



Indiana State Trauma Care Committee

August 18, 2017



Indiana State
Department of Health

Email questions to: indianatrauma@isdh.in.gov

Congratulations Dr. Adams!!!



Indiana State
Department of Health

Email questions to: indianatrauma@isdh.in.gov



Updates

Katie Hokanson, *Director of Trauma and Injury Prevention*



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Trauma-related legislation

- House Bill 1571
 - Allows a coroner, in certain circumstances, to make available an autopsy report to the peer review committee of a hospital at which the decedent was treated immediately before death.
 - Signed by governor April 24.



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Coroners lacking Data Sharing Agreements for INVDRS

- Franklin
- Hendricks
- Jefferson
- Jennings
- Knox
- Miami
- Noble
- Owen
- Posey
- Sullivan
- Switzerland
- Vanderburgh
- Vigo
- Warren
- Warrick
- Wells
- White

Division staffing updates

- Mandy Billman
 - Overdose Surveillance Educator Epidemiologist
- Paravdeep “Pravy” Nijjar
 - Registry Coordinator
- Brittany Armstrong
 - Records Consultant
- Raven Helmick
 - PDO Epidemiologist
- Anita McCormick-Peyton
 - Records Consultant
- Patricia Dotson
 - Records Consultant
- Vincent Gallagher
 - Intern



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Department of Health

Email questions to: indianatrauma@isdh.in.gov

***NEW* Public Health Public Safety Conference**



Save the Date


Wednesday, September 27
8:30 a.m. - 4:30 p.m.


Ritz Charles
12156 North Meridian Street
Carmel, IN 46032



Email questions to: indianatrauma@isdh.in.gov

2017 Labor of Love Infant Mortality Summit

The poster features a teal background with a close-up photograph of a young child's face on the right side, showing an open mouth as if crying or shouting. On the left, there is white and purple text. The Labor of Love logo is in the top left, and the event details are in the top right. The main title is in the center, and the subtitle is at the bottom.


Labor of Love
Helping Indiana Reduce Infant Death

JW Marriott, 10 S. West Street, Indianapolis
Wednesday, November 15, 2017

Labor of Love Infant Mortality *Summit*

Addressing the Effect of Opioids
for Indiana's Moms and Babies

Email questions to: indianatrauma@isdh.in.gov

2017 Labor of Love Infant Mortality Summit

Join us! **November 15, 2017** • JW Marriott
10 S. West Street, Indianapolis, IN 46204

Our Speakers

						
Jennifer Walthall, MD, MPH Secretary, Indiana Family and Social Services Administration	Paul E. Jamis, MD, MBA Chief Medical Officer, Marsh of Dunes	Michael C. Lu, MD, MS, MPH Associate Administrator, Maternal & Child Health, Health Resources and Services Administration, U.S. Department of Health & Human Services	Michael Warren, MD, MPH Deputy Commissioner for Population Health, Tennessee Department of Health	Maria Del Rio Hoovey, MD Sponsorial Fetal Medicine, Knoxville, TN	Jim McClelland Executive Director, Strategic Prevention, Treatment and Engagement, State of Indiana	Jim Shella Former Indiana State Auditor (now retired) Insurer

New Exhibit Area: Opioid Epidemic and Its Effects

This year, the Labor of Love Infant Mortality Summit is providing a special area to allow organizations on the forefront of fighting Indiana's opioid epidemic and its effects on infant mortality to showcase products and services used in the fight against opioid addiction while highlighting best practices.

For registration and additional information, visit: www.infantmortalitysummit-indiana.org



Email questions to: indianatrauma@isdh.in.gov

2018 EMS Medical Director's Conference



5th annual
**EMS
Medical Directors'
Conference**

Friday, April 27, 2018

Ritz Charles
12156 N. Meridian Street
Carmel, IN 46032

8am - 5pm



Get notified when registration opens!

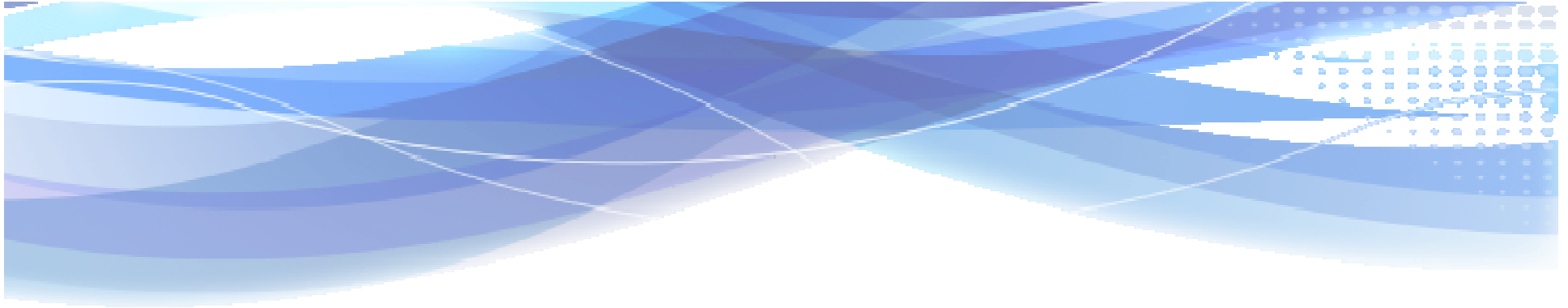
Send your contact information to:
indianatrauma@isdh.in.gov



