



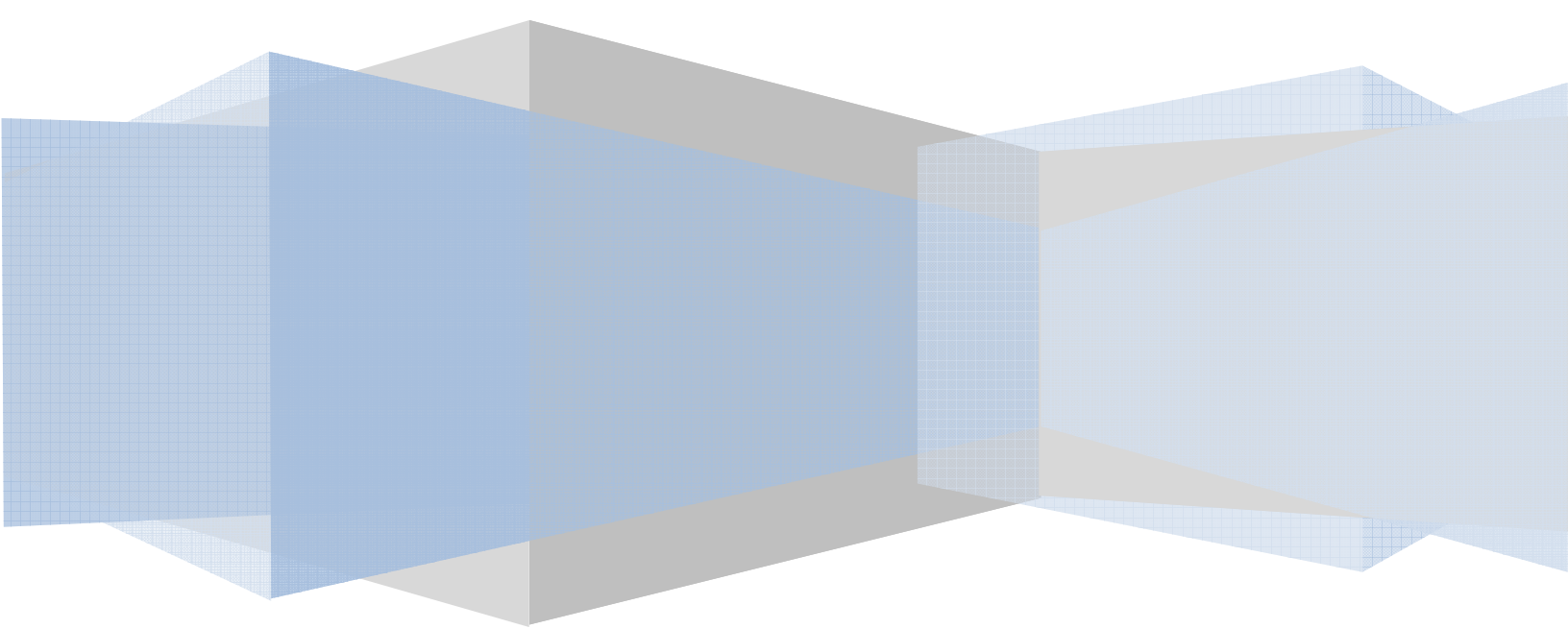
National Association of State EMS Officials

EMS Incident Response and Readiness Assessment (EIRRA)

**A self-assessment tool to measure the level of EMS
preparedness for responding to a highway mass
casualty incident or other large scale emergency**

NASEMSO Highway Mass Casualty Readiness Project

May 2011



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National Association of State Emergency Medical Services Officials

Highway Mass Casualty Readiness Project:

EMS Incident Response and Readiness Assessment (EIRRA)

Introduction

The **EMS Incident Response and Readiness Assessment (EIRRA)** is a self-assessment tool designed to measure the level of emergency medical services (EMS) preparedness for response to a highway mass casualty incident (MCI). It is intended to be used by state, regional and local EMS agencies to evaluate the system's capability to respond to large scale emergency incidents. EIRRA is a product of the **NASEMSO Highway Mass Casualty Readiness Project**, an effort to quantify the level of EMS readiness along various stretches of highway.

The project was conceived following the release of the investigation results by the National Transportation Safety Board (NTSB) of the 2008 Mexican Hat, Utah, motor coach crash. The Mexican Hat crash involved a bus transporting 53 people returning from a ski vacation. All 53 passengers were injured, nine fatally. The roll-over occurred in a remote area of the state challenged by limited access to communications, emergency medical response/transport services and hospital capacity, particularly trauma centers. The NTSB made several recommendations surrounding motor coach and roadway safety, but also challenged the National Association of State EMS Officials (NASEMSO) and the American Association of State Highway and Transportation Officials (AASHTO) to work with the Federal Highway Administration (FHWA) to assess the risk of rural travel by large buses. As a result, the Highway Mass Casualty Project was born.

While the initial design of EIRRA focused on MCIs occurring on highways, the tool also incorporates measures related to longer term incidents. Thus, the self assessment is helpful for evaluating overall disaster preparedness from an "all hazards" approach. The results of an EIRRA assessment can be used as a scorecard, establishing benchmarks and measuring progress for EMS systems at a local, regional and statewide level. They can also be used to prioritize and select EMS and highway safety activities.

Acknowledgements

Developed by a multi-disciplinary team led by the **National Association of State Emergency Medical Services Officials (NASEMSO)**, EIRRA is a special focus of the NASEMSO HITS (Highway Incident and Transportation Systems) Committee. The project was funded by a cooperative agreement between NASEMSO and the **National Highway Traffic Safety Administration (NHTSA)**. A complete listing of the Work Group members follows.

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The Work Group wishes to acknowledge the support and guidance from the above-named members of the NHTSA Office of EMS in completing this project.

Instructions and Guide

EIRRA is comprised of **Benchmarks, Indicators and Scoring**. The benchmarks are *broad goals or expectations* of a fully prepared system. Indicators are *components of the benchmark* or the broad goal. Scoring breaks the indicator into *completion steps* and can mark progress in reaching a milestone. EIRRA contains seven (7) benchmarks (8 if adding the statewide assessment), and 33 indicators (35 if adding the statewide assessment). Most of the 33 indicator categories are divided into sub-indicators. An example of the benchmarks is shown below.

Personnel Benchmark: There are sufficient numbers, types and distribution of prehospital emergency medical and support personnel who are well-trained and supported for responding to mass casualty incidents. EMS personnel operate within a culture of safety, and are supported with high quality medical directors who have an integral role in mass casualty response.

To measure an EMS system’s progress in meeting the personnel benchmark, there are four (4) indicators, which have been further divided into sub-indicators. The first Indicator of the Personnel Benchmark is “Human Resource Availability.” It is divided into seven (7) sub-indicators, each represented with a scoring table. The first sub-indicator table is shown below.

Indicator: 101. Human Resource Availability

Indicator	Scoring
<p>Sub-Indicator: 101.1. Patient Care Personnel (BLS) - Basic Life Support levels of EMS personnel (first/emergency responders, Basic EMTs) are available in sufficient numbers throughout the area being evaluated.</p>	<p>0 Not known 1 There are no EMS personnel in the area (e.g. frontier areas). 2 There is a minimal number of BLS personnel in the area (primarily dispatch triggered first responders and a few Basic-EMTs). 3 There is limited availability of BLS personnel (a mix of Basic-EMT scheduled on-call/on duty and dispatch triggered first responders). 4 There are substantial numbers of BLS personnel (primarily Basic-EMT scheduled on-call /on duty with some dispatch triggered first responders). 5 There is comprehensive coverage of BLS personnel (full coverage of Basic-EMTs in the area).</p>

The individual conducting the self-assessment (evaluator) selects the number in the right-hand column which most closely matches the area being assessed. It is important to note that examples (usually in parentheses) associated with scoring levels are meant to guide the evaluator. In most cases, the description or example will not be an exact match to the area situation. The evaluator will have to use his or her judgment in approximating the score that best fits. It is helpful to have more than one evaluator conducting the assessment and arriving at an agreed upon score for each indicator and sub-indicator after discussing the more troublesome points.

Determining Median Score: A numerical score is given to each sub-indicator (table). Once the scores are determined for each sub-indicator (table) of an indicator, they are placed in rank order (e.g. 2, 3, 3, 3, 4, 4, 5). The median (middle) score is selected to represent the score for that indicator (e.g. 3). *In order to determine the median for the indicator, the numbers must be listed in rank order; the middle score is the median.* (It is important to note that averaging the numbers i.e., determining a mean score, is not a statistically valid method in this assessment tool because the measures are “rank ordered.”) The median score can be determined for each indicator fairly easily by hand, but determining the median score for the entire tool would be quite laborious because all the scores would have to be listed in rank order. Therefore, an Excel scoring tool has been created which automatically ranks the scores and determines the median score.

NOTE: When scoring a topic (sub-indicator) with which the evaluator is unfamiliar, the score of zero (0) is an option for *Not Known*. Unlike the situation with a mean (average) score, a zero (0) score will not impact the median score and is an acceptable choice.

Further Information

Questions about the project or use of this tool can be directed to Dia Gainor, Work Group Chair, at dia@nasemso.org or to NASEMSO Program Advisor Mary Hedges at hedges@nasemso.org. More information on the Highway Mass Casualty Readiness Project is available at the NASEMSO website: <http://www.nasemso.org/Projects/HITS/index.asp>.

Category, Indicator and Sub-Indicator Index

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EMS Incident Response and Readiness Assessment (EIRRA) Tables

100 PERSONNEL

Benchmark: There are sufficient numbers, types and distribution of prehospital emergency medical and support personnel who are well-trained and supported for responding to mass casualty incidents. EMS personnel operate within a culture of safety, and are supported with high quality medical directors who have an integral role in mass casualty response.

101. Human Resource Availability

Indicator	Scoring*
101.1. Patient Care Personnel (BLS) - Basic Life Support levels of EMS personnel (first/emergency responders, Basic EMTs) are available in sufficient numbers throughout the area being evaluated.	0 Not known 1 There are no EMS personnel in the area (e.g. frontier areas). 2 There is a minimal number of BLS personnel in the area (primarily dispatch triggered first responders and Basic-EMTs). 3 There is limited availability of BLS personnel (mix of Basic-EMT scheduled on-call/on duty and dispatch triggered first responders). 4 There are substantial numbers of BLS personnel (primarily Basic-EMT scheduled on-call /on duty with some dispatch triggered first responders). 5 There is comprehensive coverage of BLS personnel (full time, comprehensive Basic-EMT coverage of the area).

Indicator	Scoring*
101.2 Patient Care Personnel- (ALS) Advanced Life Support levels of personnel (Advanced or Intermediate EMTs, and Paramedics) are available in sufficient numbers throughout the area being evaluated.	0 Not known 1 There are no ALS personnel in the area (e.g. frontier areas). 2 There are a minimal number of ALS personnel in the area (some AEMT/Intermediates, limited or no paramedics). 3 There is limited availability of ALS personnel (mix of Advanced/Intermediate EMTs and Paramedics and Basic EMTs or first responders). 4 There are substantial numbers of ALS personnel. (Advanced Intermediate EMTs are available on every response with some scheduled on-call / on duty or dispatch triggered paramedics.) 5 There is comprehensive ALS coverage. (There is a paramedic on every responding unit with Critical Care Ground/Air Medical response available.)

Indicator	Scoring*
<p>101.3. Rescue/Extrication Personnel - Rescue/extrication personnel are available in sufficient numbers.</p>	<p>0 Not known 1 There are no trained rescue/extrication personnel in some areas. 2 There are a minimal number of rescue/extrication personnel. 3 There is limited availability of rescue/extrication personnel. (Some areas are well covered while other places are lacking.) 4 There are substantial numbers of rescue/extrication personnel. (There are a few areas where the coverage is somewhat short.) 5 There is comprehensive coverage of rescue/extrication personnel.</p>

Indicator	Scoring*
<p>101.4. Vehicle Operators – Vehicle operators (those identified in disaster plan, e.g., school bus, transit drivers) are available, have been familiarized with their support role, and are included in an activation plan.</p>	<p>0 Not known 1 There are no identified vehicle operators in the area. 2 There are a minimal number of vehicle operators in the area. (Only a few vehicle operators identified and they are not familiar with their role in a MCI.) 3 There are limited numbers of vehicle operators who can assist in a MCI. (Vehicle operators have been identified but they are not necessarily familiar with their role.) 4 There is substantial availability of vehicle operators who are familiar with their role in a MCI, but they are not included in activation plan. 5 There is comprehensive availability of vehicle operators who are familiar with their role and are included in an activation plan.</p>

Indicator	Scoring*
<p>101.5. Specialized Technicians Specialized Technicians (type identified in disaster plan, e.g., specialized extrication, high angle rescue, hazmat) are available for use in a mass casualty incident and a plan is in place to activate the resource.</p>	<p>0 Not known 1 There are no specialized technicians in the area. 2 There is a minimal number/type of specialized technicians in the area. (Only a few specialized technicians available and no written plan to activate them.) 3 There are limited numbers/types of specialized technicians in the area. (Adequate number of specialized technicians identified, but not well distributed in specialty or location. There is no plan for activating them.) 4 There is substantial, but not full, availability of specialized technicians and a plan exists for activating them as needed. 5 There is comprehensive coverage of specialized technicians and a plan is in place for activating them.</p>

Indicator	Scoring*
101.6. CERT Members – Community Emergency Response Team (CERT) members/volunteers are available (or other localized response corps personnel).	0 Not known 1 There are no trained CERT volunteers. 2 There are a minimal number of CERT members in the area. (Only a few volunteers have been trained as CERT members.) 3 There are limited numbers of CERT volunteers in the area. (Good number of CERT volunteers, but not well-distributed.) 4 There are a substantial number of CERT volunteers in the area. 5 There is comprehensive coverage of CERT volunteers.

Indicator	Scoring
101.7. Bystanders – Emergency personnel have an established plan for effective use of on scene bystanders.	0 Not known 1 No plan exists for using bystanders. 2 There is a minimal plan available to emergency personnel for the effective use of bystanders (at least an outline). 3 There is a limited plan available to emergency personnel for the effective use of bystanders (basic playbook/checklist). 4 There is a substantial plan available to emergency personnel for the effective use of bystanders (checklist, has been rehearsed). 5 There is a comprehensive plan available to emergency personnel for the effective use of bystanders (includes a checklist, defined roles and regular rehearsals).

102. Education and Training

Indicator	Scoring*
102.1. Incident Command Training – All emergency personnel, including medical directors, are trained in Incident Command.	0 Not Known 1 Incident Command training is not required. 2 Emergency personnel receive minimal (basic) Incident Command training. Medical Directors are not required to receive incident command training. 3 Emergency personnel and Medical Directors receive limited Incident Command training (every 2 years). 4 Emergency personnel and Medical Directors receive a substantial amount of Incident Command training with annual training. (Emergency Leadership receives progressive, advanced training) 5 All emergency personnel and Medical Directors receive comprehensive Incident Command Training. (All emergency personnel receive annual Basic Incident Command Training and all emergency leadership and Medical Directors receive progressive, advanced training.)

