

Indiana State Trauma Care Committee

February 17, 2016



Indiana State
Department of Health

Email questions to: indianatrauma@isdh.in.gov

Updates

Katie Hokanson, *Director of Trauma and Injury Prevention*



Indiana State
Department of Health

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.

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.

Division Staffing Updates

- Murray Lawry
 - Prescription Drug Overdose (PDO) Project Manager
- John O'Boyle
 - Records Coordinator for PDO & Indiana Violent Death Reporting System (INVDRS)



Indiana State
Department of Health

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

SAVE THE DATE

Get notified when registration opens!

Send your contact information to:
indianatrauma@isdh.in.gov



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!



Indiana University Health

Methodist Trauma Center

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



Indiana State
Department of Health
Trauma and Injury Prevention

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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>

Indiana Injury Prevention Resource Guide App



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



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Department of Health

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ALCOHOL & INJURY



CHILD MALTREATMENT



DISTRACTED DRIVING



INFANT SAFE SLEEP



Indiana State Department of Health

Preventing Injuries in Indiana Injury Prevention Mobile App



OLDER ADULT FALLS

- Injury prevention at your fingertips
- Free download for iOS & Android
- Available in Apple & Google Play stores



RX OVERDOSE



SEXUAL ASSAULT



SUICIDE PREVENTION



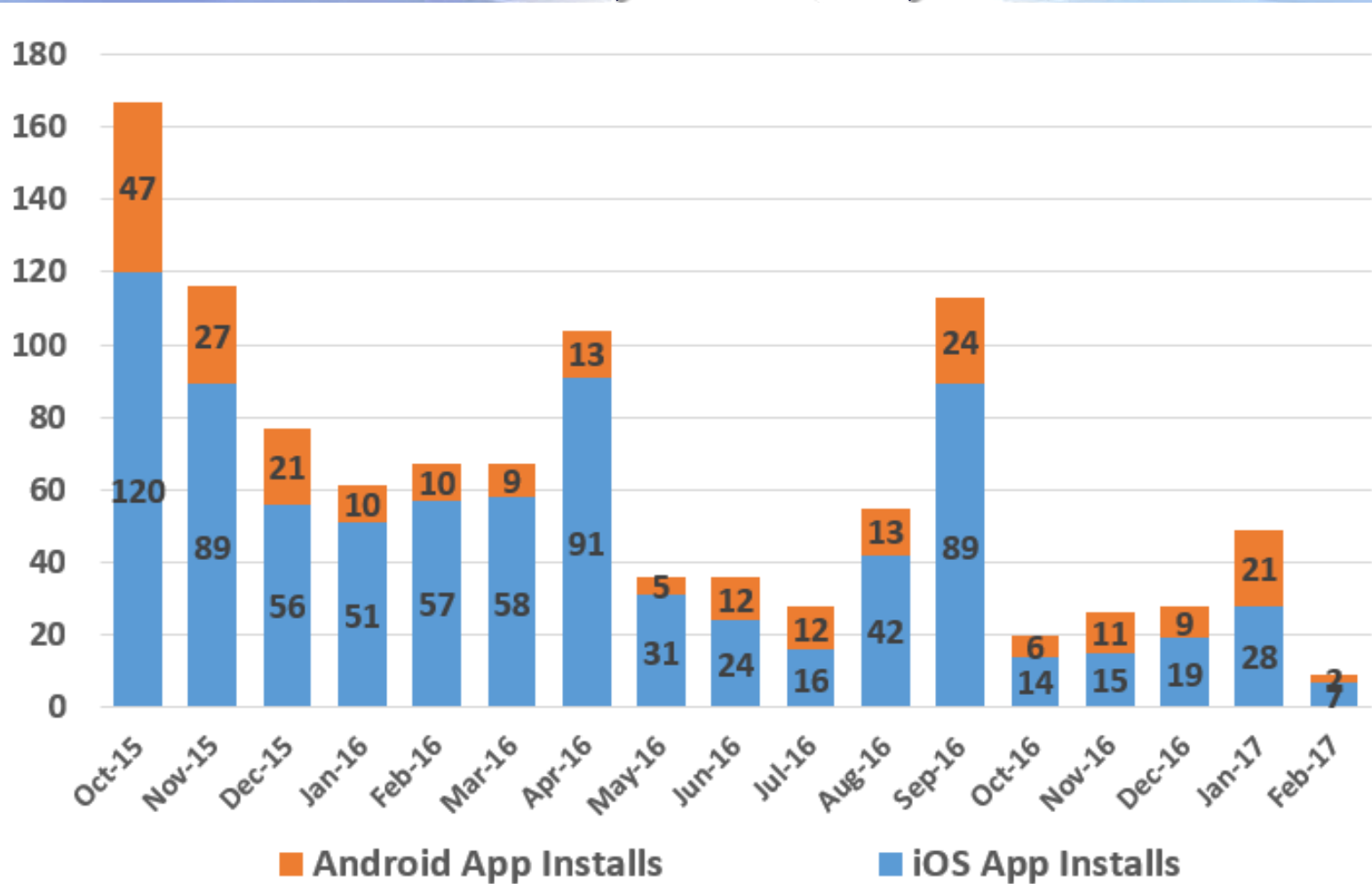
TRAUMA & TRAUMA SYSTEMS



TRAUMATIC BRAIN INJURY



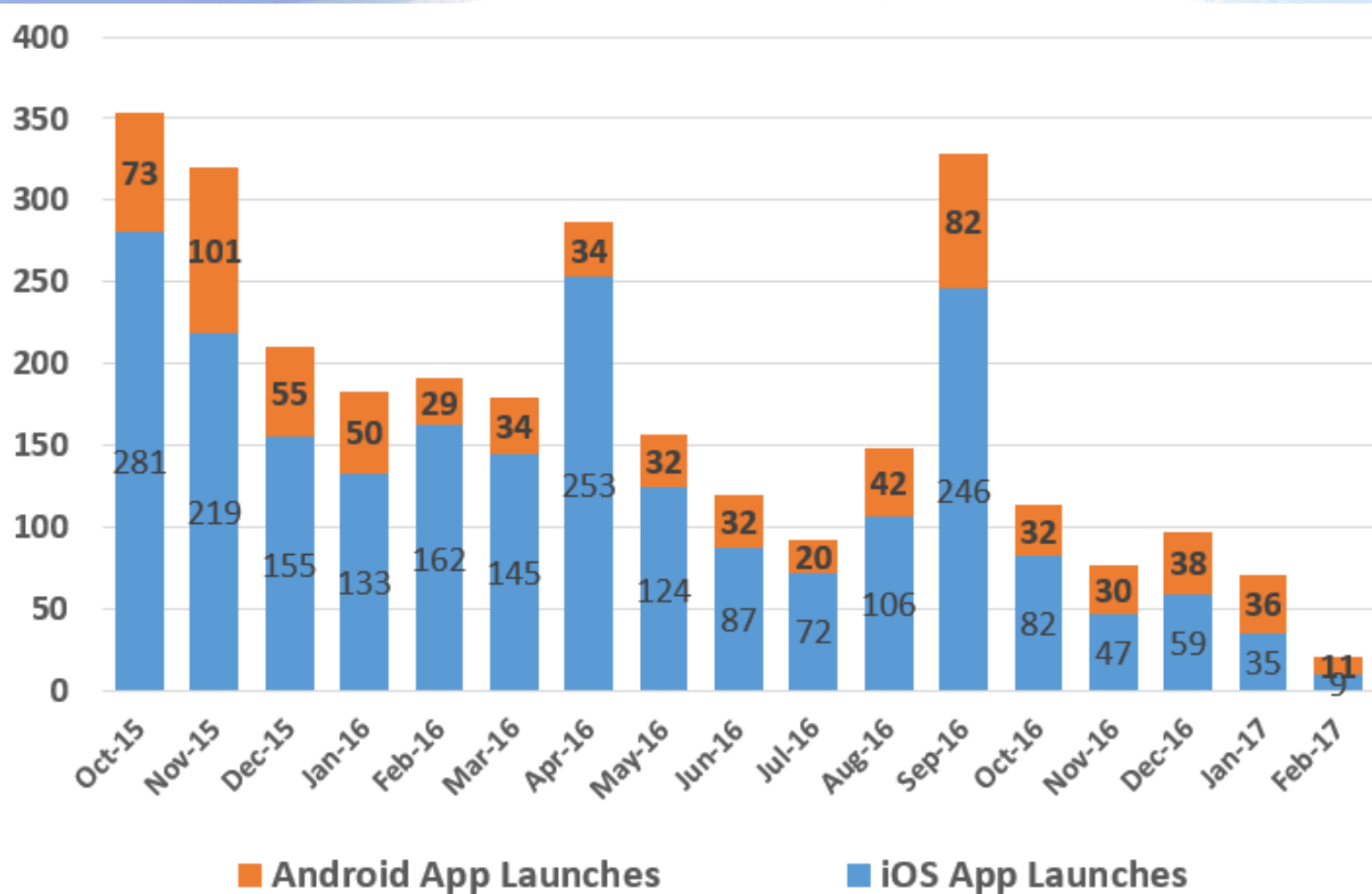
Application installations per month, N = 1,059



**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.



Indiana State
Department of Health

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.



