



## **Public Health, Epidemics and Emergency Preparedness**

### **Rationale Of The Course:**

This course is about understanding the public health consequences and the need for medical emergencies in disaster situation.

### **Objective:**

This course is about understanding the public health consequences and the need for medical emergencies in disaster situation. This course will help students to understand the need and preparedness of medical and public health emergency preparedness in pre- and post disasters. The overall objective of disaster epidemiology is to scientifically measure and describe the health effects of disasters and the factors that contribute to these effects, in order to assess the needs of the disaster affected populations, to match resources and needs efficiently, to prevent further adverse health effects, to evaluate programme effectiveness and to plan for contingencies (Noji 1992).

### **Contents**

1. Public health implications of large-scale disasters are felt for months and years to come. Each disaster leads to immense public health problems, which varies from disaster to disaster. Floods, hurricanes, cyclones, Tsunami may contaminate food and water supply and affect the sewerage and drainage systems. Earthquakes may destroy the health facilities and infrastructure apart from the destruction of housing and livelihoods, which have major health consequences. Psychological problems such as anxiety, depression and post traumatic stress adds to the complexities post-disaster.
2. Large-scale disasters also affect the public health personnel, in terms of lives lost and disruption of family life, which takes some time to restore to normalcy. The destruction of health care centres and the equipment contained within is only a part of the problem because some of the members of the health care team may also lose their life during the disasters.
3. The primary concern of the disaster epidemiology is to improve decision-making, by emergency response personnel and reduce the adverse public health consequences of disasters.
4. It has been advocated that the public health organisation must, in disaster situation, be able to cooperate quickly with other relief agencies, identify and evaluate actual and potential public health hazards, mobilise existing health resources, take emergency measures to control or eliminate hazards and restore public health facilities.
5. In case of emergencies the Initial response procedure should include situation reports of disaster affected & their treatment. Prior to arrival action, on arrival action at the site, site setup procedures, site management, rapid triage, crowd control procedures and public reassurance. Also in case of

CBRN disasters, protection of the site of the disaster, access control, securing of evidence, contaminated material as evidence to be protected. The responsibility lies with the state, public health professionals and the disaster management authorities.

### **READING LIST**

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- ♦ NDMA (National Disaster Management Authority) (2007) National Disaster Management Guidelines Chemical Disasters (Industrial). Govt. of India. ♦ Ronan R. Kevin and David M. Johnston (2005) Promoting Community Resilience in Disasters: The role schools, youth, and families. Springer.
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