## 2024 Fukushima Medical University International Symposium on the Fukushima Health Management Survey

# **Q & A**

The questions from participants and answers (including those that could not be answered on the day of the Symposium)

Date: Saturday, March 2, 2024

Venue: Tokyo Main - JA Kyosai Building Conference Hall

Satellite - FMU Fukushima Ekimae Campus

#### **Basic Survey**

- 1 Q How did you provide feedback on the results of the Basic Survey that was intended for all residents of Fukushima Prefecture?
  - A Estimated individual doses are provided to those who submit the Basic Survey questionnaire. In addition, doses for each municipality were posted in newspapers for a while after the Fukushima Nuclear Power Plant accident.

We continue to provide the Fukushima Prefectural Oversight Committee with up-to-date data from the Fukushima Health Management Survey.

- 2 Q How can the estimated external radiation exposure doses obtained from the Basic Survey be utilized in our daily lives?
  - A The Basic Survey is the only way to know one's external radiation exposure doses for the four months immediately after the nuclear power plant accident, when air dose rates were highest. In addition to informing individuals about their external radiation exposure doses, Basic Survey information can be shared with our Center to guide how we monitor your health over the next 10, 20, and 30 years.
- 3 | Q | I have not yet taken the Basic Survey. Can I still take it?
  - A The Basic Survey is still ongoing.

We can provide you with an estimated external radiation exposure dose whenever you return the Basic Survey questionnaire.

If you have lost your questionnaire, please contact us for another copy.

- 4 Q Without verification of internal radiation exposure doses, it seems to me impossible to discuss the relationship between exposure and cancer. Don't you have to verify internal exposure doses?
  - A Verification of internal radiation exposure doses has been done with whole-body counter examinations conducted by Fukushima Prefecture and its commissioned institutions. The overall results are available on the Fukushima Prefecture website (available only in Japanese).

The level of radiation exposure for most Fukushima residents is less than 1 mSv.

- Are the internal radiation exposure doses to the thyroid evaluated solely on intake from air and tap water, but not from food or other liquids?
  - A Internal exposure doses to the thyroid are evaluated by analyzing behavioral records obtained through the Basic Survey, together with the concentrations of radioactive materials in the air and tap water, obtained by computer simulation.

The method considered to be most reliable for evaluating internal radiation exposure doses to the thyroid is to directly measure radioactivity in the thyroid at a relatively early stage after the nuclear accident. This has been done for about 1,000 people, for whom the measurements have been generally consistent with estimates derived from their Basic Survey data. Therefore, we have confidence in the method that combines behavioral records from the Basic Survey with computer simulations of how radioactive substances were disbursed after the nuclear accident. Apart from breathing air and drinking tap water, radioactive intake was limited by the following factors: the disaster occurred in March, when there were not many freshly grown vegetables available; food distribution was promptly controlled; the main focus of the assessment was children; and most importantly, the results of our assessment method and the most reliable method of direct measurement of the thyroid were generally in agreement. Since Survey-based results are generally consistent with the most reliable method of directly measuring radioactivity in the thyroid, we used doses from air inhalation and tap water intake to make our determination. This approach has been independently peer-reviewed as a prerequisite to publishing our method and results in respected academic journals.

- 6 Q What is the validity of the evaluation of external radiation exposure dose estimates in the Basic Survey?
  - A Regarding the validity of our evaluation of external radiation exposure dose estimates in the Basic Survey, our method has been peer-reviewed by outside experts as part of the process of publishing academic papers in respected scientific journals. Another reason to be confident is that our method of evaluating external exposure doses by superimposing maps based on behavioral records and actual measurements of air dose rates gives results that are largely consistent with results obtained through UNSCEAR's method, which estimates the external radiation exposure doses based on the measured deposition of radionuclides in the soil.
- 7 Q Why is the evaluation of external radiation exposure doses based on mean values rather than maximum values?
  - A The results of the Basic Survey (external exposure dose assessment) are periodically reported to the Oversight Committee, and the reports include not only the average external radiation doses, but also the maximum values are reported.

    Based on that report, the dose estimation results of the Basic Survey are evaluated by the Oversight Committee.
- 8 Q Please tell us the representative values of both external and internal radiation exposure doses for the thyroid.
  - A Internal exposure dose evaluations of the thyroid (based on mean values in each location) for one-year-old children in 16 municipalities around the Fukushima Daiichi Nuclear Power Plant ranged from 1.3 mSv (Date City) to 14.9 mSv (Odaka Ward, Minamisoma City). For more information, please refer to the research paper\* link below.
    - \* Estimation of children's thyroid equivalent doses in 16 municipalities after the Fukushima Daiichi Nuclear Power Station accident

In addition, the external exposure dose to the thyroid gland (for four months after the accident) was evaluated by multiplying the external exposure dose evaluated in the Basic Survey by 1.1. Therefore, it is evaluated as the same dose reported in the "Summary report of the Basic Survey," which was published as material for the Oversight Committee.

