



MACHA 2005

“Sharing in the Creation of a Health Campus”

Filling the College Healthcare Gap
The Role of Campus Based EMS and How YOU can
Help Facilitate it!

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Objectives



- Define the inherent benefits of campus-based EMS to his/her campus, administration and student body including overall improvement of campus health and safety through the collaboration of health care professionals of all levels (physicians, nurses, and technicians).
- Describe how the National Collegiate EMS Foundation (NCEMSF) can assist in furthering the development and enhancement of campus based EMS and a cohesive campus healthcare team.
- Identify his/her professional role in interfacing and working with student EMS providers on his/her campus and possible integration of EMS into the collective campus healthcare system.



“An Overnight Infirmary is a Campus Luxury”



- Article written by Kate Stone Lombardi – New York Times March 16th, 2005.
- “Many colleges and universities, despite popular opinion, never offered overnight facilities and most that once did, have shut them down”
- She cites as the main reason cost (rising healthcare costs, shrinking educational budgets) and liability concerns.
- Majority of lawsuits in college health care involved overnight infirmaries.



“An Overnight Infirmary is a Campus Luxury”



- Traditionally manned solely by registered nurses.
- Typically unable to handle emergencies.
- Unable to obtain necessary blood work and other laboratory analyses work in a timely manner.
- She concludes that many infirmaries were providing substandard, non-definitive care that had the potential of being unsafe.





Nighttime Solutions

- According to the NYT article some colleges and universities have established protocols for nighttime emergencies.
 - Overnight telephone hotlines staffed by RN/MD with direct admit privileges for campus health center staff
 - Direct telephone access to ED personnel for students
 - Reduced insurance co-payments for student visits to ED
- No contingency plan and students are treated as any other patient



The Rationale for Lack of Contingency Plan



“Part of the role of college health services is to help students, often away from home for the first time, learn how to take care of themselves when they are ill.” “If they [students] weren’t in college, they’d be out there dealing with their health care on their own.” The overall goal is to try to “strike a balance between providing nurturing and being sensitive to their needs as sick kids and their responsibilities and rights as young adults.”



Campus Based EMS Provides a Solution



- Most of the universities and colleges cited in the NYT article as never having an overnight infirmary or once having an overnight infirmary currently has an active campus EMS organization.
- Campus based EMS can be tailored to suit your specific need and provide the coverage that many campus health agencies no longer directly provide.
- Some collegiate squads only provide service during those key overnight hours. The majority, however, provide service 24/7.





Additional Advantages

- Enables a closed healthcare system for the sharing of information between EMS providers and health center staff with out violating HIPPA.
- Allows for continuity of care from health center
 - Calls from health center staff after transport
- Health center can develop protocols in which patients meeting certain criteria could be triaged to health center or emergency department.
- Chart Review/Medical Direction
- Mentor future clinicians



The National Collegiate EMS Foundation



- Founded in 1993, NCEMSF is a 501(c)(3) non-profit professional organization committed to scholarship, research and consultancy activities and to creating a safer, healthier environment on college and university campuses.
- NCEMSF's purpose is to support, promote, and advocate EMS on college and university campuses nationwide.



The National Collegiate EMS Foundation



- Approximately 200 college campus based emergency medical service (EMS) agencies trained to respond within minutes and provide care tailored specifically to campus emergencies,
- In addition to providing for the acquisition of medical knowledge, campus based EMS allows student participants to develop certain life skills including leadership, communication, and decision making.
- NCEMSF provides a forum for communication and creates an environment where ideas can be exchanged and problems can be solved.





History

- In the early 1990s, with the widespread use of computers linked via the precursor to the Internet, e-mail communication among campus emergency responders was commonplace.
 - Usenet group (misc.emerg-services)
 - E-mail list (EMERG-L)
- Occasionally a thread about campus-related EMS would surface.





History

- But frequently, discussions on the topic of campus EMS were shunned as inappropriate or obscure.
- Campus EMS groups that existed were isolated
 - A good forum where they could openly communicate did not exist



History



- In 1993, in response to a need for information exchange among campus EMS groups, the National Collegiate EMS Foundation (NCEMSF) was established.
- A loosely associated nationwide group of campus responders was formally brought together by a student at Georgetown University (Washington, DC) and others.



History



- In April 1994, NCEMSF held its first conference at Georgetown University.
 - Representatives from over 20 campus EMS organizations spent the weekend learning about EMS
 - Established a network between EMS organizations.
- Annual conferences every year since 1994 have been a cornerstone of NCEMSF.
- Today, attended by over 600 individuals, they provide the networking and information exchange among campus emergency responders.

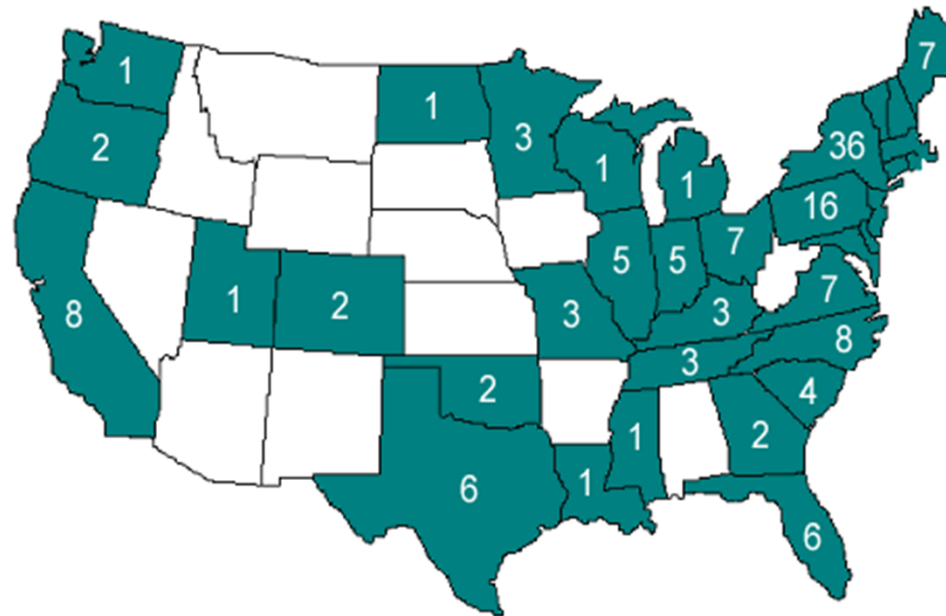
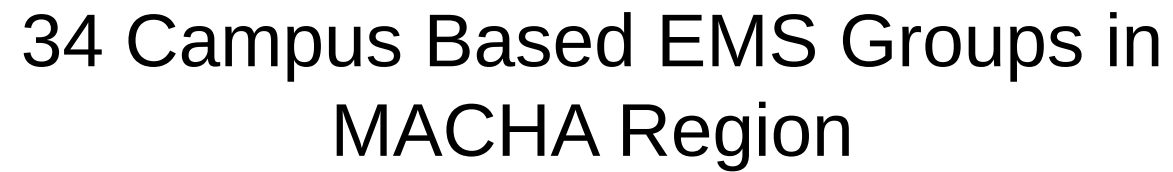


