Alabama Trauma System QI Workgroup
April 1, 2009
11:30 a.m. – 12:45 p.m.

Office of EMS & Trauma
Montgomery, AL

In attendance: Choona Lang, Verla Thomas, Tammie Yeldell, Robin Moore, Dr. Campbell
By Phone: Alex Franklin, Joe Acker
Not Present: Geni Smith, Dr. Crawford, Beth Anderson

Choona opened the meeting with a welcome and a recap of the last meeting.

Trauma System Update

Dr. Campbell gave a brief update of the Alabama Trauma System.

- Surveys are currently being scheduled for hospitals in the East & Gulf Regions
- Southeast's second trauma system meeting is scheduled for April 8 to discuss the participation for the major hospitals in the Southeast Region.

Revise QI Process and Forms

Choona reviewed the QI Plan Process and forms with changes made to the QI Plan Process:

#A. First Issue – Verbal warning and remedial education, documentation by region staff. Issues will be forwarded to State OEMS&T Compliance Officer (see attached).

QI Report Project Update

Tammie gave a brief update on the QI Demonstration #1 (version 2) project submitted to the workgroup by Joe Acker (see attached).

Trauma Registry/DI Software Update

- Remain in process of working with the issues concerning the web portal
- Onsite visit from DI is scheduled for April 28-30.
- Due to the web portal not functioning correctly, a pilot study cannot be done.
- Data for report will come from LifeTrac, ePCR, and the ATR because there is no linkage between prehospital and the trauma registry.
- An ePCR field will be added to the trauma registry input screen.

Benchmark Update Phase II

Robin gave a brief overview of Phase II of the Benchmark report (see attached). Also Robin distributed a draft Benchmark Scoring (current status/goal/priority) template to each workgroup member for feedback. (All responses due back by April 10, 2009)

Hospital Entering Patients in Trauma System Training Plan

The software will be installed in all hospitals before training classes can begin with the hospital Trauma Manager and ED Nurse Manager. (Possible training classes to being April/May)

NATS Update

Alex Franklin gave a brief overview of the trauma system in the North Region.

Trauma Patients Entered into Trauma System

90 patients	January
129 patients	February
113 patients	March
332	Total Patients

Alex will also be meeting with the Nurse Coordinator at Decatur General hospital to discuss the issues of the hospital 660 hours of unavailable status for the trauma system.

Next meeting May 15, 2009 10:00 a.m. – 12:00 p.m.

Meeting Adjourned
WS112058

Alabama EMS & Trauma System QI Plan Process

Quality Improvement Plan Process

The mission of the quality improvement process is to continuously monitor the Statewide EMS & Trauma System utilizing data to determine the trauma system's impact on quality of care. The evaluation process includes benchmarks that will provide guidelines for acceptable standards of care and system performance. The process also includes the coordination of educational initiatives, system changes and enforcement as necessary.

Alabama Trauma System QI Plan consists of the following components:

1) Hospital
   A. Quarterly internal audits
   B. Trauma Registry reports
   C. Participation in quarterly regional QI committee meetings
2) Pre Hospital
   A. Air
      1. Internal audits
      2. Participation in quarterly regional QI committee meetings
      3. Participation in quarterly Aero-Medical QI committee
   B. Ground
      1. Internal Audits
      2. Participation in quarterly regional QI committee meetings
      3. Participation in quarterly Aero-Medical QI committee
3) System
   The Alabama Department of Public Health's Office of EMS and Trauma is responsible for direct oversight and enforcement of the QI plan:
   A. Assumes responsibility and accountability for the implementation and ongoing activities of the QI process
   B. Establishes, maintains and provides guidance to STAC, RTAC, EMS Regional Staff and QI Committee.
   C. Integrates the QI process into activities for all levels of participation within the statewide trauma system.
   D. Utilizes the quality assessment data process to identify the need to change Trauma System processes to ensure the success of the Alabama Trauma System.
   E. Communicates and cooperates with appointed RTAC QI committee members to operate their QI plan.
   F. Reports all QI plan activities to STAC and the State Committee of Public Health.
   G. Establishes and maintains a systematic QI assessment process.
   H. Establishes a culture of quality improvement through leadership, education, communication and teamwork.