#### **Thyroid Ultrasound Examination**

Q Please tell us the representative values of external radiation exposure doses and internal radiation exposure doses for the thyroid. A In the case-control study, people's ingested doses from tap water and inhaled doses from air were estimated for 14 days after the accident as the basis for their internal radiation exposure doses. Q The graph of the odds ratio between doses and thyroid cancer is explained as "the dose-effect relationship is not significant," but what do you think about it steadily increasing? Analysis adjusting for factors such as gender, birth year, and number of examinations received did not reveal a statistically significant increasing trend in the relationship between "malignant or suspicious for malignancy" findings and radiation dose, expressed as an odds ratio. The odds ratio appears to be increasing steadily, although not significantly, which may be due to factors arising from other examinations, such as the number of cases that proceed to confirmatory examinations or cytological diagnoses, but we treat these as factors that cannot be adjusted for. We continue to collect and analyze relevant data. Q In addition to the malignant or suspicious for malignancy cases that are counted in the FHMS Thyroid Ultrasound Examination, some cases are diagnosed through various pathways. How are these cases reflected in the Survey? A Yes, in addition to cancers detected through the FHMS Thyroid Ultrasound Examination, some are diagnosed and treated for thyroid cancer through subsequent follow-up examinations or other pathways. We also consider data from the national Cancer Registry, in which people diagnosed with cancer at hospitals nationwide are registered, for cases in case-control studies. We are evaluating as many thyroid cancer cases as possible at this time and are looking for possible cause-and-effect relationships. Q The phenomenon of "overdiagnosis" has also been pointed out. Are there any data or cases to suggest overdiagnosis? If so, has it ever been discussed at an academic conference or in the Oversight Committee? Yes, this was discussed at the 20th Meeting of the Thyroid Examination Evaluation Subcommittee on March 20, 2023. For more information, please refer to the Fukushima Prefectural Government website. For any inquiries about detailed information from any academic society, please contact them directly. Q In Fukushima Prefecture, the ratio of male thyroid cancer cases seems to be higher than the 5 nationwide detection rate. Could you provide the reason or cause for this? A The male: female ratio for thyroid cancer is about 1:3, according to national data for all ages. The male: female ratio in Fukushima is lower than the national data, suggesting relatively more males are being diagnosed. This may be related to the fact that our Thyroid Ultrasound Examination program focuses on children to young adults. As participants proceed to the Age 25 Survey, the male: female ratio moves in the direction of national data, suggesting that the gender ratio in Fukushima may be influenced by the younger average age of those who have been examined. Q What were the reasons for the detection of so many malignant or suspicious for malignancy findings in the full-scale examination (the second-round examination)? This may be related to newly diagnosed cases among those who had not participated in the preliminary baseline examination, along with the fact that examinees are getting older as they continue to have periodic examinations.

- 7 Q In the case of the Chornobyl accident, children born after the accident were also covered for thyroid examinations, but why was that not implemented in Fukushima?
  - A The FHMS Thyroid Ultrasound Examination covers children born to mothers who were pregnant around the time of the nuclear accident, specifically, those born through April 1, 2012. The reason for this is that childhood thyroid cancer due to radiation exposure is thought to be caused mainly by internal exposure to radioactive iodine, and examinations are being conducted to acknowledge the possibility of internal exposure to radioactive iodine in utero, even if only a little. On the other hand, radioactive iodine has a short physical half-life of 8 days, so most of it from the nuclear accident was gone by late April 2011.

Moreover, doses from TEPCO's Fukushima Daiichi Nuclear Power Plant accident are known to be much lower than those from the Chornobyl nuclear accident.

Thus, for children born after April 1, 2012, internal exposure to radioactive iodine from the accident is unlikely, so there is no compelling ethical or scientific basis for including them in the Thyroid Ultrasound Examination program.

