The proportion of women in the paid labour force has increased dramatically. On average, women make up about 42% of the estimated global paid working population, making them indispensable contributors to national economies. Women’s visible presence in paid employment has stimulated reflections on how their health should be protected, and, in turn, on how gender affects their health related to work.

What do we know?

"Women's" work and "men's" work
Women and men commonly perform different tasks and work in different sectors. Women are more likely to work in the informal sector, for example in domestic work and street vending. They may work from their homes. Women generally occupy lower ranks than men.

Working and employment conditions may differ by sex. In some countries, women lift heavy loads and men do most administrative work, while in others the opposite situation prevails. In one nation, women are more likely to be unemployed but in others, men are more often without jobs. Women tend to work more hours at home and fewer outside of the home, and they usually take primary responsibility for family well-being. Men in many countries do more seasonal work in fishing and forestry. Globally, women suffer more from growing competitive pressures, resulting in job insecurity, limited possibilities for training and promotion, and inadequate social benefits (e.g. insurance, sick leave).

Exposures at work often differ by gender. In the developing countries, women and men work at different tasks in agriculture, mining, manufacturing and services. In South Africa, for example, women are exposed more often to pesticides indirectly during planting and harvesting and men directly during application. Women and men are exposed to different physical and psychological stressors such as repetitive work, heavy lifting and monotony. Women are the majority of health care workers, exposed to risks of infection (including needle-stick injuries), violence, musculoskeletal injuries and burnout. Women usually suffer discrimination, mobbing and harassment more often than men, especially if they enter non-traditional occupations.

Occupational health-related biological, psychological and social differences
Women’s and men’s reproductive systems differ. Women menstruate, become pregnant and nurse children, and these processes may be affected by workplace exposures; for instance, prolonged standing can affect birthweight and many chemicals can produce abnormalities. Men produce sperm, and this process is also very sensitive to exposure to chemicals, vibration and radiation.

Men are on the average taller, larger and heavier than women, contributing to sex differences in a number of other important health-related variables such as average blood volume and oxygen consumption. The same physical load may exert greater strain on the average woman than on the average man, since women’s average lifting strength is only 50% of men’s. However, the difference for pushing and pulling in the horizontal plane is smaller, and there is considerable overlap in size, shape and strength between the sexes. Both the differences and the degree of overlap are important, for example, when designing tools so as to minimize repetitive strain injuries in both sexes.

Little is known about sex differences in metabolism of toxins. It has been hypothesized that the average woman is at greater risk of harm from fat-soluble chemicals because of a higher proportion of fat tissue, thinner skin and slower metabolism. True or not, it would
be unwise to presume that an average sex difference applies to all or even most individuals in a population. The percent of fat varies in both sexes according to age, physical fitness and training.

Although not many psychological differences between women and men have been demonstrated scientifically, it has been suggested that men usually have higher self-esteem and confidence and that women are more emotionally expressive. Male–female differences in education, socialization and upbringing may lead to differences in the way workers manage their illnesses, their perception of risk, and the propensity to take sick leave or to seek treatment.

Thus, differences in exposure to risk factors may combine with biological, psychological and social differences to produce sex-specific patterns of occupational health problems. It is therefore important to examine occupational health research, implementation, policies, programmes and projects with a gender lens.

**Health implications**

Although paid employment is good for both women’s and men’s health, some working conditions are hazardous to the mind and body. According to the International Labour Organization (ILO), each year an estimated 2.2 million men and women die from work-related injuries and diseases and 160 million new cases of work-related disease arise. Information for most developing countries is scarce, and not all problems are reported, so these figures probably underestimate true levels. WHO estimates that in Latin America, for example, only 1–4% of all occupational diseases are reported.

Women’s work related injuries and diseases are even less accurately reported, since women’s work is generally regarded as safe. Women’s occupational health problems are underdiagnosed and women’s claims for compensation for some health problems are preferentially refused. For example, see Figure 1 which shows Swedish data on compensation by sex. Women’s work in many countries is invisible to health care personnel.

In summary, many of women’s work-related accidents and diseases are not recorded as occupational, not compensated by work insurance systems and not included in thinking about occupational health.

**Specific problems for women**

Despite the positive effects of women’s employment on their health, many jobs, especially those available to women in low-income countries or to poor, less-educated women in high-income countries, expose women to harmful working environments. In developed countries, women are more often exposed to some physical risks, such as highly repetitive movements, awkward postures, and biological agents in jobs where there is higher exposure. Women are exposed more often to some psychosocial risk factors, such as psychological and sexual harassment and monotonous work. Because of their low status, women exert less control over their work environment, a condition associated with cardiovascular, mental and musculoskeletal ill health. The combination of paid and unpaid working conditions particularly affects women’s health.

There is little data on women in low-income countries, but they are known to shoulder extremely heavy physical workloads, both at home and at work. Women provide water and fuel, carrying heavy loads and walking long distances. These constraints can lead to musculoskeletal disorders and reproductive problems. Washing and cooking expose women to water-related diseases such as schistosomiasis, malaria and worms. Women cooking on open stoves risk burns and exposure to smoke containing toxic pollutants. An Indian study suggests that the use of biomass fuels increases the risk of tuberculosis, particularly in rural areas.

In many low-income countries, cash crop production of fruits, vegetables and flowers involves exposure to toxic chemicals. The adverse health effects of pesticide exposure include poisoning, cancer, skin diseases, abortions, premature births, and malformed babies, as has been shown among floricultural workers in Colombia. Pesticides and chemicals are also widely used in higher-income countries, where agricultural workers are often excluded from occupational health and safety legislation.