I. Forward complaints received at the State level to the Regional staff for follow-up according to steps 1, 2, 3 and 4 of the Trauma System noncompliance process listed under **Regional Trauma Advisory Council Role: Number 8.**

Regional Trauma Advisory Council (Staffed by EMS Regional Agency)

1) Utilizes regional level quality assessment data process to identify the need to maintain/change trauma system processes by reporting findings to OEMS & T.
2) Communicates and cooperates with the direct services providers, state trauma staff and all appropriate trauma system personnel to ensure Trauma System information is shared.
3) Promotes, coordinates and conducts ongoing pre-hospital and hospital trauma system education.
4) Follows up with direct services providers to ensure trauma processes are performed.
5) Participates in all levels of the QI process.
6) Meets quarterly with the State QI committee to discuss ways to improve the trauma system processes.
7) Receives all Trauma system complaints and data, then forwards to the State/Regional QI committee
8) Reports **noncompliance** issues to the Regional Trauma Advisory Council as listed below for pre-hospital component:
   A. **First Issue**
      1. Minor issues (misunderstanding, not yet trained, etc.): Explanation of issue and remedial education, documentation by region staff. Copy to State OEMS&T Compliance Officer.
      2. Issues where service or provider does not respond or is uncooperative should be forwarded to the OEMS & T Compliance Officer.
   B. **Second Issue**- Verbal warning by region staff. Issue will be forwarded to State OEMS &T Compliance Officer. State OEMS&T Compliance Officer will notify service provider and individual involved to schedule a counseling meeting.
   C. **Third Issue**- Verbal/written report will be forwarded to State OEMS&T Compliance Officer for investigation with possible licensure action taken.
   D. State OEMS&T Compliance Officer will report all outcomes from findings to RTAC. A summary will be provided to the STAC.

EMS & Trauma Regions Noncompliance:

All regional EMS Agency noncompliance issues related to trauma system issues will be handled by the Director of the Office of EMS & Trauma.

Hospital Noncompliance:

All hospital noncompliance trauma system issues will be processed according to the contractual agreement with the hospital ***(See Trauma System Contract).***

ATCC Noncompliance

All ATCC noncompliance issues will be processed by the Director of the Office of EMS & Trauma and the ATCC Director.

Alabama Trauma System Planning, Development, and Evaluation Document

Benchmark Scoring
Current Status/Goal/Priority

Please provide your assessment of the Benchmark Indicators listed and return by email or fax to Robin Moore.
Email: robin.moore@adph.state.al.us
Fax: 334-206-5260

Benchmark Indicator #	Current score for indicator #	Goal score for indicator #	Priority (1-4) for Indicator #	Comments
201.1	4	5	4	**Please consider the numbers in red. They are recommendations ONLY by the Benchmarks Working group**
201.2	4	5	4	
201.3	4	5	4	
201.4	5	5	4	
202.1	4	5	4	
202.2	5	5	4	
202.3	3	5	3	
202.4	3	5	4	
203.1	4	5	4	
203.2	2	5	1	
203.3	2	5	1	
204.1	2	5	4	
204.2	1	5	3	
204.3	4	5	4	
204.4	2	5	3	
204.5	1	5	4	
205.1	3	5	4	
205.2	2	5	3	
205.3	2	5	3	
206.1	2	5	4	
206.2	3	5	4	
207.1	2	5	1	
207.2	3	5	3	
208.1	1	5	3	
208.2	1	5	4	

Other Comments:

Priority scores

1=Unknown_____
_____
_____

2=Low_____
_____
_____

3=Medium_____
_____
_____

4=High_____
_____
_____

200. Policy Development. ***Promoting the use of scientific knowledge in decision making that includes building constituencies; identifying needs and setting priorities; legislative authority and funding to develop plans and policies to address needs; and ensuring the public's health and safety***

Benchmark

201. **Comprehensive state statutory authority and administrative rules support trauma system leaders and maintain trauma system infrastructure, planning, oversight, and future development.**

Essential Service*: Develop Policies*
Indicator: *201.1* The legislative authority (statute and regulations) plans, develops, implements, manages, and evaluates the ATS and its component parts. The lead agency is designated (ADPH) as are the trauma facilities.
Scoring:

0 Not known.
1 There is no specific legislative authority to plan, develop, implement, manage, and evaluate, or fund, the ATS and its component parts.
2 There is legislative authority for establishing the ATS, and specific timelines for adoption are drafted and reviewed by trauma and injury constituencies.
3 The lead agency, the Office of Emergency Medical Services and Trauma (OEMST) in the Alabama Department of Public Health (ADPH), is identified in state statute and is required to plan and develop the ATS.
4 The lead agency ADPH OEMST is authorized to take actions to implement the ATS and to report on the progress and effectiveness of system implementation.
5 ADPH OEMST is required to plan, develop, implement, manage, monitor, and improve the ATS while reporting regularly on the status of the ATS within the state.

Essential Service**:** *Develop Policies*
Indicator: *201.2* The legislative authority states that all the ATS infrastructure components are in place and work together for the effective implementation of the ATS.
Scoring:

0 Not known
1 There is no legislative authority or integrated management and system participants do not routinely work together.
2 There is no legislative authority and planning documents reflect a management structure in which participating agencies are not linked. For key issues, stakeholders sometimes come together to solve problems.
3 There is no legislative authority but people are working together to improve ATS effectiveness and management within their individual jurisdictions.
4 There is legislative authority, although it is not clearly evident that system components are integrated and working well together.
5 There is legislative authority. It clearly provides for the integration of ATS components for an effective management and infrastructure to plan and implement the system as evidenced by agency involvement and interaction.

