The nuclear disaster accompanying the recent earthquake and tsunami has caused a great deal of anxiety and stress, with many people forced to lead dramatically altered lifestyles in evacuation shelters and temporary housing. In particular, pregnant women and nursing mothers have been unable to obtain adequate health care for themselves and their babies, due to changes to hospitals and clinics that prevent them from having periodical medical examinations.

The Fukushima Prefectural Government has therefore commissioned Fukushima Medical University to conduct a questionnaire of pregnant women and nursing mothers in Fukushima as part of the Health Administration Survey for Prefectural Residents, with the aim of assessing their physical condition to assist in future health care delivery.

This questionnaire booklet is being distributed to women who received a 'Maternal and Child Health Handbook' between August 1, 2010 and July 31, 2011 from a municipality in Fukushima Prefecture, and women who received a 'Maternal and Child Health Handbook' from a municipality outside of Fukushima Prefecture but who underwent an obstetric exam or gave birth after relocating or returning to Fukushima on or after March 11, 2011.

Any personal information that you provide in this questionnaire will be used by Fukushima Prefecture to administer health care and may also be shared with your local municipal government where necessary, with findings reported only as part of an aggregate analysis. However, none of this information will be disclosed in a manner that reveals your identity.

Please return your completed questionnaire form within approximately 2 weeks of receipt. Any queries should be directed to the contacts listed on the back of this booklet.

Fukushima Prefecture
Fukushima Medical University
Please fill out all of the items below and place a tick (✔) in the appropriate box.

<table>
<thead>
<tr>
<th>Date (YY/MM/DD): 2012/</th>
<th>Respondent (tick (✔) the relevant box below):</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1□ Yourself  2□ Proxy (Relationship: )</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name: __________________________</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Date of birth (YY/MM/DD):</th>
<th>1 □ Showa  2 □ Heisei</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>00/00/00</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Contact address (so that survey officers can contact you directly to confirm any questionnaire omissions):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tel: ______ - _______ — _______ (Care of:________________________)</td>
</tr>
<tr>
<td>Mobile: ______ — _______ - _______</td>
</tr>
</tbody>
</table>

Please proceed to the questionnaire starting on the next page after completing all of the items above.
All of the following questions are intended for women who received a Maternal and Child Health Handbook ('Maternity Handbook') between August 1, 2010 and July 31, 2011.

Q1. About previous pregnancy and childbirth

Please indicate the number of your previous pregnancies, child births, miscarriages, induced abortions, and stillbirths, not including the pregnancy for the abovementioned Maternity Handbook. Write '0' if you have not experienced any of the above.

Total of □ pregnancies

including □ childbirths □ miscarriages □ induced abortions □ stillbirths

Reference 1
1 month pregnant: gw* 0 – 3
2 months pregnant: gw 4 – 7
3 months pregnant: gw 8 – 11
4 months pregnant: gw 12 – 15
5 months pregnant: gw 16 – 19
6 months pregnant: gw 20 – 23
7 months pregnant: gw 24 – 27
8 months pregnant: gw 28 – 31
9 months pregnant: gw 32 – 35
10 months pregnant: gw 36 – 39
11 months pregnant: gw 40 – 43
* gestational week

Reference 2
Miscarriage: termination of pregnancy before gestational week (gw) 22
Induced abortion: artificial termination of pregnancy before gw 22
Stillbirth: delivery of a deceased fetus from gw 22 onwards
Childbirth: delivery of a newborn from gw 22 onwards
Q2. 1) Describe your pregnancy corresponding to the above-mentioned Maternal Handbook

In the table below, tick (✔) the relevant boxes and fill out the necessary details regarding the course and outcome of your pregnancy as well as your primary care physician.

<table>
<thead>
<tr>
<th>Type</th>
<th>1 ☐ Natural pregnancy</th>
<th>2 ☐ Induced ovulation</th>
<th>3 ☐ Artificial insemination</th>
<th>4 ☐ In vitro fertilization</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 ☐ Still pregnant</td>
<td>Expected delivery:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>YY/MM/DD: / /</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>❑ Unknown</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outcome</td>
<td>Date at end of pregnancy (YY/MM/DD)</td>
<td>Duration of pregnancy (gw)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 ☐ Childbirth</td>
<td>/ /</td>
<td>weeks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 ☐ Miscarriage</td>
<td>/ /</td>
<td>weeks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 ☐ Abortion</td>
<td>/ /</td>
<td>weeks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 ☐ Stillbirth</td>
<td>/ /</td>
<td>weeks</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Respondents who ticked box 1 are requested to answer Q3-9 (where applicable) to the best of their ability.

