

Healthy Environment Promotion Campaign in Healthy China Initiative

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Summary

On July 15, 2019, the State Council of China issued new guidelines for the implementation of the country's Healthy China Initiative (2019–2030) and for the promotion of population health across the nation. This article interprets Healthy Environment Promotion Campaign (HEPC) in the Healthy China Initiative from four main aspects—background, major indices, strategies, and features. Two outcome indices and four advocacy indices are proposed by the HEPC, and the strategies are mainly embodied at three levels: individual/family, society and government. The strategies have the following features: 1) the strategies are developed on the basis of scientific evidence; 2) the strategies advocate that citizens must be responsible for their own health; 3) the administrative impetus provided by the Chinese government to integrate health into all policies is an important driver for developing and implementing the HEPC; and 4) HEPC is not an isolated campaign, so it is necessary to coordinate all 15 campaigns in order to proactively and properly implement HEPC.

Introduction

On July 15, 2019, the State Council of China issued a new guideline to implement the country's Healthy China Initiative (2019–2030) and promote population health across the nation. With a focus on disease prevention and health promotion, the guideline has proposed 15 special campaigns to reduce risk factors, protect residents' health through the course of their entire lives, and prevent and control major diseases. An action plan for 2019–2030 (1) has also been made public, specifying the objectives and tasks of each campaign as well as the responsibilities of different sectors and stakeholders in the campaigns. The Healthy Environment Promotion Campaign (HEPC),

one of the fifteen special campaigns, focuses on major environmental factors affecting health.

Background of HEPC

Presently, China's environmental pollution problem is increasingly prominent due to the combined effects of rapid economic development, globalization, population growth, urbanization, and changing consumption behaviors. More than 1.7 million people aged 65 years and older in China in 2010 were estimated to have premature mortality related to PM_{2.5} exposure (2). Water, sanitation, and hygiene (diarrhea only) accounts for 2.5 disability-adjusted life years (DALYs) /1,000 capita/year, and the disease burden caused by environmental pollution accounts for about 21% of the total disease burden in China as estimated by the World Health Organization (WHO) (3). In addition, environmental factors can affect accidental and non-accidental injuries such as traffic accidents, drowning, and poisoning, which accounted for 7.0% of total deaths and 10.0% of all-cause DALYs in China (4) in 2017.

To deal with the severe environmental pollution problem, the National People's Congress revised and published a series of laws and regulations such as *Environmental Protection Law of the People's Republic of China* and *Law of the People's Republic of China on the Prevention and Control of Atmospheric Pollution* in 2014 and 2015, respectively. In 2013, 2015, and 2016, the State Council issued action plans for the prevention and control of air pollution, water pollution, and soil pollution, respectively. In 2016, the Chinese government held a national health conference and subsequently announced the Outline of the Healthy China 2030 Plan, in which building a healthy environment is one of the five key strategies. The National Health Commission (NHC), the Ministry of Ecology and Environment (MEE), and other relevant government departments have conducted in-depth

studies on the relationship between the environment and human health. The monitoring networks on air pollution, drinking water, and rural environmental health have also been established in all provincial-level administrative divisions (PLADs) to improve the capability of monitoring, detecting, preventing, and controlling environment-related diseases in China (5).

Although the government has played a leading role, the health of the society is inseparable from the combined efforts of all communities and members. Chinese citizens, who play a key role in HEPC, lack the necessary personal health protection awareness and knowledge (the residents' environmental health literacy rate was as low as 12.8% in 2018 as shown in Table 1), which makes it more difficult to solve environmental problems effectively. Thus, HEPC emphasizes not only the actions of the government but also the efforts of individuals, families, and the society overall.

Major Indices of HEPC

Two outcome indices are proposed by HEPC, as listed in Table 1.

In recent years, centralized water supplies have been fully achieved in Chinese cities, standard compliance of drinking water quality in urban and rural areas has reached about 80% and 70%, respectively, and the morbidity and mortality of water-borne diseases have been greatly reduced. However, nearly one third of China's water sources is of poor quality and cannot be used as drinking water, and water treatment facilities and processes are outdated. Therefore, ensuring drinking water safety, which is one of the 2030 United Nations Sustainable Development Goals (SDGs), is also one of the most important goals of HEPC.

Residents' environmental health literacy rate, which is the percentage of residents with environmental literacy (ability to read and understand environmental health information), is set to reach more than 15% by 2022 and 25% by 2030 given the baseline rate of 12.5% in 2018. Environmental health literacy is mainly related to residents' unhealthy lifestyle and is recognized as one of the most basic, cost-effective

measures to create a healthy environment and improve residents' overall health level.

Four advocacy indices are also proposed by HEPC including garbage classification, prevention and control of indoor air pollution, emergency response training, and improvement in the knowledge and capability of self-health protection. All the advocacy indices emphasize changing attitudes into action. Take garbage classification as an example: according to the *2019 Survey Report on Environmental Behaviors Among Chinese* (6) issued by the Ministry of Ecology and Environment of China, more than 90% of the respondents realized that garbage classification is important, but only about 30% of them thought that they had done it well, which indicates a major difference between perceptions and actions among Chinese residents.

Both the current state and progress of outcome and advocacy indices will be taken as the basis for monitoring and evaluation. The national committee for HEPC shall take the lead to carry out the overall monitoring and evaluation work at the national level, and all PLADs in China shall formulate their own plans for monitoring and evaluation at a local level.

