Updates

Katie Hokanson, Director of Trauma and Injury Prevention

Email questions to: indianatrauma@isdh.in.gov
Executive Order

- New Indiana State Trauma Care Committee positions:
  - Licensed physicians (Trauma Medical Directors) from verified Level III trauma centers.
  - Additional emergency medicine physician recommended by the Indiana Chapter of the American College of Emergency Physicians.
  - Representative of the Emergency Medical Services for Children program.

Email questions to: indianatrauma@isdh.in.gov
Trauma-Related Legislation

• Senate Bill 74
  – Investigation of overdose deaths by coroners. Perform a drug abuse panel and forward results to ISDH.

• Senate Bill 119
  – Air ambulance service standards for use of air medical to transport patients from the scene to trauma centers.

• House Bill 1145
  – Stroke protocols for EMS and hospitals.

• Senate Bill 174
  – Statewide trauma care system study.

• House Bill 1200
  – ATV bill requiring those under 18 to wear helmets.

Email questions to: indianatrauma@isdh.in.gov
Division Staffing Updates

• Murray Lawry
  – Prescription Drug Overdose (PDO) Project Manager

• John O’Boyle
  – Records Coordinator for PDO & Indiana Violent Death Reporting System (INVDRS)

Email questions to: indianatrauma@isdh.in.gov
2017 EMS Medical Director’s Conference

4th annual
EMS Medical Directors’ Conference
Friday, April 28, 2017
Indianapolis Marriott North
3645 River Crossing Parkway
Indianapolis, IN 46240
8am - 5pm

Email questions to: indianatrauma@isdh.in.gov
2017 EMS Medical Director’s Conference

• Presentations include:
  – Keynote speakers:
    • Using EMS data for bio-preparedness
    • Sepsis and the role of EMS
  – Caring for geriatric patients
  – EMS case reports from Emergency Medicine residents
  – Conquering refractory V-fibrillation in the prehospital setting

• Call for presenters!

• Thank you to our supporters!

Email questions to: indianatrauma@isdh.in.gov
2017 Injury Prevention Conference

THIRD ANNUAL
IPAC Conference
Making Connections: Community, Programs, and Progress

Monday, May 15, 2017
Conner Prairie
Welcome Center
Fishers, IN

Get notified when registration opens!
Send your contact information to:
indianatrauma@isdh.in.gov

Email questions to: indianatrauma@isdh.in.gov
2017 IPAC Conference - Call for Presenters

• Now open!

• Submission deadline: Feb. 24 by 5 p.m. EST
• Notification of acceptance/denial: March 3

• Information on IPAC website: http://www.in.gov/isdh/25395.htm

Email questions to: indianatrauma@isdh.in.gov
Indiana Injury Prevention Resource Guide App

- Injury Prevention at your fingertips.
- Free download for iOS & Android.
  - phone & tablet capabilities.
- 2014 data available.

Email questions to: indianatrauma@isdh.in.gov
Preventing Injuries in Indiana
Injury Prevention Mobile App

- Injury prevention at your fingertips
- Free download for iOS & Android
- Available in Apple & Google Play stores
**Application installations per month, N = 1,059**

**ISDH press release on 10/21/2015 Data as of 2/7/2017**
Application launches per month, N = 3,625

**ISDH press release on 10/21/2015**

Data as of 2/7/2017
Safety Showers Request for Proposal:

- Selected recipient was Good Samaritan Hospital Trauma Services:
  - $25,000 awarded.
  - Developing, implementing and dispersing toolkit.
  - Train-the-trainer program for Knox County and surrounding communities.

Email questions to: indianatrauma@isdh.in.gov
Booster Bash Events:

• Booster Bash:
  – Toolkit & booster seats provided to organizations.
  – Goal is to identify schools and community partners to hold event, including schools, community centers, or community events that serve children between ages of 4-8 who show financial need.

• Locations Planned:
  – Delaware; Jackson; Marion; Vanderburgh; and Vigo County.
Contact Information:

Preston Harness, MPH, CPST
Injury Prevention Program Coordinator
Indiana State Department of Health
Division of Injury & Trauma Prevention

PHarness@isdh.IN.gov
(317) 232-3121

Email questions to: indianatrauma@isdh.in.gov
LOCAL HEALTH DEPARTMENT
NALOXONE KITS

Email questions to: indianatrauma@isdh.in.gov
Purpose

• Expand the distribution of naloxone kit across state
• Increase education about the state law that provides immunity for lay responders to carry & administer naloxone
• Counties were selected based on criteria outlined in a request for proposal (RFP)
Division established a Request for Proposal (RFP) process to distribute Naloxone kits to Local Health Departments (LHDs).

- First Round:
  - Fall 2016
  - 20 LHDs
  - 3,472 kits (September 2016 – August 2017).

- Second Round:
  - Winter 2017
  - RFP issued
  - Reviewing applications.
Pursuant to Indiana law, a Naloxone entity that seeks to act under the Indiana Statewide Naloxone Standing Order (effective July 1, 2016) or other standing order or prescription issued by a prescriber for an overdose intervention drug (e.g., Narcan/naloxone), must annually register via this Indiana State Department of Health website and make changes when warranted (e.g. new address or contact information, etc.).