Indicator	Scoring*
<p>102.2. Mass Casualty Training All EMS personnel, including medical directors, are trained in the effective management of mass casualty scenes.</p>	<p>0 Not Known 1 Mass casualty training is not required for emergency personnel. 2 Emergency personnel receive minimal (basic) mass casualty training. Medical directors are not required to receive mass casualty training. 3 Emergency personnel and medical directors receive limited mass casualty training (every 2 years tailored to area setting). 4 Emergency personnel and medical directors receive a substantial amount of mass casualty training with annual training tailored to area setting. (Emergency Leadership receives progressive, advanced training.) 5 All emergency personnel and medical directors receive comprehensive mass casualty training. (All emergency personnel receive annual basic mass casualty training and all emergency leadership and Medical Directors receive progressive, advanced training.)</p>

Indicator	Scoring*
<p>102.3. Disaster Exercises - All emergency personnel, including medical directors, participate in disaster exercises.</p>	<p>0 Not known 1 Disaster exercises are not required for emergency personnel. 2 Emergency personnel conduct minimal (basic) disaster exercises. Medical directors are not required to participate in disaster exercises. 3 Emergency personnel and medical directors conduct limited disaster exercises (every 2 years). 4 Emergency personnel and medical directors conduct a substantial amount of disaster exercises with annual training. (Emergency Leadership receives progressive, advanced training.) 5 All emergency personnel and medical directors conduct comprehensive disaster exercises. (All emergency personnel receive annual disaster exercises and all emergency leadership and medical directors receive progressive, advanced training.)</p>

Indicator	Scoring*
<p>102.4. Unique Patient Communication Needs - EMS personnel, including medical directors, are trained in the</p>	<p>0 Not Known 1 There is no training in the use of alternative communication methods. 2 Emergency personnel have minimal resources and training for</p>

<p>use of alternative communication methods (diagrams, devices, translation service, emergency information forms-EIF, WHALE, etc.) for children and other patients unable to communicate their medical history.</p>	<p>alternative communication methods (e.g. one class every 4 or so years; medical directors are rarely involved).</p> <p>3 Emergency personnel have limited resources and training for alternative communication methods (e.g. one class every 2 or so years; medical directors are often involved).</p> <p>4 Emergency personnel have substantial resources and training for alternative communication methods (e.g. one class every year; medical directors are often involved).</p> <p>5 All emergency personnel, including medical directors, are required to have comprehensive resources and training for alternative communication methods. They are routinely trained on the use of emergency information forms/systems.</p>
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Indicator	Scoring*
<p>102.5. Special Needs Patient Training - All EMS personnel, including medical directors, are trained in the care of multiple special needs children and other special needs patients.</p>	<p>0 Not Known</p> <p>1 No training for special needs patients occurs.</p> <p>2 Emergency personnel have minimal resources and training for treating special needs patients (e.g. one class every 4 or so years; medical directors are rarely involved).</p> <p>3 Emergency personnel have limited resources and training for treating special needs patients (e.g. one class every 2 or so years; medical directors are often involved).</p> <p>4 Emergency personnel have substantial resources and training for treating special needs patients (e.g. one class every year; medical directors are often involved).</p> <p>5 All emergency personnel, including medical directors, are required to have comprehensive resources and training for treating special needs patients.</p>

103. Personnel Safety & Support

Indicator	Scoring*
<p>103.1. Safety Requirements- Safety policies are established for EMS personnel, such as appropriate use of lights and sirens response; determining scene safety before approaching; using BSI precautions; practicing safety in traffic zones, etc.</p>	<p>0 Not known</p> <p>1 No safety policies for EMS response exist.</p> <p>2 There are minimal safety policies for EMS personnel. (Policies are unwritten or minimally written, or little is done to enforce safety requirements.)</p> <p>3 There are limited safety policies for EMS personnel. (Policies may be written but not current, or there is limited compliance.)</p> <p>4 There are substantial safety policies for EMS personnel. (Policies are written and current, and have general compliance.)</p> <p>5 There are comprehensive safety policies for EMS personnel including assignment of a safety officer per NIMS protocols. (All</p>

	policies are written, current and enforced. There is good compliance.)
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Indicator	Scoring*
103.2 Mutual Aid - Mutual aid plans and agreements are established.	0 Not Known 1 There are no mutual aid plans or agreements. 2 There is minimal planning for mutual aid resources (e.g. informal agreements may be in place, but no formal plans or agreements exist). 3 There are limited mutual aid resources (some formal plans and agreements exist, but more needed). 4 There are substantial mutual aid resources. (Formal plans and agreements exist, but backfill, staging and piloting are not in plan.) 5 There is a comprehensive mutual aid resource system. (Comprehensive plans and agreements exist).

Indicator	Scoring*
103.3 Post Incident Stress Management - Responders and those in support roles (dispatchers, etc.) have access to stress management resources following a MCI.	0 Not Known 1 There is no organized system for post incident stress management. 2 There are minimal post incident stress management resources available (a few trained individuals are available to provide post incident emotional/mental health support). 3 There are limited post incident resources available (some have access to trained individuals; others rely on obtaining professional help as needed). 4 There are substantial post incident stress management resources available (most responders have access to trained individuals and professional psychological services when needed). 5 There are comprehensive post incident stress management resources available (responders and support personnel consistently have access to trained individuals and professional psychological services when needed, including on-scene presence).

104. Medical Direction

Indicator	Scoring*
104.1. Medical Direction Availability - EMS services have medical direction provided by licensed	0 Not known 1 There is no physician medical direction provided to EMS. 2 EMS services have a minimal amount of medical direction (e.g. off-line only, minimally available, etc.)

physicians.	<p>3 EMS services have a limited amount of medical direction (e.g. off line only, provided to some EMS services, provided by physician without formal medical direction training)</p> <p>4 There is substantial medical direction provided to EMS services (e.g. substantial medical director involvement with EMS services, including online, offline and on-scene)</p> <p>5 Comprehensive medical direction is provided to EMS services (e.g. substantial medical director involvement with EMS services, including online, offline and on-scene, provided by physician with formalized EMS medical director training. There is coordinated medical direction across jurisdictions and with receiving facilities.</p>
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Indicator	Scoring*
<p>104.2. Medical Director MCI Involvement - EMS medical directors are engaged in all aspects of mass casualty response (protocols, planning, exercising, scene response, after action reviews).</p>	<p>0 Not known</p> <p>1 There is no medical director involvement in mass casualty planning or response.</p> <p>2 There is a minimal amount of medical director involvement (e.g. few EMS medical directors participate in planning or exercising).</p> <p>3 There is a limited amount of medical director involvement (e.g. standard set of medical protocols for MCIs are available and some EMS medical directors participate).</p> <p>4 There is substantial medical director involvement (e.g. most EMS services have medical director participation in MCI planning, response, etc.)</p> <p>5 Comprehensive medical director involvement for all EMS services and local receiving medical facilities (protocols, planning, exercising, scene response, after action review).</p>

*Scoring descriptions in parentheses are meant to be examples to assist in arriving at a score. It is understood that few examples will be an exact match of the situation.

EMS Incident Response and Readiness Assessment (EIRRA)

200 INFRASTRUCTURE

Benchmark: The emergency infrastructure includes the necessary communications, transportation, equipment and information sharing technology resources for assuring the best possible emergency response to mass casualty incidents.

201 Public Safety Answering Points (Primary and Secondary)

Indicator	Scoring*
<p>201.1. Emergency Dispatcher Availability – Emergency dispatchers are sufficiently available to fully staff all primary and secondary (EMS) public safety answering points (PSAPs).</p>	<p>0 Not Known</p> <p>1 Emergency dispatchers are not sufficiently available. PSAPs are short staffed and normal activity cannot be managed adequately.</p> <p>2 Emergency dispatchers are minimally available. PSAPs are short staffed at times, and frequently need to work personnel overtime.</p> <p>3 There is limited availability of emergency dispatchers. PSAPs are able to cover shifts but have no extra dispatchers.</p> <p>4 There is substantial availability of emergency dispatchers. PSAPs are fully staffed for normal shift activity.</p> <p>5 There is comprehensive availability of emergency dispatchers. PSAPs are fully staffed and have protocols in place for on-duty personnel to activate additional staff for emergent major incidents.</p>

Indicator	Scoring*
<p>201.2. Emergency Medical Dispatch (EMD) – Emergency medical dispatch protocols are used in the PSAP responding to EMS calls. (This can be the primary PSAP or secondary PSAP--also known as EMS call center or emergency medical dispatch center).</p> <p>EMD programs consist of 3 parts:</p> <ol style="list-style-type: none"> 1) Triage of incoming calls to determine level of response— may or may not involve tiered response; 2) Providing pre-arrival instructions to caller; 3) Quality Assurance or ongoing evaluation by medically trained personnel to monitor effectiveness. 	<p>0 Not Known</p> <p>1 EMD is not utilized in the PSAP/EMS call center.</p> <p>2 EMD is minimally utilized in the PSAP/EMS call center (a single component of an EMD program is in place, e.g. triaging of calls).</p> <p>3 EMD is used in to a limited extent in the PSAP/EMS call center (some components of an EMD program are in place).</p> <p>4 A substantial EMD program is used in the PSAP/EMS call center. (Most components of EMD are in place, including triage of incoming calls, pre-arrival instructions and quality assurance.)</p> <p>5 A comprehensive EMD program is utilized in the PSAP/EMS call center. (Triage of incoming calls is routine, pre-arrival instructions are provided to callers and the program is regularly evaluated by appropriately trained medical personnel. Dispatchers are required to be EMD-certified and/or the center is certified to state or national EMD standards.)</p>

Indicator	Scoring*
<p>201.3. Ability to Determine Caller Location (including from wireless or telematic device) – Public safety answering points (PSAPs) are served by Enhanced 911 (E911) and are Phase I and Phase II compliant.</p> <p>Note: Phase I ensures the PSAP has call back number of a wireless caller and can identify cell tower from which call originated. Phase II includes Phase I features plus ability to identify location of wireless caller within 125 meters 67% of time and selective routing based on the coordinates.</p>	<p>0 Not Known</p> <p>1 E911 is not available. (Only basic 911 without selective routing or caller information display is available in the area.)</p> <p>2 The ability to determine caller’s location is minimally available. (PSAP is served by E911, but wireless caller/device location is not available.)</p> <p>3 The ability to determine wireless caller/device location is limited. (PSAP is served by E911, but it is only Phase 1 compliant. Wireless caller/device location can be traced to cell tower only.)</p> <p>4 The ability to determine wireless caller/device location is substantial. (PSAP is Phase I and Phase II compliant. Calls can be mapped to location of wireless caller/device, but they cannot be transferred to other area PSAPs with caller location data intact.)</p> <p>5 The ability to determine wireless caller/device location is comprehensive. (PSAP is Phase I and Phase II compliant. Calls can be mapped to location of wireless caller/device and can be transferred to other area PSAPs with caller location data intact.)</p>

Indicator	Scoring*
<p>201.4. EOC and PSAP Integration – The Emergency Operations Center(s) and Public Safety Answering Point(s) are integrated so that there is minimal delay in response activation and comprehensive coordination in a large scale incident.</p>	<p>0 Not Known</p> <p>1 There is no integration of the EOC and PSAP. Each operates independently.</p> <p>2 There is minimal integration of the EOC and PSAP. (They understand each other’s roles but work/plan independently for the most part.)</p> <p>3 There is limited integration of the EOC and PSAP. (They have limited plans to work together that are based on EOC activation.)</p> <p>4 There is substantial integration of the EOC and PSAP. (They have integrated response plans and exercise together.)</p> <p>5 There is comprehensive integration of the EOC and PSAP. (They are fully integrated under a single management with integrated incident command protocols.)</p>

202 Communications Resources/Systems and Other Information

Indicator	Scoring*
<p>202.1. Early Hospital Notification – An organized system for early notification of hospitals in the event of a mass casualty incident is in</p>	<p>0 Not Known</p> <p>1 There is no system in place for early notification of hospitals in the event of a mass casualty incident.</p> <p>2 There is a minimal system in place for early notification of hospitals in the event of a mass casualty incident. (Hospitals are notified by</p>

<p>place.</p>	<p>procedures in the incident commander’s procedure manual after the size of the likely demand has been verified.)</p> <ol style="list-style-type: none"> 3 There is a limited system in place for early notification of hospitals in the event of a mass casualty incident. (The EOC is activated and has a process for contacting hospitals to notify them and request availability of services.) 4 There is a substantial system in place for early notification of hospitals in the event of a mass casualty incident. (The PSAP notifies hospitals of incident and calls EOC to coordinate activities.) 5 There is a comprehensive system in place for early notification of hospitals in the event of a mass casualty incident. (Hospitals are notified by PSAP through an organized system with one point of contact, which begins bed count process and service coordination.)
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Indicator	Scoring*
<p>202.2. Specialized Resource Knowledge – Specialized resource knowledge is available in MCIs through a system of continually updated resource lists. The EOC and PSAP share the lists to allow for rapid deployment of critical materials and to ensure accuracy of the information.</p>	<ol style="list-style-type: none"> 0 Not Known 1 There are no resource lists maintained by the EOC or PSAP. 2 There is a minimal resource list maintained, but personnel familiar with the area is the main source for identifying resources in a MCI. 3 There is a limited system for specialized resource knowledge management. (Resource lists are maintained but may not be frequently updated; they are not readily available to the PSAP.) 4 There is a substantial system for specialized resource knowledge management. (Resource lists are maintained by the EOC and shared with PSAP with updates on an “as known” basis.) 5 There is a comprehensive system for specialized resource knowledge management on a regional basis. (Resource lists are maintained jointly by PSAP and EOC with a system in place for continual updating. Resource / logistic coordinators are assigned for major incidents.)

