

COMMENTARY

Open Access



Health care strategy for ensuring work ability in an aging Korea

Jungsun Park¹, Jong-tae Park², Soo Geun Kim³, Cheol-In Yoo⁴, Junseok Son⁵, Jun Yim⁶, Dae-seong Kim², Kyung Young Rhee⁷ and Yangho Kim^{4*} 

Abstract

The rapid aging trend in South Korea will cause a growing shortage of labor and decreasing quality of the labor force. The purpose of this commentary is to recommend a health care strategy to maintain and promote the work ability of employees in an aging Korea. Strategies to promote the work ability require the collaboration of governmental agencies at the central and local levels. First, the common goal should be the reinforcement of follow-up measure in general medical examinations and the promotion of healthy lifestyles for workers. Second, collaborating activities should be performed among the Worker's Health Center, the Health Promotion Center, and community health centers. In conclusion, health care strategies for ensuring the work ability in an aging Korea require the collaboration of governmental agencies at the central and local levels.

Keywords: Work ability, Aging, Health promotion

Background

South Korea's population is aging more rapidly than any other country [1, 2]. Since it became an aging society in 2000, the predictions are that South Korea will be an aged society by 2018 and a super-aged society by 2026 [1]. Labor shortages and a lack of skilled people are expected due to a reduction in the size of the productive population (age 15–64) in 2017 and the mass retirement of “baby boomers” [1]. Further, the most economically active age group (30–49 years-old) in the productive population will decline continuously, from 49 % in 2005, to 42 % in 2020, and to 37 % by 2050. Similarly, the percentage of elderly people (at least 50 years-old) was 25 % in 2010, and is expected to exceed 33 % in 2020 [1, 3]. Thus, the aging of the productive population will quickly reach the point when most current baby boomers have left the labor market (after 2030).

This aging of the workforce will likely increase the accident rate because the elderly experience degradations of many physiological functions, such as sensory systems, sense of equilibrium, and motor control [4, 5]. In

addition, the increased prevalence of chronic and degenerative diseases due to aging will lead to a decreased quality of the labor force [6].

Thus, it is clear that the rapid aging trend in South Korea will have a significant impact on the quantity and quality of labor. Therefore, the purpose of this commentary is to recommend a health care strategy to maintain and promote the work ability of employees in an aging Korea.

The current health care system for employees in South Korea

The government's comprehensive plan, ‘The Second Plan for Aging Society and Population (2011-2015)’, lacked life-cycle-specific health care measures (i.e. measures for young and middle-aged workers) in the ‘pro-active health care system’ section [7]. It also placed the public health center for the community population at the center of most activities, including improvements in health screening and follow-up systems, establishment of a community-based integrated health care system, institutionalization of health care services, and introduction of chronic degenerative diseases management programs. Even though the Framework Act on Health and Medical Services Article 36 (Occupational Health Care) states that the government should take

* Correspondence: yanghokm@ulsan.ac.kr

⁴Department of Occupational and Environmental Medicine, Ulsan University Hospital, University of Ulsan College of Medicine, Ulsan, South Korea
Full list of author information is available at the end of the article

measures to protect and promote employees' health [8], almost none of these activities have been carried out for the employees, the most important target for management of chronic degenerative diseases.

Based on the current Occupational Safety and Health Act, workers' medical examinations are to be carried out regularly in all workplaces, regardless of business size. However, workplaces with fewer than 50 workers do not have professional personnel to perform follow-up measures after medical examinations, and this is a significant problem in the current workers' health care policy. In addition, workplaces with fewer than 2000 workers (or fewer than 3000 or 5000 workers in some sectors) are not required to appoint a doctor or nurse according to the Occupational Safety and Health Act [9]. Thus, a number of workplaces rely on external expertise for workers' health care services, such as follow-up measures of periodic medical examinations. Follow-up measures for general medical examinations tend to be neglected compared to occupational medical examinations, although employers are required to perform these follow-ups. In addition, workplaces and external professional organizations for occupational health programs lack specialized personnel, facilities, and equipment for health promotion and health promotion programs. Thus, establishment of a linkage with health promotion resources in the community is urgently needed.

