Panel Discussion: Speaking towards reconstruction of Fukushima Prefecture

Health Management and Future Activities of Fukushima Prefecture

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Radiation dosage

100 mSv

Risk of cancer

The linear no-threshold model (LNT Model)

Assumption: A risk of cancer may be increased when a man is exposed to even very small amounts of radiation.
Health risks of population in a high natural background radiation area in India

Kerala, India
Median outdoor radiation levels are more than 4 mSv/year. In a higher area, the highest level is 70 mSv/year.

“Effects of radiation in the human body” by Kazuo Sakai
Radiological protection strategies learning from the past experience of Belarus
Reference: ICRP Publication 111 (J. Lochard et al.)

- Implementation of protection strategies
- Justification and optimization of protection strategies
- Changing a decision making process from top-down to bottom-up (from centralization to distribution)
- Transparency of the decision making process
- Principles of resident participation: Participation and coordination among residents, stakeholders, experts, national and local governments
- Direct involvement by residents, experts in the local area and the authorities to manage the situation and public health
- Delegation of authority by national government and provision of measures for its implementation as responsibilities of national and local governments
- Establishment of a recording system for radiation monitoring on individuals, environment, food items and sharing and transparency of the information
- Provision of information to each individual for self understanding and assessment of their situations in order to provide an environment for them to act proactively and continuously towards the reconstruction
- Establishment of a local council and protection measures under a concept of “self-help efforts”
Activities necessary for health management in Fukushima Prefecture

1. Mitigation of exposures based on ALARA Rules
   Radiation protection for children by decontamination, etc.

2. Health monitoring and management
   Through surveys on health management by prefectural residents and a healthcare program

3. Radiation monitoring by individuals to be actively involved

4. Health promotion activities by residents’ participation and sharing of information on radiation risks
Prefectural people’s Health Management (For all prefectural people)

Basic Survey
Subjects: Persons residing in the prefecture as of March 11, 2011
Method: Self-administered questionnaire
Content: Record of movements after 3/11 (Assessment of estimated radiation exposure)

Manage the survey data continuously
“Prefectural People’s Health Management File” (Tentative name)
☆ Each individual can record and store the results of health surveys and medical checks
☆ Disseminate knowledge regarding radiation

Create a database
◆ Utilize it for a long-term care and treatment of prefectural people
◆ Utilize the knowledge obtained through health management for future generations

WBC (Whole Body Counter) Individual dose meter

Detailed Survey
Thyroid gland test (conducted sequentially for all prefectural people who are 18 years old or younger, including evacuees to outside the prefecture)
Details: Ultrasound for thyroid gland
*Ascertain the current status of entire subjects in approximately 3 years, and the test will be conducted regularly after that.

Health checks (by existing methods for regular health checks)
Subjects: Residents in the evacuation areas and persons deemed to require this survey as a result of the Basic Survey
Details: General health exam + Differential white blood count
Subjects: Residents in other than the evacuation areas
Details: General health exam

Having health checks at workplaces, or municipal-sponsored health checks and cancer examinations on a regular basis lead to early detection of diseases and implementation of appropriate treatment without delay.

Implement specific health checks for prefectural people who are ineligible for existing regular health checks

Survey of mental health and life management
(Send questionnaire papers to residents in the evacuation zones)

Survey of pregnant women and new mothers
(Send questionnaire papers to those who applied for “Maternal and Child Health Handbook” during Aug. 1, 2010 through July 31, 2011)

Consultation/Support Follow-up Treatment
Support residents’ independence by improving an environment to encourage residents to participate in radiation protection and health management activities

1. Establishment of a radiation monitoring center for residents to understand their situations of exposure
   - WBC: Internal contamination
   - Germanium meter: Food contamination
   - Technologist

2. Establishment of a local council to handle health issues
   Residents’ participation in health promotion activities and sharing of the information on risks
Summary

• Mitigate radiation dosage by decontamination and radiation monitoring considering the followings: ALARA Rules, justification and optimization of protection strategies, radiation protection for children

• Residents’ participation in a decision making process and coordination among the authorities and experts are important to implement radiation protection and health management, and appropriate activities are necessary to promote the above concepts.

• Establish a radiation monitoring center and a local council to handle health issues.

• Promote health management activities by residents’ participation and aim to become a prefecture with the lowest mortality rate of cancers in the whole country by reducing risks of cancers, etc.