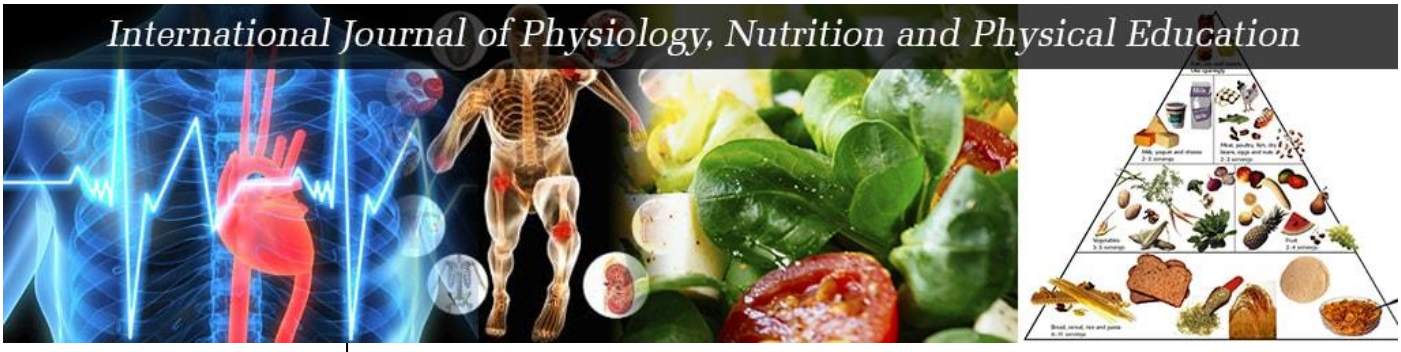


ISSN: 2456-0057
IJPNPE 2019; 4(1): 375-377

www.journalofsports.com
Received: 05-11-2018
Accepted: 09-12-2018

Suman Kumari
MPT, BPT, PGDCBM,
Assistant Professor, Kanya Mahavidyalaya Kharkhoda, Sonipat, Haryana, India

Correspondence
Suman Kumari
MPT, BPT, PGDCBM,
Assistant Professor, Kanya Mahavidyalaya Kharkhoda, Sonipat, Haryana, India

Effect of climate change on respiratory system of human health

Suman Kumari

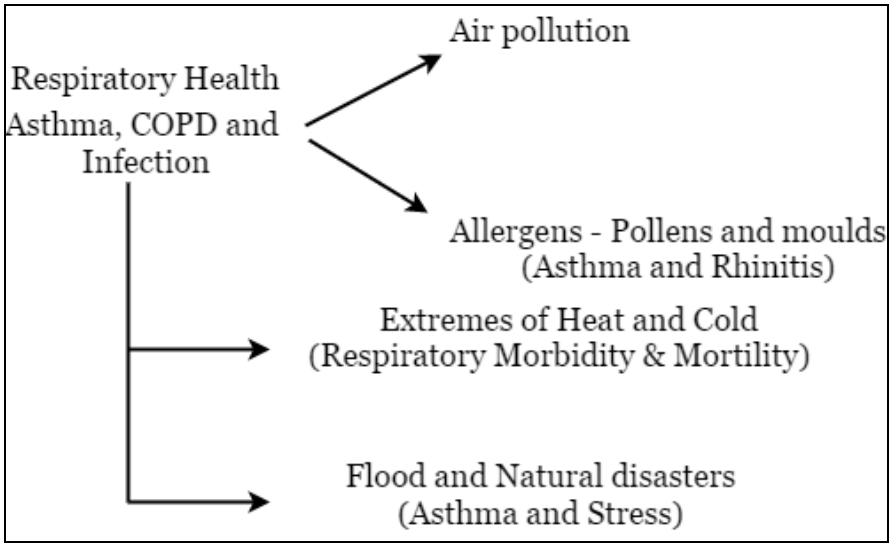
Abstract
Climate change is the direct consequence of global warming. Global warming is an increase in the temperature due to high concentration of Co_2 and other gases that no longer derive from nature alone but are also linked to human activities. The Global increase in Co_2 is mainly caused by the fossils fuels humanity is relevantly burning to produce energy. Climate change is a key driver of the accelerating environmental change affecting populations around the world. Many of changes in climate affect respiratory system of human beings. Major findings are of Respiratory health effects related to heat, Air pollution, infectious disease allergens, flooding, water and migration.
Urbanization with its high levels of vehicle emission and westernized lifestyle are linked to rising frequency of respiratory allergic disease and Bronchial Asthma are observed. Climate changes can impact on a number of factors, water pollution, air pollution, allergic attacks caused respiratory distress. Migration involves exposure to new set of pollutants and allergens as well as changes in housing conditions, diet and medical services. All of these factors affect migrants health.