Indicator	Scoring*
<p>202.3. Hospital Bed Status Monitoring – An effective hospital bed status monitoring system is in use.</p>	<ol style="list-style-type: none"> 0 Not Known 1 There is no hospital bed status monitoring system. 2 There is a minimal hospital bed status monitoring system (e.g. the system is ineffective and/or used only by a few hospitals). 3 There is a limited system for hospital bed status monitoring (e.g. all hospitals have access but do not update regularly, or it is used effectively, but only by large hospitals). 4 There is a substantial system for hospital bed status monitoring on a regional or statewide basis (e.g. all hospitals have access, but some use it more effectively than others. The information is

	<p>available to dispatch).</p> <p>5 There is a comprehensive system for hospital bed status monitoring which is effectively used by all hospitals. (It tracks bed status, including specialized beds, on a timely basis and the information is readily available to dispatch.)</p>
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Indicator	Scoring*
<p>202.4. Regional Communications and Dispatch Coordination - Planning and cooperation among the communications centers in the area have resulted in effective dispatch coordination. Regional plans have been tested with full scale exercises and revised as necessary based on lessons learned.</p>	<p>0 Not Known</p> <p>1 There is no regional dispatch coordination.</p> <p>2 There is minimal regional dispatch coordination. (Cooperation is limited or does not exist with no regional planning beyond informal discussions.)</p> <p>3 There is limited regional planning for dispatch coordination. (It is limited to major centers and is focused on the use of mutual aid agreements.)</p> <p>4 There is substantial regional planning for dispatch coordination. (Ongoing activity that includes establishing event coordination and joint tabletop of limited functional exercises.)</p> <p>5 There is comprehensive regional planning for dispatch coordination. (Cooperative agreements are in place for the entire region. Plans for response are tested with live dispatch exercises that include after action review followed by the development of performance improvement plans.)</p>

Indicator	Scoring*
<p>202.5. Medical Coordination Center (Regional Call Center) - A plan is in place for rapid deployment of a medical coordination center to serve as a communication center for relaying accurate information to callers in a major incident.</p>	<p>0 Not Known</p> <p>1 There is no plan for a medical coordination center.</p> <p>2 There is a minimal plan for deployment of a medical coordination center in a major incident. (There have been discussions about the need and how it would operate, but plans have yet to be finalized.)</p> <p>3 There is a limited plan for deployment of a medical coordination center in a major incident. (A basic plan has been developed, but further work is needed on logistics and staffing.)</p> <p>4 There is a substantial plan for deployment of a medical coordination center in a major incident. (Procedures and instructions have been developed for call center personnel and locations have been secured. Exercising is needed.)</p> <p>5 There is a comprehensive plan for deployment of a medical coordination center in a major incident. (Procedures and instructions have been developed for call center personnel, locations have been pre-arranged, and deployment tested.)</p>

203 Communications Hardware

Indicator	Scoring*
<p>203.1. Two Way Radios – There are ample numbers of programmed, two-way radios for use by emergency responders in a major incident.</p>	<p>0 Not Known</p> <p>1 There is no supply of two-way radios for use in a major incident.</p> <p>2 There is a minimal supply of two-way radios for use in a major incident. (A few extra portables are available.)</p> <p>3 There is a limited supply of two-way radios for use in a major incident. (A limited number of portable radios are available for out-of-the-area responders whose radios are not compatible).</p> <p>4 There is a substantial supply of functioning two-way radios for use in a major incident. (In addition to the two-way radios installed in most emergency response units and portables assigned to most individual responders, there are extra radios for use in a major incident.)</p> <p>5 There is a comprehensive supply of functioning two-way radios for use in a major incident. (In addition to the two-way radios installed in all emergency response units and portables assigned to full-time and part-time individual responders, there is a supply of radios maintained in good working condition, as well as new batteries for use during an extended incident.)</p>

Indicator	Scoring*
<p>203.2. Wireless Phones – Emergency responders are equipped with cell phones and there is good wireless phone coverage in the area.</p> <p>Note: The National Communications Service offers Wireless Priority Service (WPS) for wireless phones that may be used in emergencies when the wireless networks may be overloaded.</p>	<p>0 Not Known</p> <p>1 There is no wireless coverage in much of the area.</p> <p>2 Many responders have cell phones, but there is minimal wireless coverage in the area. (Coverage is available primarily in the population centers. Calls are dropped or unclear in rural locations.)</p> <p>3 Most responders have cell phones, but there is limited wireless coverage in the area. (One carrier is available in most areas. Wireless calls may be dropped or unclear.)</p> <p>4 Most responders have cell phones and there is substantial wireless coverage in the area. (There is good quality wireless coverage throughout the area by multiple collaborative carriers.)</p> <p>5 All responders have cell phones and there is comprehensive wireless coverage in the area. (Commercial wireless coverage is extensive throughout the area. Emergency responders have wireless priority access for their phones and are well-versed in use of this feature.)</p>

Indicator	Scoring*
<p>203.3. Satellite Phones – Satellite phones are available for use in situations where wireless coverage is limited.</p>	<p>0 Not Known</p> <p>1 Satellite phones are not available.</p> <p>2 Satellite phones are minimally available. (There are a few satellite phones available but access to them in rapid deployments can be challenging.)</p> <p>3 Satellite phones are available on a limited basis. (There are a limited number of response units with access to satellite phones.)</p> <p>4 Satellite phones are substantially available. (Most response units have access to satellite phones.)</p> <p>5 Satellite phones are available on a comprehensive basis. (All response units have access to satellite phones and are well-versed in their use.)</p>

Indicator	Scoring*
<p>203.4 HAM Radios – HAM radios and operators are available for use if needed in a mass casualty incident.</p>	<p>0 Not Known</p> <p>1 There are no plans for use of HAM radios or operators in a large scale incident.</p> <p>2 There are minimal plans for use of HAM radios and operators in a large scale incident. (HAM operators are known to the EOC and have offered their equipment/services if needed.)</p> <p>3 There are limited plans for use of HAM radios and operators in a large scale incident. (There are a few HAM operators who have trained for participation in a large scale incident.)</p> <p>4 There are substantial plans for use of HAM radios and operators in a large scale incident. (There are a number of HAM operators who are trained and have participated in exercises. Some additional HAM radios are available.)</p> <p>5 There are comprehensive plans for use of HAM radios and operators in a large scale incident. (There is a substantial list of HAM operators who are trained, participate in exercises and have an on-call system for immediate activation. HAM radios are available in equipment caches.)</p>

Indicator	Scoring*
<p>203.5 Radio Interoperability and Reliability - The area is served by a reliable and interoperable radio communication system.</p>	<p>0 Not Known</p> <p>1 There is no consistently reliable/interoperable radio communication system.</p> <p>2 There is minimal reliability/inoperability in the radio communication system (coverage is lacking in areas; there is little</p>

	<p>interoperability between systems and little redundancies, cannot always communicate with hospitals).</p> <ol style="list-style-type: none"> 3 The radio communication system is limited in reliability and interoperability (full coverage, but not always interoperable with other EMS, public safety systems, or hospitals). 4 The radio communication system is substantially reliable and interoperable (most areas covered by redundant and interoperable systems, where most public safety agencies can communicate with each other and with hospitals). 5 A comprehensive interoperable and reliable communication system is available (there is interoperability with and between hospitals, other EMS and public safety agencies; there are redundancies for back up).
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Indicator	Scoring*
<p>203.6 Next Generation Communications – Planning is underway for utilizing high capacity wireless and broadband networks for greater communications capabilities, including on-scene video and specialized patient or resource tracking.</p>	<ol style="list-style-type: none"> 0 Not Known 1 There is no ongoing effort to incorporate new communications technologies into the response effort. 2 There are minimal efforts to include new capabilities into the communication system generally based on individual interests. (There are some people trying new technology but their efforts are not coordinated and integrated into the overall planning effort.) 3 There are limited efforts to include new communications technologies but limited budgets and time restrict these efforts to a time available basis ancillary to general MCI planning. (New ideas are being incorporated but not as an integrated element of the response planning.) 4 There is a substantial effort to utilize emergent technologies although it is limited by budget or personnel availability. (Advanced communications technologies are being deployed to support elements of the response plan but not necessarily integrated into the overall plan.) 5 A comprehensive effort is ongoing to include new communications technologies into the MCI response plan with a coordinated effort to have all sectors take advantage of the tools at hand to improve response. (The advances in communications capabilities are welcomed as an opportunity to improve response coordination and patient outcomes.)

204 EMS Personnel and Patient Transportation

Indicator	Scoring*
<p>204.1 Basic Ground Ambulance - The area is served by state regulated, responsive ground BLS emergency ambulance, 24 hours a day, 7 days a week.</p>	<p>0 Not Known</p> <p>1 BLS ground ambulance service is not available in 100% of the area on a 24 hours a day, 7 days a week basis. Some remote areas have intermittent ambulance service, relying on mutual aid when not in operation. Some ambulance services are staffed by first responders only.</p> <p>2 The area has minimal BLS ground ambulance service on a 24-hour, 7 days a week basis. While the area is covered, some places are subject to 30 minutes or more response times. Some ambulances are staffed by first responders only.</p> <p>3 The area has limited BLS ground ambulance coverage on a 24/7 basis. The area has ambulance service, but they are often understaffed and frequently rely on mutual aid.</p> <p>4 The area has substantial BLS ground ambulance coverage on a 24/7 basis. The area has ambulance service and infrequently relies on mutual aid. The area has access to a responsive ground BLS ground ambulance service and usually is well staffed.</p> <p>5 The area has comprehensive BLS ground ambulance coverage on a 24/7 basis. Only in catastrophic incidents are they understaffed or heavily rely on mutual aid. The area has access to a responsive ground BLS ground ambulance service.</p>

Indicator	Scoring*
<p>204.2 Advanced Ground Ambulance - The area is served by state-regulated, responsive ALS ground emergency ambulance, 24 hours a day, 7 days a week.</p>	<p>0 Not Known</p> <p>1 ALS ground ambulance service is not available in 100% of the area on a 24 hours a day, 7 days a week basis.</p> <p>2 The area has minimal ALS ground ambulance service on a 24-hour, 7 days a week basis.</p> <p>3 The area has limited ALS ground ambulance coverage on a 24/7 basis.</p> <p>4 The area has substantial ALS ground ambulance coverage on a 24/7 basis. Most of the geographical area is served by advanced life support (ALS).</p> <p>5 The area has comprehensive ALS ground ambulance coverage on a 24/7 basis. Only in catastrophic incidents are they understaffed or heavily rely on mutual aid for ALS coverage.</p>

Indicator	Scoring*
<p>204.3 Critical Care Ground</p>	<p>0 Not Known</p>

<p>Ambulance - The area is served by state-regulated, responsive critical care ground emergency ambulance, 24 hours a day, 7 days a week.</p>	<ol style="list-style-type: none"> 1 Critical care ground ambulance service is not available in 100% of the area on a 24 hours a day, 7 days a week basis. 2 The area has minimal critical care ground ambulance service on a 24-hour, 7 days a week basis. 3 The area has limited critical care ground ambulance coverage on a 24/7 basis. 4 The area has substantial critical care ground ambulance coverage on a 24/7 basis. Most of the geographical area has access to critical care ambulance service when needed. 5 The area has comprehensive critical care ground ambulance coverage on a 24/7 basis. Only in catastrophic incidents are they understaffed or unavailable.
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Indicator	Scoring*
<p>204.4 Air Ambulance - The area is served by responsive air emergency ambulance service, 24 hours a day, 7 days a week that is well integrated into the EMS system.</p>	<ol style="list-style-type: none"> 0 Not Known 1 No air ambulances are readily available. 2 Air ambulance access is minimal. Some areas, more often than not, do not have access to air ambulance service. Or, there is access to air ambulances, which are not integrated into the EMS system. 3 Access to air ambulances is limited in that there is often a long wait. Or, there is access to air ambulances, which are minimally integrated into the EMS system. 4 There is substantial access to air ambulance services. At times, there may be a wait. 5 There is comprehensive access to air ambulance service that is fully integrated into the EMS system. (Coverage is such that one is always available, with a limited wait, barring weather problems.)

Indicator	Scoring*
<p>204.5 Specialty Patient Transportation Vehicles – There is access to additional specialty patient transportation vehicles that can be used in a mass casualty incident.</p>	<ol style="list-style-type: none"> 0 Not Known 1 No specialty patient transportation vehicles have been identified. 2 There is minimal access to additional specialty patient transportation vehicles. (May have knowledge of but no planning or ready access to such resources.) 3 There is limited access to additional specialty patient transportation vehicles. (Planning has addressed; resources are available on intermittent or limited basis.) 4 There is substantial access to additional specialty patient transportation vehicles. (Have knowledge of and access to such resources, but have not exercised access to resources.) 5 There is comprehensive access to additional specialty patient

	transportation vehicles. (Have knowledge of resources and they are readily available. Have exercised utilizing resources in MCIs.)
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Indicator	Scoring*
<p>204.6 Non-Transport “First Responder” vehicle – First Responder (non-patient-transport) vehicles are well-integrated into the EMS system.</p>	<p>0 Not Known</p> <p>1 There are no first responder vehicles integrated into the patient transport system.</p> <p>2 There is minimal integration of first response vehicles into the EMS system. (e.g. BLS first response vehicles available but not integrated; or, there is insufficient availability of first response vehicles/units.)</p> <p>3 There is limited integration of first response vehicles into the EMS system. (First response integration is inconsistent or limited to BLS only.)</p> <p>4 There is substantial integration of first response vehicles into the EMS system. (While there is good coverage and integration, few are staffed at the ALS level.)</p> <p>5 The area has comprehensive ALS first response vehicle coverage readily available and integrated in the local patient transportation system.</p>

205 Transportation Operations

Indicator	Scoring*
<p>205.1 Route Access – EMS agencies have evaluated and planned access to/from route locations where highway mass casualty incidents may occur.</p>	<p>0 Not Known</p> <p>1 There has been no evaluation of/planning for access to various routes where highway MCIs could occur.</p> <p>2 There has been minimal evaluation of/planning for access to various routes where MCIs could occur. (Problem locations have been identified, but no further planning has occurred.)</p> <p>3 There has been limited evaluation of/planning for access to various routes where MCIs could occur. (Problem route locations have been identified; some alternatives have been suggested.)</p> <p>4 There has been substantial evaluation of/planning for access to various routes where highway MCIs could occur. (Problem route locations have been identified; alternatives have been determined. Some training and exercises have been done.)</p> <p>5 There has been comprehensive evaluation of/planning for access to various routes where highway MCIs could occur. (Problem route locations have been identified; alternatives have been determined. There has been integration with law enforcement and DOT for signage and traffic control.</p>

Indicator	Scoring*
<p>205.2 Access Control- EMS agencies have evaluated and planned how to manage/re-route traffic and onlookers to keep the scene safe during a highway MCI.</p>	<p>0 Not Known</p> <p>1 There has been no planning for traffic management during a highway MCI.</p> <p>2 There has been minimal planning for traffic management during a highway MCI.</p> <p>3 There has been limited planning for traffic management during a highway MCI. (Some training has occurred, but rarely exercised.)</p> <p>4 There has been substantial planning for traffic management during a highway MCI. (Specific ICS staff are identified and trained to manage access control and have exercised, but further work needed.)</p> <p>5 There has been comprehensive planning for traffic management during a highway MCI. Specific ICS security staff assigned, trained, exercised and available to manage access control. There has been integration with law enforcement and DOT for signage and traffic control.</p>

Indicator	Scoring*
<p>205.3 Vehicle and Personnel Staging – Effective staging procedures for personnel and vehicles have been developed and exercised.</p>	<p>0 Not Known</p> <p>1 No staging procedures for personnel and vehicles have been developed.</p> <p>2 Minimal staging procedures for personnel and vehicles are in place. (There is an informal plan in place that is communicated when needed.)</p> <p>3 Limited staging procedures for personnel and vehicles are in place. (There has been a formal plan created, but there has been limited training or use in exercises.)</p> <p>4 Substantial staging procedures for personnel and vehicles are in place. (Formal plans have been created and introduced in training, but may have limited use in exercises and not well integrated into the ICS system.)</p> <p>5 Comprehensive formal staging procedures for personnel and vehicles are in place, are exercised regularly, and are integrated into the local ICS system. Communications interoperability is available for all staged vehicles.</p>

Indicator	Scoring*
<p>205.4 Designated Landing</p>	<p>0 Not Known</p>

<p>Zones – Pre-determined helicopter landing zones have been established. There are communication and coordination procedures for helicopters, which are well known by emergency responders.</p>	<ol style="list-style-type: none"> 1 There are no pre-determined landing zones or communication and coordination procedures in place for helicopter landings. 2 There are minimal pre-determined landing zones and communication and coordination procedures in place for helicopter landings. (General, informal landing zone locations have been discussed and a procedure for contacting air medical services is known.) 3 There are limited pre-determined landing zones and communication and coordination procedures in place for helicopter landings. (Formal landing zone locations are established and a procedure for contacting air medical services is known, but no coordination has occurred with the services.) 4 There are substantial pre-determined landing zones and communication and coordination procedures in place for helicopter landings. (Formal landing zones are established and registered or pre-coordinated with the air medical services, procedures for activating and coordinating with air medical services exist and some ground safety training has occurred.) 5 There are comprehensive pre-determined landing zones and communication and coordination procedures in place for helicopter landings. (Formal landing zones are established and registered or pre-coordinated with the air medical services, procedures for activating and coordinating with air medical services exist and ground safety training occurs at least biannually and service has landing zone kits prepared.)
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Indicator	Scoring*
<p>205.5 Transport of Special Equipment and Supplies – Planning and exercising have been completed for transport of any special equipment or supplies (blood, medications, etc.) needed in MCIs.</p>	<ol style="list-style-type: none"> 0 Not Known 1 No planning has been completed for transport of special equipment/supplies. 2 Minimal planning has been completed for transport of special equipment/supplies. (Needs for special equipment/supplies have been identified but no formal plans have been established to access and transport.) 3 Limited planning has been completed for transport of special equipment/supplies. (Needs have been identified with access plans in place but not exercised or practiced.) 4 Substantial planning has been completed for transport of special equipment/supplies. (Needs for have been identified with access plans in place; occasionally exercised and practiced.) 5 Comprehensive planning has been completed for transport of special equipment/supplies. (Needs are identified; access plans are established and routinely exercised and practiced. Formal agreements are in place to acquire special equipment/supplies.)

