

MEMORANDUM OF UNDERSTANDING BETWEEN EMERGENCY MEDICAL SERVICES AND HEALTH INFORMATION TECHNOLOGY

I. Purpose

This Memorandum of Understanding (MOU) between Emergency Medical Services (EMS) and Health Information Technology (HIT) outlines the fiscal, administrative and technical support arrangements for development and implementation of the +EMS SAFR Health Information Exchange.

II. Background

EMS was awarded \$1,500,000 in grant funds through the California Emergency Medical Services Authority (EMSA) to develop and implement a locally based Health Information Exchange (HIE) among participating EMS system prehospital and hospital stakeholders. The proposed HIE, known as +EMS SAFR, will be developed and implemented through an EMS/HIT collaborative effort, with support from participating EMS system providers.

III. Term

The term of this MOU will be November 1, 2019 through September 30, 2021, concurrent to the term set forth in the +EMS SAFR grant.

The MOU shall remain in full force and effect unless terminated, in whole or in part, by either party at any time from the execution of the MOU, by giving written notice to the other part specifying the effective date and scope of such termination. Termination shall be effective on a date not fewer than thirty (30) days from notice.

IV. Scope of Services and Costs

- A. EMS will serve as the primary administrative representative contact to the EMSA with regards to +EMS SAFR grant and provide management support to the HIT assigned Project Coordinator. Support shall include but is not limited to, monthly check-ins with Project Coordinator and HIT leadership staff, and outreach to participating hospitals and EMS providers.
- B. HIT shall provide a Project Coordinator, and additional staff support as needed, and technical and operational support towards completion of grant milestones and deliverables as outlined in Exhibits A, B, F and G of the +EMS SAFR grant agreement (attached).
- C. EMS anticipates receipt of grant funds in accordance estimated timetable below, subject to HIT completion of +EMS SAFR grant milestones:

+EMS SAFR Grant– Anticipated Award Release Schedule	
Period	Amount
FY 19/20 (Nov 1, 2019 – Jun 30, 2020)	\$1,350,000.00
FY 20/21 (Jul 1, 2020 – Jun 30, 2021)	\$150,000.00
FY 21/22 (Jul 1, 2021 – Sep 30, 2021)	\$0.00
Total Amount	\$1,500,000.00

- D. +EMS SAFR grant funds of \$50,000 will be retained by EMS for project management. Remaining funds in the amount of \$1,300,000 (FY 2019-20) and \$150,000 (FY 2020-21) respectively, will be allocated to HIT to cover costs for Project Coordinator and additional staffing, expansion of the San Mateo County Connected Care (SMCCC) HIE, and associated project expenses.

Services provided under this MOU is 100% funded by EMSA +EMS SAFR grant funds, with no associated Net County Cost.

The MOU may be amended to reflect changes in scope of services or costs as they occur.

V. Monitoring of the MOU

The EMS Director, HIT Assistant Director, and +EMS SAFR Project Coordinator and/or their respective designees shall have overall responsibilities for routine monitoring of this MOU.

VI. Payment and Invoices

Payment for the above cited services will be charged to EMS on annual basis upon submission of an invoice for services by HIT. Journal entry transfers will be charged to the following:

- Cost Center: 56110
- Subaccount: 5969

A. Invoices are to be submitted to:

Director

Emergency Medical Services

B. Payments will be made within thirty (30) days of receipt of said invoices.

Travis Kusan
Director
Emergency Medical Services

Date

Stephen Dean,
Chief Information Officer & Director
Health Information Technology

Anessa Farber
Financial Services Manager
Public Health, Policy and Planning

Date

Date

EXHIBIT A

SCOPE OF WORK

1. The Contractor shall provide and implement a locally-based, electronic patient lookup system for emergency ambulance providers and establish secure, bidirectional movement of electronic patient health information with hospitals for daily emergency medical services called +Emergency Medical Services Search Alert File and Reconcile (+EMS SAFR) to the Emergency Medical Services Authority (EMSA) as described herein.
2. The Contractor shall perform services at:
County of San Mateo Emergency Medical Service Agency
801 Gateway Blvd., Suite 200
South San Francisco, CA 94080
3. The term of this agreement shall be November 1, 2019 through September 30, 2021.
4. The Contractor shall provide services between 8:00 a.m. and 5:30 p.m., Pacific Standard Time, Monday through Friday, excluding State and Federal holidays.
5. The project representatives during the term of this agreement shall be:

State Agency	Emergency Medical Services Authority
Section/Unit	HIE
Attention	Leslie Witten-Rood, Project Manager
Address	10901 Gold Center Dr, Ste 400 Rancho Cordova, CA 95670-6073
Phone	916 296-2236
E-Mail	HIE.EMS@emsa.ca.gov

Contractor	County of San Mateo
Name	Travis Kusman, MPH, Paramedic Director, Emergency Medical Services Agency
Phone	650-304-4837
E-Mail	tkusman@smcgov.org

Direct all administrative inquiries to:

State Agency	Emergency Medical Services Authority
Section/Unit	Administration Unit
Attention	Yolanda D. Jackson, Contract Analyst
Address	10901 Gold Center Dr, Ste 400 Rancho Cordova, CA 95670-6073
Phone	916-431-3694
E-Mail	yolanda.jackson@emsa.ca.gov

Contractor	County of San Mateo
Section/Unit	Emergency Medical Services Agency
Attention	Garrett Fahay, MBA
Address	801 Gateway Blvd., Ste.200 South San Francisco, CA 94080
Phone	650-573-2009
Email	gfahey@smcgov.org

6. Project Summary

The Contractor shall develop and implement a locally based electronic patient lookup system for daily emergency medical services called +Emergency Medical Services Search Alert File and Reconcile (+EMS SAFR). The integration and onboarding of +EMS SAFR allows interoperable health information exchange between Emergency Medical Services (EMS) providers and hospitals via Regional Health Information Organizations (HIOs). EMS providers and hospitals participating are both Medi-Cal Providers and covered entities that have electronic patient health information. The Transmission of Treatment, Payment, and Operations (TPO) information between covered entities, about a specific patient, is allowed under HIPAA and the California Health and Safety Code. The funds will be used to develop and onboard health information technology project over two years for technology and infrastructure to give EMS providers in the field access to send and receive, find and use critical patient information to improve patient care

7. Specifications

A. General

The Contractor shall implement and onboard interoperable health information exchange between EMS providers and EMS Receiving Hospitals via Health Information Exchange Organizations (HIOs), for SEARCH, ALERT, FILE, and RECONCILE functionality.

