in particular.
INTRODUCTION

The British Safety Council has commissioned this piece of research to improve its understanding of the causes and incidence of occupational accidents and ill-health globally and in selected countries around the world. This research draws on evidence produced by the International Labour Organisation (ILO), the World Health Organisation (WHO) and other leading national and international organisations involved in labour and employment standards, including health and safety.

This work will assist the British Safety Council in identifying how and where it can best devote its efforts and resources in promoting the adoption of high standards in the management of risks to health and safety, focusing on those countries where fatality rates from accident or disease are much higher than the norm for leading developed countries.

The British Safety Council is keen to explore opportunities to promote the adoption of higher standards of health and safety management across the globe, by encouraging, persuading and providing support rather than by shaming or condemning.

Much of the data used in this report is provided by the International Labour Organisation (ILO). For the global figures, the ILO splits the world into eight regions, based on the regions used by the World Bank. These are:

- Established Market Economies (EME) which includes Europe, North America, Scandinavia, Japan, Australia and New Zealand
- Former Socialist Economies Of Europe (FSE) which includes Eastern Europe and other countries from the former USSR
- India
- China.
- Other Asia and Islands (OAI) which includes countries such as Afghanistan, Bangladesh, Pakistan, Thailand, Vietnam, Sri Lanka, islands in the Indian Ocean such as Indonesia, and islands in the Pacific Ocean such as Fiji and French Polynesia
- Sub-Saharan Africa
- Middle Eastern Crescent (MEC) which includes the countries of the Middle East as well as those of North Africa
- Latin American and the Caribbean (LAC) which includes the countries of Central and South America and the Caribbean islands

The countries specifically covered in this report include:

- UK
- USA
- Poland
- India
- China
- Indonesia
- Nigeria
- South Africa
- Brazil
- Kuwait
These countries have been chosen by the BSC as being representative of their particular region.

Much of the data shown in this report is based on estimates made by the ILO. The ILO considers that reasonably reliable information is provided by only a third of its 174 members.

In some cases, where reporting by particular countries is thought to be reliable, the ILO uses the country’s own statistics. However, in many countries, the reporting of fatalities, accidents and work-related ill-health is very poor, or indeed non-existent. In these cases, the ILO uses a country with similar or comparable conditions that could be assumed to have data reasonably reliably reported by sector, as a basis for estimation. Kazakhstan, for example, is used as the basis for calculating the estimates for China and India. Data for China also takes into account the data provided by the Shanghai development area, and data for India also takes into account data available from Malaysia, although Malaysia is thought to report only about 7% of its accidents.

Also, in some countries, the data is extrapolated from the number of accidents only amongst those employees who are insured. Accident and fatality rates are based on the total employed population in the country, where this information is available, or, where it is not, on the economically active population.

Much of the comparative data available dates back to 1998 or 2001. However, where available, more up-to-date statistics for some countries have also been included in the Annex.

Although the available data has its limitations it is currently the best available picture of the global situation regarding health and safety at work and has been used to inform and direct the ILO and World Health Organisation (WHO) programmes in recent years.

The protection of workers against sickness, disease and injury arising out of their employment is one of the core tasks assigned to the ILO under its constitution. The ILO appears to focus on each country establishing its own systems and programmes that are appropriate to its particular circumstances and industry structure. The ILO, in its Promotional Framework For Safety And Health, presented to the International Labour Conference in 2006, required each signatory to the convention to:

- Develop a national system for occupational safety and health in consultation with employers’ and workers’ representative organisations:
  - This system should include legislation, inspection, enforcement, and information and advisory services
  - The system should protect all workers, especially those at high risk or vulnerable workers

- Develop a national programme which should include:
  - Promotion of a preventive culture
  - Targets and indicators of progress
At its 60th World Health Assembly, in May 2007, the WHO secured the support of all 192 members states for its *Workers’ Health: Global Plan of Action*. Amongst other things, the WHO called for:

- National policies for implementing the global plan
- Universal coverage with essential interventions and basic services
- Capacities for and evidence of action
- Concerted action by national health programmes.
- Inter-country collaboration.
- Reintegration of sick and injured workers

The main objectives of the WHO’s *Workers’ Health: Global Plan of Action* are to secure the support of signatories to:

- develop and implement policy instruments on workers’ health
- protect and promote health in the workplace
- improve the performance of and access to occupational health services
- provide and communicate evidence for action
- incorporate workers’ health into other policies

The Health Assembly of the WHO will be reporting back on progress in 2013 and 2018.
It is estimated that 2.2 million people die each year due to work-related accidents or ill health. In human terms, this is the equivalent of a small country being wiped out every year. With effective systems and procedures in place, every one of these deaths should be preventable.

The reporting of both work-related accidents and ill-health is poor across the world. Although some regions are better than others, there is much improvement needed from all countries. The ILO is calling for countries to develop national programmes including targets and indicators of progress. In order to do this, countries will first have to develop more reliable reporting systems.

Each country faces different risks. Different sectors present different risks in different countries, and the causes of injury and ill-health also vary from country to country. For this reason, each country needs to develop its own national plan and national system to deal with its own particular priorities. This also forms part of the ILO’s Promotional Framework For Safety And Health.