Prevalence of Known Campus Based EMS Organizations



- 204 Member Institutions in Database
 - 23 new groups added since start of 2003-04 academic year
 - 2003 – 6 were founded
 - 2004 – 7 were founded
 - 2005 – 8 were founded
- Representing 37 States
 - 65% in NE US





New Hampshire: 7
Vermont: 4
Massachusetts: 18
Rhode Island: 3
Connecticut: 4
New Jersey: 6
Delaware: 1
Maryland: 4
DC : 3





Award-Winning Groups

- Repeated New York State EMS Organization of the Year winners:
 - 2003 – Syracuse University Ambulance
 - 2004 – SUNY Stony Brook (SBVAC)
 - 2005 – SUNY Binghamton (Harpurs Ferry)



CBEMS Study - 2002



- Study population
 - 148 Campus based EMS groups
 - 60% located in the Northeast
- Type of Institution
 - Public 46.9%
 - Private 53.1%
- Transport Capabilities
 - Response vehicle 68.3%
 - Transport 29.1%
- Average Response Time
 - 2.47 Minutes (95% CI 2.17-2.77)
- Access to Early Defibrillation
 - AED or ALS 63.5% of CBEMS



CBEMS Study - 2002



- Coverage Area
 - 35.1% provided service to the community beyond the campus
- Population served by CBEMS 2,716,456
- The average call volume per year was 367.5 responses.
- Total of 4268 students were involved in CBEMS
 - Average of 35.3 members
- Staff
 - Volunteer 73.1%
- Dispatch
 - Campus security 60%



NCEMSF Database



- 54,800 Emergency responses in 2004 (136/204)
- 46,997 Emergency responses in 2003 (145/181)
 - Service average is 373 emergency responses
 - Average response time of 3 minutes (compared to the national of average of 8 minutes)
 - Majority dispatched by campus security/public safety
- Number of Members/Providers 4,248
 - Service average is 35 members
 - 75% are volunteer, 15% paid, 10% mixed
- 66% Operate 24/7 at least during the school year



Training Requirements & Certifications



■ First Responder

- 40-60 hours of instruction
- Scope of practice includes:
 - Trauma Patient Assessment/Management
 - Bleeding Control/Shock Management
 - Upper Airway Adjuncts and Suction
 - Mouth-to-Mask Ventilation
 - One and Two Rescuer CPR
 - Infant CPR
 - Unresponsive Adult Obstructed Airway



EMS Certifications



■ EMT-Basic

- 120 Hours of Instruction
- Scope of Practice Includes
 - Patient Assessment/Management - Trauma & Medical
 - Cardiac Arrest Management/AED
 - Spinal Immobilization
 - Bag-Valve-Mask Apneic Patient with a Pulse
 - Fracture & Dislocation Immobilization
 - Bleeding Control/Shock Management
 - Upper Airway Adjuncts and Suction
 - Mouth-to-Mask with Supplemental Oxygen
 - Supplemental Oxygen Administration



EMS Certifications



■ EMT-Intermediate

- 60-100 hours of training in addition to EMT-Basic
- Scope of practice:
 - EMT-Basic skills
 - Advanced airway techniques (ET or dual lumen)
 - Intravenous access



EMS Certifications



■ EMT-Paramedic

- 1000 hours of training in addition to EMT-Basic
- Scope of practice:
 - EMT-Intermediate skills
 - Intraosseous infusion
 - Surgical airway techniques
 - EKG interpretation
 - Manual defibrillation / cardioversion
 - AHA ACLS
 - Drug therapy
 - Trauma resuscitation