![Figure 1: Reported work-related diseases claims in Sweden, 1994–1997.](image-url)
Increasingly, women in the developing countries, particularly in Latin America and Asia, work in office and factory jobs. The low status of this work can be a source of stress. The lack of social services makes the combination of paid work and family responsibilities extremely taxing, especially where income is low and few services are available.

Sexual harassment at work is common and may result in guilt, shame, anxiety, depression and other health consequences. A survey among nurses in a hospital in Turkey revealed that 75% of the nurses reported having been sexually harassed: 44% by male physicians, 34% by patients, and 14% by relatives of patients.

Reproductive problems such as miscarriages, low birth weight and malformations can arise from exposure to pesticides, solvents and organic pollutants, heavy workload, postural factors and shift work. Breast milk can also be contaminated by chemical exposures, leading to difficulties with breastfeeding. Anything that limits breastfeeding is of concern in poor populations, since breast milk is vital for infant health. Chemicals can also interfere with the fertility-suppressing effects of breastfeeding and increase a woman’s chance of conceiving before she is ready.

**Specific problems for men**
A large body of literature indicates that employment is beneficial for men’s health and survival. However, men have many more occupational accidents than women, and more fatal injuries in all jurisdictions where data are available. In addition, men in the developed countries report more exposure than women to noise, vibrations, extreme temperatures, chemicals and lifting heavy weights. Many societies accept the idea that men can be asked to do more dangerous jobs, although in others, men resist if they feel they are asked to do harder jobs. In still others, it is taken for granted that women will do most heavy lifting and carrying.

Since reproduction has been viewed as women’s domain, male reproductive health related to occupational exposures has been neglected. However, many chemicals, ionizing radiation, toxic contamination, high temperatures and sedentary work have been identified as hazardous to the male reproductive system.

**Relevant legislation and policy**
The key areas in occupational health policy and legislation, which are explicitly related to gender, concern two broad categories: the treatment of sex differences, and the methods for handling discrimination, including sexual harassment. These include protection of pregnant and nursing workers exposed to hazardous working conditions as well as provisions concerning access to dangerous work such as night work. Some national legislation has incorporated a 1948 ILO convention prohibiting night work for women. While these provisions are now incompatible with European equality law, other countries may still prevent women from performing night work and other work perceived as inappropriate. Legislation governing discrimination in the workplace, in many countries and internationally, aims to prevent both sexual harassment and discrimination, including discriminatory hiring practices.

Aside from legislation overtly designed to apply to working conditions of women, it is also important to analyse seemingly gender-neutral legislation aimed to prevent or to compensate for occupational injury and disease. Even in countries where equality is guaranteed by law, application of occupational health and safety legislation may have discriminatory effects. Swedish and Canadian studies reveal that women and men are often offered different rehabilitation measures for similar work-related health problems. Men are more often offered training, access to a wider variety of new jobs, and are offered more help in the home, while women receive rehabilitation benefits for a shorter time.

In many countries, claims for workers’ compensation benefits for psychological problems or musculoskeletal disorders (more common among women) are sometimes excluded from the purview of the law, so that systemic discrimination may be at work even if the legislation appears to be gender neutral. When prevention priorities are determined by compensation costs, women are less likely to benefit from protective legislation. When women’s claims for industrial disease are greeted with scepticism, union attention and organised support groups can be very helpful.

Policy analysis should also take into account gender differences in precarious and non-standard employment. Specific health risks are associated with specific types of precarious or contingent work. Home based work presents very different challenges from those presented by work for temporary or part-time work. Policy applicable to specific types of contingent work should be scrutinized with regard to gendered effects.

**What research is needed?**

**Research should be gender-sensitive**
- Sex-disaggregated data on work-related exposures and effects should be collected systematically, including in the informal economy and the domestic sphere.
- Data collection should include direct information from women and men workers.
- Standard research tools must be adapted if necessary, for analyses of women’s jobs, and developed specifically for assessing exposures in women’s jobs.
- Interdisciplinary research with strong epidemiological, biological and social science components should be done since this is essential for the understanding of gender issues in occupational health.
Attention should be given to women’s needs, including the need for equality

- Biological differences in regard to toxic effects should be carefully studied and any sex differences found should be reported and analysed.
- Occupational effects on sexual health of both women and men should be studied.
- Studies should concern the effects of working conditions during pregnancy on the health of the mother as well as the foetus.
- Workers should be given an active role to ensure that research being undertaken is relevant to their needs and interests.

What are the implications for work-related health policies and programmes?

Working life is one of the most important arenas for action to improve the health status of populations and to reduce gender inequality in health.

Women should be empowered so they can protect their health

- All workers, regardless of sex, age, employment status, type of contract, location of work, size of enterprise, type of job and industry should be covered by legislation guaranteeing prevention of occupational health risks, minimum labour standards, prevention of discrimination, and compensation in the case of illness or injury. All occupational health effects should be covered, including psychological disability and chronic pain.
- International and national policies for health and work performed both in the public and domestic domains should be strengthened and appropriate policy tools should be developed.
- Unions have been an important guarantor of health and safety and access to compensation in many countries. Access to unionization is therefore critical and should be regulated. Unions should ensure that women participate at all levels in health and safety activities and should create structures to facilitate their participation in union life.

Workers’ family life should be protected

- The ability of women and men to have healthy and happy families while earning income sufficient to support their needs is a critical part of occupational health.
- The reproductive health of women and men should be guaranteed by appropriate legislation.

Women and men should be treated equally at work

- Women and men should be hired at all levels of the occupational health prevention and compensation systems.
- Because low wages are an increasingly important contributor to poverty, women and men should receive equal pay for work of equal value.
- Access of women to jobs traditionally done by men facilitated and follow-up done to remove difficulties experienced by women.

For full report see: http://www.who.int/gender/documents/en