

REMPAN

e-NEWSLETTER



World Health Organization

Issue 10

December, 2014

Editorial

Dear Readers,

You are looking at the 10th issue of our e-Newsletter. It has been already five years since we launched it with the help of our Collaborating Center – Wuerzburg University Hospital. It started as a 2-3 pager and look how far we have come! It is a 9-page long, well-structured informative, exciting and brilliant tool for sharing news about the network’s activities, people, publications, and more! This became possible with your active support, generosity and enthusiasm. Thank you all so much! As usual the end of the year issue allows us to look back and take in the lessons we learned during the year that is about to end and to look forward and think about our goals and plans for the year to come. The 2014 was not an easy year on many levels for many of us...

Over the course of this year, WHO has been working in Ebola-affected countries to help the UN Mission for Ebola Emergency Response achieve their goals. WHO has been contributing by: training burial teams and frontline workers, working with communities, building Ebola treatment centres and providing epidemiological data among other activities. See more information on WHO’s fight against Ebola at: <http://www.who.int/csr/disease/ebola/>

One of the lessons we have learnt from Ebola response is the importance of social determinants, social mobilization, and community involvement for efficient response and for building trust in responding authorities. The relevance of social, socio-economic, psychological and ethical factors applies to any type of emergencies and has to be properly integrated in planning and responding to any public health emergencies.

The importance of social factors (among other things) for response and recovery after a nuclear accident has been also underlined during the [6th international MELODI workshop](#) held in October 2014 in Barcelona that focused on the areas of further research and development. The workshop provided input to the MELODI [Strategic Research Agenda \(SRA\)](#).

The 2014 has been also rich in good work, meetings, new projects, and hope it will continue only upwards in 2015. Please read on to learn more about the work of WHO REMPAN.

With my sincere wishes for a wonderful Holidays Season and prosperous New Year!

Dr. Zhanat CARR
WHO REMPAN Coordinator

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News – From REMPAN Secretariat

By Zhanat Carr, WHO, Geneva, Switzerland

WHO co-sponsored the 4th European IRPA Conference held in Geneva, Switzerland, on June 23-27, 2014, where WHO co-organized and co-chaired several sessions, including those on Emergency Preparedness and Response (EPR) and on Lessons Learnt after Fukushima. During the event in Geneva, a first planning meeting was held for the International Program Committee (IPC) of the [IRPA-14 Congress to take place in May 2016 in South Africa](#), where WHO is a corresponding member of the IPC for several topical areas, including EPR. ◆

WHO is further strengthening its cooperation with the [Open Project for European Radiation Research Area \(OPERRA\)](#) and contributed to the discussions on development of the [SRA](#) for EPR held at the 6th International MELODI Workshop in Barcelona, Spain on October 07-09, 2014 and as well as at the [NERIS](#) Workshop held in conjunction with the NEA/OECD's WPNEM meeting held in Paris on October 15-16, 2014. ◆

The Secretariat continues supporting WHO Regional and Country Offices work related to implementation of the [International Health Regulations](#) (IHR-2005), including assistance in assessments and monitoring of national core capacities indicators. WHO experts participated and contributed to the IAEA's meeting on review of the 10 years of [EPREV](#) experience held in Vienna with the aim to explore the potential areas of cooperation between the two agencies in order to avoid duplication of the efforts and ensure consistent results of the preparedness reviews. ◆

WHO contributed to the EU Scientific Seminar [“Fukushima: lessons learned and issues”](#) organized by the EC/[DG-ENERG Article 31 Group of Experts](#) held in Luxembourg on November 18, 2014. ◆



Participantss of the Article 31 Group of Experts Scientific Seminar on Fukushima – EC, Luxemburg – November 2014

News – From REMPAN Secretariat

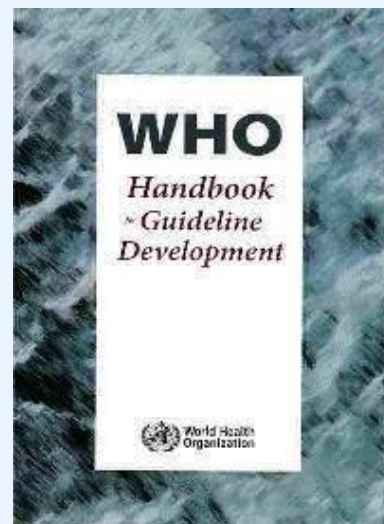
New WHO Guidelines under Development

By Zhanat Carr, WHO, Geneva, Switzerland

WHO continues the development of a WHO guide for [Public Health Response to Radiation Emergencies](#) (target publication date – 2015) and the revision of the WHO 1999 guide on [KI Thyroid Blocking](#) (target completion date – 2015).