Even in the worst performing countries, there are examples of good practice. Many multinational companies are using their experience and expertise to improve the health and safety performance of their operations in more challenging environments. Many are also sharing their expertise with the wider community. Companies and countries should take maximum advantage of these opportunities to learn from others and use this knowledge to help all organisations in their country move forward.
In 2005, the International Labour Organisation increased its estimates of the number of deaths caused globally by work-related accidents as well as by work-related diseases to around 2.2 million. However, it also believes that this could be a conservative estimate due to the under-reporting of accidents and, in particular, work-related diseases, even in developed countries.

This figure is an increase over the 2002 estimate of 2 million deaths, which was, itself an increase over the previous estimate.

Some of the main reasons for the increase in 2002 were given as:

- Work-related communicable diseases had not previously been counted
- Work-related cancer and circulatory diseases are higher than before. This is caused by the fact that some age groups were not previously taken into account. This change was justified by the long latency periods of some diseases. It has been found, for example, that shift workers die more often than others due to circulatory diseases, even after retirement.
- The link between exposure and disease is also better established than before so the fractions attributable to occupation are slightly higher. The new estimates were based on figures for 2000 whereas the previous data was based on 1990 information. The work population has, therefore, increased along with the number of workers and the number of deaths. Also, people are now more likely to die due to work-related reasons rather than from childhood or infectious diseases
- Figures for fatal accidents only increased slightly. They increased in developing countries but decreased in industrialised countries

It is estimated that in 1998, there were 350,000 fatal occupational accidents worldwide and a further 264 million non-fatal occupational accidents causing an absence of more than 3 days. In addition to this, it is estimated to 160 million people worldwide suffer from non-fatal work-related diseases.

Reporting of both work-related accidents and diseases varies from country to country. Even in Established Market Economies (EMEs), only an estimated 62% of occupational accidents were reported to the ILO (although in some EU countries the reporting rate was as high as 95%). In India or the OAI region, the proportion reported is almost zero. On top of this, the reporting of work-related diseases is thought to be far lower than the reporting of work-related accidents.

Although calculated estimates contain many caveats and inconsistencies, they are currently the best source of data available.

The ILO estimates that the cost of work-related ill-health and accidents amounts to 4% of the world’s gross domestic product or 1.25 trillion US dollars. This estimate is based on a selected compensation system and is probably an underestimate due to the under-reporting of many work-related illnesses.
According to estimates by the ILO, more people die in work-related accidents in China than in any other country or region in the world. High accident fatality figures are also seen in the Other Asia and Islands Region and in Sub-Saharan Africa. The regions where fewest people are killed at work are the Established Market Economies, the Former Socialist Economies and the Middle Eastern Crescent.

The picture for 3+ day accidents is consistent with that for fatal accidents.
Major Causes of Work-related Deaths

<table>
<thead>
<tr>
<th>Causes</th>
<th>Global Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cancer</td>
<td>609,677</td>
</tr>
<tr>
<td>Circulatory system diseases</td>
<td>519,254</td>
</tr>
<tr>
<td>Accidents and violence</td>
<td>355,049</td>
</tr>
<tr>
<td>Communicable diseases</td>
<td>320,471</td>
</tr>
<tr>
<td>Respiratory system diseases</td>
<td>146,176</td>
</tr>
<tr>
<td>Digestive system diseases</td>
<td>22,565</td>
</tr>
<tr>
<td>Mental disorders</td>
<td>20,341</td>
</tr>
<tr>
<td>Diseases of the genitourinary system</td>
<td>8,479</td>
</tr>
</tbody>
</table>

Source: Decent Work – Safe Work, Dr J. Takala, ILO, 2002

The biggest cause of death attributable to work is cancer. This is thought to account for almost a third of all work-related deaths. Circulatory diseases are the second most common cause of death, accounting for almost a quarter of deaths. Accidents account for just under a fifth of death attributable to work. Communicable diseases and respiratory diseases are the other big work-related killers. It is important to bear in mind that although millions of workers suffer from diseases many are not caused by work but nonetheless limit workers’ ability to work effectively.
Some of the causes of these conditions are detailed below.

1. **Work-related Cancer**

   **Main contributing factors**
   - Asbestos
   - Carcinogenic chemicals and processes
   - Ionising radiation, radioactive materials, radon and UV-radiation
   - Silica and other carcinogenic dusts
   - Environmental tobacco smoke at work (passive smoking)
   - Diesel engine exhaust emissions

2. **Work-related Circulatory Diseases**

   **Main contributing factors**
   - Shift work, night work and long hours of work (including karoshi, or death by overwork)
   - Job strain/stress caused by high demands and low decision-making latitude
   - Noise
   - High risk of injury
   - Chemicals including carbon monoxide, carbon disulphide, nitro-glycerine, lead, cobalt, arsenic, antimony and combustion products
   - Environmental tobacco smoke at work

3. **Occupational Accidents**

   **Main contributing factors**
   - Lack of organisation health and safety policy, structure, work involvement and management system
   - Poor safety culture
   - Lack of knowledge and lack of awareness of information sources
   - Lack of, or poor, government policies, legislation, enforcement and advisory system
   - Lack of incentive-based compensation system
   - Lack of, or poor, occupational health services
   - Lack of research and proper statistics for priority-setting
   - Lack of effective training and education

4. **Work-related Communicable Diseases**

   **Main contributing factors**
   - Infectious and parasitic diseases
   - Poor quality drinking water
   - Poor hygiene and lack of knowledge

All of these deaths are ultimately preventable by putting in place systems to monitor and manage risk. If the latest figure of 2.2 million deaths from work-related injury and disease is correct, this is the equivalent of destroying the population of a small country every year – Slovenia, for example, has a population of just under 2.1 million. If one country can achieve a fatality rate of less than 1 worker in every 100,000, then it must be possible for every country to achieve this.
Regional Differences in Causes of Fatalities Due to Occupational Diseases and Accidents

When occupational diseases are taken into account, the highest numbers of fatalities are still seen in India and China, the world’s two most heavily populated countries. However, the Established Market Economies move up into third place. This is largely due to the prevalence of cancer, and may be partly due to the better recording of such work-related diseases here than in other parts of the world.

