Healthy China

Legislative Status of Public-Access Cardiopulmonary Resuscitation — China, 2024

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ABSTRACT

Public-access cardiopulmonary resuscitation (CPR) ranks first in the "Prevention and Control of Major Diseases" section of the *Healthy China 2030 Initiative*. However, Chinese patients who have experienced out-of-hospital cardiac arrest (OHCA) are reported to have a survival rate at discharge of only 0.35%. This study explored the necessity of CPR legislation in China by comparing CPR-related legislation among four major global economies: the USA, China, Germany, and Japan. We searched for national, provincial, and major urban regulations in China and analyzed indicators related to public-access CPR. All four countries have laws supporting life-saving out-of-hospital interventions. However, unlike the other three countries, no national laws in China mention CPR, defibrillators, or cardiac arrest. China has only 23 local regulations across 67 provincial regions or major cities and no national regulations on pre-hospital emergency care. Among these 23 existing regulations, only 4.3% mention cardiac arrest, 39.1% mention CPR, 73.9% mention defibrillators, and none mention telecommunicator CPR. Moreover, 17.4% of these regulations do not include any of the legislative points appearing in the national laws of the three comparator countries. The current legislative status concerning public-access CPR is inconsistent with the position on CPR outlined in the *Healthy China 2030 Initiative*. We recommend initiating and accelerating a specialized *National Public-Access Cardiopulmonary Resuscitation Law* for China.

Sudden cardiac death, a fatal outcome of out-of-hospital cardiac arrest (OHCA), is widely recognized by the public. Cardiopulmonary resuscitation (CPR) performed by bystanders, typically laypersons, is prioritized as the first intervention in the "Prevention and Control of Major Diseases" section of the *Healthy China 2030 Initiative* issued by the State Council of the People's Republic of China (*1*). However, members of the public often hesitate to intervene in OHCA cases primarily due to fear of legal liability should adverse outcomes result from their CPR attempts (*2*–*3*). Despite over one million annual OHCA cases in China, reports indicate an alarmingly low bystander CPR rate of just 4.8%, with a survival rate at discharge of merely 0.35% (*4*–*5*). In contrast, developed countries such as Denmark achieve bystander CPR rates as high as 64.4% with a corresponding survival rate at discharge of 12.64% (*6*). Legislation appears to be a crucial strategy for improving OHCA survival outcomes. Nevertheless, studies examining legislation related to public-access CPR remain scarce.

In this study, we investigated the need for public-access CPR legislation in China by identifying relevant laws at the national level across the four countries with the highest total economic output in 2024 — the USA, China, Germany, and Japan — according to World Monetary Fund data. We also examined pertinent regulations issued by local legislatures in China before December 31, 2024.

METHODS

"Cardiopulmonary resuscitation," "defibrillator," "cardiac arrest," and "first aid" were selected as search terms. We searched the Ministry of Commerce of the People's Republic of China website for CPR-related laws in the USA, Germany, and Japan. For regulations on emergency care, we searched the official websites of Beidafabao (https://www.pkulaw.com/), the National Health Commission of the People's Republic of China, and legislatures at both national and provincial levels in regions or major cities. We recorded whether the terms "cardiopulmonary resuscitation," "defibrillator," and "cardiac arrest" were mentioned. We extracted and analyzed information relevant to performing out-of-hospital CPR, including exemption from liability for intervening and causing harm, accessibility of

automated external defibrillators (AEDs), training in CPR or use of AEDs, and telecommunicator CPR. Two researchers independently read and extracted the relevant information. When differences of opinion occurred, consensus was reached through discussion with a third researcher. We calculated the percentage of regulations that mentioned each item of interest. Chi-square tests were used to compare the percentages between provincial-level and non-provincial-level regulations. A P value of <0.05 was considered statistically significant.