206 Equipment

Indicator	Scoring*
<p>206.1 Patient Care Equipment Caches - EMS agencies have well-stocked patient care equipment caches readily available in the event of a MCI.</p>	<p>0 Not Known 1 EMS agencies have no patient care equipment caches. 2 EMS agencies minimal patient care equipment caches (not well stocked or readily available). 3 EMS agencies have limited patient care equipment caches (well stocked trailers but not readily available). 4 EMS agencies have substantial caches of patient equipment (generally well stocked and accessible within a few hours notice.) 5 EMS agencies have comprehensive caches of patient equipment (well stocked and easy to access within short time frame).</p>

Indicator	Scoring*
<p>206.2 Equipment/Supply Caches – Caches of equipment and supplies (fuel, blankets, cots, generators, etc.) are readily available in the area.</p>	<p>0 Not Known 1 There are no equipment/supply caches readily available in the area. 2 There is minimal access to equipment/supply caches in the area (long wait time due to distance, or stocked minimally with necessary equipment; personnel unfamiliar with accessing). 3 There is limited access to equipment/supply caches in the area (a few well stocked caches available, but not easily accessed). 4 There is substantial access to equipment/supply caches in the area. (Caches are well-stocked and dispersed, but personnel lack familiarity with contents and/or accessing caches). 5 There is comprehensive access to equipment/supply caches in the area. (Caches are well-stocked, well-dispersed, and personnel know what is available and how to access.)</p>

Indicator	Scoring*
<p>206.3 Vehicle Extrication – Vehicle extrication equipment allowing safe extrication on newer model cars is readily available. Crews are well trained on its use.</p>	<p>0 Not Known 1 There is no vehicle extrication equipment, beyond hand tools, in the area. 2 There is minimal access to vehicle extrication equipment in the area (often long wait times due to distance). 3 There is limited access to vehicle extrication equipment in the area (older extrication equipment available, but newer, safer equipment lacking). 4 There is substantial access to vehicle extrication equipment in the area (most have access to newer generation equipment).</p>

	<p>5 There is comprehensive vehicle extrication equipment in the area. (Highest generation of equipment enabling safe extrication on newer model cars is available and is part of organized dispatch system for activation and transport. Crews are trained and regularly practice extrication operations, and are coordinated with ambulance personnel.)</p>
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Indicator	Scoring*
<p>206.4. Towing and Recovery- Towing and recovery resources can be readily accessed.</p>	<p>0 Not Known 1 Towing and recovery resources are not readily available. 2 There is minimal access to towing and recovery resources (often a long wait time for towing/recovery due to scarcity of resources). 3 There is limited access to towing and recovery resources. (Towing/recovery services are well-dispersed, but lacking in sophisticated equipment; sometimes requires long wait.) 4 There is substantial access to towing and recovery resources. (A variety of towing/recovery resources available. Towing/recovery services not consistently included in exercises.) 5 Comprehensive towing and recovery resources are available throughout the area. (Quick response when requested; a variety of resources available for different size/type vehicles and situations. Exercise and practice plans include accessing towing/recovery resources.)</p>

Indicator	Scoring*
<p>206.5 Personnel Safety – Personnel safety equipment is readily available to all providers (reflector vests, helmets, gloves, extrication protective clothing, goggles, etc).</p>	<p>0 Not Known 1 There is no access to personnel safety equipment. 2 Minimal personnel safety equipment is available to providers (only a few items are supplied and only to some personnel). 3 A limited assortment of personnel safety equipment is available to providers (all providers have a few basic pieces of safety equipment, or some providers have all the equipment). 4 A substantial assortment of personnel safety equipment is available to providers, but use by providers could be more widespread. 5 There is a comprehensive personnel safety equipment program in place. Equipment is readily available to all providers (reflector vests, helmets, gloves, extrication protective clothing, goggles, etc). Policies for use of PPE and all safety devices exist. Personnel are trained in proper use. There are additional supplies to replace what has been used at the scene.</p>

Indicator	Scoring*
<p>206.6 Care in Place – Plans have been developed and resources (staff and equipment) are available to provide “care in place” in lieu of transport to hospital.</p>	<p>0 Not Known 1 There are no plans/resources to provide care in place. 2 There are minimal plans/resources to provide care in place (some plans have been developed but resources and training lacking). 3 There are limited plans/resources to provide care in place (plans have been developed and some equipment and staff resources are available, but little to no exercising done). 4 There are substantial plans/resources to provide care in place (plans have been developed; equipment and staff resources are available; training and exercising minimal). 5 There are comprehensive plans and resources to provide care in place. Resources include equipment (beds, tent with climate control) in addition to a staffing plan. Staff are trained and exercised on implementing plan. Logistics plans are in place to manage personnel and patients needs (food, water, restrooms). Telemedicine available.</p>

207 Technology/Intelligence Sharing for Situational Awareness/IntelliDrive

Indicator	Scoring*
<p>207.1 Route availability/GPS – EMS has ready access to route availability through electronic navigation systems.</p>	<p>0 Not Known 1 EMS does not have GPS or other electronic navigation systems. 2 EMS has minimal access to GPS or other electronic navigation systems. (GPS routing is available from another source but not in vehicle.) 3 EMS has limited access to GPS or other electronic navigation systems. (Portable GPS units or smart phones with navigation are available on an inconsistent basis.) 4 EMS has substantial access to GPS or other electronic navigation systems. (Most vehicles or personnel are equipped with navigational devices.) 5 EMS has comprehensive access to GPS or other electronic navigation systems. (All vehicles are equipped with GPS routing and real time traffic information technology.)</p>

Indicator	Scoring*
<p>207.2 Congestion – EMS has access to information on</p>	<p>0 Not Known 1 There is no access to information on traffic congestion for the area.</p>

<p>traffic congestion.</p>	<ol style="list-style-type: none"> 2 There is minimal access to information on traffic congestion (e.g. real-time anecdotal congestion information from others in the area). 3 There is limited access to information on traffic congestion (e.g., typical congestion locations and times are known; real time anecdotal congestion information can sometimes be obtained from others in the area). 4 There is substantial access to information on traffic congestion (e.g. typical congestion locations/times known; alternate routes established; real time traffic information available in most areas). 5 There is comprehensive access to information on traffic congestion (e.g. real time traffic information is coordinated with other incident partners; alternate routes pre-established).
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Indicator	Scoring*
<p>207.3 Other incidents - EMS has access to information on other incidents occurring in the area.</p>	<ol style="list-style-type: none"> 0 Not Known 1 There are no plans or system for accessing information on other incidents occurring in the area. 2 There is minimal access to information on other incidents occurring in the area (e.g. real-time anecdotal information from other responders). 3 There is limited access to information on other incidents occurring in the area (e.g. some dispatch centers notify responders; some anecdotal communication from other responders). 4 There is substantial access to information on other incidents occurring in the area. Most communications systems provide this information. 5 There is a comprehensive notification system for situational awareness for other incidents, which is integrated into the routine communications system. Responders are trained and the system exercised. Redundancy and resiliency are built into the system.

Indicator	Scoring*
<p>207.4 Remote Weather Information Systems (RWIS) - Technology (remote weather stations, roadway sensors) is in place to relay weather-related road information (snow, ice, fog, flood) to allow for planning alternate routes. The weather information is</p>	<ol style="list-style-type: none"> 0 Not Known 1 There are no remote weather information systems in the area. 2 There are minimal remote weather information systems in the area. (Only a few locations monitored and the information is not easily accessed by EMS.) 3 There are limited remote weather information systems in the area. (Some of the area has RWIS, and transmitting the information is to EMS is occurring on a limited basis.) 4 There are substantial remote weather information systems in the

<p>transmitted to EMS, either by the PSAP or other means.</p>	<p>area. (Much of the area has RWIS and the information is transmitted to EMS most of the time.)</p> <p>5 There are comprehensive remote weather information systems in the area. (The area is fully equipped with RWIS, and the information is consistently transmitted to EMS by the PSAP or other means.)</p>
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Indicator	Scoring*
<p>207.5 Advanced Automatic Crash Notification (AACN) - Telematic device data from crashed passenger vehicles can be transmitted directly to public safety answering points and “translated” into indicators of predicted injury severity.</p>	<p>0 Not Known</p> <p>1 AACN data are not transmitted directly to the area PSAP, and when a telematics service provider contacts the PSAP, only location information is obtained by the PSAP staff.</p> <p>2 There is minimal AACN capability. AACN data are not transmitted directly to the PSAP, but when a telematics service provider contacts the PSAP, location information as well as selected crash details (e.g., rollover yes/no) is obtained by the PSAP staff.</p> <p>3 There is limited AACN capability. (AACN data are not transmitted directly to the PSAP, but when a telematics service provider contacts the PSAP, all information is obtained by the PSAP staff and relayed to the responding EMS agency/ies.)</p> <p>4 There is substantial AACN capability. (AACN data are transmitted directly to the area PSAP with no translation for injury severity prediction.)</p> <p>5 There is comprehensive AACN capability. (AACN data are transmitted directly to the PSAP, are converted using a recognized urgency algorithm, and resulting indicators of probability of severe injury are relayed to the responding EMS agency/ies.)</p>

Indicator	Scoring*
<p>207.6 Automatic EMS Vehicle Location Identification - Automatic vehicle location (AVL) technology utilizes transmitters on each vehicle that provide location information via communications devices or satellite so that PSAP and incident command staff can see the real time location of all area vehicles on a geographic display.</p>	<p>0 Not Known</p> <p>1 There is no capability to determine EMS vehicle location automatically.</p> <p>2 The system has minimal capability to display EMS vehicle locations automatically, but can manually enter information. It is not updated on a real time basis.</p> <p>3 The system has limited capability to display EMS vehicle locations automatically, but can manually enter information. It is updated on a real time basis.</p> <p>4 The system has substantial capability to display EMS vehicle locations as a result of automatic information retrieval. It is updated on a real time basis, but no portable devices are available to provide to neighboring services that may respond to a mass casualty incident.</p>

	5 The system has comprehensive capability to display EMS vehicle locations as a result of automatic information retrieval. It is updated on a real time basis; portable devices are available to provide to neighboring services that may respond to a mass casualty incident.
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*Scoring descriptions in parentheses are meant to be examples to assist in arriving at a score. It is understood that few examples will be an exact match of the situation.

EMS Incident Response and Readiness Assessment (EIRRA)

300 Emergency Care System

Benchmark: The emergency care system has adequate availability of well-prepared emergency response teams and medical facilities, including a well-developed specialty care system. The emergency care system is prepared for mass casualty incidents, and able to meet unique communication needs of patients.

301 Medical Facilities

Indicator	Scoring*
301.1 Availability - There is adequate availability of medical facilities in the area being evaluated.	0 Not Known 1 There are no medical facilities in the area, other than outpatient clinic(s). 2 There is a minimal number (or type) of medical facilities available (e.g. Critical Access Hospitals or outpatient clinics comprise a large portion of the facilities). 3 Medical facility coverage is limited (e.g. several hospitals but at a distance, or some facilities understaffed). 4 There is substantial medical facility coverage (e.g. good hospital coverage but sometimes EDs closed due to overcrowding). 5 A comprehensive system of medical facilities is available (e.g. hospitals are well dispersed and ample, no ED overcrowding).

Indicator	Scoring*
301.2 Transport Time – Transport time to medical facilities in the area is satisfactory.	0 Not Known 1 The majority of the medical facilities that would be used are more than 90 minutes from the scene. 2 The majority of the medical facilities that would be used are 60-90 minutes from the scene. 3 The majority of the medical facilities that would be used are 30-60 minutes from the scene. 4 The majority of the medical facilities that would be used are within 30 minutes from the scene. 5 The majority of the medical facilities that would be used are less than 15 minutes from the scene.

Indicator	Scoring*
301.3 MCI Preparedness - Medical facilities have plans	0 Not Known 1 Medical facility personnel do no planning or training for mass

<p>and personnel are well-prepared for mass casualty incidents (they regularly review the plan, exercise and conduct post-incident reviews for MCIs; personnel receive MCI training).</p>	<p>casualty incidents.</p> <ol style="list-style-type: none"> 2 Medical facility personnel complete a minimal amount of training for mass casualty incidents (completed plan but have done no exercising). 3 Medical facility personnel do a limited amount of training for mass casualty incidents (completed plan and exercised within past 3 years, but plan needs updating). 4 Medical facility personnel complete a substantial amount of training for mass casualty incidents (completed plan, exercised, and completed post incident review within past 2 years) 5 Medical facilities complete comprehensive training preparing personnel for mass casualty incidents (plan, exercise, and conduct post incident review on annual basis).
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302 Specialty Care Systems

Indicator	Scoring*
<p>302.1 Specialty Care Systems - A well-developed system of regionally designated hospitals and specialty care centers is available.</p>	<ol style="list-style-type: none"> 0 Not Known 1 There is no specialty care system in the area (hospitals have not received formal designation). 2 There is a minimal specialty care system available (an informal trauma system exists, or there is a single burn center, etc). 3 A limited specialty care system exists (there are a few designated trauma centers but geographic coverage is limited). 4 A substantial number of specialty care centers are available (several designated specialty care systems exist, but not necessarily full coverage of all specialties). 5 A comprehensive specialty care system is available in the area (designated trauma system with ample level 1 and 2 hospitals, burn centers and pediatric trauma centers).