It is clear from the two graphs overleaf that there are some regional differences in the prevalence of certain conditions. For example, communicable diseases are a much more common cause of death in Sub-Saharan Africa and India than in other parts of the world. Respiratory conditions are relatively more common in China than in other regions although cancer and circulatory diseases remain the most common causes of work-related death in China. Accidents and violence are more common in the Other Asia and Islands region. Circulatory diseases are the main cause of death in both the Former Socialist Economies and the Middle Eastern Crescent.

Circulatory, or heart, diseases and respiratory diseases are relatively less common in Sub-Saharan Africa whereas accidents and violence are relatively less common in the Established Market Economies. China, the EMEs and the FSEs, on the other hand, appear to have low levels of communicable diseases.

Fatalities Caused By Occupational Diseases & Accidents By Region

The ILO estimates that the cost of work-related ill-health and accidents amounts to 4% of the global gross domestic product. The chart below shows how it believes this is broken down by disease and injury type.

- The biggest single cost relates to musculoskeletal disorders, which is thought to account for 40% of the total cost of accidents and ill-health. This is because musculoskeletal disorders such as lower back pain can cause relatively long absences from work and can become a major financial burden on society.

- Other conditions which incur major costs include heart conditions, accidents, respiratory disease, CNS disorders and mental disorders.
## COUNTRY COMPARISONS

### Accident Statistics

<table>
<thead>
<tr>
<th>Country</th>
<th>Estimated Number Of Fatal Accidents</th>
<th>Fatality Rate (Per 100,000 workers)</th>
<th>Non-Fatal Accidents ≥3 day absence (Average estimate)</th>
<th>Accident Rate (Per 100,000 workers)</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK</td>
<td>236</td>
<td>0.8</td>
<td>180,456</td>
<td>639</td>
</tr>
<tr>
<td>USA</td>
<td>6,643</td>
<td>4.9</td>
<td>5,069,963</td>
<td>3753</td>
</tr>
<tr>
<td>India</td>
<td>40,133</td>
<td>10.0</td>
<td>30,627,865</td>
<td>7609</td>
</tr>
<tr>
<td>Poland</td>
<td>1,463</td>
<td>10.3</td>
<td>1,116,420</td>
<td>7858</td>
</tr>
<tr>
<td>Kuwait</td>
<td>138</td>
<td>11.1</td>
<td>104,955</td>
<td>8442</td>
</tr>
<tr>
<td>China</td>
<td>90,295</td>
<td>12.3</td>
<td>68,909,715</td>
<td>9392</td>
</tr>
<tr>
<td>South Africa</td>
<td>1,908</td>
<td>16.8</td>
<td>1,455,861</td>
<td>12,843</td>
</tr>
<tr>
<td>Indonesia</td>
<td>16,931</td>
<td>18.6</td>
<td>12,921,000</td>
<td>14,229</td>
</tr>
<tr>
<td>Brazil</td>
<td>14,895</td>
<td>19.7</td>
<td>11,366,973</td>
<td>15,063</td>
</tr>
<tr>
<td>Nigeria</td>
<td>9,392</td>
<td>20.1*</td>
<td>7,167,362</td>
<td>15,312*</td>
</tr>
</tbody>
</table>

Rates calculated by the author based on estimated total number of people in employment.

Of the ten countries reviewed in this report, the UK has the lowest fatality rate and the lowest 3+ day accident rate. Although significantly higher than the UK, the USA has the second lowest rates on the ten countries. This is consistent with the previous data showing that rates tend to be lower in established market economies (EMEs).

However, even in the better performing regions, health and safety failures still cost the economy dearly. In the EU, 150 million workdays are lost each year due to work accidents, and it is estimated that US businesses spend up US$170.9 billion on costs associated with occupational injuries and illnesses.

Due to the lack of data provided by India, the ILO bases its estimates for India on the more reliable data available from Kazakhstan. Whilst China reports more of its accidents and fatalities to the ILO than India, Kazakhstan is also used as the model for estimating true figures for China. The development area of Shanghai is also taken into account in the Chinese figures. Because of the size of the populations of India and China, the current estimates mean that in these two countries alone over a 100,000 people are killed at work each year and almost 100 million are injured.

It is clear from the table above that the developing countries are those with the greatest challenge facing them to reduce accidents in the workplace. However, there is still room for significant improvement in the more developed countries.
The two graphs overleaf show the breakdown of fatal and non-fatal accidents by industry type, based on figures reported by each country to the ILO. These show some significant differences between the countries. In China, for example, a higher proportion of fatalities occur in the mining sector than in any other country. In Indonesia, however, the largest proportion of deaths occur in the manufacturing sector. A greater proportion of deaths occur in the agriculture sector in Poland than in any other country. In the UK, a greater proportion of deaths occur in the construction sector, and in South Africa, a greater proportion of death occur in the transport sector than in any other country.

The lack of fatalities in the mining sector shown in the ILO figures for South Africa is surprising and must be down to poor reporting, as other statistics from the South African Government Mining Engineer show over 9,000 fatalities in the industry between 1994 and 1998.

