

1. DATE ISSUED MM/DD/YYYY 07/30/2019		1a. SUPERSEDES AWARD NOTICE dated except that any additions or restrictions previously imposed remain in effect unless specifically rescinded	
2. CFDA NO. 93.478 - Preventing Maternal Deaths: Supporting Maternal Mortality Review Committees			
3. ASSISTANCE TYPE Cooperative Agreement			
4. GRANT NO. 1 NU58DP006697-01-00 Formerly		5. TYPE OF AWARD Other	
4a. FAIN NU58DP006697		5a. ACTION TYPE New	
6. PROJECT PERIOD MM/DD/YYYY From 09/30/2019		Through MM/DD/YYYY 09/29/2024	
7. BUDGET PERIOD MM/DD/YYYY From 09/30/2019		Through MM/DD/YYYY 09/29/2020	

**DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention
CDC Office of Financial Resources**

2939 Brandywine Road
Atlanta, GA 30341

NOTICE OF AWARD

AUTHORIZATION (Legislation/Regulations)
Public Health Service Act, as amended, Section 301(a) and Section
317K, 42 U.S.C. 241(a): 42 U.S.C. 247b-12

8. TITLE OF PROJECT (OR PROGRAM)
This funding will support Missouri's Pregnancy-Associated Mortality Review (PAMR) Program by facilitating timely identification of maternal deaths, formation and dissemination of prevention strategies

9a. GRANTEE NAME AND ADDRESS HEALTH AND SENIOR SERVICES, MISSOURI DEPARTMENT OF 920 Wildwood Dr Jefferson City, MO 65109-5796	9b. GRANTEE PROJECT DIRECTOR Ms. Mindy Laughlin 920 Wildwood Dr Jefferson City, MO 65109-5796 Phone: 5737516435
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10a. GRANTEE AUTHORIZING OFFICIAL Ms. Tonya R Loucks 920 WILDWOOD DR Jefferson City, MO 65109-5796 Phone: 573-751-6014	10b. FEDERAL PROJECT OFFICER Mr. Charles Buxton 1600 Clifton Rd NE Atlanta, GA 30329-4018 Phone: 770.488.6218
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ALL AMOUNTS ARE SHOWN IN USD

11. APPROVED BUDGET (Excludes Direct Assistance)		12. AWARD COMPUTATION	
I Financial Assistance from the Federal Awarding Agency Only		a. Amount of Federal Financial Assistance (from item 11m) 450,000.00	
II Total project costs including grant funds and all other financial participation <input type="checkbox"/> I		b. Less Unobligated Balance From Prior Budget Periods 0.00	
a. Salaries and WageS	144,349.00	c. Less Cumulative Prior Award(s) This Budget Period 0.00	
b. Fringe Benefits	80,730.00	d. AMOUNT OF FINANCIAL ASSISTANCE THIS ACTION 450,000.00	
c. Total Personnel Costs	225,079.00	13. Total Federal Funds Awarded to Date for Project Period 450,000.00	
d. Equipment	0.00	14. RECOMMENDED FUTURE SUPPORT (Subject to the availability of funds and satisfactory progress of the project):	
e. Supplies	3,862.00	YEAR	TOTAL DIRECT COSTS
f. Travel	11,962.00	a. 2	d. 5
g. Construction	0.00	b. 3	e. 6
h. Other	6,155.00	c. 4	f. 7
i. Contractual	155,000.00	15. PROGRAM INCOME SHALL BE USED IN ACCORD WITH ONE OF THE FOLLOWING ALTERNATIVES:	
j. TOTAL DIRECT COSTS	402,058.00	a. DEDUCTION	
k. INDIRECT COSTS	47,942.00	b. ADDITIONAL COSTS	
l. TOTAL APPROVED BUDGET	450,000.00	c. MATCHING	
m. Federal Share	450,000.00	d. OTHER RESEARCH (Add / Deduct Option)	
n. Non-Federal Share	0.00	e. OTHER (See REMARKS)	
REMARKS (Other Terms and Conditions Attached - <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No)		16. THIS AWARD IS BASED ON AN APPLICATION SUBMITTED TO, AND AS APPROVED BY, THE FEDERAL AWARDING AGENCY ON THE ABOVE TITLED PROJECT AND IS SUBJECT TO THE TERMS AND CONDITIONS INCORPORATED EITHER DIRECTLY OR BY REFERENCE IN THE FOLLOWING:	
		a. The grant program legislation	
		b. The grant program regulations.	
		c. This award notice including terms and conditions, if any, noted below under REMARKS.	
		d. Federal administrative requirements, cost principles and audit requirements applicable to this grant.	
		In the event there are conflicting or otherwise inconsistent policies applicable to the grant, the above order of precedence shall prevail. Acceptance of the grant terms and conditions is acknowledged by the grantee when funds are drawn or otherwise obtained from the grant payment system.	

