1. DATE ISSUED *MM/DD/YYYY*
06/17/2020

1a. SUPERSEDES AWARD NOTICE dated
except that any additions or restrictions previously imposed remain in effect unless specifically rescinded

2. CFDA NO.
93.314 - Early Hearing Detection and Intervention Information System (EHDI-IS) Surveillance Program

3. ASSISTANCE TYPE Cooperative Agreement

4. GRANT NO. 1 NU50DD000082-01-00
Formerly

5. TYPE OF AWARD
Other

4a. FAIN NU50DD000082

5a. ACTION TYPE New

6. PROJECT PERIOD *MM/DD/YYYY*
From 07/01/2020 **Through** *MM/DD/YYYY* 06/30/2024

7. BUDGET PERIOD *MM/DD/YYYY*
From 07/01/2020 **Through** *MM/DD/YYYY* 06/30/2024

8. TITLE OF PROJECT (OR PROGRAM)
Early Hearing Detection and Intervention Information System (EHDI-IS)

DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention

2939 Brandywine Road
Atlanta, GA 30341

NOTICE OF AWARD

AUTHORIZATION (Legislation/Regulations)
Sec 399M(b)(1) PHSA [42U.S.C. 280g-1(b)(1)]

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. Catherine Harbison
920 Wildwood Drive
Jefferson City, MO 65109-5796
Phone: 573-751-6473

10a. GRANTEE AUTHORIZING OFFICIAL
Ms. Marcia A Mahaney
920 Wildwood Drive
Jefferson City, MO 65109-5796
Phone: 573-751-6014

10b. FEDERAL PROJECT OFFICER
Deidra Green
1600 Clifton Rd
Atlanta, GA 30333
Phone: 404-498-3950

ALL AMOUNTS ARE SHOWN IN USD

11. APPROVED BUDGET (Excludes Direct Assistance)

I Financial Assistance from the Federal Awarding Agency Only	I	
II Total project costs including grant funds and all other financial participation		
a. Salaries and Wages		80,382.00
b. Fringe Benefits		46,888.00
c. Total Personnel Costs		127,270.00
d. Equipment		0.00
e. Supplies		0.00
f. Travel		3,713.00
g. Construction		0.00
h. Other		1,781.00
i. Contractual		0.00
j. TOTAL DIRECT COSTS		132,764.00
k. INDIRECT COSTS		27,236.00
l. **TOTAL APPROVED BUDGET**		160,000.00
m. Federal Share		160,000.00
n. Non-Federal Share		0.00

12. AWARD COMPUTATION

a. Amount of Federal Financial Assistance (from item 11m)	160,000.00
b. Less Unobligated Balance From Prior Budget Periods	0.00
c. Less Cumulative Prior Award(s) This Budget Period	0.00
d. **AMOUNT OF FINANCIAL ASSISTANCE THIS ACTION**	160,000.00
13. Total Federal Funds Awarded to Date for Project Period	160,000.00

14. RECOMMENDED FUTURE SUPPORT
(Subject to the availability of funds and satisfactory progress of the project):

YEAR	TOTAL DIRECT COSTS	YEAR	TOTAL DIRECT COSTS
a. 2		d. 5	
b. 3		e. 6	
c. 4		f. 7	

15. PROGRAM INCOME SHALL BE USED IN ACCORD WITH ONE OF THE FOLLOWING ALTERNATIVES:
a. DEDUCTION
b. ADDITIONAL COSTS
c. MATCHING
d. OTHER RESEARCH (Add / Deduct Option)
e. OTHER *(See REMARKS)*

b

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.

REMARKS (Other Terms and Conditions Attached - [X] Yes [ ] No)
New Award: Financial Assistance in the amount of $160,000

GRANTS MANAGEMENT OFFICIAL:
Merlin Williams
2960 Brandywine Rd
Mailstop E09
Atlanta, GA 30341-5509
Phone: 770-488-2851

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. 0-939ZRCP	b. 20NU50DD000082	c. DD	d. $160,000.00	e. 75-20-0958
22. a.	b.	c.	d.	e.
23. a.	b.	c.	d.	e.