Note: Insufficient data available for India, Kuwait and Nigeria.

The proportion of non-fatal accidents taking place in the manufacturing sector is high in all countries reported here. This may be because of the large number of people employed in this sector.
Consistent with the high fatality rate, the agriculture sector in Poland accounts for a large percentage of non-fatal accidents. However, in China, there is clearly under-reporting in some sectors, such as mining and construction, as the total actual number of non-fatal accidents reported to the ILO is lower than the number of fatalities reported and it seems unlikely that this is really the case.

Of course, some industries are more dangerous than others and accidents are more likely to result in a fatality. This could explain why the construction sector in the UK accounts for such a high proportion of fatalities but a much lower proportion of non-fatal accidents.

Although it is often argued that poor countries or enterprises cannot afford to implement health and safety measures, there is evidence to show that the most competitive countries are those with the best safety records.
INITIATIVES AND SUCCESSES TO DATE

Governments and International Organisations

ILO

The ILO’s response to the problem of death, injury and ill-health caused by work has two components:

1. Standard-setting
2. The InFocus Programme On Safety And Health At Work And The Environment (SafeWork)

The SafeWork Programme has five major elements:

1. Occupational and Environmental Health
2. Occupational Safety
3. Workers’ Health Promotion and Well-being At Work
4. Development Of Inspection Systems
5. The International Occupational Safety and Health Information Centre (CIS)

ILO and the GTZ project

Driven by the aim of boosting occupational safety and the protection of employee health at supplier companies in developing and emerging economies, the Volkswagen Group, the ILO and German Corporation for Technical Cooperation (GTZ) joined forces to launch a public-private partnership project in July 2004, in which eight supplier firms from South Africa, 13 from Mexico and eight from Brazil are now involved. The project sees Volkswagen experts and national occupational safety inspectors teaming up as part of a joint initiative to conduct what amounts to an audit at small and medium-sized supplier companies. In addition to a comprehensive inspection of the premises, these two-day audits also involve interviews not only with management, employees and specialists, but also with employee representatives. Once the audit is complete, the supplier firm is contacted with effective and useful recommendations that can be easily implemented. The experience gained in the audits is channelled into national training programmes for work inspectors, who are supported by the ILO.

UK

Much of the Health and Safety Executive’s current activity is focused on its two Strategic Delivery Programmes:

- The Major Hazards Programme
- The Fit For Work, Fit For Life, Fit For Tomorrow (Fit3) Programme.

Although, according to the HSE’s Health And Safety Statistics 2006/7\textsuperscript{11}, the UK is on track to meet the targets set in Revitalising Health And Safety with regard to fatal and non-fatal major injuries by 2009/10, it is not on track to meet the targets set relating to work-related ill-health or the number of days lost due to injury or ill health.
Brazil

The Enhancement Of Occupational Health and Safety in Brazilian Industry (EOHSBI) is a project under development by a Brazilian-Canadian partnership, funded by the Canadian International Development Agency’s and Brazilian Cooperation Agency’s Transfer Of Technology Fund For Brazil.

The goal of the EOHSBI project is to contribute to the achievement of greater equity for Brazilian industrial workers, employed in selected sectors in six Brazilian states in Northeast, Centre-West and South Brazil.

The purpose of the project is to strengthen the capacity of small and medium-sized enterprises (SMEs) to integrate workplace health and safety into their organizational culture, performance goals and management systems, and to reduce illnesses, injuries and fatalities for all employees. The project also aims to enhance the capacity of participating industries and their Occupational Health Departments to effectively address challenges in the development, implementation, management and evaluation of OHS services and programs for all workplace participants.
Non-Governmental Organisations (NGOs) and Companies

Despite the apparent poor health and safety record in some countries, some multinational companies are making significant progress in improving the health and safety records of their overseas operations in order to bring them in line with some of their better-performing operations. Some are also using their expertise and experience to educate and inform other commercial organisations as well as government departments and the wider community. We feature the measures that four companies have put in place – Nokia, Arco and Anglo American.

A number of Non Governmental Organisations in the UK are campaigning to improve health and safety for workers, not just in the UK but across the globe. One of these is Labour Behind the Label [www.labourbehindthelabel.org ] which campaigns to defend garment workers’ rights and improve their working conditions. Some of the health and safety issues they have focused on include fire safety and emergency exits, welfare facilities and ergonomics. Pressure such as this has helped to encourage some big brands and retailers to address the issue of health and safety within their overseas supplier companies. We feature the work of the Ethical Trading Initiative and the Centre for Corporate Accountability in more detail.

Nokia

Nokia’s vision of responsible business is set out in the company’s Corporate Responsibility web pages,

“Customer satisfaction stems not only from our products but also from how effectively we interact with our community. As Nokia becomes more and more of a global entity, our obligations in terms of how we satisfy our stakeholders grow.”

“Our corporate responsibility programming reflects an increasing interest (both internally and externally) in the impact our business actions have on communities from societal, environmental, and economic perspectives. We both acknowledge and understand that our responsibilities go beyond simply providing quality communication products.”

Nokia has in place a Code of Conduct which recognises that Nokia’s long-term interests and those of its various stakeholders depend on compliance with the highest standards of ethical conduct and applicable law.

