



World Health  
Organization

# WHO's activities on radiation protection and human health

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*Reported at the 16th IACRS Meeting;  
ILO HQ Geneva, Switzerland, 12-13 May 2011*

## World Health Assembly



**WHO:** > 8000 people working in its 147 country offices, 6 regional offices and headquarters in Geneva, Switzerland

**193** Member States

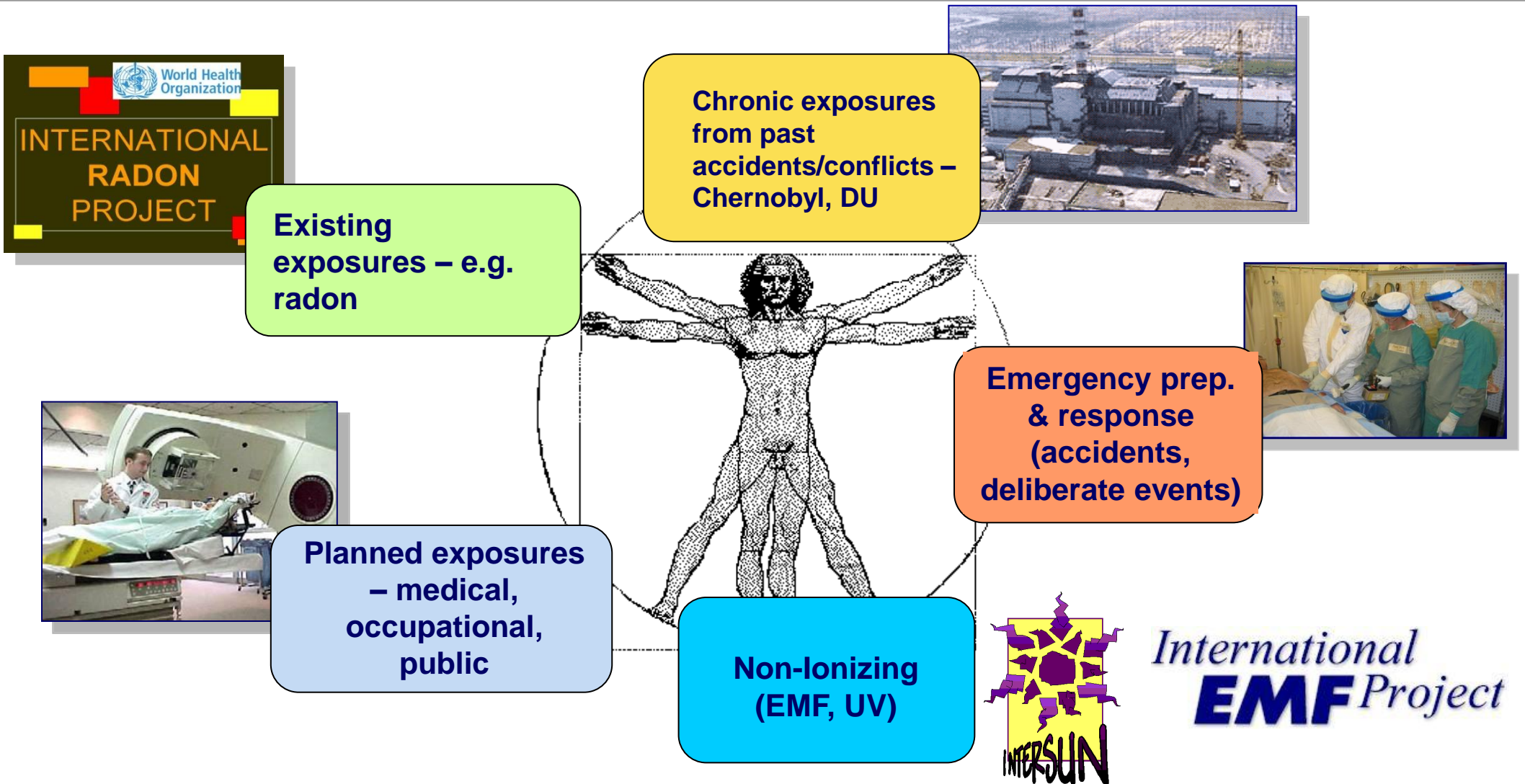


### WHO's core functions

- Providing **leadership** on matters critical to health and engaging in **partnerships** where joint action is needed;
- Shaping the **research agenda** and stimulating the generation, translation and dissemination of valuable knowledge;
- Setting **norms and standards** and promoting and monitoring their implementation;
- Articulating **ethical and evidence-based policy options**;
- Providing **technical support**, catalysing change, and building sustainable **institutional capacity**; and
- Monitoring the **health situation** and assessing **health trends**.



