Methodology

Data Collection

Launched in 2019, IMAGINE is a dynamic database updated on a regular basis. Datapoints are sought through research and are provided voluntarily from myriad sources.

Primary sources include:

- The IAEA (from IAEA staff and experts; reports of national, regional and interregional meetings; fact-finding missions; countries’ authorities and counterparts to IAEA projects) and U.N. partner organizations and agencies such as the WHO, WHO regional offices, and International Agency for Research on Cancer (IARC); the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR); the United Nations Development Programme (UNDP); the World Bank; as well as from Ministries of Health, Eurostat and the Organization for Economic Cooperation and Development (OECD);

- National, regional, and global medical imaging and nuclear medicine professional organizations and societies such as the Asia Oceania Federation of Nuclear Medicine and Biology (AOFNMB), Asociación Latinoamericana de Sociedades de Biología y Medicina Nuclear (ALASBIMN), European Association of Nuclear Medicine (EANM), European Society of Radiology (ESR), Global Diagnostic Imaging, Healthcare IT & Radiation Therapy Trade Organization (DITTA), the International Organization for Medical Physics (IOMP), the International Society of Radiographers and Radiation Technologists (ISRRT), the International Society of Radiology (ISR), RAD-AID International, the Society of Nuclear Medicine and Molecular Imaging (SNMMI), and the World Federation of Nuclear Medicine and Biology (WFNMB);

- Extensive literature review;

- Many individual experts who have and continue to devote their time to this initiative towards extending the benefits of medical imaging and nuclear medicine to all.

The income status of countries was adopted from the World Bank (2018), and cancer epidemiologic data (2018) from the Global Cancer Observatory of IARC (GLOBOCAN).

Data Limitations

IMAGINE data are collected based on research and on the voluntary contribution of collaborators across the world working in the fields of medical imaging and nuclear medicine. Although the IAEA has systems in place to ensure the maximum level of consistency, accuracy of the estimates herein is strongly dependent on the input provided by collaborators and on available information sources. Global, regional and national conclusions using IMAGINE data should take these considerations into account.