303 Mass Casualty/Disaster Support Teams

Indicator	Scoring*
<p>303.1 MCI Support Teams - Mass casualty/ disaster support teams are available (EMS Strike Teams, State or Regional Medical Assistance Teams, Hospital Go Teams, Incident Management Teams, National Guard).</p>	<ol style="list-style-type: none"> 0 Not Known 1 There are no mass casualty support teams in the area. 2 There is minimal availability of mass casualty support teams (a strike team exists, but little else). 3 There is limited availability of mass casualty support teams (there are a few strike teams and a hospital go team). 4 A substantial system of mass casualty support exists (several mass casualty support teams are available, but more is needed for full coverage). 5 A comprehensive system of mass casualty support is available

	statewide (strike teams, medical assistant teams, hospital go teams, etc).
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304 Alternate (Temporary) Care Facilities

Indicator	Scoring*
<p>304.1 Alternate Care Facilities - There is an established plan for temporary use of alternate care facilities in the event of a mass casualty incident.</p>	<p>0 Not Known 1 There are no alternate care facilities available in the area, or there has been no planning completed. 2 There is a minimal plan for temporary use of alternate care facilities (community center and schools have been informally suggested but planning and exercising not completed). 3 A limited number (or type) of alternate care facilities are available (there are several facilities identified in the state or regional plan but there is limited access in some areas). 4 There is substantial planning completed for use of alternate care facilities (but exercising and /or coverage is lacking in some areas). 5 A comprehensive plan is in place for temporary use of alternate care facilities (facilities are identified and well dispersed, planning is updated and exercises completed regularly).</p>

305 Unique Patient Communication Needs

Indicator	Scoring*
<p>305.1 Patient Communication The ability to meet unique patient communication needs in a mass casualty incident is available (foreign language interpreters, sign language interpreters, medical translator tools).</p>	<p>0 Not Known 1 There is no system for accessing foreign or sign language interpreters. 2 There is minimal access to language interpretation services (some language interpretation service via telephone). 3 There is limited access to language interpretation services (some interpreters on call, but mostly depend on telephone service). 4 There is substantial access to language interpretation services (fairly good access to language interpretation services). 5 There is comprehensive access to language interpretation services (interpretation services readily available for variety of languages).</p>

*Scoring descriptions in parentheses are meant to be examples to assist in arriving at a score. It is understood that few examples will be an exact match of the situation.

EMS Incident Response and Readiness Assessment (EIRRA)

400 PUBLIC AWARENESS & NOTIFICATION

Benchmark: There is an effective public awareness and notification system in place, which includes pre-incident education of the public as well as notification during the incident.

401 Pre-incident – Public Awareness/Education

Indicator	Scoring*
<p>401.1 Mile markers (or other location identification devices) - Mile markers are posted at regular intervals on roadways to assist in identifying incident location.</p>	<p>0 Not Known</p> <p>1 There are no mile markers or other location identification devices on area roadways.</p> <p>2 There are a minimal number of roadways in the area with mile markers or other location identification devices. (Very few roadways have mile markers; many more needed.)</p> <p>3 There are a limited number of roadways in the area with mile markers or other location identification devices. (Several roadways have mile markers, but more needed.)</p> <p>4 A substantial number of roadways in the area have mile markers or other location identification devices.</p> <p>5 There is a comprehensive system in place for marking the majority of the roadways in the area with tenth-of-a-mile mile markers or other location identification devices.</p>

Indicator	Scoring*
<p>401.2 Drivers: Maintain Awareness of Your Location - “What’s your location” public education programs are utilized to remind drivers to maintain location awareness in the event of an emergency (using road signs, mile markers, landmarks, etc.).</p>	<p>0 Not Known</p> <p>1 There is no formal public education campaign for awareness of location.</p> <p>2 There is minimal formal public education for awareness of location (a few billboards or signs in some areas).</p> <p>3 There is limited formal public education for awareness of location (billboards/signs and some public service announcements, but not plentiful or often).</p> <p>4 There is substantial formal public education for awareness of location (billboards/signs and public service announcements in much of the area, but more needed).</p> <p>5 There is a comprehensive formal public education campaign for awareness of location (billboards/signs, public service announcements, other forms of education permeate the area).</p>

Indicator	Scoring*
<p>401.3 9-1-1: The Only Number You Need to Know – Public campaigns on 9-1-1 are undertaken to educate the public to call 9-1-1 in all emergencies.</p>	<p>0 Not Known</p> <p>1 There is no formal public information to educate the public to call 9-1-1 in all emergencies.</p> <p>2 There is minimal formal public information to educate the public to call 9-1-1 in all emergencies (a few billboards/signs in some areas).</p> <p>3 There is limited formal public information to educate the public to call 9-1-1 in all emergencies (billboards/signs and some public service announcements, but not plentiful or often).</p> <p>4 There is substantial formal public information to educate the public to call 9-1-1 in all emergencies (billboards/signs and public service announcements in much of the area, but more needed).</p> <p>5 There is a comprehensive formal public information campaign to educate the public to call 9-1-1 in all emergencies (billboards/signs, public service announcements, other notices cover the area).</p>

Indicator	Scoring*
<p>401.4 Bystander Care - Training on what to do if in or when encountering a crash is made available to the public.</p>	<p>0 Not Known</p> <p>1 There is no formal public training on what to do if in or when encountering a crash.</p> <p>2 There is minimal formal public training on what to do if in or when encountering a crash (a class is available on sporadic basis).</p> <p>3 There is limited formal public training on what to do if in or when encountering a crash (class is available a twice a year)</p> <p>4 There is substantial formal public training on what to do if in or when encountering a crash (training offered regularly, online and in person; probably could be better utilized).</p> <p>5 There is a comprehensive formal instructor led training on what to do if in or when encountering a crash which is available and being utilized across the State. Online training also available.</p>

402 During Incident—Public Notification

Indicator	Scoring*
<p>402.1 Notifications to Transportation Systems - Notification systems or procedures are in place to ensure that transportation systems that use the same route (school buses, transit, rail) are informed in the case</p>	<p>0 Not Known</p> <p>1 There is no formal procedure to notify other transportation systems in the area of the incident.</p> <p>2 There are minimal procedures in place for notifying other transportation systems in the area of the incident (informal, ad-hoc system of calling other known users).</p> <p>3 There are limited procedures for notifying transportation systems that may be affected by the incident (some formal procedures, but</p>

of an incident.	<p>improvement needed).</p> <ol style="list-style-type: none"> 4 There are substantial procedures in place for notifying other transportation systems that may be affected by the incident. (Formal system in place with PSAP; may include electronic notification, but more training/exercising needed.) 5 There is a comprehensive system in place to notify all transportation systems that may be affected by the incident. This includes electronic notification systems with redundancy; personnel are routinely trained and exercised on plan.
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Indicator	Scoring*
<p>402.2 Road Closure Notifications - Road closure notifications are expanded to hospitals on either side of the closure (even if not anticipating patient transport).</p>	<ol style="list-style-type: none"> 0 Not Known 1 There is no formal method for notifying hospitals of road closures. 2 There is a minimal, non-formal procedure for notifying affected hospitals of road closures due to an incident. 3 There are limited procedures for notifying affected hospitals of road closures (procedures need improvement; not tested). 4 Substantial procedures are in place for notifying hospitals in the affected area of road closures. More training and exercising of notification procedures needed. 5 There are comprehensive procedures for early notification of affected hospitals of road closures due to an incident. Procedures have been exercised successfully.

Indicator	Scoring*
<p>402.3 Community Alert Messaging Systems – A community alert system is in place. This would include systems that alert the public by sending voice, text and image via multiple devices -- landline, cell phone, email, message board, siren (e.g. Reverse 911, CodeRED, MyStateUSA, etc.)</p>	<ol style="list-style-type: none"> 0 Not Known 1 There is no community alert messaging system in the area. 2 There is minimal ability to notify the public using a community alert messaging system (e.g., either community sirens <u>or</u> a system allowing subscribers to receive telephone alerts based on geographic area). 3 A limited portion of the public can be notified of the incident via a community alert messaging system (e.g., community sirens <u>and</u> a system allowing subscribers to receive telephone alerts based on geographic area). 4 A substantial portion of the public can be notified of the incident via a community alert messaging system (several types of alerting systems in place). 5 A comprehensive community alert messaging system is available and covers the entire area affected (including community sirens, electronic message boards, voice and text alerting, etc.).

Indicator	Scoring*
<p>402.4 Highway Alerting System - Dynamic Message, EAS and other highway alerting systems, especially on the other side of geopolitical boundaries, are available for use in a mass casualty incident.</p>	<p>0 Not Known</p> <p>1 There is no highway alerting system.</p> <p>2 A minimal number of principle roadways in the area have highway alerting systems in place (fewer than 10% of roadways).</p> <p>3 A limited number of principle roadways in the area have highway alerting systems in place (between 10% and 25%).</p> <p>4 A substantial number of principle roadways in the area have highway alerting systems in place (a majority of the roadways, including some adjacent to but outside the area).</p> <p>5 A comprehensive highway alerting system is in place and regularly used in the area (more than 75% of roadways, including many roads adjacent to but outside the area).</p>

Indicator	Scoring*
<p>402.5 Media Engagement – The media is engaged in alerting and educating the public in a mass casualty incident.</p>	<p>0 Not Known</p> <p>1 There is no media engagement in alerting and educating the public in a mass casualty incident. (There has been no planning for engaging the media.)</p> <p>2 There is minimal media engagement in alerting and educating the public in a mass casualty incident. (There has been some planning for engaging the media in community alerts and education in a MCI.)</p> <p>3 A limited number of media outlets have been engaged in planning for alerting and educating the public in a MCI, but further work is needed.</p> <p>4 A substantial number of media outlets are engaged in planning for community alerts and educating the public in a MCI.</p> <p>5 A comprehensive system is in place for providing the media with key information related to the incident. The media is fully engaged in planning and has a tested system in place for disseminating accurate information to the public.</p>

*Scoring descriptions in parentheses are meant to be examples to assist in arriving at a score. It is understood that few examples will be an exact match of the situation.

EMS Incident Response and Readiness Assessment (EIRRA)

500 EVALUATION

Benchmark: There is an effective evaluation system providing for a thorough review of the performance of emergency responders at mass casualty incidents. The system includes robust and reliable electronic information systems which capture valuable patient and provider data. The data from the systems can be accessed and analyzed, ideally through electronic linkages, to determine the need for changes to improve response in the future. After Action and clinical patient record reviews are conducted following a Multiple Casualty Incident. Performance improvement plans are created, implemented and tested.

501 Information Systems

Indicator	Scoring*
<p>501.1 Prehospital Medical Records – Prehospital medical records (EMS run reports or patient care records) are collected electronically in a NEMSIS compliant system and are uploaded to State EMS Office.</p>	<p>0 Not Known</p> <p>1 There is no electronic prehospital patient care record system.</p> <p>2 There is a minimal electronic prehospital patient care record system. (Most records are collected by paper; some entered into database.)</p> <p>3 There is a limited electronic prehospital patient care record system. (Some records are collected by electronic system; some collected on paper and then entered into database.)</p> <p>4 There is a substantial patient care record system. (Most records are collected electronically starting at point-of-care; most are using NEMSIS compliant system; most are uploaded to state EMS office.)</p> <p>5 There is a comprehensive patient care record system. (Records are collected electronically, by NEMSIS-compliant system, starting at point-of-care, and are uploaded to state EMS office.)</p>

Indicator	Scoring*
<p>501.2 Patient Tracking Records – Electronic record exists with unique identifier and progressive tracking for each patient.</p>	<p>0 Not Known</p> <p>1 There is no electronic patient tracking system.</p> <p>2 There is a minimal electronic patient tracking system (tear-off triage tags; logged into electronic tracking system).</p> <p>3 There is a limited electronic patient tracking system (limited use of use of electronic tracking system; more training and exercising needed before fully functional).</p> <p>4 There is a substantial electronic patient tracking system. (Electronic tracking at point of care, to include uninjured victims with logging system and linkage to hospital disposition is in place).</p> <p>5 There is a comprehensive electronic patient tracking system. (Electronic tracking at point of care, including barcode scanning and/or photo capture with logging system; linked to hospitals to track patient care through discharge; system has been exercised.)</p>

Indicator	Scoring*
<p>501.3 PSAP/Dispatch Data and Logging Records – Dispatch records are provided from the PSAP for analysis of the incident.</p>	<p>0 Not Known 1 There are no dispatch records available. 2 There are minimal dispatch records available. (PSAP/Dispatch records are in paper form, e.g. cards, or manually entered into a data table. No voice recordings available.) 3 There are limited dispatch records available. (PSAP/Dispatch records are electronic/digital. No voice recordings available.) 4 There are substantial dispatch records available. (PSAP/Dispatch records are electronic/digital. Voice recordings available.) 5 There are comprehensive dispatch records available. (PSAP/Dispatch records are electronic/digital. Voice recordings are integrated, locations are geo-stamped and mapped.)</p>

502. Post Incident Review

Indicator	Scoring*
<p>502.1 After Action Review – There is a process in place to conduct a formal After Action Review of incidents.</p>	<p>0 Not Known 1 There is no process in place for After Action Reviews. 2 There is a minimal process in place to conduct After Action Reviews. (Process is informal and has no established format.) 3 There is a limited process in place to conduct After Action Reviews. (Process is informal and has an established format.) 4 There is a substantial process in place to conduct After Action Reviews. (Process is formalized, has an established format and includes multiple disciplines.) 5 There is a comprehensive process in place to conduct After Action Reviews. (Process is formalized, has an established format, includes multiple disciplines and has access to all necessary records.)</p>

Indicator	Scoring*
<p>502.2 Clinical Performance Improvement Process - There is a process in place to conduct a formal clinical review of care provided to MCI patients by EMS.</p>	<p>0 Not Known 1 There is no process in place for clinical reviews of patient care. 2 There is minimal process in place to conduct clinical reviews. (Medical director/QI reviews of EMS run reports.) 3 There is a limited process in place to conduct clinical reviews. (Medical director/QI reviews EMS run reports and ED discharge records.) 4 There is a substantial process in place to conduct clinical reviews. (Medical director/QI reviews EMS run reports, ED discharge records)</p>

	<p>and admission/hospital discharge records. Feedback is given to providers.)</p> <p>5 There is a comprehensive process in place to conduct clinical reviews. (Medical director/QI reviews EMS run reports, ED discharge records and admission/hospital discharge records, medical examiner records and tertiary care/specialty/rehab outcome records. Feedback is shared with providers.)</p>
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Indicator	Scoring*
<p>502.3 System Improvement Plan - There is a formal process in place to develop system improvement plans based on the After Action and Clinical Performance reviews.</p>	<p>0 Not Known</p> <p>1 There is no process in place to develop improvement plans based on after action and clinical reviews.</p> <p>2 There is a minimal process in place to develop improvement plans based on after action and clinical reviews. (Informal improvement plans identified.)</p> <p>3 There is a limited process in place to develop improvement plans based on after action and clinical reviews. (Formal improvement plans developed, plans are minimally or not shared with crews/implemented.)</p> <p>4 There is a substantial process in place to develop improvement plans based on after action and clinical reviews. (Formal improvement plans developed, plans implemented.)</p> <p>5 There is a comprehensive process in place to develop improvement plans based on after action and clinical reviews. (Formal improvement plans developed, plans implemented and tested and integrated with other local resources.)</p>

*Scoring descriptions in parentheses are meant to be examples to assist in arriving at a score. It is understood that few examples will be an exact match of the situation.