Essential Service: *Develop Policies*
Indicator: *201.2*Administrative rules and regulations direct the development of operational policies and procedures at the state and regional levels.
Scoring:

0 Not known.
1 There is no legal authority to adopt administrative rules and regulations regarding the development of the ATS at the state and regional level.
2 There is legal authority but there are no administrative rules and regulations governing ATS development. Such components of the trauma system as designation of trauma facilities, triage guidelines, integration of pre-hospital providers and rehabilitation centers, communications protocols, and integration with public health and mass casualty incident preparedness are included in the rules and regulations.
3 There are draft state and regional rules/regulations for the different components of ATS development.
4 There are existing statewide administrative rules/regulations for planning, developing, and implementing the ATS and its components at the state and regional level.
5 The ADPH regularly reviews, through established committees and stakeholders, e.g. the Alabama Hospital Association, EMS services, local medical facilities, the rules/regulations governing ATS performance. This review includes policies and procedures for system operations at the state and regional levels and addresses integration with public health and mass casualty preparedness plans.

Essential Service: *Develop Policies*
Indicator: *201.2* The ADPH OEMST has adopted clearly defined trauma system standards, e.g. facility standards, triage and transfer guidelines, data collection standards, and has sufficient legal authority to ensure and enforce compliance.
Scoring:

0 Not known.
1 The ADPH OEMST has not adopted nor defined trauma system performance standards. Moreover, the ADPH OEMST does not have sufficient legal authority to do so.
2 Sufficient legal authority to define and adopt standards for ATS performance and operation but the ADPH has not yet completed these processes.
3 Sufficient legal authority to define and adopt these standards exists but the performance and operations standards are in the draft stage.
4 The authority exists to fully develop guidelines and standards. The ADPH has completed performance and operational standards. These are now being reviewed by stakeholders and adoption by the lead agency is pending.
5 Operational policies and procedures and ATS performance standards are in place and active monitoring of compliance is now in place with necessary legal authority to enforce these standards.

Benchmark

***202.*Alabama Trauma System leaders, i.e. lead agency, trauma center personnel, and other stakeholders, use a process to establish, maintain, and constantly evaluate and improve a comprehensive trauma system in cooperation with medical, professional, governmental, and citizen organizations.**

Essential Service**:** *Community Partnership*
Indicator: *202.1* The ADPH OEMST demonstrates that it can bring organizations together to implement and maintain a comprehensive trauma system.
Scoring:

0 Not known.
1 There is no evidence of partnerships, alliances, or organizations working together to implement and maintain a comprehensive trauma system in Alabama.
2 Only limited attempts to organize these groups have been carried out so far but no on-going system committees are meeting regularly to design and implement the ATS.
3 The ADPH OEMST has multiple internal and external groups meeting regularly to develop, implement, expand, and maintain a statewide comprehensive trauma system.
4 The ADPH OEMST has ensured that multiple committees meet regularly while developing and implementing the statewide comprehensive trauma system plan. These committees include multiple stakeholders from various disciplines to participate in ATS operational issues and refinement depending on the expertise needed, e.g. data, public information, education.
5 The ADPH OEMST has brought together multiple outside stakeholder groups throughout the process of establishing the ATS in order to evaluate and make recommendations for establishing an effective and comprehensive program through the State Trauma Advisory Committee (STAC).

Essential Service*: Mobilize Community Partnership*
Indicator: *202.*2 The ADPH has implemented a trauma-specific statewide multidisciplinary advisory committee, the STAC, which provides the necessary expertise and guidance to monitor and maintain the ATS. The STAC meets regularly and reports to the ADPH in all matters related to the ATS.
Scoring:

0 Not known.
1 There is no statewide trauma advisory committee providing guidance to the ADPH in monitoring and maintaining a statewide trauma system.
2 There is no AL STAC but attempts have been made to establish one have been made and are on-going.
3 There is such a committee but its meetings are infrequent and its guidance is not always sought nor is it always available. Collaborative working arrangements have not been realized.
4 There is a trauma-specific statewide multidisciplinary, multi-agency advisory committee. Committee members and stakeholders regularly attend meetings. Collaboration and consensus are beginning.
5 There is a trauma-specific multidisciplinary, multi-agency advisory committee with well-defined goals and responsibilities. It meets regularly with the ADPH providing staff support. The Committee routinely provides guidance and support to the lead agency on

system issues. Multiple subcommittees and workgroups meet as often as necessary to resolve specific system issues and report back to the trauma-specific statewide multidisciplinary, multi-agency advisory committee. There is strong evidence of consensus building among system participants.

Essential Service**:** *Inform, Educate, Empower*
Indicator: *202.3* A clearly defined and easily understood structure is in place for the trauma system decision making process.