Group Models

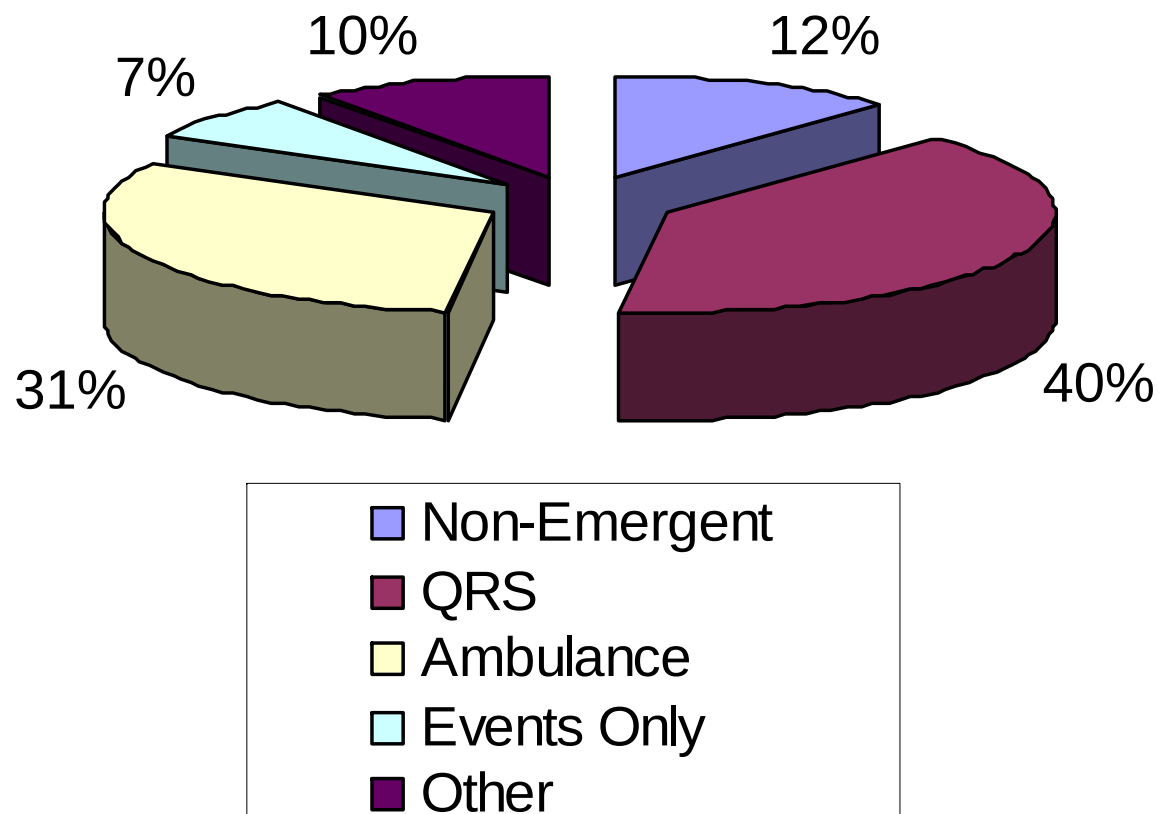
Staffing Level

- FR/QRS - 12%
- BLS - 68%
- Intermediate/ALS - 14%
- EMS Education Only - 9%
- 450 AEDs in service - utilized by 74% of services





Group Models





Group Models

- Paid -15%
 - Work Study
 - Professional Staff
- Volunteer - 75%
 - Student volunteers





Group Models

■ Public Safety / PD

– Pros

- Already Responds to Emergencies
- 24/7 Dispatch Capabilities
- Knowledge of Campus
- Trained in Scene Control
- Can Transport Equipment to Scene

– Cons

- Perception that You “Called the Cops”
- Not Focused on Patient Care
- Lack the Understanding of Medical Knowledge





Group Models

■ Student Activities

– Pros

- Funding Source
- Increased Approachability
- Source for Recruitment
- Communication Among Other Student Groups
- Potentially Strong Advocate

– Cons

- Lack of Stable Funding Source
- Potential to Lack Medical Oversight
- Image of “Club”





Group Models

■ Health Services

– Pros

- Equipped for Patient Care
- Understands the Medical Needs of the Campus
- Can Provide Medical Direction
- QI/QA

– Cons

- Focused on Urgent/Primary Care Instead of Emergency Care
- Not Available 24/7
- May Not Recognize Need for CBEMS





Group Models

■ Local Municipality

– Pros

- Equipment Readily Available
- Established System for Responding to Emergencies
- Utilization of External Funds

– Cons

- Loss of Closed System
- No Continuity of Care
- Primary Focus is on Increasing Their Membership Not Serving Your Community

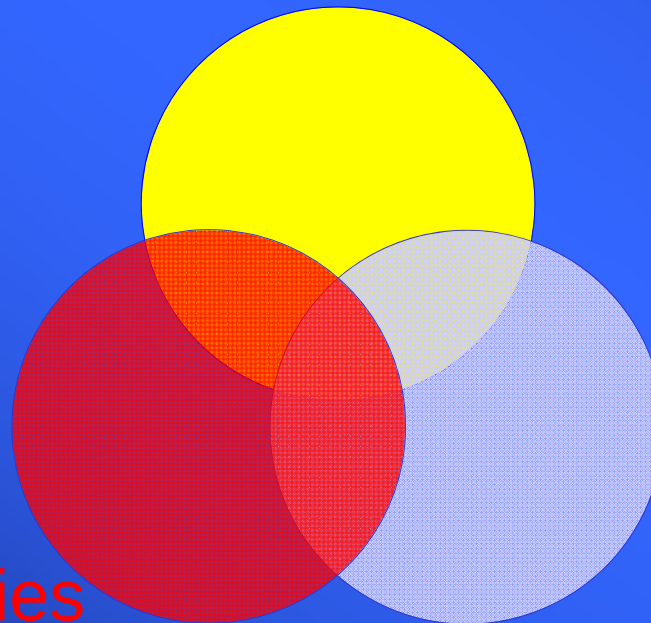


Collaboration



- We advocate a collaborative model

Health Services



Student Activities

Public Safety





Assessing Your Need

- Evaluate Your Current System
 - Urban vs Rural
 - Response Time
 - Communication
 - Training Availability (level, location)
- Review Public Safety Logs for Number of Medical Incidents
- Determine Best Fit Based on Data



Where You Can Help as a Health Administrator



- Developing a QI Process to Improve the Standard of Care for CBEMS
- Acting as A Mentor
- Promoting the Sense of Community Responsibility
- Using CBEMS as an Adjunct to Promote Overall Campus Health