Email questions to: indianatrauma@isdh.in.gov

Grant activities

- National Violent Death Reporting System (NVDRS)
 - Applied for year 4 (of 5)
- Prescription Drug Overdose: Prevention for States
 - Applied for year 2 (base and supplement)
 - Applied for an additional supplement
- Enhanced State Surveillance of Opioids
 - Originally awarded but not funded, funding starts September 1
 - Applied for supplement
- First Responder Comprehensive Addiction and Recovery Act
 - Applied



GRANT OPPORTUNITY ANNOUNCEMENT: 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.
- Funding through both state and federal funds.

Naloxone kit distribution

- Division established a grant opportunity announcement that went out to all Local Health Departments (LHDs) on August 8.
 - Applications are due September 1.
 - Funding for kits will be from mid-September to April 2018.

Drug overdose prevention website

The screenshot displays the ISDH Overdose Prevention website. The main navigation menu on the left includes 'ISDH Home', 'Overdose Prevention', 'Welcome', 'General Information', 'Naloxone', 'Resources', and 'Data'. Below this, there are sections for 'Top FAQs' and 'I Want To...'. The main content area features a large graphic with a teal arrow pointing upwards and to the right, overlaid on a background of pills and a grid of dots. Below the graphic is a section titled 'Opioid Misuse' with the subtext 'Get the Numbers' and a 'Learn More' button. To the right of the main content are two smaller sections: 'Opioid Misuse Prevention' with a 'Learn More' link, and 'Naloxone - Prevent Fatal Overdose' with a 'Learn More' link. At the bottom of the page, there are three dark grey buttons labeled 'Resources', 'Treatment & Post Treatment Services', and 'Toolkit'.

ISDH Home

Overdose Prevention

Welcome

General Information +

Naloxone +

Resources +

Data +

Top FAQs

I Want To...

Apply for a Birth/Death Certificate

Register for the IDRS

Opioid Misuse
Get the Numbers
[Learn More](#)

Opioid Misuse Prevention
[Learn More](#)

Naloxone - Prevent Fatal Overdose
[Learn More](#)