Indiana State
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Contact Information:

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Injury Prevention Program Coordinator
Indiana State Department of Health
Division of Injury & Trauma Prevention

PHarness@isdh.IN.gov

(317) 232- 3121



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Email questions to: indianatrauma@isdh.in.gov



LOCAL HEALTH DEPARTMENT NALOXONE KITS

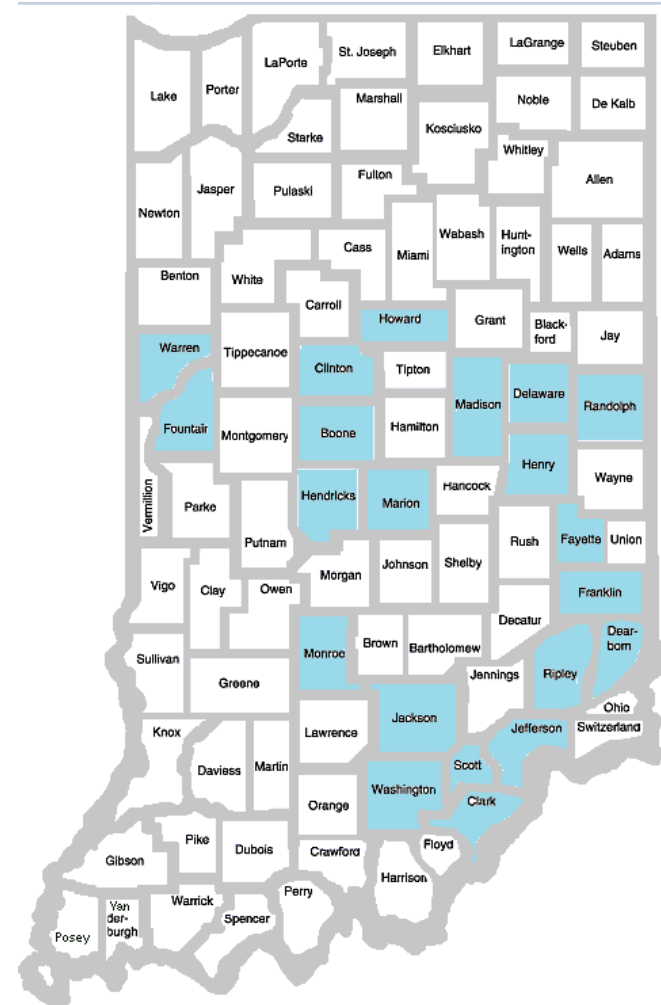
Email questions to: indianatrauma@isdh.in.gov

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)

Naloxone Kit Distribution

- 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.



OptIN

ISDH: ISDH Home x

https://optin.in.gov

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Governor Eric Holcomb

Indiana State Department of Health

A State that Works ISDH

Home About Contact Find Naloxone Entity Naloxone FAQs Training/Treatment Resources

Save a Life.
Help prevent overdose deaths.

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

Email questions to: indianatrauma@isdh.in.gov

2016 Firework Injury Report

Figure 1. Firework-related injuries by reporting cycle year, Indiana, 2003–2016*

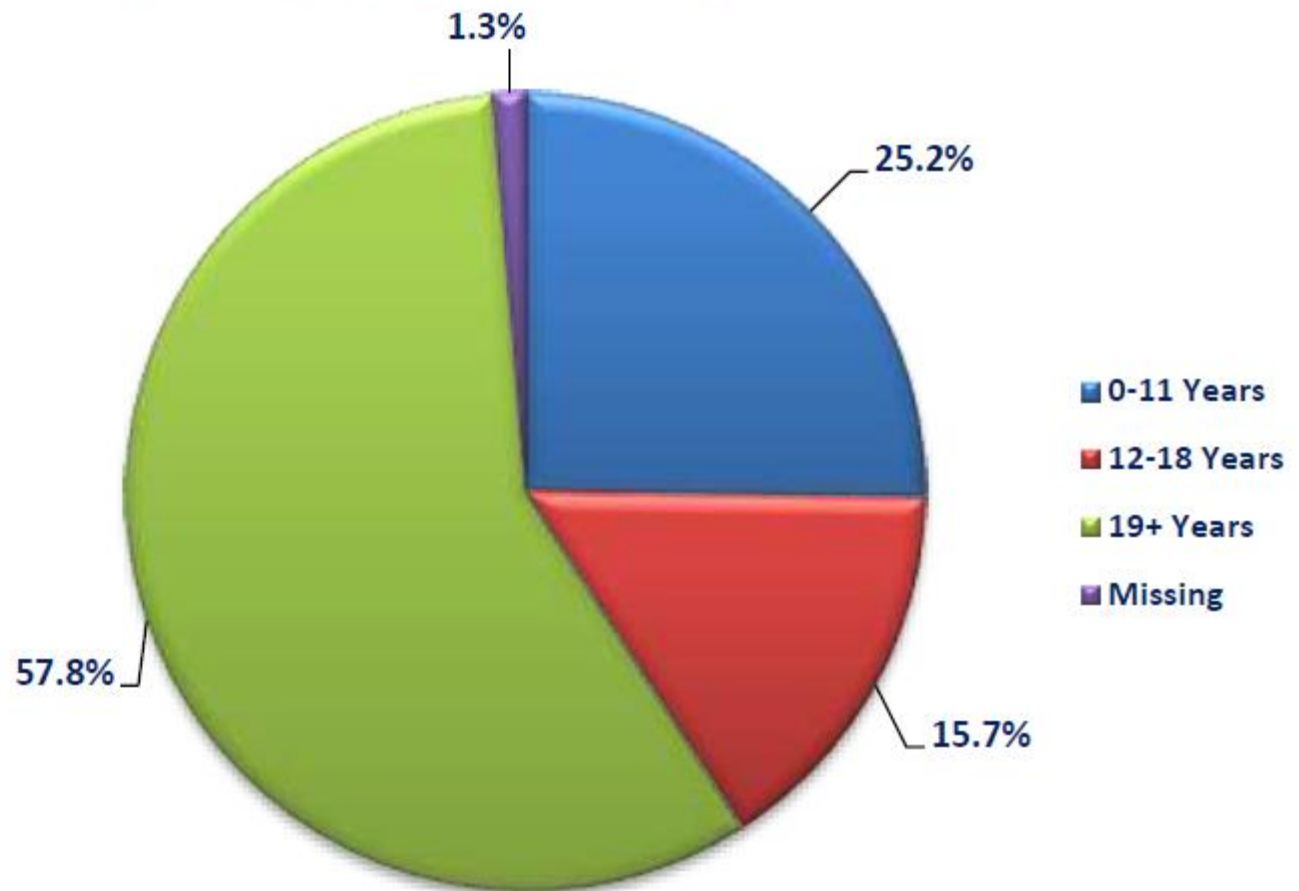


*2016 reporting cycle included cases from Sept. 13, 2015-Sept. 12, 2016.

Source: Indiana State Department of Health, Division of Trauma and Injury Prevention.

2016 Firework Injury Report

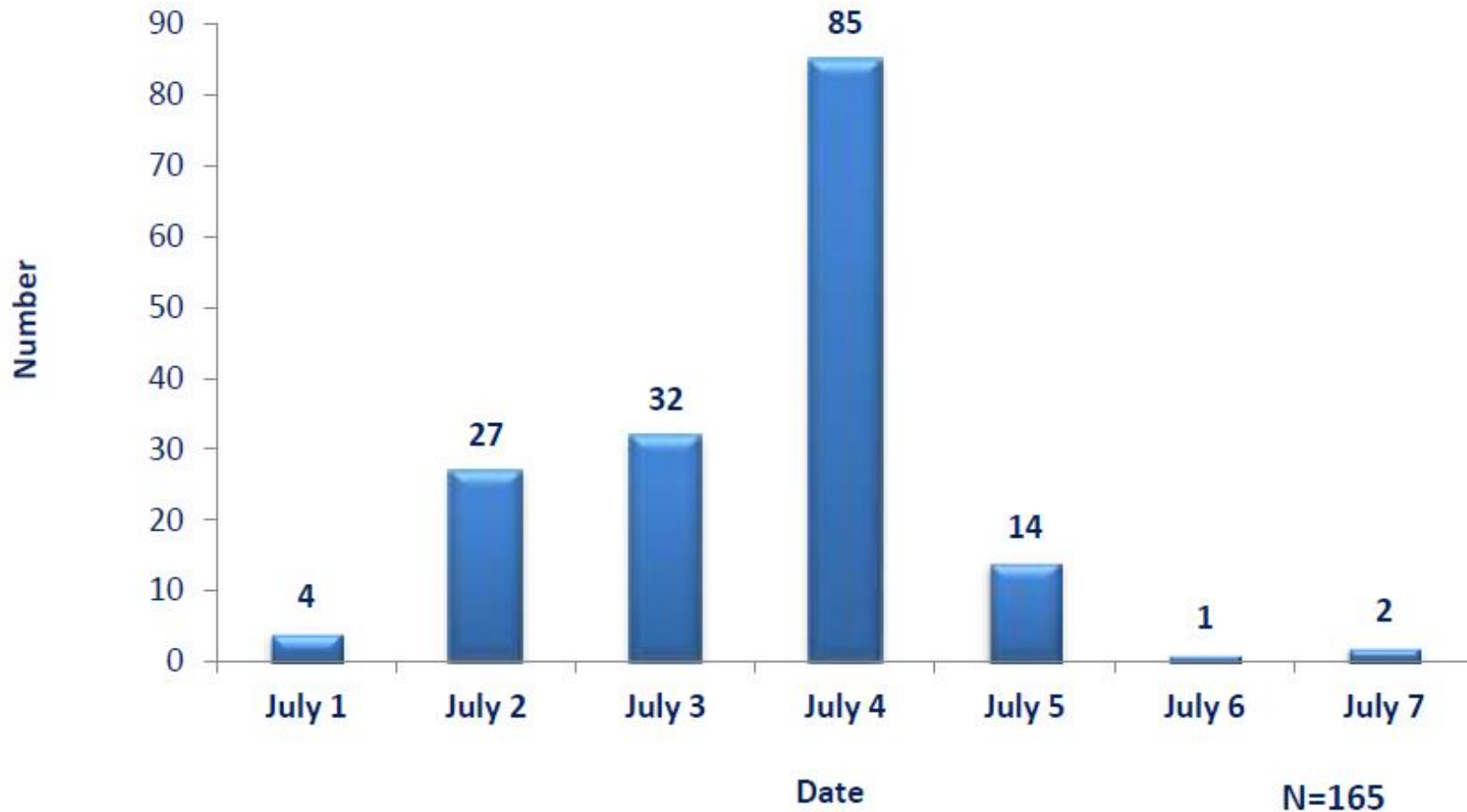
Figure 2. Firework-related injuries by age group, Indiana, 2016*