B. Description of Work

The Contractor shall implement a locally-based, electronic patient lookup system for emergency ambulance providers and establish secure, bidirectional movement of electronic patient health information with hospitals for daily emergency medical services (called +EMS SAFR). This locally based system will provide four (4) functional benefits.

1. First, paramedics and EMTs on ambulances, and optionally non-transport first responders, will be able to access individual patient information relevant to an emergency case to enhance clinical decision making for individual patients.
2. Second, hospital emergency departments receiving real-time patient information through a dashboard will lead to improved clinical decision support and creating an environment where time-sensitive treatments can be expedited through advance notification, such as in the areas of trauma, chest pain, or stroke.
3. Third, the integration of electronic pre-hospital care records into the hospital Electronic Hospital Record (EHR) will allow clinical care providers in both rural and urban communities across the continuum to support a more comprehensive, longitudinal, integrated patient record for seamless transitions of care
4. Fourth, patient outcome data will be returned to EMS providers for quality and system improvement.

8. Milestones and Metrics

The following are measurable milestone objectives for each Emergency Ambulance Provider and EMS Receiving Hospital, HIO and or LEMSA listed in Exhibit B, Attachment I Milestone Budget Detail and Exhibit E, Participants Matrix.

A. Milestone 1-a Adoption Phase 1: Initiate Participation in +EMS SAFR

1. The Contractor shall contract with the Regional Health Information Organization (RHIO) that will serve as the “hub” for patient query information. Alternative “hub” functionality may serve as the methodology to achieve SEARCH functionality.
2. The Contractor shall identify the specific EMS providers and hospitals that will be on-boarded (as noted in Exhibit E, Participants Matrix and Exhibit F, Project Timeline Detail).
3. The Contractor shall develop service level agreements for health information exchange on-boarding between the RHIO and ambulance providers and hospitals.

B. Milestone 1-b Adoption Phase 2: Testing SEARCH and ALERT

The Contractor shall demonstrate successful Adoption of SEARCH and ALERT functions among all stakeholders in production. Success is defined as at least one SEARCH with a patient match, retrieval of health information for at least one matched patient, and ALERT reporting of important patient information for at least one patient on a hospital ED dashboard. The metric shall be measured per participant.

C. Milestone 2 Exchange: SEARCH and ALERT

1. The Contractor shall demonstrate SEARCH functionality with a minimum of 50% usage and 30% match success, or retrieval success, by paramedics of identified pre-hospital patients for three (3) consecutive months (measured on a monthly basis). The metric is defined as the number of times, for which a patient is searched for, and a patient is successfully identified or for which information is successfully retrieved from the RHIO or other clinical system by the ePCR, divided by the number of new patient encounters created in the ePCR during a one (1) month period. The metric shall be measured per participant.
2. The Contractor shall demonstrate ALERT functionality with a minimum of 80% usage (on patients to be transported to a defined hospital) for three (3) consecutive months (measured on a monthly basis). Success is defined as at least one (1) patient match, retrieval of health information for at least one (1) matched patient and reporting of critical patient information for at least one (1) patient in a hospital ED dashboard. The metric shall be measured per participant.

D. Milestone 3 Interoperability: FILE and RECONCILE

1. The Contractor shall demonstrate FILE functionality with a minimum of 40% usage per record (on transported patients to a defined hospital) for three (3) consecutive months (measured on a monthly basis). The metric is defined as the number of times a patient record created in the ePCR is successfully transmitted to the HIO and/or hospital EHR, matched to a patient, and incorporated as structured information. The metric shall be measured per participant.
2. The Contractor shall demonstrate RECONCILE functionality with a minimum of 40% usage per record (on transported patients) for three (3) consecutive months (measured on a monthly basis). The metric is defined as the number of times a patient record (ADT) is successfully transmitted from the hospital EHR to the ePCR, matched to a patient and encounter, and incorporated as structured information. Hospital discharge summaries also qualify and are encouraged. The metric shall be measured per participant.

E. Milestone 4 Data and Analytics Phase: Achievement Measurement

1. The Contractor shall evaluate and report usage during the (SEARCH and ALERT), and the (FILE and RECONCILE) phases on a monthly basis.
2. The Contractor shall submit prehospital data and hospital outcome information on matched patients to EMSA.
3. The Contractor shall evaluate performance measures that involve pre-hospital and hospital data elements based on the following:
 - A. Outcome Measurements should be proposed by the LEMSA
 - B. EMS Core Measures
 - C. EMS Provider Primary Impression-Diagnosis Accuracy
 - D. EMT Provider Primary Impression Treatment Protocol Compliance
4. The contractor shall prepare and submit to EMSA a final report documenting the project objectives, milestones, and overall accomplishments will be due to EMSA by August 30, 2021. EMSA will provide the contractor with a final report template by June 30, 2021.
5. The contractor shall prepare and submit to EMSA a Final Invoice received no later than 30 days after services have been rendered.