- 8 Q What are the percentages of the examinees who were diagnosed as malignant or suspicious for malignancy after a Thyroid Ultrasound Examination and are still under observation without surgery?
  - A For the number of persons who have not undergone surgery after being diagnosed as malignant or suspected of malignancy, please refer to page 8 of the presentation slides\* for the number of malignant or suspected malignant patients and the number of persons who underwent surgery at the first- to fifth-round examinations and subsequent Age 25 and Age 30 examinations. Please note that the number of cases in which surgery was performed at other medical institutions after being diagnosed or during follow-up is not known, so an actual ratio cannot be stated with certainty.
    - \* Page 8 of the presentation slides Summary of the TUE as of September 30, 2023

#### **Comprehensive Health Check**

- A summarized result was that "Estimated doses of 2 mSv/yr or higher were associated with increased hypertension in an age- and sex-adjusted model; however, the association disappeared after adjustment for evacuation status and lifestyle-related factors." Is there no relationship between exposures over 2 mSv/year and hypertension?
  - A Statistical analysis shows that lifestyle-related diseases (NCD) such as hypertension, diabetes, and dyslipidemia increased in people with estimated radiation exposures over 2 mSv/year, but this association disappears when evacuation and related lifestyle changes such as smoking and drinking habits are considered.
    - Even though no statistically significant association has emerged between low-level radiation exposure and lifestyle-related diseases, scientifically speaking, the possibility of such an association is not zero, so we need to collect and analyze longer-term data.
- 2 Q What are the specific adjustment methods or approaches to study evacuation effects?
  - A Concerning evacuation status or other "adjustment" factors, consider the example of comparing stroke incidence rates in Town A and Town B. Age has a significant impact on stroke incidence rates, so if the age distributions in Towns A and B were different, we must adjust for age-related effects when comparing stroke incidence rates. Thus, the word "adjustment" applies to this process.
- 3 Q There was a statement that atrial fibrillation increased after the 3.11 disaster, but is this related to the effects of radiation (including internal exposure due to radioactive plumes, etc.)? Is there any epidemiological data?
  - A Although there is no specific research to show an association between increased atrial fibrillation and direct effects of radiation, some research has investigated risk factors of increased atrial fibrillation and white blood cell counts.
    - After the 3.11 disaster, the prevalence of atrial fibrillation increased among residents in the evacuation zone of Fukushima Prefecture. Significant risk factors for the development of atrial fibrillation were heavy alcohol consumption and obesity.
    - In addition, an evaluation of post-disaster atrial fibrillation and white blood cell counts showed that the prevalence of atrial fibrillation among residents of evacuated areas was associated with monocyte counts and neutrophil/lymphocyte ratios, suggesting the involvement of inflammation and psychological stress as possible factors in the development of post-disaster atrial fibrillation.
- 4 Q Data shows that after the Chernobyl nuclear accident, the incidence of diabetes increased among nearby residents. Do you assume an increased diabetes incidence rate associated not only with lifestyle changes due to evacuation but also with the effects of radiation exposure?
  - A In general, it is well-known that diabetes increases after a major natural disaster or severe accident. Diabetes is indeed increasing among people with an estimated radiation exposure dose over 2 mSv/year, but we assume that the effect of evacuation is the most significant factor, since there is no significant difference after adjusting for the effects of evacuation.

    Of course, we are not dismissing the possible effects of radiation; we need longer-term observations to make any valid conclusions.

- 5 Q It is often said that stress may affect the development of diabetes. Has any FHMS research found an association between stress and the development of diabetes?
  - A After a follow-up survey of initially non-diabetic persons for 7 years, we found that diabetes increased due to the stress caused by evacuation, and further research revealed that it was more likely in men.

One possible reason for this is that women tend to express openly that they are stressed, while men do not and tend to be in a much more advanced state of stress by the time they respond to the survey.

We assume that the gender difference in the way men and women respond to the survey may also indicate that the relationship between diabetes onset and stress is more likely to emerge in men.

- 6 Q Is there any data on white blood cell counts immediately after the Fukushima Daiichi Nuclear Power Plant accident?
  - A Although Comprehensive Health Check results have been available from FY2011, comparable data from immediately after the 3.11 disaster, including white blood cell counts, is not available because the Comprehensive Health Check did not start in the intended municipalities until July 2011.
- 7 Q Have you compared the incidence of lifestyle-related diseases such as diabetes and hypertension in Fukushima Prefecture with that in other prefectures?
  - A We have compared it with the Aizu region in Fukushima Prefecture but not with other prefectures.

