

February 25, 2013

Pregnancy and Birth Survey in Fukushima

**Keiya Fujimori, MD, PhD
Professor and Chairman
Department of Obstetrics and Gynecology
School of Medicine
Fukushima Medical University**

Pregnancy and Birth Survey in Fukushima

① Pregnancy and birth survey in 2011

- by the Radiation Medical Science Center for the Fukushima Health Management Survey

② Numerical change of deliveries after the disaster

- through the institutional questionnaire by Fukushima Association of Obstetricians & Gynecologists

③ Numerical change of pregnancies, miscarriages and induced abortions after the disaster

- by the Department of Ob &Gyn, Fukushima Medical University

④ Prevalence of congenital malformations

- by Japan Association of Obstetricians & Gynecologists (JAOG)

Pregnancy and Birth Survey in 2011

- by the Radiation Medical Science Center for the Fukushima Health Management Survey
- Aim
 - To collect data that might improve obstetrical and prenatal care and to support women who were pregnant or had a baby in Fukushima prefecture.
- Target
 - women who received maternal and child health handbooks from municipal officers in Fukushima prefecture between August 1, 2010 and July 31, 2011.
 - women who had handbooks issued in other prefectures but received prenatal care or delivered babies in Fukushima Prefecture after the disaster.

Pregnancy and Birth Survey

- A total of 15,954 questionnaires were distributed in January 2011 and 9,266 responses were returned by August 31, 2012 (response rate **58.1%**)
- Telephone counseling was provided by midwives and public health nurses for 1,393 respondents of 9,228 (counseling rate **15.1%**), who had been identified as respondents requiring support on the basis of the survey response (1,213 indicated signs of depression and 180 requested support on their own will).

Pregnancy and Birth Survey

Contents of telephone counseling

- (Multiple answers allowed)

1. Issues related to radiation	411
2. Issues related to the mother	280
3. Issues related to childcare	195
4. Issues related to the child of the client	147
5. Issues related to evacuation planning	132
6. Issues related to family life	70
7. None	296
Total	1,737

Pregnancy and Birth Survey

Reasons for termination of counseling

1. Active listening to the mother was satisfactory	1,054
2. The mother had already received care elsewhere	153
3. The mother was given answers to her questions	144
4. The mother was given necessary information	97
5. The mother was advised to receive medical support	61
6. Refusal	26
7. No contact information was provided	18
8. Referral to the Fukushima Medical University Radiation Health Consultation Team	7

Pregnancy and Birth Survey

- Perinatal care after the disaster
 - 24.7% of the respondents could not continue attending the same clinic where they originally intended to receive perinatal care and to deliver their babies.
 - 52.2% of the respondents who was not able to continue had changed to a different clinic outside Fukushima on her own will.
- Nutrition problems to their babies
 - 3.9% of the respondents had problems providing proper nutrition to their babies after the disaster.

