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Environmental Health Issue

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Student

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Environmental Health Issue

Chemicals have become an integral and intricate part of human existence. Although chemicals are being used for number of beneficial purposes, sizable number of those are causing dangerous effects to humans, other living species, and environment. “Humanity currently produces more than 140,000 different chemicals, around a third of which are known or suspected of causing cancer, mutations and birth defects or are toxic in some way.” (Cribb, 2014). Among those chemicals, industrial chemicals are being produced in high quantities and are having huge negative impacts. In addition, hazardous wastes including mineral, fossil, electronic, and other wastes are also contributing to increased chemical pollution/poisoning and thereby decimating as well as disabling many lives. When one looks at the figures of people dying and getting disabled because of chemical pollution, it reflects a dangerous scenario. “UNEP estimates about 5 million people die and 86 million are disabled yearly by chemicals directly, making it one of the world’s leading causes of death” (Cribb, 2014). Furthermore, these chemicals affect people’s health leading to common and fatal diseases like cancers, heart disease, mental disorders, and others.

From these numbers and facts, one can grasp the magnitude of this problem. In addition, if one focuses on how chemical pollution is affecting people of all age groups, starting right from the fetus in the womb, the magnitude of this problem can be understood even more. Speaking of fetus, nonprofit environmental research group, EWG has “found 212 chemicals of concern, including dioxins, flame retardants and known carcinogens in the blood of newborn babies, who were contaminated while still in the womb” (Cribb, 2014). Furthermore, tests carried out in China, the U.S., and Europe also revealed how traces of various pesticides are found in nursing mother’s breast milk. Chemicals are used in the manufacture of majority of the everyday products people use from clothing, foods, cosmetics, toys, automobiles, and so on. Due to

government regulations and positive steps on the part of the manufacturing companies themselves, chemical pollution is being minimized, but it is not totally eliminated. So, as people keep on using these products, they are being exposed to chemical pollution in maximal ways. Many of these harmful chemicals are being totally banned or restricted, but still more stringent measures are needed. In addition, the tools and the technologies that are being used in developed countries to cope with such pollution have to be transferred to more countries (Biello, 2014).

Scientific Review

To tackle the questions about chemical pollution/poisoning, we have to start by focusing on all or majority of the chemicals that are detrimental to human health, other living species, and environment. Then list out all the effects those chemicals can have, and end with the strategies that should be adopted by the government and by the people to restrict those chemicals.

The outline can be

- Introduction
- Background
- Methods
- Chemicals that are detrimental
- Effects on humans, living species, and environment
- Discussion
- Strategies

From this outline, the main components are the discussion about chemicals, its effects, and strategies. When one focuses on these three components, it brings out the crux of the issue, the problems in hand, and importantly how that problem can be solved.

Key Findings

In the article titled *Knowns and Unknowns on Burden of Disease due to Chemicals: a Systematic Review*, the authors Annette Prüss-Ustün, Carolyn Vickers, Pascal Haefliger and Roberto Bertollini come up with key findings on chemical pollution and its effects. The first key finding is, among the various forms of chemical pollutions, indoor smoke from solid fuel use, outdoor air pollution, and second-hand smoke are the cause of largest number of deaths and disabilities. The other finding is these harmful chemicals cause number of health issues like cancers, birth defects, endocrine disruption, neurotoxicity, kidney/liver damage, and others. (Prüss-Ustün et al., 2011). The authors have done a detailed discussion about each chemical pollutant, including the serious effects it can cause.

Limitations

The limitation in this review paper, which was acknowledged by the authors as well, is that the authors are able to collect and study about “only a number of chemicals for which data are available” and that has prevented them from providing the complete and actual burden of the chemicals. For example, “chemicals with known health effects, such as dioxins, cadmium, mercury or chronic exposure to pesticides could not be included in this article due to incomplete data and information” (Prüss-Ustün et al., 2011). The other key limitation is although the article is written in 2010 and 2011, the data regarding deaths and disabilities because of chemical pollution date back to 2004, and so article and its data appears outdated.

Key strategies to reduce the Burden of Disease

The key strategies suggested by the authors in this review paper focuses mainly on the role of the government. They suggest that governments around the world should try to ban or at least minimize the use of dangerous chemicals by 2020, “using transparent science-based risk

assessment procedures and science-based risk management procedures” (Prüss-Ustün et al., 2011). At the same time, the authors point how reducing human exposure to chemicals is not just the responsibility of the governments and instead how it “requires efforts from a wide range of stakeholders, including industry and civil society” (Prüss-Ustün et al., 2011).

References

Biello, D. (2014, June 15). *Poisoned Poor Killed in Millions by Pollution*. Retrieved from:

<http://www.scientificamerican.com/podcast/episode/poisoned-poor-killed-in-millions-by-pollution1/>

Cribb, J. (2014, June 19). *Cleansing a Polluted Planet*. Retrieved from:

<http://www.theage.com.au/comment/cleansing-a-polluted-planet-20140619-zse4s.html>

Prüss-Ustün, A, Vickers, C, Haefliger, P & Bertollini, R. (2011). Knowns and Unknowns on

Burden of Disease due to Chemicals: A Systematic Review. *Environmental Health*, 10

(9). Retrieved from: <http://www.ehjournal.net/content/10/1/9>