Health Information Technology for EMS+EMS Metrics Summary

Type	Measurements	Threshold
STRUCTURE (Adoption)	<u>Connections Made (Adoption)</u> <ul style="list-style-type: none"> % Emergency Ambulance Providers % of EMS Receiving Hospitals HIE/HIO Connected (for SEARCH Query) 	80% 80% Yes
PROCESS (Exchange and Interoperability)	<u>Search (Exchange)**</u> <ul style="list-style-type: none"> % Usage % Patient Match % CCD Returned POLST Record Returned <ul style="list-style-type: none"> EMS Hospital <u>Alert (Exchange)</u> <ul style="list-style-type: none"> % Usage Dashboard Display Evaluate Drug-Drug and Drug-Allergy interactions (by Hospital) <u>File (Interoperability)</u> <ul style="list-style-type: none"> % Records Filed in Structured Format <u>Reconcile (Interoperability)</u> <ul style="list-style-type: none"> % Records (ADT and hospital discharge summaries) returned to ePCR System 	50% 30% -- -- HIE MU Stage 3 (M3) 80% Required Clinical Decision Support MU Stage 3 (M2) HIE MU Stage 3 (M2) 40% Required 40%
OUTCOME	<u>% Primary Impression – Diagnosis Agreement (ADT-DG1 segments where PV2-12 = "E"</u> <u>(Consider Over Triage and Under Triage components)</u> <ul style="list-style-type: none"> Trauma Heart Attack/STEMI Stroke Sepsis Diabetic Emergency Respiratory Distress Other (As Proposed) <u>% Patients Transported to ED Disposition (PV1-36)</u> <ul style="list-style-type: none"> Admitted Discharged Transferred <u>% Protocol Compliance (If DG1, then test Pre-Hospital Treatment protocols)</u> <ul style="list-style-type: none"> Trauma Heart Attack/STEMI Stroke Sepsis Diabetic Emergency Respiratory Distress Other (As proposed) <u>Time in Hospital</u> <ul style="list-style-type: none"> Admission Date (ADT PV1-44) Discharge Date (ADT PV1-45) <u>Core Measures and Dashboard for Interventions</u> <ul style="list-style-type: none"> Trauma Heart Attack/STEMI Stroke Sepsis Diabetic Opioid Overdose Other (As proposed) 	Clinical Decision Support MU Stage 3 (M1) - 5 Measures Required

9. Deliverables

- A. The Contractor shall achieve and report on the milestones and metrics described in the scope of work and based upon the accepted project timeline in Exhibit F.
1. During the Adoption Phase, you are entering into Service Level Agreements between ambulance, hospitals, Regional HIO, and vendors as required for your project.
 2. During the Adoption Phase, demonstrate successful implementation of SEARCH and ALERT functions among all required stakeholders in production.
 3. During the Exchange Phase, demonstrate successful SEARCH metrics during a three (3) month reporting period, with no less than the required success rate achieved by the final month of the reporting period.
 4. During the Exchange Phase, demonstrate successful ALERT metrics during a three (3) month reporting period, with no less than the required success rate, achieved by the final month of the reporting period.
 5. During the Interoperability Phase, demonstrate successful FILE metrics during a three (3) month reporting period, with no less than the required success rate, achieved by the final month of the reporting period.
 6. During the Interoperability Phase, demonstrate successful RECONCILE metrics during a three (3) month reporting period, with no less than the required success rate, achieved by the final month of the reporting period.
- B. The Contractor also shall provide the following additional DELIVERABLES:
1. Participation and attendance at the HIE in EMS Quarterly HIE in EMS Advisory Committee Meetings; two (2) per year are held in person, and two (2) are conducted by webinar.
 2. Participation and attendance at EMSA's HIE in EMS Yearly Summit.
 3. Participation and attendance at two (2) +EMS Technical Assistance trainings.
 4. Monthly progress reports against the milestones and project timelines will be required and due to EMSA by the 5th of each month. EMSA will provide the contractor with a reporting template within the first 30 days after the agreement is executed.
 5. A final report documenting the project objectives, implemented solution, and overall accomplishments are due to EMSA by September 30, 2021. EMSA will provide the contractor with a reporting template for the final report by June 30, 2021.
 6. Invoices will be submitted to EMSA based on the milestone completed in the Milestone Detail Budget, Exhibit B, Attachment I and submitted on invoice sheet, provided by EMSA.
 7. A Final invoice is due to EMSA no later than 30 days after services have been rendered.

10. Timeline

- A. Quarter 1: November 1, 2019 – December 31, 2019 (2 Months)
- B. Quarter 2: January 1, 2020 – March 31, 2020
- C. Quarter 3: April 1, 2020 – June 30, 2020
- D. Quarter 4: July 1, 2020 – September 30, 2020
- E. Quarter 5: October 1, 2020 – December 31, 2020
- F. Quarter 6: January 1, 2021 – March 31, 2021
- G. Quarter 7: April 1, 2021 – June 30, 2021

H. Quarter 8: July 1, 2021 – September 30, 2021

11. In State Travel

In State Travel shall not be authorized in this agreement.

12. Out of State Travel

Out of State Travel shall not be authorized in this agreement.

13. Public Relations, Marketing, Presentation on +EMS SAFR

EMSA must approve any press release, article, media interviews speaking engagements such as conference or workshops the contractor plans to do related to the contracted work for +EMS SAFR. Contractor must notify EMSA in writing at least ten (10) days prior to presentation or distribution for review and approval.

14. Acceptance Criteria

- A. It shall be the State's sole determination as to whether a deliverable has been successfully completed and acceptable to the State. There must be a signed acceptance document for each deliverable before invoices can be processed for payment.
- B. Acceptance criteria shall consist of the following:
 - 1. Reports on written deliverables are completed as specified and approved.
 - 2. All deliverables must be in a format that can be used by the State.
 - 3. If a deliverable is not accepted, the State shall provide the rationale in writing within five days of receipt of the deliverable or upon completion of acceptance testing period.

15. State Responsibilities

- A. EMSA will have responsibility for project management and grant management for the +EMS program.
- B. EMSA will provide access to business and technical documents as necessary for the Contractor to complete the tasks identified in the department's purchase document.
- C. Provide access to subject matter experts for consultation via the Statewide HIE in EMS Advisory Committee.

EXHIBIT B

BUDGET DETAIL AND PAYMENT PROVISIONS

1. **INVOICING AND PAYMENT:** For services satisfactorily rendered and upon receipt and approval of the invoices, the State agrees to compensate the Contractor for actual expenditures incurred in accordance with Milestone Budget Detailed in Exhibit B, Attachment I specified herein.

