Globalization of Emergency Medicine
EM Globalization

- ‘When [EMERGENCY] services become similar around with world’
- ‘When societies, cultures, economics come closer together’
- ‘When Emergency Services become worldwide in scope’
Measures of Globalization

- >40 Emergency Medicine professional and scientific publications worldwide
- >50 countries recognize EM as an independent specialty
- Different cultural and national traditions of health care have led to different pathways of training and practice
BIG IDEAS NEED BIG SPACES
Measures of Globalization

- EUSEM - European Society for Emergency Medicine
  - European Manifesto for EM-1994
  - 2001 - European curriculum for EM
  - Emergency Medicine is one of 39 specialist sections of the Union Europeene de Specialistes
  - 34 EUSEM member countries, from Albania to UK
  - First EM Board Examination in 2015, goal to facilitate movement between EU Countries
Measures of Globalization

- Asian Society of Emergency and Disaster Medicine
  - Founded in Singapore
  - Goal - to improve EMS training and standardize prehospital care
Measures of Globalization

- Pan-Arab Society of Trauma and Emergency Medicine
  - Encourage development of post-graduate EM training
  - Provide common standards of care
  - Promote an understanding of EM in the population
  - Liaison between the public and academics
Measures of Globalization

- La Societe Francophone de Medicine d’Urgence (SFMU)
  - Affiliated with SAMU (System of Emergency Medicine Assistance in France) in 2000
Measures of Globalization

- ALACED El Asociacion Latinoamericana de Cooperacion in Emergencias Medicas y Desastres
  - Colombia, Cuba, Peru, Argentina, Mexico
  - Develop training standards for EM
  - Professional support for emergency physicians
Measures of Globalization

- SMME - Sociedad Mexicana de Medicina de Emergencia
  - State, Resident, Prehospital, and Nursing chapters
  - Legislative advocacy
Measures of Globalization

- **PACEMD**
  - Brings a wide range of students to Mexico and SA-international awareness
  - Training programs in ALS, ALSO, and ultrasonography for regional health care providers
Measures of Globalization

- ACGME-I [International] (2016)
  - American University of Beirut (1 EM)
  - Tan Tok Seng Hospital, Singapore (3 EM)
  - Hamad Hospital, Doha Qatar (1 EM)
  - United Arab Emirates (2 EM)
Training variations

- Modular courses on major emergencies
- Residency programs of 3-5 years
  - Primary training: US, Australasia, Poland, Mexico
  - Secondary certificates: Europe
  - Combined with FP: Canada
- All try to follow standardized national guidelines
Regular National Meetings

- European Congress in EM
- International Congress in EM (IFEM)
- World Congress of Emergency and Disaster Medicine
- Congreso de Medicina de Urgencia y Trauma
- Asian Conference in Emergency and Disaster Medicine
- Mediterranean EM Congress
- Qatar International Conference in Emergency and Disaster Medicine
- Turkish Emergency Medicine Congress
- Polish Society of Emergency Medicine
- Australasian Society of Emergency Medicine
Emergency Medicine in Georgia

- 2005 – ED opens in Iashvili Hospital
- 2007 – ED opens, USAID grant begins
- 2008 – Begin planning for formal EM
- 2009 – First Emergency Medicine subspecialty class, EM becomes a subspecialty
- 2010-2011 – Second subspecialty class
- 2012 – 2013 – Third subspecialty class
- 2013 – EM becomes full specialty with a three year residency program
- 2013 – Was defined scope of practice for EM
- 2016 – pediatric residency program started
<table>
<thead>
<tr>
<th></th>
<th>Before</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td>Space</td>
<td>Old admission dep.</td>
<td>Betterl designed ED</td>
</tr>
<tr>
<td>All necessary equipment</td>
<td>No</td>
<td>Yes (including portable equipment and CT)</td>
</tr>
<tr>
<td>Physician/nurse ratio</td>
<td>One to one</td>
<td>One to three (not including the nurse assistants)</td>
</tr>
<tr>
<td>Triage</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Clinical pathways/protocols</td>
<td>No</td>
<td>Yes (ongoing process)</td>
</tr>
<tr>
<td>Policies</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Implemented quality assurance activities</td>
<td>No</td>
<td>Yes (with special group and database)</td>
</tr>
<tr>
<td>Implemented infection control activities</td>
<td>No</td>
<td>Yes (specially trained nurse, protocols, database)</td>
</tr>
<tr>
<td>Education in EM</td>
<td>No</td>
<td>Yes (continues education, subspecialty program)</td>
</tr>
</tbody>
</table>
## Hospital Data - KCUH

