

For Ron Kemp,  
my dearly beloved father,  
who taught me that women can do  
anything.



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## *How This Book Came To Be*

*The woman is bent over her sewing machine, a look of focused attention on her face. The light is reflected from her callous skin as she struggles to feed the rivers of fabric into the jaws of the needle and base plate. Only rarely does she wince as the pain in her back, neck and arms intrude on her concentrated efforts. She has to cope with it, she has three children and her husband is unemployed. What else can she do?*

**W**hen I first started to work in occupational health and safety in the early 1980s, I was invariably the only woman at technical consultative meetings that I attended. The men would always discuss engineering solutions and the power of empirical science. If it couldn't be counted or proved, it didn't exist. The concerns of women were largely sneered at, dismissed as emotional and lacking in hard facts or nonsensical. Everyone knew women did the "easy and safe" work. It was the men who were the industrial heroes.

In addition, it was thought that if women did things that were considered "natural" to the female role such as lifting patients in hospitals or preparing food in factories or in restaurants, then the work was inherently safe. This type of work was after all only an extension of women's domestic work and therefore traditionally women's domain—and the home, supposedly, is safe.

I found myself arguing that occupational health is both a scientific discipline *and* an emotional issue, and that occupational health and safety demanded from practitioners social as well as technical solutions. I also argued that a lot was still not known, particularly about the world of

women's work. It was clear that as women's employment opportunities broadened, they, along with men, were being exposed to new cancer-causing agents and poisonous chemicals. I was also aware that women's roles in the home were not indeed safe, and when extended out of the home were less so as they were unable to be controlled by the women themselves.

Increasingly, the data showed that men designed machines and work systems that injured women. That women were not involved in the design, maintenance, and modification of the very technologies they were expected to use meant that they became handmaidens rather than the commanders of technology.

Later, involved in workers' education, I recognised that given the power that comes with knowledge, women could break the doors of the industrial traps into which many had become locked. The traps were constructed from male-dominated industrial structures, male-driven technical language, and the fear that women experience around numbers and scientific symbols. A lot of jargon and scientific ritual has kept women workers powerless and confused. By changing the language and explaining technical concepts simply, the lights of recognition and understanding gave women new strength.

It is ironic that women, traditionally the keepers of community and family health, have been marginalised from taking a major role in occupational health by a quirk of history that put men in charge.

This book was written with the belief that women have the right to know and the right to take action on the hazards presented to them by their work. Women themselves, as either union delegates, individuals or as members of women's groups, are in the best position to research and to understand the complexity of women's roles as workers, community and family members, and therefore to accelerate the pace for change at the workplace. This book was written with the belief that women have the ability and the right to be in control of their destiny.

**O**ccupational health is the art of preventing workplace accidents and diseases because these can be avoided with sufficient motivation and knowledge. Workers are the major stakeholders in maintaining their own health, and it is they who have to provide the energy and push for workplace reform.

To be a good health and safety representative is a little like being a detective. This is not a new skill for women whose active roles in families and communities often entail piecing together information and intuitive feelings. Similarly in the context of work, women may have to track down clues about factors in the workplace that contribute to illness and injury, solve the "crime" by matching pieces of information, and finally putting the case together for presentation to the "judge" who may be the boss or a labour official. This may involve seeing the workplace with different eyes and hearing stories with new ears. This, your first "detective's handbook," is designed to assist you gain that new vision.

## **Women and the New World of Work**

There is no doubt that the economic success being experienced by the Newly Industrialised Countries (NICs) of Asia in particular is, to a great degree, due to the labours of women. In some Asian countries, more women than men are finding work in factories in the cities. Population pressures, changing social needs and expectations and the restructuring of agricultural economies are pushing and pulling more women from rural to urban settings. In an exact replay of the events that witnessed the capture and enslavement of labour after the European Industrial Revolution, the privatisation of common lands used by farmers and tree croppers means that less land is available to rural folk. Along with the loss of land is the social and political loss of the bargaining power that comes with self-reliance. With ownership of or access to land, workers could call the shots as they had a back-up source of food and income. Without land they face dependence on the factory wage. This is what happened three hundred years ago in Europe when women and children were recruited into the grinding inevitability of industrialisation.

