# **Maternal Mortality Review Information Application (MMRIA)**

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# **Supporting Statement**

Part B

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## **Attachments**

Attachment 1a. Section 301 of the Public Health Service Act (42 U.S.C. 241)

Attachment 1b. Preventing Maternal Deaths Act

Attachment 2. Data Flow Diagram

Attachment 3a. MMRIA Abstraction and Narrative Forms

Attachment 3b. Committee Decision MMRIA Forms

Attachment 4a. MMRIA 60-Day Federal Register Notice

Attachment 4b. Reponse to Public Comments on the the 60-Day Federal Register Notice

Attachment 5. Privacy Impact Assessment

Attachment 6. Memorandum of Understanding for Central Hosting of MMRIA

Attachment 7. MMRIA Request for Determination of Research Status

Attachment 8. List of changes to MMRIA Forms

#### B. Collection of Information Employing Statistical Methods

## 1. Respondent Universe and Sampling Methods

Capture of all pregnancy-associated deaths within the respondent's jurisdictions is being sought; thus, no sampling methods will be employed. Estimates of the anticipated number of pregnancy-associated deaths each year (based on a 3-year average) were derived for 39 jurisdictions that receive funding through CDC-RFA-DP19-1908 and CDC-RFA-DP22-2211 (representing 40 responding jurisdictions) and 13 jurisdictions that are eligible to apply to receive funding in FY23 (CDC-RFA-DP-23-0066), using data from the Pregnancy Mortality Surveillance System (PMSS; 2017-2019)¹. Alternative data sources were used to derive estimates of pregnancy-associated deaths for 2 jurisdictions (U.S. territories) not currently represented in PMSS. Estimates (2017-2019) for one jurisdiction not represented in PMSS were derived from their application materials from CDC-RFA-DP22-2211, which included annual counts of pregnancy-associated deaths they identified through use of their vital records data. Estimates (2014-2016) for an additional jurisdiction not represented in PMSS were derived from their application materials from CDC-RFA- DP19-1908. From this approach, we estimate on average an annual total of 2,240 pregnancy-associated deaths. Annually, this equates to an average 42 responses for each of the 53 jurisdictions per year.

### 2. Procedures for the Collection of Information

<sup>1</sup> Pregnancy Mortality Surveillance System | Maternal and Infant Health | CDC

Through their existing Maternal Mortality Review Committees (MMRCs), awardees will compile data for a defined set of variables and enter them into the applicable forms within the Maternal Mortality Review Information Application (MMRIA). MMRIA is a standardized data system designed to collect timely, accurate, and standardized information about deaths to women during pregnancy and the year after the end of pregnancy, including opportunities for prevention, within and across jurisdictions.

Information pertaining to pregnancy-associated deaths entered into MMRIA may include data from death certificates, autopsy reports, birth certificates, prenatal care records, emergency room visits records, hospitalization records, records for other medical office visits, medical transport records, social and environmental profiles, mental health profiles, and informant interviews (Attachment 3a). Case narratives are auto-populated to facilitate committee review (Attachment 3a). MMRCs (with a team of persons with relevant clinical and non-clinical expertise, such as state health personnel, maternal fetal medicine, perinatal psychologists, substance use experts, social service representatives, and community partners) will review the case narratives developed from MMRIA to understand the circumstances around and preventability of the deaths. Committee decisions will then be entered into MMRIA (Attachment 3b). Each case record may contain up to 1000 data elements. A full list of all data elements collected is currently available at https://demo-mmria.cdc.gov/data-dictionary.

Approximately 30 fields are available to be completed, as is relevant, after the committee review of each death.