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 NU50DD000082-01-00

1. Terms and Conditions
2. Summary Statement

Notice of Funding Opportunity Announcement (NOFO): DD20-2006
Award Number: NU50DD000082
Award Type: Cooperative Agreement
Applicable Regulations: 45 Code of Federal Regulations (CFR) Part 75, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for HHS Awards

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 DD20-2006, entitled Documentation and Use of Follow-up Diagnostic and Intervention Services Data through the Maintenance and Enhancement of the Early Hearing Detection and Intervention Information System (EHDI-IS), and application dated March 16, 2020, 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 **$160,000** is approved for the **Year 01** budget period, which is **July 1, 2020 through June 30, 2021**. All future year funding will be based on satisfactory programmatic progress and the availability of funds.

Financial Assistance Mechanism: Cooperative Agreement

Substantial Involvement by CDC: CDC staff will be substantially involved beyond site visits and regular performance and financial monitoring during the project period of this cooperative agreement. Substantial involvement means that recipients can expect federal programmatic partnership in carrying out the efforts under the award. The CDC program will work in partnership with the recipient to ensure the success of the cooperative agreement by:

- Supporting recipient in implementing cooperative agreement requirements and advancing program activities to meet outcomes.
- Providing technical assistance to revise annual work plans and budgets.
- Collaboration on enhancing and expanding outcomes surveillance activities, including the collection, management, analysis, and dissemination of EHDI data.
- Collaborating with recipient to develop and implement strategies and evaluation plans and use evaluation findings.
- Providing technical assistance to define and operationalize performance measures and implement recipients' performance measurement plans.
- Collaborating on and coauthoring scientific reports, white papers, manuscripts, book chapters, and other derivative works arising from data collected and analyzed through this cooperative agreement consistent with CDC policies and procedures.

Budget Revision Requirement: By **August 1, 2020,** the recipient must submit a revised budget with a narrative justification and SF424-A. Recipient must work with their Program Liaison to submit a revised budget for approval as an amendment via GrantSolutions.

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.

Summary 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 as an amendment via GrantSolutions, no later than 30 days from the budget period start date. Failure to submit the required information by **August 1, 2020**, will cause delay in programmatic progress and will adversely affect the future funding of this project.

FUNDING RESTRICTIONS AND LIMITATIONS

Indirect Costs: Indirect costs are approved based on the negotiated indirect cost rate agreement dated 1/24/2019, which calculates indirect costs as follows, a Provisional rate is approved at a rate of 21.40% of the base, which includes, direct salaries and wages including all fringe benefits. The effective dates of this indirect cost rate are from7/1/2020 to 6/30/2022.

REPORTING REQUIREMENTS

Annual Federal Financial Report (FFR, SF-425): The Annual Federal Financial Report (FFR) SF-425 is required and must be submitted to your GMS/GMO no later than 90 days after the end of the budget period. To submit the FFR, login to www.grantsolutions.gov, select "Reports" from the menu bar and then click on Federal Financial Reports. The FFR for this budget period is due by **September 30, 2021**. Reporting timeframe is **July 1, 2020** through **June 30, 2021**. The FFR should only include those funds authorized and disbursed during the timeframe covered by the report.

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, the recipient is required to contact the Grants Officer listed in the contacts section of this notice before the due date.

Annual Performance Progress Reporting: The Annual Performance Progress and Monitoring Report (is due no later than 120 days prior to the end of the budget period, **March 2, 2021**, and serves as the continuation application for the follow-on budget period. This report should include the information specified in the solicitation from the GMS/GMO via www.grantsolutions.gov .

Performance Progress and Monitoring: Performance information collection initiated under this grant/cooperative agreement has been approved by the Office of Management and Budget under **OMB Number 0920-1132 "Performance Progress and Monitoring Report", Expiration Date 8/31/2020.** The components of the PPMR are available for download at: https://www.cdc.gov/grants/alreadyhavegrant/Reporting.html .

Required Disclosures for Federal Awardee Performance and Integrity Information System (FAPIIS): 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
Thelma Jackson, Grants Management Specialist
Centers for Disease Control and Prevention
2939 Flowers Road South MS-TV-2
Atlanta, GA 30341-5507
Email: TJackson12@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 CFRparts 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 FAPIIS). (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. Many of the functions described in the GMO section are performed by the GMS, on behalf of the GMO.