### Mental health and Lifestyle Survey - KOKOKARA Survey

- 1 Q Based on your experience of starting the KOKOKARA Survey after the Great East Japan Earthquake, is there anything that local municipal governments and support groups should do to prepare for future disasters?
  - As the KOKOKARA survey was started after the disaster, there is no way to compare current findings with anything before the disaster. From long-term trends among people affected by the disaster, it is clear that many people are suffering from mental distress, but there is no data available to show how much this may have increased since before the disaster.

    Therefore, we think it is important for each local municipal government to regularly monitor mental health and have a system in place that can utilize this data when responding to a future disaster.
- 2 Q As to the KOKOKARA Survey, please tell us how you secured supporters and took care of them.
  - A To secure supporters, the collaboration of relevant organizations is essential. In addition, personal connections cultivated over time are invaluable for expanding circles of support. Furthermore, in terms of supporting the supporters and disaster-affected people, it is crucial to acknowledge the possibility that exhaustion and anger of the victims may be directed toward their supporters in the immediate aftermath of a disaster. The supporters themselves are likely to be stressed in such situations.
- 3 Q In the KOKOKARA survey, did you not ask about the possibility of radiation-related health effects on current and future generations? If you did not ask, what was the reason?
  - A The KOKOKARA survey asked about perceptions of acute, later-life, and next-generation radiation risks. Questions on acute effects have been omitted since FY2013, and those on later effects have been omitted since FY2021, when a simplified survey questionnaire was introduced. Concerning later effects, questions will be reintroduced in the detailed survey scheduled for FY2025.

#### **Pregnancy and Birth Survey**

- The response rate for the survey was 58% in the first year but has since fallen below 50%. Given the absence of data from the remaining 50%, any comparison with the national average might be rendered meaningless. To obtain a more precise measurement, why don't you collect data from all medical institutions in the prefecture?
  - A When we began this Pregnancy and Birth Survey, our mission was not only to conduct the Survey but also to provide proper support to pregnant women.

In the case of surveys covering hospitals or other healthcare institutions, it is not possible to provide individualized care to pregnant and nursing mothers, so we distributed questionnaires to individuals, asked each person to respond, and then offered support. The response rate was around 50%, which is considered relatively high compared to the response rate for general surveys.

On the other hand, "congenital anomalies monitoring" has been conducted for about 50 years by the Japan Society of Obstetricians and Gynecologists and Yokohama City University. Currently, the program is being carried out with the support of over 300 childbirth facilities nationwide, with a focus on secondary and tertiary hospitals. However, in the aftermath of the 3.11 disaster, all childbirth facilities in Fukushima Prefecture were included through the cooperation of related institutions. So far, there has been no evidence of any increase in congenital anomalies specific to Fukushima Prefecture.

Furthermore, another survey of pregnancies, spontaneous miscarriages, and abortions, conducted by FMU's Obstetrics and Gynecology Department, with a 100% response rate from all obstetrics and gynecology providers in Fukushima Prefecture, showed no specific increases in spontaneous miscarriage or abortion rates after the disaster.

- Q It is acknowledged that the Pregnancy and Birth Survey has concluded that there was no association between radiation exposure and congenital anomalies in Fukushima; consequently, the survey was closed.
  - However, the question remains as to why this conclusion has not been widely disseminated to the general public. Is it challenging to communicate with those who are not directly involved?
  - A The survey confirmed that incidences of birth defects and congenital anomalies in Fukushima were consistent with national averages. Additionally, the tendency towards postpartum depression was found to be on par with the national average. These were the reasons why the survey was closed after 10 years.

In the years following the 3.11 disaster, we reported survey results to public health nurses in each municipality, as well as to midwives and nurses at obstetrics and gynecology clinics and hospitals in five different locations in Fukushima Prefecture. We have continued to report survey results to public health nurses and midwives at prefecture-sponsored training sessions for maternal and child health leaders once a year.

The national press has reported on several occasions that incidences of birth defects and congenital anomalies in Fukushima Prefecture are on par with national averages. Perhaps due to widespread acceptance of this equivalence and a corresponding loss of public interest, the press has ceased reporting on the matter.

However, the dissemination of scientific data is crucial. We remain committed to disseminating survey results and related information at every possible opportunity by participating in academic conferences, creating informative leaflets that summarize the findings, and making informative videos to be posted on our website.

- 3 Q Are there any studies being conducted on pregnancy and childbirth in patients with thyroid cancer?
  - A The Pregnancy and Birth Survey is for those who were issued a maternal and child health handbook by a municipality in Fukushima Prefecture between August 1, 2012, and July 31, 2020, and those who were issued a maternal and child health handbook outside the prefecture during the aforementioned period, but who received prenatal checkups and gave birth in the prefecture.

