



## **WORLD HEALTH ORGANIZATION (WHO)**

**Chair: Devarya Raman**

The primary role of the WHO is to direct international health within the United Nations' system and to lead partners in global health responses. <http://www.who.int/en/>

### **REPORT: Medical uses of nuclear technology**

#### **Introduction**

Nuclear technologies are used daily to find and protect sustainable sources of freshwater, produce energy and food, while providing researches the tools to study the ocean's past and predict its future. The WHO in collaboration with the IAEA helps its 154 member countries safely employ these technologies to ensure peace, health and prosperity throughout the world.

#### **General Overview**

Nuclear medicine and radiology are the whole of medical techniques that involve radiation or radioactivity to diagnose, treat and prevent disease. While radiology has been used for close to a century, "nuclear medicine" began approximately 50 years ago. In nuclear medicine, medical professionals use radioisotopes injected in a patient's body. These radioisotopes are then used to take a detailed picture of how an organ is functioning. Today, about one-third of all procedures used in modern hospitals involve radiation or radioactivity. These procedures are among the best and most effective life-saving tools available, they are safe and painless and don't require anesthesia, and they are helpful to a broad span of medical specialties, from pediatrics to cardiology to psychiatry.

X-rays, MRI scanners, CAT scans, and ultrasound each use nuclear science and technology to troubleshoot different parts of the body and diagnose conditions. Each of these are non-invasive procedures, meaning patients do not need to undergo surgery. More advanced nuclear medicine uses computers, detectors, and radioisotopes to give doctors even more information about a patient's internal workings. Known as nuclear imaging, these procedures include bone scanning, Positron Emission Tomography (PET), Single Photon Emission Computed Tomography (SPECT) and Cardiovascular Imaging. The use of these procedures depends on the patient's symptoms. However, nuclear medicine has some disadvantages. The major demerit of using radioisotopes in nuclear medicine is that it could have a negative impact on health. Tissues could be damaged if there is a high enough dose of radiation, leading to skin burns, nausea, diseases such as leukemia and lung cancer, this eventually leads to death. Second, Radioisotopes are much expensive and not every hospital can pay the price for consuming them. They are also inevitably hard to store since they continuously emit radiation. Finally, even low-level radiation is

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potentially not safe. The risks associated with low-level exposure to radiation are still not fully understood. It could lead to complications in the future.

The issue today is the regulation of medical uses of nuclear technology. Delegates need to determine standards for medical use. This is essential to protecting international health while allowing for individuals to get the treatment they need for their diseases.

### **Major Parties Involved**

World Health Organization (WHO):

The WHO is an agency of the United Nations that specialize in international public health. It was established on 7 April 1948. The WHO strives to build a better, healthier future for people all over the world. The WHO believes that Nuclear Medicine is important for imaging. However, it has a number of safety considerations. The WHO is in the process of developing a Comprehensive Global Programme on Radiation with a clear strategy and priorities to safeguard public health concerns in the use of nuclear techniques. WHO environmental health experts work with radiation and health experts at IAEA regarding the application of radiological techniques in medical practice.

International Atomic Energy Agency (IAEA):

The IAEA is an international organization that seeks to promote the peace use of nuclear energy and inhibit its use for any military purpose. A major part the IAEA's programme is devoted to the promotion of human health. The IAEA supports projects helping to foster the user of cancer diagnosis and therapy by nuclear means in developing nations. The IAEA co-operates with the WHO in establishing conformity of radiation measurements in radiotherapy units worldwide through a network of secondary dosimetry laboratories (SSDLs). The agency also seeks to provide a forum for discussion of effects of low-level radiation.

### **Timeline of Key Events**

8 December 1953 : "Atoms for Peace" speech by President Eisenhower

The "Atoms for Peace" speech was delivered by the U.S. President Dwight D.

Eisenhower to the UN General Assembly in New York City. Later, the United States also launched the "Atoms for Peace" program that supplied equipment utilizing nuclear technology to schools, hospitals, and research institutions throughout the world. The "Atoms for Peace" speech was instrumental in creating the ideological background for the creation of the International Atomic Energy Agency and the Treaty on the Non-Proliferation of Nuclear Weapons.

8-20 August 1955: International Conference on the Peaceful Uses of Atomic Energy: Conference held in Geneva, Switzerland.

23 October 1956: Conference on The International Atomic Energy Agency Statute Meeting held at the UN Headquarters to approve the founding document for the IAEA.

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29 July 1957: Creation of International Atomic Energy Agency - The IAEA is an international organization that seeks to promote the peace use of nuclear energy and inhibit its use for any military purpose.

1 July 1968: Treaty on the Non-Proliferation of Nuclear Weapons (NPT) - The NPT is a landmark international treaty whose objective is to prevent the spread of nuclear weapons and weapons technology, promote cooperation in the peaceful uses of nuclear energy, and further the goal of achieving nuclear disarmament. The Treaty represents the only binding commitment in a multilateral treaty to the goal of disarmament by the nuclear weapon states.