Respondents who ticked box 2 are requested to answer all questions below.

Respondents who ticked boxes 3, 4 or 5 are requested to answer Q3-12 (where applicable) to the best of their ability.

2) Were you breastfeeding your baby at 11 March 2011?

[1 ☐ No 2 ☐ Yes]

3) Have you often felt sad or depressed over the past month?

[1 ☐ No 2 ☐ Yes]

4) Have you often felt disinterested in things or not able to enjoy yourself over the past month?

[1 ☐ No 2 ☐ Yes]
Questions 3-9 below relate to matters during your pregnancy. Please answer to the best of your ability.

Q3. How many children were you pregnant with? (i.e. delivered babies including stillbirths)

☐ 1 (single pregnancy) ☐ 2 (twins)

Q4. Describe your obstetric exams after the disaster.
Did you continue attending the same facility that you originally intended to visit for obstetric exams/delivery?

☐ No ☐ Yes

☐ I changed to a different facility within Fukushima of my own accord.
☐ I changed to a different facility outside Fukushima of my own accord.
☐ I attended a different facility in Fukushima from before the disaster after returning to my parents/in-laws home to give birth
☐ I attended a different facility outside Fukushima from before the disaster after returning to my parents/in-laws home to give birth
☐ I was instructed to transfer (or was transferred) to a different facility in Fukushima for medical reasons
☐ I was instructed to transfer (or was transferred) to a different facility outside Fukushima for medical reasons

Q5. Could you undergo obstetric exams as scheduled?

☐ No ☐ Yes

☐ I could not undergo obstetric exams as scheduled and had to be hospitalized as a result
☐ I could not undergo obstetric exams as scheduled, but my pregnancy proceeded without any problems

Q6. Did you ever suffer from any of the following diseases before your pregnancy?

☐ Yes ☐ No

Please specify which of the following disease(s) you had by placing a tick (✔) in all applicable boxes.

☐ High blood pressure ☐ Diabetes ☐ Hyperlipidemia ☐ Cancer
☐ Stroke (cerebral infarction/cerebral hemorrhage/subarachnoid hemorrhage)
☐ Heart disease (myocardial infarction/angina)
☐ Chronic hepatitis
☐ Pneumonia ☐ Thyroid disease ☐ Mental illness
☐ Other ( )
Q7. Were you diagnosed with any illnesses/conditions from becoming pregnant up until the disasters occurred?

1) Please specify which illnesses/conditions you were diagnosed with by placing a tick (✔) in all applicable boxes below.

- Pregnancy-induced hypertension
- Gestational diabetes
- Placenta praevia
- Threatened abortion
- Threatened premature labor
- Miscarriage
- Premature labor
- Psychological problems such as insomnia or anxiety
- Infectious disease such as pneumonia/influenza/tetanus
- Polyhydramnios
- Oligohydramnios
- Thrombosis (economy-class syndrome/pulmonary embolism)
- Stroke (cerebral infarction/cerebral hemorrhage/subarachnoid hemorrhage, etc.)
- Trauma
- Other ( )

2) Did the illness(es)/condition(s) worsen as your pregnancy progressed after the disaster?

Q8. In the course of your pregnancy, did you develop any new illnesses/conditions after the disaster?

Write the corresponding number of the illness(es)/disease(s) from Q7-1 above.

2) Did the illness(es)/condition(s) worsen as your pregnancy progressed after the disasters?

Q9. This question is for those who responded 'Yes' to Questions 6-8 above.

Did you receive adequate care for your illness/condition after the disasters?

This question is for those who selected boxes 3 or 4 above.

Did this affect the course of your pregnancy or the fetus?
This completes the questionnaire for respondents who are still pregnant. Please return the booklet in the return envelope provided.
Questions 10-12 below are intended for women who delivered from gestational week (gw) 12 (4th month) onwards (including full term delivery, miscarriage before gw 22, artificial termination of pregnancy, and still/live birth from gw 22 onwards).
The questions relate to both yourself and your baby. Please complete the relevant sections to the best of your ability while referring to your Maternity Handbook.

Q10. What position was the baby delivered in?

1. Head presentation (delivered head first)
2. Pelvic presentation
3. Other
4. Not sure

In the case of twins, please describe the position of the second child.

1. Head presentation (delivered head first)
2. Pelvic presentation
3. Other
4. Not sure

Q11. What day/week of pregnancy was the baby delivered?