GMS Contact:
Thelma Jackson, Grants Management Specialist
Centers for Disease Control and Prevention
Office of Grants Services
2939 Flowers Road South, MS TV-2
Atlanta, GA 30341-5507
Phone: 770-488-2823
E-mail: **TJackson12@cdc.gov**

Grants Management Officer: 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. The GMO is the federal official responsible for the business and other non-programmatic aspects of grant awards.

GMO Contact:
Kenya Anderson, Grants Management Officer
Centers for Disease Control and Prevention
Office of Grants Services
2939 Flowers Road South, MS TV-2
Atlanta, GA 30341-5507
Phone: 770-488-2487
E-mail: **VFZ6@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.

***The Project Officer's information can be found on page 1 of this Notice of Award*.**

Optimization of EHDI Surveillance Practices and Information Systems

Compilation

Application Number: NU50DD2020001008
Application Name: Missouri Department of Health and Senior Services
State: MO City: Jefferson City

Scoring Criteria

Criterion 1: Approach

Criterion 1.1: Background and Problem Statement

Criterion 1.1.1: Describe the public health concern of infants who are D/HH in the jurisdiction, including the number of infants not passing the hearing screening and referred for diagnostic testing and the number of infants identified as having permanent hearing loss among newborns born in years 2016,2017, 2018.

Strength:

Page: 91
The prevalence of permanent hearing loss in MO is stated, as well as the impact on speech and language development, social and emotional development. Data from 2016-2018 on number of infants failing to pass the hearing screening, those diagnosed at 3 months, and total number diagnosed (as well as additional data) are presented.

Page: 91
The applicant includes a clean table demonstrating the required statistics for years 2016, 2017, and 2018.

Page: 91
The applicant reports the public health problem in the jurisdiction. The applicant provided a table that is easy to interpret for the years 2018, 2017, and 2016. The applicant also included the prevalence rate for congenital permanent hearing loss among infants in Missouri.

Weakness:

None

Criterion 1.1.2: Provide a clear description of the EHDI-IS and data-related issues including.

Criterion 1.1.2.1: Challenges and current issues related to documenting diagnostic and enrollment into EI services and how the award will support addressing these issues.

Strength:

Page: 91
The applicant shares that they have struggled to meet the Joint Committee on Infant Hearing benchmarks for a diagnosis for infants that failed the hearing test within three months and providing intervention services within six months.

Page: 92
The applicant states that their jurisdiction is unable to meet the JCIH three-month and six-month benchmarks following the final screening and diagnosis. The applicant also states that the Newborn Hearing Screening Program only collects 18 out of the 26 possible Tier 2 Data Items. As a solution, the applicant suggests to use the award for a detailed analysis of its information system to discover why some infants are not receiving the recommended diagnostic and intervention services.

Page: 92
The applicant states that one current issue related to documenting diagnostic and enrollment into EI services is the current lack of expertise and manpower in the Newborn Hearing Screening Program. The applicant mentions that attempts to identify challenges and gaps in the system are due to inexperience in statistical analysis. The applicant suggests utilizing the award to bring in an experienced analyst who can discover and address many of the barriers they face.

Weakness:

Page: 92
The applicant states that current staff are inexperienced in statistical analysis and research, which has made it difficult to identify challenges and gaps. A remedy to this problem is not described.

Criterion 1.1.2.2: Current/previous stakeholder engagement efforts related to reporting and possible areas for improvement

Strength:

None

Weakness:

Page: 56
Although the applicant does provide a list of stakeholder engagement efforts related to reporting and areas of improvement, it is not in the "Background" portion of the application. They detail the reporting responsibilities of the stakeholders in the "Evaluation" portion and is detailed in the MOAs.

Page: 92
The applicant does not provide current or previous stakeholder engagement efforts related to reporting and possible areas of improvement.

Criterion 1.1.2.3: A list of tier 2 data items that the applicant currently collects (5 pts maximum: >21 items: 5pts, 17-21 items: 4 pts, 12-16 items: 3 pts, 6-11 items: 2 pts, 1-5 items: 1pt)

Strength:

Page: 129
The applicant marks 18 out of the possible 26 Tier 2 Data Items. The name of each item, concise descriptions, and the Data Definitions are presented in an easy to read table.

