

# Evaluating radiation science for informed decision-making

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## UNSCEAR's mandate

In 1955, the United Nations General Assembly established a Scientific Committee on the Effects of Atomic Radiation (UNSCEAR) in response to concerns about the effects of ionising radiation on human health and the environment. Over the last few decades, UNSCEAR has evolved to become the global authority on the levels and effects of ionising radiation around the world. Its evaluations are valuable to governments and to international bodies such as the International Atomic Energy Agency, the International Labour Organization and the World Health Organization, and have helped foster international efforts to establish radiation protection measures.

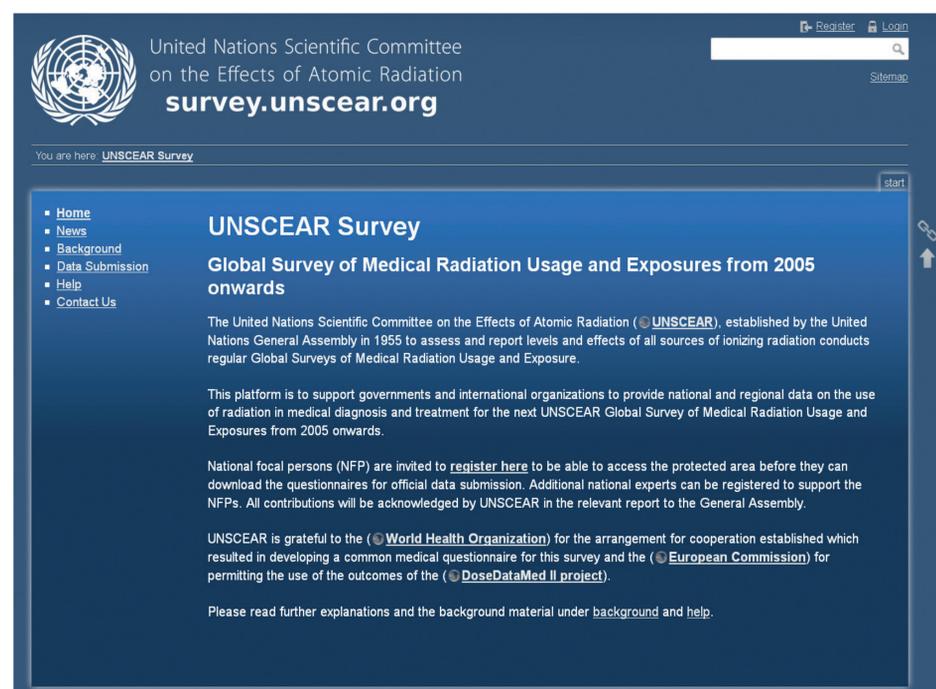
## United Nations Scientific Committee:

- ▶ Reports regularly to the General Assembly
- ▶ Assesses global levels and effects of ionizing radiation
- ▶ Provides scientific basis for protection and policy



## UNSCEAR's medical exposure surveys

UNSCEAR collects information on the use of radiation in medicine and associated exposure, through population-based surveys sent to national regulatory authorities, and more recently through ministries of health as a result of its cooperation with the World Health Organization. These surveys are used to identify trends in exposure and thus serve as an early warning sign of potential safety issues that might require attention, i.e. the procedures requiring further consideration by those concerned with radiation safety by virtue of doses or frequency. They can also be used to identify gaps in treatment capabilities and possible unwarranted dose variations for the same procedure. For its new Global Medical Exposure Survey, UNSCEAR has developed an online data collection system that allows users to directly download/upload UNSCEAR questionnaires. ([www.survey.unscear.org](http://www.survey.unscear.org))



United Nations Scientific Committee on the Effects of Atomic Radiation  
[survey.unscear.org](http://survey.unscear.org)

You are here: UNSCEAR Survey

**UNSCEAR Survey**  
Global Survey of Medical Radiation Usage and Exposures from 2005 onwards

The United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR), established by the United Nations General Assembly in 1955 to assess and report levels and effects of all sources of ionizing radiation conducts regular Global Surveys of Medical Radiation Usage and Exposure.

This platform is to support governments and international organizations to provide national and regional data on the use of radiation in medical diagnosis and treatment for the next UNSCEAR Global Survey of Medical Radiation Usage and Exposures from 2005 onwards.