Locate Current Naloxone Entities

Register as a New Naloxone Entity

- Current Entities Only -
  Update/Submit Annual Registration, Report, or Standing Order
2016 FIREWORK INJURY REPORT
Figure 1. Firework-related injuries by reporting cycle year, Indiana, 2003–2016*

*2016 reporting cycle included cases from Sept. 13, 2015-Sept. 12, 2016.
Source: Indiana State Department of Health, Division of Trauma and Injury Prevention.

Email questions to: indianatrauma@isdh.in.gov
Figure 2. Firework-related injuries by age group, Indiana, 2016*
2016 Firework Injury Report

Figure 5. Firework-related injuries by date, July 1–July 7, Indiana, 2016*

*2016 reporting cycle includes cases from Sept. 13, 2015-Sept. 12, 2016.
Source: Indiana State Department of Health, Division of Trauma and Injury Prevention
2017 Fireworks Injury Reporting

- Updated fax number: 317-232-1265
- Forms can be found at http://www.state.in.us/isdh/19042.htm#Fireworks
Regional Updates
Regional updates

- District 1
- District 2
- District 3
- District 4
- District 5
- District 6
- District 7
- District 8
- District 10

Email questions to: indianatrauma@isdh.in.gov
• Patient was a 48 year old male transported per KCEMS with spinal immobilization and 18g iv with 250cc NS bolus post MVA rollover with ejection.
• Helicopter was called from scene to GSH.
• Prehospital 912 activation was done.
• Pt arrived at 1555 and was upgraded to a 911 due to in and out of consciousness. Dr. Purdom was present prior to arrival of patient.
• Patient had head and facial trauma, abrasions to chest, abdomen, and bilateral knees.
• Vital signs on arrival were 167/99, 80, 98% on nonrebreather, 14, 97.8, GCS 15 initially and decreased to 6. A fast on done on arrival that suggesting fluid in left upper quadrant. Pt was intubated and chest x-ray was preformed. A second 16g iv, OG, and foley was placed.
• Lifeline arrived at 1602 and decision was made to transfer pt to Deaconess.
• Total ED LOS 30 minutes
PI:

- Basic first on scene-medic enroute
- Spinal immobilization, wound care, and suctioning done per basic
- Paramedic arrived vital signs 133/80, 92, 18, 99% RA, GCS 15
- Helicopter called from scene to GSH
- 18g iv placed, 250cc NS bolus given
- Scene time 15 minutes
- Paramedic report received within 24 hours, Basic not received within 24 hours
- ED LOS 30 minutes-Good prehospital notification and early notification of air medical played a big role in getting pt transferred so quickly.
Subcommittee Update
Designation Subcommittee

Dr. Lewis Jacobson, Trauma Medical Director
St. Vincent Indianapolis Hospital

Email questions to: indianatrauma@isdh.in.gov
Trauma Designation
Subcommittee Update

February 17, 2017
Lewis Jacobson, MD, FACS
Committee Chair

Dr. Scott Thomas, Dr. Gerardo Gomez, Spencer Grover, Dr. Ben Zarzaur, Dr. Stephanie Savage, Wendy St. John, Lisa Hollister, Dr. Christopher Hartman, Ryan Williams, Jennifer Mullen, Missy Hockaday, Teri Joy, Judi Holsinger, Jennifer Konger, Dr. Emily Fitz, Dr. Matthew Sutter, Dr. Kevin Loeb, Art Logsdon, Katie Hokanson, Ramzi Nimry
ISDH Trauma Designation
Subcommittee Meeting Agenda

12/15/2016

1. Trauma Centers in Indiana
   a. Franciscan Health Lafayette East

2. American College of Surgeons Needs Based Assessment of
   Trauma Systems (NBATs) tool

3. Evaluation of Indiana State Trauma System
ISDH Trauma Designation
Subcommittee Meeting Agenda
01/25/2017

1. One Year Reviews
   a. St. Anthony Health Crown Point
   b. Reid Health
   c. Terre Haute Regional
St. Anthony Health Crown Point

- Located: Crown Point, Indiana
- Seeking: Level III adult trauma center status
- The application was reviewed and no deficiencies were discovered by the subcommittee
- Consultation Visit was: September 26 & 27
- Verification visit scheduled for: November/December 2017
Reid Health

- Located: Richmond, Indiana
- Seeking: Level III adult trauma center status
- The application was reviewed and no deficiencies were discovered by the subcommittee
- Consultation Visit was: February 2 & 3
- Verification visit scheduled for: June 2017
Terre Haute Regional

- Located: Terre Haute, Indiana
- Seeking: Level II adult trauma center status
- The application was reviewed and no deficiencies were discovered by the subcommittee
- Consultation Visit was: September 8 & 9
- Verification visit scheduled for: August 2017
## “In the Process” of ACS Verification Trauma Centers