Page: 92
The applicant collects 18 of the 21 Tier 2 data items.

Page: 92, 129
Currently MO collects 18 of 26 tier 2 data items.

Weakness:

None

Criterion 1.2: Overall strategies and activities consistent with the CDC project description and logic model

Criterion 1.2.1: Describe strategies to implement all Required Activities under each of the four focused areas.

Criterion 1.2.1.1: Focus Area: EHDI-IS Optimization

Strength:

Page: 18
They plan to continually assess the system, MOHSAIC, for needed repairs and maintenance, report any problems, assist in testing of repairs, and work with Vital Records to resolve issues of incomplete downloads from Vital Records to Mosaic. MO currently meets 6 of 7 SHALL requirements, and proposes two activities to address the last, documenting why an infant did not receive follow-up services. This includes implementing a MOHSAIC modification to allow audiologists to select a reason why an infant did not receive follow-up services, and to implement a planned report to show these reasons. They will ensure capacity of MOHSAIC to allow data extraction to create a patient-level dataset, and ensure pseudonymization functionality to remove direct identifiers.

Page: 18
The applicant names the SHALL requirement in goals 2-8 in the functional standards that is not met; 2.10 which states, "receive and document information on the reason why an infant did not receive recommended follow-up services" is not currently met and the applicant states how the requirement will be met by adding a drop-down box for audiologists completing the form.

Page: 19
The applicant lays out plans to create a patient-level dataset in their Work Plan.

Page: 94
The applicant clearly and concisely describes the process for reporting screening data between the state's EHDI-IS and Vital Records. Additionally they include the activities that will improve the collection and management of the data including continually assessing for repairs.

Page: 94 Activity 1.1.b & 1.1.c
The applicant details that in order to maintain and manage hearing screening data they will not only report problems of the Missouri Health Strategic Architectures and Information Cooperative (MOHSAIC) to their IT service, but also assist their IT service personnel in testing improvements to the MOHSAIC.

Page: 94 Activity 1.1.d
The applicant details that in order to maintain and manage hearing screening data, they will work with their Bureau of Vital Records to resolve any issues of incomplete downloads from their electronic vital records system. The Letter of Support from the Bureau of Vital Records is very strong and shows the commitment to the proposed collaboration.

Page: 94 Activity 1.2
The applicant provides a solution to meeting more "shall" requirements under goals 2-8 in the EHDI-IS functional standards. They will implement a new drop-down box that will permit audiologists entering data in MOHSAIC to select an option as to why an infant did not receive follow-up service. They will then run a report that displays the main reasons infants did not receive follow-up services. This is a great idea and should provide useful insight.

Page: 95 Activity 1.4
The applicant writes that they will work with Missouri DHHS Women, Infants, and Children (WIC) program to access children who need follow-up services from the WIC database. The applicant mentions that sharing data between WIC will help identify the addresses of children who need follow-up. This addresses the concern that patient addresses recorded in MOHSAIC are often invalid by the time the Newborn Hearing Screening Program attempts to follow-up.

Weakness:

Page: 18, 95-96
Specific activities to allow for the creation of a patient-level dataset are not included.

Criterion 1.2.1.2: Stakeholder engagement for follow-up tracking and reporting

Strength:

Page: 19
The applicant shows that they will obtain an accurate count of audiology facilities for infants during the timeframe. They state that they already have an up-to-date list (noted in their baseline column on the Work Plan) and their target is to maintain the list and include notes on facilities compliance with reporting regulations (in the Target column).

Page: 19

The applicant's Work Plan lists activities that will improve relationships with audiologists by sending annual mailing with regulations and increasing Memorandums of Agreement from three to eight.

Page: 19, 95

Missouri plans to send an annual email to audiologists that addresses reporting regulations, and say they plan to collaborate with audiologists to review and address requirements for reporting diagnostic results and missed appointments.

Page: 20

The applicant provides a robust list of activities to improve relationships with early intervention programs. The applicant will meet with Part C Coordinators on data sharing and work with non-Part C providers and states that border the jurisdiction on sharing relevant data.

Page: 20, 96

The applicant proposes meetings with the Part C coordinator to explore ways of sharing individual level Part C data, and to identify non-Part C providers to explore the possibility of obtaining their data.