The WHO Department of Communications has launched a project for developing the new WHO guidelines on [Risk Communication in Public Health Emergencies](#) that will be based on all-hazard approach. ◆

All guidelines developed by WHO follow the process described in the WHO “Handbook for Developing Guidelines”. [The handbook](#) has been updated in 2014 and the new version is now available for free download. ◆



News – From REMPAN Secretariat

By Zhanat Carr, WHO, Geneva, Switzerland

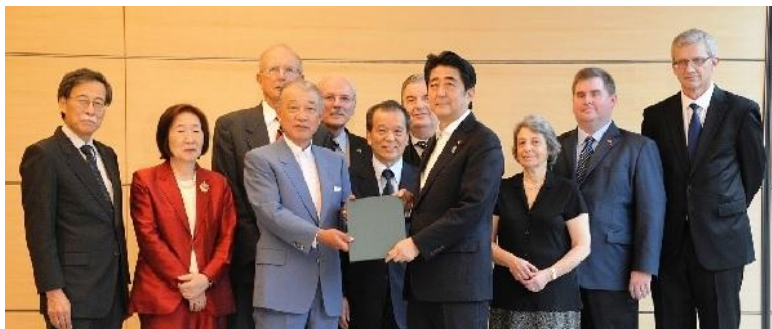
WHO continues co-operating with relevant international organizations to support implementation of radiation safety standards in Member States. WHO contributes to the [IACRS](#) BSS Implementation Task Group and attended the Task Group and IACRS meetings held in Vienna on June 16-17, 2014.

WHO participated in a Regional Symposium on BSS and [WHO Drinking Water Quality Guidelines](#) hosted by the [IRD](#) – a REMPAN member in Rio de Janeiro, Brazil on April 14-17, 2014 and co-organized with IAEA a workshop on BSS implementation held in Yantai, China in July 2014.

WHO provided technical input to the IAEA working group **“International Standards Related to Radioactivity on Food and Water”** and participated in the meeting held in Vienna on May 06-08, 2014 for the development of a TECDOC on the “Control of Foodstuffs and Drinking Water Contaminated as a Result of a Nuclear or Radiological Emergency”.

As one of the key co-sponsoring agencies, both WHO and PAHO have contributed to the revision of the [IAEA’s GS-R-2 \(2003\)](#) publication and intend to co-sponsor the revised document (GSR Part 7). During the process, consultations with REMPAN technical experts were held in 2014. The publication is due in 2015. ◆

On September 8-9, 2014, the [3rd International Expert Symposium in Fukushima: Beyond Radiation and Health Risk - Toward Resilience and Recovery](#) was organized by the Nippon Foundation and hosted jointly by Sasakawa Memorial Health Foundation and Fukushima Medical University in cooperation with Nagasaki University. The symposium gathered expert speakers from across the world and recognized representatives of International Institutions, as well as the global research community. Local residents shared their experience coping with difficulties after the accident. Symposium committee members formulated recommendations based on the proceedings of the conference and handed the document to Prime Minister Abe. ◆



*At the Office of the Prime Minister of Japan (left to right):
O. Niwa, E. Kita, F. Mettler, Y. Sasakawa, J. Lochard, S. Kikuchi,
A. Gonzales, PM S. Abe, E. Bromet, C. Clement, C-M Larsson*

News – From Network Members

Treatment and Long-term Follow-up of Victims of the Radiation Accident in 2011 in Bulgaria

By Jana Djounova, Radiation Medicine and Emergency Department, National Centre of Radiobiology and Radiation Protection (NCRRP), Sofia, Bulgaria

On June 14, 2011 a severe radiation accident occurred in an industrial irradiation facility for sterilization of medical equipment. The cause of the accident was the undetected wrong position of a charged cylinder resulting in unknown position of a radioactive source holder. During the preparation for a new recharging process of the gamma-irradiation facility with ^{60}Co sources, the already charged holder was taken out instead of an empty one.