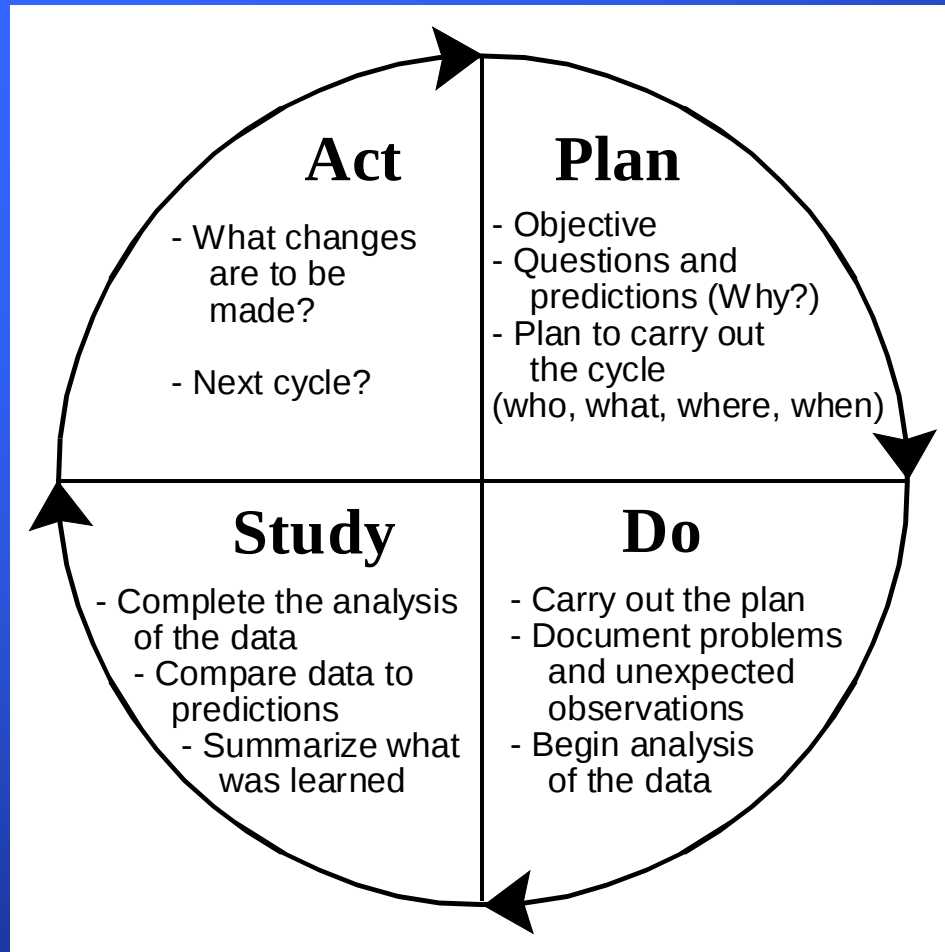
Developing A QI Process

- QA vs QI
 - QA addresses the individual
 - QI seeks to improve the system

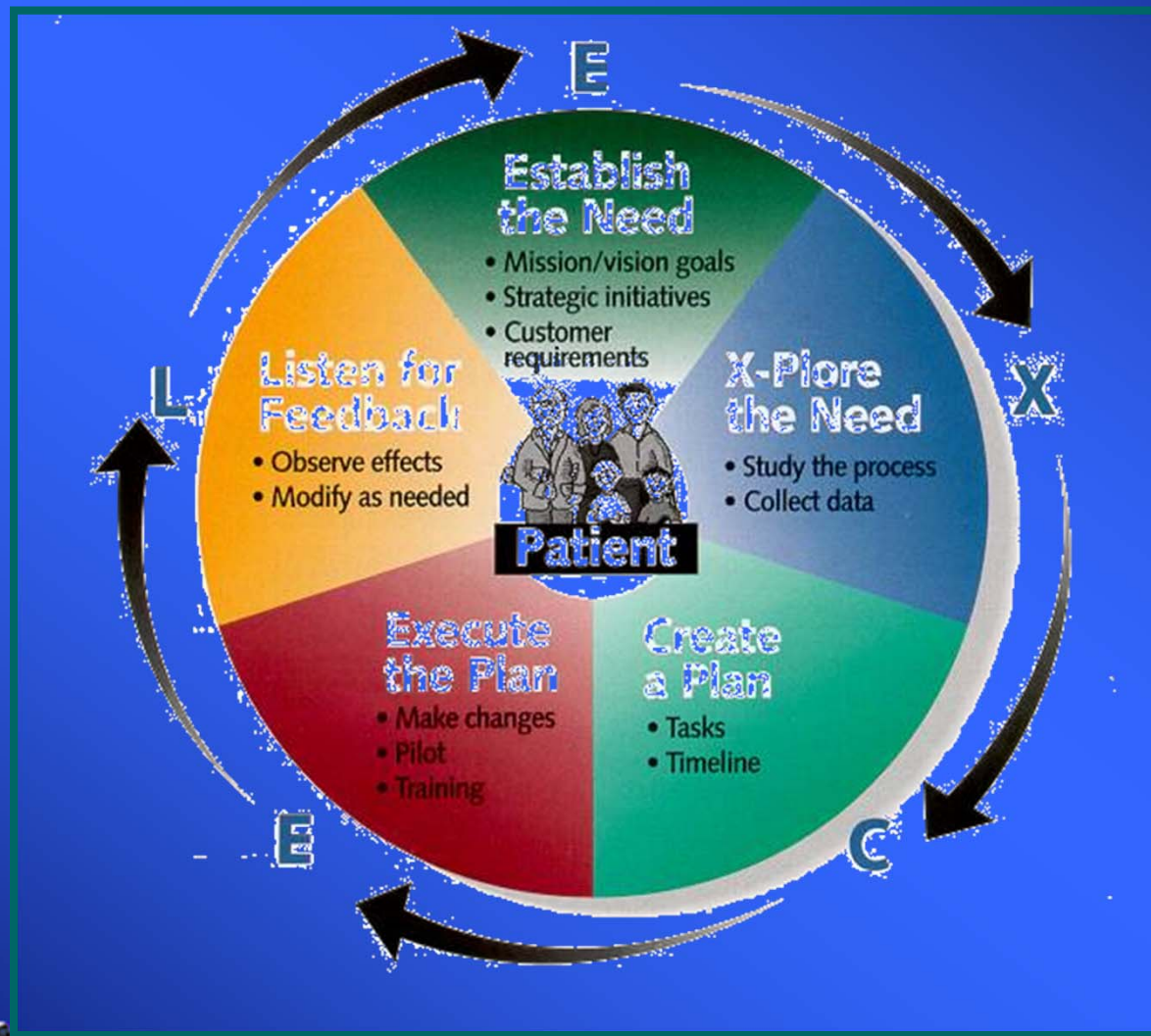
- 2 Major Types of QI Activities:
 - Random PCR Review
 - Focused PCR Review



