

Occupational health needs in workplaces following disasters

	Emergency response phase	Stabilizing work phase	Restoration planning phase	Reoperation preparation phase	Reoperation phase	Seasonality
Lifelines, food and shelter		<ul style="list-style-type: none"> Procure foods and water. Confirm hygiene condition of water, lavatory and other area. Secure residence of supporter and spaces for a nap. Prescribe necessary medicines temporarily. Keep office environment comfortable. Manage relief supplies. 				
Information for OH services	<ul style="list-style-type: none"> Collect information what happens. 	<ul style="list-style-type: none"> Collect information what happens through various routs. Report the health condition of employees to management and line managers. Clarify and inform employees how to access health consultation. Establish a system to share information among OH staffs and with related departments. 	<ul style="list-style-type: none"> Consulte specialists on appropriate range and methods of stress care. Report the health condition of employees to management and line managers. Held explanation session on health consultation by the occupational physician. 	<ul style="list-style-type: none"> Consulte specialists on appropriate range and methods of stress care. 	<ul style="list-style-type: none"> Develop hazard maps at the workplace. Reflect the activities at the disaster and share lessons learned. Review and revise emergency response manual. 	
Infrastructure of OH services	<ul style="list-style-type: none"> Make an emergency call to occupational health staffs. Secure safety of OH staffs. Provide emergency medicine services. 	<ul style="list-style-type: none"> Replenish medicines and materials in the clinic. Provide medical treatment at the clinic on holidays. Secure safety of the clinic. 	<ul style="list-style-type: none"> Provide safety and hygiene trainings for supporters from other sites. Replenish medicines and materials in the clinic. Share necessary roles among OH staffs. Increase counselors for metal health care. Start consultation to neighbors. 	<ul style="list-style-type: none"> Provide safety and hygiene trainings for supporters from other sites. Secure specialists for mental health care. Modify service provision of occupational physicians based on needs. 	<ul style="list-style-type: none"> Secure staffs to deal with increasing needs of health mental and physical health care. 	
Work environment	<ul style="list-style-type: none"> Give advices on hazardous materials at the site to employees and supporters from other sites. 	<ul style="list-style-type: none"> Give advices on hazardous material at the site to employees and supporters from other sites. Support workers at the site from the industrial hygiene aspect. Provide information on hazards in the workplace to fire department. 		<ul style="list-style-type: none"> Prevent workers who are engaged in restoration work from exposure of hazards. 	<ul style="list-style-type: none"> Provide routine industrial hygiene programs. 	<ul style="list-style-type: none"> Prevent heat illness during hot season.
Direct victims and employees exposed to health hazards	<ul style="list-style-type: none"> Confirm seriously injured employees and take them to the hospital. Communicate with hospitals where injured employees have been hospitalized. Provide first-aids to slightly injured employees and refer them to hospitals. Confirm death of a victim and issue a certificate of a post mortem examination. 	<ul style="list-style-type: none"> Take care of physical or mental complaints of victims. Make a list of hospitals that victims have been hospitalized and keep in close contact with them. 	<ul style="list-style-type: none"> Take care of anxiety among employees who encountered the disasters. Provide mental health care of victims. 	<ul style="list-style-type: none"> Take care of anxiety among employees who encountered the disaster. Take care of employees who have PTSD symptoms. Support direct victims so that they can have appropriate treatment. 	<ul style="list-style-type: none"> Follow up direct victims who returned to work. Support direct victims so that they can have appropriate treatment. Provide counseling services by occupational physicians. Consider work accommodation for employees based on damages by the disaster. 	
Employees coping with arising issues		<ul style="list-style-type: none"> Take care of employees who deal with complaints from neighbors. Take care of employees who are interviewed at press conferences. Take care of employees who are in charge of care of victims and their families. 	<ul style="list-style-type: none"> Take care of employees who deal with complaints from neighbors. Take care of employees who are interviewed at press conferences. Take care of employees who are in over duty for cause analysis of disasters. Take care of employees who are engaged in respond works. Take care of employees who are in charge of care of the bereaved families. 	<ul style="list-style-type: none"> Take care of employees who deal with complaints from neighbors. Take care of employees who are in over duty for cause analysis of disasters. Take care of employees who are in charge of care of the bereaved families. 	<ul style="list-style-type: none"> Take care of employees working for long hours. 	
Employees involved in the causes of the disaster		<ul style="list-style-type: none"> Take care of employees who are responsible for the disasters. Provide stress cares to employees who are questioned by governmental authorities. 	<ul style="list-style-type: none"> Take care of employees who are responsible for the disasters. Provide stress cares to employees who are questioned by governmental authorities. 	<ul style="list-style-type: none"> Provide stress cares to employees who are questioned by governmental authorities. 	<ul style="list-style-type: none"> Take care of employees who may be committed for trial. 	
Vulnerable people		<ul style="list-style-type: none"> Support employees who need special medical treatment. Take care of employees who are close with direct victims. Take care of families of victims. Take care of new employees who were assigned to the site just before the disaster. Take care of employees with experience of a big disaster who are in poor health. 	<ul style="list-style-type: none"> Take care of employees who are close with direct victims. Take care of families of victims. Take care of employees who have past history of mental illness. Take care of employees who were moved from the site concerned and have past history of mental illness. 	<ul style="list-style-type: none"> Take care of health of employees who have had an experience of a severe disaster. Take care of families of victims. 		
General employees		<ul style="list-style-type: none"> Screen employees with high risk of mental health disorders. Screen employees with high risk of cerebral and cardio-vascular diseases. Take care of employees who are worried about continuity of the workplace. 	<ul style="list-style-type: none"> Make field rounds to check health conditions of employees. Apply screening test on mental health to all employees. Make health counseling for employees and select those who needs follow up. Make a training for managers on mental health care by line managers. Take care of employees who are worried about continuity of the workplace. 	<ul style="list-style-type: none"> Send health information with company magazines. Plan a mental health program which is requested by managers. Apply screening test on mental health to all employees. 	<ul style="list-style-type: none"> Apply screening test on mental health to all employees. Make general health education. 	<ul style="list-style-type: none"> Implement programs against pollinosis. Implement programs against influenza. Implement programs to prevent food poisoning.