Five people were exposed for 5-10 minutes to a ^{60}Co source (137 TBq - 3710 Ci). This accident was the first in Bulgaria, in which the whole body irradiation doses exceeded 1Gy. The patients were transferred to the Hematology Department of Percy Hospital in France for specialized therapy. Then they were followed-up long-term by the [National Centre of Radiobiology and Radiation Protection](#) for early diagnosis of radiation-induced stochastic effects in order to increase the chance of treatment and to assess data on the dose-effect relationship at different dose ranges.

J. Djounova and co-authors published two articles in 2012 and 2014:

- Djounova J. et al. Initial medical diagnosis of patients severely irradiated in the accident with ^{60}Co in Bulgaria.
[Radiation Protection Dosimetry 2012 Oct; 151\(4\): 640-644](#)
- Djounova J. et al. Clinical data of one year follow-up of victims of the radiation accident with ^{60}Co in Bulgaria.
[Health Physics Journal 2014 Sep;107\(3\):248-254](#) ◆

News – From Network Members

GHSI Radio-Nuclear Threats Working Group: Laboratory Network Intercomparison

By Chunsheng Li, Radiation Protection Bureau, Health Canada, Ottawa, Canada, and Ryan Morhard, U.S. Department of Health and Human Services (HHS), Washington, USA

The **Global Health Security Initiative (GHSI) Radio-Nuclear Threats Working Group (RNWG)** has identified the lack of surge capacity in radionuclide bioassay laboratory testing (in vivo and in vitro measurements) as one of the major gaps in preparedness for radiological events. To begin addressing this identified gap in laboratory capacity, RNWG member countries have shared information on their capacities for emergency radionuclide bioassay in a series of surveys. This information is the basis for an **intercomparison exercise** where participating laboratories will receive an unknown biological sample, assess it for the presence of radioactive material, identify specific radionuclides present and provide recommendations for medical management. The results will inform future work of an informal GHSI radionuclide bioassay laboratory network.



The GHSI RNWG consists of experts within the governments and agencies of the GHSI network from Canada, the EU, France, Germany, Italy, Japan, Mexico, the UK and USA. It collaborates with other radiation protection and nuclear safety authorities on emergency preparedness, undertakes projects in areas such as countermeasures and laboratory mapping, and serves as an informal rapid communication network during emergencies. ◆

Bilateral Meeting of the SFOPH and WHO

By Christophe Murith, Swiss Federal Office of Public Health (SFOPH), Radiation Protection Division, Bern, Switzerland

The bilateral meeting of the **SFOPH** and **WHO Radiation Program** took place on December 17, 2014 at the WHO Headquarters in Geneva. The Swiss delegation included S. Baechler, Head of the Radiation Protection Division, M. Peneveyre, Head of the Global Health Section, Deputy Head of the Division of International Affairs, C. Murith, Head of the Radiological Risk Section, D. Storch, Head of the Non-ionizing radiation and dosimetry section and P. Trueb, Head of the Radiotherapy and Medical Diagnostic Section. The participants reviewed the first year of the formal collaboration and discussed future plans for the rest of the collaboration period according to the four main areas of collaboration: (1) EPR and REMPAN, (2) Radon, (3) Radiation Protection in Medicine, (4) Non-ionizing Radiation. ◆

Meeting Participants (left to right): E. van Deventer, WHO, D. Storch, P. Trueb, M. Perez, WHO, S. Baechler, C. Murith, M. Peneveyre, Z. Carr, WHO – Geneva, Switzerland – December 2014



New faces

New Associate Director at REAC/TS in Oak Ridge, USA

By Carol J. Iddins, REAC/TS, Oak Ridge, USA

Dr. **Carol J. Iddins** has been named associate director of the **Radiation Emergency Assistance Center / Training Site (REAC/TS)**, at Oak Ridge, USA. In this position, Iddins will provide management and medical leadership, participate in all aspects of emergency response planning, and manage all professional and technical activities of radiation emergency management and REAC/TS.