Page: 95 Activity 2.1

The applicant states that they will maintain and publish on their website an up-to-date list of audiology diagnostic facilities and note which comply with established reporting regulations. A record of compliance does not exist currently, so determining who is not complying can help determine which centers are bringing down the average number of EHDI cases.

Page: 96 Activity 2.4

The applicant writes that the Newborn Hearing Screening Program does not share EHDI data with its border states' stakeholders. They suggest reach out and explore the possibility of obtaining EHDI data for children born in Missouri, but reside in another state. Although data sharing can be tricky, this is an excellent idea to identify EHDI children lost to follow up.

Page: 99

There is a contract in place for a consulting audiologist from Missouri State University with the EHDI program.

Weakness:

Page: 19, 100

Collaboration plan seems one-sided in that the EHDI program will be telling audiologists what to do, but does not include opportunity for audiologists to provide feedback on processes or challenges meeting requirements, until the 3rd budget year when they will survey audiologists about their training needs. Trainings are mentioned in the narrative, but there are no corresponding activities included in the work plan for further specified in the narrative.

Page: 19, 95

It is stated that the applicant already maintains a list of audiology facilities, but not how they will obtain an accurate number. No strategy is included.

Page: 20

It seems like meetings planned with the Part C coordinator as an activity could have taken place prior to grant submission, and/or that the applicant might have identified some non-Part C providers prior to this point

Page: 95 Activity 2.2

The applicant mentions they will collaborate with audiologists to review and address reporting requirements, but they do not detail how that collaboration will be carried out.

Criterion 1.2.1.3: Data Analysis

Strength:

Page: 20

The applicant sufficiently describes processes to evaluate records to reduce duplications as well as improving quality of the data by comparing sources (jurisdiction's EHDI-IS and Vital Records and blood spot screening data).

Page: 20

Missouri will regularly evaluate incoming and existing records to identify and resolve duplicate and fragmented records, and regularly analyze MOHSAIC data quality by comparing hearing screening data to Vital Records data and blood spot screening data.

Page: 21

They describe the strategy for collaboration with CDC to conduct detailed analysis on patient-level data. Missouri will have two meetings with stakeholders to determine key questions to answer through analysis of patient-level data, and will collaborate with CDC to conduct the analyses.

Page: 21

The applicant explains plans to start collaborations with stakeholders including CDC to analyze patient-level data.

Page: 97 Activity 3.1.b

The applicant suggests the concept of analyzing the quality of MOHSAIC data by comparing it to blood spot screening data from the Missouri State Public Health Laboratory. This assures quality of data by identifying why some data does not load properly (i.e. duplicate form number, birth mismatch, or incomplete information). They relate this activity with the EIFS 5.1.

Page: 97 Activity 3.3

The strategy for how the jurisdiction will collaborate with CDC to conduct is detailed as submitting timely patient-level data sets, monitoring progress, and collaborating via virtual and in-person meetings, conference calls, and site visits.

Weakness:

Page: 20, 97

A more specific timeline for quality review than regularly should be defined; it is suggested that they are currently conducting daily reviews.

Criterion 1.2.1.4: Data Dissemination

Strength:

Page: 21

Missouri will submit data as required by CDC, including pseudonymization, and work with CDC on a data use agreement.

Page: 21
The applicant thoroughly details the activities to responsibly share and submit data to partners.

Page: 21
The applicant describes a variety of communication modes to reach their stakeholders.

Page: 21, 98
Missouri will increase the number of meetings where they share results from 0 to 4, and increase type of communication (e.g. report, webinar) from 0 to 3. They will share data with stakeholders and consider presenting data at the 2021 national EHDI meeting.

Page: 98 Activity 4.1
The applicant provides several examples of how it will comply with the HSFS survey by CDC and provide patient-level data.

Page: 98 Activity 4.2
The applicant writes it will share its data analysis finding with its stakeholders through presentations. The applicant also states they will consider presenting their data analysis at the 2021 National EHDI Meeting.

Weakness:

Page: 21
There is no strategy specified for data submission.

Page: 21, 98
Details are lacking on what stakeholders will be engaged or what specific information will be shared, or the purpose of specific information sharing.

