• CDC Injury Research Agenda 2009-2018
  — Supports Acute Injury Care Research

• Agendas Developed, Agendas Unfulfilled

• Inter-agency Collaboration
  — CDC, NHTSA, HRSA EMS-C, NIH, DOD, FICEMS, ECCC

• CDC Research Translation through Guidelines

• Urgency to Reduce Costs, Save Lives
Enhancing Acute Care Surgery Research

*Gregory J Jurkovich, MD*

- Barriers to Research in Trauma, Surgical Critical Illness, and Emergency General Surgery
  - Time
  - Treasure
  - Not Talent
  - Topics
NIH has a diverse portfolio of research in emergency setting
  - Spans discovery to comparative effectiveness research
  - Based upon substantial basic and pre-clinical research
  - Primarily disease focused

Variety of mechanisms for clinical research
  - Primarily investigator-initiated
  - Networks- neurology emergency trials (NINDS), resuscitation outcomes (NHLBI)
  - Clinical Translational Science Awards (CTSA) offer a new opportunity
  - Training and Career Development Awards are critical but require nurturing of young investigators.

Trans-NIH series of workshops defining the opportunities for research in the emergency setting.
• Focus on the right questions
• Capable and productive investigators
  — Formal and substantive research training, collaborations
  — Protected time, appropriate career tracks and incentives
• Access to
  — Research infrastructure (laboratories, core facilities)
  — Patient populations (e.g., via research networks)
• Supporting Informatics and data linkages
• Sufficient, merit-based funding aligned with important and promising directions of emergency care inquiry
• Absence of regulatory barriers
• The Agency for Healthcare Research and Quality (AHRQ) supports ED research through grants and contracts.

• It also makes ED data resources available through the Healthcare Cost and Utilization Project (HCUP)
  — The Nationwide Emergency Department Sample (NEDS)
  — State Emergency Department Databases (SEDD)
  — HCUPnet
  — Stat briefs
Provider Workforce Issues

• Demand:
  — ED visits rising
  — Rural and state-specific population growth
  — Care by intensivists

• Supply:
  — Emergency physicians, Intensivists
  — No “EM Certification” for Nurse Practitioners
  — Paucity of P.A./EM residency programs

Workforce Opportunities

• Match resources to need:
  — Telemedicine initiatives
  — Metrics-driven smart growth of residency programs

• Certification and funding NP(s) and PA(s):
  — EM and Critical Care

• ACGME EM-CC pathway
• Nursing shortage

• Impact of the economy

• Deficit of emergency nursing education in nursing school curriculums

• Training and orientation to the emergency department (ED)

• Active retention of experienced ED nurses

• Impact on ED crowding on education, training, and turnover

• Safe practice and work equity from an educational perspective
The EMS Education Agenda for the Future: Systems Approach

- The Universe of EMS Knowledge and Skills
- Delineation of provider practice levels
- Replaces the current National Standard Curricula

The Universe of EMS Knowledge and Skills

National EMS Core Content

National EMS Scope of Practice

National EMS Education Standards

National EMS Certification

National EMS Education Program Accreditation
EMS Provider Training

- **Traditional and Non-Traditional Roles for Providers**
  - Street
  - Hospital and Healthcare Facility

- **Traditional and Non-Traditional Roles Training for Providers**
  - As it is today and projected with new education standards – state and national involvement
  - As it is not – how non-traditional roles are prepared and/or credentialed

- **Advancement of EMS as a Profession in Non-Traditional Settings**
  - Needed skills with experienced providers
  - EMS Providers versatile in healthcare settings
  - Partnerships a priority strategy in creating opportunities for EMS Providers in alternative settings – identify obstacles and address
A 48 year old female is brought in by ambulance after striking a guard rail at a high rate of speed. The patient is complaining of severe abdominal and lower extremity pain. The Emergency Physician provides critical care services: stabilizing the patient, diagnosing a contused spleen, and fractured tibia.

<table>
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<tr>
<th>Provider</th>
<th>Code/Bill</th>
<th>Liability</th>
<th>Overhead</th>
<th>Stand By</th>
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<th>Medicaid</th>
<th>Self Pay</th>
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<td>$220</td>
<td>$212</td>
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<tr>
<td>Net</td>
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<td>-$72</td>
<td>-$157</td>
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</table>
Medicare Payment Policy Areas related to Emergency Care

- Ambulance
  - 10,000 providers and suppliers
  - $5.4B in 2008
- Emergency Departments
  - 3,200 emergency departments
  - $1.9B to facilities for ED visits
- Emergency Medicine Physicians
  - 37,000 specialize in Emergency Medicine (3% of physicians)
  - $2.1 B to physicians and non-physician practitioners for ED visits
Financing Emergency Medical Services

• Does EMS contribute to downstream health care savings?

• What constitutes the cost of readiness?

• Can an alternative funding model be built that incorporates cost of readiness and uncouples payment from transport?
### Payor Mix

<table>
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<th>Advantages</th>
<th>Disadvantages</th>
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<tr>
<td>Entry Point</td>
<td>EMTALA</td>
</tr>
<tr>
<td>Revenue Source</td>
<td>High Resource Utilization</td>
</tr>
<tr>
<td>Safety Net</td>
<td>Support Professional Services</td>
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</table>
• Cost of the “safety” net hospitals (Level I and II)
  • Survey of Pennsylvania accredited trauma centers
• Malpractice for emergency surgeons
  • 2002-2009
• Tort reform (Good Samaritan Law)
  • Malpractice premium relief for emergency providers
• CPT recognition of work RVU’s
  • Case mix, severity of emergency/injury
  • Readiness adjustment

- National Unemployment Rate Increase (from 4.9% in Dec-07 to 8.5% in Mar-09)
- Employer-Sponsored Insurance Decrease (millions) = 3.6
- Medicaid/CHIP Enrollment Increase (millions) = 3.9
- Uninsured Increase (millions) = 8.9

Source: John Holahan and Bowen Garrett, *Rising Unemployment, Medicaid, and the Uninsured*, prepared for the Kaiser Commission on Medicaid and the Uninsured, January 2009. Note: Other smaller changes in nongroup coverage and other public programs are not included here.
Impact of the Rise in Unemployment to 9%
from 4.6% (2007 annual average)

National Unemployment Rate Increase

4.4% = Job-Based Insurance

10.7 million

Medicaid-CHIP

4.4 million

Uninsured

4.8 million

Note: Smaller changes in nongroup coverage and other public programs are not shown.
• Surgical workforce – not growing with population
• Profound impact on small and rural hospital’s survival
• Hyper specialization- too few general and emergency—80% of general surgery graduates go to fellowship training
• Work-Life balance and work styles
• Fixed graduate pool (ACGME / RRC; CMS)
• Regionalization effects
• Acute care surgery training (a paradigm to improve all general surgery residents training in trauma/emergency