RESULTS

All four countries have laws that support life-saving out-of-hospital interventions applicable to any individual nationwide (Table 1). The US *Cardiac Arrest Survival Act* specifically provides immunity regardless of whether the AED user complied with signage requirements, received training, or was supervised by a licensed physician. This legislation also limits liability for AED owners or acquirers in the event of harm resulting from its use. Unlike the other three countries, however, none of China's national laws mention CPR, defibrillators, or cardiac arrest. Both the USA and Germany have multiple laws that reference "cardiopulmonary resuscitation," particularly regarding layperson training. US legislation provides extensive CPR training coverage for the general public, volunteers, first responders, and firefighters, while German law incorporates CPR into vocational training. In the USA, both the *Public Health Service Act* and *Rural AED Act* regulate AED deployment in urban and rural areas. The US *Public Health Service Act* also includes cardiac arrest within its specific *Cardiac Arrest Survival Act*, a feature absent in the laws of other countries. Notably, the recent *US HEARTS Act of 2024*, which addresses cardiac emergencies in schools, comprehensively covers cardiac arrest, CPR, AEDs, and related training. Uniquely, Germany's *Criminal Code* was the only legislation identified that holds bystanders legally accountable for failing to intervene in an OHCA, stipulating that non-intervention may result in imprisonment or fines.

We did not identify any regulations on pre-hospital emergency care at the national level. Of the 23 local

TABLE 1. Comparison of societal first-aid legislation for cardiac arrest at the national level in the four major world economies, 2024.

Key legislative points included	the USA	China	Germany	Japan
Exemption from liability for saving lives and causing harm to others	Yes, as seen in the *Cardiac Arrest Survival Act* with exemption applying to any AED user receiving training or not, and the *Good Samaritan Statutes* implemented in all states across the country.	Yes, as seen in the *Civil Code* with exemption applying to anyone and the *Law for Medical Practitioner* with exemption applying to medical practitioner.	Although there is no direct provision, the *Criminal Code* mentions holding accountable to fold one's hands and see somebody die.	Yes, as seen in the *Civil Code* with exemption applying to anyone.
Cardiopulmonary resuscitation	Yes, as seen in the *Agricultural Act*, the *Rural AED Act*, the *National and Community Service Act*, the *Public Health Service Act,* the *HEARTS Act of 2024*, and the *Crime Control and Law Enforcement.*	–	Yes, as seen in the *Vocational Training Law,* the *Occupational Health and Safety Act,* and the *Maritime Law.*	Yes, as seen in the *Emergency Rescue Law.*
Cardiopulmonary resuscitation training for laypersons	Yes, as seen in the *Agricultural Act*, the *Rural AED Act*, the *National and Community Service Act*, the *Public Health Service Act,* the *HEARTS Act of 2024*, and the *Crime Control and Law Enforcement.*	–	Yes, as seen in the *Vocational Training Law,* the *Occupational Health and Safety Act,* and the *Maritime Law.*	–
AED configuration in public places	Yes, as seen in the *Public Health Service Act,* the *Cardiac Arrest Survival Act*, the *HEARTS Act of 2024*, and the *Rural AED Act.*	–	Yes, as seen in the *Barge Investigation Code.*	Yes, as seen in the *Law for Medical Practitioner.*
Cardiac arrest	Yes, as seen in the *Public Health Service Act,* the *HEARTS Act of 2024*, and the *Cardiac Arrest Survival Act.*	–	–	–

Note: Only laws at the national level are listed. The ranking of total economic output for each country is based on data published in 2024 by the International Monetary Fund.
"Yes" indicates that the term related to cardiopulmonary resuscitation in the far left column appears in the text of the relevant regulation.
"–" indicates unavailable.
Abbreviation: AED=automated external defibrillator.

