Minutes approved on 7 June 2011

Georgia Trauma Commission
GEORGIA TRAUMA CARE NETWORK COMMISSION

EMS SUBCOMMITTEE ON TRAUMA

MEETING MINUTES
Tuesday, May 10, 2011
Scheduled: 10:00 am until 12:00 p.m.
Letton Auditorium
Atlanta Medical Center
Atlanta, Georgia

CALL TO ORDER

Mr. Rich Bias called the May monthly meeting of the EMS Subcommittee on Trauma to order at the Letton Auditorium, Atlanta Medical Center, Atlanta, Georgia, at 10:20 a.m.

SUBCOMMITTEE MEMBERS PRESENT	SUBCOMMITTEE MEMBERS ABSENT
Ben Hinson, Chair Subcommittee & GA Trauma Commission Member (via tele-conference) Randy Pierson – Region One Chad Black – Region Two Pete Quinones – Region Three (via tele-conference) Lee Oliver – Region Five Blake Thompson – Region Six Jimmy Carver-Region Seven Craig Grace – Region Eight (via tele-conference) David Moore – Region Nine Huey Atkins – Region Ten Rich Bias - GA Trauma Commission Member Courtney Terwilliger – EMSAC Keith Wages-SOEMS	Richard Lee – Region Four

OTHERS SIGNING IN	REPRESENTING
Russ McGee	Region 5 EMS
Jim Barnes	Towns County EMS
LaWanna Mercer-Cobb	Region 6 EMS
Mickey Moore	OEMS
Russ Toal	Georgia Southern College
Damian MacLeod	Georgia Southern College
Josh Mackey	Brock Clay/GAEMS

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Welcome and Introductions

Mr. Rich Bias welcomed all present at the meeting. Mr. Bias recognized a quorum of the voting members were present.

Approval of Minutes from March Meeting

The first order of business was the approval of the minutes from the 01 March 2011 subcommittee meeting.

MOTION #1 EMS Subcommittee 2011-5-10:

I make the motion to approve the minutes from the 01 March 2011 meeting as written.

MOTION BY:	**JIMMY CARVER**
SECOND:	**CHAD BLACK**
ACTION:	The motion ***PASSED*** with no objections, nor abstentions.

COMMISSION-FUNDED EMS PROGRAMS:

EMS Vehicle Equipment Grants (FY2010 and FY2011)

Mr. Jim Pettyjohn reported that the FY2010 Grant checks have been distributed with the exception of three (3) and Ms. Lauren Noethen is working with these three (3) 911 zones to make sure their work plans and budgets are submitted. There are no problems and everything is good with these.

Mr. Jim Pettyjohn reported that the FY2011 application process was closed on or about April 1, 2011. All application packages were opened by Mr. Jim Pettyjohn and Ms. Lauren Noethen with a first survey being done along with the scoring. All the applications were then brought to Mr. Keith Wages' office where they were reviewed by Mr. Jim Pettyjohn, Ms. Lauren Noethen, and Mr. Keith Wages. There were sixty-nine (69) applications with the top nine (9) being identified. Mr. Jim Pettyjohn reported they are in the process of scheduling a conference call or meeting with the EMS Scoring Sub-Committee which consist of Dr. Leon Haley, Mr. Rich Bias, Mr. Kurt Stuenkel, Mr. Bill Moore, Mr. Keith Wages, Mr. Jim Pettyjohn, and Ms. Lauren Noethen, to discuss the process with hopes from this conference call that a recommendation will be made to present to the full commission on May 19, 2011, and at the end of that day have nine (9) approved grants.

Mr. Huey Atkins questioned whether there were any repeat recipients of these nine. Mr. Jim Pettyjohn responded that there were some who did make applications but no further information would be disclosed at this time. Mr. Jim Pettyjohn stated there were some that inadvertently used an ambulance that was replaced in 2009 to wrap their application around for 2011. Mr. Jim Pettyjohn went back to the DHR archives and pulled those contracts out and spent a lot of time validating that these ambulances were indeed replaced in the 2009 award. His office contacted these services and they were very apologetic and stated this was not their intention to do. Of these, three (3) were disqualified.

AVLS Project

Mr. Jim Pettyjohn reported that Mr. Kirk Pennywitt was unable to attend and his report was sent out this morning. Mr. Pennywitt adds the following update to the report, "...we are making good progress in getting the final five, Region 5 agencies online, three of the five listed on page 3 of the Status Report as being off-line are now at least partially online at this time". *(A copy of his report is attached as part of these minutes.)*

First Responder Training Grants (FY2010 and 2011)

Mr. Courtney Terwilliger reported that a request had been made at the last meeting for a list of counties that had received the grants. A map was sent out earlier this date with a copy of the handout attached as a part of these minutes. Mr. Courtney Terwilliger reported that approximately 60% have started their classes with a few that have already finished with checks being distributed to these counties along with their jump bags and vests.

There were four counties, Toombs, Turner, Seminole, and Jasper, that received the grants but could not follow through due to lack of students or instructors. Mr. Courtney Terwilliger stated he planned on going down to the next four counties which are Thomas, Colquitt, Bullock, and White, and award these monies to them so that we will continue to have sixty (60) classes. A list of all the counties and how they scored is attached as part of these minutes.

FY2010 Trauma Care Related Equipment Distribution

Mr. Courtney Terwilliger reported that the process is going well with some counties still sending in their requests. There are some counties who received the grant money but wanted to do a whole package and they needed to be in a different budget year to do this. Mr. Terwilliger anticipates receiving their requests after July and plans on having this wrapped up soon after.

FY2011 EMS Uncompensated Care Program

Mr. Rich Bias reported that Ms. Regina Medeiros had sent an email that he will share. The instructions and all necessary forms will be posted to the website no later than June 1, 2011. This will be an electronic form to be populated on the website and Ms. Regina Medeiros is requesting the sub-committee establish a deadline so we can move forward.

Discussion:

Mr. Jim Pettyjohn clarified that the form will be downloaded, filled-in, and then forwarded on to Ms. Regina Medeiros for processing. Mr. Lee Oliver stated he thought sixty (60) days had been done in the past. Mr. Ben Hinson confirmed that it had been sixty (60) days but he feels thirty (30) days should be long enough now since everyone should know what they need to have in hand to complete. If they have the data, it shouldn't take very much time to input it. Getting the data is what takes the most time. Mr. Lee Oliver questioned as to when the data will be available. Mr. Ben Hinson responded that the sheet is being finalized this morning and it could possibly be posted to the website before June 1, 2011 but we could at least get Ms. Regina Medeiros to post on the website the requirements and the process to get the patients and trauma registry numbers.

Mr. Rich Bias stated that no money will go out until all this is done and this is the only catch. Mr. Rich Bias stated we can do it sixty (60) days from June 1 or if the information gets out by the end of the week, we can shoot for a June 30 closing date.

Mr. Ben Hinson stated he felt that if the information could be out this week, he would suggest an opening date of June 1, 2011, closing date of June 30, 2011, and try to get the checks out by the middle of July.