HEPC Strategies

HEPC strategies are mainly embodied at three levels: individual/family, society, and government. There are seven strategies at the individual and family level: improve environmental health literacy, enhance clean environments, adopt a simple and healthy lifestyle, reduce indoor air pollution, increase awareness of outdoor health protections, avoid traffic accidents, and avoid drowning accidents.

There are six strategies at the societal level: create healthy and comfortable community environments, increase consciousness of environmental protection for enterprises, reduce damage caused by over-consumption, clean central air conditioning, reduce accidental injury in public buildings, and disseminate environmental health knowledge including regularly conducting emergency response training for natural

TABLE 1. Major outcome indices proposed by Healthy Environment Promotion Campaign.

Indices	Target date	
	2022	2030
1. Standards compliance of drinking water quality	Significantly improved	Continuously improved
2. Residents' environmental health literacy rate	≥15% Baseline rate:12.5% (2018)	≥25%

disasters and emergencies such as fires and earthquakes in schools, hospitals, and other densely populated places.

The HEPC has developed seven strategies for departments in the government, and each strategy is led by one or several departments as shown in Table 2.

Features of the Strategies

The strategies of HEPC have the following features:

Firstly, the strategies of HEPC are developed on the basis of scientific evidence. As 80% of global diseases are related to drinking water pollution and ambient particulate matter pollution is one of the four leading risk factors contributing to deaths and DALYs (7), the HEPC's strategies mainly focus on controlling health hazards associated with water and air quality, which is also in line with priorities of developed countries. For example, environmental quality was identified as an important factor and the Air Quality Index (AQI) was set as one of the 26 leading health indicators (8) in *Healthy People 2020*, which is the fourth ten-year plan on national health issued by the US Department of Health and Human Services (HHS). *Healthy People 2020* emphasizes six aspects—outdoor air quality, surface and ground water quality, toxic substances and hazardous wastes, home and communities, infrastructure and surveillance, and global environmental health.

Secondly, as the role of health services in the Healthy China 2030 blueprint is in the transition from basic disease treatment to prevention and health promotion, the strategies of HEPC advocate that citizens must be responsible for their own health. In the First World Health Promotion Conference held in Ottawa, Canada in 1986, five areas of action for health promotion were proposed, one of which was the

development of personal skills. In addition, the New Health Development Strategy formulated by the Japanese government in 2007 was focused on improving health literacy among their residents. The US government has also expected to reduce fiscal expenditure by improving national health literacy (9). Thus, China's strategy is consistent with international practices.

Thirdly, the HEPC strategy is in line with the concept of Health in All Policies (HiAPs) proposed by the WHO. HiAPs is a strategy that introduces goals that can be shared across all government departments, improves health outcomes among the population, and closes the health gap among different socio-demographic groups. For example, an increase in the density of footpaths and construction of bicycle lanes in cities has reduced the morbidity of hypertension, diabetes, and ischemic heart disease in the US (10). In China, as far as 2007, the *National Action Plan on Environment and Health* was jointly formulated and published by 18 ministries and commissions of the central government, and a leading group of national environment and health work, as well as a multi-sectoral cooperation mechanism in which each department promotes environmental health collaboratively, was established. HEPC is a continuation and development of the *National Action Plan on Environment and Health* with greater emphasis on individual and family responsibilities. The administrative impetus provided by the Chinese government to integrate health into all policies serves as a powerful driving force for HEPC.

Finally, HEPC is an independent but not isolated campaign as women, children, primary and secondary school students, and the elderly are more affected by environmental factors, which are also an important cause of the four chronic noncommunicable diseases,

TABLE 2. Healthy Environment Promotion Campaign strategies for the government.

Strategies	Leading Department
1. Formulate construction norms and evaluation indicators for healthy communities, workplaces (enterprises), and schools.	National Health Commission (NHC)
2. Establish environmental and health investigations, monitoring and risk assessment systems, and strengthen the construction of injury monitoring networks.	National Health Commission (NHC)
3. Prevent and control environmental pollution. Improve citizens' environmental and health literacy.	Ministry of Ecology and Environment (MEE)
4. Improve drinking water engineering facilities, urban public safety infrastructure, solid waste recycling facilities, and public fire-fighting facilities and improve emergency response capability.	8 Departments include: National Development and Reform Commission (NDRC), MEE, et.al.
5. Conduct life protection projects for traffic safety to reduce traffic injury accidents.	Ministry of Transport (MOT)
6. Create safety assessments and supervision of consumer products to improve the product injury monitoring and reporting system.	State Administration for Market Regulation (SAMR)
7. Research the health effects of compound pollution and health protection.	National Health Commission (NHC)

examples including cardiovascular and cerebrovascular diseases, cancers, chronic respiratory diseases, and diabetes, targeted by the *Healthy China Initiative (2019–2030)*, so it is necessary to coordinate all the 15 campaigns in order to proactively and properly implement HEPC.

Conclusion

The Chinese government has recently developed the Outline of the Healthy China 2030 Plan, in which building a healthy environment is one of the five key strategies. The Healthy Environment Promotion Campaign of Healthy China Initiative (2019–2030) is a continuation and development of the *National Action Plan on Environment and Health* with greater emphasis on individual and family responsibilities. The administrative impetus provided by the Chinese government to integrate health into all policies is an important driver for developing and implementing HEPC. A healthier China can be foreseen.

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