

Public Health Response to Fukushima Daiichi NPP and Lessons Learnt

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Framework for RN Emergency Response

- WHO Constitution 1948
- Two Conventions on Early Notification and Assistance (1987)
 - WHO is full party to both
 Conventions
 - Joint Radiation Emergency
 Management Plan of the
 International Organizations
- International Health Regulations (2005)
 - NB! includes RN events in scope
- World Health Assembly Resolutions







WHO tasks according to the JPlan (2010):

- Public health risk assessment and response
- Biological and clinical dosimetry
- Emergency medical response (diagnosis and treatment)
- Long term follow-up
- Mitigation of mental health impact
- Control of food and feed





WHO's Relevant Emergency Networks

- WHO REMPAN network (since 1987)
 - Radiation Emergency Medical Preparedness and Assistance Network, 40+ centers world wide http://www.who.int/ionizing_radiation/a_e/rempan/en/
- WHO BioDoseNet (since 2007)
 - network of 60+ biodosimetry laboratories

http://www.who.int/ionizing_radiation/a_e/biodosenet/en/

- WHO/FAO INFOSAN network (since 2004)
 - International Food Safety
 Authorities Network of
 food safety focal points of MoH





IHR communication for Fukushima Daiichi NPP accident

- On March 11 2011, the Ministry of Health, Labour and Welfare of Japan notified about the explosion event in Fukushima Daiichi Nuclear Power Plant through the National IHR Focal Point within a few hours after the event occurred
- WHO immediately communicated the event to all the Member States in the region through our National IHR Focal Points





WHO Response to Fukushima accident





WHO Strategic Health Operations Center





Partnerships

- IACRNE platform proved efficient for inter-agency information sharing and coordination
- Bilateral cooperation on specific technical areas
 - Liaison officer at the IAEA for two weeks in April
 - WMO and CTBTO on exposure monitoring and forecast
 - FAO on food safety issues
 - ICAO and IAEA on travel and transport safety
- Interactions within UN MDs Group and with UN DSS on the issue of UN staff stationed in Japan and KI acquisition and shipping to Japan
- EC regular teleconferencing with DG SANCO
- Interactions with GHSAG



WHO short-term response actions

- Immediately activated WHO Emergency Response Plan
- Monitor situation (ENAC, WPRO, Kobe, media...)
- Assess health risks (IHR, PHE, FOS, and other relevant WHO programs/experts)
- Provide advice on public health measures (REMPAN, INFOSAN)
- Engage in partnerships, inter-agency coordination (IAEA, WMO, FAO, CTBTO, ICAO, EC...)
- Provide technical support to national authorities (food, water, travel, transport, trade, mental health, public information...)
- Providing information, public messaging (a dedicated website, media statements, press conferences, Fact Sheets and Q&As, social networking media - Facebook, Twitter, etc.)



WHO-FAO-IAEA coordination

- WHO Food Safety Department worked closely with FAO & joint FAO/IAEA programme in Vienna to monitor situation and develop technical information products for Member States and the public
- A joint WHO-FAO Fact Sheet was developed and posted on the web



• A joint FAO-IAEA-WHO statement was issued to demonstrate the multiagency commitment to support Japan and Member States



Ad Hoc WG on Transport/Travel

- Formed within IACRNE platform with participation of ICAO, WHO and IAEA
- Weekly teleconferencing to coordinate response actions, avoid over-reaction, and balance the risk perception
- Sending and receiving information through the PAGNet (network of national points-of-entries health authorities)
- A challenge was to translate different standards and its applicability to assess health risks for travelers in short time
- 140 measures related to travel or trade were identified related to the event. None appeared to reach the threshold of significance under IHRs additional measures (i.e. they did not prevent or delay international movement by more that 24 hrs)



Risk Communication and Mental Health

- Psychological impact can outweigh direct radiological consequences in terms of health risk
- Lack of clear, consistent information creates fears, anxiety, and aggravated psychological impact of nuclear accidents, as seen after Chernobyl
- Public may attribute various physical symptoms of fear and stress to the effect of radiation

IASC IASC Guidelines on Mental Health and Psychosocial Support in Emergency Settings



- Communicating risk to the affected target groups, such as emergency workers, evacuees, parents of young children, etc. and conveying clear and reassuring messages is a key intervention to prevent negative mental health impact of a radiation emergency
- WHO recommends improving availability and access to normal community mental health services in the disaster affected areas of Japan



