Sample Protocol: Collecting Supplemental Information on Pregnant Women When Conducting Post-Disaster Morbidity Surveillance

History of Data Collection on Disaster-Affected Pregnant Women

In the 2013 Pandemic and All-Hazards Preparedness Reauthorization Act (PAHPRA), pregnant women are specifically named as a population with special clinical needs. There is a need for more data to be collected and analyzed promptly after a disaster, but there is a lack of standard approaches for data collection among pregnant women. Existing surveillance mechanisms are often inconsistent across states, and measures cannot be compared. Furthermore, population-based sampling yields little information on pregnant women who comprise about 1% of the general population. Even with the addition of postpartum women, this comprises <5% of women of reproductive age 15-44 years old.

We propose collecting additional information on pregnant women when conducting post-disaster morbidity surveillance using a form similar to the Natural Disaster Morbidity Surveillance (NDMS) form. Morbidity surveillance is normally conducted during the disaster relief phase, i.e., ≤30 days post-disaster. For catastrophic disasters, this phase may be extended.

NDMS: The purpose of the NDMS form is "to capture individual-level active surveillance of medical conditions when timely, detailed, patient-level information is needed for response efforts". The form is completed in acute care facilities where medical staff are present, and information on the NDMS form should describe the reason why the individual is currently seeking care. Below are suggested procedures to trigger additional data collection on pregnant women.

- Suggested Protocol:
    1. Review the Health Indicators for *Disaster-Affected Pregnant Women, Postpartum Women, and Infants* (hereafter called the Indicators), their measures and the questions to measure them and select the Indicators and the aspects of the Indicators that are most important in your setting. In particular, you may want to examine Indicator Number 4, Disaster Exposure and Access to Mental Health Services. In Hurricanes Andrew and Katrina, disaster exposure has been associated with poorer health outcomes. For Andrew it was for the general population, but in Katrina it was associated with poor birth outcomes. Others Indicators to consider include: 1 Health Problems during Pregnancy; 5 Gender-Based Violence; and 9 Need for Services. These indicators can guide medical and social service referrals.

       You might also consider these questions to guide you:

       What are you most interested in learning about the pregnant women in your setting?
       Could pregnant women living in this disaster-affected area have specific needs?
       How might these data be used in future programming and/or advocacy efforts?

2. Create a one-page form containing questions to measure your selected Indicators. You can use the front and back of the page. The number of questions will depend on your format and how many questions fit on the page. You also may be limited in the amount of time that is allowed for surveillance in your setting.
   Give the form a title such as "Supplemental Information on Pregnant Women".
3. Add verbiage similar to what is below to the instructions for completing the morbidity surveillance form.
   Where 'Patient Information' box 'Pregnant'=yes, ensure that 'due date' and the entire surveillance form is completed. Then complete the "Supplemental Information on Pregnant Women" form, being sure to answer all questions on the front and back of the page.
4. Ensure that you pretest any questions as needed before data collection. The Measures sections in the *Disaster-Affected Pregnant Women, Postpartum Women, and Infants* tell you whether the items have been pretested.

A sample protocol is presented below in Appendix A. The sample questions on the form below measure the following Indicators

