Tomi St. Mars, MSN, RN, CEN, FAEN

Pediatric Prepared Emergency Care/ Injury Prevention
Office of Injury Prevention

- 5 Federal Grants
- State Funds for CFR
- 7 programs
- 4 Program managers
- Epidemiologist
- Admin Assist

EMS for Children
- 5 contracts
- Tribal EMS for Children
- PACES Committee
- PPEC verification
- 4 EMS Regional Councils

State Injury Plan
- ATV/Motor Vehicle
- CDC CORE VIPP Grant
- BEMST Trauma Interface

Safe Kids AZ
- Car Seat Training
- Home Visiting
- Projects:
  - 5 Federal Grant = deliverables
  - 17 Contracts
  - Prescription Drugs
  - Safe Sleep
  - Battle of the Belt
  - Bully/Suicide Prevention

SUID Case Registry
- State/Local Teams/sub committees
- CFR
  - 10 Contracts
- Maternal Mortality
- Annual Report Required
Performance Measures

- #71 The percentage of prehospital provider agencies in the state/territory that have online pediatric medical direction.
- #72 The percentage of prehospital provider agencies in the state/territory that have offline pediatric medical direction.
- #73 The percentage of patient care units in the state/territory that have essential pediatric equipment and supplies.
- #74 The percentage of hospitals with an emergency department (ED) recognized through a statewide, territorial, or regional standardized system that are able to stabilize and/or manage pediatric medical emergencies.
- #75 The percentage of hospitals with an ED recognized through a statewide, territorial, or regional standardized system that are able to stabilize and/or manage pediatric traumatic emergencies.
#76 The percentage of hospitals with an ED in the state/territory that have written interfacility transfer guidelines that cover pediatric patients and that contain the following components of transfer:

- defined process for initiation of transfer, including the roles and responsibilities of the referring facility and referral center (including responsibilities for requesting transfer and communication);
- process for selecting the appropriate care facility;
- process for selecting the appropriately staffed transport service to match the patient’s acuity level (level of care required by patient, equipment needed in transport, etc.);
- process for patient transfer (including obtaining informed consent); and
- plan for transfer of patient information (e.g. medical record, copy of signed transport consent), personal belongings of the patient, and provision of directions and referral institution information to family.

#77 The percentage of hospitals with an ED in the state/territory that have written interfacility transfer agreements that cover pediatric patients.
- #78 The adoption of requirements by the state/territory for pediatric emergency education for the license/certification renewal of BLS and ALS providers.
- #79 The degree to which the state/territory has established permanence of EMSC in the state/territory EMS system.
  - The establishment of an EMSC Advisory Committee within the state/territory that meets at least four times per year.
  - The incorporation of pediatric representation on the state/territory EMS Board.
  - The establishment of a state/territory, federal, and/or other-funded full-time EMSC manager that is dedicated solely to the EMSC Program.
- #80 The degree to which the state/territory has established permanence of EMSC in the state/territory EMS system by integrating EMSC priorities into statutes/regulations.
Arizona

- EMS for Children’s program opted to focus on regionalization/standardizing
- 90% of pediatric patients treated in an ED access via the front door
- 10% arrive EMS
- Inclusive system improvement
Pediatric Prepared Emergency Care

- April 2008  Stakeholder Meeting – Hospital CEOs, Emergency Department Leadership
- 2008 – 2010: Stakeholder Committee Meetings – review and refine criteria
- Late 2010: Program transferred to AzAAP, Formal Steering Committee seated
- December 2011: Initial site visits
- March 2012: 7 Advanced Care sites, 2 Prepared Plus sites certified by AzAAP Board
- May 2015: 36 Hospital Members, 26 Hospital EDs certified, 7 reverification visits
AZ Goal – Inclusive System of Care

- Voluntary System Developed by ED Nurses and Physicians using the “Guidelines for Care of Children in the Emergency Department”
- Three tiers
- Sustainability: Membership and Certification Fees
- Consultation and Education
- Quality Improvement
Levels of Care – Names not Numbers

- **Prepared Care** - This level of certification provides services for pediatric care as part of a general Emergency Department. The hospital refers critically ill or injured children to other facilities and may or may not have pediatric inpatient services available.

- **Prepared Plus Care** - This level of certification provides services for most pediatric emergency care. The hospital has a focus on pediatrics, but ICU services for children are not available.

- **Prepared Advanced Care** - This level of certification provides services for all levels of pediatric emergency care. This hospital system includes a Pediatric intensive care unit and has a specific focus on pediatric services.
Criteria Example

- Physicians staffing Board-eligible or Board-certified in one of the allopathic or osteopathic boards of: Emergency Medicine, Pediatric Emergency Medicine, Pediatrics, Internal Medicine or Family Medicine.
- 4 hours of pediatric CME annually
- Non-board-certified physicians are required to have current PALS or APLS certification.