<table>
<thead>
<tr>
<th>Facility Name</th>
<th>City</th>
<th>Level</th>
<th>Adult / Pediatric</th>
<th>“In the Process” Date*</th>
<th>1 Year Review Date**</th>
<th>ACS Consultation Visit Date</th>
<th>ACS Verification Visit Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community Hospital Anderson</td>
<td>Anderson</td>
<td>III</td>
<td>Adult</td>
<td>06/20/2014</td>
<td>08/21/2015</td>
<td>May 2016</td>
<td>July/August 2017</td>
</tr>
<tr>
<td>Methodist Northlake</td>
<td>Gary</td>
<td>III</td>
<td>Adult</td>
<td>08/20/2014</td>
<td>10/30/2015</td>
<td>10/7-10/8, 2015</td>
<td>February 2017</td>
</tr>
<tr>
<td>Reid Health</td>
<td>Richmond</td>
<td>III</td>
<td>Adult</td>
<td>12/18/2015</td>
<td>January/February 2017</td>
<td>02/02-02/03, 2016</td>
<td>June 2017</td>
</tr>
<tr>
<td>Terre Haute Regional Hospital</td>
<td>Terre Haute</td>
<td>II</td>
<td>Adult</td>
<td>12/18/2015</td>
<td>January/February 2017</td>
<td>09/08-09/09, 2016</td>
<td>August 2017</td>
</tr>
<tr>
<td>Union Hospital</td>
<td>Terre Haute</td>
<td>III</td>
<td>Adult</td>
<td>02/26/2016</td>
<td>March/April 2017</td>
<td>09/01-09/02, 2016</td>
<td>TBD</td>
</tr>
<tr>
<td>Memorial Hospital &amp; Health Care Center</td>
<td>Jasper</td>
<td>III</td>
<td>Adult</td>
<td>08/24/2016</td>
<td>September/October 2017</td>
<td>05/16-05/17, 2017</td>
<td>TBD</td>
</tr>
</tbody>
</table>

*Date the EMS Commission granted the facility “In the process” status.

**Date the Indiana State Trauma Care Committee (ISTCC) reviewed/reviews the 1 year review documents. This date is based on the first ISTCC meeting after the 1 year date.

Facility is past the two year mark for their “In the Process” status.

Updated on: Wednesday, February 15, 2017
Subcommittee Update
Performance Improvement Subcommittee

Dr. Stephanie Savage, Trauma Medical Director
IU Health Methodist

Email questions to: indianatrauma@isdh.in.gov
ISDH Performance Improvement Subcommittee November 2016 update

Committee Members: Chair Stephanie Savage, MD, Amanda Rardon, Angela Cox-Booe, Annette Chard, Bekah Dillon, Brittanie Fell, Carrie Malone, Chris Wagoner, Christy Claborn, Chuck Stein, Dawn Daniels, Dusten Roe, Jennifer Mullen, Jodi Hackworth, Kelly Mills, Kristi Croddy, Latasha Taylor, Lesley Lopossa, Lindsey Williams, Lisa Hollister, Lynne Bunch, Marie Stewart, Mark Rohlfing, Mary Schober, Merry Addison, Michele Jolly, Michelle Moore, Missy Hockaday, Peter Jenkins, MD, Regina Nuseibeh, Sarah Quaglio, Spencer Grover, Tracy Spitzer, Wendy St. John

ISDH Staff: Katie Hokanson, Ramzi Nimry, Camry Hess
Number of Hospitals Reporting

Q1 2016 = 95 hospitals submitted data

Q2 2016 = 98 hospitals submitted data
Q1 2016 - 14 facilities answered “Yes” to Transfer Delay

ED LOS/Reason for Transfer Delays

Transfer Delay Reason

- EMS Issue: 42
- NA/NK/NR: 38
- Other: 14
- Receiving Hospital Issue: 21
- Referring Hospital Issue: 8
- Referring Physician Decision Making: 26
- Weather or Natural Factors: 1
- Blank: 70
How to Go About Making Reasons for Transfer Delay More Specific

- Created a Survey
  - What categories would be useful?
  - Looked at other states for different categories.

- PI discussion on survey results
  - Consolidated responses per category.

- Result:
  - Moving forward by piloting 5 hospitals with their Q1 2017 data
Indiana Inter-facility Transfer Guideline

- Used Kentucky’s Trauma Transfer Protocol (for Adult and Pediatric) as a template

- Added Criteria for Consideration of Transfer from Level III Center to Level I or II (p. 31 of the “Orange book”)

- Discuss next steps at the March 14th PI Subcommittee meeting
Improve Trauma Registry Data Quality

- Frequency Reports
  - Shared Best Practice
    - What do hospitals do with the data?
  - Creation of hospital-specific frequency reports
    - Validity reports for all hospitals submitting data to state.
Meeting with Dr. Savage planned to discuss the PI Subcommittee’s 2017 goals.
Next Meeting