Dr. Carol J. Iddins

Iddins has more than 20 years of experience in civilian and military medicine, with extensive knowledge of nuclear accident response. Iddins has worked for five years as a staff physician at REAC/TS, serving as a subject matter expert for patients with radiological injuries and illnesses and for disaster medicine readiness, preparedness, and education. ◆

New Director at National Institute of Public Health, Bucharest, Romania

By Alexandra Cucu, National Institute of Public Health, Bucharest, Romania

Dr. Alexandra Cucu, former coordinator of the Ionizing Radiation Laboratory of the Bucharest Regional Centre of Public Health, was appointed General Director of the Romanian National Institute of Public Health in June 2014. In the context of ongoing EU Basic Safety Standards legislation transposition and due to her managerial and academic experience and knowledge, this will facilitate future development of the public health radiation protection system of the Ministry of Health in Romania. ◆



Dr. Alexandra Cucu

Scientific Events

NIRS Workshop on Radiation Emergency Medicine in Asia 2014

By Hideo Tatsuzaki and Makoto Akashi, NIRS, Japan

The **National Institute of Radiological Sciences** (NIRS), Japan, a WHO Collaborating Centre, organized the “**NIRS Workshop on Radiation Emergency Medicine in Asia 2014**” from November 04-06, 2014 at the NIRS Training Center, Chiba, Japan. This workshop shared basic knowledge and skills of radiation emergency medicine (REM) among medical professionals in Asia. Fifteen medical professionals from 13 countries in the Western Pacific, South East Asia, and Eastern Mediterranean Regions participated in the workshop organized in cooperation with WHO and IAEA.



NIRS Workshop on Radiation Emergency Medicine in Asia 2014 – Chiba, Japan – November 2014

Dr. Z. Carr introduced the WHO activities in radiation emergency medicine from its HQ in Geneva by videoconference. In addition to lectures and drills, two topics were discussed: radiation detectors varying in each country and public perception in participating countries on the TEPCO Fukushima Nuclear Power Plant Accident. The discussion based on the detectors used in their own institutes helped better understanding of measurement equipment among participants. The participants are expected to lead REM in their respective countries after the workshop. ◆

VIII Symposium “Hematopoietic Stem Cell Transplantation” in St. Petersburg, Russia

By Sergey Aleksanin, Nikiforov Russian Center of Emergency and Radiation Medicine (NRCERM), St. Petersburg, Russia

During the VIII International Symposium “Hematopoietic Stem Cell Transplantation in Children and Adults” dedicated to the memory of R. M. Gorbacheva from September 19-22, 2014 in St. Petersburg, Russia the Nikiforov Russian Center of Emergency and Radiation Medicine (NRCERM) EMERCOM of Russia organized a “Radiation Medicine” session.

VIII International Symposium (left to right):

*S. Aleksanin,
Ray Powles, EBMT –
St. Petersburg, Russia –
September 2014*



Participants presented reports devoted to the issues of transplantation, radiation accident management, radioprotective properties of fungi and possible treatment for victims of radiation accidents. At the moment the Proceedings are being prepared for publication as a special issue of NRCERM reviewed research journal “Medico-Biological and Socio-Psychological Problems of Safety in Emergency Situations”. ◆

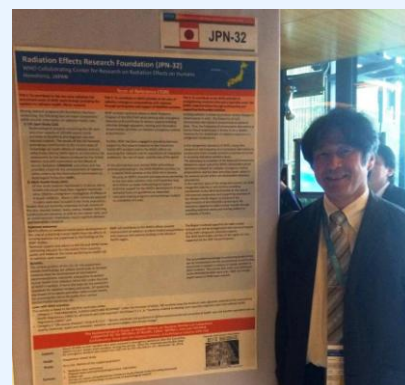
Scientific Events

1st Regional Forum of WHO CCs in the Western Pacific Region (WPR), Manila, Philippines

By Hiroaki Katayama and Kazunori Kodama, RERF, Hiroshima, Japan

The **1st Regional Forum of WHO Collaborating Centers** (CCs) in the Western Pacific Region (WPR) was held from November 13-14, 2014 in Manila, Philippines. A total of 123 WHO CCs from 10 countries, including three **WHO REMPAN CCs in Japan** (RERF, NIRS and Nagasaki University) participated in the Forum held at the WHO Western Pacific Regional Office (WPRO) in Manila. All three WHO REMPAN CCs from Japan made poster presentations and introduced activities relevant to WHO REMPAN.