All over the developing world, young women are leaving their families, friends, and the security of their village to go to the city and find work. The work they seek is very different from that in the traditional agricultural sector. Time has a different rhythm and is imposed by machines, not nature or the rituals of religion. In the factories there is often little time to talk. There is no place in these factories for the jokes and songs of harvest. Target systems of payment insist that the task be completed before the end of the day, not left until the next. Noise and dust compete with fumes and stress. There is little doubt that industrial work is redefining the meaning of work for many Asian women.

The factories in which women work are part of the national or international system of trade. In most cases, the bosses in these factories make a lot of money and drive fancy cars. They send their children to good schools and sit in comfortable offices. The women workers, on the other hand, often work in dangerous conditions for very small wages which in many cases do not meet their daily needs. They often go home exhausted and have to start work all over again performing the various family and community-based tasks that are regarded as “women’s lot.” If they fall ill or reduce their work pace due to pain or illness, they are often penalised or sacked.

These issues make the preservation of the occupational health, safety, and welfare of all working women who are increasingly becoming economic heads of households, an issue of increasing importance for both individual and national prosperity.

## **Why Should Women be Concerned with Occupational Health**

All workers have the right to health. Under the Universal Declaration of Human Rights, we all have the right to peace, freedom of expression, and the right to humane work. Health is one of the intangible assets that we take for granted and upon which we depend to be able to pursue our livelihood. Having one's health damaged while assisting another gather profits is a breach of this right.

In the Majority World\*, workers have become expendable as the growing number of unemployed continues to rise. It is easy to be intimidated by these "hordes scratching at the door" in search of your job. But women need to place more faith in the value of their skills and experience. Labour and time are what workers have to sell. While managers have the money, they cannot survive without the skill, knowledge, judgement, and experience that workers all carry to convert the capitalists' investment in machinery and materials into saleable goods. Without health, workers lose one of their major bargaining chips.

Women's marginal wages rarely allow the luxury of savings. More often than not, women workers support many family members who remain in the provinces. Injury or disability of the woman wage earner can push a family that is barely surviving into the clutches of deeper poverty. In the absence of adequate social security or workers' compensation systems, women simply cannot afford to be disabled at work. Moreover, many occupational injuries or illnesses are long standing, preventing the workers' rapid return to work and wage earning without the benefit of expensive rehabilitation. While labour groups have focused on pushing wages higher, it is fair to say that wages are only useful if you are able to work in the first place. All the wage hikes in the world are of no benefit to a woman unable to work, having suffered an amputated hand.

The modern factory can be a dangerous place. Many of the agents that cause damage to women's bodies are quite subtle—some cause cancer and changes in the way the body functions. Other dangers such as noise have long been regarded as hazards for men. But, increasingly, as women enter industrial sectors such as electronics, textiles, automotive and metal assembly, food manufacture and packaging, they too face this risk. Yet not only are the largest proportion of women in the Majority World unaware of the risk of permanent hearing loss later in life, there is little information available to tell them that loud noise, a major source of stress, has been implicated as a cause of premature labour in pregnant women and is linked to high blood pressure. By reading and using this book for workers' education, it is hoped that women will see that caring for themselves at work is an important part of self-respect and social respect for women.

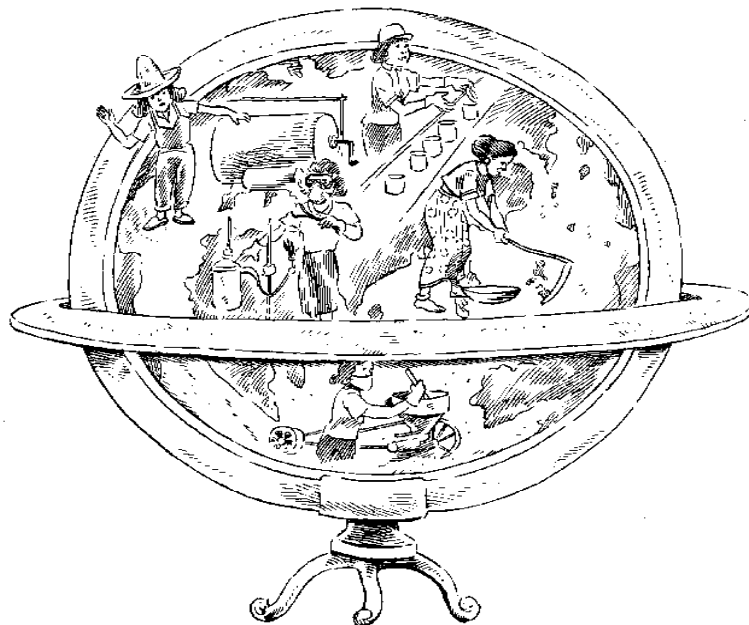
\* Majority World is an alternative term to Third World. Some writers opine that this is the more politically correct term as it accurately describes the largeness (in terms of population and physical size and therefore potential strength) of poor countries.