# Radiation and environmental health





# Preparedness to radiation emergencies

- The **Radiation Emergency Medical Preparedness and Assistance Network (REMPAN)** is a WHO network created in 1987, one year after the Chernobyl accident.
- Today REMPAN has > 40 institutions specialized on medical and public health response to radiation emergencies.
- WHO set up a Global Network of Biodosimetry (**BioDoseNet**), with >50 biological dosimetry laboratories to support the response to radiation emergencies.



# REMPAN meeting held in Nagasaki

## 16-18 February 2011



NAGASAKI UNIVERSITY GLOBAL COE PROGRAM  
**Global Strategic Center  
 for Radiation Health Risk Control**



ENGLISH ⇄ JAPANESE

### Activities

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Workshop / Special Meeting

### The 13th Coordination Meeting of the WHO/REMPAN Collaborating Centers and Liaison Institutions



As Nagasaki University Global COE Program, the 13th Coordination Meeting of the WHO/REMPAN Collaborating Centers and Liaison Institutions was held from February 16 to 18, 2011 at Ryojun Matsumoto Hall, Nagasaki University School of Medicine. 80 or more participants

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 Research  
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 Research

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 Reports on Overseas  
 Conferences and Meetings  
 Cooperation with WHO  
 Publication

Achievement

Recruitment

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Publicity Activities



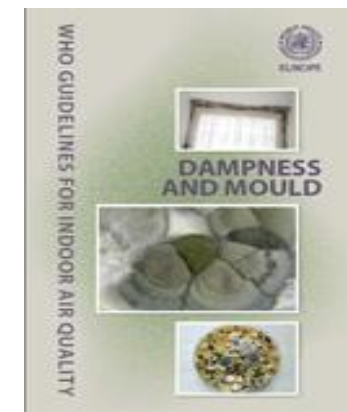
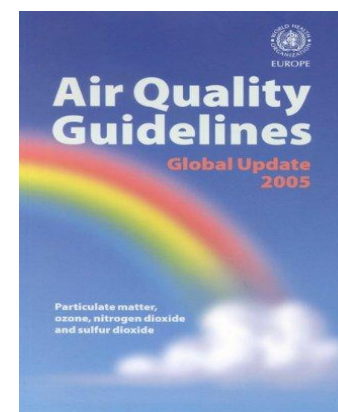
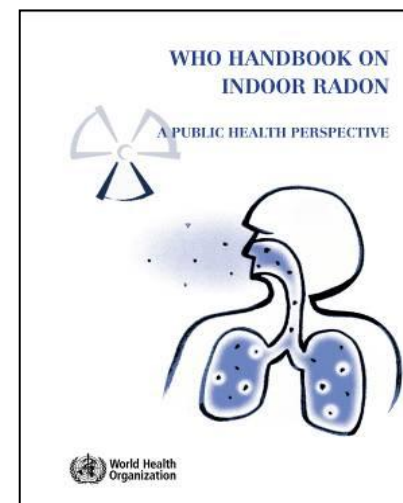
# ICRIN Project 2009-2011

- IAEA, UNDP, UNICEF, WHO Project “Human Security for Individuals and Communities in Chernobyl-affected Areas through Local Information Provision” (**ICRIN**)
- Joint effort of targeted to residents of the affected territories. Education and training of health care providers, teachers and mass media workers- promotion of healthy life style.
- Chernobyl's 25th anniversary- related events:
  - ICRIN meeting held linked to Nuclear Summit and conference (April 2011 Kiev);
  - DG meeting with the NGO "Independent WHO" ;
  - PHE Dir meeting with NGO "Children of Chernobyl";
  - Updated website & FAQs



# Radon exposure

- Dissemination of the WHO Handbook on Indoor Radon
- Radon as a “healthy housing” issue.
  - included in WHO Indoor Air Quality Guidelines
  - addressed in a Healthy Housing Project
- Working with building professionals.
  - Risk communication, education, involvement for effective prevention and mitigation.



# Radon as an "Healthy Housing" issue

- Healthy Housing Meeting (13-15 October 2010, WHO HQ Geneva).
- WHO Workshop on Radon Communication for Building Professionals (2 November 2010, WHO HQ Geneva)- communication tools and training materials.
- Joint WHO-IAEA Indoor Radon Meeting and IAEA Regional Workshop on Reducing Risks from Indoor Radon (3-4 November 2010, WHO HQ Geneva).