The survey includes questions about pre-existing conditions but does not explicitly address thyroid cancer.

- 4 Q How many pregnant women were exposed to over 2 mSv?
  - A the 2023 International Symposium, we shared the results of our research on the connection between a mother's "external radiation dose" and major results of pregnancy. Please refer to page 14 of the presentation slides\* for more information.
    - \* Slide 14, page 14, "Results: Distribution of External Exposure Dose Estimates for Group A"
- In a 2014 research paper, the incidence rate of congenital anomalies in the southern part of the prefecture was 4.04%, which was significantly higher than in other areas. When considering results that show regional differences, it seems pertinent to question the validity of denying the effects of radiation exposure.
  - A stated in a 2014 research paper (\*1), congenital anomalies are multifactorial, and the southern part of Fukushima prefecture did exhibit a significantly higher incidence. However, this cannot be attributed solely to external radiation exposure.
    - In fact, external exposure doses in the southern part of the prefecture were not higher than those in the northern and central parts of the prefecture. Subsequent research (\*2), also based on data from 2014, concluded that there was no association between congenital anomalies and external radiation exposure doses.
    - \*1 Pregnancy and Birth Survey after the Great East Japan Earthquake and Fukushima Daiichi Nuclear Power Plant Accident in Fukushima Prefecture
    - \*2 Effects of External Radiation Exposure on Perinatal Outcomes in Pregnant Women After the Fukushima Daiichi Nuclear Power Plant Accident: the Fukushima Health Management Survey

#### **Others**

- There have been many incidents where the general public has lost trust in radiation experts, such as the Bikini Atoll incident and the atomic bombings of Hiroshima and Nagasaki. How do radiation experts at organizations such as the IAEA deal with this public distrust?
  - A The relationship between radiation specialists and the general public is very similar to the relationship between doctors and patients. In the past, doctors would explain things one-sidedly to patients, and that was it. These days, patients can do their own research, learn about their treatment, and consult with their doctors about their treatment plans. However, doctors should still check that the information patients find online is correct and reliable. It's also important for doctors and patients to work together.

At our university, we are increasing the amount of time spent on radiation education classes and related activities. Even if doctors are "radiation experts" in some sense, they have a wide variety of specializations, knowledge levels, and backgrounds, through which mutual understanding and trust can be established.

Also, our university's partnership and collaboration with the IAEA can be helpful for risk communication activities related to radiation.

- 2 Q A survey on risk perception in Kawauchi Village shows that radiation risk perception remains high and has changed little between 2014 and 2017. What would be effective and alternative approaches to improving this situation?
  - A To improve people's awareness of the risks of radiation, it is important not only to share detailed data on the effects of radiation but also to explain things using easy-to-understand examples from everyday life. For example, you can talk about how much exposure a passenger gets on an international flight or how the level of natural radiation in your area compares to other regions. It is also informative to measure radiation levels by yourself. This will enhance the understanding of your local situation and facilitate informed decision-making. Interpreting the data is also an important step in the process.

For a comprehensive overview of the survey's methodology and findings, please refer to page 17 of the presentation slides\* of Dr. May Abdel Wahab's lecture.

- \* Slide 17: "The gap between residents' risk perception and actual exposure doses, even seven years after the accident."
- 3 Q Are there pre-disaster data on "language" and "temper" for 1 1/2-year-old health checkups? Have the numbers related to developmental issues increased since before the 3.11 disaster?
  - A The items included in health checkups are determined by local municipal governments. In this survey area (Hamadori, a coastal area in Fukushima Prefecture), the items "language" and "temper" were included since before the 3.11 disaster.

Consequently, data from FY2011 are available.

The impact of the disaster on such developmental items varies. While some items have shown an increase, others have experienced a decrease. Delays in language and related areas have remained relatively high.

- 4 Q We understand that it has been observed that the overall sense of health among parents can have a significant impact on their children. Would you tell us your insights into the underlying causes and contributing factors of this?
  - A It was observed that the overall sense of health among parents/guardians in the Hamadori area of Fukushima Prefecture was associated with their perception of receiving insufficient support and the prolonged duration of their evacuation.

Parents/guardians in the survey area may have experienced feelings of isolation and instability due to their loss of social resources, such as the nursery school or child development support center they had been using. Additionally, transitioning to a nuclear family household, whether through a move or other changes in family structure, could affect people's ability to consult with others.