Mr. Rich Bias stated that once it is closed it takes approximately two weeks to process and create the checks to send out. Mr. Jim Pettyjohn questioned whether or not there would be any request for extensions built into this process. Mr. Huey Atkins felt that the time period would not be an issue for the people who are aggressive and get it done but it would be up to the committee as to how long we allow people to drag their feet to get it done. Mr. Rich Bias stated that if the data requirements were out by the end of this week, we should be in the position to officially open June 1 and close June 30.

Mr. Lee Oliver requested clarification whether or not Ms. Regina Medeiros sends out a list to the providers of the names on the registry. Mr. Jim Pettyjohn answered that the providers go to their trauma centers

to obtain that information. The coordinators have been discussing this at their last two meetings and will again discuss this at their next meeting. Ms. Regina Medeiros will emphasize the importance of having this done.

Mr. Ben Hinson requested that Ms. Regina Medeiros report back to the sub-committee when the trauma coordinators have completed this process and if it doesn't get done in time, we would have to let the deadline slip. Mr. Lee Oliver agreed with this and stated that he felt that thirty (30) days was reasonable assuming you have the data to start on day one.

Mr. Rich Bias stated that when you submit the email with the invoice attachment, the providers needs to send the mailing address and contact name for the checks to be mailed. The invoice must include services using electronic invoice. Nothing but the electronic invoice will be accepted. All fields must be completed and in the box for the county you will either enter one (1) if it is a rural qualifying service and two (2) if it is not a rural qualifying service. This will automatically calculate the rural add-on. As the information is entered, the base rate, the miles, and total fields will auto-populate. You have to enter the PCR number and if it is left blank it will not calculate. Mr. Ben Hinson stated he also added the trauma registry number at the request of Ms. Regina Medeiros and this will be a required field as well. The EMS providers will need to contact the trauma centers and ask that the report be sent to their contact person. A list of the trauma centers with contact names and numbers are posted on the website.

MOTION #2 EMS Subcommittee 2011-5-10:

I make the motion to allow Mr. Jim Pettyjohn and Mr. Ben Hinson to adjust the dates if there is any problem with getting the data from the trauma coordinators.

MOTION BY:	**BLAKE THOMPSON**
SECOND:	**LEE OLIVER**
ACTION:	The motion ***PASSED*** with no objections, nor abstentions.

Discussion:
Mr. Ben Hinson requested that Ms. Regina Medeiros put the eligible dates on the form. Mr. Ben Hinson stated that if an ambulance service picks up patients in rural and in urban areas, the service can fill out two different sheets, one for rural and one for urban, and Ms. Regina Medeiros can add them together. He reported that the form wasn't built to differentiate by line; it will either be rural or urban. Mr. Ben Hinson stated that the form could be revised with an additional column for the county of pick-up and a column that would be a 1 for rural or 2 for urban and a formula could be built to calculate for rural mileage as needed. After the discussion, Mr. Ben Hinson stated he will request the form be revised to reflect these changes and will forward the new form to everyone.

PRESENTATION: TRANSFORMING THE TRAUMA SYSTEM-EMS

Mr. Ben Hinson introduced Dr. Eva Lee, CHOT GTRI, who presented a PowerPoint presentation, Transforming the Trauma System-EMS. *Copy of PowerPoint is attached.*

Discussion:
Mr. Ben Hinson thanked Dr. Lee for her presentation and stated he was delighted to hear the give and take in the conversation. Mr. Ben Hinson feels this is clearly one of those things that when you see it for the first time, you need to think about it. Mr. Hinson's hope for today's presentation was that the sub-committee could look at it and see that it is not the perfect formulary to move forward with but that we could see some of the opportunities we have by studying what we do as a full system, to put in there

how it affects a county's ability to respond if their ambulance is gone to a trauma center an hour away, let's get the facts and figure it out. This could be a "no can do" or it may be something that actually helps us design our system. If we can get the information from Dr. Lee and as the whole TCC moves forward, we can hopefully tie that data with the data from the EMS office and help feed Dr. Lee's system so we can build a better system for everybody including our employees, communities, and directors so we can do a better job. This is an introduction of a tool and the big point is that the sub-committee gets an idea of what might happen with it so we can move forward to the commission to ask for renewal of the contract for another year. Mr. Rich Bias questioned would this require a lot of involvement with a lot of work to be done to make it of value. Mr. Bias stated that "clearly the tools have a lot of capabilities to assist us in accomplishing the kind of decision making and support we want to do, but it will take the engagement of a lot of folks to provide Dr. Lee and her colleagues the support, the information, the access that is necessary to get this together." Mr. Rich Bias questioned Mr. Ben Hinson as to whether he envisions a particular time-line for moving this forward to a tool that could actively be used to support the commission. Mr. Ben Hinson responded that he would like for us to engage in this and in six months we should have some tools that are really helping the commission to formulate the questions we need to find the answers to. Within six months this will begin to generate conversation and allow us to make changes. Mr. Ben Hinson feels it will give a lot of background to allow the commission to make decisions because the policy choices are not simply objective, we have to have objective information, subjective, antidotal and political.

Mr. Rich Bias stated this will be presented to the commission and there will be a budget request. Mr. Rich Bias is concerned as to what product the commission might expect in the coming fiscal year vs. two or three years out. Dr. Eva Lee responded that what she would like to emphasize is that we should march forward to test it, for example, when you have the recommendations from the regions and we have to make decisions, she feels those are the type of data that we should analyze and tell you some obvious choices that should not move forward. A powerful decision support system means that it doesn't need perfect data to give you a good idea what the long term outcome would be.

Mr. Ben Hinson states that he is in support of this and he feels it is worth the investment of another year of work with Dr. Lee now that we have the framework. Mr. Rich Bias responded that this is a $50,000.00 annual fee.

FY 2012 EMS FUNDING DISCUSSION

Mr. Ben Hinson reported that the feeling of the sub-committee has been in the past that we are having good success with the First Responder Training Grants. The sub-committee could look at the Trauma Equipment Grant and would need to determine if the vehicle grants will be continued. Mr. Ben Hinson stated he felt we are going to be where we are and it is just a matter of how much money we are going to get and how much we are going to put into each bucket.

Mr. Keith Wages responded that he is hearing a different message on the vehicle replacement grants encouraging shifting focus to more system issues rather than local issues exclusively, issues such as education and evaluation, and both items consistent with the enabling statute that created the Trauma Commission. Mr. Keith Wages stated he has had some great conversations with Dr. Ashley and feels that Dr. Ashley is also in support of evaluation of where we assign EMS resources. Mr. Keith Wages would like to open the debate to different topics and different ways to allocate the funds.

Mr. Huey Atkins agrees with Mr. Keith Wages and questions if the percentage of EMS funding through the Trauma Commission will remain the same. Mr. Jim Pettyjohn responded that 20% of the available funding will be designated to EMS and this is the plan that needs to be voted on. Mr. Ben Hinson stated this is not in concrete and this is a battle that we have every year.

