Risk Communication Activities of JAEA after the Fukushima Daiichi Accident

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Outline of our risk communication activities after the Fukushima nuclear accident

Awareness of residents in Fukushima and Ibaraki prefectures

Summary
Main purpose: To reduce residents’ anxiety and concerns about radiation risk

Risk Communication Activities after the Fukushima Nuclear Accident

★ Explanatory meetings on radiation and its health effects

- Ibaraki: Start in May 2011, 90 meetings, ~7,200 participants.
- Fukushima: Start in July 2011, 232 meetings, ~18,700 participants. (as of Dec. 2013)

★ Risk communication with Fukushima residents during whole-body counting (WBC) examinations

- Start at Tokai Center of JAEA in July 2011.
- Tokai Center screened ~22,000 residents (as of Dec. 2013).
Implementation Process of Explanatory Meetings

1. Create slides with messages
2. Form dispatch team
3. Listen to participants’ needs and questions
4. Prepare explanation slides and answers to the questions
5. Hold the meeting
6. Evaluate the effects by analyzing questionnaires
7. Answer questions received after the meeting
Flow of the meeting

- Explanation using slides
- Question and answer session
- Radiation measurement experiment (in Ibaraki pref.)
• JAEA has taken internal dose measurements of Fukushima residents using whole-body counters.

• Tokai Center of JAEA has implemented risk communication with the examinees and their families.
Awareness of Residents in Fukushima and Ibaraki Prefectures

- Questionnaire survey at the explanatory meetings and the WBC examination

- Survey participants ➔ Participants of the meetings, WBC examinees (and their families) (Mainly)
  - Ibaraki ➔ Ibaraki residents
  - Fukushima ➔ Fukushima residents outside of the evacuation area
  - WBC ➔ Fukushima residents in the evacuation area and its surrounding area

- Analysis period covered ➔ From the start to Oct. 2012
Most participants understood the contents of the meetings.

“Well” + “Somewhat” understood:
- Ibaraki → ~ 96%
- Fukushima → ~ 90%

2011 yr.

Most participants understood the contents of the meetings.

“Well” + “Somewhat” understood:
- Ibaraki → ~ 96%
- Fukushima → ~ 90%

2012 yr.
Most participants and WBC examinees experienced reduced anxiety.

“Well” + “Somewhat” reduced:
Ibaraki → ~ 90%, WBC → ~ 93%
“Radiation and its health effects,” “Food” : Top two items
“Food” increased, “Soil” decreased in 2012.

Items Related to Anxiety and Worry

Radiation and its health effects
Food
Soil
Prenatal radiation exposure
Water
Air dose rate
Others

Fukushima (N=1349) WBC (N=2438)

Fukushima (N=413) WBC (N=3129)

(Two items selected)
Frequency of Obtaining Radiation Information before the Accident

WBC → 36% (2011), 20% (2012)

Frequency is rather high for people who lived near nuclear plants.

Frequency is rather high for people who lived near nuclear plants.

Fukushima → 24% (2011), 24% (2012)  
WBC → 36% (2011), 20% (2012)

Frequency is rather high for people who lived near nuclear plants.

Frequency is rather high for people who lived near nuclear plants.
“Accuracy,” “Clarity,” and “Rapidity” are important.

Important points have not changed drastically in areas.

In 2012, top 3 items do not change and “Usefulness” increases.
Risk Communication Activities after the Fukushima Nuclear Accident

- Explanatory meetings about radiation
  - in Ibaraki.
  - in Fukushima.
- Risk communication during WBC examinations

Questionnaire Survey of Residents

Survey results

Evaluation of our risk communication activities:
Most participants and examinees understood our explanation and reduced their anxiety.

Anxiety and worry:
- Top 2 items were “ Radiation and its health effects” and “Food.”
- “Food” increased and “Soil” decreased from 2011 to 2012.
Frequency of obtaining radiation information: Low

Important points of nuclear information:

- Top 3 items were “Accuracy,” “Clarity,” and “Rapidity.”
- “Usefulness” increased from 2011 to 2012.

Future risk communication

- We should explain radiation health effects and food contamination.
- Useful information (ex. radiation exposure reduction methods) should also be provided.
- We should use exact and plain words and avoid technical terms or jargon.
- Active listening and sympathizing with affected residents are important in risk communication.