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## WHO Workshop on Radon Communication for Building Professionals

2 November 2010

WHO HQ, Geneva, Switzerland

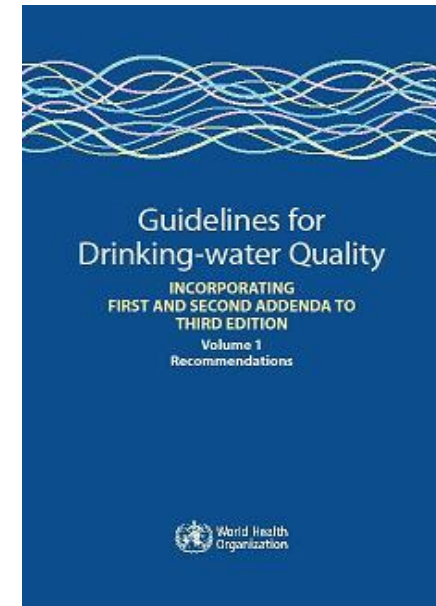


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# WHO guidelines for drinking water quality

- WHO norms on water quality and human health in the form of **guidelines for DWQ** are used as the basis for regulation and standard setting, worldwide.
- A working group was established to review and revise chapter 9 addressing **radiological aspects**, including experts from the DWQ Committee, WHO Collaborating Centres (IRSN, BfS, HPA) and IAEA.



Revision of the Third Edition ended, incorporating 1st & 2nd Addenda. With participation of WHO Regional Offices, the revised version is expected to be ready by July 2011.

# WHO Global Initiative on Radiation Safety in Health Care Settings



**Diagnostic radiology**



**Interventional radiology**

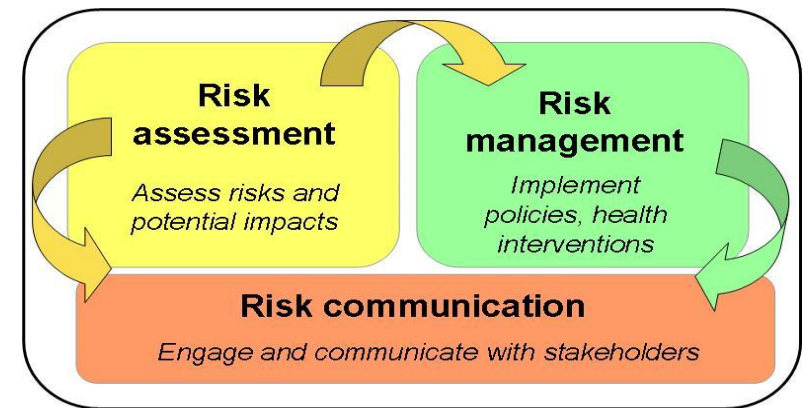


**Radiotherapy**



**Nuclear Medicine**

*Focusing on **Public Health** aspects related to the risks and benefits of the use of radiation in health care*



# Risk assessment: data collection

- UNSCEAR-WHO-IAEA collaboration to improve data collection on medical exposures: tripartite **MoU** to be signed.
- To improve evaluation of global estimates of frequency and levels of exposures (medical procedure, age, sex, health care level, country, information about equipment and staffing).
- Simplified questionnaire (design, content, taxonomy, terminology, instructions).
- Focus on most significant procedures and foster systematic data collection from populous countries.
- Electronic solutions for data collection and dissemination of findings.
- Use of existing mechanisms (IAEA- frequency and doses in radiotherapy and nuclear medicine and WHO health care indicators).



# Risk assessment: research agenda

- Report of the WHO Workshop on "**Radiation Risks Assessment in Pediatric Imaging**" was published in J. Radiol. Prot. 30:105-110 (2010).
- Collaboration with UNSCEAR and other relevant partners to identify priorities and set up a **global research agenda** on health effects of medical radiation exposures
- WHO and EC co-sponsored the 2<sup>nd</sup> International Workshop of the Multidisciplinary European Low Dose Initiative (**MELODI**), Paris 18-20 Oct. 2010



Photo: UNSCEAR, IAEA, ICRP, IARC, WHO

J. Radiol. Prot. 30 (2010) 105–110

## Meeting reports

WHO Workshop on Radiation Risk Assessment in Paediatric Health Care  
National Institute of Radiological Sciences (NIRS), Chiba, Japan, 17 December 2009

The World Health Organization (WHO) conducted a Workshop on Radiation Risk Assessment in Paediatric Health Care to review current research on radiation risks following medical exposures early in life and to outline a strategy towards the development of a global research agenda. It was held in Chiba, Japan, on 17 December 2009, within the program of the third KIDS Workshop of the National Institute of Radiological Sciences