Phase classification for disasters developed in this study



Emergency response

In the phase, give the highest priority to rescue of victims, and make every effort to restore safety of the workplace. Crisis management organization is usually activated.

Phase classification for disasters developed in this study



Stabilizing work

In the phase, collect information on what has happened and how much the damage is, and stabilize the workplaces and workers. Governmental authorities, such as police, fire department, start the investigation. The first session of press conference is usually held.

Phase classification for disasters developed in this study



Restoration planning

In the phase, analyze causes of the accidents, and discuss how to prevent the recurrence and when the operation is restarted. Communication with family of victims and neighbors is continued. Manager and workers involved are often interviewed by governmental authorities.

Phase classification for disasters developed in this study



Reoperation preparation

In the phase, conduct necessary works for reoperations, such as reconstruction, several actions to prevent recurrences, application to local governments. Compensation to victims or neighbors is often negotiated. Injured workers may return to the work.

Phase classification for disasters developed in this study



Reoperation

In the phase, operate business as usual with some improvement. Some managers who were responsible for the disaster may be reprimanded or be committed for trial.

Phase classification for disasters developed in this study



Seasonality

Related with seasonal factors, such as temperature, humidity, grow of plants.

Categories of occupational health needs in this study

Infrastructure

- A. Lifelines, food and shelter
- B. Information for OH services
- C. Infrastructure of OH services