- Nursing staff must be licensed in the State of Arizona or multistate compact privilege.
- All nursing staff shall have PALS or ENPC certification within 6 months of hire.
- 4 hours of pediatric CME annually
Cont...

- QI review:
  - All transfers out
  - All pediatric deaths
  - All child abuse/maltreatment
  - Required Equipment

- Guidelines
- Disaster
- Transfers
- Abuse
- Sedation
- Patient safety
  - Medication
  - Weights in KG
  - ALARA
Membership Benefits

• Members discussion forum
  • members share guidelines, procedures, issues and questions
• Free educational classes and trainings
  • Certified Emergency Nurse Review Courses
  • Emergency Nursing Pediatric Courses
  • Advanced Pediatric Life Support, Newborn Resuscitation Program and/or STABLE
• Identification and action on issues common to most or all EDs
• Site visit participants share learning
Arizona Wins….

- Life saved
- Standardizing care
- Weights in kilograms
- Improved child abuse policies
- Mock codes
- Disaster preparedness
- Equipment in place
- Clinical pathways shared
- Improved flow

Next Steps –
- Full set of vital signs on all kids
- % nurses with CEN, CPEN
- Postmortem guidelines
- Identify joint QI targets
- Continue to bump the bar moving evidence to practice faster
Trauma Centers/PPEC

- HonorHealth Scottsdale Osborn Medical Center
- Maricopa Medical Center
- Phoenix Children’s Hospital
- Banner Baywood Medical Center
- Banner University Medical Center – Tucson Campus
- Tuba City Regional Health Care Corp.
- Banner Boswell Medical Center
- Banner Del E. Webb Medical Center
- Banner Estrella Medical Center
- Banner Gateway Medical Center
- Banner Ironwood Medical Center
- Banner Page Hospital

- Banner Gateway Medical Center
- Banner Ironwood Medical Center
- Banner Page Hospital
- HonorHealth Deer Valley Medical Center
- Chinle Comprehensive Health Care Facility
- Cobre Valley Regional Medical Center
- Copper Queen Community Hospital
- Mt. Graham Regional Medical Center
- Northern Cochise Community Hospital
- Oro Valley Hospital
- Summit Healthcare Regional Medical Center
- White Mountain Regional Medical Center
PPEC-Verified

- Arizona Children's Center at Maricopa Medical Center
- Banner Thunderbird Medical Center
- Banner University Medical Center-Tucson
- Cardon's Children's Medical Center
- Phoenix Children's Hospital
- Scottsdale Healthcare- Shea Medical Center
- Tucson Medical Center for Children
- HonorHealth Deer Valley Medical Center-Mendy's Place
- Mercy Gilbert Medical Center
- HonorHealth Scottsdale Osborn Medical Center
- HonorHealth Scottsdale Thompson Peak Medical Center
- Summit Healthcare Regional Medical Center
- Yuma Regional Medical Center

- Abrazo Central Campus
- Banner Baywood Medical Center
- Banner Boswell Medical Center
- Banner Del E. Webb Medical Center
- Banner Estrella Medical Center
- Banner Gateway Medical Center
- Banner Goldfield Medical Center
- Banner Ironwood Medical Center
- Banner Page Hospital
- Chinle Comprehensive Health Care Facility
- Cobre Valley Regional Medical Center
- Copper Queen Community Hospital
- Northern Cochise Community Hospital
- Oro Valley Hospital
- Tuba City Regional Health Care Corporation
- White Mountain Regional Medical Center
Questions?
Role

- Statewide and local injury data collection
- Provide leadership
- Program development and implementation
- Training and education
- Public information
- Policy
- Surveillance
Injury Prevention Data

- Emergency department, hospitalizations and death
- Only Arizona residents
- Tribal/Federal facilities
- CDC methodology
In 2014, an average week of injuries in Arizona resulted in approximately:

- 89 resident deaths
- 714 inpatient hospitalizations
- 7,766 emergency department visits
# Injuries in Arizona 2014

<table>
<thead>
<tr>
<th>Rank</th>
<th>Cause of Injury Death</th>
<th>Number of Deaths</th>
<th>Age-Adjusted Rate Per 100,000 population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Suicide</td>
<td>1,123</td>
<td>16.5</td>
</tr>
<tr>
<td>2</td>
<td>Unintentional Poisoning</td>
<td>977</td>
<td>15.0</td>
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<tr>
<td>3</td>
<td>Unintentional Falls</td>
<td>880</td>
<td>11.7</td>
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<tr>
<td>4</td>
<td>Motor Vehicle Traffic Crashes</td>
<td>650</td>
<td>9.5</td>
</tr>
<tr>
<td>5</td>
<td>Homicide</td>
<td>292</td>
<td>4.6</td>
</tr>
<tr>
<td>6</td>
<td>Unintentional Suffocation</td>
<td>124</td>
<td>1.7</td>
</tr>
<tr>
<td>7</td>
<td>Unintentional Natural/Environment</td>
<td>59</td>
<td>1.4</td>
</tr>
<tr>
<td>8</td>
<td>Unintentional Drowning</td>
<td>78</td>
<td>1.2</td>
</tr>
<tr>
<td>9</td>
<td>Other Land Transport/Transport</td>
<td>50</td>
<td>0.7</td>
</tr>
<tr>
<td>10</td>
<td>Unintentional Fire/Flame</td>
<td>30</td>
<td>0.4</td>
</tr>
</tbody>
</table>