Scoring:

0 Not known.
1 There are no written clinical decision-making policies and procedures regarding the trauma program within the ADPH or its committees.
2 There is an unwritten decision-making process that stake-holders use when convenient, although not regularly or consistently.
3 The decision-making process is articulated within the ATS Plan, although it has not been fully implemented. Policies are not written.
4 The decision-making process is contained within the ATS plan, and there are current policies and procedures in place to guide decision making. Use of the decision-making process is infrequent.
5 There is a clearly defined process for making decisions affecting the trauma program. The process is articulated in the ATS Plan and is further identified within system policies. Stakeholders know and understand the process and use it to resolve issues and to improve the program.

Essential Service: *Inform, Educate, Empower*
Indicator: *202.3* Trauma system leaders have adopted and use goals and time-specific quantifiable and measurable objectives for the ATS.
Scoring:

0 Not known.
1 There are no goals or time-specific, quantifiable, and measurable objectives for the ATS.
2 ATS leaders have met to discuss time-specific, quantifiable goals.
3 ATS leaders are beginning the process of identifying measurable program goals and outcome-based, time-specific, quantifiable, and measurable objectives.
4 ATS leaders have adopted goals and time-specific, quantifiable, measurable objectives that guide system performance.
5 ATS leaders, in consultation with their trauma-specific, statewide multidisciplinary, multi-agency advisory committee, have established measurable program goals and outcome-based, time-specific, quantifiable, and measurable objectives that guide system effectiveness and system performance.

Benchmark

203. **The Alabama Department of Public Health OEMST, i.e. the lead agency, has a comprehensive written trauma system plan based on national guidelines. The plan integrates the Trauma System with the EMS, Public Health, Emergency Preparedness, and**

incident management systems. The written trauma system plan is developed in collaboration with community partners and stakeholders.

Essential Service: *Inform, Educate, Empower*
Indicator: *203.1* The ADPH, in concert with a trauma-specific multidisciplinary, multi-agency advisory committee, has adopted a trauma system plan.
Scoring:

0 Not known.
1 There is no trauma system plan nor is one in progress.
2 There is no trauma system plan although some groups have begun meeting to discuss the development of a trauma system plan.
3 A trauma system plan was planned and adopted by the ADPH. The plan, however, has not been endorsed by the trauma stakeholders.
4 A trauma system plan has been adopted, developed with multi-agency groups, and endorsed by those agencies.
5 A comprehensive trauma system plan has been developed, adopted in conjunction with trauma stakeholders, and includes the integration of other systems (e.g. EMS, public health, and emergency preparedness).

Essential Service: *Inform, Educate, Empower*
Indicator: *203.1* The trauma system plan clearly describes the system design and is used to guide system implementation and management, e.g. the plan includes references to regulatory standards and documents, as well as methods of data collection.
Scoring:

0 Not known.
1 There is no trauma system plan.
2 The trauma system does not address or incorporate the trauma system components (pre-hospital, communication, transportation, acute care, rehab, and possibly others) nor is it inclusive of all-hazards preparedness, EMS, or public health integration.
3 The trauma system plans provide general information about the various components; however, it is difficult to determine who is responsible and accountable for system implementation and performance.
4 The trauma system plan addresses every component of a well-organized and functioning trauma system including all-hazards preparedness and public health integration. Specific information on each component is provided and trauma system design is inclusive of providing for specific goals and objectives for system performance.
5 The trauma system plan is used to guide system implementation and management. Stakeholders and policy leaders are familiar with the plan and its components and use the plan to monitor system progress and to measure results.

Essential Service**:** *Community Partnerships*
Indicator: *203.1* The trauma system plan has established clearly defined methods of integrating the plan with the EMS, emergency, and public health preparedness plans (all hazards).
Scoring:

0 Not known.

1 There is no mention of integration between the trauma system plan and the EMS, emergency, and public health preparedness plans.
2 There is some cross-reference between plans, but defined methods of working collaboratively are not developed.
3 The written plans are integrated and there are defined methods for working collaboratively but implementation has not taken place,
4 The ATS Plan has been integrated with other relevant plans. There is evidence of system integration activity.
5 The ATS planning and operations have been fully integrated with the EMS, emergency and public health preparedness plans. Training and exercises are conducted regularly, and the integration of the system and its plans is evident.

Benchmark

203. **Sufficient resources, including those both financial- and infrastructure-related, support system planning, implementation, and maintenance.**

Essential Service**:** *Develop Policies*
Indicator: *204.1*The ATS Plan clearly identifies the human resources and equipment necessary to develop, implement, and manage the trauma program, both clinically and administratively.
Scoring:
0 Not known.
1 There is no method of assessing available resources or of identifying resource deficiencies in either the clinical or administrative areas of the ATS.
2 The ATS Plan addresses resource needs and identifies gaps in resources within the System, but no mechanism for correcting resource deficiencies has been identified.
3 Resource needs are identified, and a draft plan, inclusive of goals and timelines, has prepared to address the resource needs. The plan has not yet been implemented.
4 Resource needs are identified, and draft action plans are being implemented to correct deficiencies in both clinical areas and administrative support functions.
5 A resource assessment survey has been completed and is incorporated into the Trauma System Plan. Goals and measurable objectives to reduce or eliminate resource deficiencies have been implemented. Evaluation of progress on meeting resource needs is evident, and, when necessary, the Plan has been modified to correct deficiencies.