Mr. Huey Atkins stated he sees funding dwindling away to nothing at a time that the overall budget is coming down and now percentages are going to start dropping where very little difference is going to be made.

Mr. Blake Thompson stated he is still 100% for the Vehicle Replacement Grant along with the First Responder Grant Program.

Mr. Rich Bias questioned Mr. Ben Hinson that as we move forward with the pilots and the Trauma Communication Center with the focus on Regions 5 and 6 and the deployment of the AVLS, do we need to consider anything here? Mr. Ben Hinson responded that we are working closely with the GEMA folks and hasn't heard of anything being said that this is in jeopardy. Mr. Ben Hinson stated he has not heard anything about this coming to a close.

Mr. Lee Oliver questioned the funding of the airtime of Regions 5 and 6 and when it is paid through. Mr. Jim Pettyjohn answered that it is paid through the end of this fiscal year and an amendment has just been done to GTRI using 2011 dollars to continue to pay it through the end of the calendar year unless otherwise directed by the commission that will be budgeted through the end of FY2012 as well. Mr. Lee Oliver reported that a lot of the services in Region 5 have stated that if the commission did not continue to fund this, they would not be able to continue this on their own.

Mr. Rich Bias stated as a clarification that we have not yet come up with any new needs for the EMS funds. We have had discussion about balancing them but have not heard identification of anything new. Mr. Ben Hinson stated that we have not had enough conversation to decide and looks forward to that meeting.

Mr. Jim Pettyjohn reported that next Thursday, May 19, 2011, will be the first pass, general budget review, and then hopefully a vote will be in July.

Old Business

Mr. Chad Black questioned if the AVLS equipment will be usable for someone else if a program drops out. Mr. Lee Oliver replied that the equipment does not belong to the commission after one year according to the contract.

Mr. Lee Oliver feels that one of the challenges is that we have made good headway with the training in Regions 5 and 6 but we have a long way to go before the majority of the services realize there are other benefits to it other than tracking their vehicles.

New Business

Mr. Lee Oliver requested that we make an update on the Trauma Communication Center part of the standing agenda. He feels that it is not routinely reported on. Mr. Jim Pettyjohn responded that there will be a full report at the next commission meeting but this could be a standing agenda item.

Mr. Jim Pettyjohn reported that SAAB came May 2, 2011, and presented their equipment that they would be using, a hardware demonstration, and a brief software demonstration. There was conversation of how to format the screens to be user friendly and there will be a presentation at the commission meeting next Thursday. Interviews for the TCC Lead position will be this week with hopes to have that person on board by mid-June. We will be working with Mr. Keith Wages and the OEMS to bring together a group of trauma coordinators as well as EMS service providers in Regions 5 and 6 to have a conversation about the TCC within the next thirty (30) days. We feel we need to define over the next six (6) to eight (8) months what success is with the communication center. We hope to have it operational by mid-August or September.

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Next meeting will be held Tuesday, June 7, 2011, 10:00 a.m. in Macon at Mid-Georgia. The July meeting will be held Monday, July 11, 2011, at 11:00 a.m. with venue to be announced.

Meeting adjourned at 12:30 p.m.

GPS-based Automatic Vehicle Location System (AVLS)
GTRI Project D-6035

Monthly Status Report for March 2011

Tasks Performed this Month:

The current status of Pilot Program AVLS units is shown in Table 1 below.

Provider	AVLS Units Delivered	Delivery Date	Notes
Region 5			
Dodge County EMS	4	2/10/11	Units shipped 10 Feb 2011, 0 units online as of 12Apr2011.
Hancock County EMS	2	12/9/10	All units online.
Heartland EMS, Inc.	20	11/5/10	All units online.
Houston	14	8/4/10	12 of 14 units installed, 0 units online as of 12Apr2011.
Jasper	3	9/29/10	All units online. Units installed in-house, no reimbursements anticipated.
Johnson	3	9/29/10	All units online.
Laurens	10	8/4/10	Completed. Reimbursed $2,525 on 12/10/10. 10th unit shipped 5 Jan 2011.
MCCG	24	10/8/10	Completed. Reimbursed $7,200 on 9 Dec 2010.
Mid-Georgia Ambulance	40	9/1/10	All units online, running parallel configuration w/ Mentor gateways. Shipped 40th unit on 7 Mar 2011.
Monroe Co. EMS	5	12/9/10	Units shipped 9 Dec 2010, 0 units online as of 12Apr2011.
Peach Co EMS	3	1/13/11	Units shipped 13 Jan 2011, 1 unit online as of 12Apr2011.
Putnam	5	8/4/10	All units online. Units installed in-house, no reimbursements anticipated.
Taylor Regional Hospital	3	12/9/10	Units shipped 9 Dec 2010, 0 units online as of 12Apr2011.
Telfair	4	8/4/10	All units configured, 2 units online as of 12Apr2011.
Washington	4	9/29/10	All units online.
Wheeler	2	11/5/10	All units online.
Wilcox Co. EMS	4	12/9/10	All units online.
Wilkinson	3	11/5/10	Units delivered 5 Nov 2010, 0 units online as of 12Apr2011.
Region 5 Totals	**153**		***18 Participating Region 5 Providers, 78% online.***
Region 6			
Burke	12	8/4/10	Completed. Reimbursed $2,418 on 10/19/10.
Emanuel	5	8/4/10	Completed. Reimbursed $1,010 on 12/9/10.
Jenkins	3	8/4/10	Completed. Reimbursed $989.95 on 9/30/10.
Lincoln	3	8/4/10	Completed. Reimbursed $897 on 9/16/10.
McDuffie	6	8/4/10	Completed. Reimbursed $1,770 on 9/30/10.
Screven	4	8/4/10	Completed. Reimbursed $800 on 11/29/10.
Warren	3	8/4/10	Completed. Reimbursed $885 on 9/15/10.
Wilkes	5	8/4/10	Completed. Reimbursed $1,475 on 10/12/10.
Region 6 Totals	**41**		***8 Participating Region 6 Providers, 100% online.***
Total Participating Vehicles	**194**		***26 Total Participating Region 5 & 6 Providers.***

Table 1. AVLS Status as of 12 Apr 2011

Per previous discussions, the Augusta Fire Department returned their two AVLS units for reuse by the program. These units were received on 28 Mar 2011 and returned to the GTRI inventory.

There are a total of 44 vehicles across 4 agencies in Regions 5 & 6 currently not participating in the AVLS Pilot program. Table 2 shows a summary of non-participant agencies and vehicles.

Non-Participants to-date	# of Vehicles	Notes
Region 5		
Treutlen Co. EMS	2	Won't participate.
Region 5 Non-Participating Vehicles	**2**	
Region 6		
Augusta Fire Dept.	2	Serviced by Gold Cross.
Gold Cross EMS, Inc.	39	Won't participate.
Jefferson Co. EMS	1	Serviced by Gold Cross.
Region 6 Non-Participating Vehicles	**42**	
Total Non-Participating Vehicles	**44**	4 Providers currently non-participating.