EMS Incident Response and Readiness Assessment (EIRRA)

600 MASS CASUALTY PLANNING

Benchmark: Mass casualty planning has been thorough and is well documented. Planning addresses incident/unified command, a uniform triage system, transportation/destination determination planning, special risks/hazard vulnerability, multiple fatality management, inventory, resource management (sustainability), rehabilitation services, and exercises.

601 Incident/Unified Command

Indicator	Scoring*
<p>601.1 Leadership Participation – Leadership from area-wide medical facilities, emergency and public health agencies participate in MCI/disaster planning councils.</p>	<p>0 Not Known 1 There is no joint planning council involving leadership of the various agencies. 2 There is minimal planning involving leadership of the various organizations. (Some joint planning but leadership rarely participates.) 3 A limited amount of planning by leadership of the key agencies is conducted. (Agency leadership participates in some of the planning.) 4 A substantial amount of planning is done with the majority of key agency leaders participating. 5 A comprehensive planning process involving leadership of the key agencies is ongoing. There is a formal planning council comprised of agency leadership that meets regularly.</p>

Indicator	Scoring*
<p>601.2 Multi-jurisdictional Agreements – Joint powers or other formal agreements delineate “who’s in charge, and who participates” in unified command, and address scope, jurisdiction, and authority.</p>	<p>0 Not Known 1 There are no multi-jurisdictional agreements in the area for MCIs. 2 The multi-jurisdictional agreements for MCIs are minimal. (Two agencies have such agreements; and/or agreements address few parameters.) 3 The multi-jurisdictional agreements for MCIs are limited. (Three agencies have entered into such agreements; and/or more delineation of roles needed.) 4 There are substantial multi-jurisdictional agreements for MCIs in place. (Most agencies have entered into agreements; roles are mostly delineated.) 5 There are comprehensive multi-jurisdictional agreements covering all area emergency service agencies and clearly delineating each agency’s role in a MCI.</p>

Indicator	Scoring*
<p>601.3 Rural Issues -Plans acknowledge rural limitations of human resource shortages and outline alternate approaches to “textbook” leadership assignments.</p>	<p>0 Not Known 1 The plans do not address rural limitations. 2 The plans minimally address rural limitations. (Plans acknowledge rural limitations but need to provide more alternatives.) 3 The plans address rural limitations on a limited basis. (Some suggestions for human resource shortages and alternate leadership assignments are provided.) 4 The plans substantially address rural limitations. (Most human resource shortages and alternate leadership assignments are addressed.) 5 The plans comprehensively address rural limitations. (Includes options for human resource shortages and leadership assignments.)</p>

Indicator	Scoring*
<p>601.4 Incident Management Team Integration - Regional or state level incident management teams (IMTs) are available and integrated into local command plans and practice.</p>	<p>0 Not Known 1 There are no Incident Management Teams included in mass casualty planning. 2 There is minimal planning for integrating Incident Management Teams into local plans and practice. (Plans provide contact information for teams, but reflect no planning for integrating them into local plans/practice.) 3 There is limited planning for integrating Incident Management Teams into local plans and practice. (Plans have been made for assigning locals to each team for better integration.) 4 There is substantial planning for integrating Incident Management Teams into local plans and practice. Further work is needed for optimum performance. 5 Comprehensive planning has been done to utilize Incident Management Teams at a MCI. It has been tested successfully.</p>

602 Uniform Triage System

Indicator	Scoring*
<p>602.1 Uniform Triage System/Tags –A uniform triage system, which includes on-patient documentation (tag) and portable patient care record issues, has been addressed in the plan; it</p>	<p>0 Not Known 1 A uniform triage system is not addressed in the plan. 2 A uniform triage system is identified in the plan, but it is minimal in that it does not address patient tags and portable patient record issues. Mutual aid partners are not addressed. 3 A limited uniform triage system, including a system for patient tags, is identified in the plan. It does not address portable patient care</p>

includes mutual aid partners.	<p>record issues. Mutual aid partners are not included/addressed.</p> <p>4 A substantial uniform triage system has been identified, which addresses patient tags and mostly resolves portable patient record issues. Mutual aid partners are included in the plan.</p> <p>5 A comprehensive uniform triage system has been identified, which fully addresses patient tags and portable patient care record issues. Mutual aid partners are included in the plan.</p>
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603 Transportation and Destination Determination Planning

Indicator	Scoring*
<p>603.1 Transportation and Destination Determination - Prehospital, hospital, and trauma system (if any) have all been involved in transportation and destination determination planning.</p>	<p>0 Not Known</p> <p>1 There has been no transportation and destination determination planning by prehospital, hospital and trauma system representatives.</p> <p>2 There has been minimal transportation and destination determination planning by prehospital, hospital and trauma system representatives. (Some planning meetings completed but few decisions made.)</p> <p>3 There has been limited transportation and destination determination planning by prehospital, hospital and trauma system representatives. (Initial planning completed; further work needed.)</p> <p>4 There has been substantial transportation and destination determination planning by prehospital, hospital and the trauma system representatives. Most, but not all decisions are delineated in the plan.</p> <p>5 There has been comprehensive transportation and destination determination planning by prehospital, hospital and the trauma system representatives. Decisions are well-documented in the plan.</p>

604 Special Risks/Hazard Vulnerability

Indicator	Scoring*
<p>604.1 Special Risks/Hazard Vulnerability – Special risks/hazard vulnerability (e.g. routes with heavy truck traffic, hazardous materials, implications for road closure) are addressed in MCI planning.</p>	<p>0 Not Known</p> <p>1 There has been no planning for special risks/hazard vulnerability.</p> <p>2 There has been minimal planning for special risks/hazard vulnerability. (A few provisions have been included for hazardous materials.)</p> <p>3 There has been limited planning for special risks/hazard vulnerability. (Some planning for hazardous materials and road closures has been done.)</p> <p>4 There has been substantial planning for special risks/hazard vulnerability. (Much planning for hazard vulnerability has been</p>

	<p>completed, but additional areas need addressing.)</p> <p>5 There has been comprehensive planning for special risks/hazard vulnerability. (Plans address hazard vulnerability.)</p>
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605 Multiple Fatality Management

Indicator	Scoring*
<p>605.1 Multiple Fatality Management – Management of multiple fatalities has been addressed in the plan.</p>	<p>0 Not Known</p> <p>1 There has been no planning for managing multiple fatalities.</p> <p>2 There has been minimal planning for managing multiple fatalities. (It has been discussed, but no formal plans in place.)</p> <p>3 A limited amount of planning for managing multiple fatalities has been done. (A few resources have been identified, but more planning needed.)</p> <p>4 A substantial amount of planning for mass fatality management has been done. (Resources have been identified, and some agreements in place.)</p> <p>5 A comprehensive plan for managing multiple fatalities is in place. Resources have been identified and agreements exist between agencies and suppliers.</p>

606 Inventory Resource Management (Sustainability)

Indicator	Scoring*
<p>606.1 Inventory Resource Management (Sustainability) – Planning includes a system to sustain inventory of renewable resources (e.g. replacing expired/used medical supplies, equipment) in order to maintain the readiness of MCI supply caches. (Replacement may come from rotation of supplies in caches or purchase of new supplies with designated funding sources.)</p>	<p>0 Not Known</p> <p>1 There is no plan in place to replace supplies or equipment.</p> <p>2 There is minimal planning to replace supplies and equipment. (Limited rotation plan in place to avoid expiring medical supplies, but no additional plans to replace supplies/equipment used at an incident.)</p> <p>3 A limited plan is in place to replace some supplies and equipment. (Plans for restocking caches in place, but funding limited. No one assigned to monitor.)</p> <p>4 A substantial plan is in place to replace supplies and equipment. (Plans for rotation/restocking with some funding available. Has not been tested.)</p> <p>5 A comprehensive plan is in place to replace all expiring supplies and to replace any supplies or equipment used at an incident. Funding available. Person(s) assigned to monitor replacement plan for MCI supply caches.</p>

607 Rehabilitation Services

Indicator	Scoring*
<p>607.1 Rehab Services - Planning addresses rehabilitation support services (e.g. food, water) to support responders and patients in a longer term incident.</p>	<p>0 Not Known 1 The MCI plan does not address rehab support services. 2 The MCI plan minimally addresses rehab support services. (Some local resources are identified as possibilities but no definitive plans made.) 3 The MCI plan addresses rehab support services in a limited manner. (Some planning has been done, but more work needed.) 4 A substantial amount of planning for rehab support services is reflected in the MCI plan. 5 A comprehensive plan is in place to obtain rehab support. (Local and outside sources for rehab support have been identified, and agreements exist between agencies and suppliers.)</p>

608 Exercises

Indicator	Scoring*
<p>608.1 Exercises – MCI planning includes regularly scheduled exercises. Unified command and regional/state incident management teams (IMTs) are integral component of exercises.</p>	<p>0 Not Known 1 There is no planning for disaster exercises. 2 There is minimal planning for disaster exercises. (MCI exercises have been planned, but not formerly conducted.) 3 There is limited planning for disaster exercises. (Some drills have been planned/conducted, but more exercises needed.) 4 There is substantial planning for disaster exercises. This includes drills and tabletops, with unified command and regional/state IMTs; full scale exercises have not been conducted. 5 There is comprehensive planning for disaster exercises. This includes regularly scheduled exercises ranging from drills and table tops (more frequent) to functional and full-scale (less frequent). Unified command and regional/state IMTs are an integral component of the exercises.</p>

609 Highway Mass Casualty Playbook

Indicator	Scoring*
<p>609.1 Comprehensive Area Disaster Plan – The comprehensive area disaster plan (developed and managed by the county or regional emergency manager) specifically and adequately</p>	<p>0 Not Known 1 The comprehensive area disaster plan does not address highway MCIs. 2 The comprehensive area disaster plan minimally addresses highway MCIs (contains a few resource lists, but little else). 3 The comprehensive area disaster plan addresses highway MCIs on a limited basis. (Provides additional resource lists, e.g. towing,</p>

addresses highway MCIs.	<p>recovery, extrication, but more information needed specific to highway incidents).</p> <p>4 The comprehensive area disaster plan substantially addresses highway MCIs. (Provides substantial information for responding to large scale highway incidents, but needs further work, e.g., exercises, etc).</p> <p>5 The comprehensive area disaster plan comprehensively addresses highway MCIs. (Contains specific plan for highway MCIs with a complete listing of resources. Agreements are in place with variety of vendors possibly needed. Highway MCI exercises are included.)</p>
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Indicator	Scoring*
<p>609.2 Highway Mass Casualty Multi-agency Plan – Multi-agency plan includes all agencies likely to respond to a highway MCI (beyond EMS/Fire/law enforcement). It addresses responder safety, quick clearance and interoperable communications.</p>	<p>0 Not Known</p> <p>1 There is no highway mass casualty multi-agency plan.</p> <p>2 There is a minimal highway mass casualty multi-agency plan (limited to EMS, fire, law enforcement only).</p> <p>3 There is a limited highway mass casualty multi-agency plan (EMS, fire, law enforcement, and towing/recovery included; does not address attention to responder safety, quick clearance at scene.)</p> <p>4 There is a substantial highway mass casualty-specific multi-agency plan (EMS, fire, law enforcement, towing/recovery, hospitals included, with some attention to responder safety and clearance).</p> <p>5 There is a comprehensive highway mass casualty multi-agency plan. The plan includes multiple partners (towing, recovery, hospitals, media, etc.) It addresses responder safety, quick clearance and interoperable communications.</p>

Indicator	Scoring*
<p>609.3 EMS Agency-Specific Plan – There is a highway MCI plan specifically developed for the EMS agency(ies).</p>	<p>0 Not Known</p> <p>1 There is no highway MCI plan specifically for EMS.</p> <p>2 There is a minimal highway MCI plan specifically for EMS (a brief section on EMS included in a multi-agency plan).</p> <p>3 There is a limited highway MCI plan specifically for EMS (a general plan for EMS with few specifics).</p> <p>4 There is a substantial highway MCI plan specifically for EMS (a detailed plan with some exercises).</p> <p>5 There is a comprehensive highway MCI plan specifically for EMS. The plan addresses all aspects from the initial dispatch to after action review; it addresses EMS’s interaction with other partners at the scene; it includes regularly scheduled training and exercises.</p>

Indicator	Scoring*
<p>609.4 SOP/SOGs - Standard operating procedures and/or guidelines have been developed and are appropriate for highway mass casualty incidents.</p>	<p>0 Not Known</p> <p>1 There are no standard operating procedures/guidelines appropriate for highway MCIs.</p> <p>2 There are minimal standard operating procedures/guidelines appropriate for highway MCIs (a few basic SOPs).</p> <p>3 There are limited standard operating procedures/guidelines appropriate for highway MCIs (SOPs developed for triage/trauma, etc).</p> <p>4 There are substantial standard operating procedures/guidelines for highway MCIs. (There are extensive SOPs; many are useful for highway MCIs.)</p> <p>5 There are comprehensive standard operating procedures for highway MCIs. (There are extensive SOPs; most are useful for highway MCIs, and include traffic incident management SOPs.)</p>

Indicator	Scoring*
<p>609.5 Checklists/Guides - Job-specific/task-specific checklists, quick reference documents are available and useful for highway mass casualty incidents.</p>	<p>0 Not Known</p> <p>1 There are no task-specific checklists useful for highway MCIs.</p> <p>2 There are minimal task-specific checklists useful for highway MCIs (e.g. quick reference cards for HAZMAT, but little else).</p> <p>3 There are limited task-specific checklists useful for highway MCIs (e.g. quick reference guides for HAZMAT, triage, but they are not available on all vehicles).</p> <p>4 There are substantial task-specific checklists useful for highway MCIs. (There are a number of useful quick reference guides which are available on most vehicles.)</p> <p>5 There are comprehensive task-specific checklists useful for highway MCIs. (These include multiple quick reference guides for many scenarios and they are available to all responders.)</p>

*Scoring descriptions in parentheses are meant to be examples to assist in arriving at a score. It is understood that few examples will be an exact match of the situation.

EMS Incident Response and Readiness Assessment (EIRRA)

700 GOVERNANCE

Benchmark: In the case of mass casualty incident response, the roles and lines of authority are clearly defined among governing bodies, including local, tribal, state, federal and international. Funding mechanisms are available for preparation and post-incident reimbursement. Effective and well-understood procedures for communicating with elected officials are in place.