QI Process: The Cycle



EXCEL



QI Process: Focused Chart Review



1. Do not disclose what type of call you are reviewing
2. Develop an evaluation tool to review PCR's with that corresponds with agency protocols
3. Pull all PCR's that meet criteria for a given time period
4. Evaluate performance



QI Process: Focused Chart Review



5. Identify opportunities for improvement
6. Ask questions / identify potential root causes
7. Schedule staff meeting / CE related to the current QI initiative
 - a. Present findings
 - b. Provide education
 - c. Set performance goals that staff buys into
8. Reevaluate performance, share findings, identify further opportunities, celebrate successes.



QI Example: BLS Non-Transports



- Studied adherence to the non-transport protocol for our BLS providers
- The following data elements were reviewed:
 1. Patient age
 2. Vital Signs
 3. Patient offered transport
 4. Discussion of benefits of transport
 5. Lung sounds assessed
 6. Medical history documented
 7. Blood glucose check, if indicated
 8. Medications listed
 9. Allergies listed



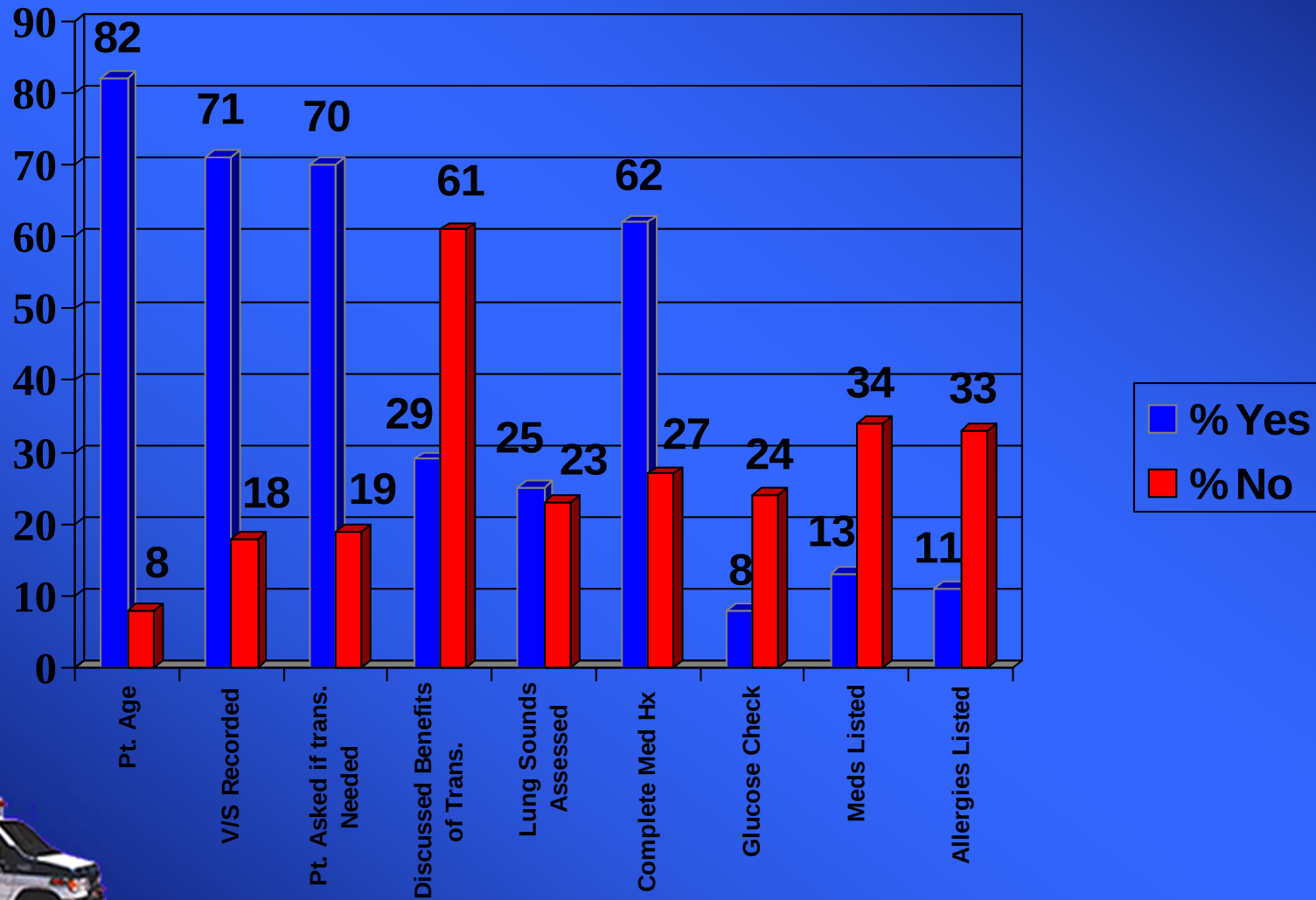
QI Example: BLS Non-Transports



- Developed an evaluation tool, adapted from the protocol / documentation requirements.
- Reviewed one month's worth of PCR's
- Results were as follows:



QI Example: BLS Non-Transports



QI Example: of BLS Non-Transports



- How do we analyze this data?
 - There is clearly some area for improvement
 - Are the discrepancies related to actual performance or documentation?
 - Probably a little of both
 - Are we pleased with the results? Would you be?
 - What are the potential root causes?