Table 2. Non-Participating Agencies

The primary tasks performed this month were:

- Contributed and edited articles for the GEMA AVLS Newsletter.
- A meeting of the AVLS Working Group was held at Georgia Tech on 16 Mar 2011. Notes of this meeting are included as Attachment 1 to this report.
- A GEMA AVLS survey was issued in Feb 2011 to EMS agencies requesting their interest in participating in the next AVLS deployment phase. Only EMS agencies that had provided requested data to previous GEMA EMS surveys were eligible. The survey closed on 1 Mar 2011 and the data were analyzed. The results were:
    - 137 surveys were issued, with 64 responses expressing interest.
    - These responses represented 64 agencies and 519 vehicles, and included agencies that are not Primary 911 Providers (in contrast to the GTCNC Pilot Program, where all participants are Primary 911 Providers).
    - Responses representing 5 agencies and 83 vehicles came from agencies included in UASI regions, which could potentially be eligible for grants under separate UASI funds.
    - It was recommended that the priority of AVLS units issued be based on agencies with the largest number of vehicles in their fleets, since these

agencies are the most likely to have available capacity to provide assistance in Mass Casualty Incidents. The results of the preliminary rankings of survey responses are provided in Attachment 2 of this report.

  - As GEMA has funding for approximately 350 AVLS units under the current contract, it may be expected that approximately 35 agencies (as shown in Attachment 2) may be equipped with AVLS units in this round of funding.
  - Future funding will cover agencies not covered under the current GEMA contract.

- In preparation for the In Motion AVLS training at the end of March, a review was performed of all Region 5 & 6 Pilot Program agencies not yet fully online with their AVLS units. The following agencies still need to complete their unit activations:

  Dodge County EMS
  Houston County EMS
  Peach County EMS
  Taylor Regional Hospital EMS
  Wilkinson County EMS

  All of these agencies were present at the In Motion AVLS Training in Macon on 30 Mar 2011, and plans were established with each agency to get their systems online in the near future.

- AVLS training for Pilot Program participants in Regions 6 & 5 were conducted in Augusta and Macon on 29 & 30 Mar 2011. There were 11 attendees in Augusta and 20 attendees in Macon. The In Motion instructor was Ms Sue French, who is also the technical support specialist for most of the Georgia AVLS units, and she did an excellent job in conducting the trainings and sharing information with the students. The trainings were well received by both groups, useful ideas were exchanged, and contacts were made between available installers and agencies that have not yet completed their unit activations. A roster of the training participants and the training survey results is included as Attachment 3 to this report.
- A revised AVLS Bill of Materials from In Motion was received for all new equipment orders. The new full kit Part Number will be designated as IMT-SOG-STD002 (versus IMT-SOG-STD001 in the Pilot Program). The changes to this kit as compared to the original Pilot Program systems are:
  - The kit will now include an LTE-compatible (4G) antenna, Model # IMT-ANT-003;
  - The Garmin 265WT is replaced with the Garmin Nuvi 1350;
  - The Garmin FMI-40 Data & Traffic cable is replaced with the Garmin FMI-10 Data cable (no traffic) w/ included DB-9 connector.

- A Purchase Requisition for 200 AVLS units was placed on 28 Mar 2011 to In Motion. This will be used to initiate production of the next round of AVLS units. After these first 200 units are received and begin to be deployed, the final ~150

units under this contract will be ordered.

Plans for Next Month:

- The next AVLS Working Group meeting will be hosted at GTRI on 22 Apr 2011.
- Present GTVC briefing and demonstration to ESF 9 Working Group in Cordele GA on 6 Apr 2011.
- Begin planning and coordination for next AVLS deployment phase; contact agencies, issue MOA and Invitation Letters, finalize equipment commitments, receive and inventory equipment as received, prepare for equipment delivery, etc.
- Continue to assist in configuration and activation of distributed AVLS units.
- Provide installation reimbursements to AVLS participants as invoices are received by GTRI.
- Complete work on other AVLS-related tasks as directed.

Current Cost and Person-Time Expenditures:

Total project charges against the GTCNC contract for March 2011 were $8,681.64 (for Verizon airtime expenditures). Total expenditure to-date is $1,017,248.96 and 3,244 person-hours. The free balance on this project is now $52,045.04.

ATTACHMENT 1

AVLS Working Group Meeting

GT Hotel & Conference Center
16 March 2011

Meeting Notes

Attendees

Billy Kunkle	Georgia Association of Emergency Medical Services
Mickey Moore	Georgia Department of Community Health
Keith Wages	Georgia Department of Community Health
Lee Oliver	Georgia Hospital Association
Karen Waters	Georgia Hospital Association
Ralph Reichert	GEMA/HS
KJ Retherford	GEMA/HS
Leigh McCook	Georgia Tech Research Institute
Kirk Pennywitt	Georgia Tech Research Institute
Pam Blackwell	UASI
Angelique Edwards	UASI

MOA:

Background:

Changes made to the draft MOA since the last meeting were circulated and reviewed.

Significant Points of Discussion:

- The clause in Section 5 of the MOA granting the Trauma Communications Center (TCC) open access to AVLS locations was determined to be inconsistent with the existing Georgia Trauma Care Network Commission (GTCNC) MOA with pilot group providers. The existing GTCNC MOA grants the TCC access to the AVLS information "only in the event of a crisis situation."
- Several members of the Working Group recommended that the language should be broader and state "GEMA/ HS and DCH and their designees".
- The Working Group collectively recommended updating the MOA to reflect the following:

  "EMS Provider agrees to provide both GEMA and the Georgia Division of Public Health with unlimited, continuous access to view the locations of all AVLS-equipped vehicles using the GTVC and/or oMM software. Additionally, in the event of a defined crisis as determined by the State, GEMA is authorized to also allow temporary access to its designees, which includes the Georgia Trauma Communications Center, for the duration of the event in order to better coordinate a multi-organization response to a large-scale incident or crisis situation and provide statewide medical surge capabilities."

Conclusions/Commitments:

- GEMA will update the MOA and send it to the Working Group for review.

In Motion/AVLS Presentation to UASI:

Background:

The Working Group has approached Atlanta Urban Areas Security Initiative (UASI) organization with an invitation to help promote and support the AVLS rollout in the UASI jurisdictions.

Significant Points of Discussion:

- At this meeting, the Working Group provided the UASI an overview of the system, the current state of the project, and opened the possibility of the UASI helping to fund AVLS for ambulances in the UASI footprint.
- About 50% of counties in the UASI jurisdiction currently have a sophisticated vehicle location system.
- Based on a strong need and request from EMS providers, public health and hospitals, the State Division of Public Health, using Assistant Secretary for Preparedness and Response (ASPR) grant funds will be conducting a pilot program of a patient tracking system in Cobb County beginning in May 2011. The interface between the AVLS and the patient tracking systems will be important if the patient tracking system is adopted.