Itemized invoices shall be submitted on EMSA Form 501A-HITEMS (For Sample Invoice See Exhibit G)

The Contractor must maintain record and description of the activities they and their Subcontractor have invoiced EMSA for; this includes the staff hours allocated to those activities, the locations where work was performed, the expenses claimed, and any required reports. The supporting documentation for claimed invoices shall be maintained with the Contractor and viewable if requested by EMSA, DHCS, or CMS

Invoices shall be submitted to:

Emergency Medical Authority Services
Attn: Yolanda D. Jackson
Agreement Number: C19-032
10901 Gold Center Drive, Suite 400
Rancho Cordova, CA 95670

Final Invoices must be submitted no later than 30 days after services have been rendered.

Milestone Progress Payments are allowed for services performed under this agreement, not less than ten (10) percent of the agreement amount shall be withheld pending completion of the agreement, and receipt and acceptance by EMS Authority of any final reports required under the agreement. Payment will be based on the completion of achievement measurement as identified in the Milestone Budget Detail, Exhibit B Attachment I. If the EMS Authority does not approve the invoice in accordance with identified milestone budget or deliverables in this agreement, payment of the invoice will be withheld by the EMS Authority, and the Contractor will be notified. The Contractor must take timely and appropriate measures to correct or remedy the reason(s) for non-acceptance and demonstrate to the EMS Authority that the Contractor has successfully completed the scheduled work for each milestone, general task or deliverable before payment will be made.

2. **BUDGET CONTINGENCY CLAUSE:** It is mutually agreed that if the Budget Act of the current year and/or any subsequent years covered under this Agreement does not appropriate sufficient funds for the program, this Agreement shall be of no further force and effect. In this event, the State shall have no liability to pay any funds whatsoever to the Contractor or to furnish any other considerations under this Agreement and the Contractor shall not be obligated to perform any provisions of this Agreement.

If funding for any fiscal year is reduced or deleted by the Budget Act for purposes of this program, the State shall have the option to either: cancel this Agreement with no liability occurring to the State, or offer an Agreement Amendment to the Contractor to reflect the reduced amount.

3. **PROMPT PAYMENT CLAUSE:** Payment will be made in accordance with and within the time specified in Government Code, Chapter 4.5 (commencing with Section 927).
4. **TAXES:** The State of California is exempt from Federal Excise Taxes, and no payment will be made for any taxes levied on employees' wages. The State will pay for any applicable State of California or other State's local sales or use taxes on the services rendered or equipment or parts supplied pursuant to this contract. California may pay any applicable sales or use tax imposed by another state.

5. **BUDGET TABLE:** (For Budget Detail See Exhibit B, Attachment I– Milestone Budget Detail):

Milestone Budget by Geographic Region

	Milestone 1-a	Milestone 1-b	Milestone 2	Milestone 3	Milestone 4	Total
	Adoption Phase 1: Initiate Participation in +EMS SAFR Up to 30% of Total Award	Adoption Phase 2: Testing Up to 20% of Total Award	Exchange Up to 15% of Total Award	Interoperability Up to 15% of Total Award	Data Analytics Up to 20% of Total Award	Completed Milestones
San Mateo County	\$450,000.00	\$300,000.00	\$225,000.00	\$225,000.00	\$300,000.00	\$1,500,000.00
					Grant Total	\$1,500,000.00

6. **STATE FISCAL YEAR BREAKDOWN:**

Fiscal Year	Total Estimated Cost per Year
FY 19/20 (November 1, 2019 - June 30, 2020)	\$1,350,000.00
FY 20/21 (July 1, 2020 – June 30, 2021)	\$150,000.00
FY 21/22 (July 1, 2021 - September 30, 2021)	\$0.00
Total Agreement Amount	\$1,500,000.00

Milestone Budget Detail

Grant Award Amount of \$1,500,000

Milestone 1-a	Milestone 1-b	Milestone 2	Milestone 3	Milestone 4
Adoption Phase 1: Initiate Participation in +EMS SAFR	Adoption Phase 2: Testing	Exchange	Interoperability	Data Analytics
Up to 30% of Total Award \$450,000	Up to 20% of Total Award \$ 300,000	Up to 15% of Total Award \$ 225,000	Up to 15% of Total Award \$ 225,000	Up to 20% of Total Award \$300,000

Milestone 1-a Adoption Phase 1 : Initiate Participation in +EMS SAFR Funding: up to 30% of Total Award: Description: Adoption Phase 1 : Initiate Participation in +EMS SAFR Achievement Measurement: <ul style="list-style-type: none"> Contract with RHIO that will serve as the HUB for patient query information. Hub may serve as the functionally to achieve search. Identify EMS Providers and Hospitals that will onboard and are listed in Exhibit E. Up to 30% of Total Award = \$450,000	
EMS Providers	Category Maximum \$180,000 Develop Service level agreements for HIE on-boarding: <ul style="list-style-type: none"> \$90,000 Providers Name: American Medical Response (AMR) \$90,000 Providers Name: South San Francisco Fire Department
Hospitals	Category Maximum \$ 180,000 Develop Service level agreements for HIE on-boarding: <ul style="list-style-type: none"> \$ 36,000 Providers Name: Mills-Peninsula Medical Center \$ 36,000 Providers Name: Stanford Medical Center \$ 36,000 Providers Name: Sequoia Hospital \$ 36,000 Providers Name: San Mateo County Medical Center \$ 36,000 Providers Name: Seton Medical Center
HIOs and or LEMSAs	Category Maximum \$90,000 Develop Service level agreements for HIE on-boarding: <ul style="list-style-type: none"> \$90,000 Organizations Name: San Mateo County Connected Care (SMCC) HIE
Milestone 1-b Adoption Phase 2: Testing Funding: Up to 20% of Total Award \$ 300,000 Milestone Description: Demonstrate successful Adoption of SEARCH and ALERT functions among all stakeholders in production.	
Milestone Achievement Measurement: Testing Search and Alert Success is defined as at least one SEARCH with a patient match, retrieval of health information for at least 1 matched patient, and ALERT reporting of important patient information for at least 1 patient on a hospital ED dashboard. The metric is measured per participant.	
EMS Providers	Category Maximum \$ 150,000 <ul style="list-style-type: none"> \$ 75,000 Providers Name: American Medical Response (AMR) \$ 75,000 Providers Name: South San Francisco Fire Department
Hospitals	Category Maximum \$150,000 <ul style="list-style-type: none"> \$30,000 Providers Name: Mills-Peninsula Medical Center \$30,000 Providers Name: Stanford Medical Center \$30,000 Providers Name: Sequoia Hospital \$30,000 Providers Name: San Mateo County Medical Center \$30,000 Providers Name: Seton Medical Center