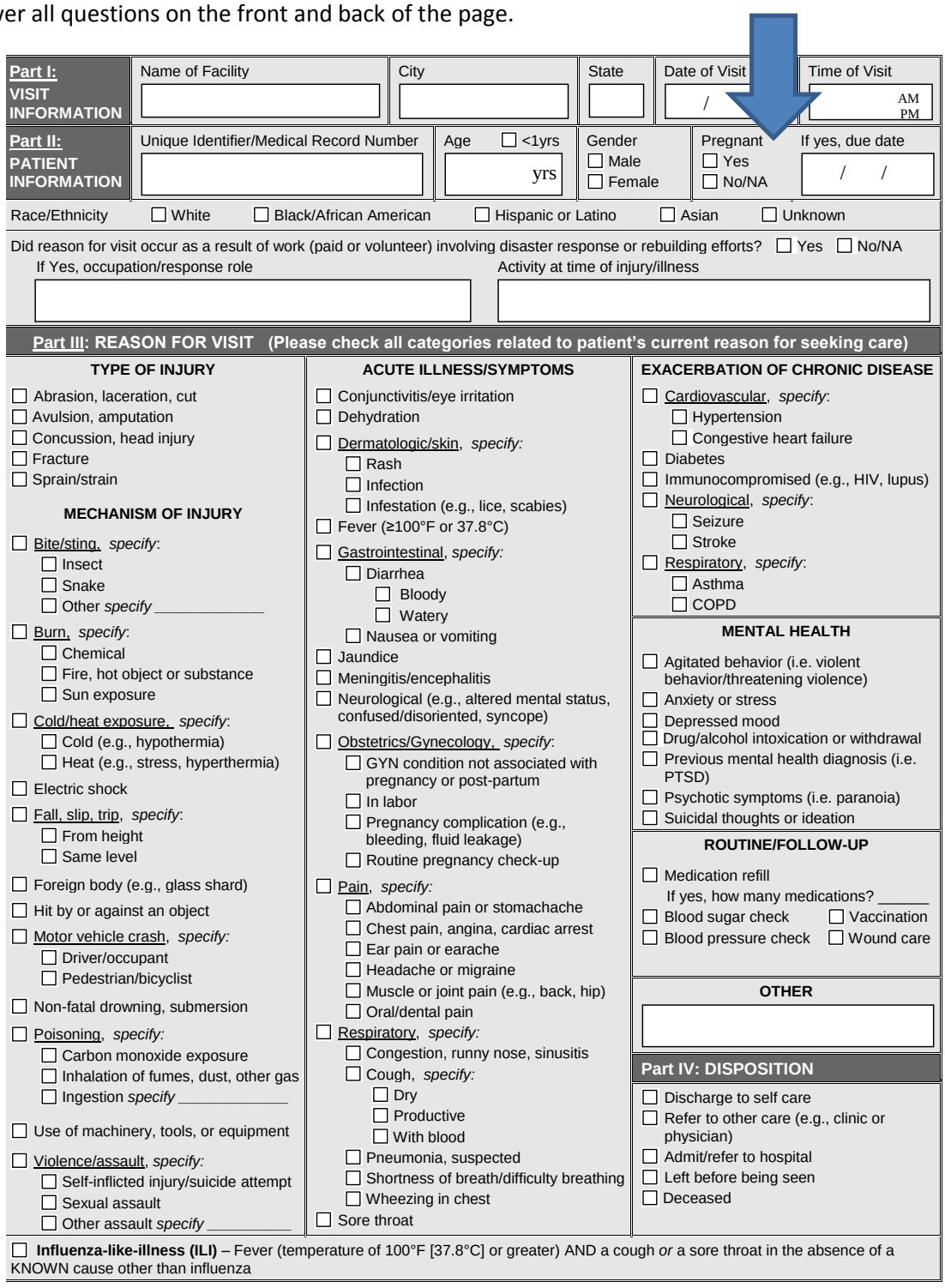
Questions	Indicator
1 and 2	Indicator 4: Disaster Exposure
3	Indicator 7: Family and Social Support
4	Indicator 1: Health Problems during Pregnancy
5	Indicator 2: Access to Prenatal Care
6	Indicator 9: Need for Services
7	Indicator 5: Gender-Based Violence

APPENDIX A

Supplemental Information on Pregnant Women When Conducting Post-Disaster Morbidity Surveillance

Protocol

Where 'Patient Information' box 'Pregnant'=yes, ensure that 'due date' and the entire surveillance form is completed. Then complete the "Supplemental Information on Pregnant Women" form, being sure to answer all questions on the front and back of the page.