Conclusions/Commitments:

- UASI will notify of, and invite the Working Group to attend upcoming training on the patient tracking system.

In Motion/AVLS Training:

Background:

In Motion AVLS training for Regions 5 & 6 will be conducted March 29-30 (Augusta & Macon, respectively). The DPH will record the training in Macon for use by GTRI in developing custom training for Georgia.

Significant Points of Discussion:

- In Motion, Inc. trainer Sue French will conduct the training. Training facilities and equipment have been arranged and invitations with online registration instructions have been sent out to providers from the Region 5 and 6 EMS Program Directors.

Newsletter Review/Recommendations:

Background:

A draft newsletter was created by GTRI and presented for review by the Working Group.

Conclusions/Commitments:

- GTRI will update the name of the *Georgia Office of* Emergency Medical Services.
- GTRI will verify GEMA's website address and update to the most recent.
- Once approval is received from Charley English, Director GEMA/HS the newsletter will be published and distributed at the end of March.

Review of AVLS Participation Survey Results:

Background:

A survey was sent to EMS providers who completed their 2010 annual strategic resource plan survey inquiring whether the providers wished to participate in the AVLS program, and how many of their vehicles would need equipment. The survey deadline was March 1, 2011.

Significant Points of Discussion:

- The survey had nearly a 50% response rate.
- The application process for providers will be similar to the process used in the pilot.
- A partial purchase order to In Motion may need to be made in advance of receiving provider applications in order to ensure adequate inventory is on hand for rapid deployment of the In Motion devices to those who qualify.

Conclusions/Commitments:

- GTRI will contact the EMS providers who expressed interest in participating in the AVLS program.
- GTRI will prepare to submit a purchase order for approximately 150-200 In Motion devices, as the lead-time is about one month.

GTVC AVLS Presentation:

- GTRI presented an overview demonstration of the GTVC for the Working Group.
- GTVC (and in Motion as well) currently display tracked vehicles using the same naming convention as each individual provider; i.e., there is no standard statewide naming convention. There was some level of support for instituting a statewide naming protocol or in having the systems programmed to reflect a standardized, statewide convention.

Conclusions/Commitments:

- GTRI will investigate practical, cost-effective ways to resolve the naming inconsistencies.

NEW BUSINESS

- For those providers interested in new or replacement GPS units, GTRI noted that any Garmin GPS unit supporting the Fleet Management Interface (FMI) protocol should be compatible with the In Motion system.

NEXT MEETINGS

April 22 @ 9:00am – Friday

May 25th-27th – may meet in Savannah - TBD

ATTACHMENT 2

Preliminary Ranking of Agency Survey Responses for GEMA AVLS Equipment Deployment

Rank	Name of Service	# Vehicles	Cumulative Vehicle Totals	EMS Region
1	Mercy Ambulance Service Inc. dba Southside Fire/EMS	33	33	9
2	National EMS, Inc.	28	61	10
3	Hall County	25	86	2
4	Henry County Fire Department	17	103	4
5	Care Ambulance	15	118	7
6	West Georgia Ambulance, Inc	14	132	4
7	Angel Emergency Medical Services	13	145	1
8	VITALcare Transports Ins	12	157	4
9	Greene County EMS	9	166	10
10	Jackson County EMS	9	175	10
11	Liberty Regional EMS	9	184	9
12	Walker County Emergecny Services	9	193	1
13	Bulloch County EMS	8	201	9
14	Douglas County Fire Department	8	209	3
15	Habersham Co. EMS	8	217	2
16	Pickens County EMS	8	225	1
17	Spalding Regional Medical Center	8	233	4
18	Thomas County E.M.S.	8	241	8
19	Butts County Fire Department	7	248	4
20	Camden County Fire Rescue	7	255	9
21	Gordon EMS	7	262	1
22	Madison County EMS	7	269	10
23	Mitchell County EMS	7	276	8
24	Upson Ambulance Company LLC	7	283	4
25	Ambucare, Inc	6	289	1
26	Bryan County Emergency Services	6	295	9
27	Decatur County EMS	6	301	8
28	Franklin County	6	307	2
29	Harris County EMS	6	313	7
30	Life Line EMS	6	319	7
31	Murray EMS	6	325	1
32	Tift County EMS	6	331	8
33	Toombs EMS d.b.a. Toombs/Montogery EMS	6	337	9
34	Union General EMS6	6	343	2
35	Ware County Emergency Medical Service	6	349	9
36	Colquitt County EMS	5	354	8
37	Crisp County EMS	5	359	8

38	Elbert County	5	364	10
39	Fannin County EMS/Fire Services	5	369	1
40	Heard County Emergency Services	5	374	4
41	Towns County EMS	5	379	2
42	White County EMS	5	384	2
43	Alma-Bacon County Ambulance Service	4	388	9
44	Appling County Ambulance Service	4	392	9
45	Berrien County Ambulace Service	4	396	8
46	Dooly County EMS	4	400	8
47	Peachtree City Fire and Rescue	4	404	4
48	Seminole County EMS	4	408	8
49	Turner County Emergency Services	4	412	8
50	Colquitt-MIler Fire EMS	3	415	8
51	Grady County EMS	3	418	8
52	Macon County EMS	3	421	7
53	Marion County EMS	3	424	7
54	Randolph County EMS	3	427	7
55	Baker County EMS	2	429	8
56	Georgetown-Quitman EMS	2	431	7
57	Stewart County EMS	2	433	7
58	Talbot County EMS	2	435	7
59	Clay County EMS (2 Mar 2011, 3:40PM)	2	437	7
60	West Point Fire Department	1	438	4

UASI Agencies

Rank	Name of Service	# Vehicles	Cumulative Vehicle Totals	EMS Region
61	Metro-Atlanta Ambulance Service, Inc	51	51	3
62	American Medical Response	20	71	3
63	Medstat EMS	7	78	3
64	City of Morrow Fire Department	5	83	3
65	Emory EMS	0	83	3