regulations identified, seven applied to 20.6% of 34 provincial-level regions, including Hong Kong Special Administrative Region, China, Macau Special Administrative Region, China, and Taiwan, China, and 16 to 48.5% of 33 sub-provincial or provincial capital cities (Table 2). Ten (43.5%) of these regulations support life-saving interventions with exemption from liability, but none hold non-medical personnel accountable for not intervening; one (4.3%) mentions cardiac arrest, nine (39.1%) mention CPR, and six (26.1%) mention CPR training. Seventeen (73.9%) regulations mention defibrillators, all in the context of deploying AEDs in public places, but only eight (47.1%) mention AED training. Although seven regulations mention both CPR and AED, only four (57.1%) mention training for both, applying to Shanghai Municipality, Shandong Province, Hunan Province, and Ningbo City. The Hunan regulations include all the above-mentioned points. The Shanghai regulations, unlike US law, specify that only trained

TABLE 2. Regulations on pre-hospital emergency care issued by local legislatures of provincial regions or sub-provincial and provincial capital cities in China.

Administrative region	Implementing or updating year	Key legislative points included					
		Exemption from liability for saving lives and causing harm	CPR	CPR training	AED configuration in public places	AED training	Cardiac arrest
Provincial-level regions (7/34)							
Beijing	2021	–	–	–	Yes	–	–
Tianjin	2021	Yes	–	–	Yes	Yes	–
Shanghai	2020	Yes	Yes	Yes	Yes	Yes	–
Jiangsu	2022	–	–	–	Yes	–	–
Shandong	2025	Yes	Yes	Yes	Yes	Yes	–
Hunan	2020	Yes	Yes	Yes	Yes	Yes	Yes
Taiwan	2013	Yes	–	–	Yes	–	–
Sub-provincial cities or provincial capitals (16/33)							
Shenzhen	2019	–	–	–	Yes	–	–
Ningbo	2025	Yes	Yes	Yes	Yes	Yes	–
Taiyuan	2021	–	–	–	Yes	Yes	–
Shenyang	2023	–	–	–	Yes	–	–
Changchun	2010*	–	–	–	–	–	–
Nanjing	2022	Yes	–	–	Yes	–	–
Hangzhou	2015	Yes	Yes	–	–	–	–
Ji'nan	2021	Yes	Yes	Yes	Yes	–	–
Zhengzhou	2018	–	–	–	–	–	–
Wuhan	2013	–	–	–	–	–	–
Changsha	2015	–	Yes	–	–	–	–
Guangzhou	2023	–	Yes	Yes	Yes	Yes	–
Nanning	2021	–	–	–	–	–	–
Chengdu	2017	–	–	–	Yes	Yes	–
Guiyang	2021	–	Yes	–	Yes	–	–
Xi'an	2021	Yes	–	–	Yes	–	–

Note: Thirty-four provincial-level regions include 31 provinces, autonomous regions, and municipalities directly under the central government, as well as Hong Kong Special Administrative Region, China, Macau Special Administrative Region, China, and Taiwan, China. Thirty-three major cities include 15 sub-provincial cities (10 of which are provincial capitals) and 18 other provincial capital cities.
"Yes" in the table indicates that text related to cardiopulmonary resuscitation appears in the relevant regulation and is recorded. None of the regulations mention accountability for not intervening to save a life outside of hospital. The asterisk indicates that recommendations in a 2024 document soliciting opinions on relevant regulations have not been implemented.
"–" indicates unavailable.
Abbreviation: CPR=cardiopulmonary resuscitation; AED=automated external defibrillator.

individuals can use AEDs. The Shandong and Ningbo regulations mandate CPR training across multiple industries. For example, Ningbo City requires more than 20 departments and industries, including education, public security, civil affairs, transportation, emergency, cultural and sports tourism, comprehensive law enforcement, and fire rescue services, to provide compulsory CPR training. Furthermore, CPR and AED are included in documents soliciting opinions regarding relevant regulations in Changchun City and Harbin City circulated in 2024.

