

CONSIDERING SOCIAL ISSUES FOR DEVELOPING HEALTH SURVEILLANCE AND HEALTH CARE PROGRAMME FOLLOWING A NUCLEAR ACCIDENT: CONTRIBUTION FROM THE SHAMISEN PROJECT

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- ▶ The Chernobyl and Fukushima accidents have caused significant social and economic disruptions affecting the local populations
- ▶ Effects extending over years or even decades, inevitably impacting their health and welfare
- ▶ Large concern of affected populations about health consequences of living in a contaminated environment

- ▶ However, they generally lack information, support and basic knowledge to cope with the radioactivity in their daily environment
 - ▶ *Limits their ability to act to reduce or avoid exposure to radiations and impact their living conditions*
- ▶ Following the Chernobyl accident, several studies highlight the need for developing new and innovative approaches aiming to:
 - ▶ Respond to concerns of populations affected by long-lasting contamination of their environment
 - ▶ Improve their living conditions

- ▶ **SHAMISEN project: Nuclear Emergency Situations Improvement of Medical and Health Surveillance (2015-2017)**
 - ▶ *Coordinated by E. Cardis (ISGlobal)*
 - ▶ *Funded under OPERRA Project, European Commission FP7*
- ▶ **General objectives**
 - ▶ **Build upon lessons learned** from experiences of populations affected by Chernobyl, Fukushima and other radiation accidents
 - ▶ **To develop recommendations** for medical and health surveillance of populations affected by previous and future radiation accidents with particular attention to:
 - ▶ Dose assessment
 - ▶ Improvement of living conditions of affected population

Focus on the particular Task dealing with improvement of living conditions

-  Review the Health and Concerns of Populations living in contaminated areas following radiation accidents:
 - ▶ Identify **impacts on living and social conditions**
 - ▶ Summarise the **worries, needs and expectations of the affected populations** with regards to their health and welfare

Different case studies analysed

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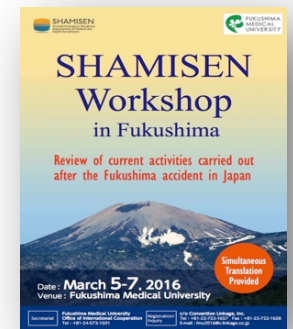
- ▶ Experiences with the **Sámi population** relating to Chernobyl fallout in **Norway**



- ▶ Experiences of **ETHOS** and **CORE projects** in **Belarus** aiming particularly to improve the children's health in the post accidental situation after Chernobyl

- ▶ Review of current activities carried out after **the Fukushima accident in Japan**

- 2 local case studies: Iitate Village & Miyakoji district
- Organisation of a workshop (March 2016) with medical professionals, radiation protection experts and local stakeholders



Expectations and worries

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Water and rice are safe?

Is it safe or dangerous to let my children play outside?

Why do our children have higher contamination levels than their friends who live in the same village ?

physical activities

Physical

disability

peers
works

Social

family relationship

Psychological

social support

abandonment

anger / distrust

sense of control

depression

anxiety

I have few friends or acquaintances nearby, and there is no one to talk with

When I see you here, I'm reminded we have a Bq problem

*litate village case study
Y. Kuroda (FMU)*

Adaptation of the health surveillance programme (1/2)

- ▶ Importance for sharing and taking into account well-being issues in the development of health surveillance programmes
- ▶ Health surveillance should embrace many dimensions such as:
 - ▶ Health and welfare,
 - ▶ Psychosocial issues,
 - ▶ As well as environmental, social and economic aspects, etc.
- ▶ Radiation is not the only concern but health of the children is clearly at stake

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Adaptation of the health surveillance programme (2/2)