Free-answer question

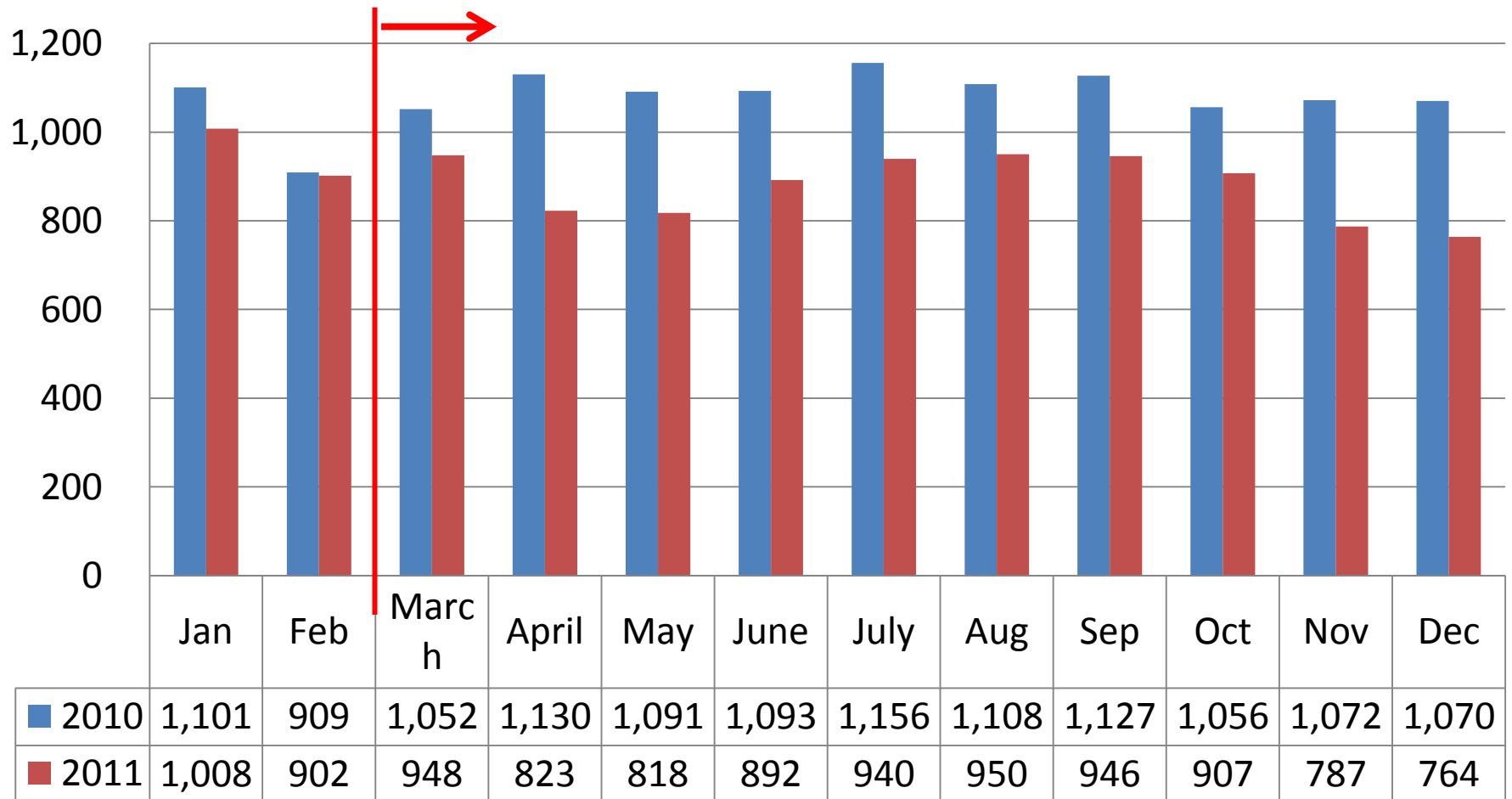
- 3,897 (43.3%) of 9,200 respondents wrote their anxiety, made requests, and gave opinions on the free-answer question.
- Answers were classified into categories shown below.
- (Multiple answers allowed)

1. Effects of radiation on fetus and children	1,145
2. Request for information on radiation and research results	746
3. Effects of radiation on breast milk/infant formula	697
4. Anxiety and dissatisfaction about reliability or lack of information	565
5. Anxiety and dissatisfaction about evacuation and family living apart	534
6. Effects of radiation on food/baby food	495
7. Effects of radiation on water	459
8. Request for radiation testing of breast milk	439