N=230

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

- 2017 cycle: Sept. 13, 2016 -Sept. 12, 2017
- **Updated fax number: 317-232-1265**
- Forms can be found at
<http://www.state.in.us/isdh/19042.htm#Fireworks>

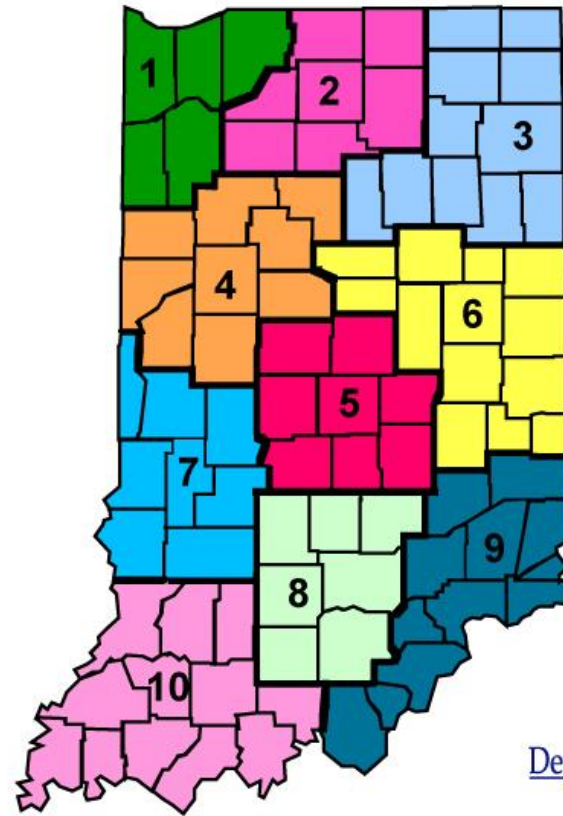
Regional Updates



Indiana State
Department of Health

Regional updates

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



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Case Review

1/30/17

- 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

Case Review

1/30/17

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 24hours
- 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



Indiana State
Department of Health

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

Facility Name	City	Level	Adult / Pediatric	“In the Process” Date*	1 Year Review Date**	ACS Consultation Visit Date	ACS Verification Visit Date
Community Hospital Anderson	Anderson	III	Adult	06/20/2014	08/21/2015	May 2016	July/August 2017
Methodist Northlake	Gary	III	Adult	08/20/2014	10/30/2015	10/7-10/8, 2015	February 2017
Franciscan Health Crown Point	Crown Point	III	Adult	12/18/2015	January/February 2017	09/26-09/27, 2016	November/December 2017
Reid Health	Richmond	III	Adult	12/18/2015	January/February 2017	02/02-02/03, 2016	June 2017
Terre Haute Regional Hospital	Terre Haute	II	Adult	12/18/2015	January/February 2017	09/08-09/09, 2016	August 2017
Union Hospital	Terre Haute	III	Adult	02/26/2016	March/April 2017	09/01-09/02, 2016	TBD
Memorial Hospital & Health Care Center	Jasper	III	Adult	08/24/2016	September/October 2017	05/16-05/17, 2017	TBD

*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.

Subcommittee Update

Performance Improvement Subcommittee

Dr. Stephanie Savage, *Trauma Medical Director*
IU Health Methodist



Indiana State
Department of Health

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

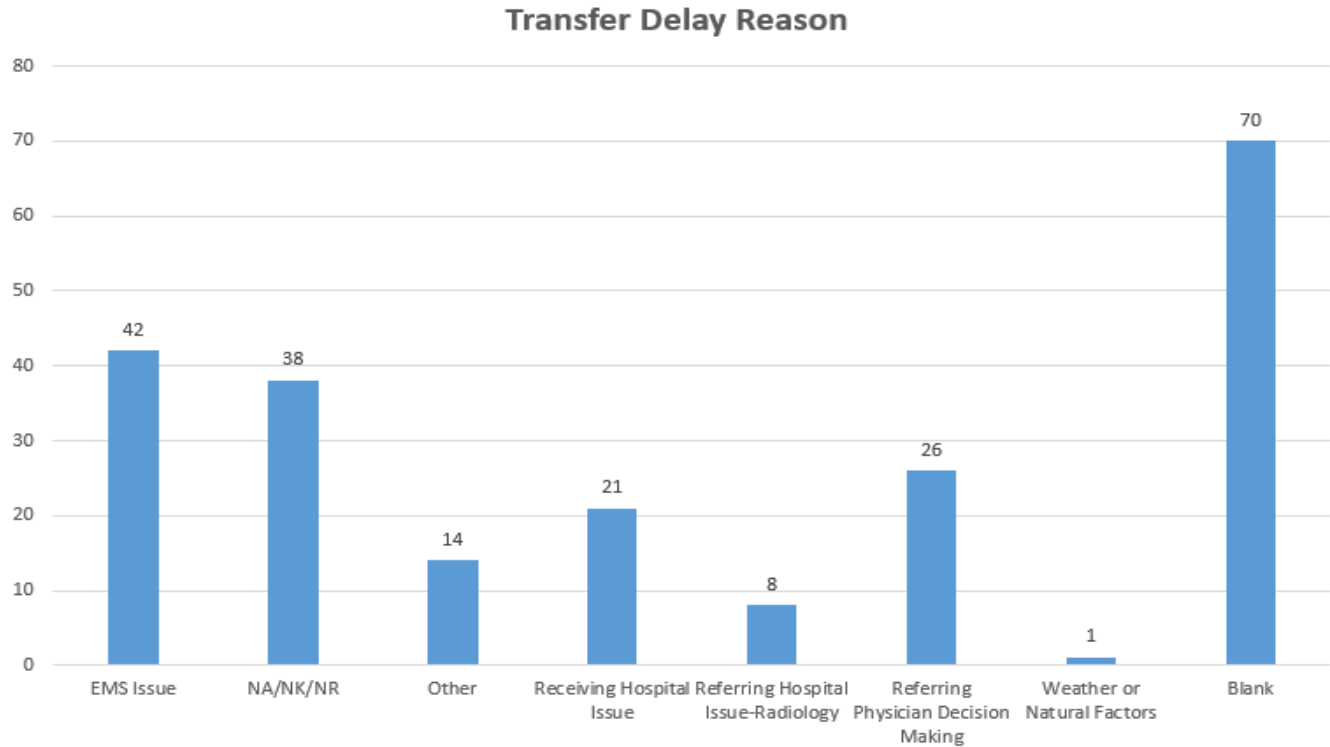
ISDH Staff: Katie Hokanson, Ramzi Nimry, Camry Hess

Number of Hospitals Reporting

Q1 2016 = 95 hospitals submitted data

Q2 2016 = 98 hospitals submitted data

ED LOS/Reason for Transfer Delays



QI 2016- 14 facilities answered “Yes” to Transfer Delay

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 QI 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.

2017 Goals

- 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



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

Hospitals reporting to the Indiana Trauma Registry - Quarter 2 2016

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

Hospitals reporting to the Indiana Trauma Registry - Quarter 2 2016

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

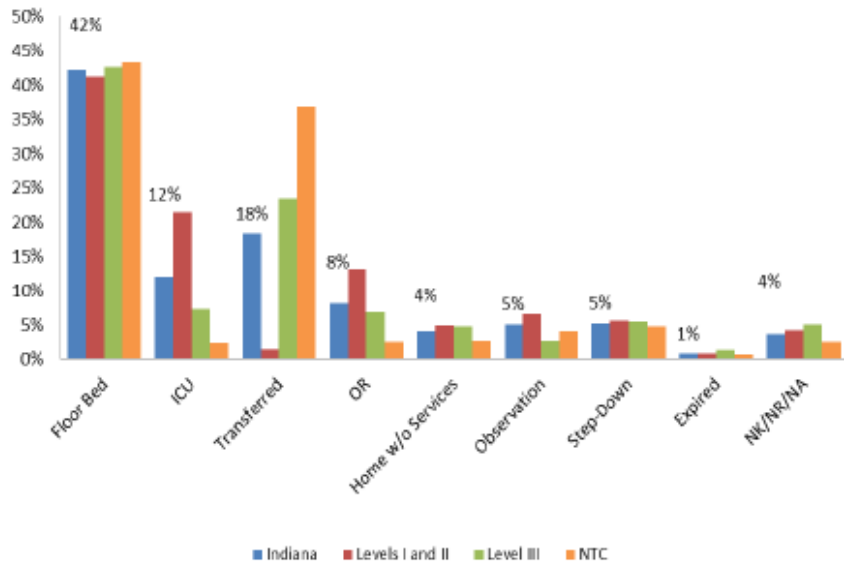


Indiana State
Department of Health

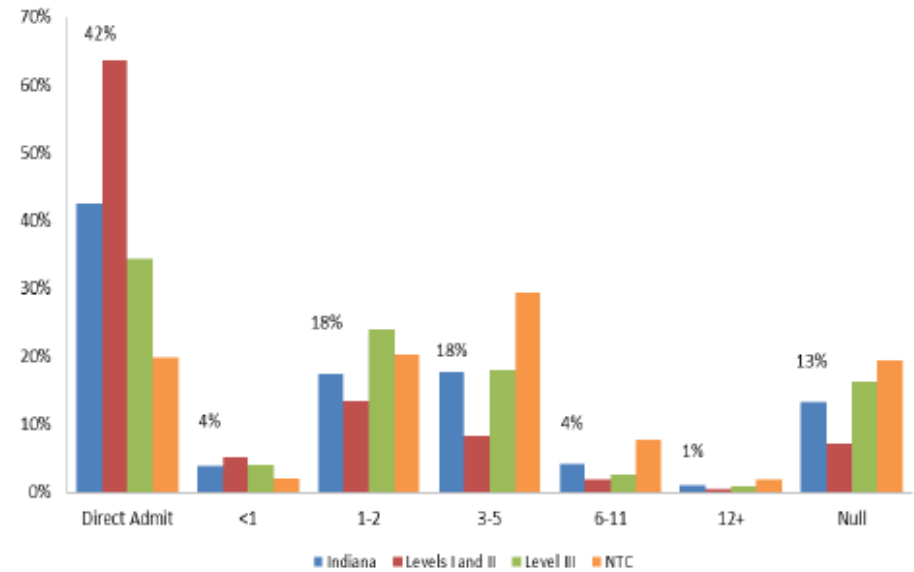
Email questions to: indianatrauma@isdh.in.gov