The purpose of this Forum was to provide WHO CCs an opportunity to reiterate WHO’s view on the public health priorities in the region, and to share WHO’s global health architecture and roles at the regional level.



Dr. H. Katayama – First Regional Forum of WHO CCs – Manila, Philippines – November 2014

In the Forum, participants were divided into small groups by their technical field, and the CCs introduced their activities followed by brainstorming about specific issues. This kind of Forum provided a very good opportunities to learn how much other CCs in the WPR had an interest in radiation-related fields and wanted to have close relationship with REMPAN CCs. This face to face Forum appeared to be very fruitful and productive for the participants. In 2016, the second forum will be held in Manila. ◆

Exercises

Participation of WHO REMPAN CC Moscow in an Emergency Response Exercise at Novovoronezh NPP, Novovoronezh, Russia

By Andrey Bushmanov, Burnazyan Federal Medical Biophysical Center (FMBC), Moscow, Russia

On October 30-31, 2014 an **emergency response exercise** was conducted at the Novovoronezh nuclear power plant (NPP) on the initiative of the WHO REMPAN Collaboration Centre (CC), the **Burnazyan Federal Medical Biophysical Center (FMBC)** in Moscow, Russia.

The Medical Unit 33 of the Federal Medical and Biologic Agency (FMBA) of Russia, the Center of Sanitary and Epidemiological Surveillance of Novovoronezh, the Novovoronezh NPP and the Novovoronezh Branch Emergency Technical Center of Minatom of Russia were involved in the preparation and conduction of the exercise. To perform the exercise, specialists of the Moscow WHO REMPAN CC gave scientific and methodical advice and provided consultative and practical assistance to institutions of FMBA of Russia.

During the exercise, standard measures of first aid and of subsequent medical assistance related to the pre-hospital period were carried out. Further, knowledge and skills of health personnel and performance of radiation monitoring using mobile laboratories of the Center Sanitary Authorities and WHO REMPAN CC in Moscow were tested.



Emergency Response Exercise – Novovoronezh NPP, Russia – October, 2014

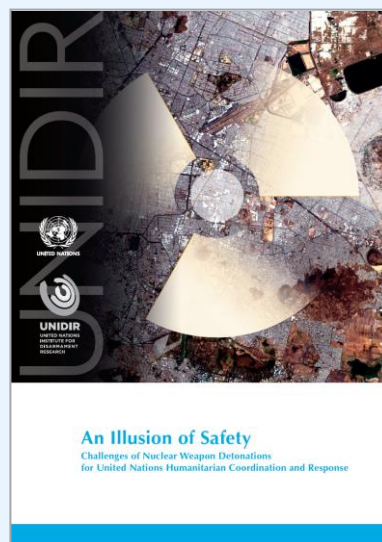
The exercise comprised the following tasks in emergency medical response:

- Training of personnel rescue units to consolidate knowledge and skills in first aid
- Collaboration with units of FMBA of Russia concerning medical care
- Development of treatment protocols traumatic lesions of the victims and contamination of open wound surfaces and the skin
- Triage and treatment of patients
- Development of arrangements for information about health consequences of the accident

A sufficient level of readiness of the Moscow REMPAN CC and the territorial institutions of the FMBA of Russia to respond to a radiological accident was demonstrated by the exercise. ◆

New Publications

Prompted by findings from international conferences on their humanitarian impacts held in Norway in March 2013 and Mexico in February 2014, this **United Nations Institute for Disarmament Research (UNIDIR)** study **[„An illusion of safety: Challenges of nuclear weapon detonations for United Nations humanitarian coordination and response”](#)**, undertaken in cooperation with the Office for the Coordination of Humanitarian Affairs (OCHA) and the United Nations Development Programme (UNDP), was published in 2014. It explores the challenges for activation and operation of the humanitarian system in a range of plausible, illustrative nuclear weapon detonation scenarios. ◆