Source: Arizona Vital Records, 2014
Arizona Has Higher Injury Mortality Rates Compared to the United States
Levels of Evidence-based Public Health Strategies

- **Best or Effective Practices** indicate there is strong evidence the intervention works. There are sustainable, replicable programs that have demonstrated positive impact on prevention, costs and/or other stated outcomes.

- **Promising Practices** indicate there is some evidence the intervention is effective, but additional research is needed in multiple settings to determine their full impact or effectiveness.

- **Innovative Practices** are cutting edge efforts that are untested or locally developed in which there is currently insufficient evidence to determine their impact.

- **Untested Practices** have not been evaluated or documented. If a particular strategy is not considered evidence-based, it does not mean the strategy is ineffective, but rather additional study is needed to determine whether the intervention is effective.
Community Guide

- The Task Force on Community Preventive Services is an independent, nonfederal, volunteer body of experts in public health and prevention research, practice and policy, appointed by the CDC Director to:
  - Prioritize topics for systematic review
  - Oversee systematic reviews done for the Community Guide
  - Develop evidence-based recommendations using the systematic review results
  - Identify areas that need further research

What Questions Does the Task Force Ask about Interventions?

- Does it work? How well? For whom? Under what circumstances is it appropriate?
- What does it cost?
- Are there barriers to its use?
- Are there any harms?
- Are there any unanticipated outcomes?
What Do the Findings Mean?

- **Recommended** – strong or sufficient evidence that the intervention is effective.
- **Recommended Against** – strong or sufficient evidence that the intervention is harmful or not effective.
- **Insufficient Evidence** – the available studies do not provide sufficient evidence to determine if the intervention is, or is not, effective.
What Does “Insufficient Evidence” Mean?

- Insufficient evidence means that additional research is needed to determine whether or not the intervention is effective.
- This does NOT mean that the intervention does not work.
Insufficient Evidence Findings

- In some cases there are not enough studies to draw firm conclusions. Reasons include:
  - A lack of studies, or a lack of studies with rigorous methods
- In other cases, there are a sufficient number of studies, but the findings are inconsistent. Reasons include:
  - Confounding variables or inconsistency in how the intervention was implemented in studies
Insufficient Evidence Findings and Research

- One major use of Insufficient Evidence findings is to influence future research. These findings can:
  - Identify promising, but understudied, topics with important public health implications
  - Help to allocate scarce research funds to those topics, which might otherwise be allocated to topics where strong or sufficient evidence already exists
Motor Vehicle-Related Injury Prevention: Use of Child Safety Seats

The reviewed interventions aim to increase the use of child safety seats among children ages 0-4 years. Approaches include legislation, education, and seat distribution programs.

Task Force Recommendations and Findings
This table lists interventions reviewed by the Community Guide, with a summary of the Task Force finding (definitions of findings). Click on an underlined intervention title for a summary of the review. These reviews were led by scientists in the Community Guide and CDC’s Division of Unintentional Injury Prevention.

<table>
<thead>
<tr>
<th>Laws Mandating Use</th>
<th>Recommended</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>June 1998</td>
</tr>
<tr>
<td>Community-Wide Information and Enhanced Enforcement Campaigns</td>
<td>Recommended</td>
</tr>
<tr>
<td></td>
<td>June 1998</td>
</tr>
<tr>
<td>Distribution and Education Programs</td>
<td>Recommended</td>
</tr>
<tr>
<td></td>
<td>June 1998</td>
</tr>
<tr>
<td>Incentive and Education Programs</td>
<td>Recommended</td>
</tr>
<tr>
<td></td>
<td>June 1998</td>
</tr>
<tr>
<td>Education Programs When Used Alone</td>
<td>Insufficient Evidence</td>
</tr>
<tr>
<td></td>
<td>June 1998</td>
</tr>
</tbody>
</table>

Presentations and Promotional Materials

Slides and Presentations
http://www.sprc.org
Challenges

- Feels good-short term gratification
- Resource intensive
- Funding risks
- Credibility
Resources

- IPAC meets quarterly
- Safe States
  - Safestates.org
  - Hospital SIG
- CDC
- SAMHSA
- ADHS-Office of Injury Prevention
Questions?