Benchmark: strategies to promote work ability in aging Japan

Japan has guidelines on cooperation between community health and occupational health activities for workers' health promotion at the level of the local community, and has performed cooperative activities since 2005 [10]. The implications of these policies and guidelines is as follows. First, the law should have a provision for harmonization and collaboration of existing health services that were previously carried out independently in different department of one ministry. Second, it is necessary to have common recognition of the collaborative activities. Each agency holds the value of the existing independent business, so it is necessary to share the recognition of the need and significance of collaborative activities for the community's health problems through the exchange of information between institutions regarding health information and services. Third, it is important to establish guidelines for collaborative activities so there is a clear and mutual understanding and a systematic project plan based on the consensus. Lastly, it is crucial to establish a local council to promote these collaborative activities.

Recommendation for policy

We described in detail a process leading to a recommendation for promoting work ability in an aging society in

a Table, which shows a logic for solution containing current status and problem identification, counter-measures for the problem, obstacles, and solution (Table 1).

The policy for promotion of work ability in a low-birth rate and aging society must be included in the 4th Five-Year Plan for Industrial Accident Prevention (2015–2019) [11]. The principle to implement this policy is as follows: First, prevention programs should be tailored to the age of the workers (adolescence, middle age, seniors, etc.). Second, there should be prevention programs through collaboration among the relevant ministries (Ministry of Employment and Labor/Ministry of Health and Welfare/Ministry of Culture, Sports and Tourism, etc.). Third, prevention programs should be linked to community resources. The management of chronic degenerative diseases, using follow-up measure in general medical examinations, should be placed at the center of these principles.

The principles and strategies to promote work ability through the collaboration of relevant agencies at the central and local level is as follows. A common goal—the reinforcement of follow-up measures of general medical examinations and the promotion of healthy lifestyles for workers—must be set up by signing a memorandum of understanding between the Ministry of Employment and Labor and the Department of Health and Welfare. In addition, the Ministry of Employment and Labor should inform all employers of the significance of follow-up measures of general medical examinations. Once this basic governmental policy is announced, workers' health promotion activities by employers will gain momentum, conditions for collaboration will be established, and an environment for collaboration will be created that naturally leads to collaboration.

In order to promote cooperation between community health and occupational health activities for health promotion in workers in Korea, several points should be addressed (Fig. 1). First, workers' health information should be shared between the National Health Insurance Corporation and the Korea Occupational Safety and Health Agency. Second, a standard code should be presented to share data by linking the websites that each agency operates to provide integrated information. Third, when setting up the cooperation, the target institutions should be the Korea Occupational Safety and Health Agency, the National Health Insurance Corporation, and the local government at the administrative agency level. The active organizations should be the Worker's Health Center, the Health Promotion Center, and the community health centers, respectively, at the local activity level. Finally, there should be a steering team to promote employees' work ability in the Ministry of Employment and Labor. Under the leadership of the Ministry of Employment and Labor, it will play the role

Table 1 Process leading to a recommendation for promoting work ability in an aging society

Current status and problem	Low birth rate and aging population
	↓
	Aging of the workforce
	↓
	Shortage of labor/Reduced work ability
	<p><Cause 1> The high prevalence rate of chronic degenerative diseases in the elderly, such as hypertension and diabetes mellitus, causes an increase in the number of people with cerebrovascular and cardiovascular disease.</p>
	<p>(※ From now on, chronic degenerative diseases (e.g. cerebrovascular and cardiovascular disease, degenerative arthritis, and depression) will be a major occupational health issue that have a greater impact on quality of life and worker productivity than occupational diseases.)</p>
	<p>< Cause 2> There is an increase in accidents due to physiological deterioration of workers such as visual/auditory function, muscle strength, and body control.</p>
Counter-measure	<p>1. Prevention of cerebrovascular and cardiovascular disease in workers.</p>
	<p><Strategy> To conduct follow-up management based on risk level through assessment of cerebrovascular and cardiovascular diseases from general health examinations.</p>
	<p>- Moderate- and high-risk groups: strict management of basic diseases such as hypertension and diabetes.</p>
	<p>- All groups: reduction of risk factors based on lifestyle, such as smoking, unhealthy dietary habits, and lack of physical activity, through workers' health promotion programs.</p>
	<p>2. Plan to improve the work ability of the elderly</p>
	<p>< Strategy> Support the establishment of a work environment that is appropriate for elderly workers who have reduced physical capacity.</p>
Obstacles	<p>1. Employers do not consider cerebrovascular and cardiovascular disease prevention activities as a mandatory occupational health measure.</p>
	<p>2. General medical examination results are usually not accessible to employers, unlike the occupational medical examination results.</p>
	<p>3. Professional personnel running health promotion programs in the workplace are often not present or are unavailable.</p>
Solutions	<p>1. Massive publicity campaign on the significance of follow-up measures of general medical examinations and the prevention of cerebrovascular and cardiovascular diseases as employer obligations.</p>
	<p>2. National health examination data sharing between the Ministry of Health and Welfare (National Health Insurance Corporation) and the Ministry of Employment and Labor (Korea Occupational Safety and Health Agency).</p>
	<p>3. Establish and operate a local council and collaborate with local governments to make full use of community resources such as a public health center, health promotion center, and workers' health center.</p>
	<p>(※ Ensuring stable funding for active workplace health promotion programs/Revising the relevant laws and regulations, such as National Health Promotion Act and Framework Act on Health Examination, to make it easier to use community resources.)</p>