Criterion 1.2.2: Describe strategies to implement additional activities: Applicants are required to implement at least one additional activity under the EHDI-IS optimization focus area and the Stakeholder engagement focus area (see CDC Project Description). For each additional activity proposed, reviewer will assess the degree to which the applicant clearly describes a) the program's need to implement this activity and b strategies to implement this activity.

Strength:

Page: 19
The applicant describes a plan to develop and implement data sharing between the applicant's EHDI-IS and other public health and early intervention information systems.

Page: 19-20, 96
For EHDI-IS optimization, Missouri proposes to develop and implement data linkages with WIC, and also to explore potentially linking with Home Visiting Program, in an effort to find addresses for children in need of follow-up services. A signed MOA is included in Attachment 2. Missouri proposes two additional stakeholder engagement activities. One if for attendance by the research analyst at the national EHDI conference to share information and learn from other EHDI experts. The other is to improve collaboration by improving responses to the NHSP standing committee requests for data beyond what is collected for CDC, and to reach out to

Border States to explore the possibility of receiving Part C data for children born in Missouri. They will create a report specifically for Missouri stakeholders.

Page: 95-96
The applicant writes one additional strategy under the EHDI optimization focus area and two additional strategies under the Stakeholder engagement focus area.

Page: 96 Activity 2.5
The applicant writes a need that the Research Analyst IV (RA-IV) will need to meet with CDC EHDI staff to understand the requirements for submitting a patient-level data set. They also mention the need that RA-IV should meet with other EHDI programs to learn about current EHDI research methods. The applicant strategizes to send their RA-IV and Program Manager to the CDC in-person kick-off and planning meetings, as well to the national EHDI meeting to share Missouri EHDI data and learn from EHDI experts. This additional strategy is help with professional development of the EHDI staff.

Weakness:

Page: 20, 95, 96
Although there is a signed MOA for accessing addresses of children in need of services from WIC or the Home Visiting program, the MOA has not been implemented due to time constraints. No specific activity/strategy to address the problem with time constraints was included. No letter of support was provided by WIC. . No specific activities are included to reach out to Border States, although the program mentions they have current relationships with all bordering states in working on relevant issues.

Criterion 1.2.3: Present a work plan that is aligned with the strategies/activities, outcomes, and performance measures.

Strength:

Page: 18
A work plan that includes strategies, activities, outcomes, and performance measures is included

Page: 18
The applicant provides a detailed work plan that includes the description of each activity, the person responsible, the timeframe, and how it is related to a Primary Functional Standard. The applicant also provides a baseline measure and their respective target measure for each activity.

Page: 18-21
The applicant created a sufficiently detailed work plan which aligns with strategies/activities, outcomes, and performance measures.

Weakness:

None

Criterion 2: Evaluation and Performance Measurement

Criterion 2.1: Performance measures

Strength:

Page: 18

In the Work Plan, the proposed performance measures are reliable, consistent, and clear. The applicant also relates the performance measures with a Primary Functional Standard. Additionally, each of the Performance Measures states a Collection Method, which is related to a staff member accountable for achieving said measure. This assures responsibility of each member of the team.

Page: 20

One expected outcome of the award is to adhere to the 1-3-6 EHDI guidelines. The first process measures under Activity 3.2 is the "Review of MOHSAIC 1-3-6 Report and MOHSAIC Lost to follow-up report." Currently, the applicant conducts a bi-annual review of MOHSAIC 1-3-6 and MOHSAIC Lost to follow-up, however their new target is to conduct both of those reports quarterly. This performance measure and target is consistent with one of the expected outcomes of the award.

Page: 57-59

The applicant sufficiently explains their performance measures with a table showing the activity, performance measure, and collection method.

Page: 59

The applicant adequately describes data sources for performance measure. Data sources include EHDI-IS reports, Vital Records, patient-level dataset, partner database reports, and meeting minutes.

Page: 59

When applicable, the performance measures show the ability of the jurisdiction to work with its stakeholders and partners to identify and collect the data sources necessary to measure the performance of an activity. An example is the quarterly check-in phone calls with each audiology center to ensure that the performance measure of "Up-to-date list of audiology diagnostic facilities with notation of each facility's compliance with reporting regulations" was complete.

Page: 59-61

Data sources for the performance measures are included in the performance measurement plan within the performance measure and collection method columns.

