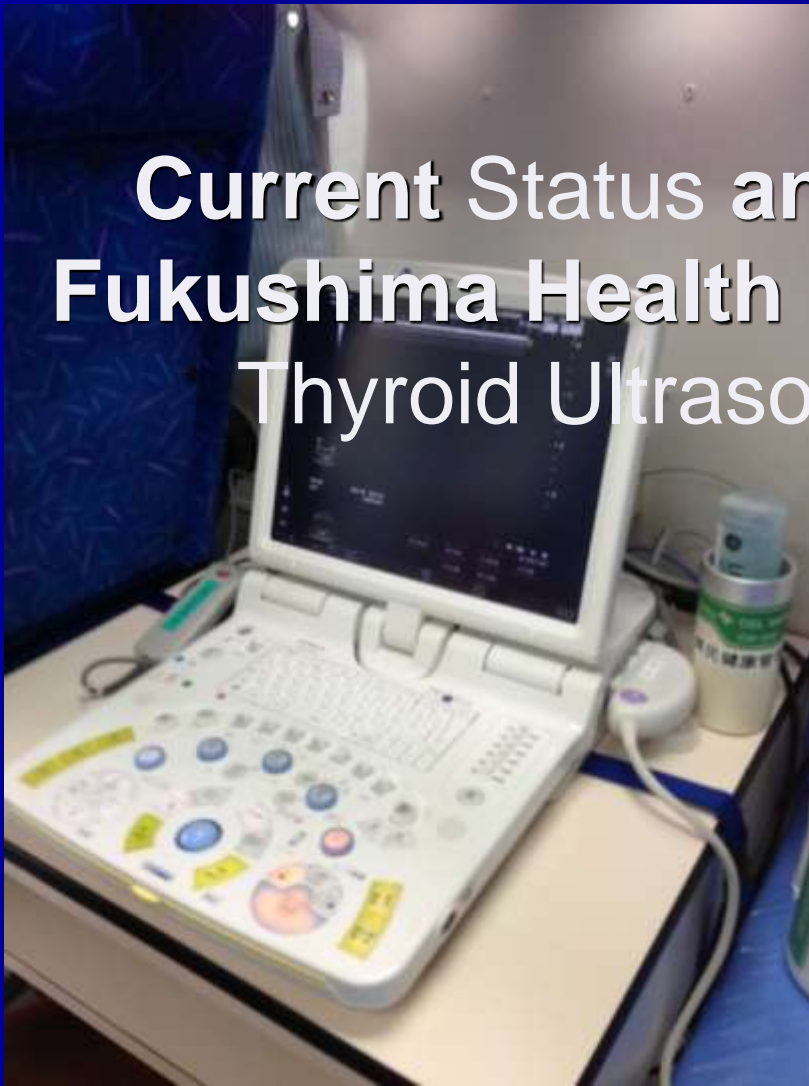


Current Status and Future Vision of Fukushima Health Management Survey Thyroid Ultrasound Examination



Citizen-Scientist International Symposium on Radiation Protection, November 24, 2014

Yasuyuki Taneichi, M.D.

Department of Orthopedic Surgery, Ikeda Memorial Hospital

Personal information

- 46 years old at the time of the disaster in March 2011.
- Married with 3 daughters (ages 4, 8, and 12 at that time).
- I was in private practice and owned an orthopedic clinic in Koriyama City when the disaster struck. I closed the clinic in 2012 and am currently employed as an orthopedic surgeon at Ikeda Memorial Hospital in Sukagawa City.
- As a physician from an area affected by the nuclear accident, I have been involved in discussions with area residents regarding the state and risks of radioactive contamination. I have also participated in the health consultation sessions organized by citizens.
- I have conducted voluntary thyroid ultrasound examinations since July 2012 in order to fulfill requests from citizens. I am now certified to be an independent examiner for the Fukushima Health Management Survey center. I participate in the off-site thyroid ultrasound examinations.

MENU

Research Center for Charged Particle Therapy

Molecular Imaging Center

Research Center for Radiation Protection

Research Center for Radiation Emergency Medicine

Research, Development and Support Center

International Open Laboratory

Hospital

Other Activities

- Medical Exposure
- REMAT
- Risk Communication

REMAT

Print



Radiation Emergency Medical Assistance Team



About REMAT

Today, radiation is widely used in our life. Potential sources of radiation accidents include industrial radiography, therapeutic devices, sterilizers, transportation accidents, and nuclear power plants; devices used for industrial radiography and accelerators are frequent sources of external exposure accidents.

Demand for electricity is increasingly growing and stable supply of

REMAT

1. Commanding Headquarters

- **Overall** command center for the REMAT activities

2. Dispatch team

- Site leader: onsite command
- Radiation emergency medical personnel: emergency response, triage and medical advice
- Dose assessment personnel: measurement, analysis sample collection, simple analysis/assessment, and advice
- Radiation protection personnel: onsite management of exposure and contamination
- Liaison personnel: transport of materials and equipment, installation, onsite information collection and dissemination

3. Logistical support team

- Medical team: acceptance and treatment of exposed and contaminated patients
- Dose assessment team: detailed analysis and dose assessment

4. Secretariat

- Paperwork for the operation and planning

Regarding "ERC* Medical Team status report #16"

August 14, 2011, 4:30

Nuclear Safety Commission

Emergency Technical Advisory Organization

Concerning the contents of the "ERC Medical Team status report #16," we advise as below:

On page 4, there is a statement in the 3rd line from the bottom, "There were 30 some individuals exceeding 13,000 cpm. They were decontaminated afterwards. They were returned to the evacuation center without medical care as post-decontamination re-measurements were lower. (13,000 cpm was our own screening level, which was raised to 100,000 cpm as of March 14 (as per decision by Fukushima Medical University))." The reading of 13,000 cpm by GM survey meter is considered to be equivalent to a surface contamination density of approximately 40 Bq/cm². If this number was all derived from internal exposure to radioactive iodine, it would correspond to the thyroid equivalent dose of about 100 mSv, a reference guideline for stable iodine administration. Therefore, it would be better to keep the screening level at 13,000 cpm, as is, rather than raising it to 100,000 cpm.