An excerpt from the Proceedings of the **[“16th Prefectural Oversight Committee Meeting for Fukushima Health Management Survey”](#)** was unofficially translated by the Office of International Cooperation, Radiation Medical Science Center of **Fukushima Medical University (FMU)**. It is provided for information purposes only, and reliance should be placed on the original Japanese version of the proceedings. ◆

Exercises

INEX 5 Exercise to be conducted September 2015 to June 2016

By Halil Burçin Okyar, OECD Nuclear Energy Agency, Issy-les-Moulineaux, France

The **INEX series** of international nuclear emergency exercises, organized under the OECD Nuclear Energy Agency's (NEA) **Working Party on Nuclear Emergency Matters** (WPNEM), has proven successful in testing, investigating and improving national and international response arrangements for nuclear accidents and radiological emergencies. Building on the INEX 4 outcomes, the WPNEM has initiated a new INEX series to conduct a tabletop exercise addressing emergency management aspects of notification, communication and interfaces between and among countries and international organisations related to catastrophic events involving radiation or radiological materials. While the INEX 5 scenario involves a release from a nuclear power plant (NPP), the exercise material is developed to enable NPP and non-NPP countries to conduct regional tabletop exercises to address emergency management aspects of notification, communication and interfaces between and among countries and international organisations. Alternatively, countries may instead conduct independent exercises.

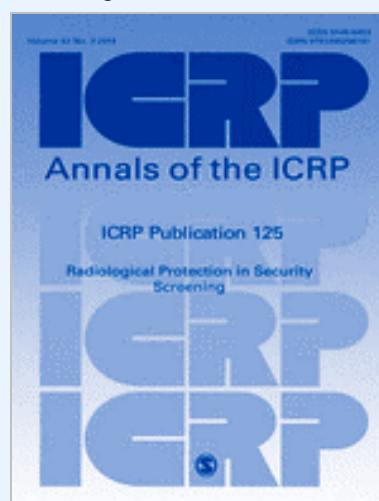
The INEX 5 exercise on **Notification, Communication and Interfaces Related to Catastrophic Events involving Radiation or Radiological Materials** will be an opportunity for participating countries to test and demonstrate the value of relevant changes put in place as a result of the Fukushima Daiichi NPP accident and an important outcome of the exercise will be the identification of good practices as well as key needs for future work that would benefit from international co-operation. The exercise will be conducted from September 2015 to June 2016, with an initial plan to conduct the post-exercise evaluation workshop in spring 2017.

Time	Action
31 March 2015	Deadline to notify the NEA of intention to participate
16 - 17 June 2015	INEX 5 Participating Countries and IOs meeting (OECD NEA, Paris)
09/2015 – 06/2016	Official time window for INEX 5 conduct
End October 2016	Completed INEX 5 Evaluation Questionnaire to be sent to the NEA Secretariat
Spring 2017	INEX 5 Evaluation workshop
End of 2017	Publication of INEX 5 Evaluation/Summary report

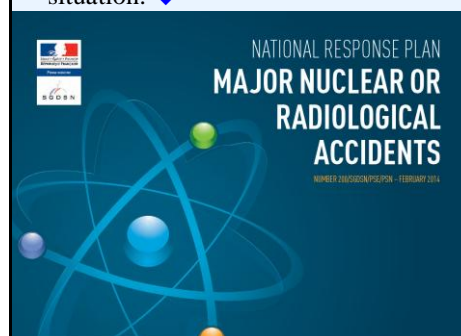
The **INEX 5 web-page** provides an overview of the INEX 5 exercise. Invitation letter and general information about the exercise are available for downloads from this page. Exercise contact points are: **Mr. Halil Burçin Okyar** and **Dr. Ted Lazo**. ♦