March 14, 2017

10:00-11:00am EST Larkin Conference Room
Quarter 2 Trauma Registry Data Report

Camry Hess, Database Analyst
Indiana State Department of Health

Email questions to: indianatrauma@isdh.in.gov
Hospitals reporting to the Indiana Trauma Registry - Quarter 2 2016

District 1
Community Hospital – Munster
Franciscan Health – Crown Point
Franciscan Health – Dyer
Franciscan Health- Hammond
Franciscan Health – Michigan City
Franciscan Health - Rensselaer
IU Health – La Porte
Methodist Hospital Northlake
Methodist Hospital Southlake
Portage Hospital

Porter Regional Hospital (Valparaiso)
St Catherine Hospital (East Chicago)
St. Mary Medical Center (Hobart)
Valparaiso Medical Center

Email questions to: indianatrauma@isdh.in.gov
District 2
Community Hospital of Bremen
Elkhart General Hospital
IU Health – Starke Hospital
Kosciusko Community Hospital
Memorial Hospital South Bend
Pulaski Memorial Hospital
St. Joseph Regional Medical Center (Mishawaka)
St. Joseph Regional Medical Center (Plymouth)

Woodlawn Hospital

Email questions to: indianatrauma@isdh.in.gov
Hospitals reporting to the Indiana Trauma Registry - Quarter 2 2016

**District 3**
Bluffton Regional Medical Center
Cameron Memorial Community Hospital
DeKalb Health
Dukes Memorial Hospital
Dupont Hospital
Lutheran Hospital of Indiana
Parkview Huntington Hospital
Parkview LaGrange Hospital
Parkview Noble Hospital
Parkview Randallia
Parkview Regional Medical Center
Parkview Wabash Hospital
Parkview Whitley Hospital

**District 4**
Franciscan Health - Crawfordsville
Franciscan Health – Lafayette East
IU Health – Arnett Hospital
IU Health – White Memorial
Memorial Hospital (Logansport)
St. Vincent Frankfort
St. Vincent Williamsport Hospital

Email questions to: indianatrauma@isdh.in.gov
District 5
Community East Health Network
   Community Hospital
Community North Health Network
   Community Hospital
Community South Health Network
   Community Hospital
Community Westview Hospital
Eskenazi Health
Franciscan Health – Indianapolis
Franciscan Health – Mooresville
Hendricks Regional Health
IU Health – Methodist Hospital
IU Health – Morgan Hospital
IU Health – North Hospital
IU Health – Riley for Children
IU Health - Saxony Hospital
IU Health – West Hospital
Johnson Memorial Hospital
Peyton Manning Children’s Hospital at St Vincent
Riverview Hospital
St. Vincent Fishers Hospital
St. Vincent Hospital and Health Services Indianapolis
Witham Health Services
Witham Health Services at Anson

Email questions to: indianatrauma@isdh.in.gov
Hospitals reporting to the Indiana Trauma Registry - Quarter 2 2016

District 6
Community Hospital of Anderson & Madison Co.
Community Howard Regional Health
Henry County Memorial Hospital
IU Health – Ball Memorial Hospital
IU Health – Blackford Hospital
IU Health – Tipton Hospital
Jay County Hospital

Marion General Hospital
Reid Hospital and Health Care Services
St. Vincent Anderson Regional Hospital
St. Vincent Kokomo
St. Vincent Mercy Hospital

Email questions to: indianatrauma@isdh.in.gov
Hospitals reporting to the Indiana Trauma Registry - Quarter 2 2016

**District 7**
Greene County General Hospital
Putnam County Hospital
**St. Vincent Clay Hospital**
Sullivan County Community Hospital
Terre Haute Regional Hospital
Union Hospital (Terre Haute)
Union Hospital Clinton

Email questions to: indianatrauma@isdh.in.gov
Hospitals reporting to the Indiana Trauma Registry - Quarter 2 2016

**District 8**
- Columbus Regional Hospital
- IU Health – Bedford Hospital
- IU Health – Bloomington Hospital
- IU Health – Paoli Hospital
- Monroe Hospital
- Schneck Medical Center
- St. Vincent Dunn Hospital
- St. Vincent Salem Hospital

**District 9**
- Clark Memorial Hospital
- Dearborn County Hospital
- Decatur County Memorial Hospital
- Baptist Health Floyd
- King’s Daughters’ Health
- Margaret Mary Community Hospital
- Scott County Memorial Hospital

Email questions to: indianatrauma@isdh.in.gov
Hospitals reporting to the Indiana Trauma Registry - Quarter 2 2016

District 10
Daviess Community Hospital
Deaconess Hospital
Deaconess Gateway Hospital
Gibson General
Good Samaritan Hospital
Memorial Hospital & Health Care Center
Perry County Memorial Hospital
St. Mary’s Medical Center of Evansville

Email questions to: indianatrauma@isdh.in.gov
Summary of Hospitals Reporting Status - Q2 2016

New to Reporting / Started Reporting Again

- Baptist Health-Floyd
- Dukes Memorial Hospital
- Dupont Hospital
- Franciscan Health-Mooresville
- Franciscan Health-Dyer
- Gibson General Hospital
- IU Health - Bedford Hospital
- Kosciusko Community Hospital

