

Pregnancy and Birth Survey in Fukushima

“PBS in Fukushima”

① Pregnancy and birth survey in 2011 & in 2012

“PBS 2011 & PBS 2012”

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

② Numerical change of pregnancies, miscarriages and induced abortions after the disaster

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

PBS 2011 & PBS 2012

- 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 1 August 2010 and 31 July 2012.
 - women who had handbooks issued in other prefectures but received prenatal care or delivered babies in Fukushima Prefecture after the disaster.

➤ PBS 2011

- A total of 16,001 questionnaires were distributed in January 2011 and 9,316 responses were returned (response rate **58.2%**).

➤ PBS 2012

- A total of 14,516 questionnaires were distributed in January 2012 and 7,181 responses were returned (response rate **49.5%**).

Perinatal care after the disaster

PBS 2011

- 24.6% of the respondents could not continue attending the same clinic where they originally intended to receive perinatal care and to deliver their babies.

➤ PBS 2012: ➡ 14.1% (10.5%↓)

- 52.9% of the respondents who was not able to continue had changed to a different clinic outside Fukushima on her own will.

➤ PBS 2012: ➡ 24.9% (28.0%↓)

The incidences of stillbirth (over 22 completed gestational weeks), preterm birth, low birth weight infant (less than 2,500g) and congenital anomalies

	2011	2012
Stillbirth	0.25% (22/8,667)	0.28% (20/7,086)
preterm birth	4.8% (412/8,667)	5.7% (407/7,086)
low birth weight infant	8.9% (772/8,626)	9.6% (679/7,039)
congenital anomalies	2.8% (242/8,700)	2.3% (167/7,123)

Stillbirth, preterm birth : over 22 gestational weeks
 low birth weight infant : exclude an invalid answer
 congenital anomalies : over 12 gestational weeks

Nutrition problems to their babies

- In 2011, 3.3% of the respondents had problems providing proper nutrition to their babies after the disaster.
- Rate of nutrition method :

	breastfeeding	breastfeeding and milk	milk
PBS 2011	30.4%	62.7%	7.0%
PBS 2012	35.2%	54.6%	9.7%

☆ Breastfeeding rate was higher in 2012 than in 2011.

The reason that chose milk

- Mother was anxious about
“Adverse effects of radiation on breast milk”.
- 2011 vs 2012 : 17.9% vs 6.2%

PBS : Telephone counseling

- Telephone counseling was provided by midwives and public health nurses for respondents, who had been identified as respondents requiring support on the basis of the survey response.

	Total counselee	Total respondent	counseling rate
2011	1,401	9,316	15.0
2012	1,104	7,181	15.4

PBS : Contents of telephone counseling

• (Multiple answers allowed)	PBS2011	PBS2012
1. Issues related to radiation	409(29.2%)	262(23.7) ↓
2. Issues related to the mother	283(20.2%)	369(33.4) ↑
3. Issues related to childcare	196(14.0%)	295(26.7) ↑
4. Issues related to the child of the client	147(10.5%)	148(13.4)
5. Issues related to evacuation planning	130(9.3%)	21(1.9) ↓ ↓
6. Issues related to family life	69(4.9%)	114(10.3) ↑ ↑
7. None	509(36.3%)	334(30.3)
Total	1,743	1,543

PBS : Free-answer question

PBS 2011: 3,722 (42.2%) of 8,812 respondents wrote their anxiety, made requests, and gave opinions on the free-answer question.