New Publications

In 2014, the ICRP released **Publication 125 „Radiological Protection in Security Screening“**. This report provides advice on how the radiological protection principles recommended by the Commission should be applied within the context of security screening. More specifically, the principles of justification, optimisation of protection, and dose limitation for planned exposure situations are directly applicable to the use of ionising radiation in security screening. ♦



The **General Secretariat for Defence and National Security** (GSDSN) has published the English version of the National Response Plan **“Major Nuclear or Radiological Accidents”** in 2014. This plan provides reference information on how to prepare for a nuclear or radiological emergency and to make appropriate decisions. It covers the emergency phase, the period in which the public must be protected and assisted and the accident must be handled in order to control the situation. ♦

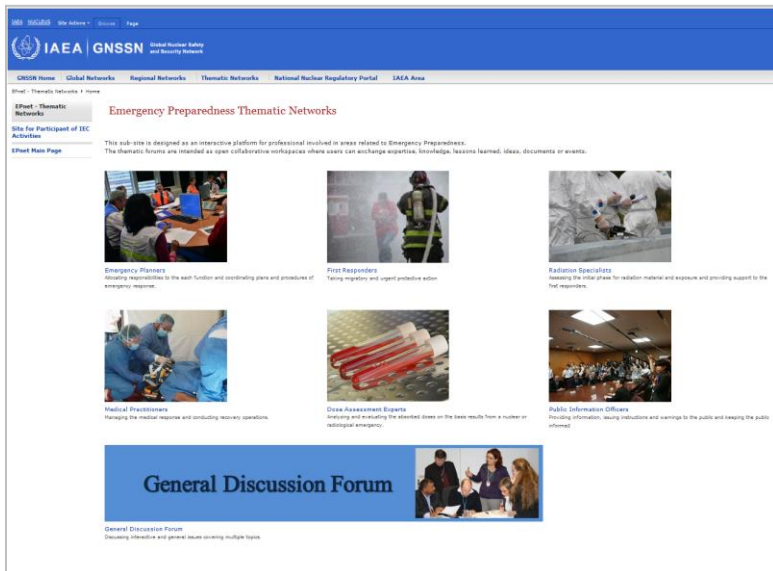


New Online Platform

Launch of IAEA Emergency Preparedness Network (EPnet)

By Lisa Berthelot, IEC, IAEA, Vienna, Austria

The **Emergency Preparedness Network (EPnet)** was launched by the IAEA Incident and Emergency Centre (IEC) during the 58th IAEA General Conference as part of the **Global Nuclear Safety and Security Network (GNSSN)**.



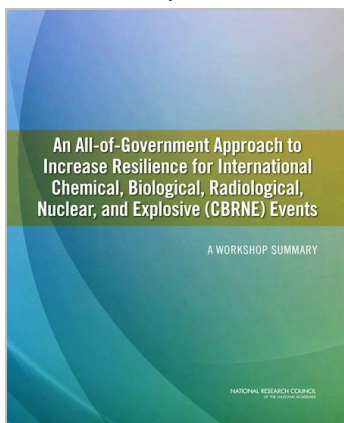
EPnet is an online platform aimed at connecting emergency preparedness and response professionals through a collaborative space. There are six professional sub-networks within EPnet:

- Emergency Planners
- First Responders
- Radiation Specialists
- Medical Practitioners
- Dose Assessment Experts
- Public Information Officers.

[Registration](#) and [further inquiries](#) are available online. ◆

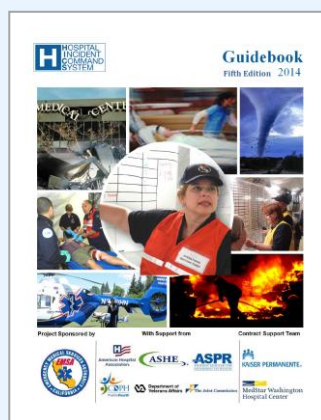
New Publications

The **All-of-Government Approach to Increase Resilience for International Chemical, Biological, Radiological, Nuclear, and Explosive (CBRNE) Events** summarizes a workshop convened in June 2013 by the National Institute of Standards and Technology and the National Research Council (NRC). The 2014 publication discusses ways to strengthen the U.S. ability to prepare for and respond to CBRNE events that occur in U.S. partner nations. The workshop brought together diverse experts and stakeholders to identify capabilities that are necessary for responding to an international CBRNE event; discuss best practices and resources needed for improved interoperability of the U.S. and partner nation during response to a CBRNE event. ◆