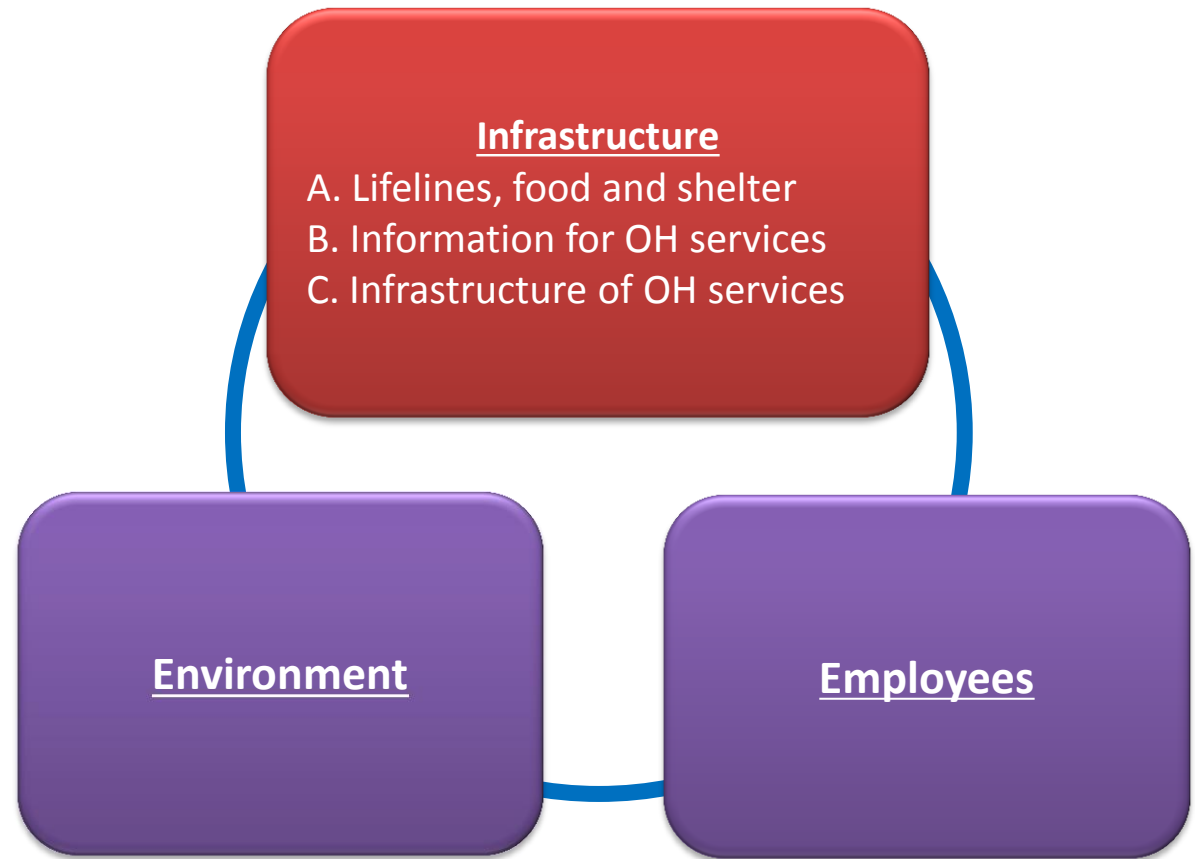
Environment

- D. Work environment

Employees

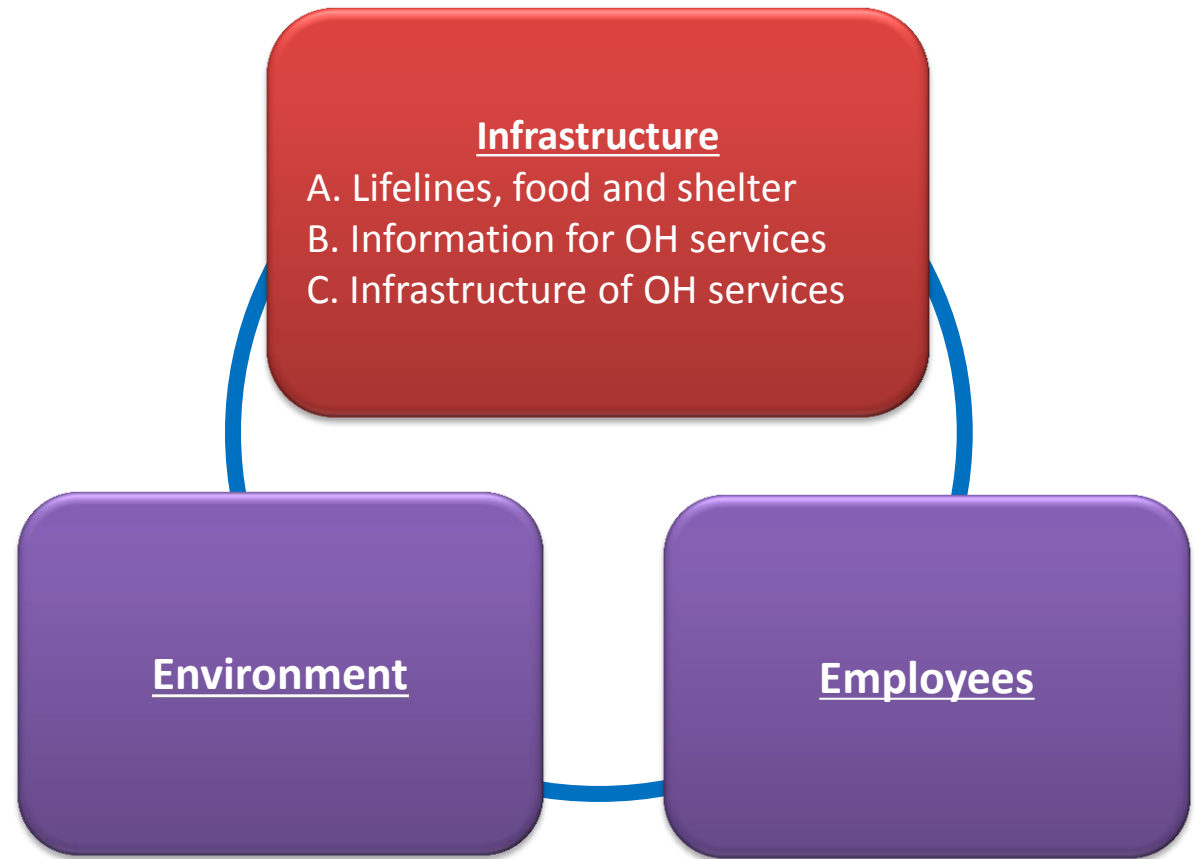
- E. Direct victims and employees exposed to health hazards
- F. Employees coping with arising issues
- G. Employees involved in the causes of the disaster
- H. Vulnerable people
- I. General employees