#### 3. Methods to Maximize Response Rates and Deal with Nonresponse

Efforts are made to maximize the response rate (i.e., completeness of data for each case). CDC provides guidance to awardees on strategies to minimize missing or unknown responses to MMRIA variables. These methods include building the capacity of abstractors that collect the data and providing feedback to these abstractors so they might improve the completeness case information entered into MMRIA. As outlined in the funding announcements, CDC will work in partnership with awardees on quality assurance processes to improve data quality, completeness, and timeliness. This will allow CDC and the awardee to track the outcome of data improvement strategies and to follow the awardee's progress over time. This in turn results in reduced missing

and unknown responses in the data system. The goal for the system is to capture information from the available records to allow awardees to determine pregnancy-relatedness of and understand the circumstances around and preventability of maternal deaths in order to prevent future ones from occurring.

#### 4. Tests of Procedures or Methods to be Undertaken

There are no statistical aspects related to MMRIA. MMRIA was created using lessons learned from a prototype system, the Maternal Mortality Review Data System (MMRDS). Over several years of working closely with the early adopter states of MMRDS, it became clear that states wanted a more multi-faceted, flexible, and adaptable data system than what MMRDS provided. As part of the initiative *Building U.S. Capacity to Review and Prevent Maternal Deaths*, MMRIA was created and released in April 2017. Compared to MMRDS, MMRIA provided multiuser capability, ability to operate on web servers, more timely corrections to errors, and expansion of quality location-based information. Ongoing improvements to the system are undertaken based on informal user feedback.

# 5. Individuals Consulted on Statistical Aspects and Individuals Collecting and/or Analyzing Data

A number of representatives from MMRCs and partners were consulted on identifying the in initial content of MMRIA and its precursor, the Maternal Mortality Review Data System (MMRDS). Since identification of the initial content, additional changes to the content have occurred based on informal user feedback.

| Maternal Mortality Review Committees (MMRC) Initially Consulted (2013-14)          |                  |  |  |
|--|------------------|--|--|
| MMRC   |                  |  |  |
| California   | Michigan         |  |  |
| Colorado   | New Jersey       |  |  |
| Delaware   | New York (State) |  |  |
| Florida  | Ohio             |  |  |
| Georgia  | Philadelphia     |  |  |
| lowa   | Utah             |  |  |
| Louisiana  | Virginia         |  |  |
| Massachusetts  | Wisconsin        |  |  |
| Additional Maternal Mortality Review Committees (MMRC) Consulted (2015 to present) |                  |  |  |
| MMRC   |                  |  |  |

| Hawaii  | North Carolina                            |  |  |  |
|---|---|--|--|--|
| Illinois  | Oklahoma                                  |  |  |  |
| Maryland  | South Carolina                            |  |  |  |
| Mississippi   | Tennessee                                 |  |  |  |
| New Mexico  | Texas                                     |  |  |  |
| New York City   | Washington (State)                        |  |  |  |
| Additional Partner Organizations Consulted (2013-present)           |   |  |  |  |
| Name/Organization   | Subject Matter Expertise Provided         |  |  |  |
| American College of Obstetricians and Gynecologists                 | Obstetric care                            |  |  |  |
| Association of Maternal and Child Health                            | Title V Maternal and Child Health Block   |  |  |  |
| Programs  | Grants and associated programs in states  |  |  |  |
| CDC, Division of Reproductive Health                                | Maternal Mortality Measurement and        |  |  |  |
| CDC, Division of Reproductive Health                                | Surveillance                              |  |  |  |
| CDC, Center for Global Health                                       | Maternal Mortality Measurement and        |  |  |  |
| CDC, Center for Global Health                                       | Surveillance                              |  |  |  |
| CDC, Center for Surveillance, Epidemiology, and Laboratory Services | Epilnfo 7                                 |  |  |  |
| Society for Maternal and Fetal Medicine                             | High risk obstetric care                  |  |  |  |
| Emory University Rollins School of Public                           | Community Vital Signs Indicators and      |  |  |  |
| Health  | dashboards                                |  |  |  |
| CDC Foundation MMRIA Racism and                                     | Fields for documenting discrimination and |  |  |  |
| Discrimination Workgroup  | racism in MMRIA                           |  |  |  |