QI Example: BLS Non-Transports



- Now What?
- Develop an Intervention
 - All EMT's are scheduled for a CE over a four-day period
 - Results are provided to the EMTs
 - Consensus that we can improve the results
 - Education consists of a protocol review, a review of proper documentation, and a review of blood glucose determination



QI Example: ALS Chest Pain

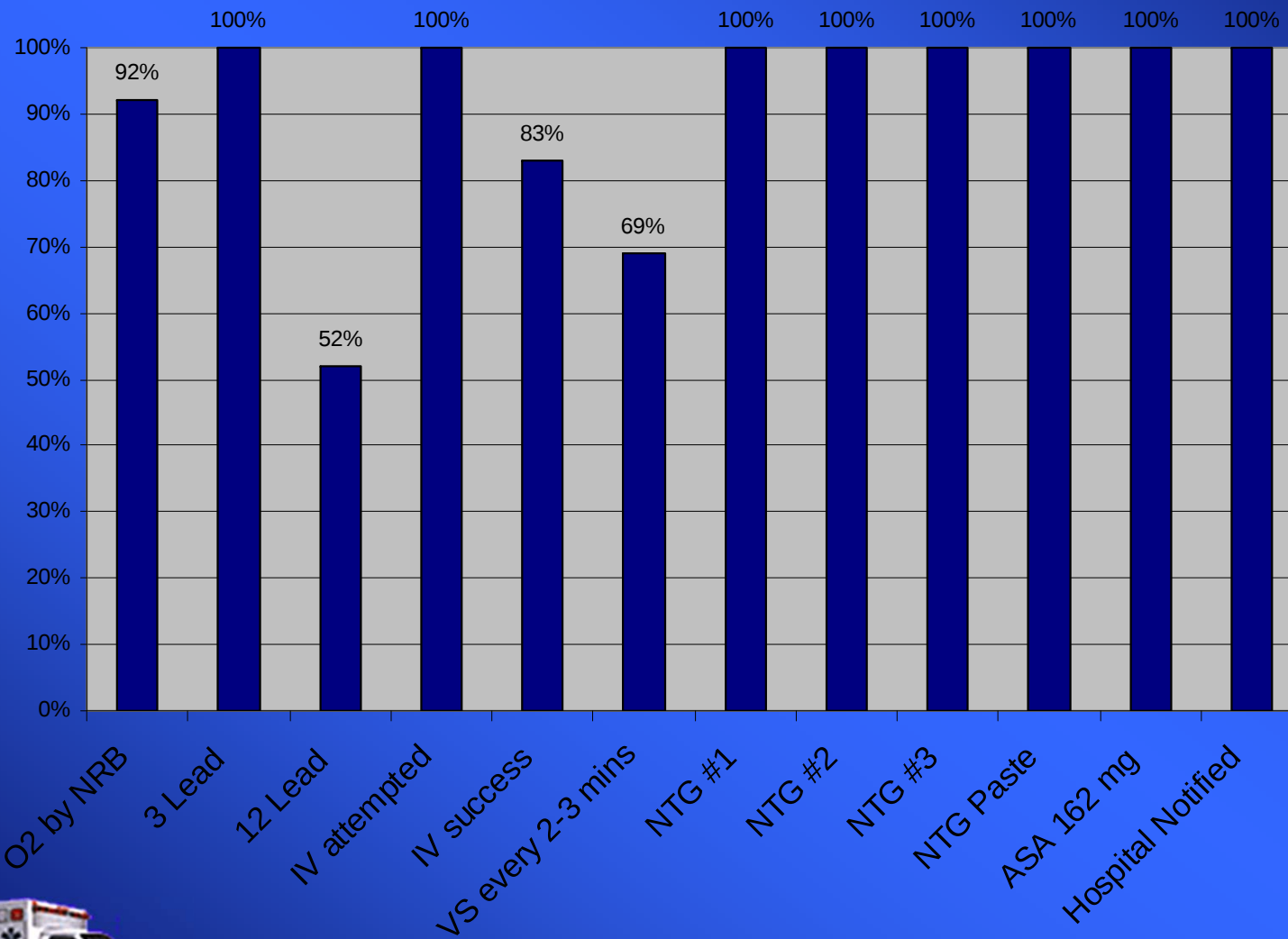


- Same process used as in previous example
- The following data elements were reviewed:
 - O2 via non-rebreather
 - 3 lead ECG
 - 12 lead ECG
 - IV attempted
 - IV success
 - VS every 2-3 minutes
 - NTG #1-3
 - NTG Paste
 - ASA 162 mg
 - Hospital Notified