Categories of occupational health needs in this study



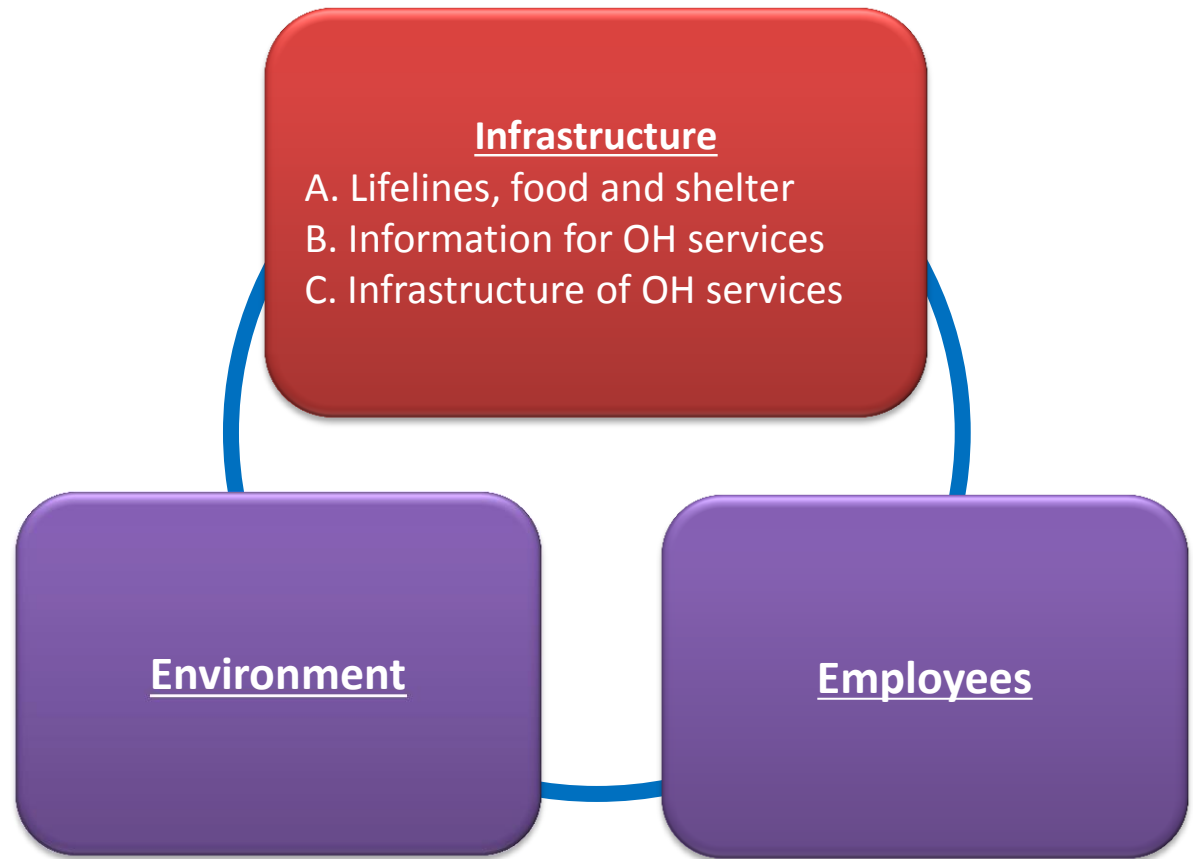
A. Lifelines, food and shelter: Stop of lifelines such as supply of electricity, water and gas may affect health condition of employees. In addition, securing foods, cloths and shelters are also important to maintain their health at the early phases of disasters.

Categories of occupational health needs in this study



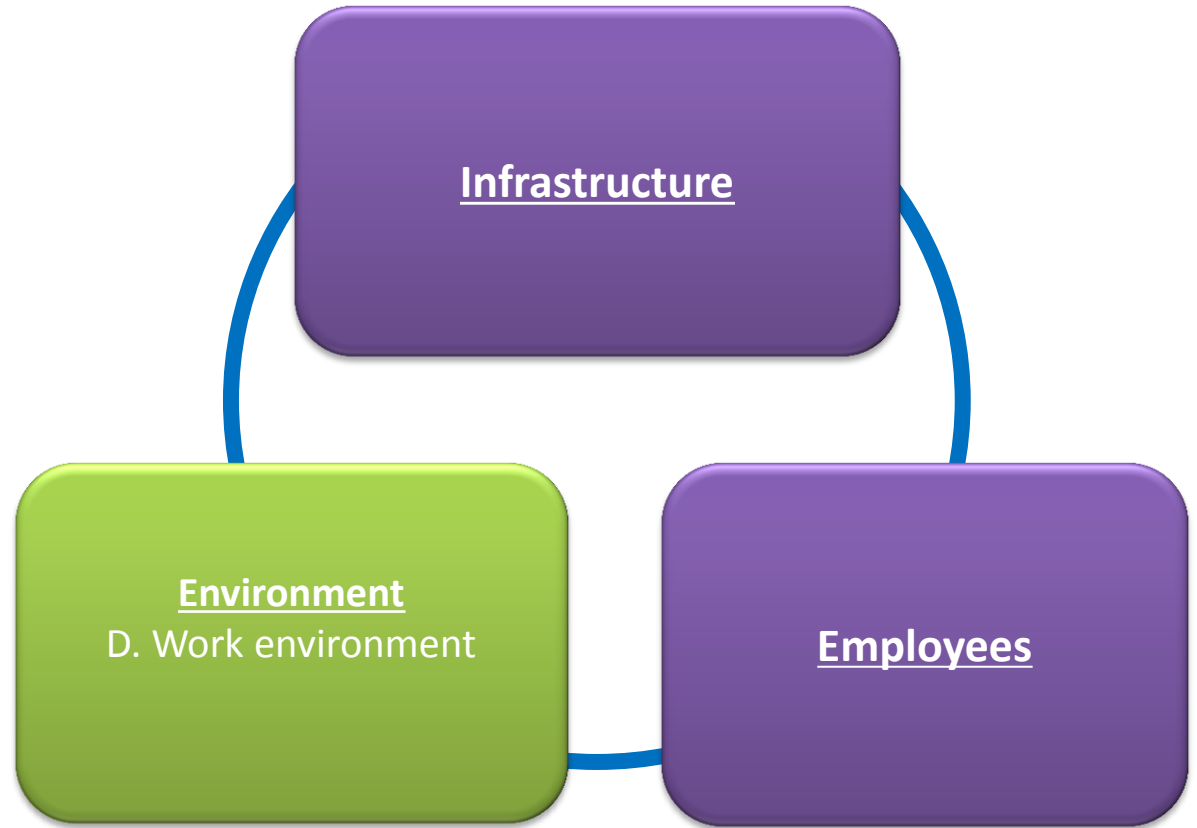
B. Information for OH services: Occupational health staffs need various information from inside and outside of the site to provide support to employees timely and appropriately. In addition, their experiences should be recorded to improve the emergency response plan.