Keywords: Climate change, allergy, respiratory disease, urbanization

Introduction
Changes in climate constitute a reality that is going to worsen in the coming years. Climate change affects human health of respiratory system – directly affect respiratory disease, by increasing exposure to risk factors for respiratory disease. Climate change increases the amount of pollen and allege produced by plant and concentration of ozone level. Main disease of concern is asthma, chronic obstructive pulmonary disease (COPD) and respiration tract infection.
Earth temperature is increasing, confirmed warning of oceans, rising sea levels, glaciers melting. Changes are also occurring in amount, intensity, frequency as well as increase of extreme weather events such as heat waves, floods.
Climate change represents a direct threat to respiratory disease or indirectly by increasing exposure to risk factors for respiratory disease.

Effect of climate change on environmental factors
A body of evidence that major changes involving the biosphere and climate have an impact on biosphere and human environment. Increase concentration of greenhouse gases, Co_2 warmed the planet, area of greater poverty with limited medical care will suffer mire and that areas will less developed medical services more prone to respiratory disease.

Respiratory Health is affected by major environmental factors
All of these affect respiratory system of human beings. The World Health Organization (WHO) explains that due to primarily to climate change over past 130 years world has warmed by approx. 0.85 ^{0}C high temperature can make air pollution a bigger problem for those with asthma. There are other public health factors that scientists are closely watching to see if they will impact public health WHO states insect and other animal borne disease affected climate change.



Respiratory Health is affected by major environmental factors

Respiratory disorders

It is a medical term that Pathological conditions affecting the organs and tissues that make gas exchange possible in higher organism e.g. - Respiratory tract, Bronchi, Bronchioles, Pleura respiratory disease range from mild and self-limiting, such as common cold, bacterial pneumonia acute asthma and lung cancer.

Study of respiratory disease known as Pulmonology

Human health has always been influenced by climate and weather, changes in climate and its variability, particularly changes in weather extremes, affects environment that provides us with clean air, food water and shelter.

Vulnerability has three components

1. Exposure is contact between a person and one or more biological, psychosocial, chemical or physical stressors, including stressors affected by climate change.
2. Sensitivity it is a degree to which people or communities are affected, adversely or beneficially or change.
3. Breathing is not always easy. Respiratory conditions can make it hard to catch your breath. Learns about all types of respiratory conditions, including the common cold, flu, pneumonia, asthma, cystic fibrosis, emphysema, chronic bronchitis.

Breathing: Breathing is important we breathe 20,000 per day. The whole point of breathing is to bring oxygen into the body and body Co_2. You don't have to worry too much about breathing as long as respiratory system. Which is body system that includes your nose, airway and lungs is healthy.

Cold & flu: You can help your body best to avoid germs, eating healthy diet and exercising. Infection mainly affects your nose and throats and cough. A cold can act a lot like the flu. Which is viral infection that affect nose, lungs?

Pneumonia: It is important to take care of yourself if you have flu is Pneumonia. Pneumonia is an infection of your lungs. It is a lung disease when you have Pneumonia the tiny air sacs of your lungs called alveoli. It becomes inflamed and fell with fluid.

Asthma: Respiratory condition that can affect adults. It is a chronic condition, cause airways of the lungs to narrow and swell making it hard to breath when someone you know has have asthma attacks, you might notice that their breathing has wheezing sound.

Cystic fibrosis: Another respiration condition is Cystic fibrosis. This is inherited disease that affects the lungs. Your airways get clogged with very thick and sticky mucus. This makes it hard to breathe and leaves you vulnerable to lung infections.

Emphysema and chronic Bronchitis: Smoking cigarettes for a long time can cause emphysema which is a condition that damages the air sacs making it hard to breathe air out of lungs. Air sacs like bunches of grapes.

Types of climate

There are three types of climate.

1. Topical wet
2. Topical monsoon
3. Tropical wet and dry

Places with tropical wet climate called rain forests

When climates changes everywhere affects according to geographical area distribution. When climate change Air pollution, water pollution is increased. Air way obstruction more types of disease affects our health and some disease borne in water.

Water related illness

People can become ill if exposed to contaminate drinking. Climate change increases the risk of illness through increasing temperature. Health impacts may include, GIT diarrhea, effects on nervous system and respiratory system or liver, kidney damage.

Climate impacts can affect exposure to waterborne pathogens (bacteria. viruses, parasites) toxins produced by harmful algal and cyanobacteria blooms in the water from human activities.

- Changing water temperatures waterborne vibrio bacteria and toxins present in the water or in seafood at different times of years, places.
- Extreme weather events and storm surges can damage or exceed the capacity of water, treatment plants) increasing the risk that people will be exposed to contaminants, water resources, public health, environment agencies in the united states provide many public health safeguard to

reduce risk of exposure and illness even if water become contained. These include water quality monitoring, drinking water treatment standard, boiling drinking water, harvesting shellfish.

Conclusion

Climate change affects on health include an increase in the prevalence of allergic respiratory diseases, chronic obstructive lung diseases, premature mortality and lung functions reduce climate change mediated by greenhouse gases, cause adverse health effects in the most vulnerable patient populations, Government worldwide and international organization such as WHO and European Union are facing a growing problem of respiration effects induces by gaseous and particulate pollutants arising from motor vehicle emissions stratifies to reduce climate change and air pollution are political in nature, but health professionals and societies, must raise their voices in the process of support clean policies on both national and International levels. Climate changes affect much physical and biological system, including Immune biological and respiratory system.