ED Disposition / Length of Stay - Page 2

ED Disposition by Percentage



ED Length of Stay (Hours)



ED Length of Stay - Page 2

**Date Discharged from ED
(Orders Written):**

01/18/2017



*

Time: 08:00

*

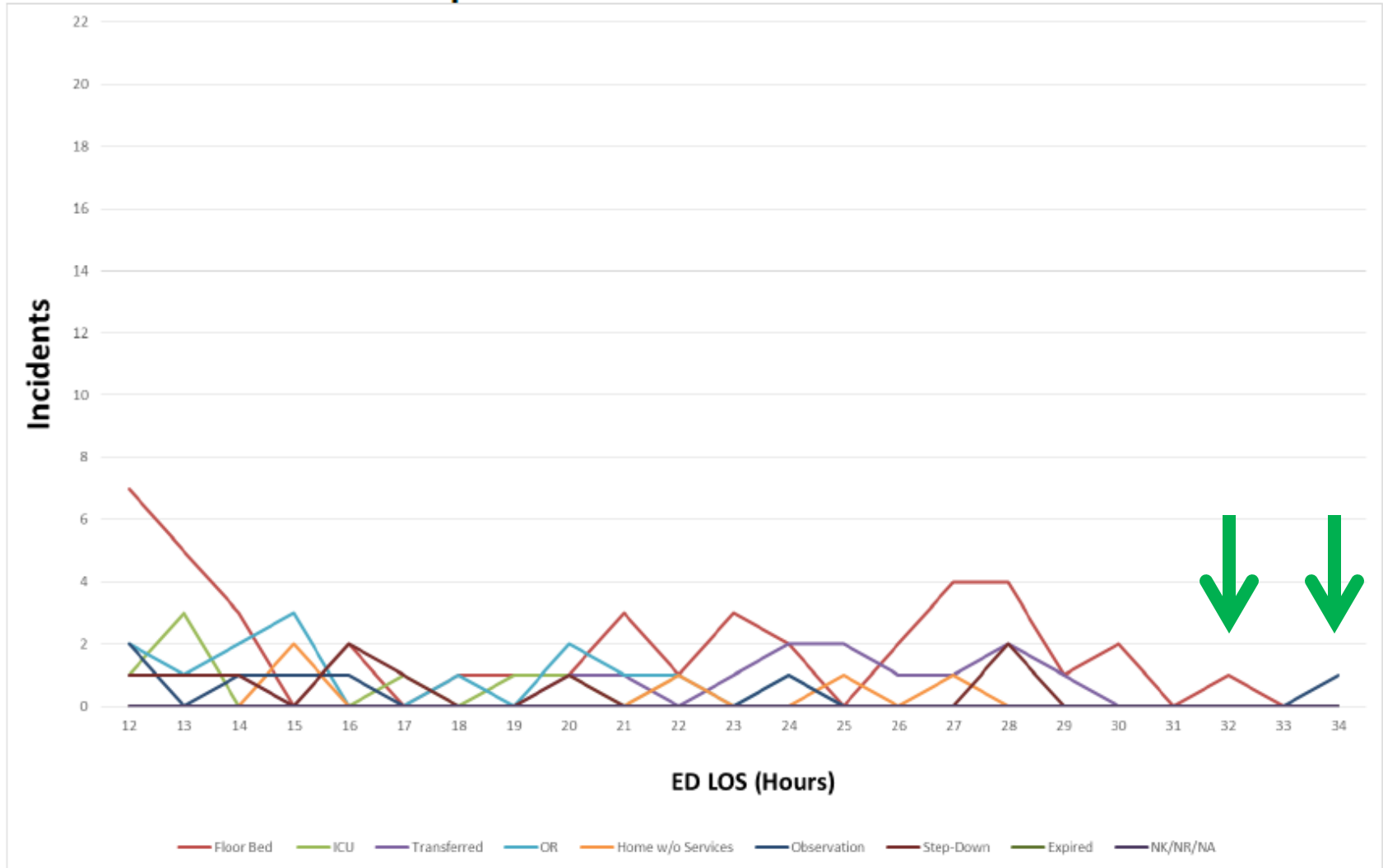
**Date Discharged from ED
(Physical Exit):**



Time:

ED LOS > 12 Hours - Page 3

ED Disposition for ED LOS >12 Hours



Email questions to: indianatrauma@isdh.in.gov

ED LOS > 12 Hours - Page 4

ED LOS > 12 Hours, N=98

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

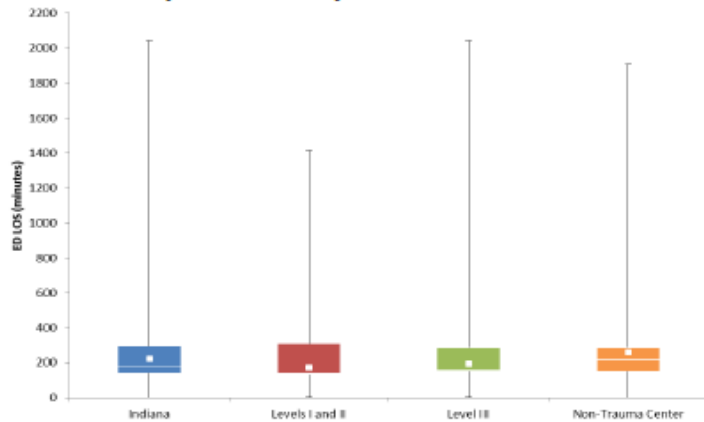
-Region was created from injury zip code. Missing = no injury zip or injury zip from out of state.

-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).

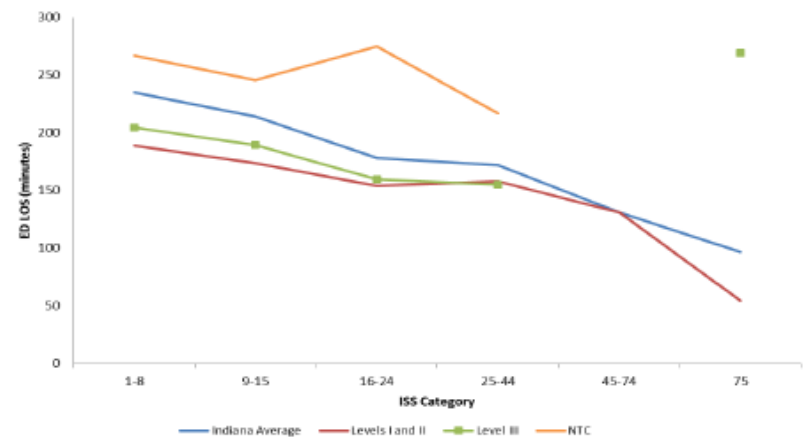
ED Length of Stay: Bar & Whisker - Page 5

ED LOS (Minutes) - All Patients



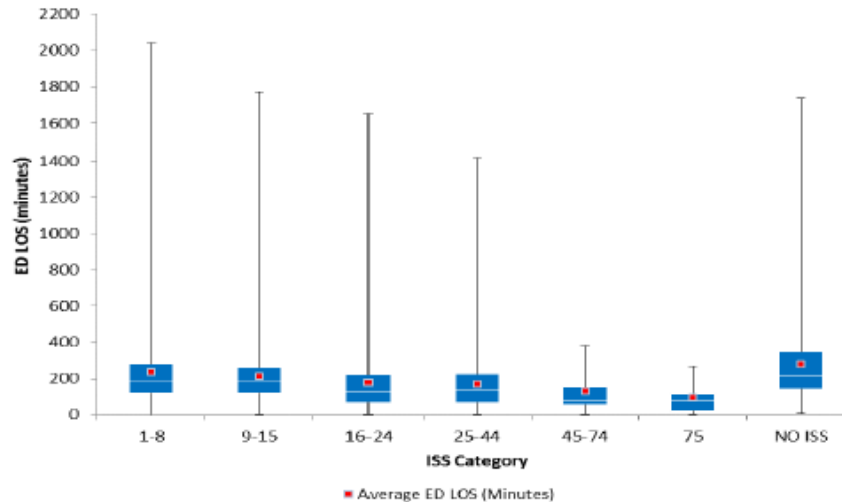
A table with all the values for ED LOS is found on page 50.