Categories of occupational health needs in this study



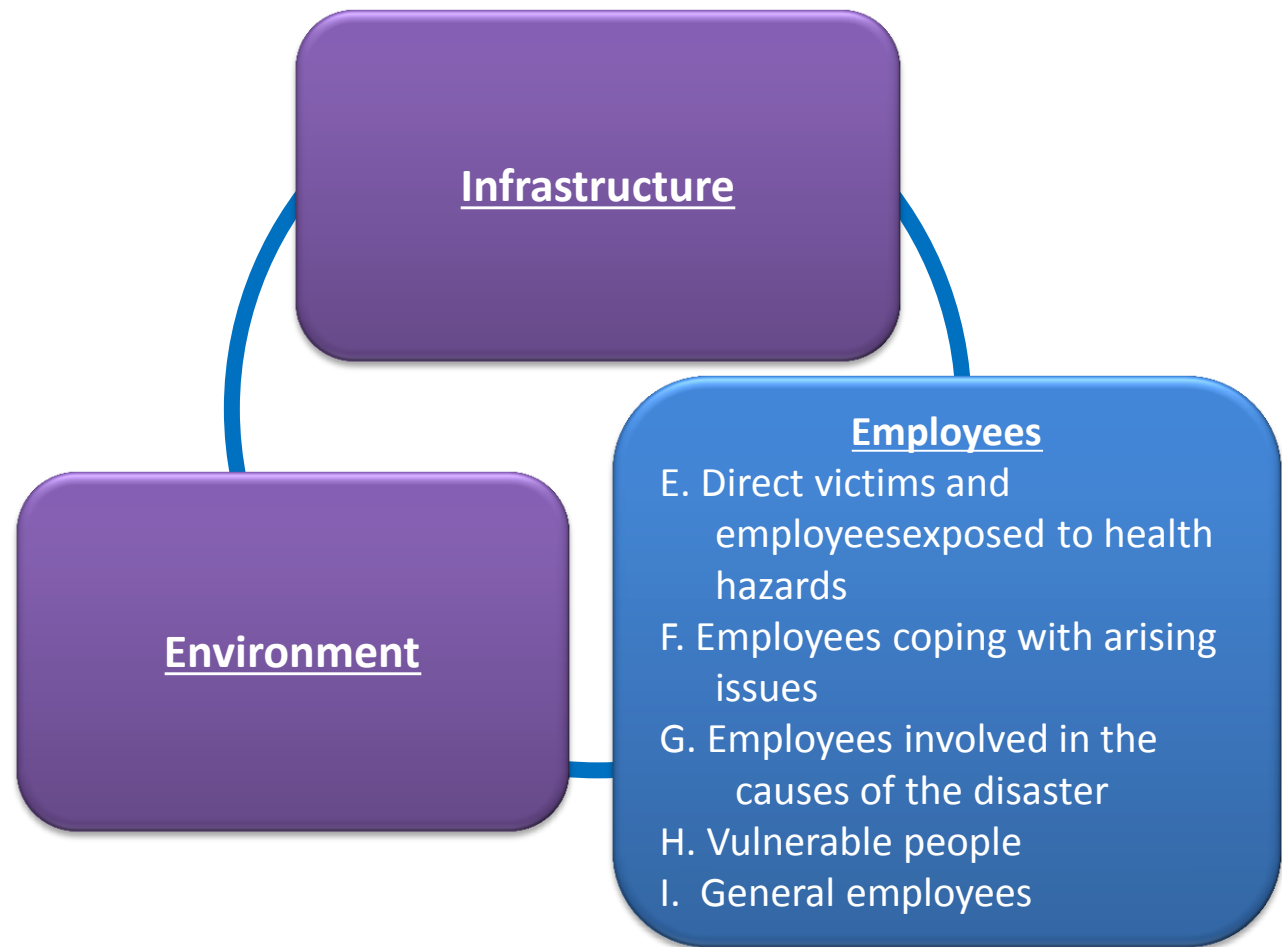
C. Infrastructure of OH services: In order to provide effective supports based on the existing needs, occupational health departments secure inside staffs, outside experts, materials and service sites.