Page: 59-61, 92

Each activity has an associated performance measure and collection method. Baseline and targets for short-term, intermediate, and long-term outcomes are described in the narrative.

Weakness:

None

Criterion 2.2: Evaluation plan

Strength:

Page: 101

The applicant provides a robust plan for engaging key partners in evaluation. Program staff will do in-depth analyses to identify barriers and issues with data quality. Data management coordinator will run reports to identify maintenance issues. The applicant has an established data sharing relationship with First Steps (Part C) and will review processes. Pediatric audiologists will take an electronic survey on EHDI-IS's usability and usefulness. The program staff will participate in a focus group for usability and usefulness. MOHear Project (Missouri State U.) staff will take an electronic survey. The EHDI-IS Work Group with stakeholders in the jurisdiction will test changes in the system and some from the work group will participate in a focus group. Finally, the Missouri Genetic Advisory Committee's Newborn Hearing Screening Standing Committee is an advisory body for the program and will do a focus group.

Page: 102

The evaluation from different stakeholder groups will contribute to an evaluation report that will be shared with stakeholders.

Page: 56

Multiple stakeholders are listed. The EHDI Quality Improvement group uses MOHSAIC data to identify gaps in the system and development QI activities to make improvements. Other stakeholders include data users.

Page: 56

The applicant does a great job in describing how key partners and stakeholders are involved in the whole utilization of the award, and clearly specifies how the stakeholders will be involved in the development and action of the Evaluation Plan.

Page: 57

The applicant writes relevant mechanisms to collect data on evaluation usability and shares specific timeframes for the collection period. For example, the applicant will evaluate the usability of the MOHSAIC Audiology Reporting Function through surveys asking audiologists.

Page: 57

The applicant has clearly designated the Program Manager to be in charge of each evaluation of each System Attribute and Evaluation Question. This ensures accountability of the Evaluation Plan.

Page: 57-58

To assess usability, MO will survey audiologists who use MOHSAIC about the ease of finding clients in MOHSAIC, enter results they need to enter, enter additional information, and about common errors. For usefulness, they will survey pediatric audiologists about how many cases of pediatric hearing loss they do not report via MOHSAIC, and survey parents of children referred to Part C about whether their child received EI services.

Page: 57-58

The applicant thoroughly explains the mechanisms for evaluating usability and usefulness with a table including the data collection method and indicators that will be used for measurement.

Page: 58

The applicant states that they will share evaluation results with stakeholders and collaborate with stakeholders to develop activities leading toward improvement of MOHSAIC.

Weakness:

Page: 56

No strategies to engage partners in the development of the evaluation plan were described.

Page: 57-58

The measures for usefulness seem like they could have problems. Audiologists may not be forthcoming about not reporting cases, and parents may have reasons for not pursuing EI that are not related to MOHSAIC. (

Page: 58

There are no details about what evaluation results will be shared with who, or how often, or how the results will be shared.

Page: 61

In the Evaluation Plan, the applicant does not clearly address how the performance measures and evaluation findings will be used for continuous program quality improvement.

Criterion 3: Applicant's Organizational Capacity to Implement the Approach

Criterion 3.1: Describe the staffing capacity that would enable them to conduct the proposed activities.

Strength:

Page: 80-82 and 103-104

The applicant demonstrates sufficient experience for surveillance between two staff.

Page: 103

The applicant demonstrates sufficient experience for the Health Informatics capacity through experience in research and data management.

Page: 103

The Staffing Plan provides a brief description of each member’s qualifications, and then prompts the reader to review their resume for further details. It is helpful how one can briefly review a staff member's qualifications and experience without having to sift through their content-heavy resumes. This provides the reader with the experience of the staff members as it relates specifically to the project.

Page: 103

The proposed Project Director is very familiar with the Newborn Hearing Screening Program, as she has served as the Program Manager of the NHSP since 2002. She has supervisory experience overseeing the Data Management Coordinator, and has also received Evaluation Training from the CDC EHDI Program. She is well-versed in project and budget management of cooperative agreements.

Page: 103

The applicant writes a Staffing Plan which details seven (7) staff members responsible for carrying out the award and achieving the project outcomes. Each staff member has already been identified and will be assigned roles/responsibilities which are clearly written in the Staffing Plan.