Milestone 2 Exchange	
Funding: Up to 15% of Total Award \$225,000	Milestone Achievement Measurement: Search and Alert
Milestone Description: 1. Demonstrate SEARCH functionality with a minimum of 50% usage and 30% match success, or retrieval success, by paramedics of identified pre-hospital patients for three (3) consecutive months (measured on a monthly basis). ***** Metrics for Hospitals one (1) – two (2) will yield 10% patient match threshold that will increase over time as more patient data is obtained with the onboarding of the receiving hospitals within the SMCC HIE. Resulting in achieving the 30% match after the onboarding of all participating hospitals. 2. Demonstrate ALERT functionality with a minimum of 80% usage (on emergency patients to be transported to a defined hospital) for three (3) consecutive months (measured on a monthly basis).	1. The metric is defined as the number of times, for which an emergency patient is searched for, and a patient is successfully identified or for which information is successfully retrieved from the RHIO or other clinical system by the ePCR, divided by the number of new patient encounters created in the ePCR during a one (1) month period. The metric is measured per participant 2. Success is defined as success of at least one (1) patient match, retrieval of health information for at least one (1) matched patient and reporting of critical patient information for at least one (1) patient in a hospital ED dashboard. The metric is measured per participant.
EMS Providers	Category Maximum \$75,000 <ul style="list-style-type: none"> • \$37,500 Providers Name: American Medical Response (AMR) • \$37,500 Providers Name: South San Francisco Fire Dept.
Hospitals	Category Maximum \$75,000 <ul style="list-style-type: none"> • \$15,000 Providers Name: Mills-Peninsula Medical Center • \$15,000 Providers Name: Stanford Medical Center • \$15,000 Providers Name: Sequoia Hospital • \$15,000 Providers Name: San Mateo County Medical Center • \$15,000 Providers Name: Seton Medical Center
HIOs and or LEMSAs	Category Maximum \$75,000 <ul style="list-style-type: none"> • \$75,000 Organizations Name: San Mateo County Connected Care

Milestone 3 Interoperability	
Funding: Up to 15% of Total Award \$225,000	Milestone Achievement Measurement: File and Reconcile
<p>Milestone Description:</p> <ul style="list-style-type: none"> • Demonstrate FILE functionality with a minimum of 40% usage per record (on transported patients to a defined hospital) for three (3) consecutive months (measured on a monthly basis). • Demonstrate RECONCILE functionality with a minimum of 40% usage per record (on transported patients) for three (3) consecutive months (measured on a monthly basis). 	<ol style="list-style-type: none"> 1. The metric is defined as the number of times a patient record created in the ePCR is successfully transmitted to the HIO and/or hospital EHR, matched to a patient, and incorporated as structured information. The metric is measured per participant. 2. The metric is defined as the number of times a patient record (ADT) is successfully transmitted from the hospital EHR to the ePCR, matched to a patient and encounter, and incorporated as structured information. Hospital discharge summaries also qualify and are encouraged. The metric is measured per participant.
EMS Providers	<p>Category Maximum \$75,000</p> <ul style="list-style-type: none"> • \$37,500 Providers Name: American Medical Response (AMR) • \$37,500 Providers Name: South San Francisco Fire Department
Hospitals	<p>Category Maximum \$75,000</p> <ul style="list-style-type: none"> • \$15,000 Providers Name: Mills-Peninsula Medical Center • \$15,000 Providers Name: Stanford Medical Center • \$15,000 Providers Name: Sequoia Hospital • \$15,000 Providers Name: San Mateo County Medical Center • \$15,000 Providers Name: Seton Medical Center
HIOs and or LEMSAs	<p>Category Maximum \$75,000</p> <ul style="list-style-type: none"> • \$75,000 Organizations Name: San Mateo County Connected Care

Milestone 4 Data Analytics	
Funding: Up to 20% of Total Award \$300,000	Milestone Achievement Measurement:
Milestone Description: <ol style="list-style-type: none"> 1. Evaluate and report usage during the SEARCH and ALERT and the FILE and RECONCILE phases on a monthly basis. 2. Submit prehospital data and hospital outcome information on matched patients to EMSA. 3. Evaluate performance measures that involve pre-hospital and hospital data elements. 4. Submit a Final Report using EMSAs reporting documents by August 30, 2021. 5. Submit a Final Invoice no later than 30 days after services have been rendered. 	<ol style="list-style-type: none"> 1. Submit data monthly to EMSA. 2. Submit data monthly to EMSA. 3. Suggested measures you could choose to use in a proposal: <ul style="list-style-type: none"> • Outcome Measurements should be proposed by the LEMSA • EMS Core Measures • EMS Provider Primary Impression-Diagnosis Accuracy • EMT Provider Primary Impression Treatment • Protocol Compliance 4. EMSA approves the Final Report. 5. EMSA approves Final Invoice.
EMS Providers	Category Maximum \$100,000 <ul style="list-style-type: none"> • \$50,000 Providers Name: American Medical Response (AMR) • \$50,000 Providers Name: South San Francisco Fire Department
Hospitals	Category Maximum \$100,000 <ul style="list-style-type: none"> • \$20,000 Providers Name: Mills-Peninsula Medical Center • \$20,000 Providers Name: Stanford Medical Center • \$20,000 Providers Name: Sequoia Hospital • \$20,000 Providers Name: San Mateo County Medical Center • \$20,000 Providers Name: Seton Medical Center
HIOs and or LEMSAs	Category Maximum \$100,000 <ul style="list-style-type: none"> • \$100,000 Organizations Name: San Mateo County LEMSA