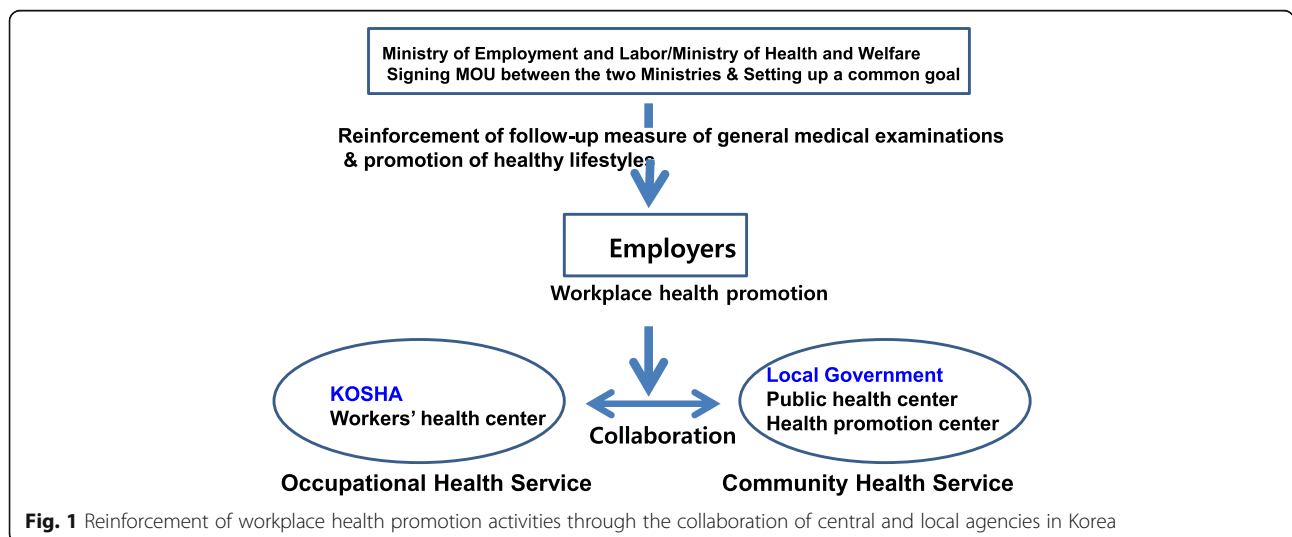


Fig. 1 Reinforcement of workplace health promotion activities through the collaboration of central and local agencies in Korea

of a “control tower” to promote collaboration, and form a group consisting of about 10 individuals below the vice Minister who operate together. This should include all institutions participating in the collaboration, and should hold periodical conferences to monitor the process and results.

Conclusions

Health care strategies to promote the workability in an aging Korea require the collaboration of governmental agencies at the central and local levels.

Acknowledgement

This work was supported by Korea Occupational Safety and Health Agency (Grant number: 2015-OSHR1-822).

Funding

This work was supported by Korea Occupational Safety and Health Agency (Grant number: 2015-OSHR1-822).