ATTACHMENT 3
AVLS Training Participants & Evaluation Feedback

AVLS Training - Region 5 -
March 30, 2011
The Medical Center of Central Georgia

LAST NAME	FIRST NAME	POSITION	AGENCY	PHONE	FAX	EMAIL
Allen	Donna	FF/Paramedic MCES	Monroe County Emergency Services, 6007 Montpelier Rd., Forsyth , GA 31029	478.994.7004		luluallen@yahoo.com
Andrews	Christopher	FF Paramedic/Captain	Monroe County Emergency Services, 507 Montpilier Ave., Forsyth, GA 31029	478.994.7004		ffpandrews@gmail.com
Bandy	Mark	Training Coordinator	Mid Georgia Ambulance, 242 Hold Ave., Macon, GA 31201	478.365.9862		mbandy@midgeorgiaambulance.cor
Borghelli	David	Director	Houston Healthcare EMS, 1601 Watson Blvd., Warner Robins, GA 31088	478.975.5265		dborghelli@hhc.org
Brantley	Wendell	Director	Johnson County EMS, P.O. Box 269 GA HWY 15 South, Wrightsville, GA 31096	478.692.8459		brantleymedic1@yahoo.com
Britt	Ray	Director	Taylor Regional Hospital EMS, P.O. Box 1297 222 Perry Hwy., Hawkinsville, GA 31036	478.783.0279	478.892.3111	ray.britt@taylorregional.org
Callaway	Christopher	Security/Emerg. Mgmt.	Washington County Regional Med. Center, 610 Sparta Hwy. P.O. Box 636, Sandersville, GA 31082	478.232.1797	478.240.2183	ccallaway@wcrmc.com
Cheek	Louie	Communications Manager	Medical Center EMS, 777 Hemlock St. MSC 90, Macon, GA 31201	478.633.7599	478.633.5117	cheek.louie@mccg.org
Cobb	Terry	Director	Laurens County EMS, P.O. Box 1523, Dublin, GA 31040	478.242.0199	478.277.2929	cobbt@laurenscountyems.com
Cone	Andy	Operations Director	Heartland EMS, P.O. Box 636, Cochran, GA 31014	478.934.1133	478.934.0730	andy.cone@hemsga.com
Ford	Alfonzo	Director	Peach County EMS, 105 Jailhouse Alley, Fort Valley, GA 31030	478.447.5759	478.827.1002	alfonzo_ford@peachcounty.net
Hill	Shane	Deputy Director	Putnam County Emergency Services, 882 S. Oak St., Eatonton, GA 31024	706.485.9096	706.485.9793	shill@netcommander.com
Huff	Annette	EMS Director	Dodge County EMS, 901 Griffin Ave. P.O. Box 818, Eastman, GA 31023	478.448.4093	478.374.0244	annettehuff@dodgecountyhospital.com
Laird	William	Fleet Mgr./Training Chief	Laurens County EMS, 646 County Farm Rd., Dublin, GA 31021	478.275.9025	478.277.2929	lairdb@dlcga.com
Lyles	Sarah	EMT/Administrative	Peach County EMS, 115 Jailhouse Alley, Fort Valley, GA 31030	478.825.8667	478.827.1002	sarahannn311@yahoo.com
Nelson	Clint	Paramedic	Dodge County EMS, 901 Griffin Ave. P.O. Box 818, Eastman, GA 31023	478.448.4093		nelsoncline@bellsouth.net
Oliver	Lee	AVP Emergency Services	The Medical Center of GA, 777 Hemlock St. MSC 90, Macon, GA 31201	478.633.1931	478.749.9145	oliver.lee@mccg.org
Rhodes	James	Supervisor	Wilcox County EMS, 785 County Farm Rd., Rochelle, GA 31079	229.365.7562	229.365.7562	pmdc4547@hotmail.com

Ward	David	EMS Supervisor	Houston Healthcare EMS, 507 Cashley Dr., Bonaire, GA 31005	478.542.5120	478.322.5102	daward@hhc.org
West	Stephen	Claims Supervisor/IT Coordinator	Heartland EMS, P.O. Box 636, Cochran, GA 31014	478.934.1133	478.934.0730	stephen.west@hemsga.com

AVLS Training - Region 6 -
March 29, 2011

Columbia County EOC

LAST NAME	FIRST NAME	POSITION	AGENCY	PHONE	FAX	EMAIL
Broom	Casey	Director	Lincoln County Office of Emergency Services, PO Box 340, 160 School St., Lincolnton, GA 30817	706.359.4855	706.359.5507	cbroom@lincolncountyga.com
Burke	Alvin	Paramedic	Jenkins County EMS, 182 Lynda Drive, Miller, GA 30442	478.982.0059	478.982.0059	jaburke930@yahoo.com
Doss	Ernie	Director of Operations	Gold Cross EMS, 4328 Wheeler Rd., Martinez, GA 30907	706.513.5573	706.396.2100	edoss@goldcrossems.com
Edwards	Tim	Director	McDuffie Co. EMS, 521 Hill St., Thomson, GA 30824	706.597.53.85	706.597.5391	tedwards@mrmc.org
Eifling	Gary	TAC Officer - Dispatch	Lincoln County Sheriff's Office, 170 School St., Lincolnton, GA 30814	706.359.4118	706.359.4030	geifling@lincolncountyga.com
Mercer	Ray	Captain	Screven Co. EMS, 618 Frontage Rd. West Suite B, Sylvania, GA 30467	912.564.7889	912.564.2215	paramedicraymercer@gmail.com
Mercer-Cobb	Lawanna	EMS Program Director	Region 6 EMS, 1916 North Leg Rd., Augusta, GA 30909	706.667.4336	706.667.4594	lmcobb@dhr.state.ga.us
Simonds	Wes	EMS Training Specialist	Region 6 EMS, 1916 North Leg Rd., Augusta, GA 30909	706.667.4336	706.667.4594	wgsimonds@dhr.state.ga.us
Weaver	Dennis	Emergency Operations Coordinator	Wilkes County EMS, 105 Marchal St., Washington, GA 30673	706.678.7837	706.678.1858	burrkilla2@yahoo.com
Wilkerson	Timmy	Paramedic	Emanuel County EMS, PO Box 535, Turn City, GA 30471	478.455.3081		tw_434@hotmail.com
Young	Henry	Director	Jenkins County EMS, 1019 East Winthrope Ave., Miller, GA 30442	478.982.1133	478.982.0059	jenkins_ems@bellsouth.net

Total Participants 15

AVLS Training (March 30, 2011) - Participant Feedback Form						
Question	**Responses**					**Average**
	5	4	3	2	1	
1. I have used AVLS before: Y/N	8				7	3.13
2. This training met the objectives outlined in the introduction.	2	13	0	0	0	4.13
3. The training was realistic in its design/presentation and there was sufficient time allowed to discuss and explore how we can best use the AVLS.	4	11	0	0	0	4.27
4. The trainer(s) were qualified for the roles they fulfilled and acted in a professional manner during the training.	8	7	0	0	0	4.53
5. I was provided the tools, materials, skills, and training I needed to perform the tasks I was assigned to complete in this training event.	2	12	1	0	0	4.07
6. Handouts distributed for the training and slides presented during the event provided me with the information I needed to learn.	3	11	1	0	0	4.13
7. After this training, I have a better understanding of Georgia's Automatic Vehicle Location System; its mission, and my agency's role in its use.	6	8	1	0	0	4.33
8. The one item I would change in an effort to make the next training better and more useful to my agency is:	• AV Space • Web-based training and tools • Pre/Post training tool • Facing front for powerpoint, more room • Need to cover telemetry a little more •Portability to other models of vehicles •Need training because: I'm tasked w/making this happen for my company; New to AVLS					
9. Based upon my experience in this training, the key area I would need more training on in the next year in order to more effectively perform my role in an incident or event requiring use of the AVLS is:						
10. Additional comments/suggestions:						