EXHIBIT F

PROJECT TIMELINE DETAIL



Task to be Completed	Party Responsible for Completion	Target Start Date (Grant Quarter)	Target End Date (Grant Quarter)	Milestone Achievement Measurement
Milestone 1-a Adoption Phase 1 : Initiate Participation in +EMS SAFR				
Onboarding Structure Milestone Metric 1: Develop Service level HIE on-boarding agreements for each of the identified participants: Ambulance Providers- (American Medical Response (AMR) and South San Francisco Fire Department are the two (2) 9-1-1 ambulance providers) and Pre-Hospital Emergency Medical Services Group (JPA) , Hospitals (Mills- Peninsula Medical Center, Stanford Medical Center, Sequoia Hospital, San Mateo County Medical Center, Seton Medical Center) and San Mateo County Connected Care (SMCCC) Health Information Exchange (HIE).	San Mateo County Connected Care (SMMC- HIE)	November 1, 2019 (Q1)	December 31, 2019 (Q1)	<ul style="list-style-type: none"> Contract with RHIO that will serve as the HUB for patient query information. Hub may serve as the functionally to achieve search. Identify EMS Providers and Hospitals that will onboard and are listed in Exhibit E.
Milestone 1-b Adoption Phase 2: Testing				
Demonstrate successful Adoption of SEARCH and ALERT functions among all stakeholders in production. Emergency Ambulance Providers-(American Medical Response (AMR) and South San Francisco Fire Department are the two (2) 9-1-1 ambulance providers) and Pre-Hospital Emergency Medical Services Group (JPA) Connections are established enabling SEARCH and ALERT functions with ePCR enabling transmission to the dashboards of participating hospitals.	San Mateo County Connected Care (SMMC- HIE), & San Mateo County LEMSA	January 15, 2020 (Q2)	January 31, 2021 (Q5)	<ul style="list-style-type: none"> Success is defined as at least one (1) SEARCH with a patient match, retrieval of health information for at least one (1) matched patient, and ALERT reporting of important patient information for at least one (1) patient on a hospital ED dashboard. The metric is measured per participant.
Emergency Ambulance Providers (American Medical Response (AMR) and South San Francisco Fire Department are the two (2) 9-1-1 ambulance providers) & Pre-Hospital Emergency Medical Services Group (JPA)-demonstrate Search & Alert functionality as defined by this milestone description for the Adoption Phase.	AMR, San Mateo County Connected Care (SMMC- HIE), & San Mateo County LEMSA	January 15, 2020 (Q2)	January 31, 2020 (Q5)	
Hospital #1- Mills-Peninsula Medical Center: Demonstrate Alert functionality as defined by this milestone description for the Adoption Phase.	Mills-Peninsula Medical Center, San Mateo County Connected Care (SMMC- HIE), & San Mateo County LEMSA	January 15, 2020 (Q2)	February 29, 2020 (Q2)	
Hospital #2- Stanford Medical Center: Demonstrate Alert functionality as defined by this milestone description for the Adoption Phase.	Stanford Medical Center, San Mateo County Connected Care (SMMC- HIE), & San Mateo County LEMSA	April 1, 2020 (Q2)	April 30, 2020 (Q2)	
Hospital #3-Sequoia Hospital: Demonstrate Alert functionality as defined by this milestone description for the Adoption Phase.	Sequoia Hospital, San Mateo County Connected Care (SMMC- HIE), & San Mateo County LEMSA	June 1, 2021 (Q3)	June 30, 2021 (Q3)	

Hospital #4- San Mateo County Medical Center: Demonstrate Alert functionality as defined by this milestone description for the Adoption Phase.	San Mateo County Medical Center, San Mateo County Connected Care (SMMC- HIE), & San Mateo County LEMSA	August 1, 2020 (Q3)	August 31, 2020 (Q3)	
Hospital #5- Seton Medical Center: Demonstrate Alert functionality as defined by this milestone description for the Adoption Phase.	Seton Medical Center, San Mateo County Connected Care (SMMC- HIE), & San Mateo County LEMSA	January 1, 2021 (Q5)	January 31, 2021 (Q5)	