- As you mentioned in the presentation, there has been an increase in consultation from widearea evacuees regarding poverty and general living issues. What solutions can be proposed to address these issues?
  - A We offer information on loan programs run by the Social Welfare Council and other organizations, as well as local food banks, as needed. We facilitate connections with relevant local government offices and case workers at medical institutions.

    Our goal is to extend comprehensive support, ensuring that individuals in need of support, goods, and information receive whatever assistance they need.
- 6 Q What are the difficulties and challenges you face in providing support to wide-area evacuees, including consultations specific to nuclear disasters?
  - A Since the 3.11 Great East Japan Earthquake, numerous disasters have occurred throughout Japan, including the Kumamoto earthquake, heavy rains in the Chugoku region, and the Noto Peninsula earthquake. This has led to questions regarding the ongoing presence of evacuees from the Great East Japan Earthquake and nuclear disaster. Despite the existence of adequate response systems at evacuation sites, through the Act on Special Measures for Responding to Nuclear Disasters, there are instances where local government offices may not fully comprehend these systems.

Many people affected by the nuclear disaster have evacuated while keeping their residential registration in Fukushima Prefecture, which complicates the situation for local governments. It is difficult for these governments to understand why evacuees are living in their jurisdiction while having no residential registration.

An evacuees' identity is more than where they move or how they commute to work or school, so it is necessary to help them articulate their unique circumstances.

If evacuees visit a local government office but encounter difficulties receiving support, we assist or facilitate intervention by Fukushima Prefecture staff.

- 7 Q Please tell us that the organization is proud to have provided support to wide-area evacuees.
  - A Our organization has been recognized by local governments as a reliable contact point, based on the support we provided after the Great East Japan Earthquake, and we are often the first people they call when there is a need for disaster-related support.

- 8 Q The nature of support for evacuees may have evolved in response to the COVID-19 pandemic. In the post-COVID era, what are the new directions and issues for support?
  - A To solve the problems of people seeking support, we need to connect them to resources in the communities where they live. So, building daily connections within their local community is very important.

It is important to build relationships that are visible in each community while making use of several projects, such as disaster case management and the development of a multilayered support system for social welfare.

As time goes on, issues will keep changing. For example, after 10 years, some people will be in need of nursing care. So, it is most important to build a system in each community to deal with issues that change over time.

- 9 Q What words of reassurance should I give to my friends who are still worried about the safety of Fukushima?
  - A There are persistent negative images of radiation based on Japan's history and the Fukushima Daiichi nuclear power plant accident. A significant proportion of individuals residing outside Fukushima Prefecture continue to express concerns regarding potential genetic effects of radiation in the region.

On the other hand, doctors who treat cancer patients with radiation say that in such cases, the risk of untreated cancer is greater than the risk of radiation, to which patients often reply, "I don't understand radiation, but I trust you, so I think I should do what you think is best."

This stands in contrast to the situation where individuals fear radiation due to a lack of understanding, as seen during the nuclear power plant accident.

When considering this, the way the general public reacts to radiation is strongly influenced by their anxiety, fear, and distrust of authorities. So, it's important to understand the real reasons behind their worries.

If you tell someone who feels that "Fukushima is not safe enough" that "the radiation in Fukushima is not a problem," their anxiety will not be resolved. Instead, if you sincerely listen to their concerns and build a relationship of trust, their perspective on radiation may change. If you provide a supportive presence and facilitate a two-way dialogue with your friends, addressing their concerns and offering reassurance, they may gradually come to set aside their fears.

While scientific knowledge is certainly important, relationships of mutual trust may be of even greater significance.

- 10 Q What kind of questions and requests do you receive at the periodic briefing sessions with the 13 municipalities (\*1)? Are there any questions about radioactive materials, environmental dynamics, or food safety?
  - A Public health nurses and other municipal staff have reported a significant decrease in inquiries from residents regarding radioactive materials, environmental dynamics, and food. This decline is noteworthy, especially when considered against the high volume of such inquiries immediately following the NPP accident. These issues are rarely a problem these days. Situations vary in each of the 13 municipalities; for example, the situation and response to the return of evacuees also seem to differ. Efforts are underway to establish periodic briefing sessions that can provide individualized support through site visits to each municipality, during which session leaders will ascertain each municipality's particular needs and disseminate FHMS results and related information.
    - (\*1) 13 municipalities designated as the evacuation zone Tamura City, Minamisoma City, Date City, Kawamata Town, Hirono Town, Naraha Town, Tomioka Town, Kawauchi Village, Okuma Town, Futaba Town, Namie Town, Katsurao Village, Iitate Village
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