***Note: ERC Medical Team = Ministry of Economy, Trade and Industry Emergency Response Center Medical Team**

End

Fukushima Health Management Survey: Purposes

For Fukushima Prefecture to attempt to eliminate anxiety among the residents about health and health management, given the radioactive contamination in the prefecture caused by the Fukushima Daiichi nuclear power plant accident.

(May 19, 2011; Screenings began in November 2011)

To conduct exposure dose estimation of the residents as well as assessment of their health status, resulting in prevention, early detection and early treatment of diseases, thus attempting to maintain and promote their future well-being, given the dispersal of radioactive substances and evacuation caused by the Fukushima Daiichi nuclear power plant accident.
(April, 17, 2013)

Fukushima Health Management Survey: What is it?

Basic Survey (exposure dose estimation by questionnaire survey)

Detailed Surveys (overall health status assessment)

- Thyroid Ultrasound Examination
- Comprehensive Health Check
- Mental Health and Lifestyle Survey
- Pregnancy and Birth Survey

Implemented as of July 2011

Committee members walking from the secret meeting to the Oversight Committee Meeting



After the secret meeting, committee members head for the venue of the Oversight Committee. (Photo taken around 1:55 pm on September 11, 2012, at Sugitsuma-cho, Fukushima City, by Mitsumasa Takemoto, Mainichi Shimbun)

A scene from the practical training by Fukushima Medical University



An article on the 16th Prefectural Oversight Committee Meeting held on August 24, 2014

Fukushima Thyroid Cancer Cases up to 57 Cases. Survey Targeting All Children in the Prefecture.

Fukushima Prefecture, studying the health effects of Tokyo Electric Fukushima Daiichi nuclear power plant accident, announced the results of thyroid ultrasound examination on August 24th, targeting about 370,000 children who were 18 and younger at the time of the disaster. Seven more cases were added to the 50 children confirmed with diagnosis of thyroid cancer as of May, bringing the total confirmed cases to 57. There were 46 “suspicious cases” (39 cases as of May).

The results were reported during the Prefectural Oversight Committee Meeting for Fukushima Health Management Survey held in Fukushima City. No regional difference in incidence rates was also reported, and the committee chair Hokuto Hoshi stated “Detailed analyses are needed in the future,” after confirming that no radiation effects were observed at the present time.

August 24, 2014 19:38 (Kyodo)

Total of 104 children with malignant or suspicious tumor.
58 of them were operated on, and 57 were confirmed to have cancer.

Suggestions made at the 16th Prefectural Oversight Committee Meeting for Fukushima Health Management Survey

- How about discontinuing the study regarding the effect of radiation exposure as this survey is not designed to allow for an epidemiological evaluation of the effect of radiation exposure?
- Thyroid cancers which do not need to be detected and treated (over-diagnosis), are being discovered by screening, causing a risk of over-treatment. Should we not discontinue thyroid ultrasound examination to avoid such a risk?

Comments by Shuji Shimizu, vice chairman and a Fukushima University professor, on October 10, 2014

- Regarding the health effects of radiation exposure

As one of the prefectural residents, I find it impossible that the health effects of radiation exposure by the nuclear accident should not be studied in a survey of residents. Residents would not be convinced by the mere “health monitoring.” Radiation exposure is a fact that exists in front of our very eyes. We have to follow up closely and clarify the effects. A state in which the effects remain “unknown” is by itself stressful for residents. So long as the ambiguity remains, so does the anxiety.

- Regarding “over-treatment”

Considering the fact that there was exposure of the thyroid to radiation, no matter what the dose was, and the anxiety of parents/guardians, we have no choice but to continue the screening. If over-diagnosis were to occur, it would be nothing but another damage due to the TEPCO Fukushima Daiichi nuclear power plant accident.