ED LOS (Minutes) by ISS



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

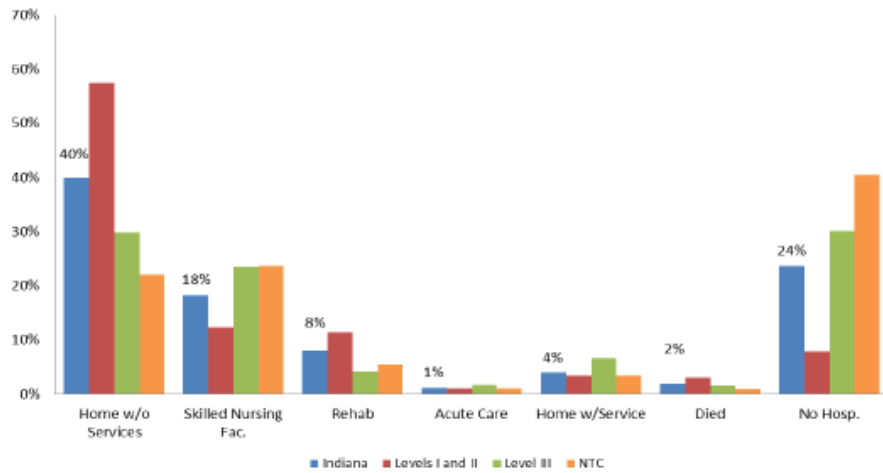
ED LOS (Minutes) by ISS



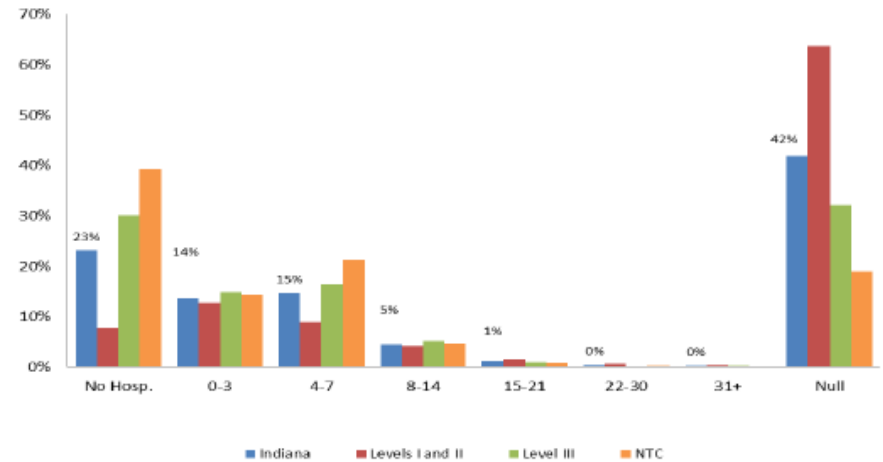
A table with values for ED LOS by ISS may be found on page 51

Hospital Disposition and LOS - Page 6

Hospital Disposition



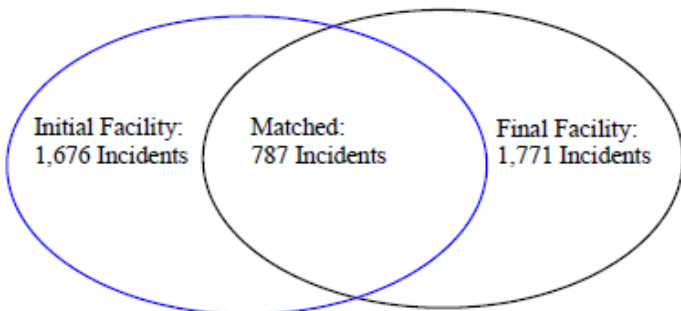
Hospital Length of Stay (days)



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

Linking - Page 7

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.

Indiana Critical Access Hospitals (CAHs)

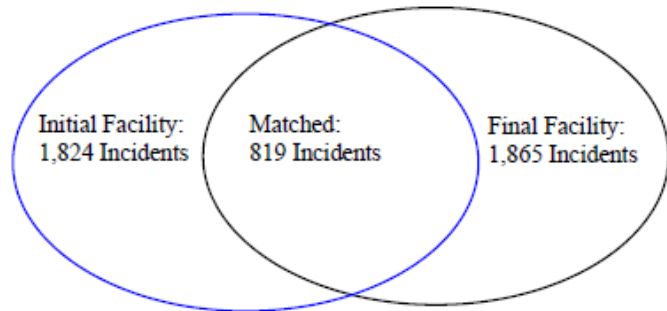
Adams Memorial Hospital	Perry County Memorial Hospital
Cameron Memorial Community Hospital Inc	Pulaski Memorial Hospital
Community Hospital of Bremen Inc	Putnam County Hospital
Decatur County Memorial Hospital	Rush Memorial Hospital
Dukes Memorial Hospital	Scott Memorial Hospital
Gibson General Hospital	St. Mary's Warrick Hospital
Greene County General Hospital	St. Vincent – Clay Hospital
Harrison County Hospital	St. Vincent – Dunn Hospital
IU Health Bedford Hospital	St. Vincent – Frankfort Hospital
IU Health Blackford Hospital	St. Vincent – Jennings Hospital
IU Health Paoli Hospital	St. Vincent – Mercy Hospital
IU Health Tipton Hospital	St. Vincent – Randolph Hospital
IU Health White Memorial Hospital	St. Vincent - Salem Hospital
Jasper County Hospital	St. Vincent – Williamsport Hospital
Jay County Hospital	Sullivan County Community Hospital
Margaret Mary Community Hospital Inc	Union Hospital Clinton
Parkview LaGrange Hospital	Woodlawn Hospital
Parkview Wabash Hospital	

Rural Hospitals

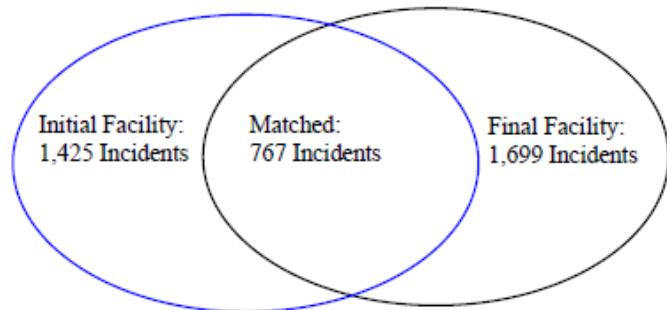
Columbus Regional Hospital	Kosciusko Community Hospital
Daviess Community Hospital	Major Hospital
Fayette Regional Health System	Marion General Hospital
Franciscan Health-Michigan City	Memorial Hospital (Logansport)
Franciscan Health-Crawfordsville	Memorial Hospital & Health Care Center (Jasper)
Good Samaritan Hospital	Parkview Noble Hospital
Henry Community Health	Reid Health
IU Health – LaPorte Hospital	St. Joseph's Regional Medical Center – Plymouth
IU Health – Starke Hospital	Schneck Medical Center
King's Daughters' Health	

Historical Links - Page 8

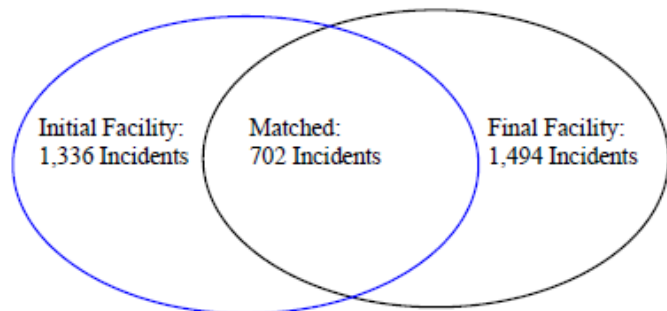
Historical Links



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.



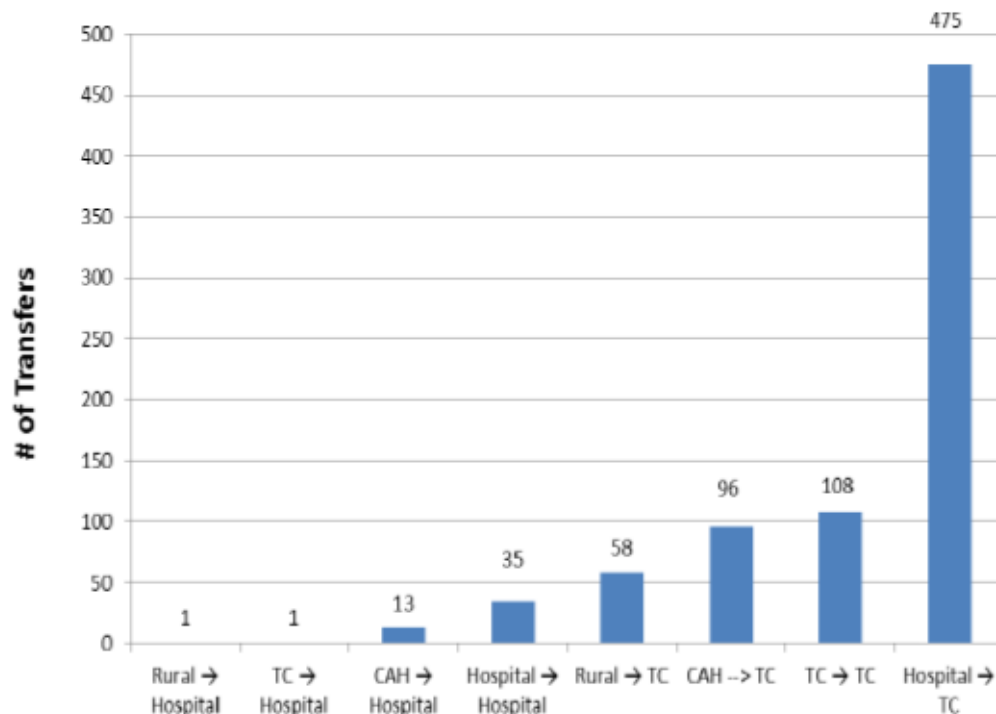
For Quarter 1, 2016, of the 8,077 incidents reported to the Indiana Trauma Registry, 1,336 cases that had an ED Disposition of “Transferred to another acute care facility” at the initial facility or that had the Inter-Facility Transfer equal to “Yes” at the Trauma Center. Of those transferred, 702 cases 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.