Pregnancy and Birth Survey

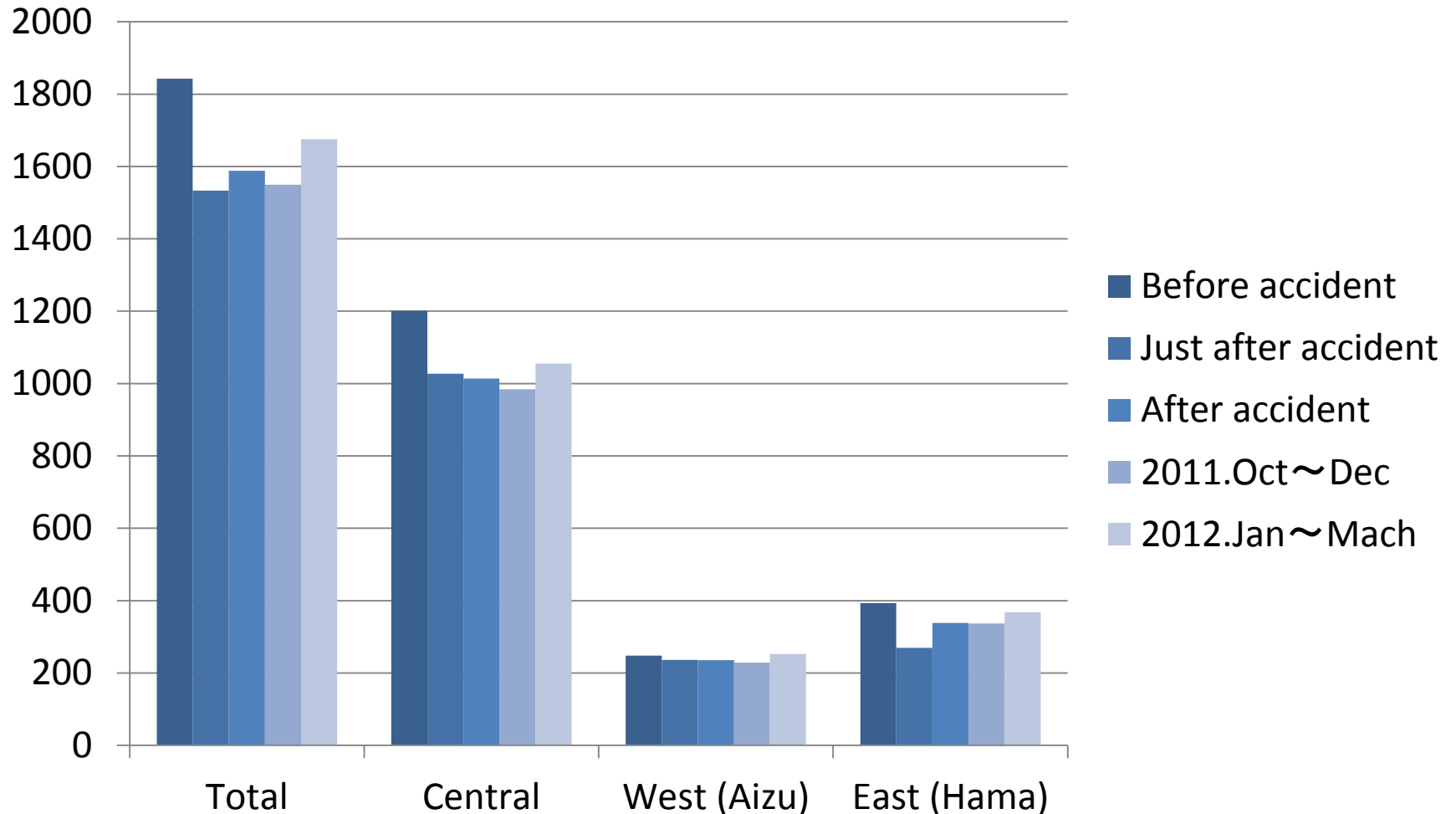
- The most important thing is to support pregnant women in Fukushima Prefecture and to offer good quality perinatal care.
- Similar investigations to the pregnancy and birth survey have been ongoing in 2012.
- The 2013 investigations have been decided to continue.