☐ day, ☐ week of pregnancy

1. Natural delivery (including use of labor-inducing drugs)
2. Forceps/vacuum extraction
3. Caesarean section

In the case of twins, please describe the position of the second child.

1. Natural delivery (including use of labor-inducing drugs)
2. Forceps/vacuum extraction
3. Caesarean section
Q12. Please describe your baby's appearance and condition at delivery (refer to your Maternal Handbook for the section outlined in bold)

In the case of twins, please use the 'First child' and 'Second child' columns.

<table>
<thead>
<tr>
<th>First child</th>
<th>Second child</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sex</strong></td>
<td></td>
</tr>
<tr>
<td>□ Male</td>
<td>□ Male</td>
</tr>
<tr>
<td>□ Female</td>
<td>□ Female</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td></td>
</tr>
<tr>
<td>□□□□ g</td>
<td>□□□□ g</td>
</tr>
<tr>
<td><strong>Height</strong></td>
<td></td>
</tr>
<tr>
<td>□□.□ cm</td>
<td>□□.□ cm</td>
</tr>
<tr>
<td><strong>Chest circumference</strong></td>
<td><strong>Head circumference</strong></td>
</tr>
<tr>
<td>□□.□ cm</td>
<td>□□.□ cm</td>
</tr>
<tr>
<td><strong>Neonatal asphyxia</strong></td>
<td></td>
</tr>
<tr>
<td>□ Yes</td>
<td>□ Yes</td>
</tr>
<tr>
<td>□ No</td>
<td>□ No</td>
</tr>
<tr>
<td>□ Not sure</td>
<td>□ Not sure</td>
</tr>
<tr>
<td><strong>Congenital deformity/abnormality</strong></td>
<td></td>
</tr>
<tr>
<td>□ Yes</td>
<td>□ Yes</td>
</tr>
<tr>
<td>□ No</td>
<td>□ No</td>
</tr>
<tr>
<td>□ Other</td>
<td>□ Other</td>
</tr>
<tr>
<td>(</td>
<td>(</td>
</tr>
</tbody>
</table>
This completes the questionnaire for women who suffered a miscarriage, abortion, or stillbirth. Please return the booklet in the return envelope provided.

Women who gave birth should proceed to the next page.
The following questions are for women who gave birth.

Q13. How have you fed your baby up until now? (i.e. until starting solids)

1. Breast milk only
2. Mixture of breast milk & infant formula
3. Infant formula only

1) For women who used infant formula, please state the reason why you chose it?

1. Insufficient breast milk
2. Fear of radioactive contamination of breast milk
3. Other reason (Please specify: )

2) What type of water do you use to prepare the infant formula?

1. Tap water
2. Mineral water
3. Other ( )

Q14. Were you unable to provide proper nutrition to your baby as a result of the disasters? (e.g. reduced breast milk production due to inadequate nutritional intake, or difficulty obtaining infant formula due to supply shortages)

1. Yes
2. No
3. Not sure

Q15. This question is for women who have undergone their 1-month post-natal health check.

Please describe your baby's development.

In the case of twins, please use the 'First child' and 'Second child' columns.

<table>
<thead>
<tr>
<th>First child</th>
<th>Second child</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Underwent 1-month post-natal health check at</strong> □ □ <strong>days, □ months after birth</strong></td>
<td><strong>Underwent 1-month post-natal health check at</strong> □ □ <strong>days, □ months after birth</strong></td>
</tr>
<tr>
<td>Weight □ □ □ □ g</td>
<td>Weight □ □ □ □ g</td>
</tr>
<tr>
<td>Height □ □ □ □ cm</td>
<td>Height □ □ □ □ cm</td>
</tr>
<tr>
<td>Chest circumference □ □ □ □ cm</td>
<td>Chest circumference □ □ □ □ cm</td>
</tr>
<tr>
<td>Head circumference □ □ □ □ cm</td>
<td>Head circumference □ □ □ □ cm</td>
</tr>
<tr>
<td>Nutritional status: □ Good □ Need guidance □ Poor</td>
<td>Nutritional status: □ Good □ Need guidance □ Poor</td>
</tr>
</tbody>
</table>

Please provide any comments or requests you may have regarding this survey in the box below.
This completes the questionnaire. Please return the booklet in the return envelope provided.
Queries

Radiology Resident Health Care Center, Fukushima Medical University
Tel: 024-549-5180 (Office hours: 9:00 a.m. - 5:00 p.m.)
Health Administration Survey for Prefectural Residents

Fukushima Prefectural Government & Fukushima Medical University