Transfer Patient: Facility Type - Page 9

Facility to Facility Transfers

For Transfer Patients:		
Initial Hospital Type	Final Hospital Type	Incident Count
Rural Hospital	Hospital	1
Trauma Center	Hospital	1
Critical Access Hospital	Hospital	13
Hospital	Hospital	35
Rural Hospital	Trauma Center	58
Critical Access Hospital	Trauma Center	96
Trauma Center	Trauma Center	108
Hospital	Trauma Center	475

Facility Transfer Type



Rural = Rural Hospital; TC = ACS Verified or In Process Trauma Center;

CAH = Critical Access Hospital; Hospital = does not fall into above categories

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Linked Transfer Patient Averages - Page 10

For Linked Transfer Patients:

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

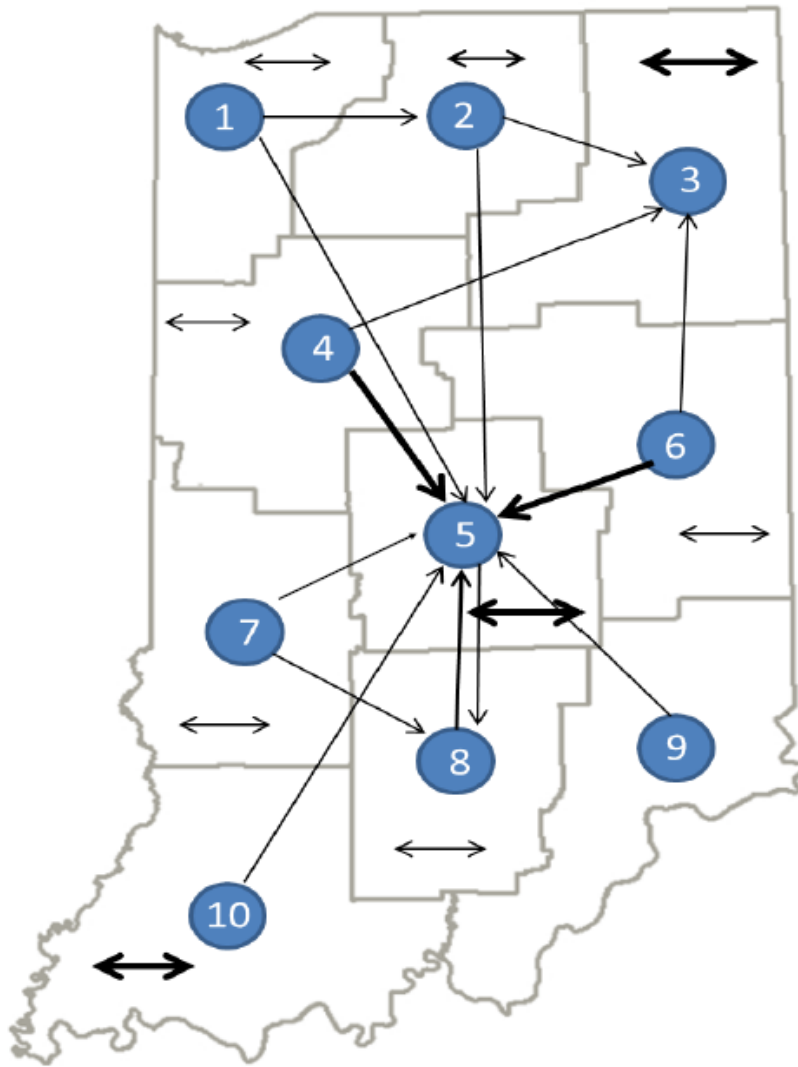
*Critical patient is defined as having a GCS \leq 12, OR Shock Index $>$ 0.9 OR ISS $>$ 15 at the initial hospital.

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

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

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Transfer Patient Data - Page 11



*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.

For Transfer Patients:		
Public Health Preparedness District Initial Hospital	Public Health Preparedness District Final Hospital	Incident Counts
1	1	13
1	2	14
1	3	1
1	4	4
1	5	9
2	2	12
2	3	3
2	5	2
3	3	115
3	5	1
4	3	5
4	4	11
4	5	50
5	5	164
5	8	3
6	3	5
6	5	128
6	6	10
7	5	57
7	7	15
8	5	43
8	8	5
9	5	2
9	9	2
10	5	12
10	10	101

Transfer Patient Data - Page 12

For Transfer Patients:				
	All Transfer Patients	Critical*	Physiological Critical**	ISS Critical***
Number of Patients	787	253	218	57
Total Time	4 hours 50.5 minutes	4 hours 25.7 minutes	4 hours 27.1 minutes	4 hours 7.7 minutes
Total Mileage	49.9	53.2	53.3	57.1
Injury Scene to Initial Hospital Mileage***	7.4	6.9	6.8	9
Initial Facility to Final Facility Mileage	42.5	46.3	46.5	48.1

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

Region	Injury Scene to Initial Facility Mileage†	Initial Facility to Final Facility Mileage	Total Mileage	Drive Count	Air Count
Indiana Average	7.4	42.5	49.9	686	101
North Region	6.6	29.3	35.9	154	13
Central Region	7.2	48.9	56.0	434	72
South Region	10.2	33.7	43.9	95	16

*Critical patient is defined as having a GCS \leq 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 \leq 12 at the initial hospital.

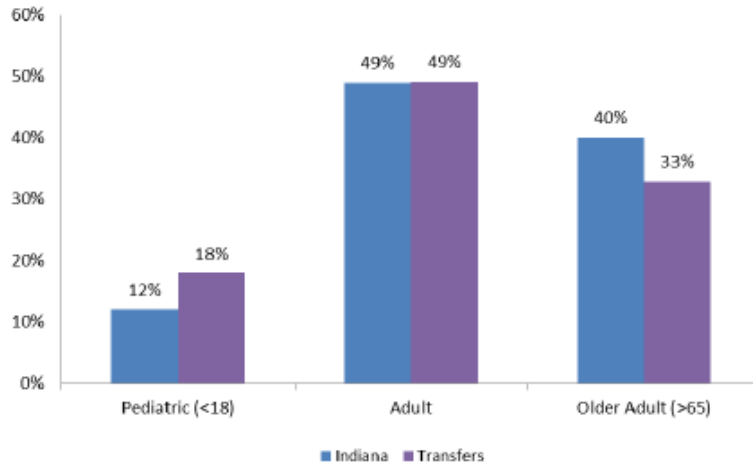
*** ISS Critical Transfer patient is defined as ISS $>$ 15 at the initial hospital.

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

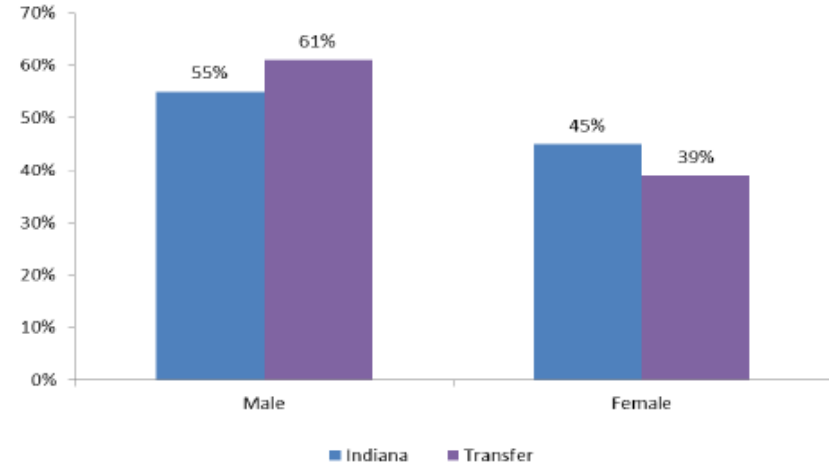
Statistics for Estimated Average Distance by Region calculated by Public Health Geographics, Epidemiology Resource Center, ISDH

Transfer Patient Population - Page 13

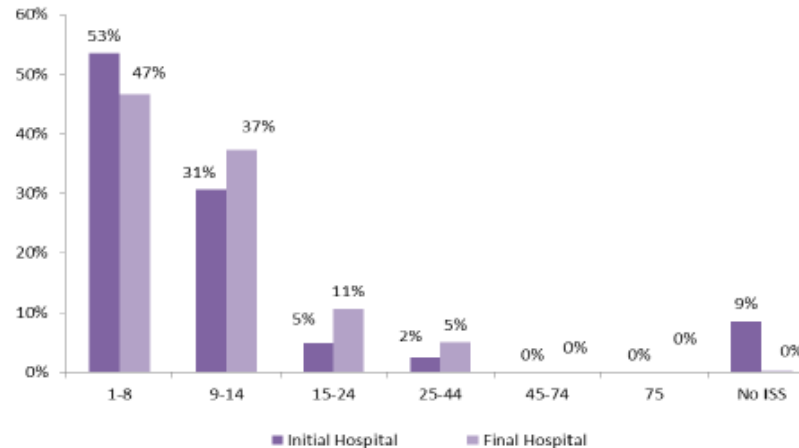
Patient Age Groupings



Patient Gender

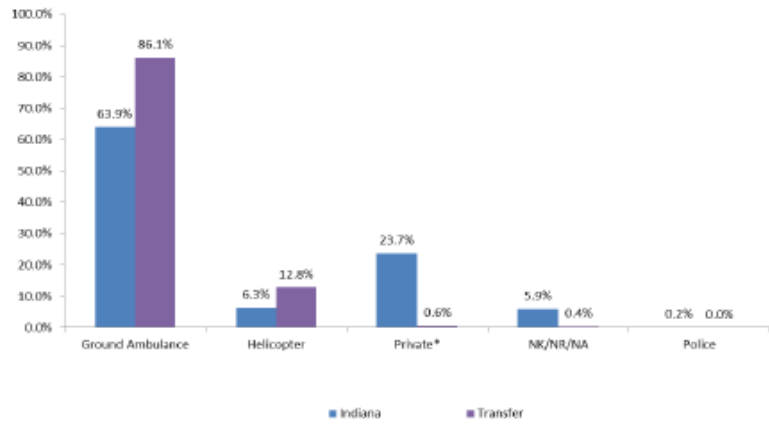


Injury Severity Score (ISS)