Essential Service: *System Management*
Indicator: *204.1*Financial resources exist that support the planning, implementation, and ongoing management of the administrative and clinical care components of the ATS.
Scoring:
0 Not known.
1 There is no funding to support trauma system planning, implementation, or ongoing management and operations for either ATS administration or clinical care.
2 Some funding for trauma care within the third-party reimbursement structure has been identified, but ongoing support for administrative and clinical care outside the third-party reimbursement structure is not available.

3 There is current funding for the development of the ATS within the ADPH organization consistent with the Trauma System plan, but costs to aid in clinical care support services have not yet been identified (transportation, communication, uncompensated care, standby fees, etc.). No ongoing commitment of funding has been secured.
4 There is funding available for both administrative and clinical components of the ATS Plan. A mechanism to assess needs among various providers has begun. Implementation costs and ongoing support costs of the ADPH have been addressed within the Plan.
5 A stable (consistent) source of reliable funding for the develop, operations, and management of the trauma program (clinical care and ADPH administration) has been identified and is being used to support trauma planning, implementation, maintenance, and ongoing program enhancements.

Essential Service**:** *System Management*
Indicator: *204.1*Designated funding for ATS infrastructure support is legislatively appropriated with the goal of stable, long-term funding.
Scoring:
0 Not known
1 There is no designated funding to support the trauma system infrastructure.
2 One-time funding has been designated for ATS infrastructure support and appropriations have been made to the ADPH.
3 Limited funds for trauma system development have been identified but the funds have not been appropriated for ATS infrastructure.
4 Consistent, though limited, infrastructure funding has been designated and appropriated to the ADPH.
5 The legislature has identified, designated, and appropriated sufficient infrastructure funding for the ADPH consistent with the ATS Plan and priorities for funding administration and operations.

Essential Service**:** *System Management*
Indicator: *204.1*Operational budgets, i.e. system administration and operations, facilities administration and operations, and EMS administration and operations, are aligned with the trauma system plan and priorities, for example, Full-time Equivalents (FTEs) to staff the TCC and costs to improve the communications system.
Scoring:
0 Not known.
1 There are no operational budgets.
2 There are limited operational budgets, not sufficient to cover related program costs for the ADPH, the EMS System, or a particular trauma center.
3 There are operational budgets that may be sufficient to cover most program costs, but they are without regard to the ATS Plan.
4 There are operational budgets that have some ties to the ATS Plan and that include consideration for the extraordinary costs to ATS providers.
5 An operational budget exists for each component in the Plan and matches ATS needs and priorities with program and operational expenditures.

Essential Service: *Mobilize Community Partnerships*

Indicator: *204.1*The ATS Plan includes identification of additional resources, both manpower and equipment, necessary to respond to mass casualty situations.
Scoring:

0 Not known.
1 The ATS Plan does not include the identification of additional resources necessary to respond to mass casualty incidents.
2 The ATS Plan addresses mass casualty incidents but has not identified additional resources.
3 The ATS Plan identifies resources but it is unclear how the needs are going to be met.
4 The ATS Plan identifies both equipment and manpower resources currently available and additional resources needed. It also identifies a process for securing and ensuring that equipment and human resources are available.
5 There is a well-drafted and rehearsed ATS Plan along with sufficient caches of equipment and backup personnel that ensures the rapid deployment of additional resources during mass casualty incidents.

Benchmark

205. **Collected data are used to evaluate system performance and to develop public policy.**

Essential Service: *System Management*
Indicator: *205.1*Collected data are used for strategic and budgetary planning.
Scoring:

0 Not known.
1 There is no central data repository that can be accessed for strategic or budgetary planning.
2 There are varying databases that can be accessed but no single reporting structure, written, on-line, or electronic, to produce reports and to analyze findings.
3 Data are collected and stored in a central repository; however, reports are not routinely generated that could be used for strategic or budgetary planning.
4 There is a central warehouse for trauma and system financial data that are used for annual reporting of system performance.
5 There is a central repository and data warehouse for all ATS data. System participants including trauma centers and the ADPH can access the data. Regular reports are generated to identify financial information, budget utilization, and strategic planning**.**

Essential Service: *Develop Policies*
Indicator: *205.1*The trauma information management system (MIS) is used to assess ATS performance, to measure system compliance with applicable standards, and to allocate ATS resources to areas of need or to acquire new resources.
Scoring:

0 Not known.
1 There is no trauma management information system.
2 There is a limited trauma management information system consisting of a trauma patient registry, but no data extraction is used to identify resource needs, to establish performance standards, or to routinely assess and evaluate ATS effectiveness.