GRANTS MANAGEMENT OFFICIAL:

Stephanie Latham, Team Lead, Grants Management Officer
2939 Flowers Rd. South
TV-2
Atlanta, GA 30333
Phone: 770.488.2917

17.OBJ CLASS 41.51	18a. VENDOR CODE [REDACTED]	18b. EIN [REDACTED]	19. DUNS 878092600	20. CONG. DIST. 03
FY-ACCOUNT NO.	DOCUMENT NO.	ADMINISTRATIVE CODE	AMT ACTION FIN ASST	APPROPRIATION
21. a. 9-9390C2X	b. 19NU58DP006697	c. DP	d. \$450,000.00	e. 75-19-0948
22. a.	b.	c.	d.	e.
23. a.	b.	c.	d.	e.

NOTICE OF AWARD (Continuation Sheet)

PAGE 2 of 2	DATE ISSUED 07/30/2019
GRANT NO. 1 NU58DP006697-01-00	

Direct Assistance

BUDGET CATEGORIES	PREVIOUS AMOUNT (A)	AMOUNT THIS ACTION (B)	TOTAL (A + B)
Personnel	\$0.00	\$0.00	\$0.00
Fringe Benefits	\$0.00	\$0.00	\$0.00
Travel	\$0.00	\$0.00	\$0.00
Equipment	\$0.00	\$0.00	\$0.00
Supplies	\$0.00	\$0.00	\$0.00
Contractual	\$0.00	\$0.00	\$0.00
Construction	\$0.00	\$0.00	\$0.00
Other	\$0.00	\$0.00	\$0.00
Total	\$0.00	\$0.00	\$0.00

AWARD ATTACHMENTS

Missouri Department of Health

1 NU58DP006697-01-00

1. T&C MO

2. summary statements MO

AWARD INFORMATION

Incorporation: In addition to the federal laws, regulations, policies, and CDC General Terms and Conditions for Non-research awards at <https://www.cdc.gov/grants/federalregulationspolicies/index.html>, the Centers for Disease Control and Prevention (CDC) hereby incorporates Notice of Funding Opportunity (NOFO) number CDC-RFA-DP19-1908, entitled Preventing Maternal Deaths: Supporting Maternal Mortality Review Committees, and application dated May 7, 2019, as may be amended, which are hereby made a part of this Non-research award, hereinafter referred to as the Notice of Award (NOA).

Approved Funding: Funding in the amount of \$450,000 is approved for the Year 1 budget period, which is September 30, 2019 through September 29, 2020. All future year funding will be based on satisfactory programmatic progress and the availability of funds.

The federal award amount is subject to adjustment based on total allowable costs incurred and/or the value of any third party in-kind contribution when applicable.

Note: Refer to the Payment Information section for Payment Management System (PMS) subaccount information.

Financial Assistance Mechanism: Cooperative Agreement

Substantial Involvement by CDC: This is a cooperative agreement and CDC will have substantial programmatic involvement after the award is made. Substantial involvement is in addition to all post-award monitoring, technical assistance, and performance reviews undertaken in the normal course of stewardship of federal funds.

CDC program staff will assist, coordinate, or participate in carrying out effort under the award, and recipients agree to the responsibilities therein, as detailed in the NOFO.