- Peyton Manning Children's Hospital at St Vincent
- Scott County Memorial Hospital
- St Catherine Hospital (East Chicago)
- St Vincent Clay Hospital
- St Vincent Fishers Hospital

Email questions to: indianatrauma@isdh.in.gov
Summary of Hospitals Reporting Status - Q2 2016

Dropped off

- Franciscan Health-Dyer
- Franciscan Health-Hammond
- IU Health - Arnett Hospital
- IU Health - Starke Hospital
- Pulaski Memorial Hospital
- St Mary Medical Center (Hobart)
- Woodlawn Hospital
Quarter 2 2016 Statewide Report

- 9,188 incidents
- April 1, 2016—June 30, 2016
- 98 total hospitals reporting
  - 10 Level I and II Trauma Centers
  - 9 Level III Trauma Centers
  - 79 Non-Trauma Hospitals

Email questions to: indianatrauma@isdh.in.gov
Date Discharged from ED
(Orders Written):

01/18/2017

Date Discharged from ED
(Physical Exit):

Time:

08:00
### ED LOS > 12 Hours, N=98

<table>
<thead>
<tr>
<th>Facilities</th>
<th>Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>22 Level I and II</td>
<td>31 North; 33 Central; 30 South; 4 Unknown</td>
</tr>
<tr>
<td>13 Level III</td>
<td></td>
</tr>
<tr>
<td>63 Non-trauma Centers</td>
<td></td>
</tr>
<tr>
<td>Average Distance from Scene to Facility</td>
<td>21.2 Miles</td>
</tr>
<tr>
<td>ISS</td>
<td>55 (1-8 cat); 22 (9-15 cat); 6 (16-24); 3 (25-44); 12 (No ISS)</td>
</tr>
<tr>
<td>Transport Type</td>
<td>63 Ambulance; 3 helicopter; 29 Private Vehicle; 3 Unknown</td>
</tr>
<tr>
<td>GCS Motor</td>
<td>1 (1 cat); 1 (4 cat); 4 (5 cat); 64 (6 cat); 28 (unknown)</td>
</tr>
<tr>
<td>Cause of Injury</td>
<td>28 Transport; 57 Falls; 3 Inanimate Mech. Forces; 1 Heat; 9 Unknown</td>
</tr>
<tr>
<td>RTS—Systolic</td>
<td>4 (3-4)</td>
</tr>
<tr>
<td>Signs of Life</td>
<td>95 Yes; 1 No; 2 Unknown</td>
</tr>
<tr>
<td>RTS—Resp. Scale</td>
<td>3 (3-4)</td>
</tr>
<tr>
<td>Age</td>
<td>54.3 Years (2-95 Years)</td>
</tr>
<tr>
<td>Resp. Assistance</td>
<td>1 Yes; 45 No; 52 Unknown</td>
</tr>
<tr>
<td>Gender</td>
<td>44 Female; 54 Male</td>
</tr>
<tr>
<td>ED LOS</td>
<td>19.8 (12-34)</td>
</tr>
<tr>
<td>Interfacility Transfer</td>
<td>11 Yes; 87 No</td>
</tr>
<tr>
<td>ED Disposition</td>
<td>41 Floor; 5 Home without services; 8 ICU; 6 Observation; 14 OR; 9 Step-down; 15 Transferred</td>
</tr>
</tbody>
</table>

- Region was created from injury zip code. Missing = no injury zip or injury zip from out of state.
- Numbers represent counts per category or mean with minimum and maximum in parentheses.
- No signs of life is defined as having none of the following: organized EKG activity, papillary responses, spontaneous respiratory attempts or movement, and unassisted blood pressure. This usually implies the patient was brought to the ED with CPR in progress (2015 Trauma Registry Data Dictionary, page 185).
ED Length of Stay: Bar & Whisker - Page 5

A table with all the values for ED LOS is found on page 50.

Note for EDLOS by ISS, there were 5 cases with ISS of 75; none were at a non-trauma center.

A table with values for ED LOS by ISS may be found on page 51.
Hospital Disposition

Hospital Length of Stay (days)

Hospital disposions with <1% included: Another institution, Null, Psychiatric Hospital, Long Term Care Hospital and Intermediate Care

Email questions to: indianatrauma@isdh.in.gov
For Quarter 2 2016, of the 9,188 incidents reported to the Indiana Trauma Registry, 1,676 cases that had an ED Disposition of “Transferred to another acute care facility” at the initial facility or that had the Inter-Facility Transfer equal to “Yes” at the Trauma Center. Of those transferred, 787 cases were probabilistically matched. The linked cases make up 23% of the Q2 2016 data. All public health preparedness districts are represented. The diagram below illustrates the overlap between the transfers reported from the initial facility and from the final facility that can be matched.

The initial facility in which transfers come from may be considered Critical Access Hospitals (CAHs). All Indiana CAHs are considered Rural, and must meet additional requirements to have a CAH designation, such as having no more than 25 inpatient beds and being located in a rural area. Facilities that are highlighted indicate that these facilities reported data for Quarter 2 2016.