WHO's Fukushima Preliminary Dose Assessment Report

- Developed by an International Expert Panel
- Published in May 2012, available in PDF at http://www.who.int/ionizing_radiation/pub_meet/fukushima_dose_a ssessment/en/index.html
- estimates for exposure of populations in Japan and around the world in the 1st yr. after the accident.
- based on data collected and made publicly available by the Gov of Japan up to mid-September 2011 and, for doses outside Japan, on computer simulations
- uses conservative assumptions
- Is a basis for the WHO Health Risk Assessment report
- For more information about the report findings and methods used, see FAQ at http://www.who.int/ionizing_radiation/pub_meet/faqs_dose_estimat_ion/en/index.html





WHO Longer-Term Actions to Fukushima NPP accident

- Advice and support of international cooperation on Fukushima Health Management Survey
 - to ensure credibility and transparency of the national study
 - to engage global network of relevant subject matter experts world-wide
 - use experience based on lessons of Chernobyl and experience on mitigation of mental health impact of major disasters in the past
 - support risk communication activities in Fukushima prefecture and rest of Japan





Building capacity in Member States

- Support Member States implementation of IHR
 - Series of regional workshops with table-top exercises for IHR national focal points and stakeholder meetings held in South-East Asian, Middle-East, and African regions in 2012
- Support harmonization of emergency response criteria, protocols, etc.
 - Contribution and co-sponsorship of IAEA's requirements and standards (BSS, GS-R-2, GSG-2, EPR series, etc.)
- Development of technical tools and guidelines for health sector
 - guidelines for PH response to radiation emergencies (2012-2013)
 - guidelines on thyroid blocking (2013)
- Promoting international norms and standards, and monitoring of the implementation to support safe use of radiation, especially in health sector



Emergency Public Health Interventions

- Contamination control and decontamination
- Sheltering and Evacuation and health of evacuees
- KI distribution
- Health risk assessment based on exposure assessment data
- Food & potable water safety
- Risk/crisis communication
- Laboratory specimen collection and analysis
- Responder and emergency personnel safety

- Health and medical needs assessment
- Health systems surge capacity and stockpiles

- Health facilities/equipment safety and availability
- Special populations needs and assistance
 - Mass casualty / trauma / fatalities
- Mortuary services
- Identification of affected individuals
- Registry set up for affected persons and vulnerable

categories of public

- Health surveillance
- Psychological support and social services
- Wastewater and solid-waste management/ disposal
- Continuity of public health programs, services, and infrastructure
- Animal rescue/control/ shelters
- Long-term follow-up
- Return to normality





- Radiation emergencies require strong inter-sectoral coordination
 - competent authorities, health, food safety, civil defense, environment, transport, commerce, customs, etc.
- Existing international arrangements proved useful for coordination with partners inside and outside the UN system
 - Added value of bilateral cooperation (e.g. with CTBTO, WMO)
- Ensuring maximum level of independence and transparency in assessing, managing and communicating radiation risks is crucial
- Existing networks are instrumental in rendering technical support
 - Access to technical expertise and information sharing networks (REMPAN, INFOSAN) was crucial for timely response and advice



Lessons Learnt (2)

- Clear protocols are needed for rapid health risk assessment and for urgent protective public health interventions
 - a need to clarify the use of the exposure monitoring data, plant conditions data and how that relates to the concept of dose limits, constrains and reference levels for protection of the public
 - a need for decision support tools on public health interventions including food and drinking water safety programs
- There is a need for guidance on public information and risk communication strategy built in the overall response planning
 - Clear evidence-based information is needed not only for interventions, but also for avoiding unjustified actions
 - Social networks are becoming increasingly important as communication tools



Conclusions

Radiation emergencies require inter-sectoral response and coordination

- IHR requires countries to have coordination mechanisms to be put in place between health authorities, competent authorities for radiation, food, water, environment, transport, points of entry, legal issues, law enforcement et al.
- WHO offers support to countries to implement IHR
- In managing radiation emergency response, communicating radiation risks is a crucial component. Staff interacting with affected persons, public and media needs to be provided special training on communication
- Access to technical expertise networks is crucial for timely reaction and advice in emergency
 - networks are also extremely useful for sharing experience, information, and facilitation of international cooperation on harmonizing training programs and building on each other's strength and expertise, which will also allow for most cost-efficient use of resources
 - WHO facilitates access and maintains such networks



Thank you / Arigato!