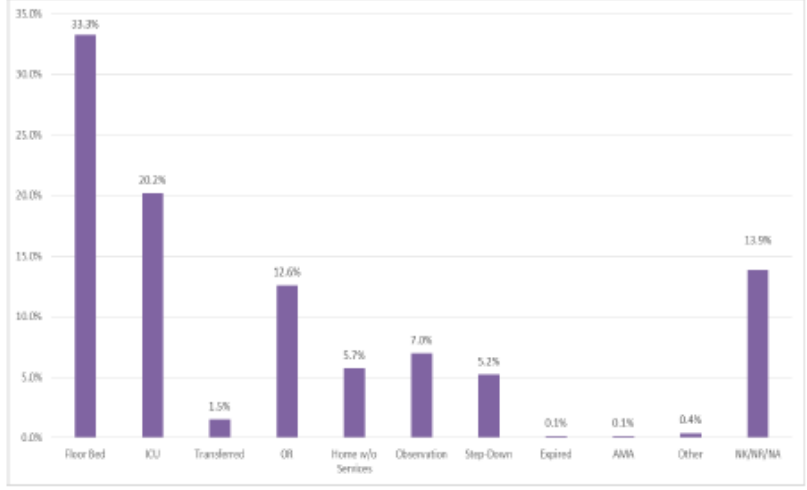
Transfer Patient Population - Page 14

Transport Mode– Final Hospital

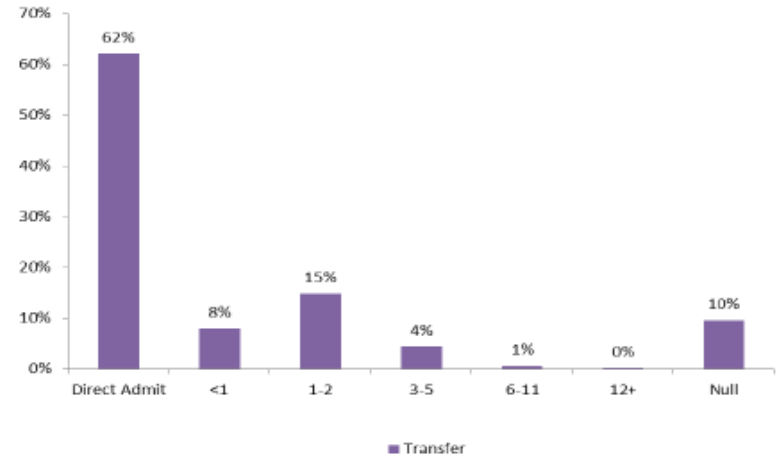


<1% Transport Mode: Police, Other * Indicates Private/ Public Vehicle, Walk-in

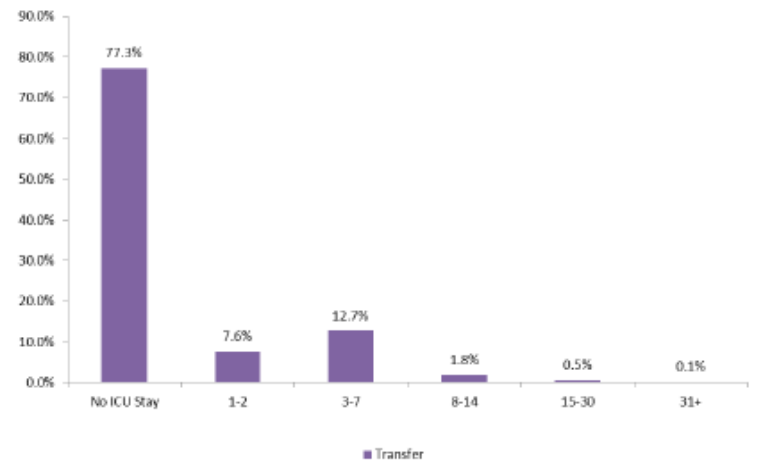
ED Disposition by Percentage- Final Hospital



ED Length of Stay (hours)- Final Hospital



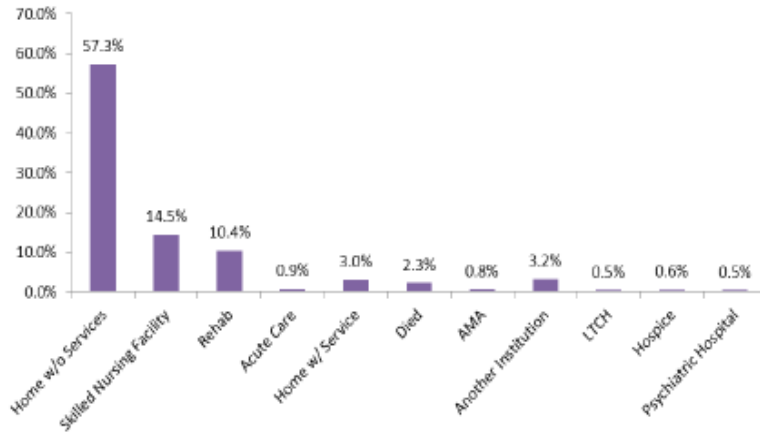
ICU Length of Stay (days)- Final Hospital



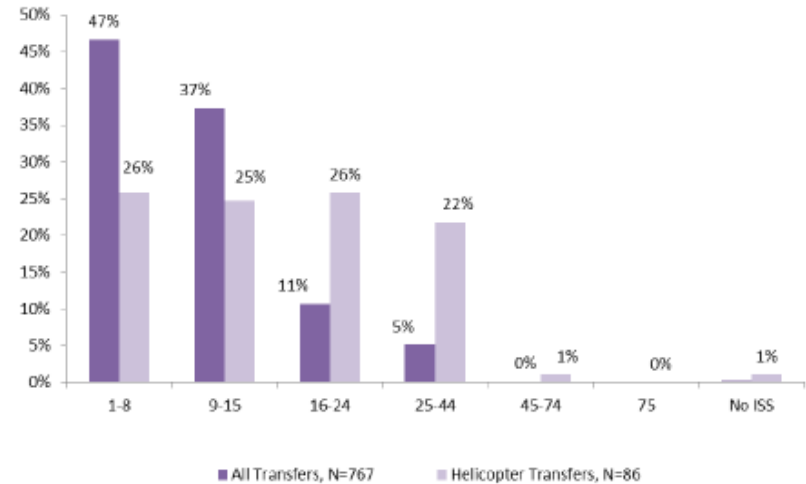
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Transfer Patient Population - Page 15

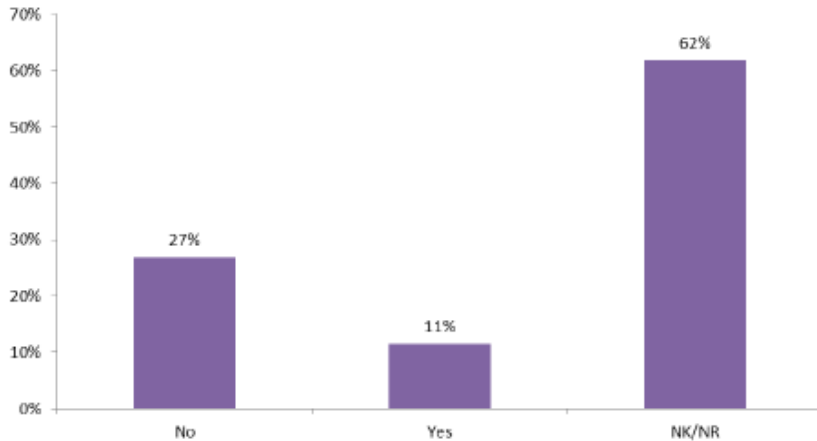
Discharge Disposition- Final Hospital



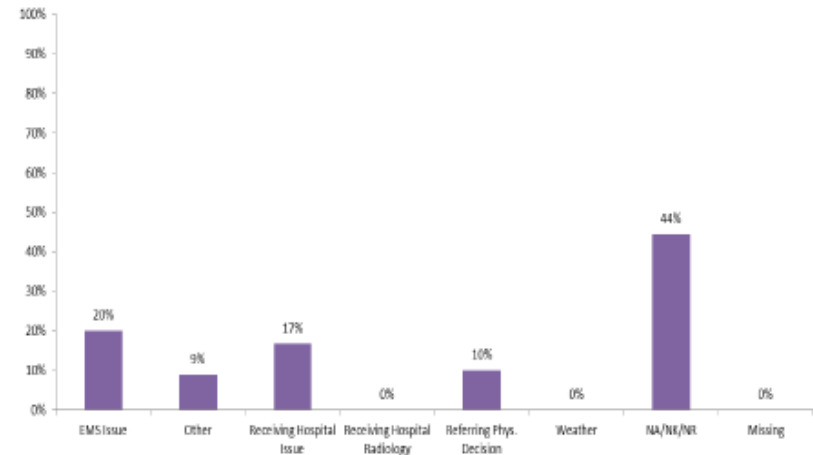
Helicopter Transfers by ISS- Final Hospital