Total Participants 6

AVLS Training (March 29, 2011) - Participant Feedback Form						
Question	**Responses**					**Average**
	5	4	3	2	1	
1. I have used AVLS before: Y/N	5				1	4.33
2. This training met the objectives outlined in the introduction.	1	5	0	0	0	4.17
3. The training was realistic in its design/presentation and there was sufficient time allowed to discuss and explore how we can best use the AVLS.	1	4	1	0	0	4.00
4. The trainer(s) were qualified for the roles they fulfilled and acted in a professional manner during the training.	2	4	0	0	0	4.33
5. I was provided the tools, materials, skills, and training I needed to perform the tasks I was assigned to complete in this training event.	2	4	0	0	0	4.33
6. Handouts distributed for the training and slides presented during the event provided me with the information I needed to learn.	2	4	0	0	0	4.33
7. After this training, I have a better understanding of Georgia's Automatic Vehicle Location System; its mission, and my agency's role in its use.	5	0	1	0	0	4.67
8. The one item I would change in an effort to make the next training better and more useful to my agency is:	*None, very good.					
9. Based upon my experience in this training, the key area I would need more training on in the next year in order to more effectively perform my role in an incident or event requiring use of the AVLS is:	*MAP Update, Installed and used equip.					
10. Additional comments/suggestions:						

Optimal Care Delivery
Transforming the Trauma System

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Co-Director, NSF I/UCRC Center for Health Organization Transformation
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Center for Health Organization Transformation

Outline of Presentation

- Introduction
- Project purpose/goals
- List of Year 1 milestones
- Year 2 proposed work
- Concluding remarks

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Transforming Care Delivery

Some projects we have carried out

- Practice variance reduction
- ED optimal clinical and patient workflow
- Systems advances and critical care transformation
- Advancing public health, medical preparedness and emergency response
- **Transforming the trauma care system**

Transforming the Trauma System

Trauma and EMS Systems

US Trauma Centers (TCs)

- Hospitals with ability to **immediately** care for severely injured patients. Requirements:
  - Resources
  - Equipment
  - Specialized personnel
- Four tier classification (I – IV)
  - Level I – provides the highest level of trauma care
  - Level IV – can provide preliminary care and transport the patient to a higher level trauma center as needed
  - All trauma centers and hospitals at every level are vital components of the trauma system.

Introduction | Project goals | Year 1 Milestones | Year 2 Proposed Work | Conclusion

Trauma and EMS Systems

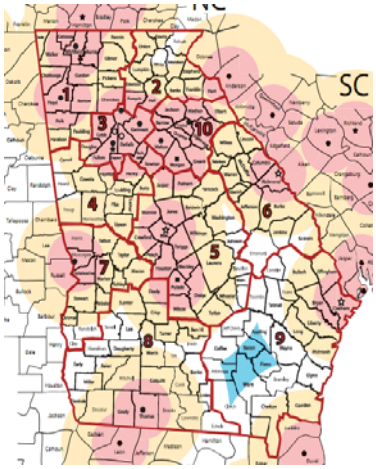
- CDC-supported research shows a 25% reduction in deaths for severely injured patients who receive care at a Level I trauma center rather than at a non-trauma center.
- Rapid transportation of trauma patients to the most suitable hospital for treatment is critical to reduce the risk of mortality and permanent injuries.
- Georgia has 17 trauma centers. (4 Level I, 10 Level II, 1 Level III and 2 Level IV)

Source: http://www.cdc.gov/traumacare/access_trauma.html

EMS System in Georgia

Statewide EMS System in Georgia

- Georgia has 10 EMS Regions.
- Georgia Department of Community Health has Emergency Medical Services (EMS) and Trauma Section, which aims:
  - Regional planning, expansion and improvement of each Region
  - Region-wide medical control of EMS system.
  - Integrated EMS Information System



Source: http://ems.ga.gov/.http://www.georgiatraumacommission.org/uploads/2011GATraumaMapsm1.pdf

Introduction | Project goals | Year 1 Milestones | Year 2 Proposed Work | Conclusion

EMS System in Georgia

- EMS firm has its own territory for serving patients.
- An ambulance cannot serve patients in other territories if the patient calls to 911.
- Patient may call an ambulance from another territory's EMS provider.
- Ambulances are split into teams by quadrant. Their positions are fixed.
- Ambulance in quadrant where incident occurred is dispatched (even if there is a closer ambulance in a different quadrant)
- Allows each team to learn its quadrant

EMS System in Georgia

- Patient chooses desired hospital
- If patient's choice of hospital is not within reasonable distance, EMT determines hospital
- If patient is unable to choose, EMT makes choice based on patient's medical condition and/or:
  - (1) Trauma related emergency
  - (2) Resources at the local and surrounding facilities
  - (3) Geographic location of the various facilities
  - (4) Ambulance service resources
  - (5) Obligation to provide emergency services in the assigned ambulance zone
  - (6) Availability of mutual aid

Limitations and Opportunities

Challenges

- Poor EMS coordination across county lines
- Closest ambulance to incident not always dispatched
- Can prove to be costly
  - Traveling farther distances
  - Not going to optimal hospital/trauma center
- Lack of interstate communication and transportation

Opportunities

- Grants from GTCNC: ***need cost-effective investment***
  - •EMS Vehicle Equipment Replacement Grant
  - •Distribution of Trauma Care-related Supplies Program
  - •First Responder Training Program
  - •Pilot Project for Georgia Trauma System Regionalization in **EMS Regions V, VI, and IX.**

Best Practice EMS Models

- Using 'mobile' telemedicine in ambulances.(e.g. Cincinnati Children's Hospital Medical Center)
- Building trauma communication system (e.g. Alabama trauma communications system helps to reduce trauma death rates by 12%)
- Trauma center destination recommendation. (e.g. Kansas City EMS arranges the ambulance diversions)
- Regionalization strategy
- **Systems approach: information-decision support**

Source: http://www.marc.org/emergency/pdfs/diversionplan.pdf
http://www.georgiatraumacommission.org/uploads/Deveopment_of_a_Statewide_Trauma_System.pdf

Strategic EMS Funding Plan

- Local trauma advisors at each Region identify needs. *With limited financial resource, how should policy makers determine what investment is the best?*
- $10.5 million allocated to trauma in FY2011
- Grants to EMS providers to replace equipment, etc.
- Allocate resources such that facility/equipment utilization and patient outcome will be maximized, and that the process is fair.

Source: http://www.georgiatraumacommission.org/uploads/167205162State_of_Georgia_Budget_FY2012.pdf

Project Focus and Objectives

Improve Georgia trauma response system through

- Systems analysis of the statewide performance
- Decision engines that allow for
  - Cost-effectiveness analysis of statewide response that equalizes TC utilization and optimizes patient outcome.
  - Analysis of portfolio of investment/expansions that best serve the Regional needs
- Empower GTCNC and GA State/Local leaders to make better decisions/investment for statewide advances
- Provide objective information to local decision makers
- Facilitate integration of intra- and inter-state communication system (operational, strategic, and policy).

