IMPACT OF ENVIRONMENTAL POLLUTION ON HUMAN HEALTH

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Abstract:

Environment pollution is a wide-reaching problem and it is likely to influence the health of human populations is great. Developmental activities such as construction, transportation and manufacturing not only deplete the natural resources but also produce large amount of wastes that leads to pollution of air, water, soil, and oceans; global warming and acid rains. Untreated or improperly treated waste is a major cause of pollution of rivers and environmental degradation causing ill health and loss of crop productivity.

Keywords: Environment Pollution, Human Health, Global warm, Public Health.

Introduction :

Environment pollution in the perspective of air pollution, water and land/ soil waste pollution on human by diseases and problems, animals and trees/ plants. Study finds that these kinds of pollutions are not only seriously affecting the human by diseases and problems but also the animals and trees/ plants. Time left in the hands of global institutions, governments and local bodies to use the advance resources to balance the environment for living and initiates the breathed intellectuals to live friendly with environment Developmental activities such as construction, transportation and manufacturing not only deplete the natural resources but also produce large amount of wastes that leads to pollution of air, water, soil, and oceans; global warming and acid rains. Untreated or improperly treated waste is a major cause of pollution of rivers and environmental degradation causing ill health and loss of crop productivity. In this lesson you will study about the major causes of pollution, their effects on our environment and the various measures that can be taken to control such pollutions. Over the last three decades there has been increasing global concern over the public health impacts attributed to environmental pollution, in particular, the global burden of disease.

The World Health Organization (WHO) estimates that about a quarter of the diseases facing mankind today occur due to prolonged exposure to environmental pollution. Most of these environment-related diseases are however not easily detected and may be acquired during childhood and manifested later in adulthood. Improper management of solid waste is one of the main causes of environmental pollution and degradation in many cities, especially in developing countries. Many of these cities lack solid waste regulations and proper disposal facilities, including for harmful waste. Such waste may be infectious, toxic or radioactive. Municipal waste dumping sites are designated places set aside for waste disposal. Depending

on a city's level of waste management, such waste may be dumped in an uncontrolled manner, segregated for recycling purposes, or simply burnt. Poor waste management poses a great challenge to the well-being of city residents, particularly those living adjacent the dumpsites due to the potential of the waste to pollute water, food sources, land, air and vegetation. The poor disposal and handling of waste thus leads to environmental degradation, destruction of the ecosystem and poses great risks to public health.

Environmental Effects:

Along with harming human health, to emphasize the link between environmental pollution and public health in an urban setting, United Nations Environment Programme (UNEP) commissioned a pilot study of the Dandora municipal waste dumping site in Nairobi, Kenya. Environmental samples (soil and water) were analyzed to determine the content and concentrations of various pollutants (heavy metals, polychlorinated biphenyls and pesticides) that are known to affect human health.

However, some groups of people are especially sensitive to common air pollutants such as particulates and ground-level ozone. Sensitive populations include children, older adults, people who are active outdoors, and people with heart or lung diseases, such as asthma. If you are sensitive to air pollution, you need to be aware of steps you can take to protect your health.

Toxic pollutants in the air, or deposited on soils or surface waters, can impact wildlife in a number of ways. Like humans, animals can experience health problems if they are exposed to sufficient concentrations of air toxics over time. Studies show that air toxics are contributing to birth defects, reproductive failure, and disease in animals. Persistent toxic air pollutants (those that break down slowly in the environment) are of particular concern in aquatic ecosystems. These pollutants accumulate in sediments and may biomagnify in tissues of animals at the top of the food chain to concentrations many times higher than in the water or air.

Ozone is a gas that occurs both at ground-level and in the Earth's upper atmosphere, known as the stratosphere. At ground level, ozone is a pollutant that can harm human health. In the stratosphere, however, ozone forms a layer that protects life on earth from the sun's harmful ultraviolet (UV) rays. But this "good" ozone is gradually being destroyed by man-made chemicals referred to as ozone-depleting substances, including chlorofluorocarbons, hydro chlorofluorocarbons, and halons. These substances were formerly used and sometimes still are used in coolants, foaming agents, fire extinguishers, solvents, pesticides, and aerosol propellants. Thinning of the protective ozone layer can cause increased amounts of UV radiation to reach the Earth, which can lead to more cases of skin cancer, cataracts, and impaired immune systems. UV can also damage sensitive crops, such as soybeans, and reduce crop yields.

Identification of Environmental Health:

Environmental health hazards may be caused by physical, chemical, biological or social factors in the environment. Physical factors include heat, cold, noise, mechanical hazards, solar radiation, ionizing radiation (e.g. X-rays) and non-ionising radiation (e.g. microwaves), noise and vibration.

This entails a consideration of:

Whether the hazard has a single or multiple sources (e.g. atrazine contamination of a drinking water supply from a chemical spill vs. particulates in ambient air arising from diesel engines, wood stoves and environmental tobacco smoke);

Whether the contaminant affects multiple environmental media (e.g. lead smelter emissions contaminating soil, air, water and food);

How do stakeholders perceive the problem? Do different groups have different perceptions? A stakeholder group comprised of workers at a smelter who are also nearby residents may have complex perceptions; and

How do the hazards compare to other environmental hazards affecting the community? This component of the appraisal will be affected by objective data (e.g. of different disease rates) and subjective perceptions by the stakeholders (P/CCRARM, 1997). It enables the priority order of risk assessment to be determined.

There may be multiple iterations of hazard appraisal as the risk assessment proceeds and new information and perspectives emerge.

Impacts on Public Health:

The environmental evaluation conducted, it was determined that the dumpsite exposes the residents around it to unacceptable levels of environmental pollutants with adverse health impacts. A high number of children and adolescents living around the dumping site had illnesses related to the respiratory, gastrointestinal and dermatological systems such as upper respiratory tract infections, chronic bronchitis, asthma, fungal infections, allergic and unspecified dermatitis/pruritis– inflammation and itchiness of the skin.

Conclusion:

It appears that polluted environment is global an issue and world community would bear worst results more as they already faced. As effective response to pollution is largely based on human appraisal of the problem and pollution control program evolves as a nationwide fixed cost-sharing effort relying upon voluntary participation Education, research, and advocacy, are lacking in the region as preventive strategy for pollution especially in Asia. At present the adoption of environmental auditing in any economic sector is voluntary but future legislation could well make it mandatory and still time available to use technology and information for environmental health decision.

This pilot study has linked environmental pollution to public health. Soil samples analyzed from locations adjacent and within the dumpsite show high levels of heavy metals emanating from the site in particular lead, mercury, cadmium, copper and chromium. At the same time, a medical evaluation of the children and adolescents living and schooling near the dumpsite indicates a high incidence of diseases that are associated with high exposure levels to these metal pollutants. For example, about 50% of children examined who live and school near the dumpsite had respiratory ailments and blood lead levels equal to or exceeding internationally accepted toxic levels (10 µg/dl of blood), while 30% had size and staining

abnormalities of their red blood cells, confirming high exposure to heavy metal poisoning.

Policymakers in developing countries need to design programs, set standards, and take action to mitigate adverse health effects of air pollution. Healthy people mean human resources are the main object of any successful business or country. These societal beneficial efforts need to carefully adapt available knowledge from other settings, keeping in mind the differences in pollutant mixtures, concentration levels, exposure patterns, and various underlying population characteristics.

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