Transfer Delay Indicated- Initial Hospital



Initial Facility Transfer Delay Reason



Higher than Average ED LOS for Transferred Patients

Hospital ID

ID 10

ID 18

ID 33

ID 37

ID 42

ID 52

ID 70

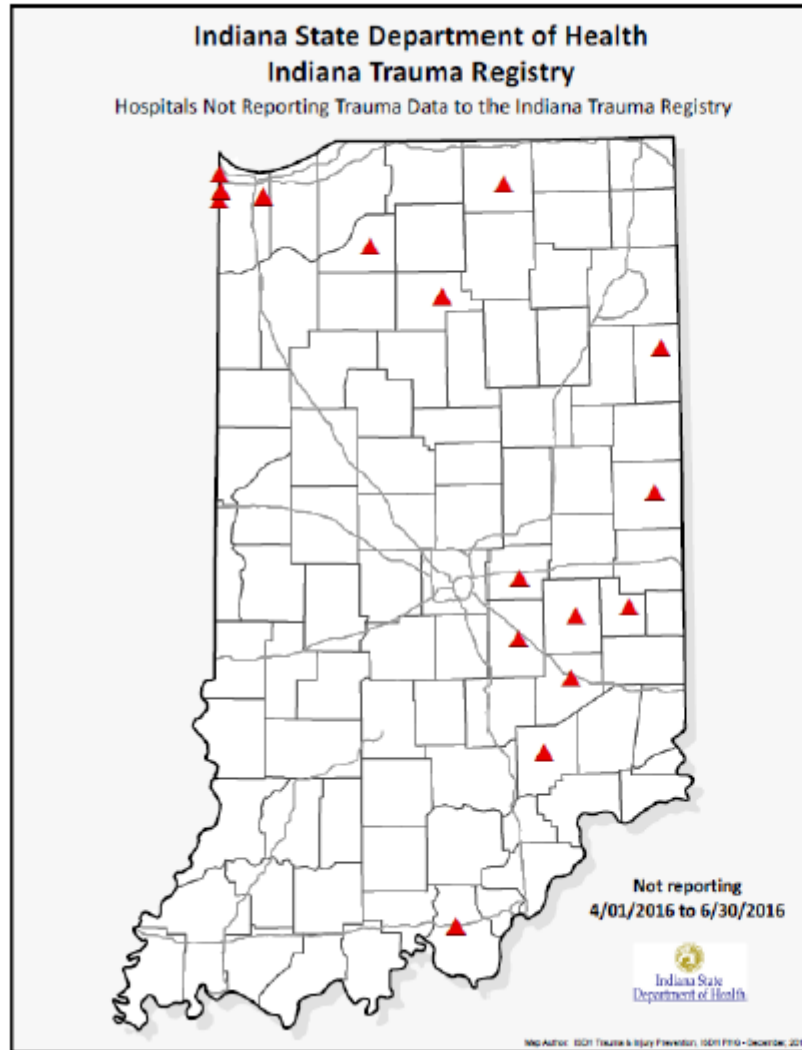
ID 93

ID 111

ID 112

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Not Reporting Map - Page 16



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

Reporting Map - Page 17

Indiana State Department of Health Indiana Trauma Registry

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

I II 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

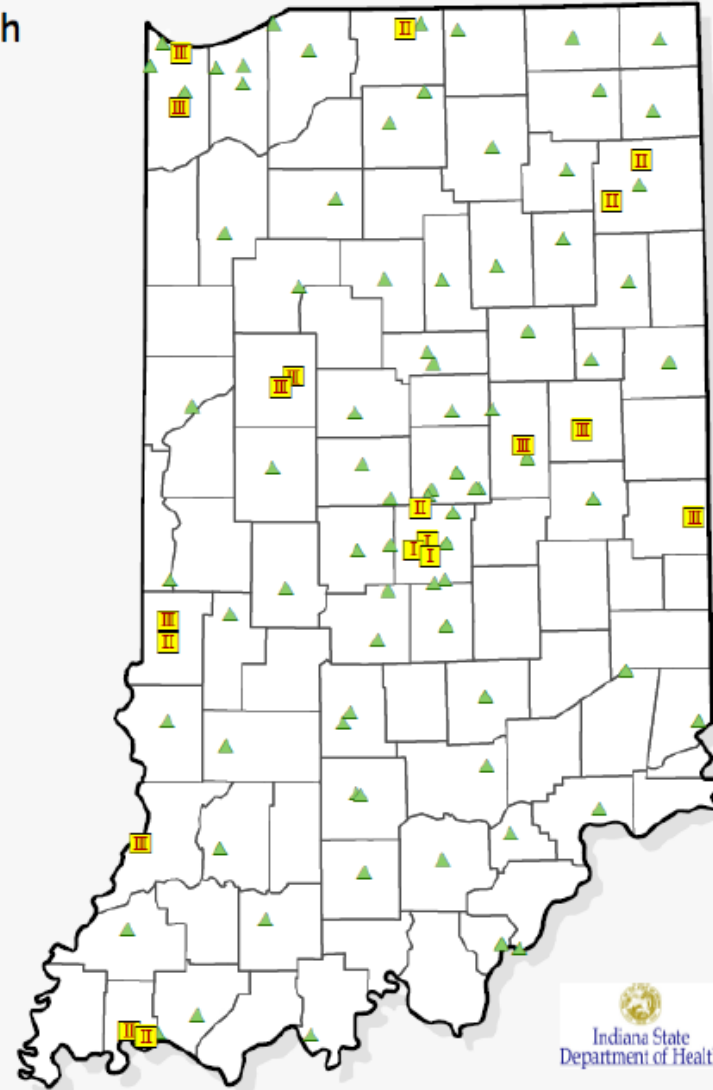
III Level III Trauma Centers

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

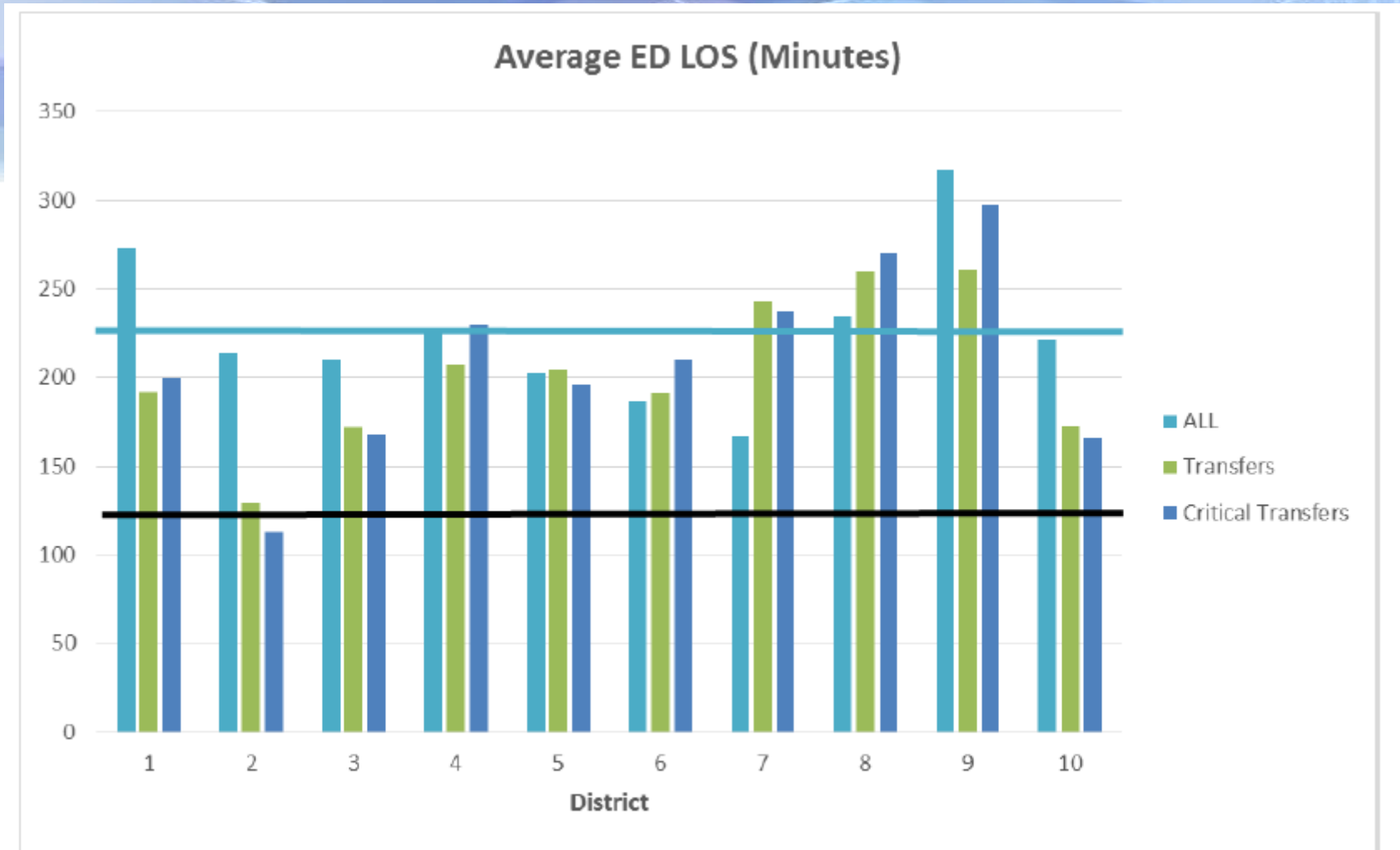
▲ Non-Trauma Hospitals

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

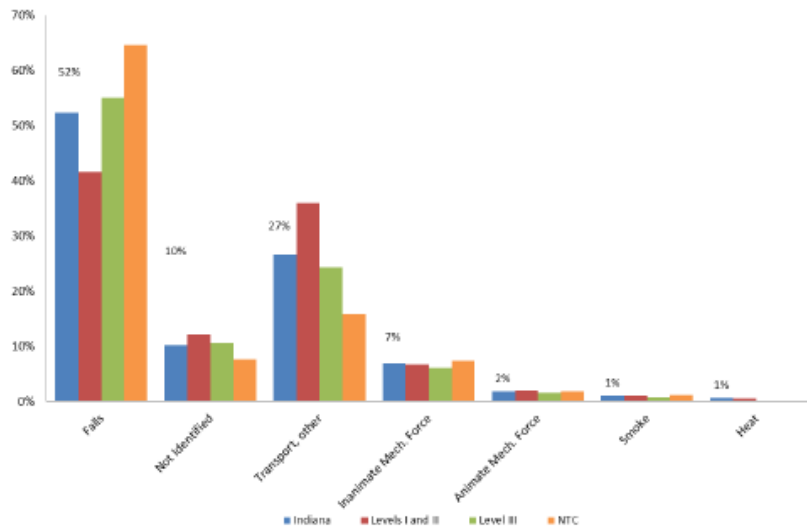


*Black line represents the 120 ACS goal

**Blue line represents the state average

Cause of Injury- Page 28

Cause of Injury



<1% Cause of Injury Categories: Unspecified, Electricity/Radiation, Forces of Nature, Drowning, Breathing, Venom, Noxious Substances, Overexertion and Travel and Poisoning.

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

Questions?



Indiana State
Department of Health

American College of Surgeons - Committee on Trauma Update

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



Indiana State
Department of Health

Email questions to: indianatrauma@isdh.in.gov

Other Business



Indiana State
Department of Health

Email questions to: indianatrauma@isdh.in.gov

Committee Meeting Dates for 2017

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



Indiana State
Department of Health

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