# Improving RP culture in health care settings

- Third Asian and Oceanic IRPA Congress (Tokyo, May 2010)
  - Refresher course on RP in medicine;
  - Session on RP culture in health care;
  - WHO Special Session "Appropriate use of radiation in paediatric imaging-challenges and opportunities";
  - International Organizations Forum.
- Third European Congress on Radiation Protection (Helsinki, June 2010)- WHO-STUK Specialists Workshop "Safer and effective use of radiation in paediatric imaging"
- Third African Congress on Radiation Protection IRPA (Nairobi, September 2010)- special session on medical exposures



# **WHO Consultation on Referral Guidelines for Appropriate Use of Radiation Imaging**

**1-3 March 2010**

**WHO HQ, Geneva**

*35 participants from 23  
international, regional  
and national  
organizations (including  
EC and IAEA)*

## **Medical imaging specialists call for global referral guidelines**

Key representatives of the world's leading medical imaging societies have recommended that a common set of global referral guidelines for appropriate use of medical imaging be produced, in the first such global meeting of experts convened under WHO auspices in nearly two decades.

Experts from international, regional and national professional societies as well as the International Atomic Energy Agency and the European Commission, met in the WHO-hosted consultation in Geneva, 1-3 March, 2010. The consultation, "Referral Guidelines for Appropriate Use of Radiation Imaging", was held in the context of the WHO Global Initiative on Radiation Safety in Health Care Settings (Global Initiative), launched in December 2008.

Their call comes in the wake of trends that have seen diagnostic imaging and interventional radiology procedures being used more and more to accurately diagnose a wide range of illnesses and injuries and provide life-saving treatment.

At the same time, however, appropriate use of such technologies is becoming an important health policy concern, particularly since medical radiation exposure constitutes the main source of radiation exposures in many countries and inappropriate use can lead to unnecessary exposures.

The 36 experts, representing 23 agencies and professional societies from across WHO's six regions, agreed upon a roadmap to develop an international set of evidence-based referral guidelines and facilitate their implementation. Plans also call for monitoring the use and evaluation of the impact of the use of such guidance in different clinical settings.

The consultation recommended development of a global set of referral guidelines under the umbrella of WHO, and in collaboration with other relevant international bodies. This would include review, adaptation and expansion, as necessary, of evidence-based guidelines that exist nationally and regionally.

"Reduction of unnecessary radiation exposure by justification of radiological medical procedures is a major goal for the Global Initiative. Such a referral tool developed in collaboration with major expert agencies and institutions will contribute to that goal", says Dr Maria Neira, Director of WHO's Department of Public Health and Environment (PHE).



# Referral guidelines project (II)

- Referral Guidelines Planning Meeting, 23 September 2010 (WHO HQ Geneva).
- Establishment of the referral guidelines working group (RG WG) and special interest groups (SIGs).
- Identification of pilot sites and local teams.
- PAHO and IAEA- guidelines in Spanish, involving the Inter American College of Radiology (CIR), Argentina, Cuba, Mexico, Peru, Uruguay (1<sup>st</sup> meeting Buenos Aires, 22-24 April 2010 in collaboration with WHO ).
- Referral Guidelines Core Group Meeting 7-9 March 2011, Geneva.
- First draft proposal sent to SIGs in April 2011 (45 consensus guidelines) and radiation protection /introductory chapter to be circulated in May 2011



*IRQN, EC, WHO, IAEA, CIR  
(Geneva, September 2010)*



*Videoconference PAHO-WHO HQ*







**World Health  
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**Patient Safety**

A World Alliance for Safer Health Care

## **Patients for Patient Safety News** November 2010

***Newsletter of the  
international network  
"Patients for Patient Safety"***

Welcome to the latest edition of PFPS News, which features highlights from the ISQua Conference in Paris, PFPS Champion activities in Egypt, Ireland and Mexico, and much more!

### **Communicating Radiation Risks in Paediatric Imaging**



Susan Sheridan, Patients for Patient Safety Expert Lead, was invited to participate in a WHO meeting on Radiation Risk Communication in Paediatric Imaging, from 20 to 22 September 2010, at WHO headquarters, Geneva.

The use of paediatric imaging is rapidly increasing worldwide, largely as a result of the increase of paediatric computed tomography (CT). Imaging has become an increasingly important component of the clinical evaluation of paediatric patients and technological advances are making non-invasive evaluation of a wide range of paediatric diseases possible.