To ensure the success of the cooperative agreement CDC program will provide technical assistance and opportunities for sharing between MMRCs (funded and not funded through this NOFO).

Technical Assistance:

- Implementation of and data entry into MMRIA
- Identification of pregnancy-associated deaths
- Comprehensive, efficient, and effective abstraction of deaths
- Data quality improvement
- Data analysis of MMRC data, including analyzing aggregated MMRIA data to identify common opportunities for prevention
- Committee discussion facilitation and decision making
- Effective data use and dissemination
- Program evaluation and performance measurement

Information Sharing between MMRCs (funded and not funded through this NOFO):

- Through MMRC profiles and MMRC-developed products disseminated by CDC and

- partner organizations
- CDC will disseminate regular ongoing email communication to all recipients that will include information about conferences, current literature, and other relevant resources and events
- CDC will host distance-based topic-driven learning events to assist MMRCs with problem-solving areas of concern that arise during performance of program activities
- Networking and information sharing will occur during the in-person CDC-hosted annual reverse site visit

Objective Review Statement Response Requirement: The review comments on the strengths and weaknesses of the proposal are provided as part of this award. A response to the weaknesses in these statements must be submitted to and approved, in writing, by the Grants Management Specialist/Grants Management Officer (GMS/GMO) noted in the CDC Staff Contacts section of this NOA, no later than 30 days from the budget period start date. **Failure to submit the required information by the due date, October 30, 2019, will cause delay in programmatic progress and will adversely affect the future funding of this project.**

Budget Revision Requirement: By October 30, 2019 the recipient must submit a revised budget with a narrative justification based on the approved funding. Failure to submit the required information in a timely manner may adversely affect the future funding of this project. If the information cannot be provided by the due date, you are required to contact the GMS/GMO identified in the CDC Staff Contacts section of this notice before the due date. The budget should address the following:

1. Provide names of those hired to fill the proposed positions of Public Health Senior Nurse, Research Analysis III/Epidemiology Specialist and IT Specialist II
2. Provide dates and names for proposed travel.
3. Please provide all elements and budget breakdown for the proposed contract listed as TBD. This information is needed for review and approval once a selection has been made.

Expanded Authority: The recipient is permitted the following expanded authority in the administration of the award.

Carryover of unobligated balances from one budget period to a subsequent budget period. Unobligated funds may be used for purposes within the scope of the project as originally approved. Recipients will report use, or intended use, of unobligated funds in Section 12 "Remarks" of the annual Federal Financial Report. If the GMO determines that some or all of the unobligated funds are not necessary to complete the project, the GMO may restrict the recipient's authority to automatically carry over unobligated balances in the future, use the balance to reduce or offset CDC funding for a subsequent budget period, or use a combination of these actions.

FUNDING RESTRICTIONS AND LIMITATIONS

Restrictions that must be considered while planning the programs and writing the budget are:

- Recipients may not use funds for research.
- Recipients may not use funds for clinical care except as allowed by law.
- Recipients may use funds only for reasonable program purposes, including personnel, travel, supplies, and services.
- Generally, recipients may not use funds to purchase furniture or equipment. Any such proposed spending must be clearly identified in the budget.
- Reimbursement of pre-award costs generally is not allowed, unless the CDC provides written approval to the recipient.
- Other than for normal and recognized executive-legislative relationships, no funds may be used for:
 - publicity or propaganda purposes, for the preparation, distribution, or use of any material designed to support or defeat the enactment of legislation before any legislative body
 - the salary or expenses of any grant or contract recipient, or agent acting for such recipient, related to any activity designed to influence the enactment of legislation, appropriations, regulation, administrative action, or Executive order proposed or pending before any legislative body
- See [Additional Requirement \(AR\) 12](#) for detailed guidance on this prohibition and [additional guidance on lobbying for CDC recipients](#).
- The direct and primary recipient in a cooperative agreement program must perform a substantial role in carrying out project outcomes and not merely serve as a conduit for an award to another party or provider who is ineligible.