## New Challenges from Globalisation

On one level, globalisation may improve workers' health as some of the more caring large transnational companies import labour standards from home into their overseas holdings, thus providing a contrast with the poor conditions in some locally owned enterprises. This for instance has been the case with many of the international chemical and petroleum companies which provide good examples of management systems in occupational health in many of the countries that they have "colonised." While the Bhopal tragedy points to a horrible failure of a transnational company to protect either its workers or the surrounding community, many other owners such as international food processing companies enforce sufficiently high standards of worker safety and environmental protection so as to prevent similar failures. These companies are also driven by shareholders and consumer demands that ensure hygiene, high quality products and some degree of accountability of management. But Bhopal should be maintained as the reason why women should not trust any company and instead maintain vigilance and solidarity.

Consumers and shareholders in some of the industrialised countries are demanding "bloodless" goods; that is, the ones they know are not made by the sweat and toil of underpaid, exploited, and injured workers. Nike (sports shoes) and Levi's (jeans) for instance have been targets of international campaigns highlighting the plight of women working in their Asia-based factories. Significant reforms were introduced in the factories subcontracted to Levi's after press and television reports revealed the conditions under which women produced goods sold for huge profit in the USA, Australia and Europe.

On the other hand, globalisation brings large impersonal organisations distant from the needs of the workers, and in many instances subcontracted to firms making the cheapest, most competitive goods



with least expenditure. With occupational health and safety being the responsibility of management, local supervisors excuse their inaction on labour standards by claiming not to have received clearance from head or regional offices to make the necessary changes. International companies often threaten to pull out if the host country tries to insist on higher standards of performance, thus putting thousands of jobs under threat and the profits of government officials who often personally profit from the “administration fees” charged to such companies.

Industrial blackmail such as this is often used to suppress improvements to labour standards. The threat is often relayed from the company to the national government whose electoral appeal is based, among other things, on their ability to create employment and reduce poverty. Threats from companies can be interpreted as threats to the government’s longevity of office. Consequently, workers have come under administrative and military pressure to reduce demands, particularly in export processing zones. Women need to understand that they are the last line of defence. The actions they take now in resisting job blackmail will be enjoyed by their daughters and granddaughters. Like our mothers and grandmothers who fought for the political rights we enjoy, we can honour and protect our daughters by passing on to them the gift of dignity, respect, and well-being that comes with safer work.

Globalisation is also bringing about the gradual “Third World-isation” of the international industrial scene. Over the past 10 years or so, the major shift of production from the major industrialised nations of the West (Germany, Holland, USA, France, and to a lesser extent, Australia) and East Asia (Japan, Korea and Taiwan) has resulted in more jobs being created in the Majority World. But with that came the progressive decline or, at the very least, lack of progress in working conditions for Majority World workers. This in turn has ricocheted into industrialised countries where workers are seeing attacks on trade union structures and the destruction of industrial systems that have been fought for and guarded by generations of workers.

Over this time, the major shift in the labour market has been from male to female labour. In many countries, the number of women working in the formal industrial sector is rapidly equalling, if not overtaking, that of men. This is particularly the case in export oriented sectors such as manufacturing, textiles, garments, and footwear.

The rationale for this gender shift in the labour force, which has become known as the “feminisation of labour,” is largely due to the belief that women will accept lower wages, will demand less add-ons such as workers’ compensation, overtime allowances, and working contracts, will be unlikely to be members of activist trade unions, and finally, will accept more unhealthy working conditions. The power of this set of beliefs is strengthened by the sheer number of women looking for work. The fear of unemployment ensures industrial docility.

Studies on the impact of the global feminisation of labour have indicated that the predictions were right and indeed wages have stagnated and conditions of work have deteriorated. This is not the fault of



women as they enter the industrial game largely as naive workers with little previous industrial sophistry. Years of gender oppression has led them to believe that this is as good as it gets and that they don't deserve any better. Some fight back in the only way they know: through acts of passive resistance, strikes, and slow downs. Sometimes marginal gains are made.