Part I: VISIT INFORMATION

Name of Facility | City | State | Date of Visit / / | Time of Visit AM PM

Part II: PATIENT INFORMATION

Unique Identifier/Medical Record Number | Age ☐ <1yrs yrs | Gender ☐ Male ☐ Female | Pregnant ☐ Yes ☐ No/NA | If yes, due date / /

Race/Ethnicity ☐ White ☐ Black/African American ☐ Hispanic or Latino ☐ Asian ☐ Unknown

Did reason for visit occur as a result of work (paid or volunteer) involving disaster response or rebuilding efforts? ☐ Yes ☐ No/NA

If Yes, occupation/response role

Activity at time of injury/illness

Part III: REASON FOR VISIT (Please check all categories related to patient's current reason for seeking care)

TYPE OF INJURY

- ☐ Abrasion, laceration, cut
- ☐ Avulsion, amputation
- ☐ Concussion, head injury
- ☐ Fracture
- ☐ Sprain/strain

MECHANISM OF INJURY

- ☐ Bite/sting, *specify*:
  - ☐ Insect
  - ☐ Snake
  - ☐ Other *specify* _____
- ☐ Burn, *specify*:
  - ☐ Chemical
  - ☐ Fire, hot object or substance
  - ☐ Sun exposure
- ☐ Cold/heat exposure, *specify*:
  - ☐ Cold (e.g., hypothermia)
  - ☐ Heat (e.g., stress, hyperthermia)
- ☐ Electric shock
- ☐ Fall, slip, trip, *specify*:
  - ☐ From height
  - ☐ Same level
- ☐ Foreign body (e.g., glass shard)
- ☐ Hit by or against an object
- ☐ Motor vehicle crash, *specify:*
  - ☐ Driver/occupant
  - ☐ Pedestrian/bicyclist
- ☐ Non-fatal drowning, submersion
- ☐ Poisoning, *specify:*
  - ☐ Carbon monoxide exposure
  - ☐ Inhalation of fumes, dust, other gas
  - ☐ Ingestion *specify* _____
- ☐ Use of machinery, tools, or equipment
- ☐ Violence/assault, *specify:*
  - ☐ Self-inflicted injury/suicide attempt
  - ☐ Sexual assault
  - ☐ Other assault *specify* _____

ACUTE ILLNESS/SYMPTOMS

- ☐ Conjunctivitis/eye irritation
- ☐ Dehydration
- ☐ Dermatologic/skin, *specify:*
  - ☐ Rash
  - ☐ Infection
  - ☐ Infestation (e.g., lice, scabies)
- ☐ Fever (≥100°F or 37.8°C)
- ☐ Gastrointestinal, *specify:*
  - ☐ Diarrhea
    - ☐ Bloody
    - ☐ Watery
  - ☐ Nausea or vomiting
- ☐ Jaundice
- ☐ Meningitis/encephalitis
- ☐ Neurological (e.g., altered mental status, confused/disoriented, syncope)
- ☐ Obstetrics/Gynecology, *specify*:
  - ☐ GYN condition not associated with pregnancy or post-partum
  - ☐ In labor
  - ☐ Pregnancy complication (e.g., bleeding, fluid leakage)
  - ☐ Routine pregnancy check-up
- ☐ Pain, *specify:*
  - ☐ Abdominal pain or stomachache
  - ☐ Chest pain, angina, cardiac arrest
  - ☐ Ear pain or earache
  - ☐ Headache or migraine
  - ☐ Muscle or joint pain (e.g., back, hip)
  - ☐ Oral/dental pain
- ☐ Respiratory, *specify:*
  - ☐ Congestion, runny nose, sinusitis
  - ☐ Cough, *specify:*
    - ☐ Dry
    - ☐ Productive
    - ☐ With blood
  - ☐ Pneumonia, suspected
  - ☐ Shortness of breath/difficulty breathing
  - ☐ Wheezing in chest
- ☐ Sore throat