3 There is a trauma management information system that routinely reports (written, on-line, or electronically) on system-wide management performance and compliance. Linkage between management reports, resource utilization, and performance measures has begun.
4 Routine trauma MIS reports are issued at the state, regional, and service provider level. Reports focus on management strengths, compliance with standards, and resource utilization.
5 Trauma MIS reports are used extensively to improve and report on system performance. The ADPH issues regular routine reports to providers. The reports are reviewed to determine system deficiencies and to allocate resources to areas of greatest need.

Essential Service: *Inform, Educate, Empower*
Indicator: *205.1*Education for ATS providers is developed based on a review and evaluation of ATS data.
Scoring:
0 Not known.
1 There is no correlation between training programs for providers and the trauma MIS.
2 There is limited use of trauma MIS reports to target educational opportunities.
3 There is evidence that some providers are using trauma MIS reports to identify educational needs and to incorporate them into training programs.
4 Many educational forums have been conducted based on an analysis of the performance data in the trauma MIS. Clear ties link education with identified areas of need from trauma MIS reports.
5 Routine analysis of trauma information and educational opportunities is being conducted. Integrated program objectives tying system performance and education are implemented and routinely evaluated. Regular updates to trauma information and education are available. Trauma MIS data are used to measure outcomes and effectiveness.

Benchmark
206. **Alabama Trauma System leadership, including its multidisciplinary advisory committees, regularly reviews system performance reports.**

Essential Service*: Inform, Educate, Empower*
Indicator: *206.1*Trauma data reports are generated by the ATS not less than once per year and are disseminated to trauma leadership and stakeholders to evaluate and improve the effectiveness of the system.
Scoring:
0 Not known.
1 No trauma data reports are generated to evaluate and improve system performance effectiveness.
2 Some general ATS information is available for the stakeholders, but it is not consistent or regular.
3 Trauma data reports are done on an annual basis, but are not used for decision making and evaluating system effectiveness.
4 Routine reports are generated using trauma system data and other databases so that the system can be analyzed, standards evaluated, and performance measured.

5 Regularly scheduled reports are generated from trauma system data and are used by the stakeholder groups to evaluate and improve system performance effectiveness.

Essential Service: *Inform, Educate, Empower*
Indicator: *206.1*The STAC regularly reviews annotated trauma system data reports and system compliance information to monitor trauma system performance and to determine the need for system modifications.
Scoring:

0 Not known.
1 There is no trauma-specific, statewide, multidisciplinary advisory committee, and there are no regular reports of system performance.
2 There is a trauma-specific, statewide, multidisciplinary advisory committee (STAC) but it does not routinely review ATS data reports.
3 The STAC meets regularly and reviews process-type reports. No critical assessment of system performance has been completed.
4 The STAC meets regularly and routinely assesses reports from trauma data to determine system compliance and operational issues needing attention.
5 The STAC and related stakeholder groups meet regularly and review trauma data reports to assess system performance over time, looking for ways to improve system effectiveness and patient outcomes.

Benchmark

***207*. The Alabama Department of Health informs and educates state, regional, and local constituencies and policy makers to foster collaboration and cooperation for system enhancement and injury control.**

Essential Service: *Inform, Educate, Empower*
Indicator: *207.1* The ADPH ensures communications, collaboration, and cooperation between state and regional systems.
Scoring:

0 Not known.
1 There is no evidence of active dialogue, either written or verbal, to suggest a strong working relationship between the ADPH and other governmental agencies (state, regional, or local).
2 There is little evidence that the ADPH and other governmental agencies involved in implementing the ATS actively engage in system planning and operational dialogue.
3 The ADPH issues regular updates (written, on-line, and electronic) on ATS activities. The update is largely one-way communication to other governmental agencies. Communication usually revolves around an event (reactionary). Pro-active, open communication is not the norm.
4 The ADPH, through the STAC, engages in open, frequent communication with its constituencies. Newsletters, activity reports, website information and proactive planning are occurring through the ADPH. Communication and collaboration among governmental organizations is occurring, although they are largely event based.

5 State and regional systems engage in mutual and cooperative plan development and implementation. The ADPH seeks input and dialogue with stakeholders. The communication is open, frequent, and proactive.

Essential Service**:** *Inform, Educate, Empower*
Indicator: *207.1* The trauma system leaders (ADPH, STAC, RTACs, and others) inform and educate constituencies and policy makers through community development activities, targeted media messaging, and active collaborations aimed at injury prevention and trauma system development.
Scoring:

0 Not known.
1 No targeted messaging, "town hall meetings," nor media campaigns to educate and inform community and state leaders about trauma system development activities have begun.
2 Limited interfaces with policy makers and the media, aimed at informing them about trauma system development have occurred.
3 Limited interfaces with policy makers and the media, aimed at both trauma system development and injury prevention campaigns have occurred.
4 Trauma system leaders are engaging policy makers in discussions about the institution of injury prevention campaigns and the effect of trauma system development on reducing morbidity and mortality from traumatic injuries.
5 Well planned media campaigns about an integrated trauma system development and injury prevention have been instituted. The goal is to make policy makers and the public aware of the benefits of a trauma system and the importance of injury prevention programs.