Categories of occupational health needs in this study



D. Work environment: Occupational health can contribute to prevent workers from health hazard exposures.

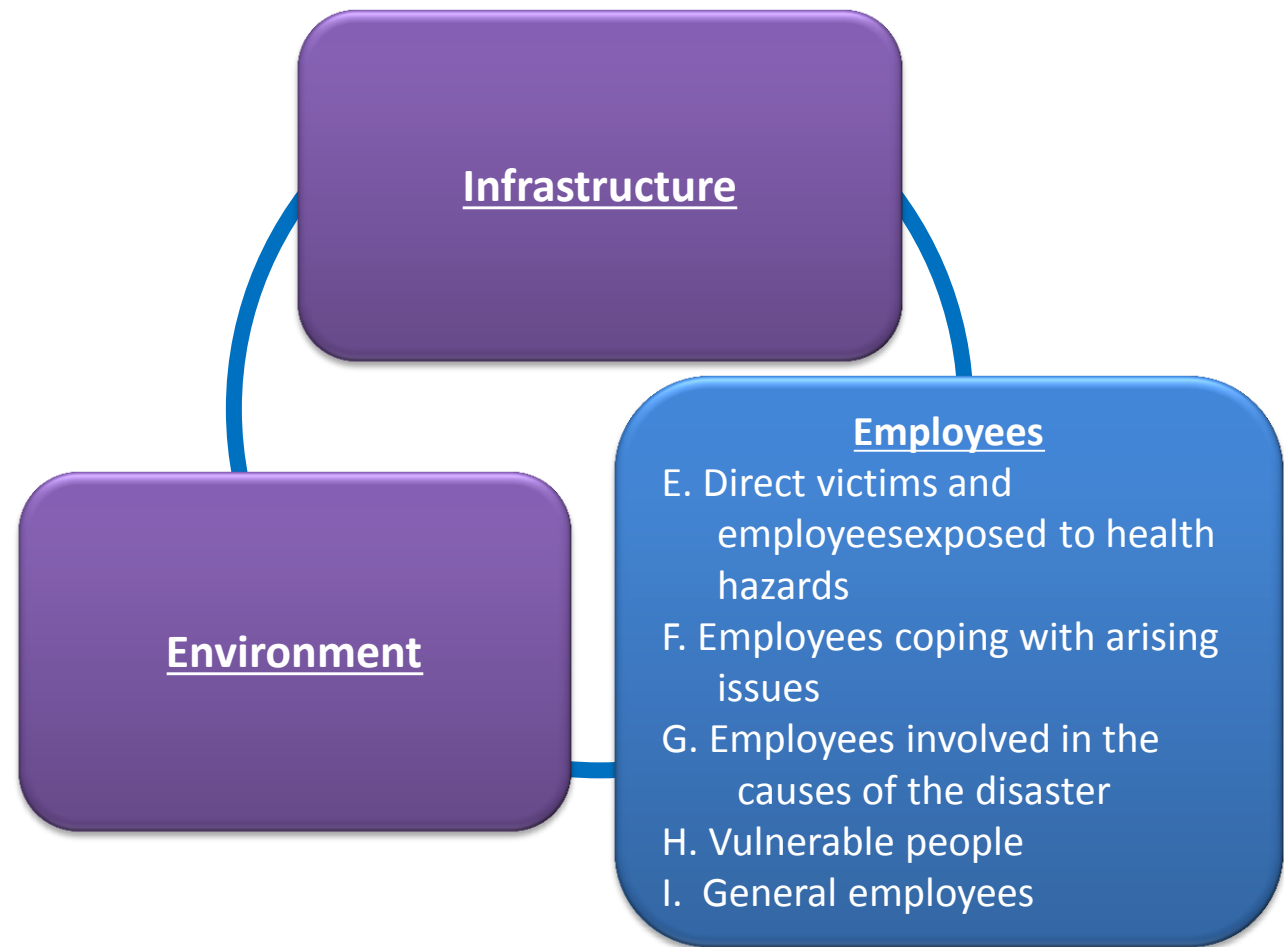
Categories of occupational health needs in this study



E. Direct victims and employees exposed to health hazards:

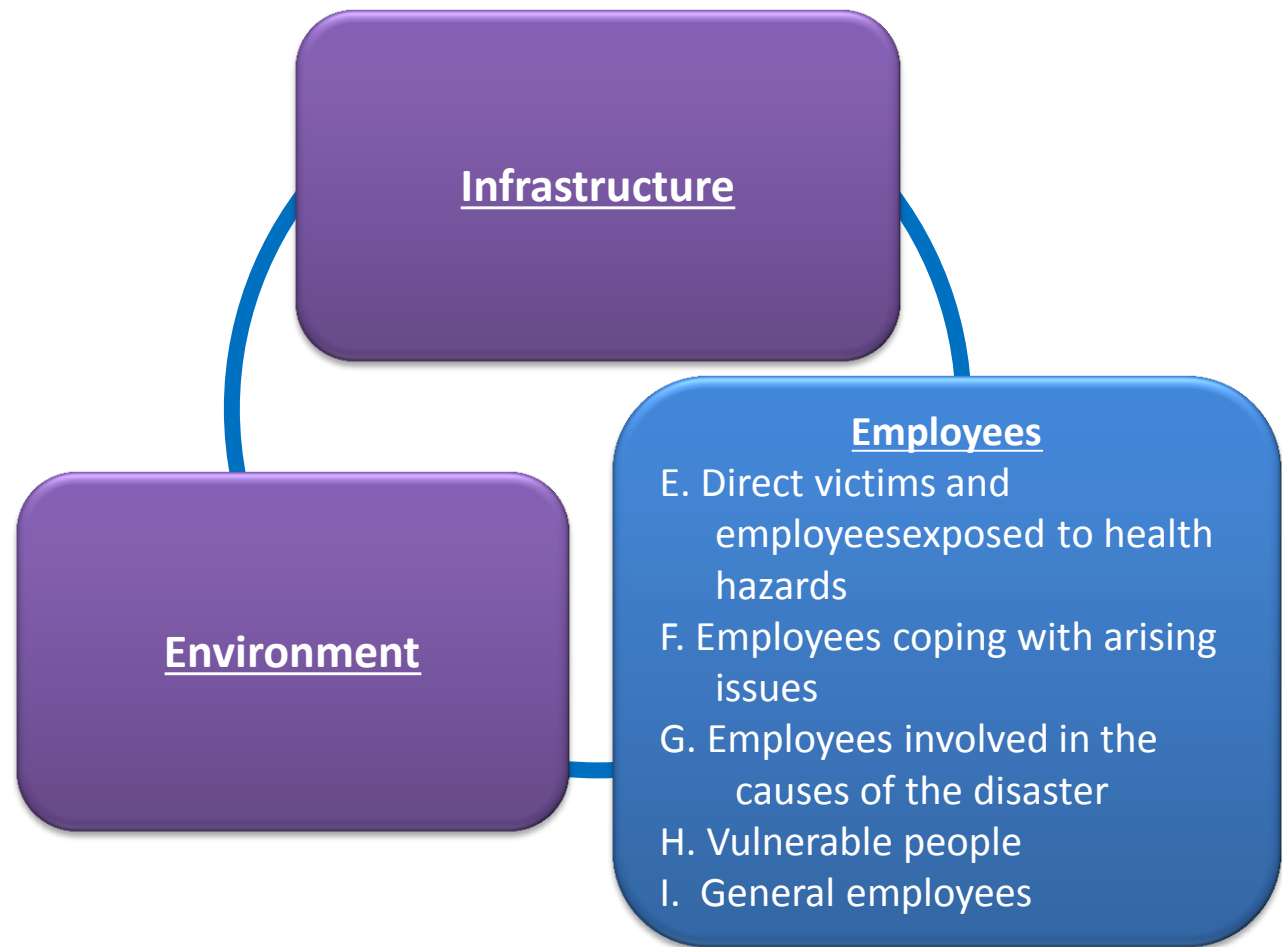
Employees who encountered the disasters directly or indirectly needs occupational health supports. This category includes the needs for employees who were injured and were exposed to physical health hazards or traumatic stresses. Health care for responders is included in the category.