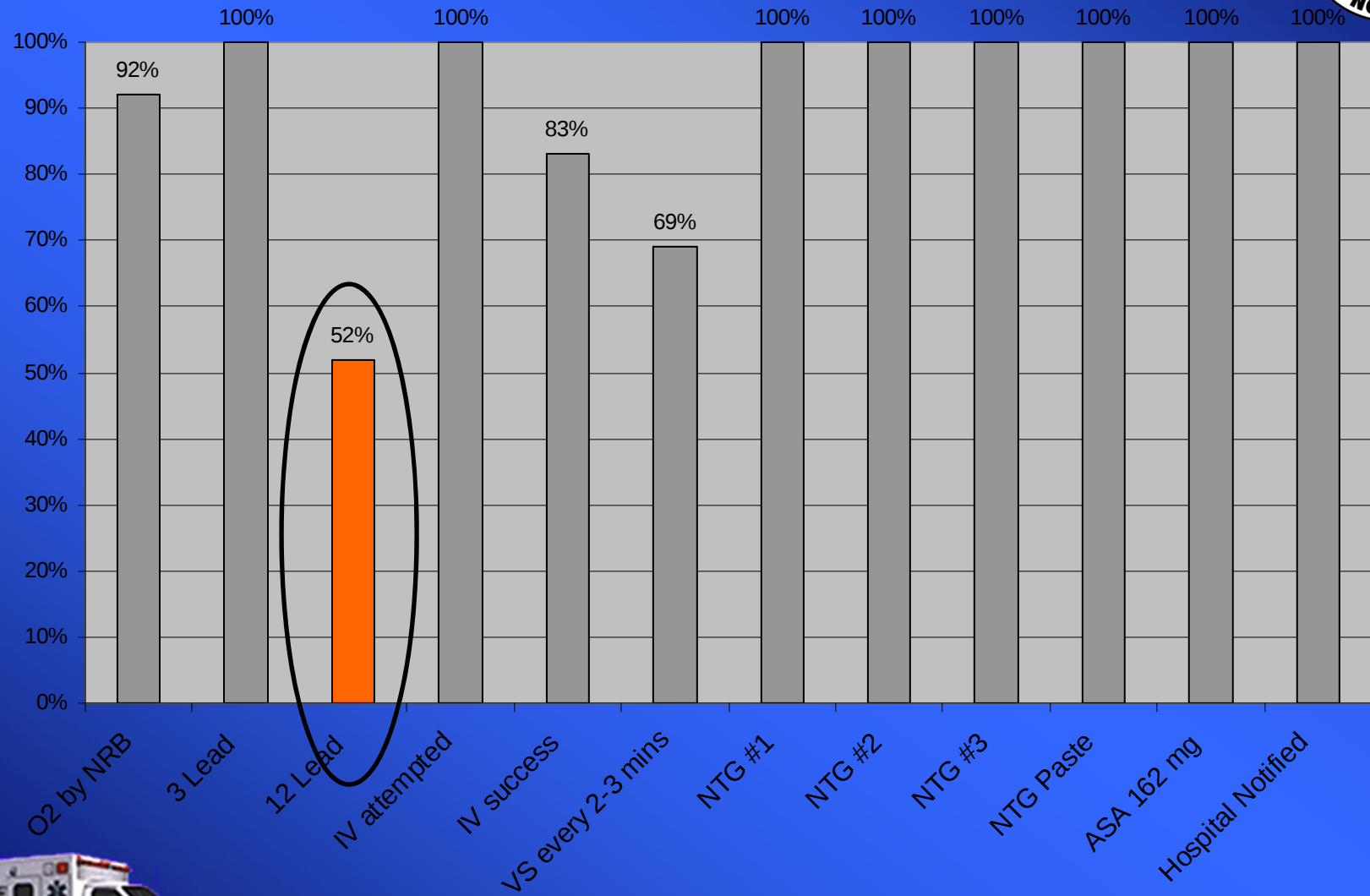




QI Example: ALS Chest Pain



QI Example: ALS Chest Pain





QI Example: ALS Chest Pain

- Review number of patients who received a 12 lead ECG
 - Opportunity for improvement
 - ? Gap in performance attributed to poor documentation
 - Are we pleased with the results? Would you be?
 - What are some of the potential root causes?
 - Underestimation of the number of patients who might benefit from obtaining a 12-lead ECG



QI Example: ALS Chest Pain



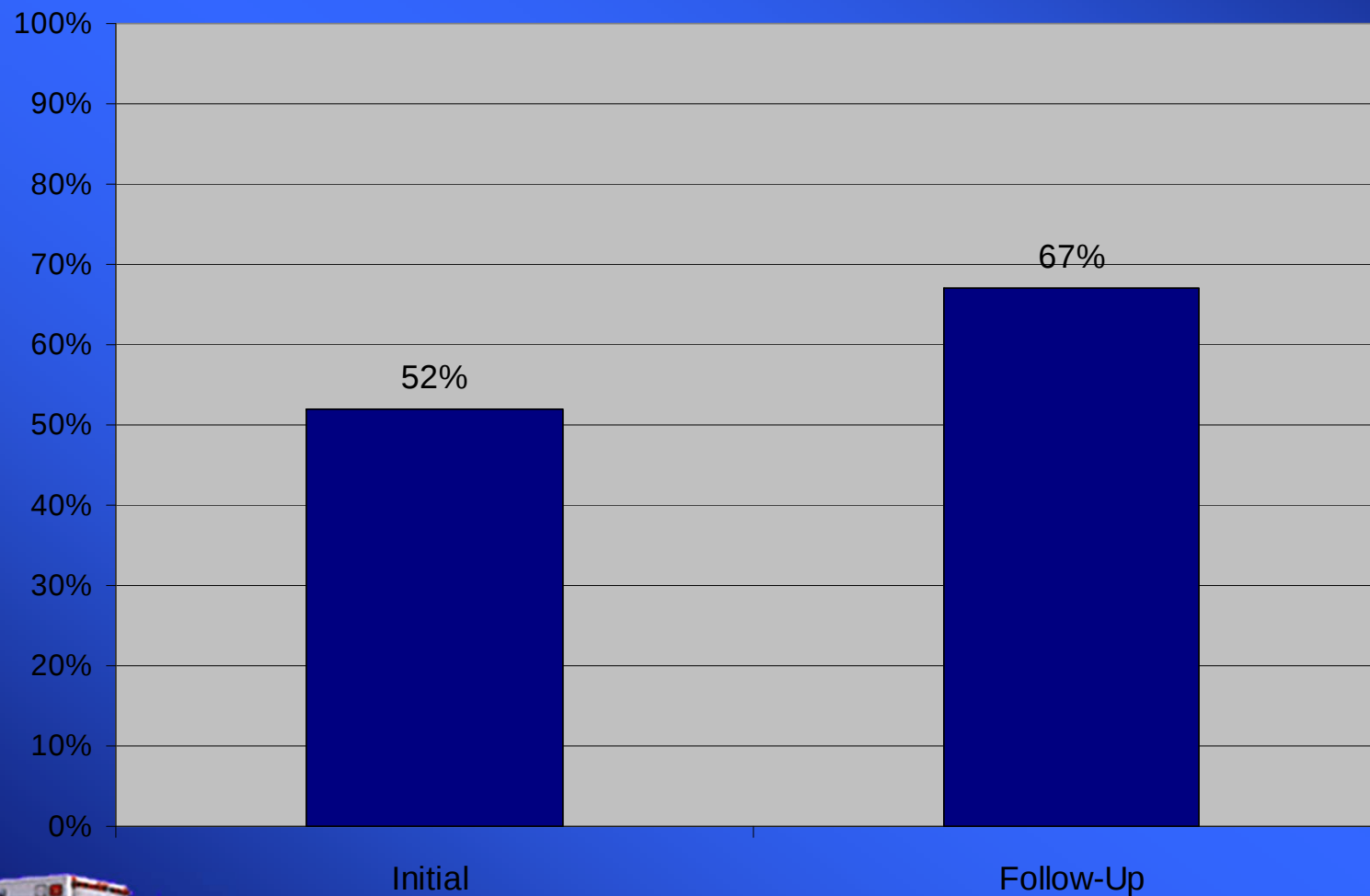
- Lack of proficiency applying a 12-lead
- Not comfortable with interpreting 12-leads
- Equipment problems
- Negative reinforcement from receiving facilities
- How do we identify the biggest issues?