12 February 1967: Treaty of Tlatelolco - This treaty prohibited Nuclear weapons in Latin America and the Caribbean. It was signed by 33 member states and was proposed by Costa Rica. The treaty is permanent and will remain in force indefinitely.

6 August 1985: Treaty of Rarotonga - This treaty established a South Pacific Nuclear-Free zone. It was signed by 13 member states. The treaty contains 3 protocols that determine compliance. The treaty is permanent and will remain in force indefinitely.

January 1987: IAEA Safety Standards - This was a response to the Chernobyl plant disaster in 1986. After, the IAEA had a renewed focus on Nuclear safety. The IAEA Safety Standards reflect an international consensus on what constitutes a high level of safety for protecting people and the environment from the harmful effects of ionizing radiation.

15 December 1995: Treaty of Bangkok - this treaty established a SouthEast Asian Nuclear Weapon Free Zone. It was signed by 9 member states. None of the nuclear weapon states has yet signed the protocols due to US and French objections regarding the unequivocal nature of security assurances and over the definitions of territory. The treaty is permanent and will remain in force indefinitely.

11 April 1996: Treaty of Pelindaba - This treaty established an African Nuclear Weapon Free Zone. 33 member states have signed the treaty. The treaty is permanent and will remain in force indefinitely.

8 September 2006: Treaty on a Nuclear-Weapon-Free Zone in Central Asia  
This treaty established a Central Asian Nuclear Weapon Free Zone. 5 member states have signed the treaty. Mongolia introduced the issue to the UN in 1992. The treaty is permanent and will remain in force indefinitely.

24 June 2011: Ministerial Conference on Nuclear Safety - Response to Fukushima-Daiichi nuclear power plant disaster. Paved the way for the unanimous endorsement of the IAEA Action plan on Nuclear Safety.



September 2011: IAEA Action Plan on Nuclear Safety - Response to Fukushima-Daiichi nuclear Power plant Accident. The ultimate goal of the Action Plan is to strengthen nuclear safety worldwide.

### **Previous Attempts at the Issue**

There are no previous attempts that specifically address the resolution. However, there are a number of draft resolutions that address using nuclear science for peaceful uses.

Draft Resolutions:

12 December 2016 : "Report of the International Atomic Energy Agency" (document A/71/L.35)  
This draft resolution was introduced by the South African Representative.  
The draft aims to take note at the large quantity of resolutions that have been recently approved by the IAEA and aimed at strengthening international cooperation in areas of nuclear science and technology.

3 November 2014: "Report of the International Atomic Energy Agency" (document A/69/L.7)  
The General Assembly reaffirmed its strong support for the role of the IAEA in fostering the development and practical application of atomic energy for peace uses.

6 November 2013: "Report of the International Atomic Energy Agency" (document A/68/L.10)  
The General Assembly reaffirmed its strong support for IAEA's crucial role in encouraging and aiding the development and practical application of atomic energy for peaceful uses, including in transferring technology to developing countries and in nuclear safety, verification and security. The General Assembly also appealed to Member States of the UN to continue to support the Agency's activities. United States Nuclear Regulatory Commission:

The U.S.NRC is an independent agency of the United States. It oversees nuclear energy matters, oversight of nuclear medicine and nuclear safety. The agency establishes regulations to ensure the proper use of radioactive materials in medical diagnosis treatment, and research to ensure the safety of patients, medical workers, and the public, and to protect the environment. They have established a regulatory framework between the NRC and Agreement States. The NRC requirements in Title 10, Part 35, of the Code of Federal Regulations establishes guidelines for proper use of radioactive materials.

### **Suggested Websites**

<https://www.iaea.org/newscenter/statements/good-uses-nuclear-energy-0>  
<https://www.nei.org/Knowledge-Center/Other-Nuclear-Energy-Applications/Medicine-Scientific-Research>  
<https://www.iaea.org/sites/default/files/rio0612.pdf>  
<https://www.un.org/en/sections/issues-depth/atomic-energy/index.html>  
[http://www.who.int/ionizing\\_radiation/pub\\_meet/statement-iaea/en/](http://www.who.int/ionizing_radiation/pub_meet/statement-iaea/en/)

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## **REPORT: Sanitation and Health Concerns at Refugee Camps**

### **Introduction**

We are now witnessing the highest levels of displacement on record. An unprecedented 65.3 million people around the world have been forced from home. Among them are nearly 21.3 million refugees, over half of whom are under the age of 18. This is an international crisis. Current Refugee camps are not enough to hold all the new refugees. Furthermore, sanitation and health at these camps is sorely lacking.

### **General Overview**

More people are on the move now than ever before. There are an estimated 1 billion migrants in the world today of whom 250 million are international migrants and 763 million internal migrants – one in seven of the world's population. 65 million of the world's internal and international migrants are forcibly displaced today. This rapid increase of population movement has important public health implications, and therefore requires an adequate response from the health sector.

The right of everyone to enjoy the highest attainable standard of physical and mental health is established in the WHO Constitution of 1948. Ratified international human rights standards and conventions exist to protect the rights of migrants and refugees, including their right to health. Nevertheless, many refugees and migrants often lack access to health services and financial protection for health.

