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NEA Progress to-date on Non-Radiological Health Impacts of Protective Actions – from recognition to mitigation

G. Lamarre, J. Garnier-Laplace, J.H. Kruse (OECD NEA)
M. Zähringer (BfS, Germany), T. Schneider (CEPN, France)

On behalf of two Expert Groups of the NEA Committee on Radiological Protection and Public Health
*-the expert group on non-radiological public health aspects of EPR (**EGNR**);*
*-the expert group on recovery management (**EGRM**)*

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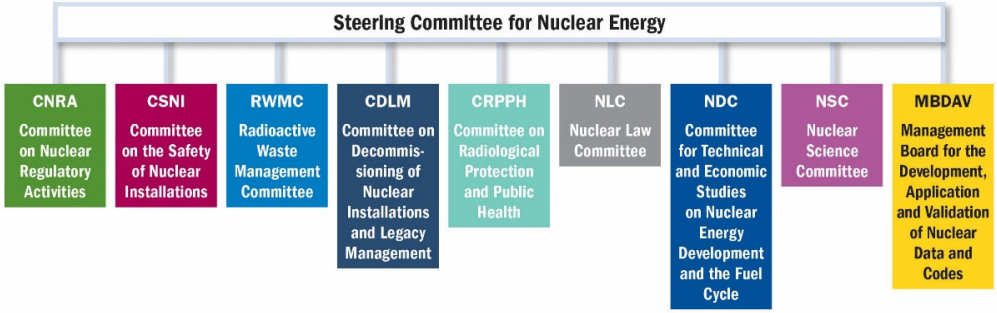
The NEA: A Forum for Co-operation for Countries with Advanced Nuclear Programmes

- Founded in 1958
- 34 member countries + strategic partners (including Brazil, China, India, and others)
- 8 high-level standing technical committees
- Over 80 working parties and expert groups
- 24 international joint projects



What are we talking about?

- ✓ Internationally, much has been learned from the tragic events at Fukushima Daiichi over the past 10+ years
- ✓ The event has taught us that impacts of radiological and nuclear emergencies on mental health and psychosocial support (MHPSS) need to be better considered in protection strategies for preparedness, response to, and recovery from radiological or nuclear emergencies;
- ✓ Decision-makers are not yet sufficiently equipped to move from a radiation protection-centered approach (i.e., focus only on reducing radiation exposure) to a more comprehensive approach to the protection of health and well-being in the broadest sense;

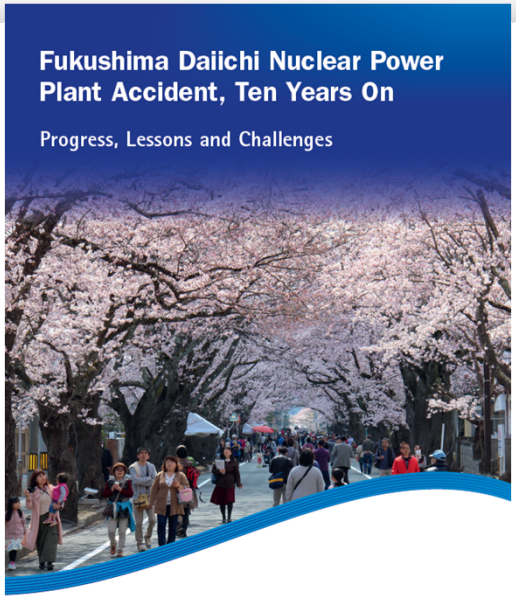
Background – learnings from past accidents

- Non-radiological consequences of nuclear or radiological accidents are complex, of multidimensional nature, with human and societal dimensions at the core.
- They are a combination of direct health consequences of radiological exposure AND indirect public health consequences of protective strategies.
- We learned that their management needs to re-assess the risks of protective actions to reflect a more holistic and inclusive approach throughout the entire cycle of an emergency.
- Among many lessons, some have been well documented, for example:
  - Need to consider specific actions for vulnerable groups (elderly people, children and parents, pregnant women)
  - To proactively consider balancing the risks of immediate evacuation against the possible benefits of sheltering in place with continuous care
  - To further promote stakeholder engagement in a collaborative, inclusive manner from preparedness to recovery, in order to achieve the best possible outcomes

How to proceed - learnings from past accidents

- The NEA's in-depth analysis of the lessons learned from the Fukushima Daiichi nuclear accident resulted in **nine recommendations on future areas for improvement and how the international community can help**.

- Two of them are related to the necessary improvement on the non-radiological consequences of nuclear/radiological disasters.