<table>
<thead>
<tr>
<th></th>
<th>Before ED</th>
<th>After ED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Number of Patients</td>
<td>8252</td>
<td>14853</td>
</tr>
<tr>
<td>Total Number of beds</td>
<td>430</td>
<td>170</td>
</tr>
<tr>
<td>Total Number of ICU/CC Beds</td>
<td>20</td>
<td>35</td>
</tr>
<tr>
<td>Number of inpatient days/per patient</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Number of inpatient days</td>
<td>53160</td>
<td>45251</td>
</tr>
<tr>
<td>Number and percentage of death</td>
<td>297 (3.6%)</td>
<td>140 (0.7%)</td>
</tr>
<tr>
<td>Percentage of Death in ICU/CC</td>
<td>35%</td>
<td>9%</td>
</tr>
</tbody>
</table>
## Some Hospital Data - Batumi Referral Hospital (BRH)

<table>
<thead>
<tr>
<th></th>
<th>Before ED</th>
<th>After ED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Number of Patients</td>
<td>12059</td>
<td>14395</td>
</tr>
<tr>
<td>Total Number of beds</td>
<td>119</td>
<td>116</td>
</tr>
<tr>
<td>Total Number of ICU/CC Beds</td>
<td>16</td>
<td>19</td>
</tr>
<tr>
<td>Number of inpatient days/per patient; occupancy rate</td>
<td>2,3/63%</td>
<td>1,9/66%</td>
</tr>
<tr>
<td>Number of inpatient days</td>
<td>27727</td>
<td>28299</td>
</tr>
<tr>
<td>Number and percentage of death</td>
<td>378 (3%)</td>
<td>335 (2%)</td>
</tr>
<tr>
<td>Percentage of Death in ICU/CC</td>
<td>27%</td>
<td>13%</td>
</tr>
</tbody>
</table>
Emergency Medicine Benefits for Hospitals

- Patients receive quality care from the very beginning
- There is less need for involvement of different specialists in management of patients
- Inpatient beds are saved for those patients who are in real need of hospitalization
- It is possible to admit the patients in predefined specialty departments with minimal errors
- It saves financial and human resources of hospital
Emergency Medicine Benefits for the Healthcare System of Georgia

- New multidiscipline medical specialty, the first new specialty adopted by the Medical Council since Soviet times
- Efficient and quality care using limited resources, especially in the regions
- Unified countrywide patient flow plan with organized referral
- Need of smaller spaces for operation
- Resource utilization
Europe

- 742,452,000 habitants.
- 52 Countries.
- 225 Languages.
- EU 24 official languages.

Health System
- Public health funded
- Universal coverage
- The European Commission's Directorate-General for Health and Consumers to align national laws.
- One different system per country.
Europe Health cost

(*) Countries are ranked on total (public + private) healthcare expenditure in PPS per inhabitant. Denmark, Cyprus, Portugal, Iceland, Norway and Switzerland: provisional. Ireland, Italy, Malta and the United Kingdom: not available.

(*) 2011.

(*) 2010.

Source: Eurostat (online data code: hith_sha_hf)
The number of visits to emergency departments has increased over the past decade in almost all OECD countries.