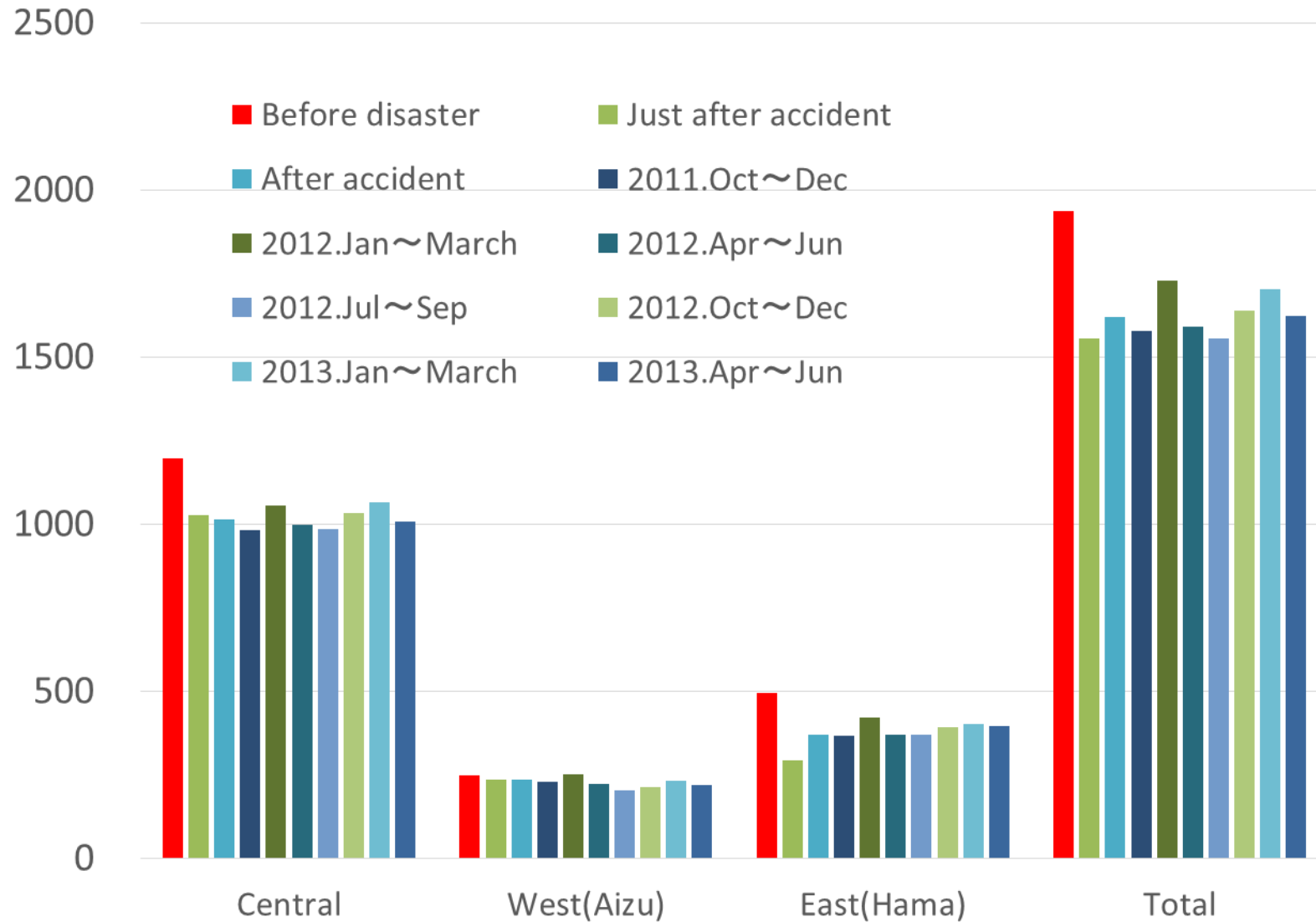
PBS 2012: 1,481 (20.7%) of 7,139 respondents

		2011	2012
	Total	3,722	1,481
1	Effects of radiation on fetus and children	1,102(29.6)	391(26.9)
2	Request for information on radiation and research results	725(19.5)	191(15.0)
3	Effects of radiation on breast milk/infant formula	668(17.9)	53(3.6)
4	Anxiety and dissatisfaction about reliability or lack of information	542(14.6)	60(4.1)
5	Anxiety and dissatisfaction about evacuation and family living apart	506(13.6)	64(4.3)
6	Effects of radiation on food/baby food	476(12.8)	140(9.5)
7	Effects of radiation on water	441(11.8)	112(7.6)
8	Request for radiation testing of breast milk	425(11.4)	18(1.2)