Within this transfer data section, the purple columns represent the transfer cases and the single percentages represent the percent for the transfer cases. For two demographic variables, patient age groupings and gender, the Indiana average is included to provide more insight to this transfer population.

Email questions to: indianatrauma@isdh.in.gov
For Quarter 3, 2015, of the 9,555 incidents reported to the Indiana Trauma Registry, 1,824 cases that had an ED Disposition of “Transferred to another acute care facility” at the initial facility or that had the Inter-Facility Transfer equal to “Yes” at the Trauma Center. Of those transferred, 819 cases were probabilistically matched. The linked cases make up 22% of the Q3 2015 data. All public health preparedness districts are represented. The diagram below illustrates the overlap between the transfers reported from the initial facility and from the final facility that can be matched.

For Quarter 4, 2015, of the 8,728 incidents reported to the Indiana Trauma Registry, 1,425 cases that had an ED Disposition of “Transferred to another acute care facility” at the initial facility or that had the Inter-Facility Transfer equal to “Yes” at the Trauma Center. Of those transferred, 767 cases were probabilistically matched. The linked cases make up 25% of the Q4 2015 data. All public health preparedness districts are represented. The diagram below illustrates the overlap between the transfers reported from the initial facility and from the final facility that can be matched.

For Quarter 1, 2016, of the 8,077 incidents reported to the Indiana Trauma Registry, 1,336 cases that had an ED Disposition of “Transferred to another acute care facility” at the initial facility or that had the Inter-Facility Transfer equal to “Yes” at the Trauma Center. Of those transferred, 702 cases were probabilistically matched. The linked cases make up 25% of the Q1 2016 data. All public health preparedness districts are represented. The diagram below illustrates the overlap between the transfers reported from the initial facility and from the final facility that can be matched.
### Facility to Facility Transfers

<table>
<thead>
<tr>
<th>Initial Hospital Type</th>
<th>Final Hospital Type</th>
<th>Incident Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural Hospital</td>
<td>Hospital</td>
<td>1</td>
</tr>
<tr>
<td>Trauma Center</td>
<td>Hospital</td>
<td>1</td>
</tr>
<tr>
<td>Critical Access Hospital</td>
<td>Hospital</td>
<td>13</td>
</tr>
<tr>
<td>Hospital</td>
<td>Hospital</td>
<td>35</td>
</tr>
<tr>
<td>Rural Hospital</td>
<td>Trauma Center</td>
<td>58</td>
</tr>
<tr>
<td>Critical Access Hospital</td>
<td>Trauma Center</td>
<td>96</td>
</tr>
<tr>
<td>Trauma Center</td>
<td>Trauma Center</td>
<td>108</td>
</tr>
<tr>
<td>Hospital</td>
<td>Trauma Center</td>
<td>475</td>
</tr>
</tbody>
</table>

Rural = Rural Hospital; TC = ACS Verified or In Process Trauma Center; CAH = Critical Access Hospital; Hospital = does not fall into above categories

Email questions to: indianatrauma@isdh.in.gov
### For Linked Transfer Patients:

<table>
<thead>
<tr>
<th>For Transfer Patients:</th>
<th>All Transfer Patients</th>
<th>Critical*</th>
<th>Physiological Critical**</th>
<th>ISS Critical***</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Patients</td>
<td>787</td>
<td>253</td>
<td>218</td>
<td>57</td>
</tr>
<tr>
<td>EMS Notified to Scene</td>
<td>11.4 minutes</td>
<td>7.1 minutes</td>
<td>6.7 minutes</td>
<td>8.8 minutes</td>
</tr>
<tr>
<td>EMS Scene Arrival to Departure</td>
<td>16 minutes</td>
<td>14 minutes</td>
<td>13.2 minutes</td>
<td>15.6 minutes</td>
</tr>
<tr>
<td>EMS Scene Departure to Initial Hospital ED Arrival</td>
<td>16.5 minutes</td>
<td>14.3 minutes</td>
<td>13.1 minutes</td>
<td>18 minutes</td>
</tr>
<tr>
<td>Initial Hospital ED Arrival to Departure</td>
<td>3 hours 4.3 minutes</td>
<td>3 hours 7.9 minutes</td>
<td>3 hours 12.7 minutes</td>
<td>2 hours 15.8 minutes</td>
</tr>
<tr>
<td>Initial Hospital ED Departure to Final Hospital ED Arrival</td>
<td>1 hour 2.3 minutes</td>
<td>1 hour 2.4 minutes</td>
<td>1 hour 1.4 minutes</td>
<td>1 hour 9.5 minutes</td>
</tr>
<tr>
<td>TOTAL TIME</td>
<td>4 hours 50.5 minutes</td>
<td>4 hours 25.7 minutes</td>
<td>4 hours 27.1 minutes</td>
<td>4 hours 7.7 minutes</td>
</tr>
</tbody>
</table>

*Critical patient is defined as having a GCS ≤ 12, OR Shock Index > 0.9 OR ISS >15 at the initial hospital.