Benchmark

208.**The trauma, public health, and emergency preparedness systems are closely linked.**

Essential service*: Mobilize Community Partnerships*
Indicator: *208.1* The trauma system and the public health system have established linkages between their programs using population-based public health surveillance and evaluation for acute and chronic traumatic injury and injury prevention.
Scoring:

0 Not known.
1 There is no evidence that demonstrates a working relationship, including the sharing of data, between other programs within the ADPH and the ATS. Population-based public health surveillance and evaluation for acute and/or chronic traumatic injury and injury prevention has not been integrated with the trauma system.
2 There is little population-based public health surveillance shared with the trauma system and program linkages are rare. Routine public health status reports are available for review by ADPH and constituents.
3 The ATS and divisions within the ADPH have begun sharing public health surveillance data for acute and chronic traumatic injury. Program linkages are in the discussion stage.

4 The ATS has begun to link with other divisions of the public health system. The process of sharing public health surveillance is evolving. Routine dialogue is occurring between programs.
5 Routine reporting, program participation, and system plans are fully vested. Operations are routine and measurable progress can be demonstrated through such operations as rapid response to and notification of incidents, integrated data systems, and regular epidemiology report generation.

Essential Service: *Mobilize Community Partnerships*
Indicator: *208.1* The ATS and the disaster management system have formally established linkages for system integration and operational management.
Scoring:
0 Not known.
1 There are no formally established linkages for system integration or operational management between the incident management system and the trauma system.
2 There are limited linkages or interfaces between the incident management system and the trauma system.
3 Plans are in place for incident management and trauma system linkage.
4 There is evidence of program linkage between the incident management and trauma systems. Operational management guidelines exist and are routinely evaluated and tested.
5 Strong linkage exists as evidenced by regular meetings of system participants and their familiarity with the operational plans of both areas. Data from the trauma system and from the incident management system are shared**.**

QI Demonstration #1 (Version 2)

Questions for ePCR

1. Is there a field "Trauma System Entry"? If so, does the ATCC# become required? No, there is no "Trauma System Entry" datapoint(i.e. field) in ePCR. Per discussions with IT team members, Chris Lochte and Craig Dowell, the ATCC# is captured through the "Trauma Registry ID" datapoint.

2. What are all of the fields which can be reported for trauma patients considering Physiologic, MOI, and Anatomic criteria? Please see below for response. Please note that these datapoints are not part of a group from which to select but are various datapoints throughout the ePCR. Also, how well-reported the datapoints are might not be known completely at this time.

3. Is "EMT Discretion" a data field? No

4. Are "Co-morbid Factors" reportable? Not as a group from which to select but as various datapoints throughout the ePCR.

5. Are "Co-morbid Factors" required under EMT Discretion? If so, what are the reportable "Co-morbid Factors"? Although EMT Discretion is not a datapoint, co-morbid factors can be compiled by selecting various datapoints throughout the ePCR.

6. Will reports generated be identified by EMS provider name or number? If number only, will a list of numbers with names be provided? At this time, reports will list provider numbers. There is currently a request to the software developers to develop a link/view that will allow EMS provider name and number to appear (i.e. to be linked) together for querying and reporting purposes.

Response for Item #2:

PHYSIOLOGIC:

Systolic BP: Vital Signs → Exists → SBP (Systolic Blood Pressure) (note: can set a range here).

Respiratory Distress: Provider's Primary Impression → 786.09-Respiratory Distress (note: unable to specify a range) **or** Provider's Secondary Impression → 786.09-Respiratory Distress (note: unable to specify a range) **or** Condition Codes → Condition Code Number → ALS-

799.1-Respiratory Arrest (note: unable to specify a range) **or** Vital Signs → Exists → Respiratory Rate (note: can set range here) **or** Protocols Used → Respiratory Distress.

Altered Mental Status (GCSS): Vital Signs → Exists → Total Glascow Coma Score (note: can set range here) **or** Protocols Used → Altered Mental Status (note: unable to specify a range).

MECHANISM OF INJURY (MOI):

DOA In Same Vehicular Area: Vehicular Injury Indicators → DOA Same Vehicle.

Ejection: Vehicular Injury Indicators → Ejection.

ATV, Motorcycle or Bicycle Crash: Cause of Injury → (Bicycle Accident or Motorcycle Accident [note: unable to specify number of feet thrown] or Non-Motorized Vehicle).

Auto vs Pedestrian: Cause of Injury → Pedestrian Traffic Accident.

Unbroken Falls: Cause of Injury → Falls (E88X.0) + Height of Fall → >20.