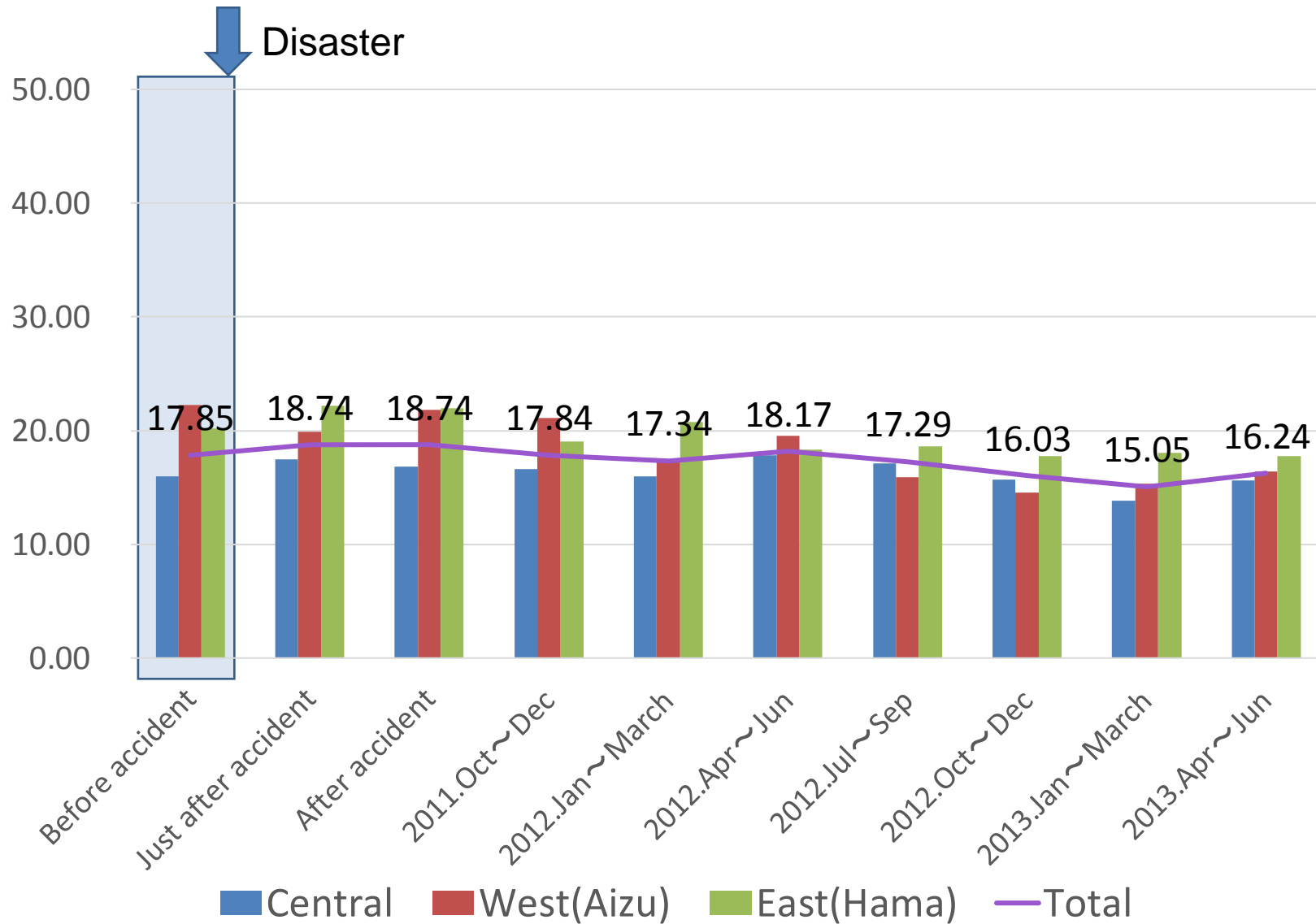
“PBS in Fukushima”

- The most important thing is to support pregnant women in Fukushima Prefecture and to offer good quality perinatal care.
- In PBS 2012, situation of perinatal care was improved than in 2011.
- Incidence of preterm birth, low birth weight infant, congenital anomaly were similar to general frequency in Japan.
- Similar investigations to the pregnancy and birth survey have been ongoing in 2013.

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



Induced abortion rate (per100 pregnancies)



Miscarriage rate (per100 pregnancies)