Japan Society of Clinical Oncology

August 28, 2014

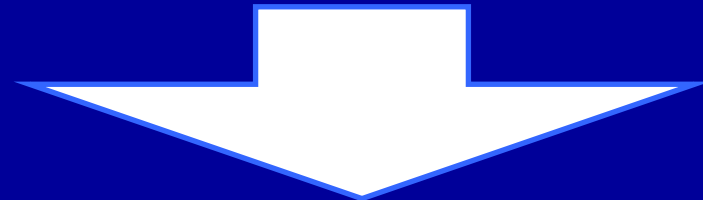
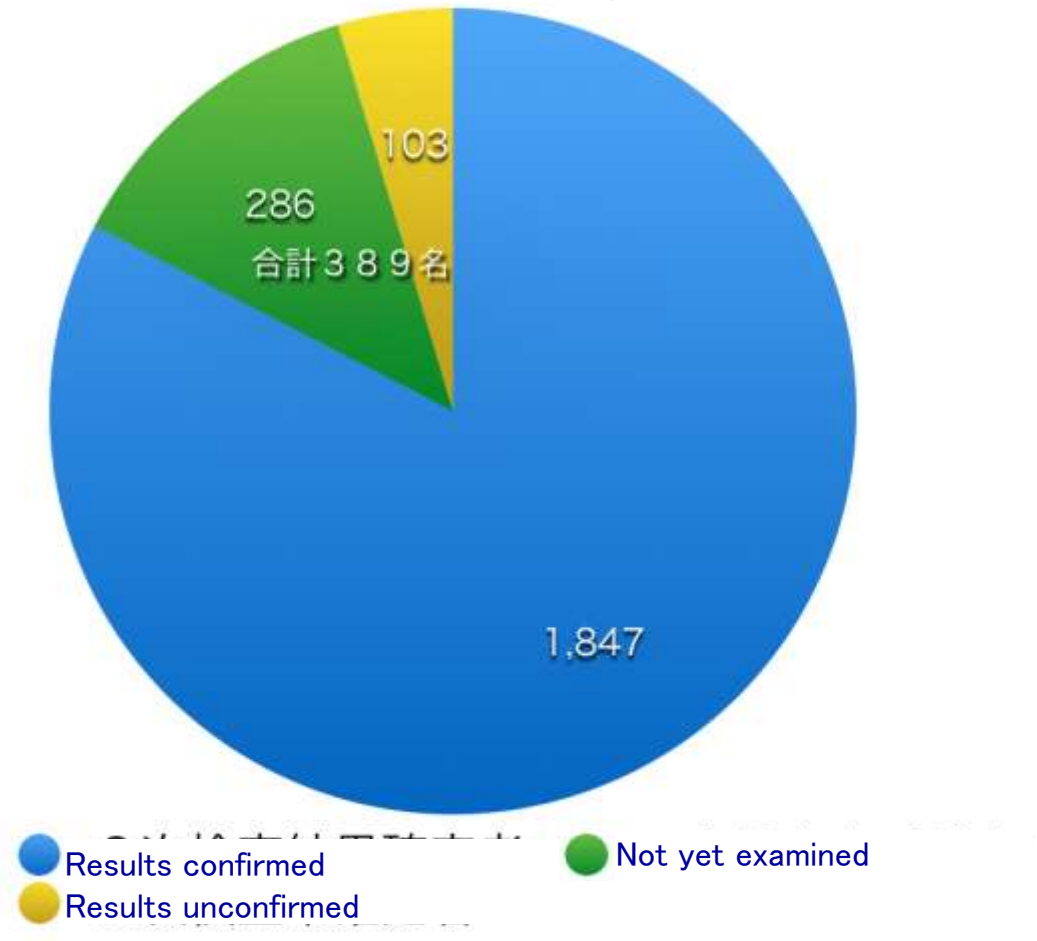
- Of 104 cases suspicious of malignant cases, 57 had surgeries.
- 54 surgical cases operated on at Fukushima Medical University.
- 45 of 54 cases had tumor diameter of 10 mm or larger, or metastasis to the lymph nodes or other organs.
- Among those with metastasis, 2 cases had lung metastasis.
- 7 of the remaining 9 cases had tumors close to the trachea and the recurrent laryngeal nerve.
- These facts show that the cancer cases are not considered either over-diagnosis or over-treatment.

Position of Shinichi Suzuki

(A Fukushima Medical University thyroid surgeon in charge of thyroid ultrasound examination)