701 Regulatory Roles

Indicator	Scoring*
<p>701.1 Regulatory Roles - The roles and lines of authority among governing bodies (e.g., State EMS office, state and local emergency management, tribal government, highway patrol, etc.) are well-defined and are understood by emergency responders in mass casualty incidents.</p>	<p>0 Not Known</p> <p>1 There are no well-defined roles and lines of authority among the various governing bodies in a mass casualty incident.</p> <p>2 The roles and lines of authority among governing bodies are minimally defined and understood in mass casualties. (Roles may be predefined, but authority is not established until incident occurs)</p> <p>3 The roles and lines of authority among governing bodies in mass casualty incidents are limited in definition. (Roles and authority are predefined, but are not executed accordingly in an incident.)</p> <p>4 There is substantial definition and understanding of the roles and lines of authority of the governing bodies in mass casualty incidents. (Roles and authority are predefined and most responders understand the distinctions.)</p> <p>5 There is comprehensive definition and understanding of the roles and lines of authority of the governing bodies in mass casualty incidents. (Roles and authority are predefined and well understood by responders to an incident.)</p>

702 Funding

Indicator	Scoring*
<p>702.1 Pre-incident Funding (Preparedness) - Funding is available for mass casualty response planning, exercising and other costs of preparedness.</p>	<p>0 Not Known</p> <p>1 There is no funding available for mass casualty planning, exercising or preparedness.</p> <p>2 There is minimal funding available for mass casualty planning, exercising and preparedness. (A very small amount of funding is available for planning, and/or funding is difficult to access, etc.)</p> <p>3 There is limited funding available for mass casualty planning, exercising and preparedness. (There is some funding assistance but the majority of costs are not covered.)</p> <p>4 Substantial funding is available for mass casualty planning, exercising and preparedness. (Funds are available to cover much, but not all, of the costs.)</p>

	<p>5 Comprehensive funding is available for mass casualty planning, exercising and preparedness. (Virtually all costs of planning, exercising and preparedness are covered.)</p>
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Indicator	Scoring*
<p>702.2 Post Incident Funding (Response and Recovery) - Funding is available to reimburse for mass casualty response costs.</p>	<p>0 Not Known</p> <p>1 There is no funding reimbursement available for mass casualty response and recovery.</p> <p>2 There is minimal funding available for mass casualty response and recovery. (A small amount of funding is available for response and recovery, and/or funding is difficult to access, etc.)</p> <p>3 There is limited funding available for mass casualty response and recovery. (There is some funding assistance but the majority of costs are not typically covered.)</p> <p>4 Substantial funding is available for mass casualty response and recovery. (Funds are available to cover much, but not all costs.)</p> <p>5 Comprehensive funding is available for mass casualty response and recovery. (Virtually all costs of response and recovery are typically reimbursed.)</p>

703 Intergovernmental Considerations

Indicator	Scoring*
<p>703.1 Intergovernmental Considerations - There are well defined plans and procedures for mass casualty incidents that have intergovernmental implications (e.g., across tribal, state or national borders). Joint planning has occurred with other government(s).</p>	<p>0 Not Known</p> <p>1 There are no plans and procedures for mass casualty incidents that have intergovernmental implications.</p> <p>2 There are minimal plans and procedures for mass casualty incidents that have intergovernmental implications. (Only basic guidelines have been developed and are not well known among emergency responders. No agreements are in place with other governments.)</p> <p>3 There are limited plans and procedures for mass casualty incidents that have intergovernmental implications. (Guidelines have been developed but have not been exercised. No agreements are in place with other governments.)</p> <p>4 There are substantial plans and procedures for mass casualty incidents that have intergovernmental implications. (Guidelines have been developed and exercised but need updating. Some agreements are in place with other governments.)</p> <p>5 There are comprehensive plans and procedures for mass casualty incidents that have intergovernmental implications. A comprehensive set of guidelines have been developed in cooperation with other governments and are well known to responders. Agreements are in place. Joint exercises are conducted.</p>

704 Elected Officials

Indicator	Scoring*
<p>704.1 Elected Officials - Written procedures are in place for communicating with elected officials in a mass casualty incident.</p>	<p>0 Not Known</p> <p>1 There are no procedures in place for communicating with elected officials in a mass casualty incident.</p> <p>2 There are minimal procedures for communicating with elected officials during a mass casualty incident. (Only basic guidelines have been developed and are not well known among emergency responders.)</p> <p>3 There are limited procedures for communicating with elected officials in a mass casualty incident. (Guidelines have been developed but have not been exercised.)</p> <p>4 There are substantial procedures for communicating with elected officials in a mass casualty incident. (Guidelines have been developed and exercised but need updating.)</p> <p>5 There are comprehensive procedures for communicating with elected officials in a mass casualty incident. (A comprehensive set of guidelines have been developed and are well known to responders.)</p>

*Scoring descriptions in parentheses are meant to be examples to assist in arriving at a score. It is understood that few examples will be an exact match of the situation.

EMS Incident Response and Readiness Assessment (EIRRA)

800 ADDENDUM for Regional and State Level Assessment

(Not applicable to local assessments.)

Benchmark: Regional and state level assessments can be conducted effectively to evaluate response to highway mass casualty incidents. Patient-related data is recorded electronically and can be linked from the initial incident (highway crash) through the final patient contact (discharge or death certificate records). Evaluation results are reviewed, recorded, and sometimes published, in order to improve overall system response.

801 Evaluation/Information Systems

Indicator	Scoring*
<p>801.1 Highway Maintenance – Highway maintenance records are accessible electronically and can be linked to crash records.</p>	<p>0 Not Known 1 There is no electronic system of highway maintenance records. 2 There is a minimal electronic system of highway maintenance records, but it cannot be linked to crash records. 3 There is a limited electronic system of highway maintenance records which tracks most maintenance on state and local roadways, but cannot be linked to crash records. 4 There is a substantial electronic system of highway maintenance records which tracks maintenance on state and local roadways; the data can be linked to traffic crash records for evaluation purposes. 5 There is a comprehensive electronic system of highway maintenance records which tracks maintenance on state and local roadways. It is linked to the state’s crash records system and generates reports examining relationships between maintenance and crashes.</p>

Indicator	Scoring*
<p>801.2 Law Enforcement (Crash) Records – Law enforcement records (e.g. traffic crash reports) are available electronically, are accessible to evaluators and can be linked to patient records.</p>	<p>0 Not Known 1 Law enforcement records (crash reports) are not available electronically. 2 Law enforcement records (crash reports) system is minimally available electronically (minimal info is available electronically; not readily accessible to evaluators). 3 Law enforcement records (crash reports) are available electronically on a limited basis (some crash data available electronically to evaluators). 4 The law enforcement records (crash reports) system is a substantial electronic system, somewhat available to evaluators, and can be linked to relevant patient records on a limited basis. 5 The law enforcement records (crash reports) system is a</p>

	comprehensive electronic records system available to evaluators and can be linked relevant patient records.
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Indicator	Scoring*
801.3 911/PSAP Data – Computer-aided dispatch data and other PSAP data are available electronically and can be linked to other relevant data sets.	<p>0 Not Known</p> <p>1 There are no dispatch data available.</p> <p>2 There are minimal dispatch data available. (PSAP/Dispatch records are in paper form, e.g. cards, or manually entered into a data table.)</p> <p>3 There are limited dispatch records available. (PSAP/Dispatch records are electronic/digital. No voice recordings available. Data cannot be linked to other data sets/registries.)</p> <p>4 There are substantial dispatch records available. (PSAP/Dispatch records are electronic/digital. Data can be linked to some data sets. There is a time limit on how long data is retained.)</p> <p>5 There are comprehensive dispatch records available. (PSAP/Dispatch records are electronic/digital. Voice recordings are integrated, locations are geo-stamped and mapped. Data is retained for an indefinite period of time. Data can be linked to multiple data registries.)</p>

Indicator	Scoring*
801.4 State EMS Patient Care Report Data – Prehospital medical records (EMS run reports or patient care records) are collected electronically in a NEMSIS compliant system, are uploaded to the State EMS Office and can be linked to other patient records.	<p>0 Not Known</p> <p>1 The state EMS office has no electronic prehospital patient care data system.</p> <p>2 The state EMS office has a minimal electronic prehospital patient care data system. (Most EMS records are collected by paper; some entered into database; they are not uploaded to state EMS office.)</p> <p>3 The state EMS office has a limited electronic prehospital patient care data system. (Some records are collected by electronic system which is not NEMSIS compliant; few uploaded to state EMS office; no linkages with other patient records.)</p> <p>4 The state EMS office has a substantial patient care data system. (Most records are collected electronically in a NEMSIS compliant system and uploaded to state EMS office; some linkages established with other patient records.)</p> <p>5 The state EMS office has a comprehensive patient care data system. (Records are collected electronically by NEMSIS-compliant system; are uploaded to state EMS office, and are linkable to multiple agency stakeholders.)</p>

Indicator	Scoring*
<p>801.5 Hospital/ED discharge databases – The hospital and /or emergency department discharge records are available electronically, are accessible to evaluators and can be linked to other relevant patient records.</p>	<p>0 Not Known 1 There is no hospital / ED discharge electronic record system. 2 There is a minimal hospital / ED discharge electronic record system, which is not linkable to other relevant records. 3 There is a limited hospital / ED discharge electronic record system which is linkable to other relevant records on a limited basis. 4 There is a substantial hospital / ED discharge electronic record system, which can be partially linked to other relevant records. 5 There is a comprehensive hospital / ED discharge electronic record system, which can be linked to other relevant records for incident evaluation.</p>

Indicator	Scoring*
<p>801.6 State Trauma Registry – There is a state trauma registry with electronic injury data that can be linked to other relevant databases for evaluation of patient outcomes following a MCI.</p>	<p>0 Not Known 1 There is no state trauma registry. 2 There is a minimal state trauma registry (few records and not linkable to other relevant records). 3 There is a limited state trauma registry (some data available, but not linkable to other relevant records). 4 There is a substantial state trauma registry, which can be linked to some other relevant patient records for evaluation purposes. 5 There is a comprehensive statewide trauma registry, which is linkable to relevant patient records and accessible to evaluate overall system response.</p>

Indicator	Scoring*
<p>801.7 State TBI Registry – There is a state traumatic brain injury (TBI) registry with electronic data that can be linked to other relevant databases for evaluation of patient outcomes following a MCI.</p>	<p>0 Not Known 1 There is no state TBI registry. 2 There is a minimal state TBI registry (few records and not linkable to other relevant records). 3 There is a limited state TBI registry (some data available, but not linkable to other relevant records). 4 There is a substantial state TBI registry, which can be linked to some other relevant patient records for evaluation purposes. 5 There is a comprehensive statewide TBI registry, which is linkable to relevant patient records and accessible to evaluate overall system response.</p>

Indicator	Scoring*
<p>801.8 State Burn Registry – There is a state burn registry with electronic data that can be linked to other relevant databases for evaluation of patient outcomes following a MCI.</p>	<p>0 Not Known 1 There is no state burn registry. 2 There is a minimal state burn registry (few records and not linkable to other relevant records). 3 There is a limited state burn registry (some data available, but not linkable to other relevant records). 4 There is a substantial state burn registry, which can be linked to some other relevant patient records for evaluation purposes. 5 There is a comprehensive statewide burn registry, which is linkable to relevant patient records and accessible to evaluate overall system response.</p>

Indicator	Scoring*
<p>801.09 State Clinical Rehabilitation Data – Clinical rehabilitation data are available electronically, are accessible to evaluators and can be linked to other relevant patient records.</p>	<p>0 Not Known 1 There is no state clinical rehabilitation record system. 2 There is a minimal state clinical rehabilitation electronic record system which is not linkable to other relevant patient records. 3 There is a limited state clinical rehabilitation electronic record system which is linkable to other relevant patient records on a limited basis. 4 There is a substantial state clinical rehabilitation electronic record system, which can be partially linked to other relevant records. 5 There is a comprehensive state clinical rehabilitation electronic record system, which can be linked to other relevant records for evaluation.</p>

Indicator	Scoring*
<p>801.10 Coroner/Medical Examiner Records – Coroner records are available electronically, are accessible to evaluators and can be linked to other relevant patient records.</p>	<p>0 Not Known 1 There is no coroner electronic record system. 2 There is a minimal coroner electronic record system which is not linkable to other relevant patient records. 3 There is a limited coroner electronic record system which is linkable to other relevant patient records on a limited basis. 4 There is a substantial coroner electronic record system, which can be partially linked to other relevant records. 5 There is a comprehensive coroner electronic record system, which can be linked to other relevant records for evaluation.</p>

Indicator	Scoring*
<p>801.11 State Vital Statistics /Death Certificates – Death certificate data is recorded electronically and can be linked to relevant records for evaluation of system performance.</p>	<p>0 Not Known</p> <p>1 There is no electronic death record database.</p> <p>2 There is a minimal death certificate database, which is not linkable to patient-related records.</p> <p>3 There is a limited death certificate database, which can be linked to patient-related records on a limited basis.</p> <p>4 There is a substantial death certificate database, which can be linked to some, but not all, patient-related records..</p> <p>5 There is a comprehensive state vital statistics database which allows death records to be linked to relevant patient records for evaluation of patient outcomes/system performance.</p>

Indicator	Scoring*
<p>801.12 Child Mortality Review Data – Data from child mortality reviews is recorded electronically and can be linked to relevant records for evaluation of system performance.</p>	<p>0 Not Known</p> <p>1 There is no child mortality review database.</p> <p>2 There is a minimal child mortality review database, which is not linkable to patient-related records.</p> <p>3 There is a limited child mortality review database, which can be linked to patient-related records on a limited basis.</p> <p>4 There is a substantial child mortality review database, which can be linked to some, but not all, patient-related records.</p> <p>5 There is a comprehensive state vital statistics database which allows death records to be linked to relevant patient records for evaluation of patient outcomes/system performance.</p>

802 Evaluation-Post Incident

Indicator	Scoring*
<p>802.1 Patient Pathways from First Receiving Facility Forward – There is the ability to track patient records from incident to final medical destination.</p>	<p>0 Not Known</p> <p>1 There is no ability to track patient records from incident to final medical destination.</p> <p>2 There is minimal ability to track patient records from incident to final medical destination (primarily non-electronic tracking).</p> <p>3 There is limited ability to track patient records from incident to final medical destination (a few of the patient records can be linked and tracked).</p> <p>4 There is substantial ability to track patient records from incident to final medical destination. (Most of the patient records are captured electronically and can be linked.)</p> <p>5 There is a comprehensive system for tracking patient records from</p>

	incident to final medical destination. (All patient records beginning with the crash report through final patient disposition are electronically linked in one seamless system. Records are available for an extended period of time to allow for evaluation well after the incident.)
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Indicator	Scoring*
<p>802.2 Regional/Area-Wide Review (based on incident but also focused on policy) – Regional or Area-wide reviews are conducted to examine incident response and consider policy changes to improve overall system performance.</p>	<p>0 Not Known</p> <p>1 There is no regional or area-wide review conducted following an incident.</p> <p>2 There is minimal regional or area-wide review conducted following an incident. (Some officials meet to discuss response, but no formal action taken.)</p> <p>3 There is limited regional or area-wide review conducted following an incident. (Some officials meet to review response; some action taken to improve system performance.)</p> <p>4 There is substantial regional or area-wide review conducted following an incident. (Series of meetings are conducted to review incident response and changes are recommended/made to response plans.)</p> <p>5 There is comprehensive regional or area-wide review conducted following an incident. (Series of meetings are conducted to review incident response and changes are recommended/made to response plans. Funding is committed for improvements.)</p>