However, there is a bigger game being played. The harnessing and subjugation of women's labour have had the longer term spin-off effect of attracting more jobs to the Majority World at the expense of more costly labour in the industrialised world. As a result, labour unions have lost strength in the West and, with that, their ability to bargain over things such as occupational health and safety. Instead, the unions have become preoccupied by the politics of globalisation and the need to focus on maintaining local membership, or have agreed to comply with workplace agreements which reduce the power of collective action.

In essence, the two working classes now find themselves in competition rather than working in collaboration. Western workers are becoming suspicious of those in Asia and other poorer parts of the world, resenting the loss of jobs. Majority World workers, desperate to feed their families, are resisting any moves for instance, to include health and safety and other labour rights from being included in international trade agreements as they feel such moves protect the local markets in the West. They also fear that including workers' rights will lessen the competitive advantage that the Majority World has over the West: that of cheap, limitless labour. Usually, those putting the arguments are men. The workers they are talking about are often women.

Ultimately, all this means that capitalism will have no opposition or any mechanism to lessen its excesses. Without the agreement of Majority World workers to the provision of safeguards, the less scrupulous of companies can enter any country and establish factories which damage both the environment and the health of workers.

On the other side of the world, the increasing competition from the Majority World will force workers from the industrialised countries to accept worsening conditions. As a consequence, instead of working life improving for all, the opposite will occur. In both East and West, working life will deteriorate and workers will lose the major gains made in the past. Capitalism and greed will have no limit.

In that battle, marginalised women will be among those who lose most because the majority of global deals are being struck by men in positions of power. The few alternative voices that have stood up against unlimited, unfettered growth and for the provision of rights have been defeated by rationalist economic arguments. Such deal making between those in power can be seen as an extension of gender and class-based subjugation.

Health is of concern and interest to women. It is through the medium of health that women workers can hold the line against gender and industrial oppression and subjugation.

The right to occupational health safety and welfare of all working women is an issue of increasing importance for the individual, family, and national prosperity.

## Women and Occupational Health

Three myths influence thinking and policy related to women's health and safety at work. The first being that women's work is inherently safe and that men do the dangerous life threatening work. As you will learn from Chapter 2 of this book, many jobs performed by women can be life threatening. Women's work involves toxic products and processes that can result in, among other things, cancer, low-level poisoning, and breathing difficulties. Due to role blurring and differing concepts of the gender division of labour, women in countries such as India work in more dangerous industries such as road building and construction which are, in other countries, regarded as the domain of men. These sectors continue to claim numerous lives.

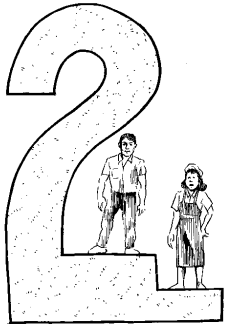
The second myth is that women do not need to work and that their income is secondary to that of the men in their family. This myth negates the worth of women's labour and the significance of their injuries and disability. This is also not true as many women provide the only source of income to their families. Increasingly, women are employed in preference to men as they accept lower wages and poorer working conditions, and are less likely to be organised into trade unions. Thus, as more women are employed, more become heads of households.

The final myth is that it is the nature of women that makes them vulnerable to occupational diseases and accidents. That is, women are weak and are at the mercy of their reproductive function. The fact that women tend to suffer severe muscle and joint disorders at work has supported the case that women are frail and susceptible rather than raise the possibility that work design demands impossible things from women's bodies.

Basically, it is the type of work that women do, in addition to the fact that they are expected to carry full responsibility for family support, that creates problems for women workers. In other words, it is the nature of the work and society's expectations of women that are the hazards, not the factors inherent in women themselves.

## Why It is Important to Know

While researching for this book, I was astounded at how little we know about women and occupational health, and how men's experience still dominates the research literature. For instance, when I searched the data for materials on breast cancer, 80 percent of the references



that flashed onto the screen concerned men and breast cancer, despite it being a major cause of death for women! While this reflects the domination that men have traditionally enjoyed, a new wave of women practitioners and researchers is reshaping the research and action agenda. Some of their work is presented in this book.

