Module 3: SLP#3: Incident Command System; Principles and Features Part 1;

Mitigation and Risk Reduction

Emergencies and Disasters

 MHE511: Emergency Operations

**Introduction**

 Risk mitigation refers to the identification of ways or means to execute a strategy with less risk. Risk reduction is the process of identification of ways with the main aim of eliminating the risk. In addition, risk reduction comprises both risk avoidance and risk mitigation. A good example of mitigating risk is whereby an airline improves its maintenance procedures. Moreover, through ceasing flights, an airline avoids or else reduces risks. Risk mitigation suggests that one is proceeding with activities to make s risk less risky. On the other hand, risk reduction entails possibilities that an activity is avoided altogether because it is extremely risky.

**People Responsible For The Direction and Control of The Disaster Operations**

Disaster control refers to all measures set aside by a responsible authority to deal with a disaster once it occurs. Risk reduction encompasses both risk mitigation and risk avoidance. In this case, basically, the accountability for disaster response rests the central and local governments (Kippnich et al., 2017). Those in authority must achieve risks to health and safety by eradicating risks as much as is sensibly practicable. Employers are still included in prevention and risk management as well as disaster control. Those that are aware of different situations and responsible for stopping and managing risks include employers. However, in cases where the community authorities are unable to control disasters, the central government should support these authorities by providing logistical, financial support where necessary. Basically, the accountability for calamity reply settles with national and local governments; the federal role complements that of localities and the state. When a disaster devastates national and local governments, Federal Emergency Management Agency (FEMA) organizes the responses of 26 federal agencies and the Red Cross. However, the agency mainly assigned to get ready and adhere immediately disasters that result from nature is the National Disaster Risk Reduction and Management Council.

**Criteria For Determining The Lead Position During An Emergency**

Moreover, making a decision is one of the key responsibilities concerning disaster management. A decision-making progression can be assisted through various models like multi-criteria models, which discourse difficulties whose purposes need a universal and complete understanding of the condition. Among the likely perceptions of the study, there is proof of identity of measures applicable to making a decision. In that logic, this essay talks about the measures and significant features that must be lectured through a multi-criteria perfect for managing hazard, definitely regarding moving and impermanent covering the populace facing a calamity (Stepinska et al., 2020). Quantitative as well as qualitative features were recognized, adding up to 10 criteria. These measures and their core measures remained hierarchically organized. Pure communication, full training, the familiarity of assets, technology fail-safes and procedures, and health leadership participation are the criteria that can be established for determining the lead position during an emergency. However, physical planning measures can be established to reduce disasters and make it easy when managing a disaster.

These measures include; elements at risk that should be decentralized, population density control, design of services and roads or else infrastructure, and land use regulation. In addition, still, there are economic actions. These economic actions include; modification of financial activity, financial inducements (taxes, loans, grants), and insurance. Otherwise, tutoring and training, study, technical proficiency, and firming up the local government's ability are also management actions that can control and reduce the disaster. Still, their social measures can be used in disaster control. These societal measures include; public awareness rallies, education, de-sensationalize dangers, community engagement, and drills. Stronger personal structures and risk control structures (flood control, levees, dams) are some of the engineering and construction measures or criteria set aside in disaster control. The main aims of mitigation are saving lives, decreasing financial disruption, reducing vulnerability rise capacity, and reducing conflict levels.

**Methods of Communication During An Emergency**

Furthermore, frequent, honest communication is the most significant part of disaster or emergency preparedness. Several methods can be used in communication in case of an emergency. Social media aids users who are settled within a certain distance exist to log in and update friends to be safe and check to see if their friends have verified safety. Mobile applications (Apps) can also help in settling an emergency or disaster. For instance, life360 and FEMA are free apps that identify a definite user's location and as well contain a messaging service feature (Walton, et al.,2020). However, these mobile applications give users preparedness and advice such as survival advice, emergency checklists, and meeting places that can be saved to a mobile device. These mobile apps give the users access to weather alerts With this information, handlers can retrieve updates on disaster recovery centers and relocate and seek assistance. Otherwise, due to massively increased cell phone users, phone calls can be used to alert people on emergency as well as text messaging.