The WHO is working closely with Member States, IOM, UNHCR and other partners to meet the health needs of refugees and migrants.

The provision of adequate sanitation services is crucial to prevent communicable diseases and epidemics while ensuring good health and dignity. Though the importance of having adequate latrines is well documented, still 30% of refugee camps do not have adequate waste disposal services or latrines. A study conducted in refugee camps in Bangladesh found that camps that provided sanitation facilities had cholera rates of 1.6 cases per 1,000 people, while camps that had no such facilities had cholera rates that were four times greater. In addition to providing latrines and sanitation services, it is also important to provide the population with sufficient resources to curb diseases and epidemics. A study in a Kenyan refugee camp found that sharing a latrine with 3 or more households was found to be a significant risk factor for cholera due to an increase in the fecal-oral transmission of the disease. By promoting the importance of cleanliness in communal bathing and latrine areas, refugees can be made aware of the dangers associated with dirty and contaminated water.

### **Major Parties Involved**

World Health Organization (WHO) - The WHO is an agency of the United Nations that specialize in international public health. It was established on 7 April 1948. The WHO strives to build a better, healthier future for people all over the world.

United Nations High Commissioner for Refugees (UNHCR)

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The Office of the United Nations High Commissioner for Refugees, also known as the UN Refugee Agency, is a United Nations programme mandated to protect and support refugees at the request of a government or the UN itself and assists in their voluntary repatriation, local integration or resettlement to a third country. It was established in 1949. Its headquarters are in Geneva, Switzerland, and it is a member of the United Nations Development Group. The UNHCR has won two Nobel Peace Prizes, once in 1954 and again in 1981

International Organization for Migration (IOM) - The International Organization for Migration (IOM) is an intergovernmental organization that provides services and advice concerning migration to governments and migrants, including internally displaced persons, refugees, and migrant workers. It was established in 1951 as the Intergovernmental Committee for European Migration (ICEM) to help resettle people displaced by World War II. As of September 2016, it became a related organization of the United Nations.

### **Timeline of Key Events**

9 November 1943: United Nations Relief and Rehabilitation Administration formed as an international relief agency, largely dominated by the United States but representing 44 nations. Founded in 1943, it became part of the United Nations in 1945, and it largely shut down operations in 1947. Its purpose was to plan, co-ordinate, administer or arrange for the administration of measures for the relief of victims of war in any area under the control of any of the United Nations through the provision of food, fuel, clothing, shelter and other basic necessities, medical and other essential services.

20 April 1946: International Refugee Organization formed to deal with the massive refugee problem created by WWII. The IRO assumed most of the functions of the earlier United Nations Relief and Rehabilitation Administration. In 1952, operations of the IRO ceased, and it was replaced by the Office of the UNHCR

14 December 1950: The Office of the United Nations High Commissioner for Refugees, also known as the UN Refugee Agency, is a United Nations programme mandated to protect and support refugees at the request of a government or the UN itself and assists in their voluntary repatriation, local integration or resettlement to a third country.

28 July 1951: 1951 Convention relating to the Status of Refugee is a United Nations multilateral treaty that defines who is a refugee, and sets out the rights of individuals who are granted asylum and the responsibilities of nations that grant asylum. The Convention also sets out which people do not qualify as refugees, such as war criminals. The Convention also provides for some visa-free travel for holders of travel documents issued under the convention.

31 January 1967: 1967 Protocol Relating to the Status of Refugee - This a key treaty in international refugee law. The 1967 Protocol removed both the temporal and geographic restrictions. This was needed in the historical context of refugee flows resulting from decolonization. However, the Protocol gave those states which had previously ratified the 1951

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Convention and chosen to use the geographically restricted definition the option to retain that restriction

19 September 2016: UN Summit for Refugees and Migrants - This was the first time the General Assembly has called for a summit at the Heads of State and Government level on large movements of refugees and migrants and it was a historic opportunity to come up with a blueprint for a better international response. It was a watershed moment to strengthen governance of international migration and a unique opportunity for creating a more responsible, predictable system for responding to large movements of refugees and migrants.

### **Previous Attempts at the Issue**

19-24 May 2008: Resolution on the Health of Migrants (WHA 61.17) - This resolution asked Member States to develop migrant-sensitive health policies and requested WHO to promote migrant health, in collaboration with other relevant organizations. It further requests WHO to promote interregional and international cooperation, the exchange of information and dialogue among its countries, and puts a particular focus on strengthening health systems.

19 September 2016: New York Declaration - The New York Declaration for Refugees and Migrants sets out principles and recommendations applying to both refugees and migrants as well as separate commitments on refugees and migrants, and its two annexes pave the way for two the Global Compact on Refugees and the Global Compact on Safe, Orderly and Regular Migration. The Declaration commits Member States to greater responsibility-sharing and to working towards the adoption, in 2018, of the two global compacts.

### **Suggested Websites**

<http://www.who.int/migrants/news-events/en/#unga>

<http://www.who.int/migrants/about/who-response/en/>

<http://www.resettlement.eu/page/syrian-refugee-situation>

<http://www.unhcr.org/en-us/water-sanitation-and-hygiene.html>

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