We can do to decrease the effects of environmental factors which affects the respiratory system and cause disease.

- Encouraging polices to promote access to nonpolluting sources of energy.
- Reducing the private tragic in towns and improving public transport.
- Decrease use of fuels controlling vehicle emissions.
- Planting non allergenic trees in cities.
- Respiratory doctors have vital role in addressing climate change, communicate with patients how tobacco and climate change is serious to health and how reduce the factor affect to health.

References

1. Intergovernmental Panel on Climate Change (CH) Climate change 2007: the physical science basis. Geneva: Intergovernmental Panel on Climate Change; 2007. [cited 2007 Jan 01]. Available from:http://www.ipcc.ch/pdf/assessment-report/ar4/wg1/ar4_wg1_full_report.pdf.
2. Solomon S, Qin D, Manning M, Marquis M, Averyt K, Tignor M *et al*. Climate change 2007: the physical science basis. New York (NY): Cambridge University Press; Technical summary; 2007, 19-940.
3. Peters A, von Klot S, Heier M, Trentinaglia I, Hormann A, Wichmann HE *et al*. Exposure to traffic and the onset of myocardial infarction. N Engl J Med. 2004; 351:1721-1730. [PubMed]
4. WHO Regional Office for Europe (DK) Economic cost of health impact of air pollution in Europe: clean air, health and wealth. Copenhagen: WHO Regional Office for Europe, 2015.
5. Dockery DW, Stone PH. Cardiovascular risks from fine particulate air pollution. N Engl J Med. 2007; 356:511-513. [PubMed]
6. Ayres JG, Forsberg B, Annesi-Maesano I, Dey R, Ebi KL, Helms PJ *et al*. Climate change and respiratory disease: European Respiratory Society position statement. Eur Respir J. 2009; 34:295-302.[PubMed]
7. Kovats RS, Hajat S. Heat stress and public health: a critical review. Annu Rev Public Health. 2008; 29:41-55. [PubMed]
8. Stafoggia M, Forastiere F, Agostini D, Caranci N, de'Donato F, Demaria M *et al*. Factors affecting in-hospital heat-related mortality: a multi-city case-crossover analysis. J Epidemiol Community Health. 2008; 62:209-215. [PubMed]
9. Michelozzi P, Accetta G, De Sario M, D'Ippoliti D, Marino C, Baccini M *et al*. High temperature and hospitalizations for cardiovascular and respiratory causes in 12 european cities. Am J Respir Crit Care Med. 2009; 179:383-389. [PubMed]
10. Robine JM, Cheung SL, Le Roy S, Van Oyen H, Herrmann FR. Report on excess mortality in Europe during summer 2003 (EU community action programme for public health, grant agreement 2005114) Montpellier: 2003 Heat Wave Project, 2007.
11. Baccini M, Biggeri A, Accetta G, Kosatsky T, Katsouyanni K, Analitis A *et al*. Heat effects on mortality in 15 European cities. Epidemiology. 2008; 19:711-719. [PubMed]
12. Delfino RJ, Brummel S, Wu J, Stern H, Ostro B, Lipsett M *et al*. The relationship of respiratory and cardiovascular hospital admissions to the southern California wildfires of 2003. Occup Environ Med. 2009; 66:189-197. [PMC free article] [PubMed]
13. USGCRP Impacts of Climate Change on Human Health in the United States: A Scientific Assessment. Crimmins, A., J. Balbus, J.L. Gamble, C.B. Beard, J.E. Bell, D. Dodgen, R.J. Eisen, N.Fann, M.D. Hawkins, S.C. Herring, L. Jantarasami, D.M. Mills, S. Saha, M.C. Sarofim, J.Trtanj, and L.Ziska, Eds. U.S. Global Change Research Program, Washington, DC. 312 pp. dx.doi.org/10.7930/J0R49NQX, 2016.
14. USGCRP. Luber, G., K. Knowlton, J. Balbus, H. Frumkin, M. Hayden, J. Hess, M. McGeehin, N. Sheats, L. Backer, C. B. Beard, K. L. Ebi, E. Maibach, R. S. Ostfeld, C. Wiedinmyer, E. Zielinski-Gutiérrez, and L. Ziska, 2014: Ch. 9: Human Health. Climate Change Impacts in the United States: The Third National Climate Assessment, J. M. Melillo, Terese (T.C.) Richmond, and G. W. Yohe, Eds., U.S. Global Change Research Program, 2016, 220-256. doi:10.7930/J0PN93H5.
15. USGCRP. Global Climate Change Impacts in the United States. Karl, T.R., J.M. Melillo, and T.C. Peterson (eds.). United States Global Change Research Program. Cambridge University Press, New York, NY, USA, 2009.