Numerical change of deliveries in Fukushima after the disaster



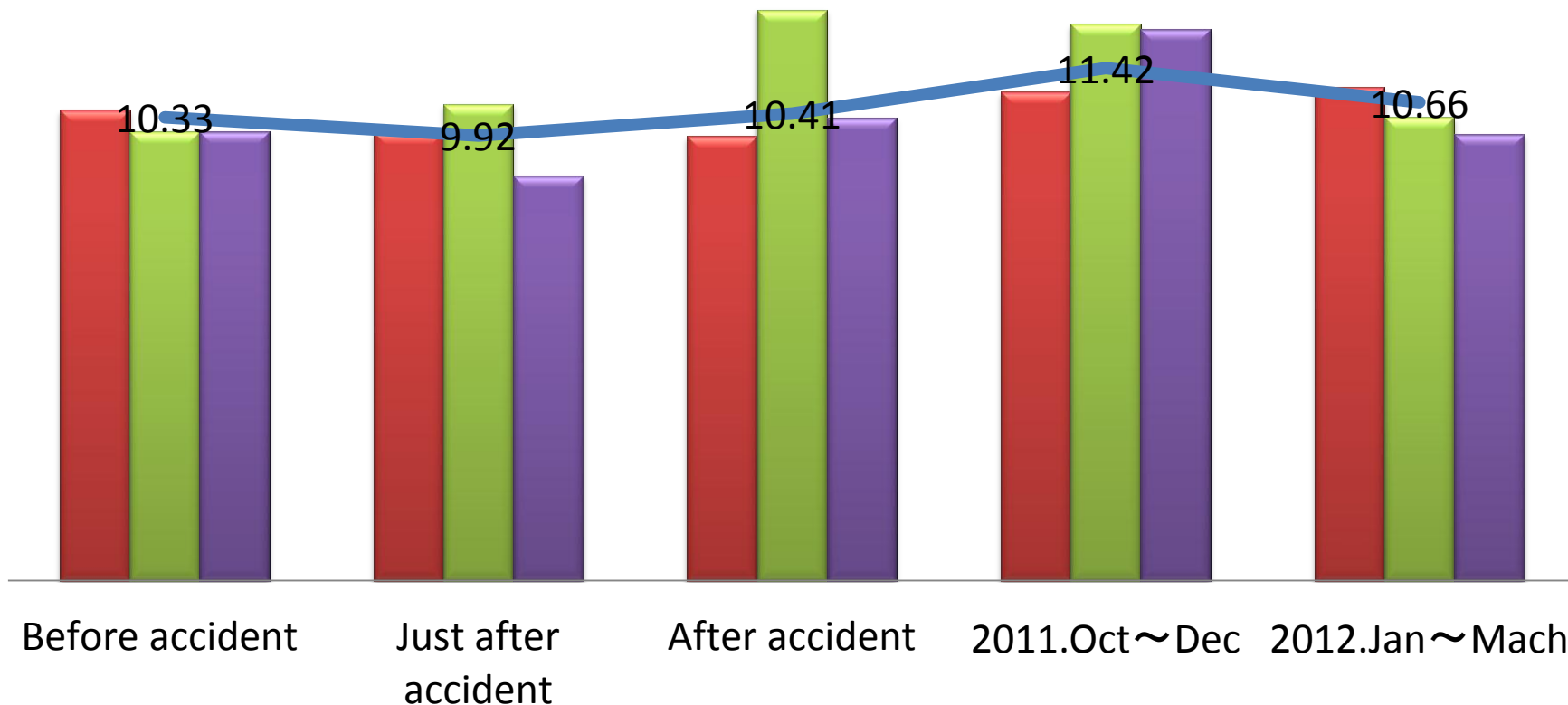
Ratio to 2010 92% 99% 90% 73% 75% 82% 81% 84% 84% 86% 73% 71%

Numerical change of the pregnancy in each area in Fukushima (conversion per 30 days)



Before disaster : Jan 2011-March 11,2011
 Just after accident : March 12, 2011-Jun 2011
 After accident : July 2011-Sept 2011