Milestone 2 Exchange				
<p>Milestone Achievement Measurement: Search and Alert</p> <p>1. The metric is defined as the number of times, for which an emergency patient is searched for, and a patient is successfully identified or for which information is successfully retrieved from the RHIO or other clinical system by the ePCR, divided by the number of new patient encounters created in the ePCR during a one (1) month period. The metric is measured per participant.</p> <p>2. Success is defined as success of at least one (1) patient match, retrieval of health information for at least one (1) matched patient and reporting of critical patient information for at least one (1) patient in a hospital ED dashboard. The metric is measured per participant.</p>		March 1, 2020 (Q2)	April 30, 2021 (Q5)	<ul style="list-style-type: none"> • Demonstrate SEARCH functionality with a minimum of 50% usage and 30% match success, or retrieval success, by paramedics of identified pre-hospital patients for three (3) consecutive months (measured on a monthly basis). *** Metrics for Hospitals one (1) – two (2) will yield 10% patient match threshold that will increase over time as more patient data is obtained with the onboarding of the receiving hospitals within the SMCC HIE. Resulting in achieving the 30% match after the onboarding of all participating hospitals.*** • Demonstrate ALERT functionality with a minimum of 80% usage (on emergency patients to be transported to a defined hospital) for three (3) consecutive months (measured on a monthly basis).
Emergency Ambulance Providers: (American Medical Response (AMR) and South San Francisco Fire Department are the two (2) 9-1-1 ambulance providers) & Pre-Hospital Emergency Medical Services Group (JPA)-demonstrate Search & Alert functionality as defined by this milestone description for the Exchange Phase.	AMR, San Mateo County Connected Care (SMMC- HIE), & San Mateo County LEMSA	March 1, 2020 (Q2)	April 30, 2021(Q5)	<ul style="list-style-type: none"> • 1st Hospital – Mills Peninsula: December 1, 2019 - February 29, 2020 (90 days - due to holiday's & 1st site added extra time) • 2nd Hospital – Stanford: March 1, 2020- April 30, 2020 (60 days) • 3rd Hospital – Dignity Sequoia: May 1, 2020 - June 30, 2020 (60 Days) • 4th Hospital – San Mateo Medical Center: July 1, 2020- November 30, 2020 (120 days- Build Needed by Vendor) • 5th Hospital Seton Medical Center: December 1, 2020- January 31, 2021 (60 Days)
Hospital #1- Mills-Peninsula Medical Center: demonstrate Alert functionality as defined by this milestone description for the Exchange Phase.	Mills-Peninsula Medical Center, San Mateo County Connected Care (SMMC- HIE), & San Mateo County LEMSA	March 1, 2020 (Q2)	May 31, 2020 (Q3)	
Hospital #2-Stanford Medical: Center: Demonstrate Alert functionality as defined by this milestone description for the Exchange Phase.	Stanford Medical Center, San Mateo County Connected Care (SMMC- HIE), & San Mateo County LEMSA	May 1, 2020 (Q3)	July 31, 2020 (Q3)	
Hospital #3-Sequoia Hospital: Demonstrate Alert functionality as defined by this milestone description for the Exchange Phase.	Sequoia Hospital, San Mateo County Connected Care (SMMC- HIE), & San Mateo County LEMSA	July 1, 2020 (Q3)	September 30, 2020 (Q4)	
Hospital #4-San Mateo County Medical Center: Demonstrate Alert functionality as defined by this milestone description for the Exchange Phase.	San Mateo County Medical Center, San Mateo County Connected Care (SMMC- HIE), & San Mateo County LEMSA	December 1, 2020 (Q4)	February 28, 2021 (Q5)	
Hospital #5-Seton Medical Center: Demonstrate Alert functionality as defined by this milestone description for the Exchange Phase.	Seton Medical Center, San Mateo County Connected Care (SMMC- HIE), & San Mateo County LEMSA	February 28, 2021 (Q5)	April 30, 2021 (Q5)	

Milestone 3 Interoperability				
Milestone Achievement Measurement: File and Reconcile 1. The metric is defined as the number of times a patient record created in the ePCR is successfully transmitted to the HIO and/or hospital EHR, matched to a patient, and incorporated as structured information. The metric is measured per participant. 2. The metric is defined as the number of times a patient record (ADT) is successfully transmitted from the hospital EHR to the ePCR, matched to a patient and encounter, and incorporated as structured information. Hospital discharge summaries also qualify and are encouraged. The metric is measured per participant.		March 1, 2020 (Q2)	April 30, 2021(Q5)	<ul style="list-style-type: none"> • Demonstrate FILE functionality with a minimum of 40% usage per record (on transported patients to a defined hospital) for three (3) consecutive months (measured on a monthly basis). • Demonstrate RECONCILE functionality with a minimum of 40% usage per record (on transported patients) for three (3) consecutive months (measured on a monthly basis).
Emergency Ambulance Providers: (American Medical Response (AMR) and South San Francisco Fire Department are the two 9-1-1 ambulance providers) ePCR to HIO or hospital EHR as defined by the File and Reconcile milestone description for the Interoperability Phase.	AMR, San Mateo County Connected Care (SMMC- HIE), & San Mateo County LEMSA	March 1, 2020 (Q2)	April 30, 2021(Q5)	
Hospital #1- Mills-Peninsula Medical Center: EHR to ePCR as defined by the File and Reconcile milestone description for the Interoperability Phase.	Mills-Peninsula Medical Center, San Mateo County Connected Care (SMMC- HIE), & San Mateo County LEMSA	March 1, 2020 (Q2)	May 31, 2020 (Q3)	
Hospital #2-Stanford Medical Center: EHR to ePCR as defined by the File and Reconcile milestone description for the Interoperability Phase.	Stanford Medical Center, San Mateo County Connected Care (SMMC- HIE), & San Mateo County LEMSA	May 1, 2020 (Q3)	July 31, 2020 (Q3)	
Hospital #3-Sequoia Hospital: EHR to ePCR as defined by the File and Reconcile milestone description for the Interoperability Phase.	Sequoia Hospital, San Mateo County Connected Care (SMMC- HIE), & San Mateo County LEMSA	July 1, 2020 (Q3)	September 30, 2020 (Q4)	
Hospital #4-San Mateo County Medical Center: EHR to ePCR as defined by the File and Reconcile milestone description for the Interoperability Phase.	San Mateo County Medical Center, San Mateo County Connected Care (SMMC- HIE), & San Mateo County LEMSA	December 1, 2020 (Q4)	February 28, 2021 (Q5)	
Hospital #5-Seton Medical Center: EHR to ePCR as defined by the File and Reconcile milestone description.	Seton Medical Center, San Mateo County Connected Care (SMMC- HIE), & San Mateo County LEMSA	February 28, 2021 (Q5)	April 30, 2021 (Q5)	