Categories of occupational health needs in this study



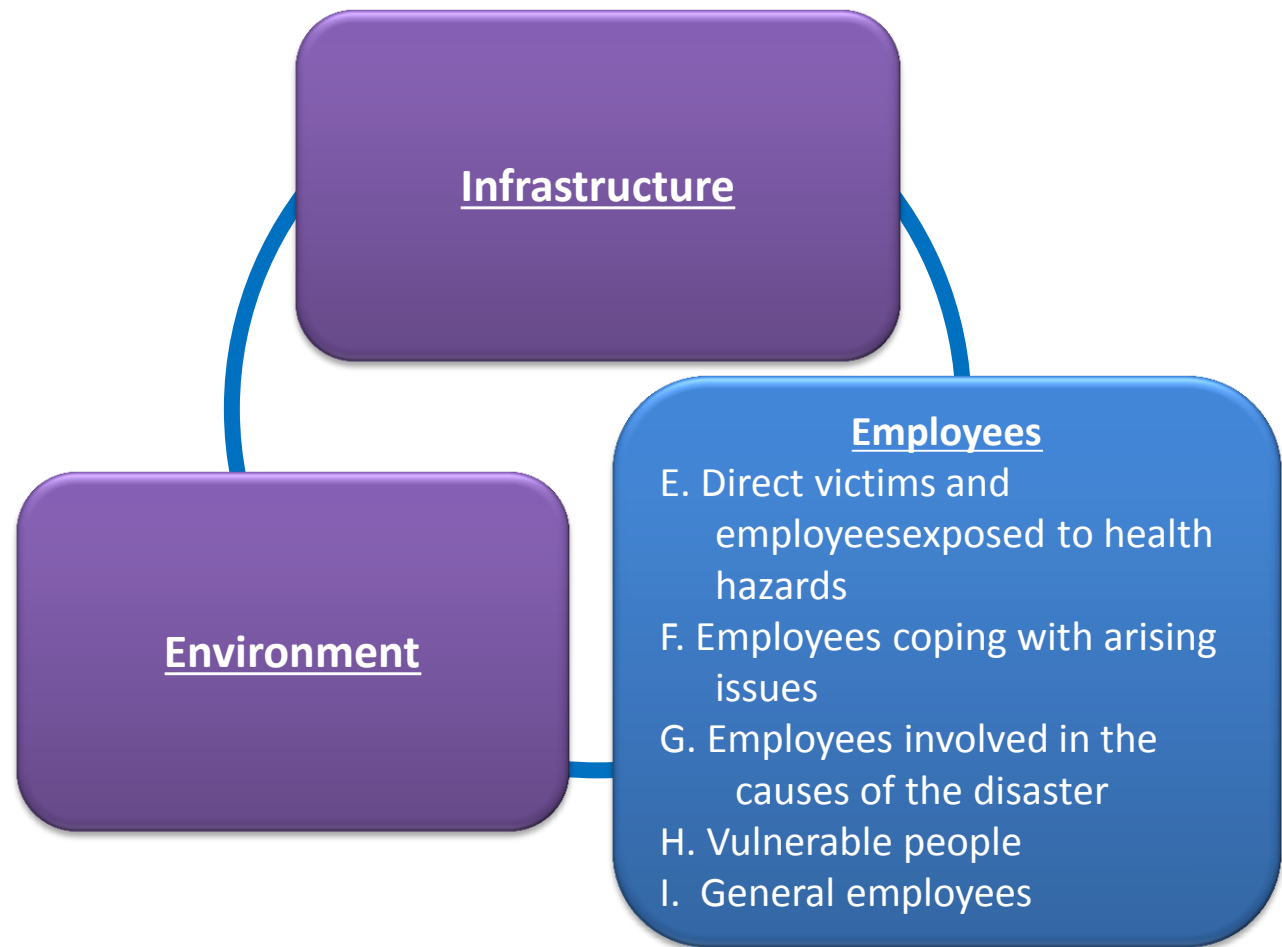
F. Employees coping with arising issues: Employees in the emergency response team are exposed to various types of health hazards including traumatic stress. Some employees are assigned to communication with neighbors and the media. Employees in the general affair department usually take care of families of direct victims.