In accordance with the United States Protecting Life in Global Health Assistance policy, all non-governmental organization (NGO) applicants acknowledge that foreign NGOs that receive funds provided through this award, either as a prime recipient or subrecipient, are strictly prohibited, regardless of the source of funds, from performing abortions as a method of family planning or engaging in any activity that promotes abortion as a method of family planning, or to provide financial support to any other foreign non-governmental organization that conducts such activities. See Additional Requirement (AR) 35 for applicability

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Indirect Costs: Indirect costs are approved based on the negotiated indirect cost rate agreement dated March 9, 2018, which calculates indirect costs as follows, a Provisional is approved at a rate of 21.3% of the base, which includes, direct salaries and wages including all

fringe benefits. The effective dates of this indirect cost rate are from July 1, 2019 to June 30, 2021.

Information System (FAPIS): Consistent with 45 CFR 75.113, applicants and recipients must disclose in a timely manner, in writing to the CDC, with a copy to the HHS Office of Inspector General (OIG), all information related to violations of federal criminal law involving fraud, bribery, or gratuity violations potentially affecting the federal award. Subrecipients must disclose, in a timely manner in writing to the prime recipient (pass through entity) and the HHS OIG, all information related to violations of federal criminal law involving fraud, bribery, or gratuity violations potentially affecting the federal award. Disclosures must be sent in writing to the CDC and to the HHS OIG at the following addresses:

CDC, Office of Grants Services
Rhonda Latimer, Grants Management Officer/Specialist
Centers for Disease Control and Prevention
Chronic Diseases and Birth Defects Services Branch
2939 Flowers Rd. S
Chamblee, GA 30341
Email: ITO1@cdc.gov (Include "Mandatory Grant Disclosures" in subject line)

AND

U.S. Department of Health and Human Services
Office of the Inspector General
ATTN: Mandatory Grant Disclosures, Intake Coordinator
330 Independence Avenue, SW
Cohen Building, Room 5527
Washington, DC 20201
Fax: (202)-205-0604 (Include "Mandatory Grant Disclosures" in subject line) or
Email: MandatoryGranteeDisclosures@oig.hhs.gov

Recipients must include this mandatory disclosure requirement in all subawards and contracts under this award.

Failure to make required disclosures can result in any of the remedies described in 45 CFR 75.371. Remedies for noncompliance, including suspension or debarment (See 2 CFR parts 180 and 376, and 31 U.S.C. 3321).

CDC is required to report any termination of a federal award prior to the end of the period of performance due to material failure to comply with the terms and conditions of this award in the OMB-designated integrity and performance system accessible through SAM (currently FAPIS). (45 CFR 75.372(b)) CDC must also notify the recipient if the federal award is terminated for failure to comply with the federal statutes, regulations, or terms and conditions of the federal award. (45 CFR 75.373(b))

PAYMENT INFORMATION

The HHS Office of the Inspector General (OIG) maintains a toll-free number (1-800-HHS-TIPS [1-

800-447-8477]) for receiving information concerning fraud, waste, or abuse under grants and cooperative agreements. Information also may be submitted by e-mail to hhstips@oig.hhs.gov or by mail to Office of the Inspector General, Department of Health and Human Services, Attn: HOTLINE, 330 Independence Ave., SW, Washington DC 20201. Such reports are treated as sensitive material and submitters may decline to give their names if they choose to remain anonymous.

Payment Management System Subaccount: Funds awarded in support of approved activities have been obligated in a newly established subaccount in the PMS, herein identified as the "P Account". Funds must be used in support of approved activities in the NOFO and the approved application. All award funds must be tracked and reported separately.

The grant document number identified on the bottom of Page 1 of the Notice of Award must be known in order to draw down funds.

CDC Staff Contacts

Grants Management Specialist: The GMS is the federal staff member responsible for the day-to-day management of grants and cooperative agreements. The GMS is the primary contact of recipients for business and administrative matters pertinent to grant awards.

GMS Contact:

Rhonda Latimer, Grants Management Specialist
Centers for Disease Control and Prevention
Chronic Disease and Birth Defects
2939 Flowers Road, MS V-2
Atlanta GA 30341
Telephone: 770-488-1647
Email: ITO1@cdc.gov

Program/Project Officer: The PO is the federal official responsible for monitoring the programmatic, scientific, and/or technical aspects of grants and cooperative agreements, as well as contributing to the effort of the award under cooperative agreements.