Milestone 4 Data Analytics				
<p>Milestone Achievement Measurement:</p> <ol style="list-style-type: none"> 1. Submit data monthly to EMSA. 2. Suggested measures you could choose to use in a proposal: Outcome Measurements should be proposed by the LEMSA <ol style="list-style-type: none"> A. Percentage Patient Match – Percentage of instances of correct matching via the HIE when a patient exists in both prehospital and hospital records. B. Percentage Match of Ambulance Primary Impression to Hospital Discharge Diagnosis – Percentage match of prehospital ambulance primary impression with hospital discharge diagnosis. C. Percentage Match of First Responder Primary Impression to Hospital Discharge Diagnosis – Percentage match of prehospital first responder primary impression with hospital discharge diagnosis. D. Percentage of Patients Transported to Emergency Department and Admitted – Percentage of patients transported to an emergency department and admitted to that hospital. E. Percentage of Patients Transported to Emergency Department and Discharged – Percentage of patients transported to an emergency department and discharged from that hospital. F. Percentage of Patients Transported to Emergency Department and Transferred – Percentage of patients transported to an emergency department and transferred to another acute care hospital associated with the same episode of care. G. Percentage of Opioid Overdose – Percentage of prehospital overdose primary impression match with overdose hospital discharge diagnosis when two or more doses of naloxone are administered in the prehospital setting. H. Percentage of Billing Information Acquisition via the HIE – Percentage of patient transports for which an ambulance provider obtains returned and hospital verified billing information via the HIE. 3. EMSA approves the Final Report. 4. EMSA approves Final Invoice. 	San Mateo County LEMSA	March 1, 2020 (Q2)	April 30, 2021 (Q5)	<ol style="list-style-type: none"> 1. Evaluate and report usage during the SEARCH and ALERT and the FILE and RECONCILE phases on a monthly basis. 2. Submit prehospital data and hospital outcome information on matched patients to EMSA. 3. Evaluate performance measures that involve pre-hospital and hospital data elements 4. Submit a Final Report using EMSAs reporting documents by August 30, 2021. 5. Submit a Final Invoice to EMSA no later than 30 days after services have been rendered.

	STATE OF CALIFORNIA EMERGENCY MEDICAL SERVICES AUTHORITY REIMBURSEMENT INVOICE	
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To: Emergency Medical Services Authority
 10901 Gold Center Drive #400
 Rancho Cordova, CA 95670
 Attention: Leslie Witten-Rood

SUBMISSION DATE: 10/1/2019
CONTRACT NUMBER: C19-000
INVOICE NUMBER: 1-1
INVOICE PERIOD: July-September 2019
INVOICE AMOUNT: **\$ 66,947.87**

From: Enter Contractors Name
Person Submitting Invoice Name
Address:
Phone:
Email:

Submit by Mail, or Email to: HIE.EMS@emsa.ca.gov

Purpose of this invoice is to reimburse the Contractor for expenditures associated with +EMS SAFR Contract. Supporting documentation of requested reimbursement, needs to be kept by the contractor, which includes your subcontractors documentation, and made available to EMSA upon request.

Budget Categories	Contract Budget	Grant Expenditures			Remaining Balance
		Current	Prior	YTD	
Milestone 1-a Adoption Phase 1	\$ 300,000.00	\$ 17,626.61	\$ 15,000.00	\$ 32,626.61	\$ 267,373.39
Milestone 1-b Adoption Phase 2	\$ 200,000.00	\$ 5,165.11	\$ -	\$ 5,165.11	\$ 194,834.89
Milestone 2 Exchange	\$ 150,000.00	\$ 5,165.11	\$ -	\$ 5,165.11	\$ 144,834.89
Milestone 3 Interoperability	\$ 150,000.00	\$ 18,132.84	\$ 28,563.00	\$ 46,695.84	\$ 103,304.16
Milestone 4 Data Analytics	\$ 200,000.00	\$ 20,858.20	\$ -	\$ 20,858.20	\$ 179,141.80
Totals	\$1,000,000.00	\$ 66,947.87	\$ 43,563.00	\$ 110,510.87	\$ 889,489.13

I certify that I am the duly appointed and acting officer of the herein named agency and the costs being claimed herein are in all respects true, correct, and in accordance with the contract provisions; that funds were expended or obligated during the grant period; and the amount claimed above has not previously presented to or reimbursed by the Emergency Medical Services Authority (EMSA).

Request must be signed by the Contractor/Person with Signature Authority listed in the approved contract.

Signature: _____

Title: _____

Printed Name: _____

Date: _____

For EMSA Use Only

Reimbursement Request has been reviewed and I recommend payment of the requested amount.

Signature: _____

Title: **EMSA HIE Grant Coordinator**

Printed Name: _____

Date: _____

For EMSA Admin Use Only

Signature: _____

Title: _____

Printed Name: _____

Date: _____



Purpose of this page is to document grant expenses for July-September 2019



Contractor's Name:	Somebody Somewhere	Fiscal Year:	2019-2020
County:	Any County	Quarter:	1st

Budget Categories	Contract Budget	Expenditures					Remaining Balance
		Milestone 1.a	Milestone 1.b	Milestone 2	Milestone 3	Milestone 4	
EMS Providers	\$ 38,000.00	- \$ 17,000.00	\$ 4,538.50	\$ 4,538.50	\$ 1,876.39	\$ 4,958.20	= \$ 5,088.41
Anything Ambulance	\$ 10,000.00	- \$ 7,000.00	\$ 538.50	\$ 538.50	\$ 276.39	\$ 458.20	= \$ 1,188.41
EMS Ambulance	\$ 28,000.00	- \$ 10,000.00	\$ 4,000.00	\$ 4,000.00	\$ 1,600.00	\$ 4,500.00	= \$ 3,900.00
Hospital Expenditures	\$ 14,000.00	- \$ 626.61	\$ 626.61	\$ 626.61	\$ 956.45	\$ 600.00	= \$ 10,563.72
Medical Center	\$ 14,000.00	- \$ 626.61	\$ 626.61	\$ 626.61	\$ 956.45	\$ 600.00	= \$ 10,563.72
LEMSA / HIO	\$ 201,077.00	- \$ -	\$ -	\$ -	\$ 15,300.00	\$ 15,300.00	= \$ 170,477.00
HIO Corp.	\$ 201,077.00	-			\$ 15,300.00	\$ 15,300.00	= \$ 170,477.00
Total Grant Expenses	\$ 253,077.00	- \$ 17,626.61	\$ 5,165.11	\$ 5,165.11	\$ 18,132.84	\$ 20,858.20	= \$ 186,129.13