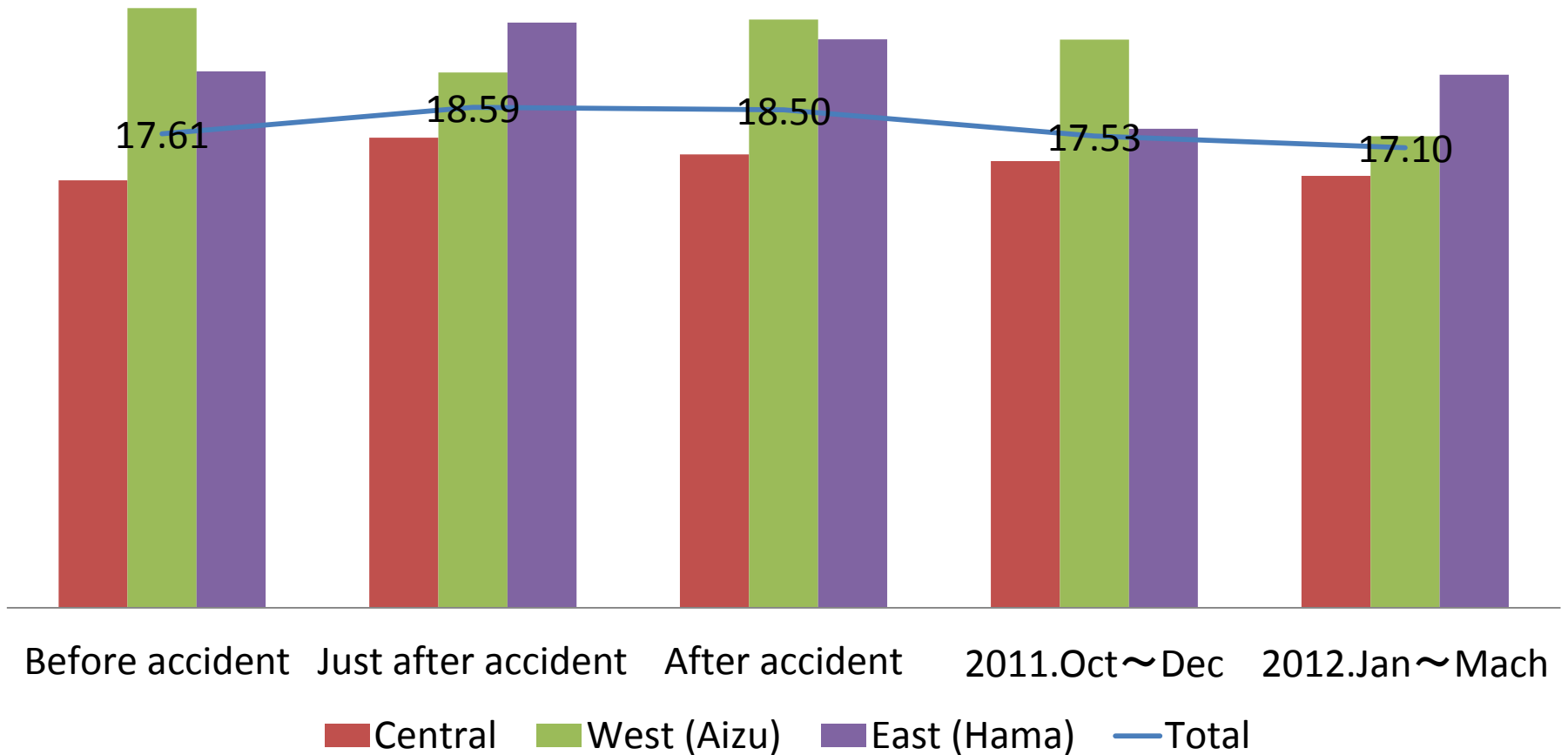
Miscarriage rate (per100 pregnancies)



■ Central
 ■ West (Aizu)
 ■ East (Hama)
 — Total

Before accident : Jan 2011-March 11,2011
 Just after accident : March 12, 2011-Jun 2011
 After accident : July 2011-Sept 2011

Induced abortion rate (per100 pregnancies)



Before disaster : Jan 2011-March 11,2011
 Just after accident : March 12, 2011-Jun 2011
 After accident : July 2011-Sept 2011

The Prevalence of Congenital Malformations (Fukushima) (No. of babies 3294, during 2012.01-2012.08)

- By JAOG (JAPAN ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS)
- The congenital malformations were evaluated in babies delivered in Fukushima prefecture.
- There is no obvious increased prevalence rate of congenital malformations at the present time compared with the rate of Birth Defects Monitoring of JAOG.
- However, it is necessary to gather more cases to draw a conclusion.