



**Mission Lifeline Quality Improvement Database
Needs, Expectations and Requirements
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Basic Premise

Mission Lifeline asks each STEMI System of Care to regularly measure the System's performance using a minimum set of standardized data points and measures. The intent of the data and measures is to not only measure performance but, more importantly, to identify opportunities for improvement. Once improvements are implemented, the System's improvements can then be measured. This follows the methods commonly referred to as "Plan, Do, Check, Act" (We realize there are many variations to this nomenclature but the concept is similar).

Process

The CATRAC Mission Lifeline QI Subgroup initiated discussions focused on defining the needs, expectations and requirements of the Regional database and its interface with a National database.

Categories of Needs, Expectations and Requirements

To facilitate discussions, the following categories and process definitions were developed.

Data Entry – The processes associated with getting the data entered into the database. These processes include the development of data points/fields and may involve a portable electronic tool (e.g. tablet PC) or a fixed computer used to enter the data. Data entry typically uses a manual method. The entry process may also involve manual extraction of data from a paper record.

Data Collection – The processes associated with joining data and matching to a specific patient thus creating a single record for a single event. This also includes all other processes associated with the central storage of these records.

Data Access – The ability to perform tasks related to locating, viewing and or printing basic records. Data access also addresses the establishment of user security and access rights.

Queries/Reports – The processes associated with the sorting, filtering and searching of the data. Most often these processes are performed in order to determine specific values or to develop data reports. In some cases, "canned" reports are created while in others "ad hoc" reporting is desired.

Needs, Expectations and Requirements

Legend

- R** Requirement for this database; cannot be successful without this
- E** An expectation; highly desirable; without this the usefulness or effectiveness are reduced; meets both Mission Lifeline National and Regional elements but may require additional work or cost without this
- N** A need; would like to have; database can still meet essential elements of Mission Lifeline National without this but may not be able to meet Regional elements.

Data Entry

1. The ability to migrate data from a database to a second database. As an example, the ability to migrate data from a regional database to the Action Registry database. **E**
2. Each Organization can enter their data. **E**
3. There are multiple methods that can be used to enter the data. As an example, an EMS system might provide the data in the form of their PCRs for the PCI hospital to enter into the database. Or, another EMS system might enter the data into their own database and then migrate their data to another database. **R**
4. Remove the barriers of Action Registry **R**
 - a. There should be a mechanism and capability for adding Regional data fields.
 - b. EMS Systems should have the ability to enter their data
5. The database must be able to match patient data from multiple sources. For example, data entered by EMS and the Non-PCI hospital and the PCI hospital for a single event must be able to be matched and merged. **R**
6. There should be a data field that identifies the agency/organization type (e.g. EMS, Non-PCI Hospital, PCI Hospital) **E**
7. Consideration should be given to allowing the Organization to populate data fields from another database such as an electronic charting tool. **N**
8. The selection of data fields including the ability to add fields should consider the potential measures of the future. **E**

Data Collection

1. The database must be able to match patient data across the Organizations within the Regional System (e.g. matching EMS and PCI Hospital data for the same patient and the same event). **R**
2. There must be central record storage. This means all of the Records for the Regional System should be housed in the same database. This allows for all regional organizations to access the required data based on their security privileges. **E**
3. The database must be accompanied by people, time and money to provide ongoing support and maintenance. This support should include technical support capable of assisting with training, query building and report generation. **R**
4. There should be interfaces available to connect the Regional database to other databases such as Action Registry or a State database. **E**

Data Access

1. There must be data sharing agreements in place among all Organizations participating in the Regional STEMI System of Care (Hospitals and EMS Systems) **R**
2. Each Organization should have access to all data for every patient cared for by the Organization. This means the PCI Hospital, the Non-PCI Hospital and the EMS System would see all of the data collected for a patient seen by their hospital or EMS. They would not however have access to any patient specific data for patients they did not see at their hospital or EMS. **R**
3. Each Organization should have access to query all aggregate data within the Region as well as their own data but not specific data from other like Organizations. EMS Organizations could aggregate data for each hospital (those they transport to) to determine measures and review performance. Each Hospital could aggregate data for each EMS System (those that transport to the hospital) to determine measures and review performance. **E**
4. If Action Registry is used, EMS must (at a minimum) have access to the aggregate data for each hospital to which they transport STEMI patients. **E**
5. The Mission Lifeline Regional STEMI System of Care QI group should have access to all patient data and reports under an appropriate use agreement. **E**

Queries and Reports

1. The Database must allow for “ad hoc” reporting within the Region’s data. **E**
2. “Canned” reports based on the Mission Lifeline measures should be developed. **R**
3. Additional “canned” reports defined by the Region should be developed at a reasonable cost. The costs should be clearly identified early on. **E**
4. The users should have the ability to readily create “ad hoc” reports using the Region’s data and an intuitive report generation tool. **N**
5. The Database must have the ability to create Regional Reports. **E**
6. The database must provide the user with the ability to export data from a query to a commonly used file format such as an Excel-type format. This data will be de-identified data unless it is data for patients cared for by the user’s Organization (Hospital or EMS). **E**