The Code makes clear that Nokia,

“will do its utmost to contract only with subcontractors or suppliers who themselves adhere to international human rights and environmental laws and practices. The Code commits Nokia to monitoring the ethical performance of its suppliers and to taking immediate and thorough steps in cases where the ethical performance of its suppliers comes into question. Nokia has always recognized that its own long-term interests and those of its various stakeholders depend on compliance with the highest standards of ethical conduct and applicable law.”

Health and safety at Nokia is managed by a Global Occupational Health and Safety unit which is responsible for developing the company’s health and safety strategy and annual action plans. It also coordinates and facilitates health and safety arrangements in individual countries, each of which has its own health and safety services.
The Global OHS team runs campaigns and training programmes to raise awareness about specific issues, often relating to specific countries. For example, it ran a campaign to raise awareness about the risks and effects of dengue fever at its factory in Chennai, India, and conducted a programme at the Beijing factory focused on hearing protection. In addition to this, the factory in Chennai was certified to OHSAS 18001 in 2007.

Nokia’s global injury and illness rate in 2007 was 0.73 per 100 workers. This has reduced since 2005 from 1.08. Nokia had no fatalities in 2007.

One of the areas Nokia is focusing on is employee well-being. It is creating a global well-being policy as part of the HR strategy. In 2007, Nokia ran a serious of fitness-related events in Finland and also opened fitness centres for employees in Mexico and China.

**The Ethical Trading Initiative**

The Ethical Trading Initiative (ETI), established in 1998, is a UK-based alliance of large buying companies, trade union and non-governmental organisations (NGOs) working to improve working conditions – including health and safety practices – in the supply chains of global retailers. ETI member companies must sign up to the ETI Base Code, which is a set of nine principles based on the standards of the International Labour Organisation, including the principle that ‘working conditions are safe and hygienic’.

The ETI Code of Conduct is based on the following principles:

- No-one should be forced to work
- Workers are free to join and form trade unions and bargain with management
- Working conditions are safe and hygienic
- Child labour shall not be used
- Living wages are paid
- Working hours are not excessive
- No discrimination is practised
- Regular employment is provided
- No harsh or inhumane treatment is allowed

As well as signing up to the Base Code, ETI member companies must also commit to implementing it progressively throughout their supply chains, and to reporting annually on their progress in doing so. Last year their Code implementation activities reached 38,000 suppliers, who collectively employ over 6 million workers. Members carried out a total of 18,000 workplace assessments and registered 55,000 improvements to workplace practices, 45 percent of which were related to health and safety. The main areas of improvement related to fire safety, improvements to working environments such as air safety, lighting and noise hazards and the provision of protective equipment, as well as machine and chemical safety.

In 2006, the Institute of Development Studies at the University of Sussex published the findings of a major study of the impact of the ETI Base Code in the supply chains of member companies. IDS found that the most significant improvements to workers’ conditions had been made in health and safety, with improvements in this area reported in 20 out of the 25 worksites studied. In interviews, workers highlighted
positive impacts such as fewer accidents, better health and feeling safer and more secure at work.

Set out below is a case study featuring a ETI member company – Arco

**Arco**

Arco are the UK’s leading supplier of safety clothing and equipment. Established in 1884 Arco has a long history of keeping people safe at work. Arco’s business solutions approach also delivers value at every stage of the supply process. The company has a simple philosophy that puts people first, people who have responsibilities to help the enterprise they work for operate as efficiently and profitably as possible.

Arco, a strategic partner of the British Safety Council, recently joined some of the biggest names in British retailing in becoming a member of the Ethical Trading Initiative.

Around one third of everything Arco sells carries the company’s own label. Arco branded goods are mostly made in the Far East and the company has contracts with a number of Chinese manufacturers and one in India and three in Vietnam – plants employing around 1500 workers each. Since 2002 Arco has put its contractors through regular workforce audits. Audits, which now take place annually, last two days and include formal interviews with workers to verify information provided by management concerning workers’ welfare. In addition Arco quality assurance inspectors regularly go into plants unannounced and raise any welfare concerns they have.

Arco is now laying the foundations of a programme to start encouraging the producers of brands it distributes to do the same. Some 400 equipment and clothing providers have signed Arco’s ethical guide based on the standards set out in the ETI’s Basic Code which commits them to ensuring their supply chains work to the same labour standards as Arco’s own brand manufacturers. Mike Ramirez, Arco’s Technical Manager, said that most safety brands signed up to the standards without complaint. He added, “Arco reserves the right to audit their factories if we feel the need. If we hear on the grapevine there are issues with any of them we will confront them with that.” Arco recognised that the legislative support from the Chinese Government may help lessen the need for distributors to police ethical standards.

**Anglo American**

Anglo American is one of the world’s largest diversified mining groups employing 190,000 workers in managed operations in 45 countries including a major presence in Southern Africa. The company has a portfolio of high quality mining assets and natural resources includes precious, base metals and bulk commodities.

On safety Anglo American's vision is zero harm for its workforce,

“...The company values the lives of all of its workers and aspires to create a working environment where all employees, contractor partners and visitors are assured of returning home fit and well at the end of each day’s work.”

Anglo American's target and vision for occupational health is zero harm,
“We don’t accept that it is necessary for people to be made ill by working for us and, in addition, we actively promote good health in our people. If an occupational illness does occur, it’s our responsibility to do whatever is necessary to learn from the experience and ensure that it does not happen again.”

Anglo American is working in a high-risk sector including in some countries with a generally poor health and safety record. Although fatalities at Anglo American reduced between 2004 and 2007, 40 people still lost their lives at work in 2007. The main causes of fatalities were falls of ground and transportation-related incidents.