Programmatic Contact:

Charles Buxton, Project Officer
Centers for Disease Control and Prevention
National Center for Chronic Disease Prevention
Division of Reproductive Health
Chamblee Building 107, Room 2136
Atlanta Ga 30341
Telephone: 770-488-6218
Email: ZPL1@cdc.gov

Grants Management Officer: The GMO is the federal official responsible for the business and other non-programmatic aspects of grant awards. The GMO is the only official authorized to obligate federal funds and is responsible for signing the NOA, including revisions to the NOA that change the terms and conditions. The GMO serves as the counterpart to the business

officer of the recipient organization. GMO contact information is located on Page 1 of this NOA.

Centers for Disease Control and Prevention (CDC)
National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP)
Preventing Maternal Deaths: Supporting Maternal Mortality Review Committees
CDC-RFA-DP19-1908

SUMMARY STATEMENT

Date Reviewed: June 4, 2019

Applicant Name: Missouri Department of Health and Senior Services

Application #: NU58DP2019010265

Score: 86.33 of 100

Brief Summary of Application:

Summary of Project:

Missouri experiences several challenges relating to factors that are likely to significantly impact maternal morbidity and mortality trends. From 2014-2016, the Missouri three-year moving average of maternal mortality rates (33.4 maternal deaths per 100,000 live births) was higher than the national three-year moving average of 21.4 and about three times the Healthy People 2020 target of 11.4 deaths per 100,000 live births. Missouri ranks 42nd among U.S. states for maternal mortality. Between 2010 and 2017, the maternal mortality rate among black mothers (66.7 per 100,000 live births) was nearly 2.5 times higher than that of white women (27.0 per 100,000 live births). This funding will support Missouri's Pregnancy-Associated Mortality Review (PAMR) Program by facilitating timely identification of maternal deaths, formation and dissemination of prevention strategies, and implementation of strategies to reduce maternal deaths and associated racial disparities. The Missouri Department of Health and Senior Services (MODHSS) Division of Community and Public Health/Section for Women's Health staff will oversee the grant project. The PAMR Program has convened a maternal mortality review committee since 2011 and has hosted 20 meetings since that time.

With funding support and technical assistance provided by the Centers for Disease Control and Prevention, Missouri's PAMR Program will decrease the time it takes to identify maternal mortality cases, increase the formation of prevention strategies and dissemination of findings, and increase the implementation of prevention activities. Missouri's goal is to see a 10 percent decline in overall statewide severe maternal morbidity (SMM) and a 15 percent decline in SMM from preeclampsia by 2024. Missouri estimates that the number of people to be served as a result of this grant will be 73,000 pregnant women.

To implement these activities, PAMR will collaborate with internal and external stakeholders. Within MODHSS, the Office of Epidemiology (OOE) and Bureau of Vital Statistics (BVS) will provide data access and dedicated analytical support to identify cases and monitor operations and progress towards outcomes. External partners, including the Missouri Chapter of the American College of Obstetricians and Gynecologists (MOACOG) and the Missouri Hospital Association (MHA) will assist with the dissemination of reports and recommendations, and advise on implementation of best practices and policy. Partnerships will be strengthened with organizations including FLOURISH St. Louis to integrate PAMR recommendations into population-based public health initiatives to address social determinants of health and health inequities.

Reviewers' Comments on Approach

Strengths of Section:

- The PAMR program has convened a maternal mortality review committee since 2011 and has had 20 successful meeting committees.
- Applicant clearly specifies the criteria for review of pregnancy related deaths that will be reviewed by

PAMR as part of work plan.