Page: 103-105, 79-89

Key personnel and roles are described, and address roles defined in leadership, surveillance, evaluation, health informatics, and audiology.

Page: 104

Two out of the three Information Specialists suggested to work on the project have had specific public health informatics systems experiences with the Missouri Health Strategic Architectures and Information Cooperative. One was one of the original developers of the MOHSAIC hearing screening application and the other has worked on the MOHSAIC hearing screening application since 2011. This demonstrates their ability to work with large public health datasets and confirms the ability of the applicant to optimize their EHDI-IS.

Page: 13 & 14

The wealth of Surveillance Capacity experience shared between the Research Analyst IV and the Data Management Coordinator are more than sufficient to carry out the data collection, management, and analysis that they are designated in the Work Plan.

Page: 135

An organizational chart is included for the Department of Health and Senior Services, which includes the EHDI program, Part C, Epidemiology, newborn screening, and Missouri State (contract consultant audiologist).

Page: 135

The applicant provides a straightforward organizational chart which details how the Missouri Newborn Hearing Screening Program, its sub-programs, and its internal and external partners will cooperate to carry out the activities outlined in their Work Plan.

Page: 135

The applicant provides an organizational chart adequately showing capacity through the structure of the program within the larger organization and how partners also fit into the structure.

Page: 79

The applicant demonstrates that the staff in the leadership capacity has program management experience since 2002 and supervises the Data Management Coordinator.

Page: 79-89, 103-104

Qualification and experience of each staff member is described in the text. In addition, CVs are included for key and supporting personnel. The manager/project director oversees all aspects of the cooperative agreement, including conducting evaluation activities. She has been the program manager since 2002, which involves supervision, and program management. She has received evaluation training from the CDC EHDI program. Data management coordinator has been in this role since 2003 and has experience with data management, data cleaning, and also supports evaluation. The research analyst will support health informatics and surveillance. He will use epidemiological and statistical methods to provide advance analyses and support program evaluation. He will prepare reports, and prepare and validate data files for submission to CDC. He has experience working as a research analyst with different Public Health data sets, conducting analyses, evaluation, preparing reports, and disseminating data. There are also two information technologists with experience in maintenance, programming, and project management related to MOHSAIC, and a

computer information technologist specialist who has 30 year of experience in information technology, and has many years of experience with MOHSAIC.

Page: 83
The applicant describes adequate experience for the evaluation and performance monitoring capacity through experience with evaluation and developing reports as well specifically working in the program since 2002.

Weakness:

None

Criterion 3.2: Describe the collaboration capacity

Strength:

Page: 100
Numerous collaborations are mentioned, including CDC, Border States, Part C, Missouri State University audiologist, MoHear program to provide family support, ITSD for IT support, data support from within DHSS, pediatric audiologists, manager of the MoEVR system (an online data system.

Page: 16, 28-53
Letter of support provided by Vital Records, specifying importance and willingness of sharing data. MOAs are provided by DHSS WIC, and Part-C. Contracts are included for an audiology consultant, and MoHear Project/Missouri State University. Letters of support are provided by Section of Epidemiology for Public Health Practice (to provide a research analyst), and Part C (to provide aggregate data, and early intervention data for decision making).

Page: 23
The applicant has a healthy balance of internal and external stakeholders. The application is impressive not only in number of stakeholders to be involved during the project period, but also with the level of commitment from the identified stakeholders, which is demonstrated through the various MOAs and Letters of Support. This commitment is helpful for future collaborations between DHSS and the stakeholders who were identified in this award.

Page: 26
On the blank MOA form, the Missouri Department of Health and Senior Services (DHSS) denotes that they will "make good faith effort to notify the entity of system impact information". This is important because it shows that the DHSS is committed to sharing the result of their collaboration with the stakeholders who signed the MOA. This commitment is helpful for future collaborations between DHSS and the stakeholders who were identified in this award.

Weakness:

Page: 28-34, 132-133
Some planned collaborations do not have letters of support or MOAs. Only a sample MOA is included for the Audiology Diagnostic Center. Part-C MOA doesn't seem to be signed. No letter of support from WIC, or from audiology centers who will be asked to complete the surveys. There is no commitment in the letter from Part C to provide individual data.