Anglo American is trying to improve the situation by focusing on good leadership and good health and safety management systems. In 2007, the Chief Executive called on 120 of the top executives to re-examine the company’s approach to safety and to create a strategy for a safer way forward. A group safety risk management programme was also set up in 2007 following analysis of fatal incident investigations. It aims to radically improve the workplace by ensuring that all employees make the right decisions affecting their own safety and that of others. It intends that all employees should be better at applying appropriate safeguards in hazardous situations and at using appropriate risk assessment tools as well.

Anglo American has recently put in place a Supplier Sustainable Development Code. In the Code Anglo American state,

“We encourage our suppliers to travel this journey with us, demonstrating their commitment to sustainable development and striving to follow this code. As our core values are grounded in integrity, we expect our employees and suppliers to be honest in all business dealings. We insist on a workplace that is safe, healthy and considerate of employees’ wellbeing; we strive to conduct our businesses in such a way as to maximise the benefits and to minimise negative impacts on the communities associated with our operations. We expect the same from our suppliers.”

In addition, suppliers conducting work on an Anglo American site must ensure that they comply with all our corporate and site-specific safety and occupational health standards, The Anglo Safety Way, The Anglo Fatal Risk Standards, The Anglo Occupational Health Way and relevant performance standards, and that they have a clear understanding of the consequences of non-compliance. Suppliers are strongly encouraged to collaborate with Anglo American to identify opportunities to improve safety and minimise occupational health impacts.

Centre for Corporate Accountability

The Centre for Corporate Accountability (CCA) is a UK-based charity concerned with the promotion of worker and public safety. Its focus is on the role of state bodies in enforcing health and safety law, investigating work-related deaths and injuries, and subjecting them to proper and appropriate prosecution scrutiny. It was set up in 1999 as a not-for-profit organisation and received charitable status in August 2004.

In 2006 the CCA established the Bangladesh Worker Safety Programme (BWSP) to address health and safety conditions faced by workers in Bangladesh. The CAA refers to ILO reports that estimate that each year 1,700 workers die in industrial and service sector accidents and that another 120,000 suffer injuries at work. BWSP is working with Government, employer organisations, trade unions and
NGOs to tackle poor working conditions in the industrial and service sectors. The construction and manufacturing sectors have the highest level of deaths.

BWSP believes,

“that by improving the health and safety conditions faced by workers this will not only reduce the level of death and injury, and thus ensure security for workers but by safeguarding the lives of breadwinners will also help alleviate poverty.”

BWSP has put in place four projects to:

- Better co-ordinate the investigation of workplace deaths and improve the understanding of the cause and circumstances of the work-related deaths;
- Improve the way in which health and safety law is enforced;
- Work with employer organisations, particularly in the construction sector, to raise awareness of the importance of workplace health and safety and provide guidance to help raise standards;
- Improve existing health and safety law, the way it is enforced and adoption of a national health and safety policy

It is important to note that the work of the BWSP has only recently got underway and reports on progress will not be available for some time.
Notes


4 – Workers’ Health: Global Plan of Action (http://www.wpro.who.int/NR/rdonlyres/A94D8A1B-7823-4762-AF7E-4044D5378F09/0/IvanovGPA_presentation.pdf)

5 - World Day For Safety And Health At Work, A Background Paper – SafeWork, ILO 2005


8 - Figures mostly 2001 based on estimates by the ILO as reported in Global Estimates Of Fatal Work-related Diseases And Occupational Accidents published in 2005 by Päivi Hämäläinen, Jukka Takala and Kaiji Leena Saarela. Copyright Elsevier 2005. Accident rates calculated on basis of estimated accidents and estimated total number of people employed. Due to the fact that data is not available for every country, data for some countries is based on the data available for a similar country within the relevant region. For example, the data for India is based on data from Kazakhstan and Malaysia, and the data for China is based on Kazakhstan and the new development area in Shanghai (where employment rates in agriculture may be lower than in the rest of the country). Several other countries report no fatalities or accidents to the ILO.

9 - LABORSTA, ILO 2001 or 1997/8 figures based on cases reported to the ILO. Data for China and Indonesia is 1997 (latest available) Data for South Africa is 1998 (latest available) Wholesale & Retail Trade figures include hotels and restaurants in China. Wholesale & Retail Trade figures include financial services in Indonesia. Agriculture figures for Poland include private farms (usually recorded separately). USA Wholesale and Retail Trade Figures for fatalities are Retail Trade only. USA Wholesale and Retail Trade figures for non-fatal accidents include restaurants. USA Transport and Communication sector includes public utilities.

10 – Global Competitiveness Report 2007/8 from World Economic Forum. Fatal accident rates for 2001 based on estimates by the ILO as reported in Global


12 – Nokia website (http://www.nokia.com/A4942642)

13 – ETI website (http://www.ethicaltrade.org/)

14 – Arco website (http://www.arco.co.uk/index)


18 - (http://www.corporateaccountability.org/newsletter.htm)


20 – USA, Occupational Safety & Health Administration (http://www.osha.gov/as/opa/oshafacts.html)

21 – Central Institute For Labour Protection (www.wypadek.pl)

22 - National Labour Inspectorate: www.pip.gov.pl


UK

In the UK, the HSE is responsible for enforcing health and safety legislation. It also oversees RIDDOR, the Reporting Of Injuries, Diseases and Dangerous Occurrences Regulations from which the UK accident and incident statistics are compiled.