National focal persons (NFP) are invited to [register here](#) to be able to access the protected area before they can download the questionnaires for official data submission. Additional national experts can be registered to support the NFPs. All contributions will be acknowledged by UNSCEAR in the relevant report to the General Assembly.

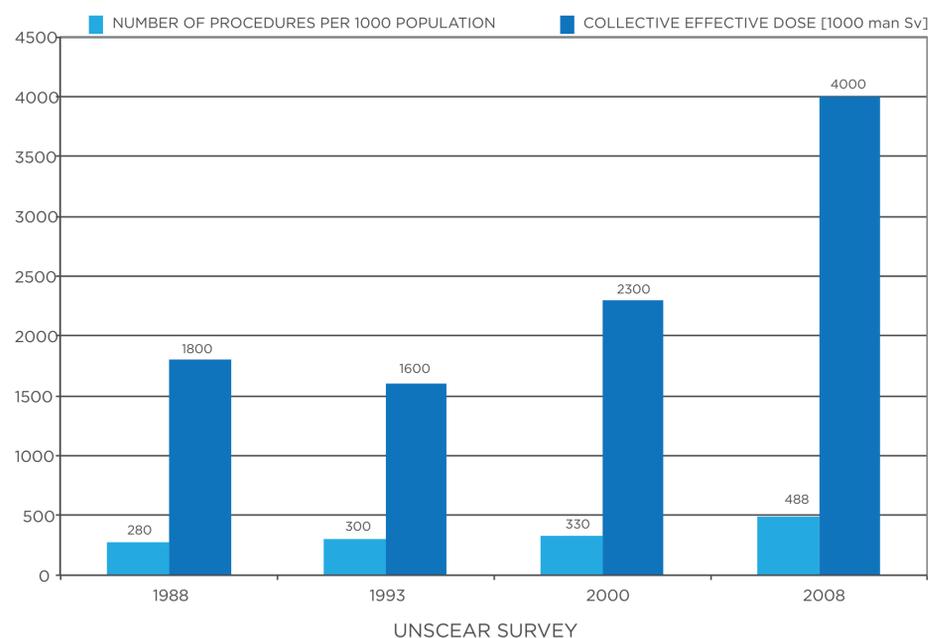
UNSCEAR is grateful to the (World Health Organization) for the arrangement for cooperation established which resulted in developing a common medical questionnaire for this survey and the (European Commission) for permitting the use of the outcomes of the (DoseDataMed II project).

Please read further explanations and the background material under [background](#) and [help](#).

## UNSCEAR's evaluations

UNSCEAR systematically evaluates global and regional levels and trends of radiation exposure to the public, workers and patients undergoing diagnosis or therapy. These evaluations show that the medical use of radiation dominates the exposure from artificial sources. According to the UNSCEAR 2008 survey, approximately 3.6 billion diagnostic x-ray procedures (including approximately 0.5 billion dental procedures) were performed annually worldwide. Two thirds of diagnostic radiological procedures, over 90% of all nuclear medicine procedures, and 70% of radiation therapy treatments were performed in industrialised countries. This imbalance is also reflected in the availability of radiological equipment and practitioners. The global collective effective dose from diagnostic radiological procedures has doubled in 20 years from 1.8 to 4 million man-Sievert.

Trends in diagnostic X-rays over 20 years



## UNSCEAR's secretariat and publications

The UNSCEAR secretariat, based in Vienna, Austria, is linked to the United Nations Environment Programme. It manages the preparation of documents for the Scientific Committee and organises the annual sessions.

UNSCEAR produces detailed reports for the United Nations General Assembly. These are highly regarded as authoritative reviews examining radiation exposure from natural sources and artificial sources. It also reviews detailed studies on radiation-induced cancer and hereditary diseases, and assesses the radiological consequences of radiological accidents on health and the environment. The recently published UNSCEAR 2013 Report deals with the effects of radiation exposure of children and provides information on anatomical and physiological developments; the variations in dosimetry; and the differences between children and adults in induced malignancies, and in deterministic and hereditary effects. **All UNSCEAR publications are available online free of charge.**



<http://www.unscear.org/unscear/publications.html>

