Note

Translation and application of SHAMISEN recommendations for preparedness and remediation after nuclear accidents to other disaster types

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The EU-OPERRA funded SHAMISEN project developed 28 recommendations based on lessons learned from the past, for improving the preparedness and health surveillance of populations affected by a radiation accident. For the first time, the recommendations focused on optimal decision-making processes that not only consider technical issues (direct effects of radiation), but also socio-economic, psychological and ethical dimensions.

The structure of SHAMISEN project

The SHAMISEN project had 2 subtasks devoted to lessons learned: i) from dosimetry, evacuation, health screening and health surveillance (ST1); and ii) from living conditions and the health status of populations affected by previous nuclear accidents (ST2) (Figure 1). The final subtask (ST3) aimed to prepare recommendations on improving the post-accident response and health follow-up based on the conclusions from ST1 and ST2, and incorporating economic implications and ethical issues related to a radiation accident, as well as feedback obtained through a discussion with different stakeholders (ST4).

The final recommendations generated by the SHAMISEN project, aimed at improving the health surveillance of populations affected by a radiation accident, cover evacuation, health surveillance, epidemiological studies, dose measurements, training of health personnel, and communication with stakeholders and the general public. They are divided into general principles and sets of specific recommendations for before (preparedness) and after (early, intermediate, and recovery phases) an accident. Ethical aspects are considered throughout, including the core principle of "doing more good than harm" (1).

How to apply or adapt the SHAMISEN recommendations to other types of accidents (chemical) or natural disasters

Many SHAMISEN recommendations can be easily translated to other types of disasters, especially to chemical and natural disasters. Most recommendations address common issues, and those specific to a radiation accident (dose measurements, thyroid screening or importance of having cancer registers *a priori* and radiation protection culture issues) can be adapted to the circumstances of interest (e.g., environmental monitoring). Likewise, the epidemiological and health surveillance recommendations could apply just as well to natural and chemical disasters, as do the recommendations on education, communication and preparedness of possibly affected populations.

Other relevant issues covered by the SHAMISEN recommendations that would be applicable to any type of disaster include: the resulting psychological stress; the need for adequate and transparent information; the importance of engaging local stakeholders and populations in data collection (or environmental monitoring in general); and establishing mediators between professionals and general public to facilitate dialogue.

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REFERENCES

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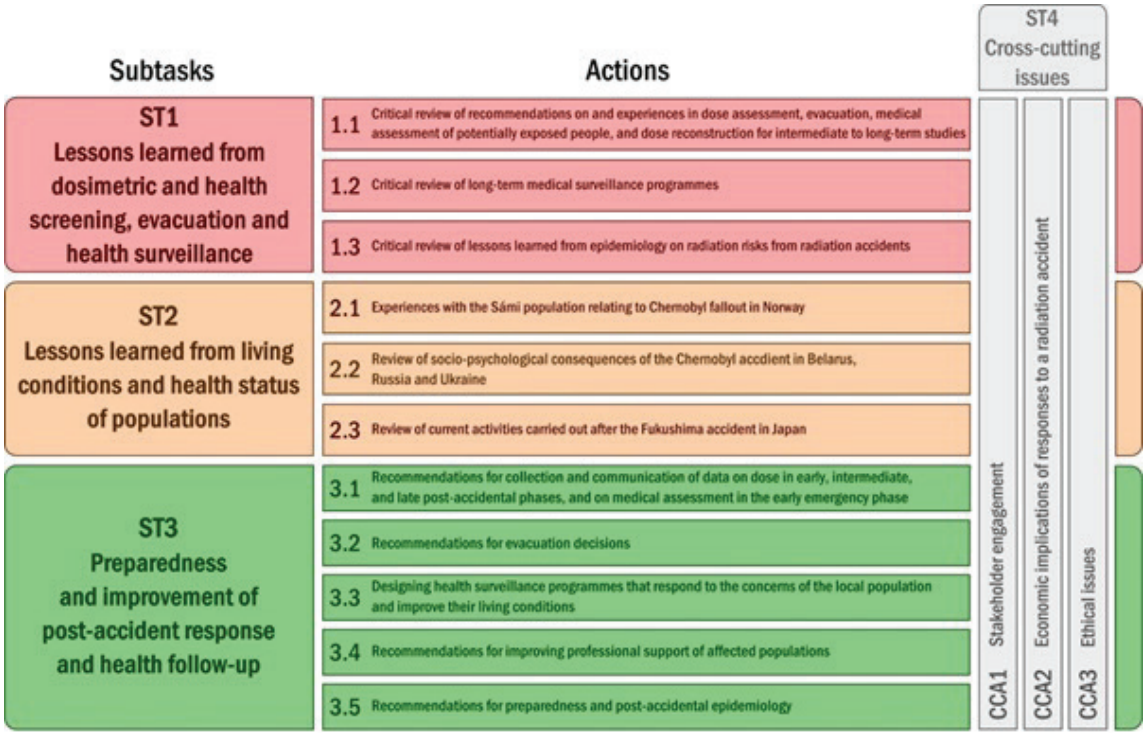

Figure 1 *The structure of SHAMISEN project: subtasks and actions*