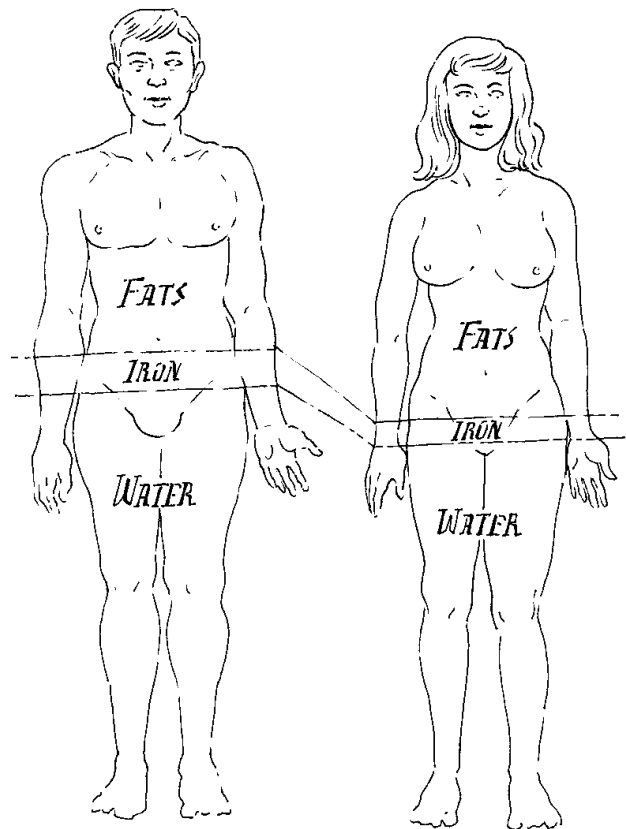
The obvious biological differences between women and men have subtle implications for occupational health practices which particularly relate to cancer. Research focusing on these biological differences is still in its infancy, so few conclusive remarks can be made. In short:

1. Women have more body fat than men, so dangerous substances are more likely to lodge and be stored in the fatty tissue in women workers. For example, pesticides are likely to be held in larger amounts and for a longer time in women's bodies. There, they can bring about a change in cell structure or be released in a rush when the woman loses weight, causing a toxic reaction.

2. Women have less water in their body tissues than men. Water-soluble materials like alcohol tend to be concentrated in the body of women and cause greater damage to the tissues. In contrast, in men, the chemicals are dissolved and weakened by the larger amount of water in their bodies.

3. Because women menstruate, they tend to be deficient in iron. This deficiency allows the body to absorb and accumulate more of the dangerous metals such as cadmium and lead.

4. The liver is the body's laundry; it gets rid of toxic materials by separating them and binding them to create special molecules that are carried away with the faeces. Oestrogen, a female hormone, affects this binding and clearing mechanism. Because oestrogen only peaks at certain times during the menstrual cycle, it is usually not significant in its effects on the body. But if a woman is taking high oestrogen level contraceptive pills or if she is pregnant, then the mechanism is significantly altered. Therefore, toxic substances may not be cleared from the body as quickly as it should. For some which have intense effects at low concentrations or for cancer-causing agents, this alteration in the clearing mechanism is of great importance.



## Get Wise. Get Organised!

It is estimated that the majority of women working in factories in the developing world are not members of trade unions. In some countries like Indonesia, trade unions are controlled by the government and women know that their interests are not represented. In other countries, women don't join because unions are controlled by men who like to exercise power. Women may not feel that trade union power plays will make things better for them. Instead, women factory workers have taken action to fight for rights to better wages and conditions on their own, without support from trade unions or labour groups. Their actions have often succeeded in gaining international attention for the situation of workers. In other countries, women may perceive or have experienced that trade unions act as an extension of male power. They may not feel comfortable with the tactics or with the movement's own attitude to women. It may be that women feel that the traditional trade union structure in their country has little to offer.

While some women may not join or feel they do not need trade unions, they need to ensure solidarity and teamwork among themselves. A woman alone protesting to management may end up sacrificing herself and her job for little gain. Remember that one spine from a coconut frond cannot clean the floor. But when combined with many such spines, they can sweep all the dirt from its path. Let's hope that by operating together, we can sweep away ignorance and harm from our lives and promote health and well-being to all of our working sisters.

If a union exists in your area, join it and organise to vote women into positions of power. Don't accept what is there if it doesn't suit your interests! Trade unions should reflect democratic values.



courtesy of International Labour Office

## *How To Use This Sourcebook*

**T**his book on occupational health is written in three sections or chapters for easy reading and reference. Chapters 1 and 3 are simply background and explanations of the technical details that appear in Chapter 2. Occupational health is a technical subject full of jargon and scientific terms. For many workers, this language is intimidating and confusing. While all attempts have been made to present the information clearly and simply, there is no doubt that some of the complexity and special language still remains. For this, I apologise in advance.