ASK YOUR FIELD PROVIDERS

- Develop an Intervention



QI Example: ALS Chest Pain



Where We Can Help?



- Our Program for Identifying Superior CBEMS Programs
- NCEMSF Striving for Excellence in Campus EMS



NCEMSF's Striving for Excellence Program



- Objective of the program
 - To recognize quality campus EMS organizations
 - Provide new and developing organizations an example of what to emulate
 - To assess quality factors in EMS operations
 - Delivery of Care
 - Training
 - Continuing Education of Employees and Volunteers



Striving for Excellence



- Components of Self-evaluative Process
 - Provide certified EMS staff for your level of operations at all times during the hours that you specify that you are in service
 - Meet the local EMS licensure or accreditation criteria
 - Maintain adequate equipment
 - A physician medical director or advisor
 - A quality assurance program



Striving for Excellence



- EMS staff must meet state certification requirements for your level of operation
- Documentation of Hep B vaccinations, annual PPD tests, and annual blood borne pathogens training
- Community service and educational programs
- Four recommendations required that must include faculty advisor, physician medical director or advisor, and a College or University administrator



Where You Can Help as a Health Administrator



- Developing a QI Process to Improve the Standard of Care for CBEMS
- **Acting as A Mentor**
- Promoting the Sense of Community Responsibility
- Using CBEMS as an Adjunct to Promote Overall Campus Health





- CBEMS Provides the Foundation for Personal Growth
- Imparts Skills for Life
 - Management
 - Team Work
 - Problem Solving
 - Stress Management
- Many of Our Members Continue to Graduate and Professional Programs
- Your Mentorship is Important to Their Success



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- CBEMS Teaches Community Responsibility
 - One Student Helping Another
- If you volunteer in college, statistics show that you are more likely to volunteer after college.



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EMS Week



- Encourage Participation in Collegiate EMS Week
- Week-long recognition and celebration of Collegiate EMS Organizations
- Modeled after EMS Week in May sponsored by ACEP and Congress
- November 7-13, 2005
 - Past Events
 - Blood Pressure Screening
 - CPR Classes for Campus
 - Mock Choking Demonstrations
- Downloadable Packets On-line



How NCEMSF Can Help?



■ Consulting

- We can assist you in creating the groundwork for a new organization
- We can evaluate your current program and identify areas for improvement

■ National Conference

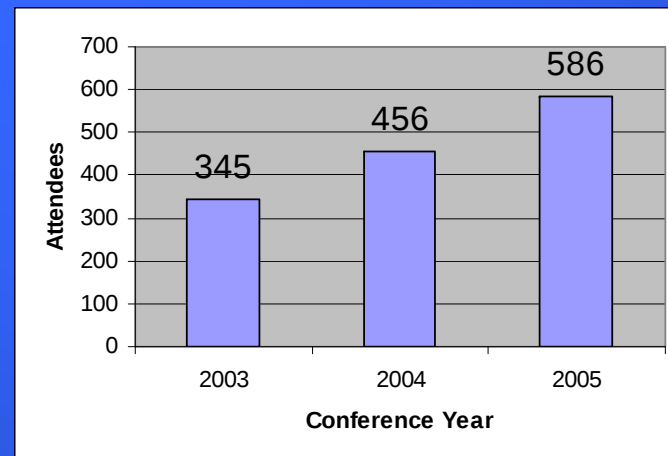
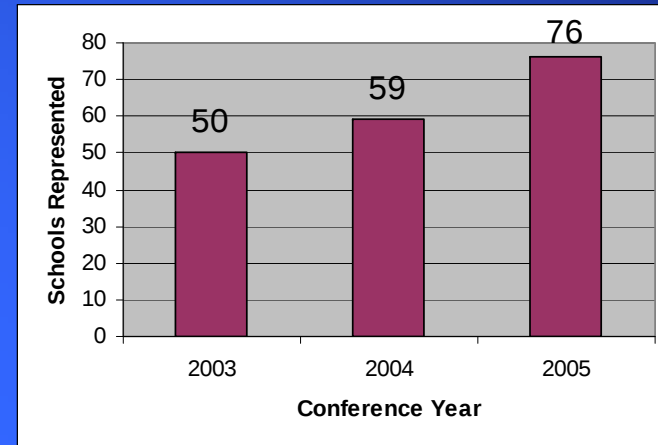
■ Our Resources



Conferences



- 13th Annual Conference Boston, MA
 - February 24-26, 2006
 - Conference Stats



Conference 2006 Preview



- Expert Speakers - 27 lectures/workshops
- Clinical Skills Competition
- Student Speaker Competition
- Regional Roundtables
- Career/Recruitment Fair and Tradeshow
- Alumni Mixer
- NETWORKING







Resources



- On-line
 - Searchable Database/EMS Directory
 - SOP/Bylaw Library
 - E-Discussion - General-L, Admin-L, Alumni-L
 - Local News
- In-print
 - Quarterly NCEMSF News (Newsletter)
 - Directory of Campus EMS Organizations
- Member Benefits - Nextel, Skyscape, EMS Magazine
- Store - Discounted Textbooks and Apparel
- EMS Jobs





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