In fact, cell phones are a reliable communication method in case of a disaster since most people are able to access cell phones. Satellite phones (Satphones) are on the steeper side of the emergency devices spectrum. Still, they are of great benefit, especially in remote areas in cases where the internet is scarce (Wang, et al., 2021).

A two-way radio which is a couple of handheld devices that have the ability to connect each other as long as they are on a similar frequency inside a certain distance, is also beneficial since it's a quick way to communicate in times of emergency without clogging up of cell phone lines. Citizens Band Radio (CB) is another common communication method that can be used during an emergency. It is a decent source of general information and can be used both for personal and business use. Finally, amateur Radio (HAM Radio), similar to a citizen band radio-controlled across the airwaves, can be an effective method of communication in times of emergencies.

Moreover, a police scanner, a device that enables people to hear all emergency communication between police officials, can communicate in times of an emergency and enables immediate response by the police. Landline telephone even though not popular but developing a landline telephone line can be a lifesaver wherever access to cellphones or another electronic device is limited or not existing. Finally, use of word of mouth can be used as a method of communication in times of an emergency, especially when all other discussed methods fail or when power is out scarce internet access.

**Type of Personnel**

Decision-making refers to the process of selecting what to do with the aim of achieving an objective. However, important and unique decision-making requires conscious thinking, information gathering, and keen consideration of alternatives (Rasoal et al., 2017). It functional by allowing input into the calamity management procedure during an emergency since risks of damaged are reduced. Listening actively, interpersonal skills, collaboration, communicating, logic, problem-solving, thinking critically, and managing time should be exercised in the location.

**Sensitivity Allowing Input Into Disaster Management Process During an Emergency**

According to my research, it is very sensible to allow for input into the catastrophe management process during an emergency because it aids in saving lives as well as enhancing the consistency of electricity and preventing the destruction of infrastructure (Gomez-Cunya et al., 2020). Furthermore, it will also assist management in planning on how to prevent the future occurrence of an emergency or disaster.

**Conclusion**

Once an emergency or disaster occurs, the responsible authorities should take measures in order to reduce the risks that can result from the disaster. Therefore. authorities should use efficient methods in order to reduce disasters. Nevertheless, public awareness should be created for the people by the government so as to know what steps or actions to take in case of an emergency. In addition, effective methods of communication that can be used to reach a large number of people or else which are available and affordable should be used in case of an emergency.

**References**

Gomez-Cunya, L. A., Fardhosseini, M. S., Lee, H. W., & Choi, K. (2020). Analyzing investments in flood protection structures: A real options approach. International journal of disaster risk reduction, 43, 101377.

Kippnich, M., Kowalzik, B., Cermak, R., Kippnich, U., Kranke, P., & Wurmb, T. (2017). Disaster Control and Civil Protection in Germany. Anasthesiologie, Intensivmedizin, Notfallmedizin, Schmerztherapie: AINS, 52(9), 606-617.

Rasoal, D., Skovdahl, K., Gifford, M., & Kihlgren, A. (2017, December). Clinical Ethics Support for Healthcare Personnel: An Integrative Literature Review. In HEC Forum (Vol. 29, No. 4, pp. 313-346). Springer Netherlands.

Stepinska, J., Lettino, M., Ahrens, I., Bueno, H., Garcia-Castrillo, L., Khoury, A., ... & Huber, K. (2020). Diagnosis and risk stratification of chest pain patients in the emergency department: focus on acute coronary syndromes. A position paper of the Acute Cardiovascular Care Association. European Heart Journal: Acute Cardiovascular Care, 9(1), 76-89.

Walton, H., Navaratnam, A. V., Ormond, M., Gandhi, V., & Mann, C. (2020). Emergency medicine response to the COVID-19 pandemic in England: a phenomenological study. Emergency Medicine Journal, 37(12), 768-772.

Wang, H., Song, L., Liu, J., & Liu, L. (2021). Analysis on Construction and Application of the Special Emergency Communication Systems in the Industries. In Advances in Wireless Communications and Applications (pp. 143-151). Springer, Singapore.