- ▶ Contribute to the improvement of the well-being notably:
 - ▶ During evacuation
 - ▶ During the transition phase: e.g. decontamination, return of people
 - ▶ And the longer term: reconstruction and recovery, improvement of welfare, health surveys...
- ▶ Take into account the contribution to well-being of:
 - ▶ Development of infrastructures (transports, schools, care homes...),
 - ▶ Job opportunities
 - ▶ Pleasant and secure living environment

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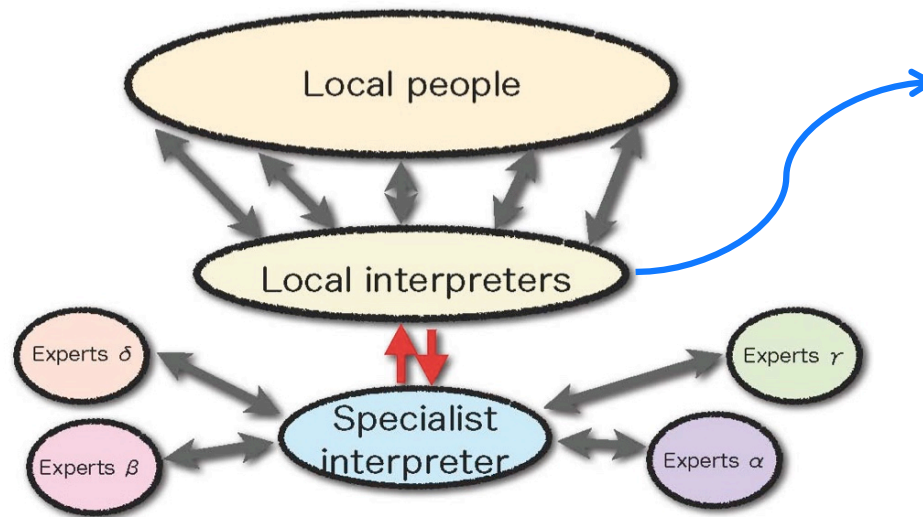
Adaptation of the health care programme

To cope with the post-accidental context:

- ▶ Redeployment and renewal of the health care services
- ▶ To be adapted to the current populations living in different areas taking into account the age distribution and location of inhabitants
- ▶ To provide new services taking into account the presence of radioactivity in the environment
- ▶ Development of skills and involvement of dedicated health professionals to address the concerns of the local population

Role of the different stakeholders

- ▶ People refer to reliable persons (*medical doctors, nurses, elected people, teachers*)



Key role of **local interpreters /facilitator**

- Ensure liaison between national and local levels
- Relay of scientific knowledge and local concerns
- Build face-to-face relationships with local residents.

Double interpreter system –
Miyakoji district case study – M. Miyazaki (FMU)

- ▶ As soon as possible, build **facilitator-expert-population networks**
- ▶ Dedicated structures for dialogue contributing to the development of **practical radiological protection culture**

Adaptation of the Health Care Response

- ▶ **Health care response has to be adapted** to population needs
 - **Health Communities** play key roles as mediators between local people and experts
 - **Importance to implement a counseling approach**



✧ Case of parental counseling at thyroid examination venues in Japan

- Explaining the meaning of the findings, answering to the questions
- Accepting the thought, anxiety and feeling of the examinees and their families