Overall, China's local regulations on public-access CPR as part of pre-hospital emergency care have not reached the level of national legislation in the three comparator countries, as shown in Table 1. Four (17.4%) of the 23 local regulations do not include any of the key legislative points listed in Table 1 and Table 2; the remaining regulations (82.6%) are less than ideal and only apply to 28.4% of the regions in China. As shown in Figure 1, the frequency with which each point appears in the regulations is low, being only 4.3% for cardiac arrest and 39.1% for CPR. When comparing provincial-level regulations with non-provincial-level regulations, we found that the percentage of provincial regulations mentioning key legislative points was non-significantly better than that of non-provincial regulations. However, 100% (7/7) of provincial-level regulations mention AED and 57.1% (4/7) mention AED training, markedly higher than the respective values of 62.5% (10/16) and 25.0% (4/16) in non-provincial-level regulations. Notably, none of the regulations mention telecommunicator CPR.

DISCUSSION

This study reveals substantial disparities between CPR-related laws and regulations in China compared to economically comparable countries. It is important to note that our analysis focused exclusively on laws and regulations issued by legislatures that apply to all citizens nationwide or within specific provinces or cities. Pre-hospital emergency regulations issued by the Health Commission in conjunction with other departments to regulate industry behavior, such as the 2020 national guidance on pre-hospital emergencies issued by nine governmental sectors (*7*), were not included in this analysis.

A significant gap exists between China's national laws and those of developed countries. Our previous research identified four national laws in China related to out-of-hospital emergency care: the *Civil Code*, *Primary Health Care, Medicine and Health Promotion Law*, *Law for Medical Practitioners*, and *Law of the Red Cross Society* (*8*). However, none of these laws explicitly

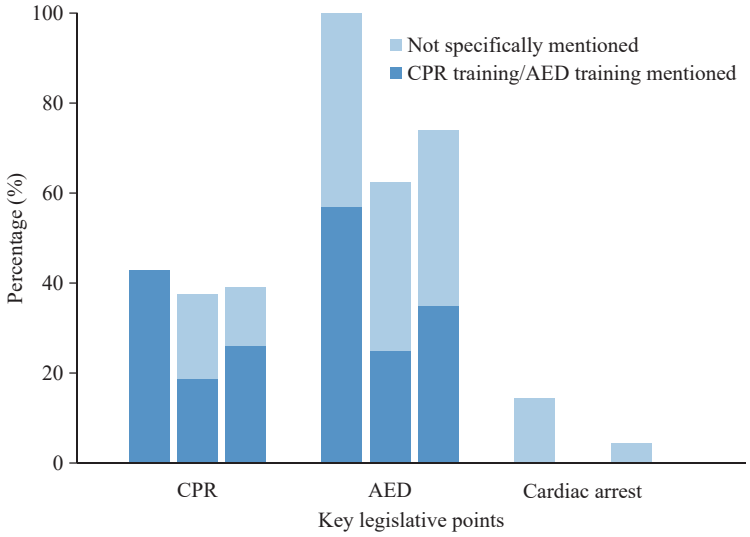

FIGURE 1. Percentage of each key legislative point relevant to public-access cardiopulmonary resuscitation in regulations issued by local legislatures in China.
Note: Twenty-three regulations were analyzed, including seven identified in 34 provincial-level regions including Hong Kong Special Administrative Region, China, Macao Special Administrative Region, China, and Taiwan, China and 16 identified in 33 sub-provincial cities or provincial capitals. The clustered columns represent provincial, non-provincial, and total levels in sequence. There were no statistically significant differences between provincial-level regulations and non-provincial-level regulations. None of the regulations mention telecommunicator CPR.
Abbreviation: CPR=cardiopulmonary resuscitation; AED=automated external defibrillator.

mention CPR, cardiac arrest, or defibrillation, in stark contrast to the USA and Germany, which have multiple laws addressing these topics. Furthermore, China lacks legislation comparable to Japan's *Emergency Rescue Law*.