Number of visits to emergency department per 100 population, 2001 (or nearest available year) and 2011 (or most recent year)
Emergency Medicine Early Years

Speciality

- UK 1972
- US 1979
- Canada 1980
- Hong Kong 1981
- Singapore 1984
- Turkey 1994
- Italy 1996
- South Korea 1996
January 2015
Map of the countries of the European Union showing the status of the specialty of Emergency Medicine

17 = Primary specialty
2 = Supra-specialty
2 - <5 year training
6 = No specialty
Non Included Countries in EuSEM

1. Andorra
2. Armenia
3. Azerbaijan
4. Belarus
5. Bosnia & Herzegovina
6. Iceland
7. Kazakhstan
8. Liechtenstein
9. Moldova
10. Monaco
11. Montenegro
12. Russia
13. San Marino
14. Slovenia
15. Ukraine

52 Countries in Europe
Emergency Medicine Publications
Scope of EM Care & Delivery

- **Accessing EM Care**
  - East and fast, especially for time-sensitive emergencies
  - Universal emergency access number
  - Dispatch system for transport
  - Often combined with public safety services
Scope of EM Care & Delivery

- **EM Care in the Community**
  - Bystanders and family members
  - Community health workers
  - Nurses and Primary Care Physicians

- **Educational needs**
  - First aid training
  - Opening airway, controlling bleeding
  - Immobilizing fractures
  - Recognizing need for higher level care
Scope of EM Care & Delivery

**EM Care during Transportation**

- Extent of care varies by country
- Transport only (taxis, police vehicles)
- Advanced care by non-physicians (EMT’s)
- Physicians can provide a complete episode of care, or transport to hospital
Scope of EM Care & Delivery

- **EM Care at Receiving Facility**
  - Triage prioritizes need for care
  - All initial care in the emergency department, or directly to specialized units (CCU for AMI)
Scope of EM Care & Delivery

- **EM Care at Receiving Facility**
  - Resuscitation
  - Treatment and preliminary diagnosis
  - Observation and consultation
  - Communicate results and document care
  - Organize follow-up care
Challenges and Opportunities for EM Globalization
Challenges

- Economic barriers
  - Too expensive
  - Not recognized as key element of health care system
  - Lack of funding (80%)
  - Lack of infrastructure (63%)
  - Lack of government support (59%)
Challenges

- Government not supportive
  - Medicine in general and EM in particular not viewed as directly related to economic development
  - But - Health Care systems are often primary employers and primary educators
Challenges

- Limited intellectual exchange
  - Internet access
  - Ability to attend international meetings
Challenges

- **Immigration**
  - Easy portability of specialty
  - ‘Brain drain’ to other nations
Challenges

- Misconceptions about emergency care
  - All physicians by definition assumed to be qualified to practice emergency care
  - Specialties focus on diagnoses, not on emergency presentations and treatments (in general)
Challenges

- Trauma care is the only specialized emergency care needed
  - Patients with multiple problems excluded
  - Trauma is serious but a low proportion of emergency cases
  - Does not recognize the need for triage to prioritize care (broken leg vs AMI)
Challenges

- Medical school training
  - Focuses on correct diagnosis
  - No focus on triage, emergency care, or assessment of chief complaint
Challenges

- Institutional apathy
  - Start-up and fixed costs expensive
  - ED overcrowding and insufficient workforce met with institutional and national apathy
  - Resistant to concept that EM care important for everyone, and especially for time-sensitive conditions, not just the ‘poor’
Opportunities

- Government support
  - Emergency care as safety net
  - Key source of care for time-sensitive conditions
Opportunities

- Information exchange
  - Social pressures to improve health care at all levels
  - Exposure to international models of emergency care can be persuasive
  - Spread EM practice guidelines
  - Speed exchange beyond borders for disaster response and care
Opportunities

- Industrialization and urbanization
  - Motor vehicle crashes
  - Workplace injuries
  - EM crucial for surveillance, prevention, and treatment
Opportunities

- Social change
  - Consumer demand for better emergency care
  - Economic improvement will foster awareness of emergency care
Opportunities

- International events
  - Need to provide world-quality emergency and disaster care
Opportunities

- Personal mobility
  - Encourages international exchange of emergency physicians
Opportunities

- Medical School
  - Medical students can be advocates for adding Emergency Medicine rotations and residencies
Globalization of Emergency Medicine

- Measures of Global Development
- Scope of EM Care and EM Delivery Systems
- Public Health Roles of EM
- Challenges
- Opportunities
‘Make no little plans. They have no magic to stir men’s blood’