⇒ **Relieve the anxieties of patients and help them to regain TRUST**

✧ Case of WBC measurements in Norway

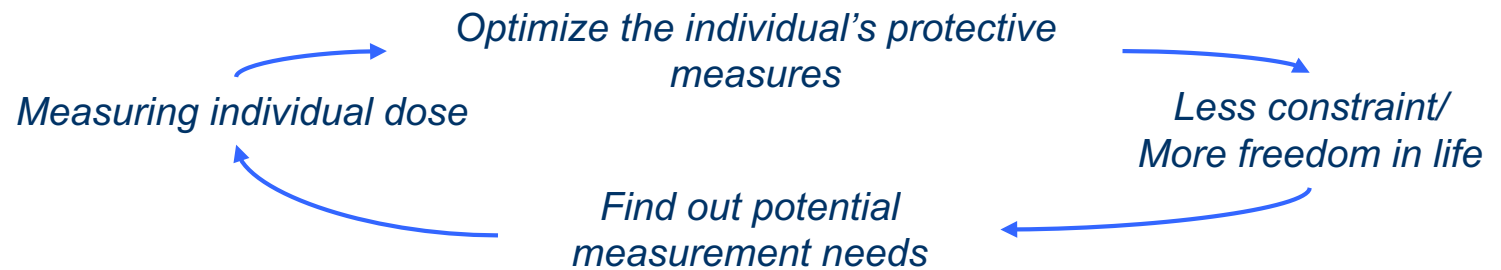
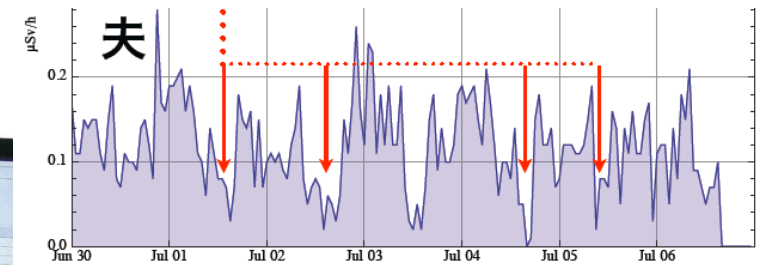
- 15-20 minutes of measurements give opportunity to communicate face-to-face on diets, risks, etc.



Importance of Self-Help protection actions (1/2)

- ▶ Self-help protection actions provide opportunity for affected population to regain control over their daily life

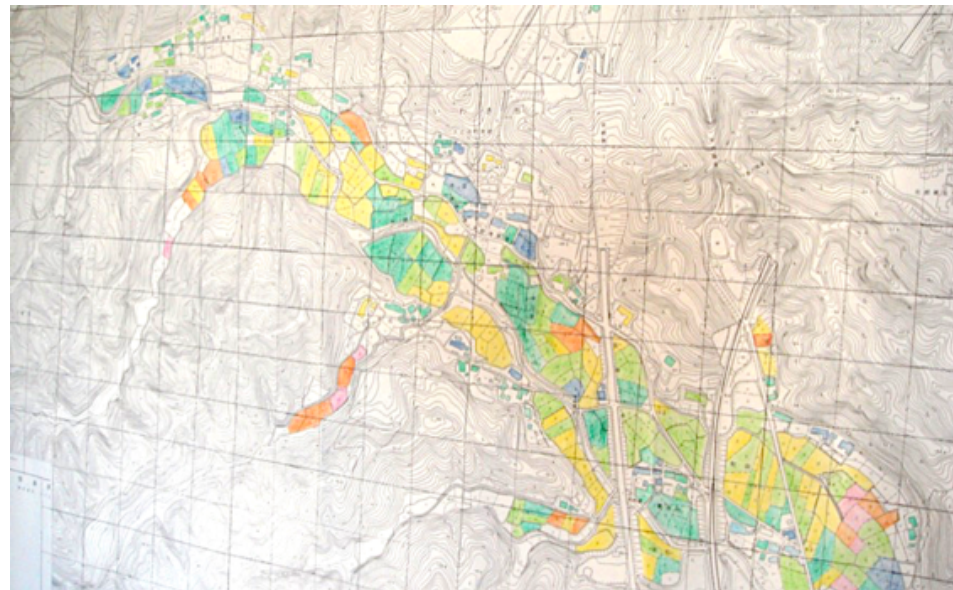
✧ Example of D-Shuttle in Japan described by Japanese experts as a 'positive virtuous cycle'



Importance of Self-Help protection actions (2/2)

- ✧ Cases of **measurements of the environment and foodstuff monitoring** implemented in Belarus, Norway and Japan
- **Allow them to characterize their own environment**
 - Help local people to understand **what is at stake in their own environment, how they can behave to avoid potential contamination**