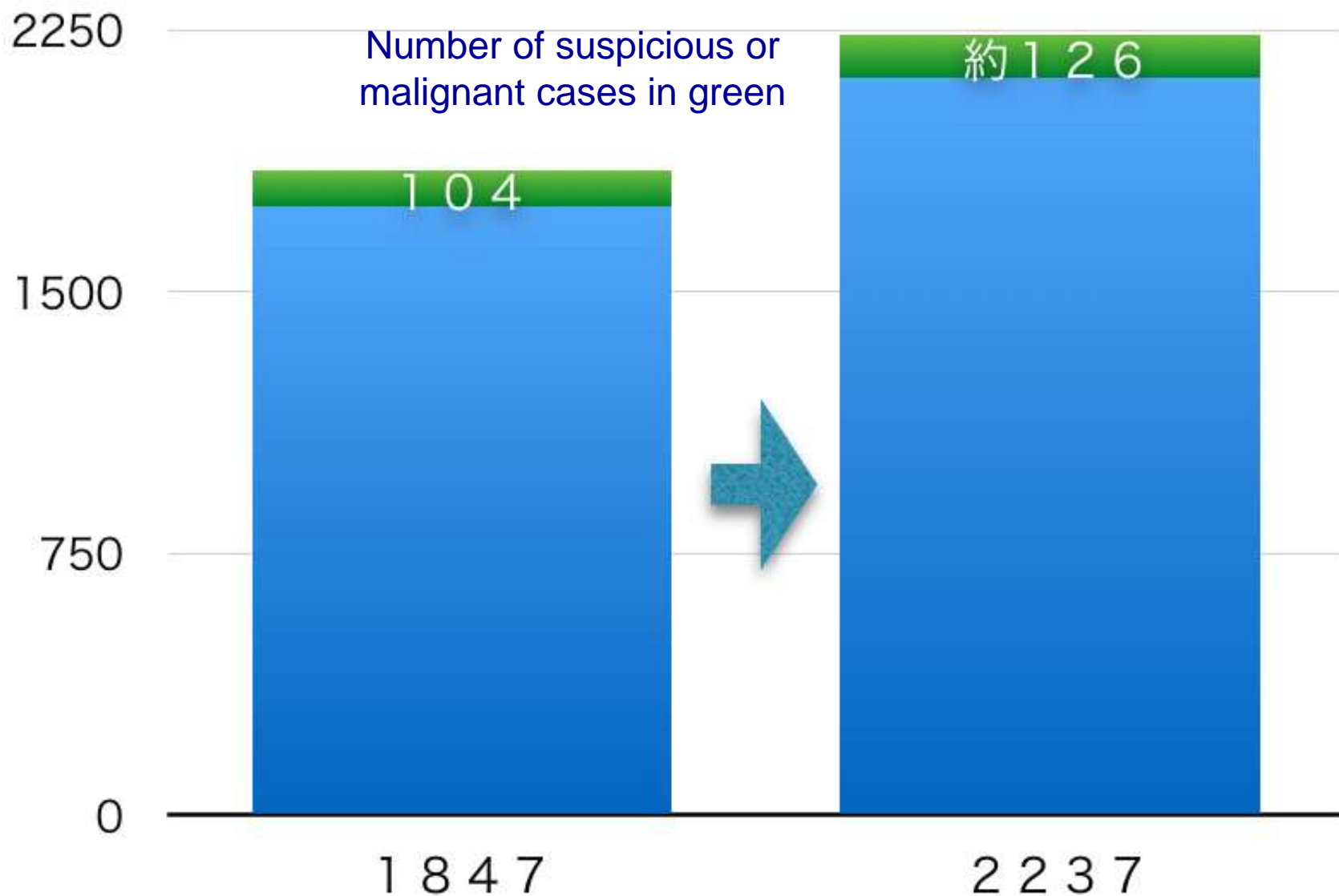
- Pediatric thyroid cancers that are being detected currently are due to the screening effect, rather than the radiation effects.
- Surgeries are conducted on patients with indications for surgery, and thus the cases operate on are not considered over-treatment.

The status of 2,237 secondary examination subjects



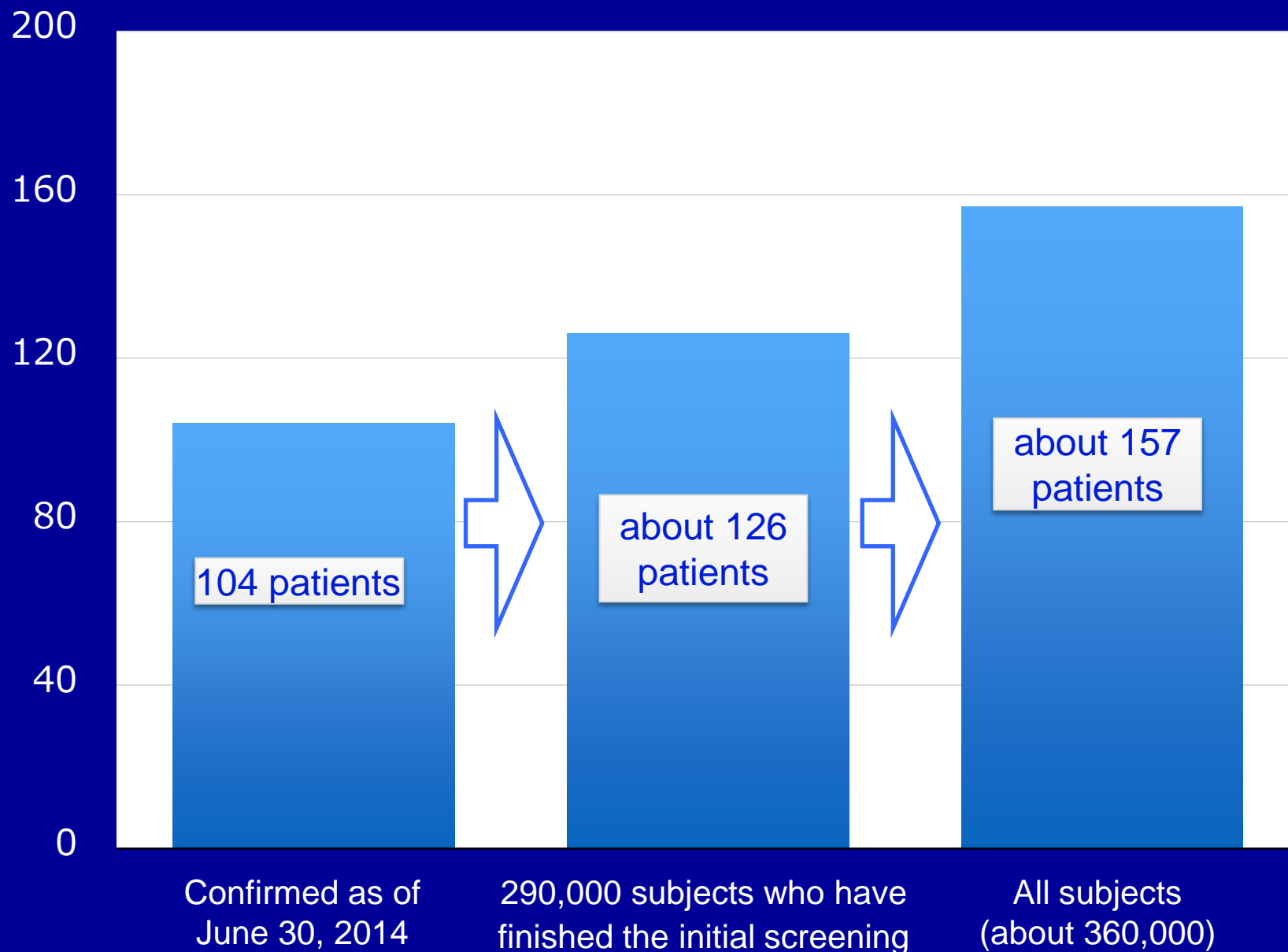
As of June 30, 2014, 389 secondary examination subjects had unconfirmed results.