# WHO contribution to IAEA activities

- Technical Meeting on Justification of Medical Exposure in Diagnostic Imaging (Vienna, October 2010);
- International Symposium on Standards, Applications and Quality Assurance in Medical Radiation Dosimetry (IDOS, Vienna, November 2010)
- IAEA consultants meeting on the applicability of the INES scale in the medical setting (Vienna, November 2010).
- IAPRPOP (patients) and IAPORP (workers)



# WHO collaboration with EC

WHO participates as observer in:

- EC Article 31 Group of Experts
- EC WP on Medical Exposures

WHO contributes to EC projects:

- Medical Physics Expert
- DoseDataMed
- Medrapet





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European Commission Project:  
*Guidelines on Medical Physics Expert -*  
View of the World Health Organization







# Conclusions

## Guidelines on Medical Physics Expert

- Harmonization of MPE qualification; especially for the clinical training
  - Master degree;
  - Education curricula;
  - Clinical training (IAEA);
  - European criteria for accreditation of Master programmes.
- Certification/registration of MPE
  - Recast BSS and national regulations;
  - NOMP and/or EFOMP (examination);
  - International BSS (IAEA, WHO, PAHO, etc.).
- General considerations
  - CPD / Ethical aspects of RP (IOMP, WHO, etc.);
  - Transitional period;
  - Other health professionals (pharmacists, clinical chemists, etc.).



# JRS Japan Radiological Society

— Radiology Tomorrow : driven by diversity —

April 7-10 , 2011  
Yokohama, Japan



- ▶ Invitation
- ▶ Conference Information
- ▶ Program
- ▶ Invited Speakers
- ▶ Call for papers
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- ▶ JRS fellowships
- ▶ LINK
- ▶ Japanese

## Program

### JRS-JSRT-JSMP Joint Symposium

#### JRS-JSRT-JSMP Joint Symposium 3. "Professionalism in Radiology"

Apr. 10 (Sun.), 13:00~14:50 Main Hall

Moderators: Masaaki Akahane (Tokyo University)  
Yoshitomo Sano (Yamanashi University)

**"Appropriate Use of Radiation Imaging -- Changing Safety Culture in Medical Practice"**  
Maria del Rosario Pérez (World Health Organization, Switzerland)  
The lecture will be held from 13:30 to 13:45



**IPR LONDON 2011**  
**6th Congress and Exhibition**  
of the joint Societies of Paediatric Radiology  
27-31 May 2011, Metropole Hilton Hotel, LONDON

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WHO is collaborating with EC on a Project on Radiation Protection Education and Training of Medical Professionals (Medrapet)



Consistent with one of the objectives of the Global Initiative (RP contents in the curricula of medical schools, including referral guidelines)

**Radiation Safety Summit on Friday 27 May (Image Gently, WHO, IAEA)**

**International Education and Outreach Symposium / World Federation of PR on Monday 30 May**







17th WONCA Europe, Family medicine- practice, science and art, 8-12 September 2011, Warsaw, Poland WHO-WONCA Workshop on Radiation Risk Communication in Pediatric Imaging.

### Forthcoming WONCA meetings

WONCA East Mediterranean Regional Conference-A Family Doctor with you in all stages of Life  
25-26 November 2011, Dubai UNITED ARAB EMIRATES

WONCA Asia Pacific Region 2012, Theme : Evidence-Based Approach to Primary Care, 24-27 May, 2012 Jeju, South KOREA.



International Supporting Organisations and Co-Sponsors



Living with Radiation - Engaging with Society

[www.irpa13glasgow.com](http://www.irpa13glasgow.com)



13-18 May 2012 ■ Glasgow ■ Scotland

13th International Congress of the International Radiation Protection Association

- Radiation protection culture
- Teaching radiation protection in schools
- Room design in radiotherapy
- Dose calculation software for medical use

Fora

These are organised by, or in association with, other national and international organisations, and will allow delegates to understand and contribute to the subjects addressed. It is envisaged that a few topics will be selected for cooperative working in this way, including:

- Role of qualified experts in medical exposure (IOMP/WHO/PAHO/IAEA)
- Medical exposure (WHO/PAHO/IAEA)
- Occupational exposure (IAEA/ILO/NEA/IRPA)
- Ethics and values in radiation protection (ICRP/NEA)
- Nuclear industry (WNA)
- Internal dosimetry (HPA)

# IRPA13 : Glasgow

## 13th International Congress of the International Radiation Protection Association

13 - 18 May 2012

for more information see

[www.irpa13glasgow.com](http://www.irpa13glasgow.com)



Registration & Call for Papers