Technological Advances

I. Service-Investment Analyzer: analysis of portfolio of expansions that best serve the State and Regional needs

- Can accept multiple Regional proposals for input
  - e.g. Facility upgrade, equipment, labor, injury prevention program,…
- Determine the best upgrades and/or expansions that maximize the overall statewide and Regional response and treatment outcome.

Empower leaders to determine best investment of their limited financial resources for optimal return

Technological Advances

II. System Simulator: cost-effectiveness analysis of statewide development that equalizes trauma care utilization and optimizes patient outcome.

- ***Systems approach:*** Can simulate yearly trauma cases and subsequent response across the entire state
- One goal: determine strategies that maximize Regional/State coverage and optimize outcome
- Some features: Determine and analyze
  - Comparison of methods for emergency responder allocation
  - methods to pre-position and assign emergency vehicles
  - utilization of each trauma centers
  - needs of patients (ensure level 1 trauma center not overwhelmed with patients that can be handled by other facilities)
  - Proactive injury-prevention programs

Two Decision Scenarios

- Case 1: Use of service-investment analyzer
  - Show how policy makers can make objective investment out of a set of Regional requests:
    - A site upgrade to a trauma center
    - An injury preventive plan
    - Upgrade of equipment, addition of a new ambulance, etc
- Case 2: Use of system simulator
  - Contrast the results from current system versus system with new investment
  - Contrast results when ambulances can cross county lines and pre-position (outside hospital sites)

Service-Investment Analyzer

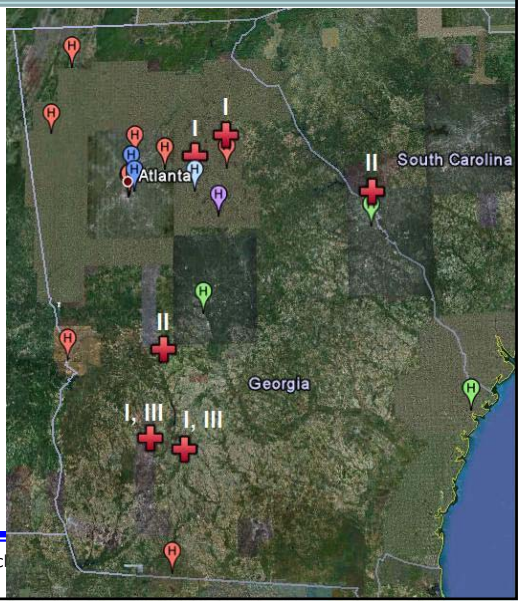
- ***Input:*** Trauma cases across counties; all hospitals and EMS providers are involved; a trauma patient can only be sent to a center of equivalent level.
- ***Investment of services***: Request facility (new/upgrade), equipment, labor, injury preventive programs etc (along with existing trauma centers).
- ***Objectives:*** Choose a set of hospitals and services that maximize acceptable response performance, minimize transportation time, and minimize injury incidents.
- ***Limitations:*** Capacity of hospitals and EMS providers are unknown. We know the static capacity of each hospital, but not real-time capacity / utilization over the time of the analysis.
- ***Systems analysis:*** Multiple stochastic scenarios are performed.
- ***Modeling to recommend the best utilization of resources***

Results are then fed into the System Simulator for overall statewide performance analysis

Hospitals Upgrade to Trauma Centers

: Potential TC's
: Existing Level I TC
: Existing Level II TC
: Existing Level III TC
: Existing Pediatric TC

- Some potential sites are relatively close to existing trauma centers.
- 3 potential sites are located at southwestern part of the state.



Trauma System Simulator

Allows for systems modeling and large-scale simulation for comparative analysis (current practice versus alternative strategies)

- ***Input:*** responder allocation scheme, methods for assigning emergency vehicles, capacity and utilization of each trauma center, methods for assigning hospitals, real-time traffic conditions, etc.
- ***Output:*** Various outcome metrics, including distributions for response and wait times, ambulance utilization, facility utilization, *quality of outcome*, …..
- ***Systems analysis:*** can simulate rapidly for an entire year (or multiple years) of trauma incidents, allows decision makers to observe year-long performance and response patterns.
- ***Identify best statewide strategies:*** Tradeoffs and best methods for emergency responder allocation, emergency vehicles assignment, TC assignment, resource sharing, etc.

Empower leaders to determine the best strategies for trauma care practice (transforming organizational practice)

Results

Systems	Average (Max) time spent /patient before arrival to hospital	Average Ambulance service time / incident	Comments
Current System	77 minutes 101 minutes	132 minutes	
Change: Upgrade 1 hospital to TC II, add an ambulance to a TC.	-5.5% -8.3%	-7.6%	Have different effect, depending on where these investments are made.
Change: Remove county restrictions, pre-position ambulances (instead of station at hospitals)	-11.2% -16.1%	-17.3%	Strategic change, minimal investment on resources

Illustrates three simple metrics, need guidance in terms of performance metrics

Year 1 Deliverables

- Study of current Georgia EMS and trauma system
- Evaluation of statewide trauma care strategic plans of several states (identify best practice).
- Systems modeling and development of decision engines
  - Service-investment analyzer
  - System simulator
- Comparison of multiple scenarios

Service-Investment Analyzer

- Not all hospitals have the commitment, capacity and equipment to become a trauma center.
- Hospitals to be included in the decision set can be reduced (i.e. designated TC's)
- *Recommendations from Regional advisors' plans can serve as input.*
- Current analysis assigns patients to only equivalent level trauma center. A different setting can be experimented.

Objective goal-driven systems approach for policy making and resource investment

Trauma System Simulator

- Incorporate detail Georgia trauma Injury data (through the leadership and collaboration with the Injury Epidemiology Section at GA Department of Community Health Division of Public Health).
- Incorporate real-time utilization and capacities of each trauma site (through the leadership of GTCNC and the on-going design of the trauma/EMS communication system by SAAB).
- Identify injury–prevention programs for trauma incidents

Introduction | Project goals | Year 1 Milestones | Year 2 Proposed Work | Conclusion

Year 2 Proposed Work

- Work with GTCNC leaders to review Regional recommendations and perform analysis of cost-effective and return on investment.
- Work with Injury Epidemiology Section at GA Department of Community Health Division of Public Health to incorporate detail data on injury cases.
- Work with GTCNC on incorporating communications center within our system model analysis (our system can accept real-time information from hospitals for decision analysis)

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Concluding Remarks

- Systems modeling and simulation analysis of the statewide trauma care is critical for measuring, optimizing, and transforming the systems performance.
- Decision engines can allow for objective
  - Cost-effectiveness analysis of statewide response that equalizes TC utilization and optimizes patient outcome.
  - Analysis of service investment that best serve the Regional and statewide needs
- GTCNC and GA State/Local Department leaders can make better financial and policy decisions for statewide advances

Questions?

THANK YOU

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