Anticipated number of cancer patients when thyroid ultrasound examination is finished on about 290,000 children



The number of secondary examination subjects with confirmed results

Anticipated number of cancer patients



Age and sex distribution of the 104 suspicious or malignant cases as a result of FNAC

16～18歳の年齢層に約半数の51名

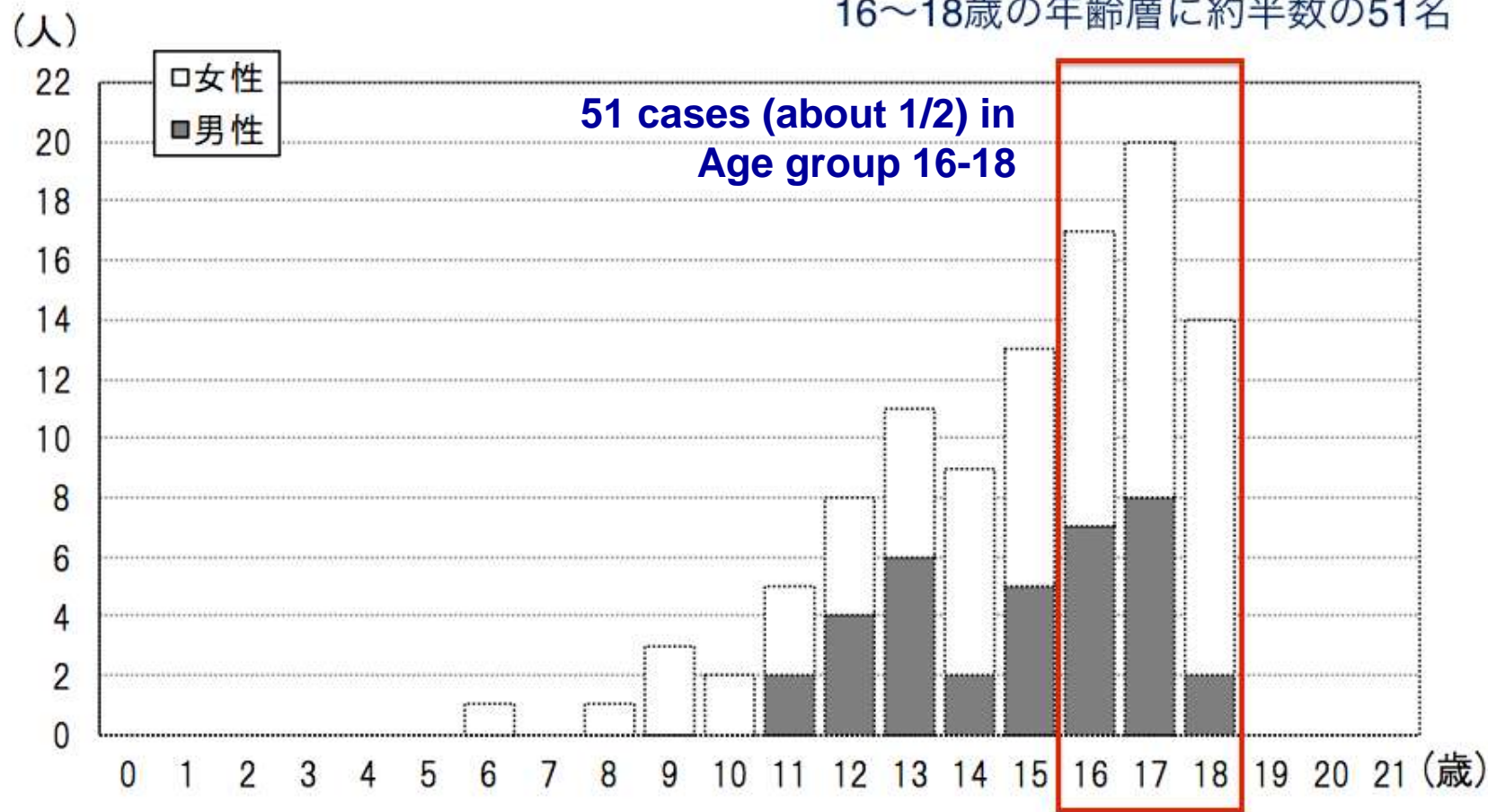
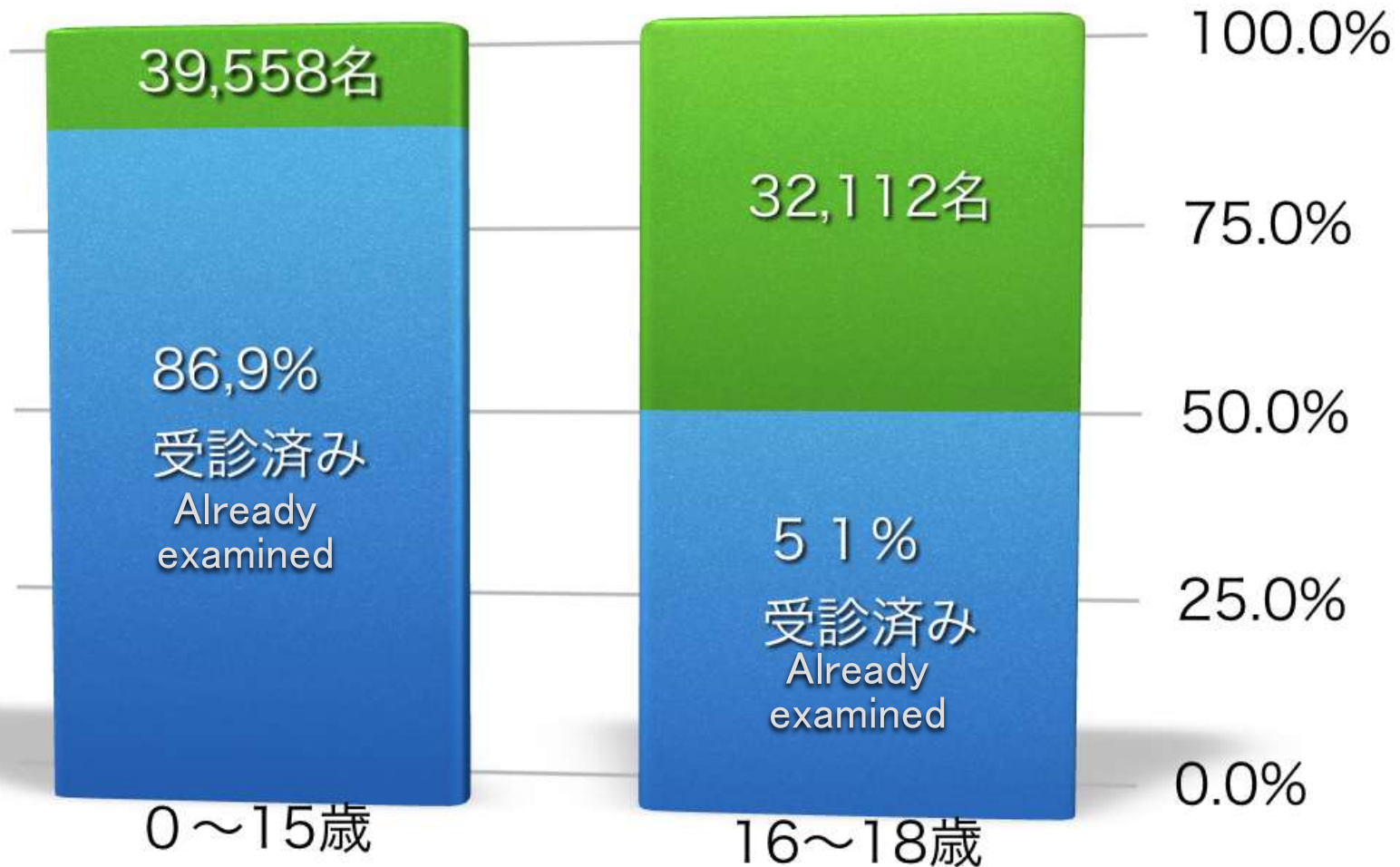