As the graph above shows, there is only a slight downward trend in the number of fatalities occurring due to accidents in the UK and, in fact, 2006/7 saw an increase in fatalities over the previous two years.

In the UK, the fatality rate due to accidents is much higher amongst the self-employed than amongst employees, 1.4 per 100,000 workers in 2006/7 compared with 0.7 for employees\textsuperscript{11}. This is largely due to the high number of deaths in agriculture where a high proportion of workers are self-employed. By contrast, there is a much lower rate of reported injuries (both non-fatal major and 3+ day injuries) amongst the self-employed. In 2006/7, the 3+ day injury incidence rate was just 29.3 per 100,000 workers amongst the self-employed but was 428.1 amongst employees\textsuperscript{11}. And the non-fatal major injury rate was just 30.4 per 100,000 workers compared to 107.0 amongst employees\textsuperscript{11}. This difference is likely to be due to the under-reporting of injuries by self-employed people and also the unwillingness to take extended absences from work.

The three main causes of accident resulting in a fatality in the UK in 2006/7\textsuperscript{11} were:
- Being struck by a moving, flying or falling object (32 deaths)
- Being struck by a moving vehicle (29 deaths)
- Falls from height (24 deaths)

Exact figures for deaths from work-related diseases are not known but, according to the Labour Force Survey 2006/7\textsuperscript{11}, 2.2million people in the UK were suffering from an illness they believed was caused or made worse by their current or past work. In total it is estimated that 36 million working days were lost in 2006/7; 30 million due to work-related ill health and 6 million due to workplace injury\textsuperscript{11}. The HSE estimates that around 6000 deaths from work-related cancer occur each year\textsuperscript{11}.
The most common work-related illnesses, however, are musculoskeletal disorders. These are estimated to affect over 1.1m workers\textsuperscript{11}. Stress, depression or anxiety are the second most common disorders, estimated to affect 530,000 workers\textsuperscript{11}.

Although the reporting of injuries in the UK is considered to be better than in many countries, if the number of injuries reported to the HSE is compared with those produced by the Labour Force Survey, this indicates that only around 54\% of all non-fatal and over-three day injuries are reported\textsuperscript{11}. This is, however, an increase of 10\% over 1999/2000.

\begin{figure}
\centering
\includegraphics[width=\textwidth]{chart.png}
\caption{UK - Total Non-fatal Major And 3+ Day Injuries\textsuperscript{11}}
\end{figure}

The downward trend in non-fatal major and 3+ day injuries is more marked than that for fatalities. In 2003/4, there were over 164,000 and in 2007/6, the number was reduced to under 144,000\textsuperscript{11}.
Inspection and enforcement continue to play an important role in the HSE’s approach to improving the UK’s health and safety record. A decline has been seen in the total number of enforcement notices issued between 2002/3 and 2005/6. This is largely due to a decline in the number of enforcement notice issued by the HSE. In fact, the local authorities have been increasing the number of enforcement notices issued. However, the HSE increased the number of enforcement notices it issued in 2006/7 so this, when added to the local authority enforcement notices, should result in an increase in total enforcement notices issued in 2006/7. However, the local authority figures are not yet available.

In the USA, the Department Of Labor, Occupational Safety And Health Administration (OSHA) oversees health and safety at work.

More recent statistics collected by the US Government show that, in recent years, there has been a downward trend in the number of fatalities, although the annual numbers have been somewhat erratic. The fatality rate between 2002 and 2006 remained fairly constant at 4.0 or 4.1 per 100,000 workers, but dropped to 3.7 in 2007.

In contrast, the rate of recordable non-fatal injuries (see overleaf) has declined steadily over the last four years. However, of the 4.1 million cases reported in 2006, almost 95% were injuries\textsuperscript{19}, indicating that, in the USA, as in most countries, work-related illnesses are under-reported.

The industry sectors responsible for the most injuries are:

- Manufacturing
- Health and Social Care
- Retail Trade
- Construction.
In 2006, the OSHA conducted over 38,000 inspections. Over half of these were targeted at the construction industry and almost a fifth were targeted at the manufacturing sector.

In the USA, the OSHA has set up the OSHA Strategic Partnership Program (OSPP) which moves away from traditional enforcement methods and embraces collaborative agreements. Through OSPP, OSHA and its partners agree to work cooperatively to address critical safety and health issues. OSHA believes this approach is already proving to be effective.

Poland

The enforcement of health and safety regulations is carried out by the National Labour Institute (NLI). It also provides health and safety advice and technical information. The National Labour Inspectorate is increasingly focusing its efforts on prevention activities. It is working with the EU Chamber of Commerce in Poland to facilitate access by employers to information on OSH management systems.

Because of limited resources, the NLI is focusing its efforts on the higher risk sectors. Asbestos-removal industry is a key area at present.

While preparing for the 2007 European Campaign On Manual Handling Of Loads, the NLI carried out an informal programme on the prevention of musculo-skeletal disorders. This was particularly aimed at the retail and healthcare sectors.
Although the ILO estimates a higher number of fatalities than officially reported in Poland, the official figures do show a downward trend over the last five years. However, the number of fatalities actually rose in 2006.