We declare no roles of the funding body in the design of the study and collection, analysis, and interpretation of data and in writing the manuscript.

Availability of data and materials

Not applicable.

Authors' contributions

Conception and design of the work: JP, YK. The acquisition and interpretation of data for the work: DSK, JY, CIY, JS, KYR. Drafting the work: JP, SGK. Revising it critically for important intellectual content: YK, JTP. Final approval of the version to be published: YK. Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved: YK.

Competing interests

The authors declare that they have no competing interests.

Consent for publication

Not applicable.

Ethics approval and consent to participate

Not applicable.

Author details

¹Department of Occupational Health, Catholic University of Daegu, Gyongsan, South Korea. ²Department of Occupational Medicine, Korea University Ansan Hospital, Ansan, South Korea. ³Department of Occupational Medicine, Kangbuk Samsung Hospital, Sungkyunkwan University, School of Medicine, Seoul, South Korea. ⁴Department of Occupational and Environmental Medicine, Ulsan University Hospital, University of Ulsan College of Medicine, Ulsan, South Korea. ⁵Department of Occupational & Environment medicine, Samsung Changwon Hospital, Sungkyunkwan University School of medicine, Changwon, South Korea. ⁶Department of Preventive Medicine, Gachon University College of Medicine, Incheon, South Korea. ⁷Occupational Safety and Health Research Institute, Korea Occupational Safety and Health Agency, Ulsan, South Korea.

Received: 3 June 2016 Accepted: 31 August 2016

Published online: 07 September 2016

References

1. Statistics Korea. Population projections. 2010. Available at: http://kostat.go.kr/portal/korea/kor_nw/2/1/index.board?bmode=read&aSeq=252623 (Accessed 29 Dec 2015).
2. United Nations. World Population Prospects The 2008 Revision. 2009. Available at: http://www.un.org/esa/population/publications/wpp2008/wpp2008_highlights.pdf (Accessed 29 Dec 2015).

3. Statistics Korea. Economically Active Population Survey. 2014. Available at: http://kostat.go.kr/portal/korea/kor_nw/2/1/index.board?bmode=read&aSeq=328458 (Accessed 29 Dec 2015).
4. Lockhart TE, Smith JL, Woldstad JC. Effects of Aging on the Biomechanics of Slips and Falls. *Hum Factors*. 2005;47(4):708–29.
5. Rhee KY, Seo DU. Gender-specific incidence rate of industrial accidents and type of accident. *OSH Issue Report*. 2014;8(2):2–29.
6. Korean Ministry of Health and Welfare. The Fifth Korean National Health and Nutrition Examination Survey 2012. Seoul: Korean Ministry of Health and Welfare; 2013. Available at: <http://stat.mw.go.kr/front/statData/publicationView.jsp?bbsSeq=13&nttSeq=21193&menuId=47> (Accessed 29 Dec 2015).
7. Government of the Republic of Korea. The Second Plan for Ageing Society and Population. 2015.
8. Korean Ministry of Health and Welfare. Framework Act on Health and Medical Services. 2014 Available at: <http://www.law.go.kr/eng/engLsSc.do?menuId=2&query=MEDICAL%20SERVICE%20ACT#iBgcolor22> (Accessed 29 Dec 2015).
9. Korean Ministry of Employment and Labor. Occupational Safety and Health Act. 2015. Available at: <http://www.law.go.kr/DRF/MDRFLawService.jsp?OC=kosha2&ID=1766> (Accessed 29 Dec 2015).
10. Japanese Ministry of Health, Labour and Welfare (Japan). Guidelines on cooperation between community health and occupational health activities (revised version), 2007. Available at: www.mhlw.go.jp/shingi/2007/03/s0330-7.html (in Japanese) (Accessed 29 Dec 2015).
11. Korean Ministry of Employment and Labor. The 4th Five-Year Plan for Industrial Accident Prevention (2015–2019). 2015.

Submit your next manuscript to BioMed Central and we will help you at every step:

- We accept pre-submission inquiries
- Our selector tool helps you to find the most relevant journal
- We provide round the clock customer support
- Convenient online submission
- Thorough peer review
- Inclusion in PubMed and all major indexing services
- Maximum visibility for your research

Submit your manuscript at
www.biomedcentral.com/submit