- MO has included a work plan that addresses each of the strategies and activities in the logic model and explains proposed activities and planned efforts toward process measures, responsible party, and yearly completion dates. Activities for the following strategies are specific, realistic, measurable, and include time frames (e.g., “within one month of vital statistics annual file closures”) and include the following:
 - Decrease the time it takes to identify maternal mortality cases
 - Increase the awareness of the existence and recommendations
 - Increase the implementation of prevention activities
 - Increase widespread adoption of patient safety bundles and/or policies
 - Reduce the number of maternal complications
- MO transitioned data systems in 2018, switching from the Maternal Mortality Review Data System (MMRDS) to the Maternal Mortality Review Information Application (MMRIA).
- Applicant identifies timing of quality assurance checks (quarterly) and identifies realistic measurement for assuring this outcome is evaluated (percentage of death certificates reviewed). The pregnancy check box on death certificates is regularly monitored as well as other quality checks. Outcomes are specific and measurable (e.g. publish one comprehensive report annually, publish at least two PAMR fact sheets).
- Applicant reports having collaborative, working relationships with key partners, including BVR (long-standing relationship and collaboration), MHA, MOACOG, and MC-LAN.
- Through relationships with MOACOG, applicant plans to annually review and revise committee roster to ensure representation. This commitment is supported by an MOU/MOA letter from MOACOG.
- Applicant identifies a specific challenge in working with state medical examiners and coroners and identifies a method for addressing this challenge: “Missouri coroners are elected/re-elected every four years, so it can be a challenge to maintain relationships during transition from one coroner to the next.....PAMR staff will form relationships with coroners, deputy coroners and medical examiners by exhibiting and presenting on the PAMR at the annual Missouri Coroners and Medical Examiners Association conference/new coroner training. The PAMR program has struggled in the past to form a genuine relationship with coroners and medical examiners which causes a delay in receiving autopsy reports for abstraction”.
- The applicant provides ample evidence of existing and proposed multi-sectoral clinical and non-clinical partnerships. Where necessary, they will establish new multi-disciplinary partnerships.
- Applicant provides letters of support and memoranda of agreement from key collaborators and entities to access necessary data with specific information about how data will be shared. The letters of support adequately explain the role of each of their partners and collaborators as well as what each has to offer to the project, such as helping to disseminate PAMR findings to those disproportionately impacted. The organizations providing specific support are the: St. Louis County Office of the Medical Examiner, the City of St. Louis Office of the Medical Examiner, MO American College of Nurse-Midwives, MO Title V Director, MO Department of Social Services (to share data), MO American College of OB/GYNs and the Mother & Child Health Coalition. Additional letters were included from: Association of Women’s Health Obstetric and Neonatal Nurses Missouri, MOACOG, Mother & Child Health Coalition, State Registrar of the Missouri vital statistics, and Missouri Hospital Association.
- Applicant clearly identifies strategies PAMR will take to reduce racial disparities associated with maternal morbidity and mortality, such as expanding PAMR membership to be more representative, and working with MC-LAN to strengthen relationships with hospitals (particularly those in rural areas) serving minority populations, which are disproportionately impacted.
- Applicant outlines multidisciplinary makeup of current committees in alignment with logic model outlined by CDC NOFO, including a list of specialties and professions included in the committee.
- The applicant indicates their ability and experience to date to use the MMRIA data providing detailed descriptions about their data infrastructure to link necessary data. The applicant indicates they are

committed to using MMRIA as required. They describe the process used in the past and they identify the staff who will have oversight for the linkage.

- The applicant will use information from vital statistics (i.e. birth and death records – supported by an MOU/MOA), as well as clinical and nonclinical records, obituaries, and social media. Capacity supported by previous experience linking vital records data to various existing data systems (birth and death certificates/vital statistics), MMRDS, MMRIA, hospital outpatient and emergency room database, newborn screening, and immunization) within MODHSS. The staff has access to a central data clearinghouse.
- The applicant clearly outlines stakeholder engagement as a key contributor to success for the PAMR program. They will work with stakeholders to engage them in quality improvement and evaluation initiatives to inform recommendations from PAMR.
- The Senior Legal Counsel of the MO Department of Health and Senior Services provides the evidence that legal mandates through 192.067 and House Bill 664 for the PAMR as well as confidentiality and immunity protections for members. The complete legislation creating the PAMR board is also included.