Figure 4 (modified) , from Summary Results, Interim Report of Thyroid Ultrasound Examination (Initial Screening).

Initial screening

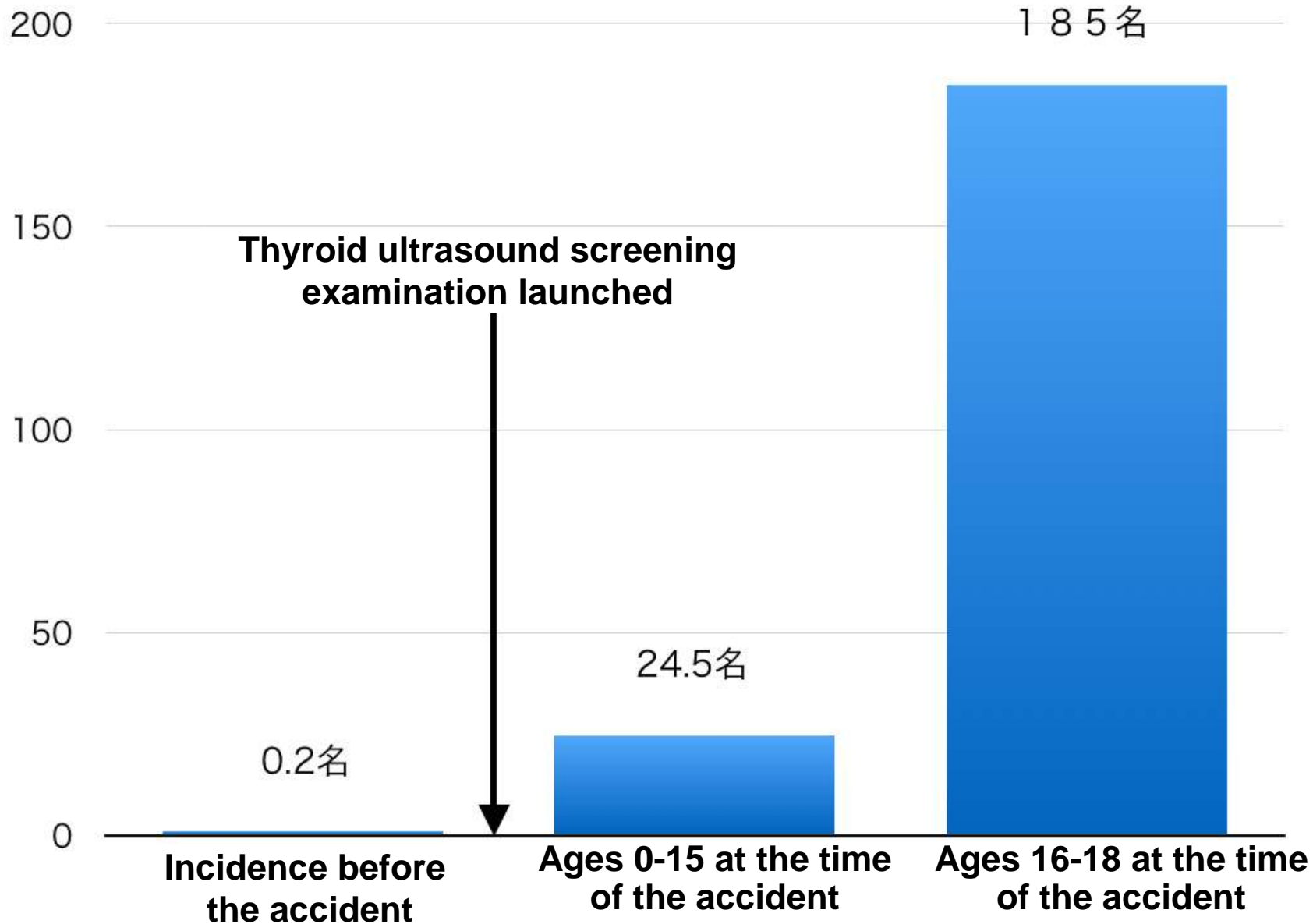
■ Examined

■ Not yet examined

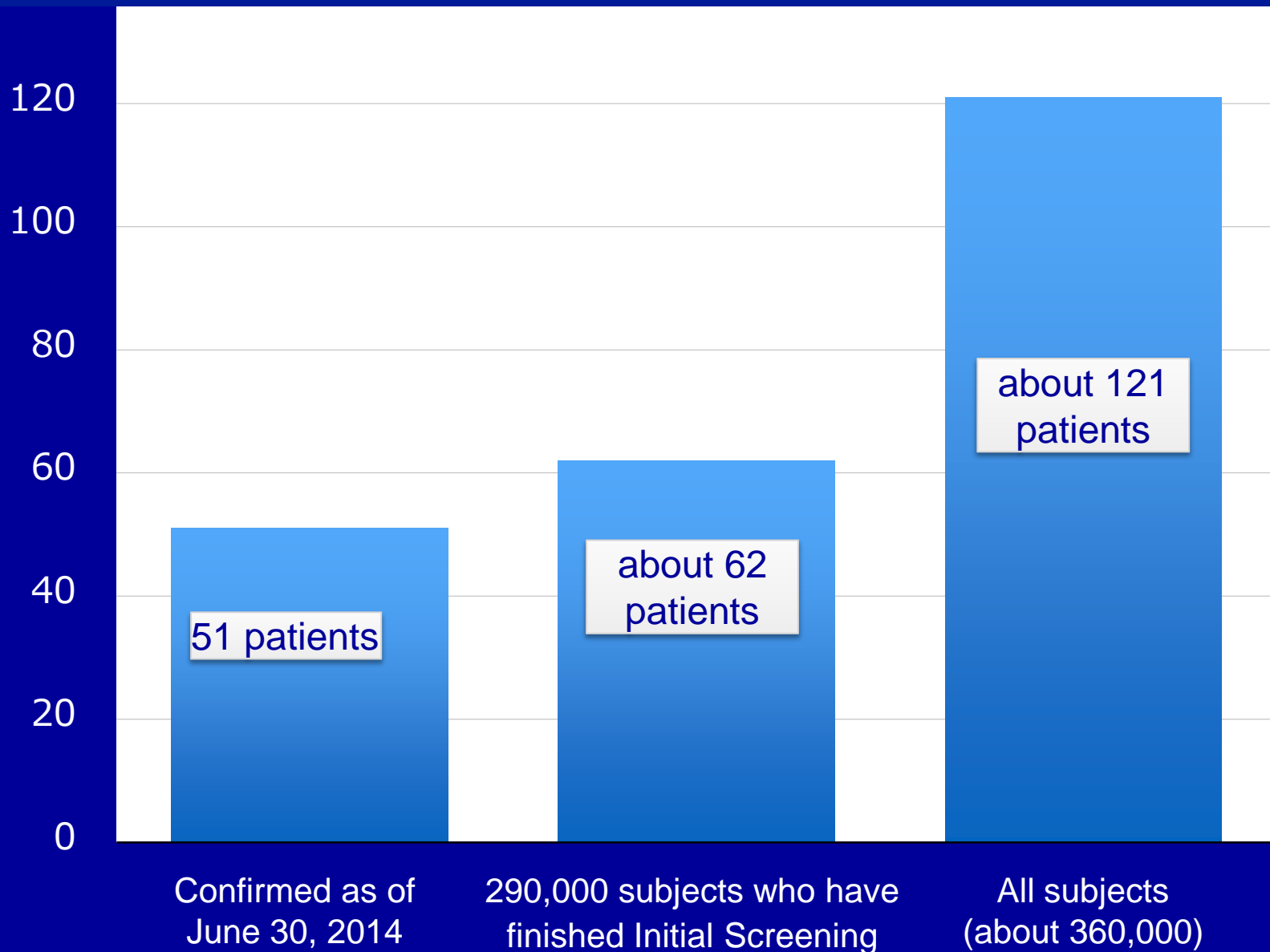




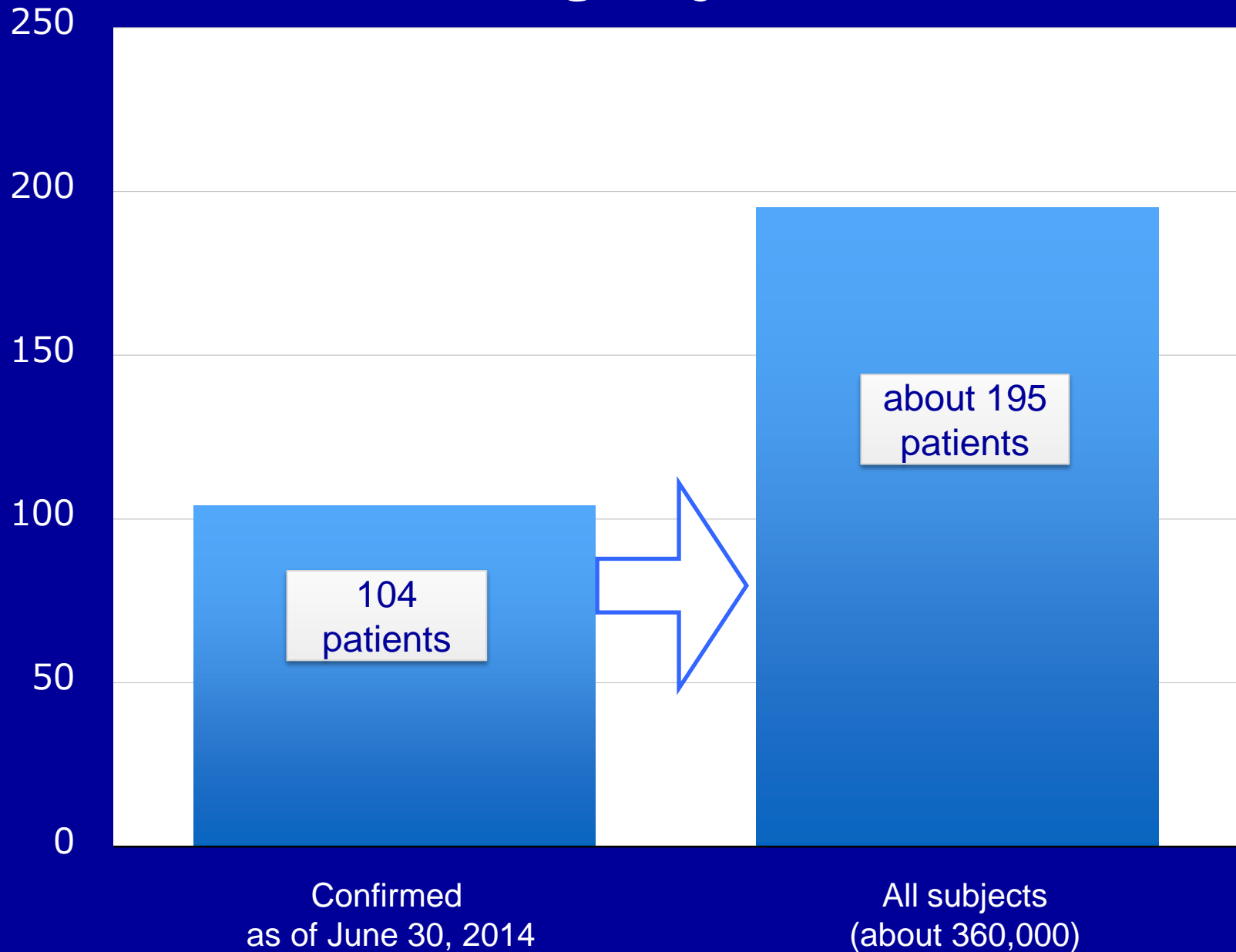
Incidence rate in 100,000



Anticipated number of cancer patients in ages 16-18 at the time of the accident



Anticipated number of overall cancer patients with age adjustment



Matters that should be discussed at the Oversight Committee

- The age group 16-18 at the time of the accident has the most number of malignant and suspicious cases, but the participation rate is low at 51%.
- Among those who are yet to be examined in the age group 16-18 at the time of the accident, about 60 malignant and suspicious cases are anticipated.
- Should it not be the original role of the Oversight Committee to urge about 32,000 unexamined subjects to be examined as soon as possible?

Future of Fukushima Health Management Survey

- Rather than emphasizing the lack of radiation effects, every possibility should be discussed in public, without denial, based on facts, and with disclosure of all the information to allow for evaluation by a third party.

Thank you for your attention.