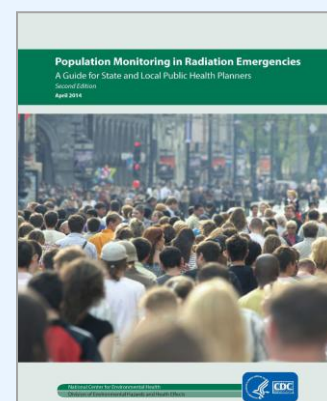


New Publications

In May 2014, the California **Emergency Medical Services Authority (EMSA)** released the **Hospital Incident Command System (HICS) 2014 Guidebook**. This 5th edition newly addresses needs of hospitals regardless of size, location, or patient care capabilities, patient family needs as well as an Employee Family Care Unit to assist the needs of the families of healthcare staff. New chapters addressing HICS for small and rural hospitals were added and HICS forms were revised to match more closely with those of the Federal Emergency Management Agency. ◆



In 2014, the **Centers for Disease Control and Prevention (CDC)** published the 2nd edition of the planning guide **„Population Monitoring in Radiation Emergencies“**. The publication presents an introduction to population monitoring in radiation emergencies for public health officials and emergency preparedness planners. Developed by CDC with extensive input from its partners, it focuses on planning public health response to radiological or nuclear terrorist events involving large populations. ◆



Upcoming Events

- **13-14 January 2015, Zurich, Switzerland**
[ICMPRR 2015: XIII International Conference on Medical Physics, Radiation Protection and Radiobiology](#)
- **14-18 March 2015, Sendai, Japan**
[The 3rd UN World Disaster Risk Reduction Conference](#)
- **16-19 March 2015, Antibes – Juan-les Pins, France**
[1st International Scientific Conference, CBRN Research & Innovation](#)
- **22-25 March, Istanbul, Turkey**
[41st Annual Meeting of the European Society for Blood and Marrow Transplantation](#)
- **12-17 April 2015, Buenos Aires, Argentina**
[X Latin American Regional IRPA Congress on Radiation Protection and Safety](#)
- **21-24 April 2015, Cape Town, South Africa**
[19th World Congress on Disaster and Emergency Medicine \(WCDEM\)](#)
- **04-07 May 2015, Munich, Germany**
[Global Conference on Radiation Topics – ConRad 2015](#)
- **23-29 May 2015, Kyoto, Japan**
[15th International Congress of Radiation Research \(ICRR 2015\)](#)
- **08-12 June 2015, Budva, Montenegro**
[3rd International Conference on Radiation and Applications in Various Fields of Research](#)
- **12-16 July 2015, Indianapolis, USA**
[60th Health Physics Society Annual Meeting](#)

Upcoming Training Courses

- **03-06 March 2015, Oak Ridge, USA**
- **14-17 April 2015, Oak Ridge, USA**
- **02-05 June 2015, Oak Ridge, USA**
[Radiation Emergency Medicine \(REM\)](#)
- **20-24 April 2015, Oak Ridge, USA**
- **17-21 August 2015, Oak Ridge, USA**
[Advanced Radiation Medicine](#)



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Disclosure

The REMPAN e-NEWSLETTER is produced 2 times a year and circulated by WHO Secretariat to the network members to provide information about latest news on the network's activities, developments in radiation emergency preparedness and management.

The REMPAN e-NEWSLETTER was prepared by the WHO Collaborating Centre for Radiation Emergency Medical Preparedness and Assistance, Würzburg, Germany and the REMPAN Secretariat, WHO, Geneva, Switzerland.

The designations employed and the presentation of the information in this Newsletter do not imply the expression of any opinion whatsoever on the part of the Secretariat of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by the World Health Organization in preference to others of a similar nature that are not mentioned. The World Health Organization does not warrant that the information contained in the Newsletter is complete and correct and shall not be liable whatsoever for any damages incurred as a result of its use.

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