Categories of occupational health needs in this study



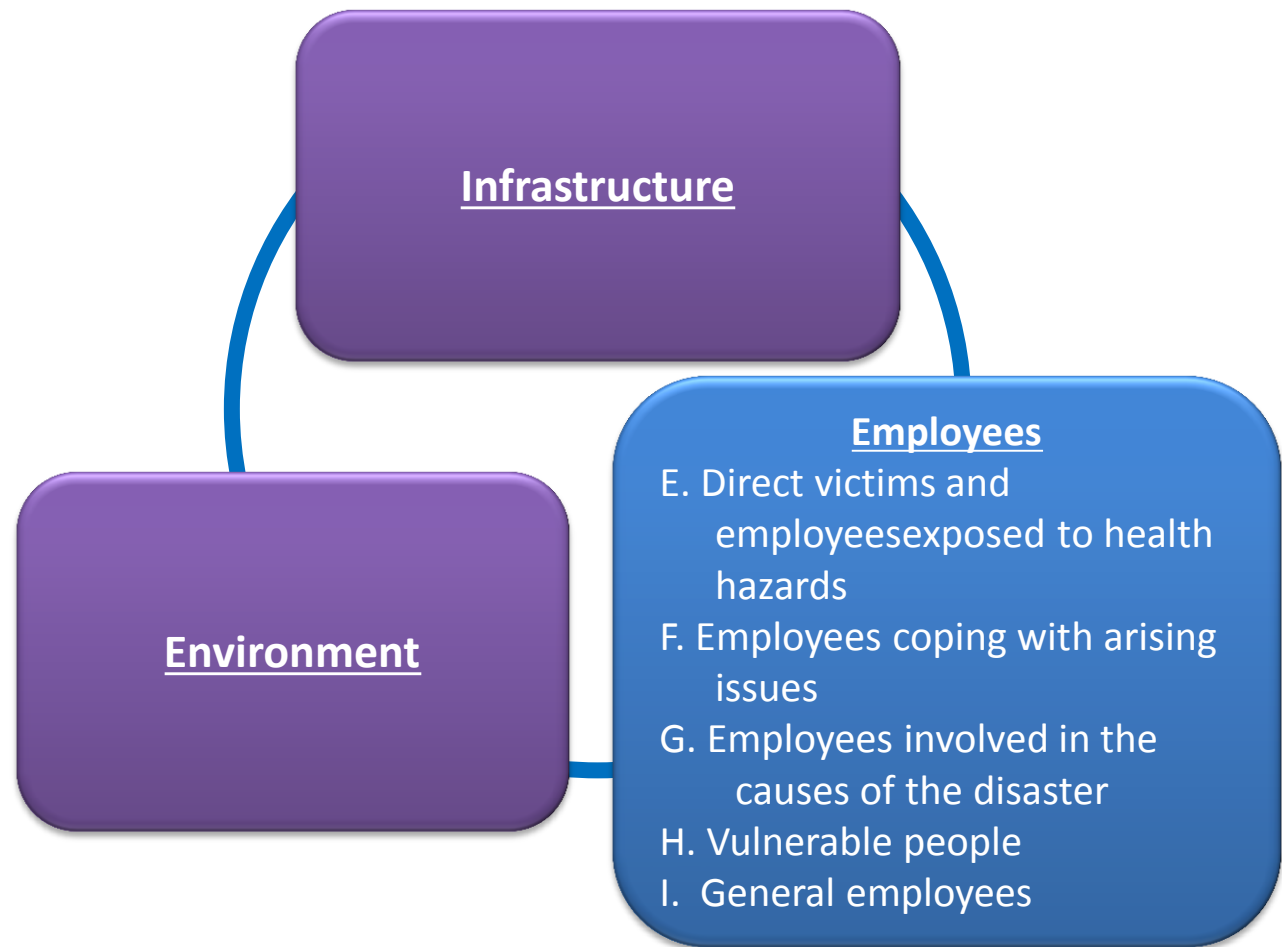
G. Employees involved in the causes of the disaster: Employees who were responsible for the disaster and were involved in the causes often suffering from significant stresses. Some of them are interviewed with governmental authorities, such as police.

Categories of occupational health needs in this study



H. Vulnerable people: Some groups of employees are vulnerable to the stress at disasters. They include employees who have history of mental health disorders and who were close friends with direct victims. The family of victims is also included in the category.

Categories of occupational health needs in this study



I. **General employees**: Some occupational health needs for general employees as well as specific groups arise.