EXACERBATION OF CHRONIC DISEASE

- ☐ Cardiovascular, *specify*:
  - ☐ Hypertension
  - ☐ Congestive heart failure
- ☐ Diabetes
- ☐ Immunocompromised (e.g., HIV, lupus)
- ☐ Neurological, *specify*:
  - ☐ Seizure
  - ☐ Stroke
- ☐ Respiratory, *specify*:
  - ☐ Asthma
  - ☐ COPD

MENTAL HEALTH

- ☐ Agitated behavior (i.e. violent behavior/threatening violence)
- ☐ Anxiety or stress
- ☐ Depressed mood
- ☐ Drug/alcohol intoxication or withdrawal
- ☐ Previous mental health diagnosis (i.e. PTSD)
- ☐ Psychotic symptoms (i.e. paranoia)
- ☐ Suicidal thoughts or ideation

ROUTINE/FOLLOW-UP

- ☐ Medication refill
  If yes, how many medications? _____
- ☐ Blood sugar check ☐ Vaccination
- ☐ Blood pressure check ☐ Wound care

OTHER

Part IV: DISPOSITION

- ☐ Discharge to self care
- ☐ Refer to other care (e.g., clinic or physician)
- ☐ Admit/refer to hospital
- ☐ Left before being seen
- ☐ Deceased

☐ **Influenza-like-illness (ILI)** – Fever (temperature of 100°F [37.8°C] or greater) AND a cough *or* a sore throat in the absence of a KNOWN cause other than influenza

Supplemental Information on Pregnant Women

INTERVIEWER READS: *Please remember that your responses to these questions are kept confidential and will have no bearing on any aid, services, or assistance that you may be receiving from the government or other organizations. We understand that some of these questions are personal and that some may be difficult for you to answer. Please remember that your answers will be kept confidential and that we can stop and take a break at any time.*

1. How damaged was your home by the disaster? (Check one answer.)

My home was not damaged
Minor (Living areas of dwelling still livable)
Major (Living areas of dwelling are not livable)
Destroyed
Don't know
No Response

2. Did you experience any of the following because of the disaster? (Check all that apply.)

You felt like your life was in danger when the disaster struck
You had an illness or an injury
A member of your household had an illness or an injury
You walked through floodwater or debris
You were without electricity for one week or longer
Someone close to you died in the disaster
You saw someone die in the disaster
You were living in temporary housing or in conditions that you were not accustomed to before
You lost personal belongings
You were separated from loved ones who you feel close to
You had difficulty getting services or aid from the government and/or insurance
Your husband or partner lost his/her job
You lost your job even though you wanted to go on working
You argued with your husband or partner more than usual
You had a lot of bills you couldn't pay
You were in a physical fight
Your husband or partner or you went to jail
Someone very close to you had a problem with drinking or drugs

3. Since the disaster, would you accept these kinds of help if you needed them? (Check all that apply)

Someone to loan me $50
Someone to help me if I were sick and needed to be in bed
Someone to take me to the clinic or doctor's office if I needed a ride
Someone to talk with about my problems

4. Do you have any of the following health problems that require ongoing care that started before or during this pregnancy? (Check all that apply)

High blood sugar (diabetes or gestational diabetes)
Vaginal bleeding
Asthma
Kidney or bladder (urinary tract) infection
Severe nausea, vomiting or dehydration
High blood pressure, hypertension (including pregnancy- induced hypertension) preeclampsia or toxemia
Heart problems
Other (specify) _____
Don't know
No Response

5. Since the disaster, have you had any prenatal care visits? (Check one answer.)

Yes
No
Don't know
No Response

6. Do you feel you currently need any of the following services? (Check all that apply.)

Housing
Food stamps, WIC vouchers, or money to buy food
School or vocational training
Transportation
Dental services
Medical services
Help to quit smoking
Help with alcohol or drug problem
Help to reduce violence in your home
Counseling for family and/or personal problems
Information on breastfeeding
Other (specify)_____

7. Since the disaster, has your current or ex romantic or sexual partner pushed, hit, slapped, kicked, choked or physically hurt you in any other way? (Check one answer.)

Yes
No
Don't Know
No Response