**Physiological Critical Transfer patient is defined as having a Shock Index > 0.9 OR GCS ≤ 12 at the initial hospital.

***ISS Critical Transfer patient is defined as having an ISS > 15 at the initial hospital.

Email questions to: indianatrauma@isdh.in.gov
For Transfer Patients:

<table>
<thead>
<tr>
<th>Public Health Preparedness District Initial Hospital</th>
<th>Public Health Preparedness District Final Hospital</th>
<th>Incident Counts</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>13</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>14</td>
</tr>
<tr>
<td>1</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>1</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>1</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>115</td>
</tr>
<tr>
<td>3</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>11</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>50</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>164</td>
</tr>
<tr>
<td>5</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>6</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>5</td>
<td>128</td>
</tr>
<tr>
<td>6</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td>7</td>
<td>5</td>
<td>57</td>
</tr>
<tr>
<td>7</td>
<td>7</td>
<td>15</td>
</tr>
<tr>
<td>8</td>
<td>5</td>
<td>43</td>
</tr>
<tr>
<td>8</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>9</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>9</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>10</td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td>10</td>
<td>10</td>
<td>101</td>
</tr>
</tbody>
</table>

*The thickness of the line indicates the frequency of transfers out of or within the public health preparedness district. The circles represent transfers from a specific PHPD, not of a specific hospital or county.*
### Transfer Patient Data

For Transfer Patients:

<table>
<thead>
<tr>
<th></th>
<th>All Transfer Patients</th>
<th>Critical*</th>
<th>Physiological Critical**</th>
<th>ISS Critical***</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of Patients</strong></td>
<td>787</td>
<td>253</td>
<td>218</td>
<td>57</td>
</tr>
<tr>
<td><strong>Total Time</strong></td>
<td>4 hours</td>
<td>4 hours</td>
<td>4 hours</td>
<td>4 hours</td>
</tr>
<tr>
<td></td>
<td>50.5 minutes</td>
<td>25.7 minutes</td>
<td>27.1 minutes</td>
<td>7.7 minutes</td>
</tr>
<tr>
<td><strong>Total Mileage</strong></td>
<td>49.9</td>
<td>53.2</td>
<td>53.3</td>
<td>57.1</td>
</tr>
<tr>
<td><strong>Injury Scene to Initial Hospital Mileage</strong>*</td>
<td>7.4</td>
<td>6.9</td>
<td>6.8</td>
<td>9</td>
</tr>
<tr>
<td><strong>Initial Facility to Final Facility Mileage</strong></td>
<td>42.5</td>
<td>46.3</td>
<td>46.5</td>
<td>48.1</td>
</tr>
</tbody>
</table>

### Estimated Average Distance (miles) by Region (region of final hospital):

<table>
<thead>
<tr>
<th>Region</th>
<th>Injury Scene to Initial Facility Mileage*</th>
<th>Initial Facility to Final Facility Mileage</th>
<th>Total Mileage</th>
<th>Drive Count</th>
<th>Air Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indiana Average</td>
<td>7.4</td>
<td>42.5</td>
<td>49.9</td>
<td>686</td>
<td>101</td>
</tr>
<tr>
<td>North Region</td>
<td>6.6</td>
<td>29.3</td>
<td>35.9</td>
<td>154</td>
<td>13</td>
</tr>
<tr>
<td>Central Region</td>
<td>7.2</td>
<td>48.9</td>
<td>56.0</td>
<td>434</td>
<td>72</td>
</tr>
<tr>
<td>South Region</td>
<td>10.2</td>
<td>33.7</td>
<td>43.9</td>
<td>95</td>
<td>16</td>
</tr>
</tbody>
</table>

*Critical patient is defined as having a GCS ≤ 12, OR Shock Index > 0.9 OR ISS > 15 at the initial hospital.

**Physiological Critical Transfer patient is defined as having a Shock Index > 0.9 OR GCS ≤ 12 at the initial hospital.

*** ISS Critical Transfer patient is defined as ISS > 15 at the initial hospital.

*Injury Scene to Initial Facility Mileage location estimated by zip code centroid

Statistics for Estimated Average Distance by Region calculated by Public Health Geographics, Epidemiology Resource Center, ISDH
Transfer Patient Population - Page 13

Patient Age Groupings

- Pediatric (<18): Indiana 12%, Transfers 18%
- Adult: Indiana 49%, Transfers 49%
- Older Adult (>65): Indiana 40%, Transfers 33%

Patient Gender

- Male: Indiana 55%, Transfers 61%
- Female: Indiana 45%, Transfers 39%

Injury Severity Score (ISS)

- Initial Hospital
  - ISS 1-8: 53%, ISS 9-14: 47%
  - ISS 15-24: 31%, ISS 25-44: 37%
- Final Hospital
  - ISS 1-8: 11%, ISS 9-14: 5%
  - ISS 15-24: 2%, ISS 25-44: 5%