Weaknesses of Section:

- While the work plan includes detailed plans for disseminating data in an annual report and fact sheets, it fails to identify specific plans for stratification of data for analysis and examination of disparities among cases.
- The applicant only describes one challenge to successfully achieving strategies and activities in the logic model and an identified an approaches to address it. All other barriers or challenges discuss were patient related.
- The discussion of efforts and strategies to address disparities among subpopulations disproportionately impacted by maternal deaths and complications of pregnancy (i.e. race/ethnicity, or geography) was general and too brief – omitting clear identification of the subpopulations.
- Most of their descriptions of partnerships focused on use of PAMR rather than MMRC.
- There was no description of plans for stratified analysis of MMRC data by disproportionately impacted populations or discussion of the different anticipated audiences for these products.

Recommendations for Section:

- Provide in-depth analysis plan for stratified analyses, specifically focusing on groups identified to be most at risk (i.e. rural/urban, racial/ethnic groups, etc.) and clarify plans for disseminating these findings.

Reviewers' Comments on Evaluation and Performance Measurement

Strengths of Section:

- Applicant provides an evaluation plan that supports successful measurement of process outcomes, short and intermediate outcomes, and performance measures that align with strategies and activities in the logic model, and identifies who is responsible for completing each.
- Applicant describes current ability to access and use MMRIA to measure progress. They have a documented working knowledge of MMRIA and its predecessor, documented attendance at MMRIA trainings, and documented ability to work with other data sources and software, including SAS.
- The applicant regularly monitors the pregnancy checkbox of the death certificates and identifies time-framed procedures for rechecking data to ensure accuracy (e.g., “quarterly audits”).
- Applicant provides evidence of ability to access affidavits and records to identify misclassifications of records for quality assurance. The applicant has access to a central data clearinghouse and most of the needed data is housed within the health department, so they have access to conduct evaluation analyses.
- Applicant identifies importance of time to completion for cases and lays out plan for stratifying data in

quality checks by geography to identify gaps in case completion on a monthly basis.

- Staff will work with state initiatives to assess how data may be altered to improve linkages in the MMRC process.
- The applicant discusses implementation of data-driven recommendations as part of the MMRC process. Applicant states that performance measures will be reported to the CDC at least annually.
- The stakeholders identified include CDC, PAMR, MOACOG and MHA (hospitals). Partnerships with MC-LAN and MHA will be used to determine implementation of recommendations and adoption of safety bundles, as well as future broad scale implementation evaluation plans.
- Applicant provides details regarding usage of new levels of care information to make progress towards implementation of PAMR recommendations and quality improvement efforts.

Weaknesses of Section:

- Evaluation strategies for analyzing the percentage of doctors reporting awareness of PAMR is insufficient. For example, there is no documented plan to determine baseline awareness nor a method to determine increased awareness in the future.
- The applicant does not consistently describe plans for using data from evaluation measures to enhance procedures (i.e., quality improvement).
- Applicant does not adequately address how the evaluation and performance measurement will be used to address disparities and evaluation measures for health equity initiatives are limited (i.e., gaps in data coming from diverse geographic areas and representativeness of annual roster reviews).
- The applicant describes how evaluation and performance measurement will be reported through website, annual reports, and other means but does not specifically discuss or address disparities and health inequities reporting.
- The applicant does not provide a data management plan (DMP). Instead, they state that a DMP *will be* established when the award is made. They state that they have previous experience supporting programs that have required DMPs.

Recommendations for Section:

- Ensure inclusion of data initiatives and evaluation efforts for addressing equity and disparities in the evaluation plan beyond committee makeup, especially since racial and geographic disparities featured heavily in the background and abstract.
- Ensure all levels and types of evaluation efforts have measurable outcomes tied to data that are listed in the evaluation plan. Specifically, clarify how the organization will gain access to data used in evaluation procedures and ensure that all evaluation procedures are tied to actionable follow-up strategies for improvement.
- Applicant needs to collaborate with CDC to develop appropriate DMP elements within the first six months after the award is made.