*Suetsugi Village
contamination map*



- ▶ Most actions related to health surveillance **need to be inscribed in time**
 - To **build trust** with population (and avoid feeling of abandonment)
 - To give **scientific robustness** & provide **efficient results** (*e.g. epidemiological studies, health surveys*)
- ▶ Favour **joint assessment with local populations**
- ▶ Importance to develop a **new framework** to cope with long term issues, in order to maintain vigilance

✧ Case of Belarus & Japanese situations

- Actions implemented to encourage **transgenerational transmission** of practical radiological protection culture (*exchange with experts at schools*)
- Actions favouring **intra-generational and international sharing experiences** (*e.g. school exchanges, etc.*)





- ▶ Health surveillance programmes need to **respect autonomy** and **dignity** of affected populations

✧ Experience from Iitate village

- ① Villagers are in **the best position to determine the local problems** that need to be solved
- ② Villagers must regain confidence that they have control over their lives through **solving each problem by themselves**
- ③ Each villager is not an “object” without knowledge or expertise, but a **“subject” who can make decisions** in life and has multiple viewpoints

- ▶ Response to the accident may cause **more good than harm**
- ▶ Need to **balance scientific considerations and expectations from people**

▶ Strong need to implement **Education and Training**

- For **health professionals** to improve medical, psychological, social support of affected populations (*but maybe difficult to put in place in advance?*)
- For **institutional** and **local stakeholders** to give them keys for a better understanding on radiological issues and potential health impacts
- Not only a matter of risk communication or scientific explanations, but also on **practical day-to-day behaviour advises**, skill for **dialogue**, global **complexity** of the situation...

✧ litate Village magazine

- Editorial team includes mothers of small children
- Write about things that the villagers want to know
- Emphasize the importance of the villagers to measure radiation by themselves



✧ Training of public health nurses in Japan

- Trainings on risk communication with regards to nuclear disaster
- Provide to nurses some answer to parent's anxiety, improve their knowledge and skills on health promotion topics...



Main recommendations from SHAMISEN

28 recommendations:

- ▶ Preparedness, early and intermediate phases and long term recovery
- ▶ Evacuation, health surveillance, epidemiology, dose assessment, communication & training

General recommendations:

- ▶ The fundamental ethical principle of **doing more good than harm** should be central to accident management
- ▶ Recognise the difference between **health/medical** surveillance and **epidemiology**
- ▶ Build a **radiological protection culture**
- ▶ **Adopt dosimetry** and individual exposure monitoring to the phase of the accident, the situation and the needs
- ▶ Encourage a health surveillance strategy that **targets the overall well-being** of populations
- ▶ Ensure that health surveillance **respects the autonomy and dignity** of affected populations
- ▶ Review and if needed improve existing health monitoring systems for **epidemiological surveillance**

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Concluding remarks on health surveillance and resilience (1/2)

- ▶ Need to promote long term resilience of local communities to contribute to recovery with a focus on well-being
- ▶ Issues at stake:
 - ▶ Define quantitative and qualitative criteria for assessing the well-being of individuals and local communities
 - ▶ Develop participatory process to assess the well-being
 - ▶ Organise the sustainable support (experts and means) to local communities
 - ▶ Promote risk governance process ensuring fair and sustainable informed decision for individuals and local communities on their well-being

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Concluding remarks on health surveillance and resilience (2/2)

- ▶ To properly address the issue of well-being within health surveillance programme, it is essential:
 - ▶ Not only to provide accurate information on health issues and mental health support to cope with radiation exposure
 - ▶ But to address the living conditions of individuals and local communities and their ability to envisage their future
 - ▶ To promote the development of the radiological protection culture
 - ▶ To support economic and social projects developed by local communities for ensuring the sustainability of the recovery

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For further information: radiation.isglobal.org/shamisen

Thank you for your attention