Indicator	Scoring*
<p>802.3 State Level Review – There is state level review and analysis of system performance in response to multi casualty incidents.</p>	<p>0 Not Known</p> <p>1 There is no state level review of response to a MCI.</p> <p>2 There is minimal state level review of response to a MCI. (Some state officials meet to discuss response, but no action taken.)</p> <p>3 There is limited state level review of response to a MCI. (State officials meet to review response; some action taken to improve system performance.)</p> <p>4 There is substantial state level review of response to a MCI. (State officials hold several meetings to review incident response and changes are recommended/made to response plans. No funding is committed for needed changes.)</p> <p>5 There is a comprehensive state level review of response to a MCI. (State officials hold a series of meetings to review incident response and recommend/make changes to response plans. Funding is committed for improvements.)</p>

Indicator	Scoring*
<p>802.4 Intergovernmental Review (as applicable) – There is a system in place for intergovernmental review of MCIs that cross jurisdictional boundaries. It includes a system for record linkages.</p>	<p>0 Not Known</p> <p>1 There is no system in place for intergovernmental review of MCIs that cross jurisdictional boundaries.</p> <p>2 There is a minimal system in place for intergovernmental review of MCIs that cross jurisdictional boundaries. (Informal meetings held, but no system for adopting changes due to different laws and/or inflexible partners.)</p> <p>3 There is a limited system in place for intergovernmental review of MCIs that cross jurisdictional boundaries. (Informal meetings held and steps taken to improve coordination across state lines.)</p> <p>4 There is a substantial system in place for intergovernmental review of MCIs that cross jurisdictional boundaries. (Multiple meetings are conducted to review MCI response and identify opportunities for improvement. Some problems remain linking records across boundaries.)</p> <p>5 There is a comprehensive system in place for intergovernmental review of MCIs that cross jurisdictional boundaries. (Multiple meetings are conducted to review MCI response and identify opportunities for improvement. Records are linked across jurisdictional boundaries allowing the tracking of patients from initial incident to final outcome.)</p>

Indicator	Scoring*
<p>802.5 Publication of Reports, Findings and Improvement Opportunities – (NTSB, NHTSA crash investigations, special investigations, etc.) – Investigation reports from highway MCIs are distributed and utilized by emergency responders in order to identify improvement opportunities.</p>	<p>0 Not Known</p> <p>1 There is no practice of examining investigation findings from highway mass casualty incidents to identify improvement opportunities for emergency responders.</p> <p>2 There is minimal examination of investigation findings from highway mass casualty incidents to identify improvement opportunities for emergency responders. (Reports reviewed at meetings of responders, some changes discussed, but no formal planning action taken.)</p> <p>3 There is limited examination of investigation findings from highway mass casualty incidents to identify improvement opportunities for emergency responders. (Reports are reviewed at meetings and discussed, and limited changes made to response plan.)</p> <p>4 There is substantial examination of investigation findings from highway mass casualty incidents to identify improvement opportunities for emergency responders. (Reports are reviewed at planning meetings of the various disciplines, and changes are incorporated into response plans.)</p>

	<p>5 There is a comprehensive system for incorporating investigation findings from highway mass casualty incidents into planning to identify improvement opportunities emergency responders. (Reports are reviewed at meetings of the various disciplines, as well as regional and multi-disciplinary planning councils. Changes are incorporated into response plans. Exercises are conducted incorporating “lessons learned.”)</p>
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*Scoring descriptions in parentheses are meant to be examples to assist in arriving at a score. It is understood that few examples will be an exact match of the situation.



EIRRA Statewide Assessment Results - 2011

The **EMS Incident Response & Readiness Assessment (EIRRA)** is a tool designed to measure an EMS system's preparedness for response to a highway mass casualty incident or other large scale emergency. The assessment can be completed locally for a single EMS service area, regionally or statewide. In early 2011, the state EMS offices listed below completed the EIRRA assessment to measure their state's overall EMS preparedness level. The EIRRA tool is comprised of eight categories, which are further divided into 35 indicators, each of which have been scored in the statewide assessment. For purposes of this report, only the scores of the eight categories are shown, along with the overall score. All scores are median scores, based on a 0 to 5 ranking, with 5 representing the highest possible score. EIRRA was designed by a multi-disciplinary work group led by the National Association of State EMS Officials (NASEMSO). The project was created in response to the National Transportation Safety Board's recommendations following the 2008 Mexican Hat, Utah, motor coach crash. The Highway Mass Casualty Project was funded through a cooperative agreement from the National Highway Traffic Safety Administration, Office of EMS. The EIRRA tool can be downloaded at <http://www.nasemsd.org/Projects/HITS/HighwayMassCasualtyReadinessProject.asp>.

State	100 Personnel	200 Infrastructure	300 Emergency Care System	400 Public Notification	500 Evaluation	600 Mass Casualty Planning	700 Governance	800 Region/State Assessment	Overall Median Score
Alabama	4	4	3	2	3	3	3	3	3
Arkansas	3	4	3	3	4	3	4	3	3
Connecticut	4	4	4	4	3	3	3	4	4
Delaware	4	4	4	2	3	3	2	2	3
Florida	4	5	4	3	3	4	4	3	4
Idaho	2	2	1	1	1	1	3	2	1
Iowa	3	3	4	2	3	3	3	4	3
Kentucky	2	2	2	1	1	3	2	2	2
Maine	3	4	3	2	4	3	4	3	3
Maryland	4	4	4	4	5	4	4	4	4
Minnesota	4	4	4	1	4	4	2	2	4
Montana	2	3	2	2	3	2	2	2	2
Nebraska	3	2	3	2	2	3	4	3	3
N. Hampshire	3	3	4	3	4	3	3	3	3



EIRRA Statewide Assessment Results - 2011

State	100 Personnel	200 Infrastructure	300 Emergency Care System	400 Public Notification	500 Evaluation	600 Mass Casualty Planning	700 Governance	800 Region/State Assessment	Overall Median Score
New Jersey	5	4	4	4	4	4	4	2	4
New York	3	4	4	4	2	3	2	4	3
Ohio	3	2	3	2	2	3	2	2	2
Pennsylvania	4	4	4	3	4	4	4	4	4
Rhode Island	3	4	4	3	3	3	4	1	3
South Dakota	3	2	2	3	3	2	3	3	3
Tennessee	4	4	4	3	1	3	1	1	3
Utah	4	4	3	3	4	4	2	3	3
Vermont	3	3	3	3	3	3	2	3	3
Virginia	4	4	4	3	2	3	4	4	4
Washington	4	4	4	4	4	3	4	2	4
West Virginia	2	2	2	2	2	2	1	2	2
Wisconsin	4	4	3	3	3	4	4	3	4
Wyoming	2	2	3	2	2	2	2	2	2

EMS INCIDENT RESPONSE AND READINESS ASSESSMENT SCORING TOOL

Instructions: EIRRA is comprised of seven categories (eight when used at the statewide or regional level) of resources or activities that are essential for optimal emergency medical dispatch, emergency medical services (EMS) system, and emergency care/hospital response in the wake of a highway-based mass casualty incident. Each category has several sub-categories, within which related indicators are described.

For each indicator, read the description, then select a score as described. Enter the indicator score on the corresponding row in the table below and use the tab or enter key to move to the next field.. Once all indicator scores are entered the worksheet will automatically calculate the score. "#NUM!" will appear in the sub-category, category, and overall score columns until values have been entered for all indicators.

Scoring Key: 0= Unknown, 1=None, 2=Minimal, 3=Limited, 4=Substantial, 5=Comprehensive

	Indicator Scores	Median Score Sub-Category	Median Score for Category	Overall Median Score
				#NUM!
100 PERSONNEL			#NUM!	
101 Human Resource Availability		#NUM!		
101.1 Patient Care Personnel (BLS)				
101.2 Patient Care Personnel (ALS)				
101.3 Rescue/Extrication Personnel				
101.4 Vehicle Operators				
101.5 Specialized Technicians				
101.6 CERT Members				
101.7 Bystanders				
102 Education & Training		#NUM!		
102.1 Incident Command Training				
102.2 Mass Casualty Training				
102.3 Disaster Exercises				
102.4 Unique Patient Communication Needs				
102.5 Special Needs Patient Training				

	Indicator Scores	Median Score Sub-Category	Median Score for Category	Overall Median Score
103 Personnel Safety & Support		#NUM!		
103.1 Safety Requirements				
103.2 Mutual Aid				
103.3 Post Incident Stress Management				
104 Medical Director		#NUM!		
104.1 Availability				
104.2 Mass Casualty Involvement				
200 INFRASTRUCTURE			#NUM!	
201 PUBLIC SAFETY ANSWERING POINTS (PSAPS)		#NUM!		
201.1 Emergency Dispatcher Availability				
201.2 Emergency Medical Dispatch (EMD)				
201.3 Ability to Determine Caller Location				
201.4 EOC and PSAP Integration				
202 Other Information and Communications Resources/Systems		#NUM!		
202.1 Early Hospital Notification				
202.2 Specialized Resource Knowledge				
202.3 Hospital Bed Status Monitoring				
202.4 Regional Communications and Dispatch Coordination				
202.5 Medical Coordination Centers (Regional Call Centers)				
203 Communications Hardware		#NUM!		
203.1 Two Way Radios				
203.2 Wireless Phones				
203.3 Satellite Phones				
203.4 HAM Radios				
203.5 Radio Interoperability				
203.6 Next Generation Communications				

	Indicator Scores	Median Score Sub-Category	Median Score for Category	Overall Median Score
204 EMS Personnel and Patient Transportation		#NUM!		
204.1 Basic Ground Ambulance				
204.2 Advanced Ground Ambulance				
204.3 Critical Care Ground Ambulance				
204.4 Air Ambulance				
204.5 Specialty Patient Transportation Vehicles				
204.6 Non-Transport "First Responder" Vehicle				
205 Transportation Operations		#NUM!		
205.1 Route Access				
205.2 Access Control				
205.3 Vehicle and Personnel Staging				
205.4 Designated Landing Zones				
205.5 Transport of Special Equipment and Supplies				
206 Equipment		#NUM!		
206.1 Patient Care Equipment Caches				
206.2 Equipment/Supply Caches				
206.3 Vehicle Extrication				
206.4 Towing and Recovery				
206.5 Personnel Safety				
206.6 Care in Place				
207 Technology/Intelligence Sharing for Situational Awareness/IntelliDrive		#NUM!		
207.1 Route availability/GPS				
207.2 Congestion				
207.3 Other Incidents				
207.4 Remote Weather Information Systems (RWIS)				
207.5 Advanced Automatic Crash Notification (AACN)				
207.6 Automatic EMS Vehicle Location Identification (AVL)				

	Indicator Scores	Median Score Sub-Category	Median Score for Category	Overall Median Score
300 EMERGENCY CARE SYSTEM			#NUM!	
301 Medical Facilities			#NUM!	
301.1 Availability				
301.2 Transport Time				
301.3 MCI Preparedness				
302 Speciality Care Systems			#NUM!	
303 Mass Casualty/Disaster Support Teams			#NUM!	
304 Temporary Use of Alternate Facilities			#NUM!	
305 Unique Patient Communication Needs			#NUM!	
400 PUBLIC AWARENESS AND NOTIFICATION			#NUM!	
401 Pre-Incident-Public Awareness/Education			#NUM!	
401.1 Mile markers (or other location identification devices)				
401.2 Drivers: Maintain Awareness of Your Location				
401.3 911: The Only Number You Need to Know				
401.4 Bystander Care				
402 During Incident-Public Notification			#NUM!	
402.1 Notifications to Transportation Systems				
402.2 Road Closure Notification to Hospitals				
402.3 Community Alert Messaging Systems				
402.4 Highway Alerting Systems				
402.5 Media Engagement				

	Indicator Scores	Median Score Sub-Category	Median Score for Category	Overall Median Score
500 EVALUATION			#NUM!	
501 Information Systems			#NUM!	
501.1 Prehospital Medical Records				
501.2 Patient Tracking Records				
501.3 PSAP Data and Logging Records				
502 Post Incident Review			#NUM!	
502.1 After Action Review				
502.2 Clinical Performance Improvement Process				
502.3 System Improvement Plans				
600 MASS CASUALTY PLANNING			#NUM!	
601 Incident/Unified Command			#NUM!	
601.1 Leadership Participation in Planning				
601.2 Multi-Jurisdictional Agreements				
601.3 Rural Issues				
601.4 Incident Management Team Integration				
602 Uniform Triage System			#NUM!	
603 Transportation And Destination Determination Planning			#NUM!	
604 Special Risks/Hazard Vulnerability			#NUM!	
605 Multiple Fatality Management			#NUM!	
606 Inventory Resource Management (Sustainability)			#NUM!	

	Indicator Scores	Median Score Sub-Category	Median Score for Category	Overall Median Score
607 Rehab Services		#NUM!		
608 Exercises		#NUM!		
609 The Highway Mass Casualty Playbook		#NUM!		
609.1 Comprehensive Area Disaster Plan				
609.2 Highway Mass Casualty-Specific Multiagency Plan				
609.3 EMS Agency Specific Plan				
609.4 Standard Operating Procedures/Guides				
609.5 Task-Specific Checklists, Quick Reference Guides				
700 GOVERNANCE			#NUM!	
701 Regulatory Rules		#NUM!		
702 Funding		#NUM!		
703 Intergovernmental Considerations		#NUM!		
704 Elected Officials		#NUM!		

	Indicator Scores	Median Score Sub-Category	Median Score for Category	Overall Median Score
800 ADDENDUM FOR REGIONAL AND STATE LEVEL ASSESSMENT			#NUM!	
801 Evaluation-Information Systems			#NUM!	
801.1 Highway Maintenance Records				
801.2 Law Enforcement (Crash) Records				
801.3 911 Data				
801.4 State EMS Patient Care Report Data				
801.5 Hospital/ED Patient Care Report Data				
801.6 State Trauma Registry				
801.7 State Traumatic Brain Injury (TBI) Registry				
801.8 State Burn Registry				
801.9 State Clinical Rehabilitation Data				
801.10 Coroner/Medical Examiner Records				
801.11 State Vital Statistics/Death Certificates				
801.12 Child Mortality Review Data				
802 Evaluation-Post Incident Review			#NUM!	
802.1 Patient Pathways (from first receiving facility on)				
802.2 Regional/Area-wide Review (based on incident, but also policy)				
802.3 State Level Review and Analysis of System Performance				
802.4 Intergovernmental Review (as applicable)				
802.5 Publication of Reports, Findings and Improvement Opportunities				