Reviewers' Comments on Organizational Capacity to Implement the Approach

Strengths of Section:

- The PAMR Program has convened a maternal mortality review committee since 2011 and has hosted 20 meetings since that time. MMRIA or MMRDS Committee Decisions Forms are used to document MMRC decisions.
- The applicant indicates their ability and experience to date using MMRIA data providing detailed descriptions about their data infrastructure to link necessary data. The applicant indicates they are committed to using MMRIA as required. They describe the process that they have used in the past and they detail the staff who will have oversight for the linkage.
- Applicant identifies methods for accessing vital records and some clinical and non-clinical records, including prenatal visits, specialists and subspecialists visits, outpatient and/or emergency room visits,

social work reports, autopsy/toxicology reports, emergency medical technician reports and motor vehicle accident reports.

- The Senior Legal Counsel of the MO Department of Health and Senior Services provides the evidence for legal mandates for the PAMR as well as confidentiality and immunity protections for members (i.e., section 192.067 and House Bill 664). The complete legislation creating the PAMR board is also included.
- Applicant identifies past implementation of the PAMR, including makeup of the committee and how the committee has functioned previously. In addition, they outline the role of OOE in the past and future for data collection, analysis, and dissemination, detailing other projects OOE has accomplished.
- All birth and death records are uploaded daily from the Missouri Electronic Vital Records (MoEVR) to the mainframe computer. The BVS uses SAS Statistic Software to access these files through a local area network for ongoing data quality and analytical purposes. The BVR and the MoEVR system link death certificate records on infants and children to birth records on an ongoing basis. The BVS downloads an updated birth/death match file every month to have current data on confirmed maternal and infant deaths. The BVS performs linkages of birth data to several other data sources for program evaluation and surveillance activities.
- Applicant provides letters of support and memoranda of agreement explaining the role of each partner/collaborator including access to data with specific information about how data will be shared (see strengths under “Approach”).
 - Applicant includes MOU documentation from several listed data sources, including medical examiners, vital records, and Medicaid.
- Applicant outlines collaborations with MOACOG and MC-LAN to distribute findings and to work with MO hospitals in implementing recommendations and gathering evaluation data. They provide anecdotal historical work with these groups and evidence for continued partnership.
- Documents historical and planned continued use of MMRIA, including ability and willingness of IT to work with MMRIA through new granting period.
- The applicant provides a staffing plan, organizational chart and resumes of key staff, noting the assignment of a specific point of contact for MMRIA. The project intends to use multiple nurses including a Nurse Manager, Public Health consultant nurse, Public Health Nurse, Public Health Senior Nurse. Other staff include a Research Analyst/Epidemiologist, and Information Technology Specialist.
- A data sharing agreement for clinical records is provided.

Weaknesses of Section:

- Principal Investigator is only budgeted at 5% FTE.
- Applicant appears understaffed for technology needs; the budget only covers 1.80% for technology specialist.
- While providing some information about online/IT security for data, the applicant fails to provide details related to data security and confidentiality procedures for the agency and these data (e.g., shredding, filing, and data record keeping).
- Several vacancies for key positions exist – i.e. Public Health Senior Nurse, Research Analyst/Epidemiology specialist, and the Information Technology Specialist are unassigned.

Recommendations for Section:

- Ensure policies are elucidated for keeping data secure while in processing and under review for the committee, specifically data that is identifiable. Make sure to make reference to all types of data security procedures pertinent to the PAMR, not just online security.
- Applicant needs to consider increasing the percent time of the Information Technology Specialist dedicated to the project and/or developing a backup plan should problems or emergencies arise.

Reviewers' Comments on Budget and Budget Narrative

Strengths of Section:

- Applicant requests \$450,000/year for five years and the budget is appropriate for the project.
- Applicant sufficiently details personnel and associated budgetary needs for implementation and includes a complete forecast of needs for five years.
- Staffing justifications are clear and align with staffing needs identified in the work plan and project narrative.
- Method of accountability for contractors outlines timely and measurable accountability strategies.

Weaknesses of Section: Note reviewer comment about IT staffing in section on Organizational Capacity.

Recommendations for Section: None Reported.