Another critical gap exists between China's pre-hospital emergency regulations and the requirements emphasized in the *Healthy China 2030 Initiative*. Research has established a clear linear relationship between bystander CPR rates and OHCA survival rates (*9*). Following implementation of the *Shenzhen Emergency Management Regulation*, Shenzhen City experienced a several-fold increase in bystander CPR rates accompanied by improved OHCA survival rates (*10*). Despite this evidence, only a few provinces and major cities have enacted similar regulations. Even among existing local regulations, only a minority mention CPR, which contradicts the *Healthy China 2030 Initiative's* designation of CPR as a top priority. Additionally, telecommunicator CPR, which authoritative societies recommend as an effective strategy for increasing bystander CPR opportunities, is currently absent from regulations governing emergency medical services in China.

There is also a significant gap between the provisions of our pre-hospital emergency regulations and the demand for emergency interventions in cases of OHCA. Pre-hospital emergency regulations vary markedly from region to region in China, and factors that are conducive to improving the OHCA survival rate are not well covered. These regulations should ideally include exemptions from liability when these interventions are implemented, recommendations for CPR and AED training, provision of AEDs, and mention of cardiac arrest. Currently, the regulation closest to the ideal is the one applying to Hunan Province; however, this regulation does not mandate individual responsibility for CPR training or implementation of life-saving measures outside hospital. Even though the *Civil Code* already provides for exemption from liability, only a minority of the existing regulations include both CPR and AED as the two core elements for restarting the heart.

There is a trend of legislation on public-access CPR at the national level in developed countries such as the USA and Denmark. For example, mandates for education on CPR and AED have been present since 1984 in the USA. As of December 31, 2020, 39 of US 50 states and the District of Columbia required CPR and AED training for high school students, while the remaining states had no such legislation. States with laws enacted that require CPR training in high schools have higher rates of bystander CPR, including bystander CPR with AED use and bystander CPR with no AED use, following OHCA (*11*). Since December 28, 2024, education on CPR and AED is being made mandatory in the USA following the passing of the *HEARTS Act of 2024*. This legislation is the most comprehensive and targeted effort concerning OHCA to date in the four countries. In Denmark, there is also a CPR-education-related law but it was issued in 2005 (*12*).

We also found that CPR is often mentioned in multiple laws not concerning pre-hospital care in other countries. In October 2024, a draft of the *Emergency Law for Sudden Public Health Events* was solicited for revision of opinions from the public. We propose the following amendments to this law. First, the definition of sudden public health events should include cardiac arrest. Second, CPR as the most important life-saving measure should be included; for example, the legislation should explain clearly that civil servants have a responsibility to implement life-saving measures such as CPR when needed and underscore CPR as a fundamental skill that should be mastered by all civil servants, including government officials, police officers, teachers, and doctors. Third, text regarding exemption from liability when intervening with life-saving measures, referring to Article 184 of the *Civil Code*, should be included. Fourth, the need for availability of AEDs in public places should be underscored. Fifth, the bystander CPR rate can be increased by strengthening of public awareness and resuscitation skills for cardiac arrest, which can be activated by a 1-2-0 telecommunicator in emergency situations.

Finally, we suggest introducing a specialized *National Public-Access Cardiopulmonary Resuscitation Law of the People's Republic of China*. In this study, owing to the limited number of existing local regulations, we could not detect statistically significant differences in local regulations between provincial level and non-provincial level. However, it is evident that the legislative level of the former is higher than that of the latter. We believe that national public-access CPR legislation in China will lead to very effective life-saving measures. The purpose of this legislation would be to improve the likelihood of survival after OHCA by increasing the rate of bystander CPR. The legislative content should include exemption from liability for attempting to save lives with CPR and AED but causing harm to others, education and public training on CPR and AED, and deployment maintenance of an

AED. This law could resolve the difficult problem of individuals not willing to save, not daring to save, or not being able to somebody's life by implementing CPR or using an AED.

CONCLUSIONS

Current legislation concerning public-access CPR in China is inconsistent with the position outlined in the *Healthy China 2030 Initiative*. A specialized *National Public-Access Cardiopulmonary Resuscitation Law* should be initiated and accelerated in China. We will continue to monitor public-access CPR legislation at both national and local levels.

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