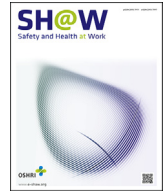




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# Safety and Health at Work

journal homepage: [www.e-shaw.org](http://www.e-shaw.org)

## Editorial

# From Workers to the Working-Age Population: A New Paradigm for the Occupational Health Service



### ARTICLE INFO

#### Article history:

Received 22 June 2019

Received in revised form 7 July 2019

Accepted 8 July 2019

Available online 13 July 2019

#### Keywords:

Vulnerable  
Nonstandard  
Self-employed  
Coverage  
Microenterprise

The health of workers is determined by several factors: the working environment such as the traditional and newly emerging occupational health risks; health-related behavior such as lifestyle; social factors such as employment status, stability of work, income or inequities associated with gender, race, and age; and access to (occupational or general) health-care services [1]. Health risks in the workplace, such as heat, noise, dust, hazardous chemicals, biological or ergonomic hazards, unsafe machines and psychological stress, may cause occupational or work-related diseases and can aggravate other health problems. Social inequality and unequal access to health-care services significantly influence workers' health. Health-related behaviors such as smoking, alcohol consumption, lack of exercise, and unhealthy diet are major risk factors for non-communicable diseases (NCDs), such as degenerative arthritis, cardiovascular diseases, and cancer. In addition, low-birth rates and the rapidly aging population have led to increasing numbers of elderly workers. Thus, NCDs have been major factors that negatively impact work ability, threatening the sustainability of employment in the working population.

The globalization of the economies of most countries has led to profound changes in the nature of employment. Work conditions, work environment, and types of employment are much more diverse now than in the past. For example, the industrial structure has shifted from manufacturing based to service based in most industrialized countries. Restructuring and downsizing of businesses has led to the formation of small business or microenterprises, and these now account for a major proportion of workplaces. The increased use of outsourcing and multitiered subcontracting has increased the type and proportion of nonstandard

workers, such as part-time workers, temporary workers, agency or service contract workers, and dependent self-employed [2].

The occupational health service (OHS) was originally developed to protect incumbent (permanent and full-time) employees performing hazardous or dangerous jobs mainly in medium-sized or large industries. Hence, workers employed in microenterprises, nonstandard workers, and self-employed are outside the framework of the OHS. These vulnerable workers are often temporarily unemployed and shift from one of the work categories to another. There is also no continuity in the care for vulnerable workers who move to a new employer, change employment status, or leave work because of poor health or other reasons. Our previous studies showed that these vulnerable workers (rather than nonvulnerable workers) were likely to be older, have less education, perform temporary work that requires fewer skills, perform manual work, have low income, experience frequent changes of workplaces, work in microenterprises, have fewer benefits, lack the protections of organized labor unions, often experience intermittent unemployment, and have more physical and mental health problems [3–5].

In many countries, these vulnerable workers, who are not covered by the OHS, account for the major proportion of the working-age population, although there is considerable variation in the coverage of these workers among countries [6]. For example, vulnerable workers who are outside OHS coverage were estimated to account for approximately half of the economically active population (working-age population) in South Korea (total population of 51,423,000) (Fig. 1). Vulnerable workers who are outside OHS coverage include nonstandard workers (temporary workers and daily hire employees), employees in microenterprises (fewer than 5 workers, but excluding professionals, managers, and clerks), the self-employed (excluding professionals, managers, and clerks), family members who receive no pay, and the unemployed. Workers covered by the OHS include standard workers in large and medium-sized businesses (50 workers or more) and small businesses (5 to 49 workers), although the latter group is only partly covered by the OHS in South Korea. “Others”, who are not vulnerable but outside OHS coverage, include employers; workers who are professionals, managers, and clerks in microenterprises; and the self-employed.