Recommendation area 6: Stakeholder involvement and risk communication

Promoting Stakeholder Involvement approaches to enhance community engagement and society resilience

Recommendation area 7: Recognition of mental health impacts

(Both recommendations promote an all-hazards approach to preparedness, response as well as recovery, in line with the UN Sendai Framework for disaster risk reduction)

"The NEA may apply its resources to explore: …/… supporting efforts in Japan and globally to develop optimised approaches for emergency response and decision making that fully involve stakeholders."

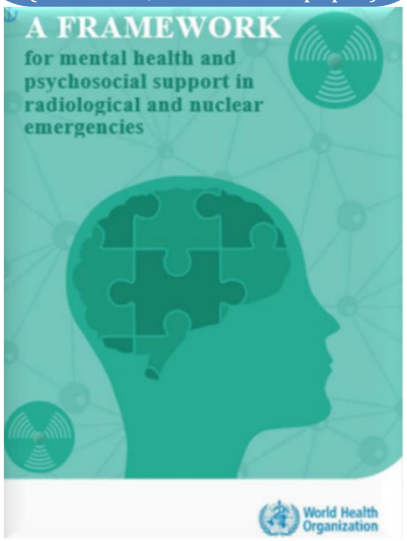
Nuclear Energy Agency (NEA) - Ten years after the Fukushima Daiichi accident (oecd-nea.org)

MHPS Impacts of Protective Strategies – Problem Statement

- **Mental health and psychosocial impacts** of radiological and nuclear emergencies need to be better considered in protection strategies for preparedness, response to, and recovery from these events.
- Supporting this, the WHO recently published a **Framework for MHPSS in Radiological and Nuclear Emergencies** to provide high-level guidance in this area.
- More work is required to prepare decision-makers to move from a radiation-protection centred approach to a more **holistic approach that looks at the overall well-being of the public.**
- Moreover, this will **not be a one size fits all approach,** as stakeholders' needs and expectations are circumstance and population dependent. **Optimisation in decision-making for overall public well-being must integrate socio-cultural and other relevant factors.**

"The major health impacts that had been observed among the public and the workers were mental health problems and impaired social wellbeing"

(UNSCEAR, 2016. White paper).



MHPS Impacts of Protective Strategies – Action-Oriented Solutions

- **Action 1 – Stakeholder dialogues throughout the emergency cycle.**

This could be achieved by exploring possible options to improve decision-makers' responses to stakeholder's needs and concerns. Considerations include:

- **Stakeholder involvement in the protection strategy** is key to success.
- It has **to start at the preparedness phase to develop mutual trust**, that is central to success
- The **ICRP co-expertise approach**, involving people, experts, NGOs, decision-makers, may facilitate radiological protection culture dissemination.
- This dialogue will provide people with knowledge on health risks from radiation exposure ("am I safe?") and methods to put it into perspective of potential deleterious effects of protective actions, allowing **informed protection decisions**

The co-expertise process
(ICRP, 2020. Publication 146)

MHPS Impacts of Protective Strategies – Action-Oriented Solutions Cont'd

- **Action 2 – Develop tools and data to support these dialogues**
  - Such tools/data are necessary to balance the health risks of radiation exposure against the health risks from protective actions and their subsequent disruption of "normal life"
  - Data on MHPS consequences of actions such as evacuation, sheltering, relocation (and related social and community disruption) could be documented from other disasters
  - Promising progress has been made in a number of NEA member countries (e.g., by Health Canada and the US NRC)

Tools, if well developed and understood by stakeholders, could support during the preparedness phase, the comparison of various protective actions in a set of contrasted scenarios, helping the identification of the radiological protective actions with the lowest MHPS impacts, considering national and local conditions.

Ongoing Work and Next Steps

- NEA member countries committed to bring forth practical, actionable guidance to advance preparedness, response and recovery using a multidimensional approach, with human and societal dimensions at the core.

- NEA expert groups working towards operationalizing **the WHO framework**:
  - by developing national-level guidance on how to be better prepare for recovery with health and well being support being one objective of recovery
  - by preparing the translation of the WHO framework into a series of operational action sheets on MHPSS during preparedness, response and recovery

- The ultimate goal is to evolve beyond the optimisation of radiological protection to **the optimisation of well-being**.

- Testing, validating of new approaches/tools using national and/or international level exercises

Ongoing Work and Next Steps Cont'd

Third Stakeholder Involvement Workshop – Optimisation in Decision-making

- Series of webinars proposed for 2022 culminating in **3rd stakeholder involvement workshop scheduled for early to mid-2023**
- **Programme Committee convened, considering following specific objectives**:
  - Improve the common, practical understanding of what optimisation in decision-making means for policy-makers and regulators;
  - Increase the consideration of inclusive stakeholder involvement to optimise decision-making in the nuclear sector;
  - Identify the foundation of a **generic multidimensional framework to support the optimisation process for policy and regulatory decision-makers**.

Thank you for your attention

More information @ www.oecd-nea.org

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