ANATOMIC:

Flail Chest: NHTSA Injury Matrix Thorax → Crush **or** NHTSA Injury Matrix Thorax → Dislocation Fracture.

Long Bone Fractures: Protocols Used → Extremity Trauma **or** Protocols Used → Fractures & Dislocations **or** NHTSA Injury Matrix Upper Extremities **or** NHTSA Injury Matrix Lower Extremities **or** Condition Codes → Other Trauma(Fractures/Dislocations [BLS-829.0]).

Penetrating Injury: Mechanism of Injury → Penetrating + Any NHTSA Injury Matrix Choice **or** Condition Codes → Other Trauma (Penetrating Extremity) (BLS-880.0).

Trauma & Burns: Provider's Primary Impression → 959.90-Traumatic Injury + Mechanism of Injury → Burn **or** Provider's Secondary Impression → 959.90-Traumatic Injury + Mechanism of Injury → Burn **or** Mechanism of Injury → Burn + Protocols Used → Extremity Trauma **or** Mechanism of Injury → Burn + Protocols Used → Head Trauma **or** Mechanism of Injury → Burn + Protocols Used → Multiple Trauma **or** Mechanism of Injury → Burn + Protocols Used → Pediatric Multiple Trauma **or** Mechanism of Injury → Burn + Condition Codes → Exists → Condition Code Number → Major Trauma (ALS-959.8) **or** Mechanism of Injury → Burn + Condition Codes → Exists → Condition Code Number → Other Trauma (Amputation digits)(BLS-886.0) **or** Mechanism of Injury → Burn + Condition Codes → Exists → Condition Code Number → Other Trauma(Amputation Other)(ALS-887.4) **or** Mechanism of Injury → Burn + Condition Codes → Exists → Condition Code Number → Other Trauma

(fracture/dislocation) (BLS-829.0) **or** Mechanism of Injury → Burn + Condition Codes → Exists → Condition Code Number → Other Trauma (major bleeding) (ALS-958.2) **or** Mechanism of Injury → Burn + Condition Codes → Exists → Condition Code Number → Other Trauma (need for monitor or airway) (ALS-518.5) **or** Mechanism of Injury → Burn + Condition Codes → Exists → Condition Code Number → Other Trauma (penetrating extremity) (BLS-880.0) **or** Mechanism of Injury → Burn + Condition Codes → Exists → Condition Code Number → Other Trauma (suspected internal injuries) (ALS-869.0).

Proximal Amputation-Wrist/Ankle: NHTSA Injury Matrix Upper Extremities → Amputation (note: unable to indicate proximal) **or** NHTSA Injury Matrix Lower Extremities → Amputation (note: unable to indicate proximal).

Acute Paralysis: NHTSA Injury Matrix Upper Extremities → Pain without Swelling/Bruising + Condition Codes → Exists → Condition Code Number →Neurologic Distress (ALS-436.0) **or** NHTSA Injury Matrix Lower Extremities → Pain without Swelling/Bruising + Condition Codes → Exists → Condition Code Number →Neurologic Distress (ALS-436.0).

Fractured/Unstable Pelvis: NHTSA Injury Matrix Pelvis → Dislocation Fracture.

Significant Burn: Condition Codes → Exists → Condition Code Number → Burns-Major (ALS-949.3).

EMT DISCRETION (the following reflect solutions previously provided):

Severe Injury (But not Obvious): Provider's Secondary Impression → 959.90- Traumatic Injury.

Age > 55: Age → >55 + Age Units → Years + Condition Codes → Exists → Condition Code Number → Other Trauma (suspected internal injuries) (ALS-869.0).

Age < 5: Age → <5 + Age Units → Years + Condition Codes → Exists → Condition Code Number → Other Trauma (suspected internal injuries) (ALS-869.0).

Extreme Environment (Temperature): Condition Codes → Exists → Condition Code Number → Cold Exposure (ALS-991.6), Cold Exposure (BLS-991.9), Heat Exposure (ALS-992.5), Heat Exposure (BLS-992.2), Other Trauma (suspected internal injuries) (ALS-869.0).

Medical – Diabetes/heart/bleeding: Other Associated Symptoms → Bleeding + Condition Codes → Exists → Condition Code Number → Blood Glucose (ALS-790.21), Cardiac Symptoms other than Chest Pain (palpitations) (ALS-785.1), Other Trauma (suspected internal injuries) (ALS-869.0) + Condition Codes → Exists → Condition Code Number → Other Trauma (suspected internal injuries) (ALS-869.0).

Pregnancy: Condition Codes → Exists → Condition Code Number → Other Trauma (suspected internal injuries) (ALS-869.0), Pregnancy Complication / Childbirth / Labor (ALS-650.0).

Pulmonary Disease: Protocols Used has all of 'Pulmonary Edema' marked and Entries exist in Condition Codes where Condition Code Number is one of Other Trauma (suspected internal injuries) (ALS-869.0).