The book is designed as an introduction to occupational health for women. Industry processes vary from factory to factory and from country to country, depending on the degree of technological development in the country. This means that the list of hazards listed under each type of workplace may not be complete, or conversely, may list hazards that as a result of technological and industrial evolution are no longer a problem in your country.

The book contains quite a lot of technical language which is a deliberate choice as I considered that there was no reason why all women should not know what the terms mean and thus be able to use technical language. Knowing the language is part of the game of getting to know the “culture”—a business and technical culture that is often (deliberately) closed to women. Familiarising yourself with some of the terms used in describing workplace hazards and solutions will increase credibility and indicate you have done your homework.

## I. Using the Book for Training

The information in this book can be used for study circles among women. For instance, group members may want to study industries of particular interest to them and present the information to the group using case studies and examples from their own experiences. Interweaving personal experiences as workers or trade union delegates will make the information more meaningful. If possible, use your own photographs or drawings of the factories and working conditions to help illustrate points made in the book and make the text come alive. Dramatisations or theatre can be useful to clarify and intensify issues, and to rehearse tactics.

In some cases, the men in women's lives will also need to hear this story—the story is about them as well. Our husbands, fathers, brothers, and sons are also subject to workplace injuries and diseases. They, too, need to understand how work affects the bodies, minds, and spirits of their wives, sisters, and daughters.

The idea is to use this information freely. We have an obligation to share this information with our sisters, as by doing this we can become strong and our voices, tinged with concern or anger, be heard.

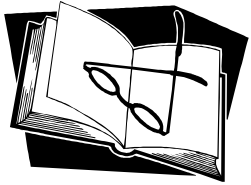
## 2. Using the Book for Worksite Visits

If you are a trade union delegate or labour organiser, the obvious thing to do is to read the relevant part of this book first and familiarise yourself with the problems. Make a checklist using as a guide the technical points listed under “what to look for” in Chapter 2 or the one at the end of Chapter 1. If possible, try to get some data about the enterprise you are about to visit from women in that enterprise, like the number and type of accidents in the past month (it's difficult to accurately remember much beyond that). The idea is to gather enough data that will ensure that management knows you mean business.

Management will undoubtedly want to accompany you on your tour of the worksite and the women workers may not feel free to talk with management and supervisors hovering around. If possible, make the visit in pairs so that while one of you acts as decoy and asks deflecting questions such as “Please show me that machine over there,” the other can stay behind and ask questions.

Toilets may be the only space where women can talk without fear. It will also give you some idea if the women are given adequate and hygienic facilities. You may like to find out how and where women can dispose of sanitary napkins or menstrual cloths, or whether they are given soap to wash their hands. Sometimes women are charged for washing facilities.

Many companies will offer you gifts which may make you feel obligated to that enterprise and may make it harder for you to maintain objectivity. It is best to politely turn down the offer. A far better gift is management's respect for the women workers and actions on the issues that were raised in the meetings.



### 3. Using the Book for Surveys

One of the most powerful ways of achieving work reform is to present visual or numerical information directly from the workplace. To do this, simple questionnaires based on the information in this book can be given to workers and the information from surveys can be put together as a report to management. An example of a simple survey is found in Chapter 3 and at the back of this book. By presenting data on the whole workforce and not just individual cases, you can demonstrate the seriousness of a situation. If management still refuses to take the workers' demands seriously, you at least have some detailed and documented information to take to the Ministry of Labour and to the local (or international) press.

Surveys of workers can be accompanied by sketched maps of the factory showing the distribution of illnesses or injuries. This tactic is also outlined in Chapter 3. It may be that during those surveys, you uncover illnesses which are not listed in this book. This only shows how little we really know about women, work and health.

This book is only an introduction. It is far from a complete source and guide to occupational health. It should provide enough information to allow you to decide whether or not to act. While the technical content was up-to-date at the time of writing this book, new and dangerous materials are being produced every day and new research data is regularly published. I strongly suggest that you and your friends make contacts and forge strong working relationships with your industry trade union or workers' centre. Other organisations such as Press For Change in the USA organise campaigns against American enterprises overseas. For instance, they have run a long standing campaign on the international sports shoe manufacturers Nike and Reebok.

The courage and tenacity of women workers is a source of strength and hope. To keep the struggle alive, it is hoped that this small offering can add to the candle of knowledge. I would be pleased to hear your ideas and suggestions in case this book can be updated. Please send all correspondence to:

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