Initial Hospital
- ISS 45-74: 0%
- ISS 75: 0%
- ISS No ISS: 9%

Final Hospital
- ISS 45-74: 0%
- ISS 75: 0%
- ISS No ISS: 0%

Email questions to: indianatrauma@isdh.in.gov
Transfer Patient Population - Page 14

Transport Mode – Final Hospital

ED Disposition by Percentage - Final Hospital

<1% Transport Mode: Police, Other
* Indicates Private/Public Vehicle, Walk-in

ED Length of Stay (hours) - Final Hospital

ICU Length of Stay (days) - Final Hospital

Email questions to: indianna-trauma@isdh.in.gov
### Higher than Average ED LOS for Transferred Patients

<table>
<thead>
<tr>
<th>Hospital ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID 10</td>
</tr>
<tr>
<td>ID 18</td>
</tr>
<tr>
<td>ID 33</td>
</tr>
<tr>
<td>ID 37</td>
</tr>
<tr>
<td>ID 42</td>
</tr>
<tr>
<td>ID 52</td>
</tr>
<tr>
<td>ID 70</td>
</tr>
<tr>
<td>ID 93</td>
</tr>
<tr>
<td>ID 111</td>
</tr>
<tr>
<td>ID 112</td>
</tr>
</tbody>
</table>

Email questions to: indianatrauma@isdh.in.gov
Hospital that did not report during Q2 2016:

- Adams Memorial Hospital
- Decatur County Memorial
- Fayette Regional Health
- Franciscan Health Dyer
- Franciscan Health Hammond
- Franciscan Health Munster
- Hancock Regional
- Harrison County
- IU Health—Goshen
- IU Health—Starke
- Major Hospital
- Rush Memorial
- St. Mary Medical Center—Hobart
- St. Vincent—Jennings
Indiana State Department of Health
Indiana Trauma Registry

Hospitals Reporting Trauma Data Quarter 2
April 1, 2016 - June 30, 2016

Level I and II Trauma Centers
Deaconess Hospital
Eskenazi Health
IU Health - Methodist Hospital
Lutheran Hospital of Indiana
Memorial Hospital of South Bend
Parkview Regional Medical Center
Riley Hospital for Children at IU Health
St Mary's Medical Center of Evansville
St Vincent Indianapolis Hospital & Health Services
Terre Haute Regional Hospital

Level III Trauma Centers
Community Hospital of Anderson & Madison Co.
Franciscan St Anthony Health - Crown Point
Franciscan St Elizabeth Health - Lafayette East
Good Samaritan Hospital
IU Health - Arnett Hospital
IU Health - Ball Memorial Hospital
Methodist Hospitals - Northlake Campus
Reid Hospital & Health Care Services
Union Hospital Terre Haute

Non-Trauma Hospitals
83 Non-Trauma Hospitals

Hospital categories include Verified and "In the Process" Trauma Centers as of March 31, 2016.
**ED LOS by District - Page 21**

Average ED LOS (Minutes)

*Black line represents the 120 ACS goal
**Blue line represents the state average*
## Cause of Injury


### Cause of Injury Table

<table>
<thead>
<tr>
<th>Cause of Injury</th>
<th>Indiana</th>
<th>Level I and II</th>
<th>Level III</th>
<th>NTC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Falls</td>
<td>4810</td>
<td>1798</td>
<td>742</td>
<td>2270</td>
</tr>
<tr>
<td>Not Identified</td>
<td>936</td>
<td>527</td>
<td>142</td>
<td>267</td>
</tr>
<tr>
<td>Transport</td>
<td>2440</td>
<td>1556</td>
<td>328</td>
<td>556</td>
</tr>
<tr>
<td>Inanimate Mech. Force</td>
<td>628</td>
<td>288</td>
<td>82</td>
<td>258</td>
</tr>
<tr>
<td>Animate Mech. Force</td>
<td>169</td>
<td>82</td>
<td>22</td>
<td>65</td>
</tr>
<tr>
<td>Smoke</td>
<td>93</td>
<td>45</td>
<td>10</td>
<td>38</td>
</tr>
<tr>
<td>Heat</td>
<td>56</td>
<td>20</td>
<td>11</td>
<td>25</td>
</tr>
<tr>
<td>Unspecified</td>
<td>44</td>
<td>2</td>
<td>8</td>
<td>34</td>
</tr>
<tr>
<td>Electric/Radiation</td>
<td>9</td>
<td>4</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Nature</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Drowning</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>9188</td>
<td>4324</td>
<td>1347</td>
<td>3517</td>
</tr>
</tbody>
</table>

*<1% Cause of Injury Categories: Unspecified, Electricity/Radiation, Forces of Nature, Drowning, Breathing, Venom, Noxious Substances, Overexertion and Travel and Poisoning.*
Questions?
American College of Surgeons - Committee on Trauma Update

Dr. Scott Thomas, Trauma Medical Director
Memorial Hospital of South Bend

Email questions to: indianatrauma@isdh.in.gov
Other Business
Committee Meeting
Dates for 2017

- April 21
- June 16
- August 18
- October 20
- December 15

Email questions to: indianatrauma@isdh.in.gov