Although the trend in total accidents was slightly up between 2002 and 2005, a sharp increase in 2006 has served to increase the overall trend. This increase in 2006 is partly attributable to an increase in minor injuries.
The most obvious discrepancy between the ILO figures and those produced by the Central Institute For Labour Protection (CILP) in Poland is that the number of fatalities in the Agriculture sector is much higher according to the ILO. This seems to be because the Polish figures do not include fatalities on private farms and the accident rate in private farms is estimated to be 2.5 times higher than in other sectors. The NLI has a number of initiatives in place, working with other stakeholders, to try to reduce accidents in this sector.

The main sectors where fatalities occur according to the Polish CILP are manufacturing, construction and transport. The deaths in the transport sector are mainly of drivers.

It should be noted that real estate sector deaths include deaths amongst real estate maintenance workers.
The NLI in Poland acknowledges that there is much work to be done to improve health and safety in the country and is putting in place many initiatives and programmes to facilitate the required improvements.

**India**

Reliable data for accidents and fatalities across all industries in India is not available. Only statistics relating to manufacturing, docks and mines are available. The graph below shows the estimates made by the ILO. Disease data consists of estimates by the ILO based on data from the WHO. The accident data is based on an extrapolation of the figures available for Kazakhstan.

According to the ILO, India reported just 222 fatalities and 928 over-three-day injuries in 2001 whereas the ILO estimates there were over 40,000 accident fatalities and over 30 million 3+ day injuries.

The main work-related causes of death in India are communicable diseases and circulatory system diseases, followed by cancer and fatal accidents.
Health and safety in India is overseen by the Directorate General, Factory Advice Service and Labour Institutes and by the Directorate General Of Mines Safety although these just look after mines, factories, construction and ports. However, the Factory Inspectorates Of States And Union Territories are charged with the implementation and enforcement of the Factories Act 1948.

2008 has been designated the ‘Year Of Industrial Safety And Health’ in India. India also introduced a ban on smoking in all public places, including workplaces, on 2\textsuperscript{nd} October 2008.

**China**

The graph below shows the estimates made by the ILO. Disease data consists of estimates by the ILO based on data from the WHO. The accident data is based on an extrapolation of the figures available for Kazakhstan and for the development area of Shanghai. In total, the ILO estimates that over 460,000 people died in 2000 due to work-related accidents and illnesses.

As can be seen in the table overleaf, the biggest killers are thought to be cancer and circulatory diseases, followed by respiratory diseases. Amongst the causes may be smoking as China is home to around a quarter of the world’s smokers.

While it is estimated that 2.2% of deaths in industrialised countries are caused by workplace-related accidents or illnesses, the figure in China is estimated to be 2.8%. More recent estimates by the ILO suggest that in 2001, there were 90,500 fatal accidents in China, an increase of 23%. It is estimated that, in 2001, China accounted for almost a quarter of the world’s work-related fatal accidents\(^7\).
The main work-related causes of death in China are cancer, circulatory system diseases, respiratory diseases and fatal accidents.

Several of the industries that are growing in China are amongst the most hazardous sectors. These include iron and steel production, mining, construction and energy production.

In recent years, the Chinese government has begun reporting some health and safety statistics. The graph overleaf shows the number of work-related fatalities due to accidents over the last three years, and this shows a steady decline.

Indonesia

In Indonesia, health and safety is overseen by the Ministry of Manpower And Transmigration. There is no additional health and safety information readily available for Indonesia, and Indonesia did not report any fatalities or accidents to the ILO for use in their estimation of 2001 figures.

Kuwait

Health and safety in Kuwait is overseen by the Ministry Of Social Affairs And Labour (MSA&L). There is a requirement to report all accidents to the MSA&L and the police. There is no additional health and safety information readily available for Kuwait, and Kuwait did not report any fatalities or accidents to the ILO for use in their estimation of 2001 figures.

South Africa

In South Africa, health and safety is overseen by the Department Of Labour. Although no overall figures are readily available, according to the Department Of Labour, the sectors responsible for almost half of all injuries and fatalities are construction, agriculture, iron and steel production, and food and drink production.

There is clearly some commitment from the South African government to improve health and safety in the country and they seem keen to promote worker involvement. In 2007, the South African Labour Minister called for employers to ensure that every workplace has a health and safety committee and said that there should be one health and safety representative for every 100 workers.

South Africa did not report any fatalities or accidents to the ILO for use in their estimation of 2001 figures.
Brazil

According to the website of the Ministry Of Labour And Employment, Brazil spends around US$14 billion a year treating and compensating people injured at work\textsuperscript{26}. Figures produced by the Brazilian government show an increase in total accidents between 2003 and 2005 but this increase is partly blamed on an increase in formal employment figures.

The information available from the Brazilian government website is only available in Portuguese.

Brazil did not report any fatalities or accidents to the ILO for use in their estimation of 2001 figures.

\begin{center}
\begin{tikzpicture}
\begin{axis}[
    title={Brazil - Total Accidents\textsuperscript{25}},
    xlabel={Year},
    ylabel={Actual Number},
    xmin=2003, xmax=2005,
    ymin=0, ymax=600000,
    ytick={0,100000,200000,300000,400000,500000,600000},
    yticklabels={0,100000,200000,300000,400000,500000,600000},
]
\addplot [mark=diamond*,blue] coordinates {
(2003,390000)
(2004,420000)
(2005,450000)
};
\end{axis}
\end{tikzpicture}
\end{center}

Source: Ministerio da Previdencia Social

Nigeria

There is little information available about health and safety in Nigeria. Although some figures are available for casualties in the oil industry, these date back to 1988.

Nigeria did not report any fatalities or accidents to the ILO for use in their estimation of 2001 figures.