The World Health Organization proposed a global plan of action on workers' health in 2007 and urged member states to provide full coverage to all workers, including those in the informal economy, small- and medium-sized enterprises, agriculture, and migrant

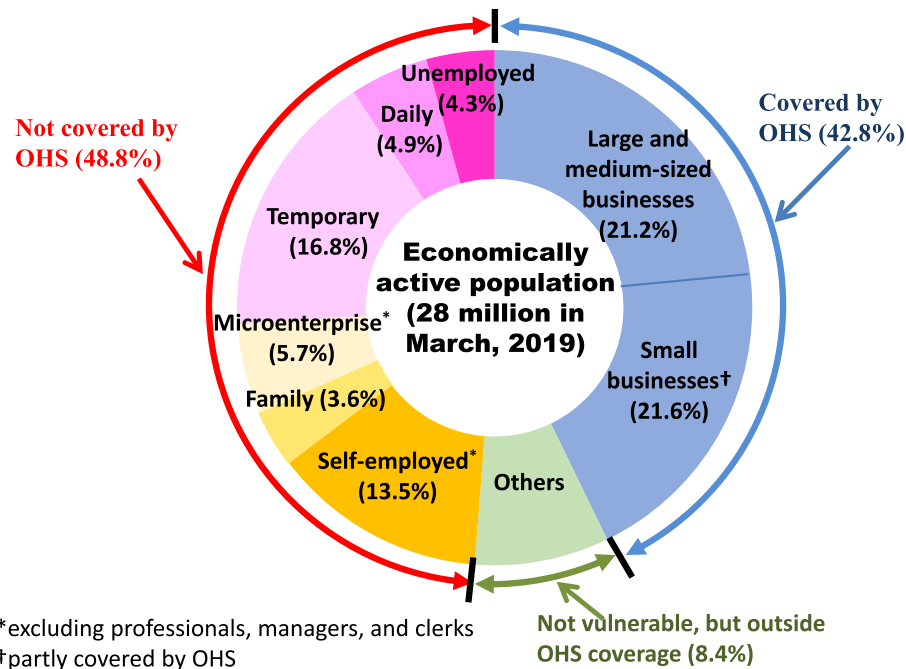


Fig. 1. Estimated percentages of different types of South Korean workers not covered by the OHS, occupational health service.

and contractual workers [7]. The World Health Organization also developed the new concept of “workers’ health” as opposed to “occupational health”. We suggest that one step forward toward achieving workers’ health would be to move from providing OHS coverage to workers at designated workplaces to providing coverage to everyone in the working-age population in the community. Many working-age people in the community may be without work at some time, even if they are currently employed. Thus, they may not be covered by the current OHS system for short or long periods of time. Hence, we suggest that the OHS scheme should be expanded to cover the entire workforce; in that way, the OHS would reach nonstandard workers, precarious workers who frequently move from one workplace to another, the vulnerable self-employed, and the unemployed.

Recently, the OHS has emphasized the promotion and maintenance of work ability in workers, in addition to protecting workers from various occupational hazards. NCDs, which are major factors that negatively impact work ability, can be prevented by modifying health-related behavior from the early stage of working life. However, the OHS scheme alone is insufficient to promote work ability in the entire working-age population. Collaboration or networking with the general health-care system is also essential. Many developed countries separately operate two health-care systems: an OHS system for workers at the workplace and a general health-care system for the entire community population. A practical approach for promoting the health and safety of vulnerable workers is to increase networking of the OHS system with regional health resources, such as local public health centers. Collaboration of these two health-care systems at the central government and local community levels may improve the health status of vulnerable workers and maintain or increase their work ability [8]. National strategies for the promotion of work ability in all working-age people are also needed to improve quality of life in workers

and sustain economic development by establishing connections with regional public health resources. The paradigm shift needed to maximize the work ability of the entire working-age population, including vulnerable workers, can have numerous benefits. First, vulnerable workers can receive care from community health-care services, and this may reduce the risk of NCDs, which have the greatest impact on shortening of an individual’s working life. Second, employers will be able to more easily hire healthy workers in local areas. Finally, local governments will be able to make the local economy more stable and sustainable, because all working-age people, including the elderly, will be able to stay healthy and participate in economic activities.

In conclusion, the current OHS does not cover the entire workforce and does not also meet the needs of the entire working-age population. A paradigm change is needed to improve the work ability of all working-age people.

### Conflicts of interest

The authors declare no conflicts of interest.

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