Resources

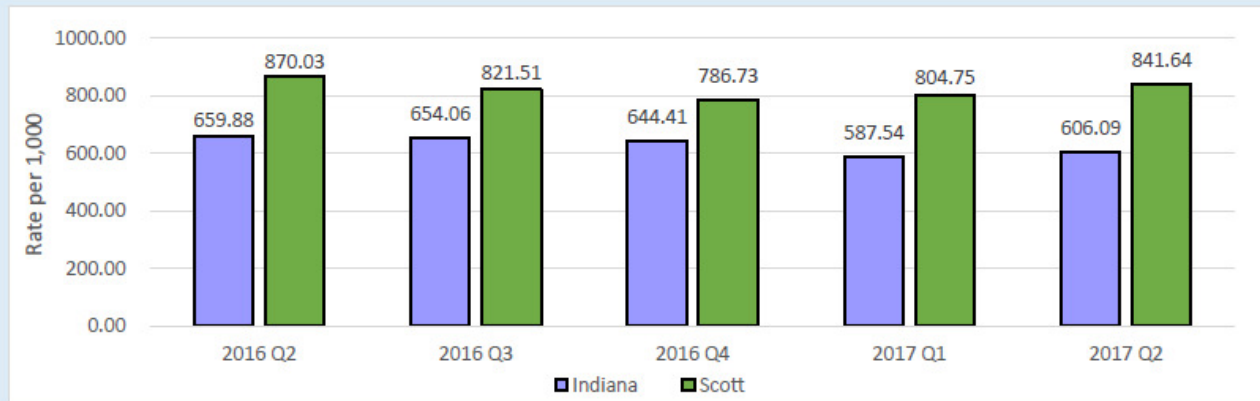
Treatment & Post Treatment Services

Toolkit

Scott County INSPECT Report on Controlled Substance Prescriptions

Indiana Scheduled Prescription Electronic Collection and Tracking Program

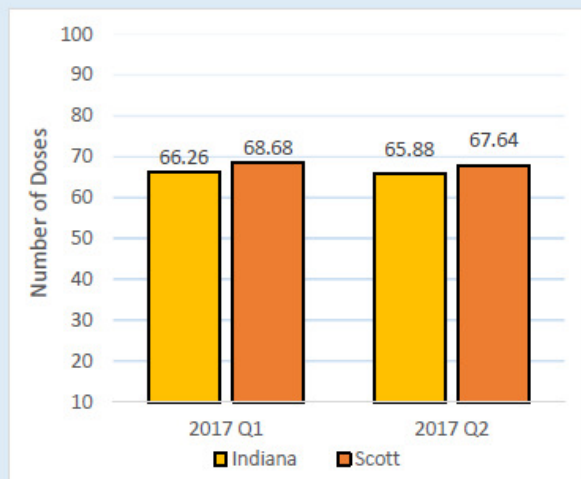
Controlled Substance Prescriptions Dispensed, Indiana and Scott County



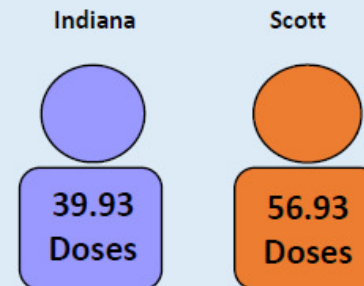
June 2017	County	Indiana
Prescriptions Dispensed	5,880	1,364,327
Doses Dispensed	394,857	89,840,249

2017 Quarter 2	County	Indiana
Prescriptions Dispensed	19,984	4,012,150
Doses Dispensed	1,351,655	264,302,884

Average Number of Controlled Substance Doses Dispensed per Prescription



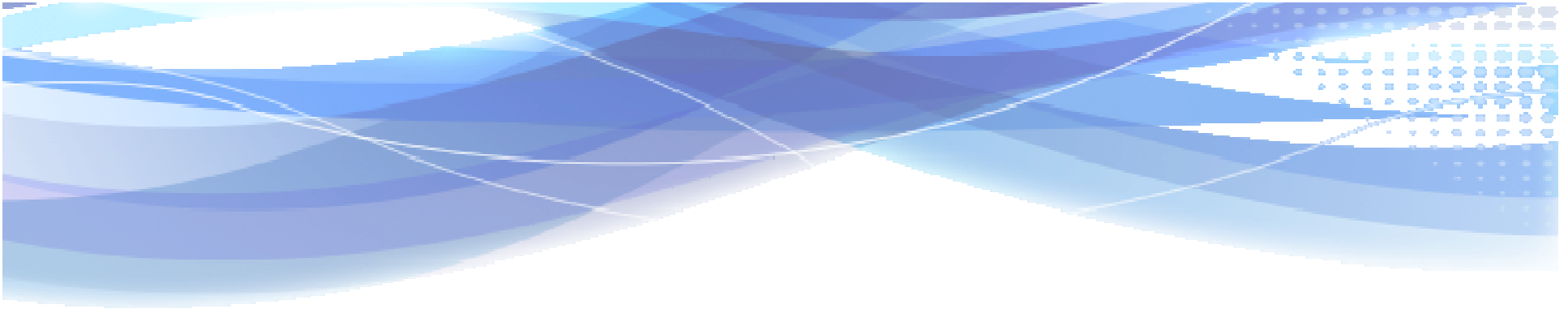
Average Controlled Substance Doses Dispensed Per Person, 2017 Quarter 2



On average each person in Scott County received 56.93 doses of prescribed controlled substances during 2017 quarter 2, which is higher than the Indiana state average of 39.93 doses.

2018 ISTCC & ITN Meetings

- ***NEW*** Location:
Indiana Government
Center – South,
Conference Room B.
- Webcast still
available.
- Time: 10:00 A.M.
EST.
- Dates:
 - February 16
 - April 20
 - June 15
 - August 17
 - October 19
 - December 14



Child Passenger Safety Update



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Booster Bashes for 2017:

- 14 completed events:

- Vanderburgh-April 6
- Lawrence- April 7 and 14
- Vigo-April 25
- Cass- May 10, 11, and 19
- Harrison-May 15
- Clinton- June 3
- Madison- June 7
- Delaware- June 28 and 30
- Vermillion- August 1
- La Porte- August 2
- Madison- August 14

- 12 events remaining:

- Madison- August 19
- St. Joseph- September 4, 7, 28; October 2, 12, 19, 23, and 26
- La Porte- September 23
- Harrison- September (date TBD)

Booster Bash (continued):

- Data:
 - 715 booster seats have been handed out to communities and parents.
 - Demographical data is collected via Automotive Safety Program Check-up Form during each appointment.
 - Data on child passenger\booster seats usage is being gathered and calculated.



Indiana State
Department of Health

CPST Scholarship Reimbursement Program

- Data:
 - Data is being collected & evaluated from post evaluation surveys.
- 12 technicians have utilized program:
 - Expected to have 25 additional techs due to completed classes by end of September.

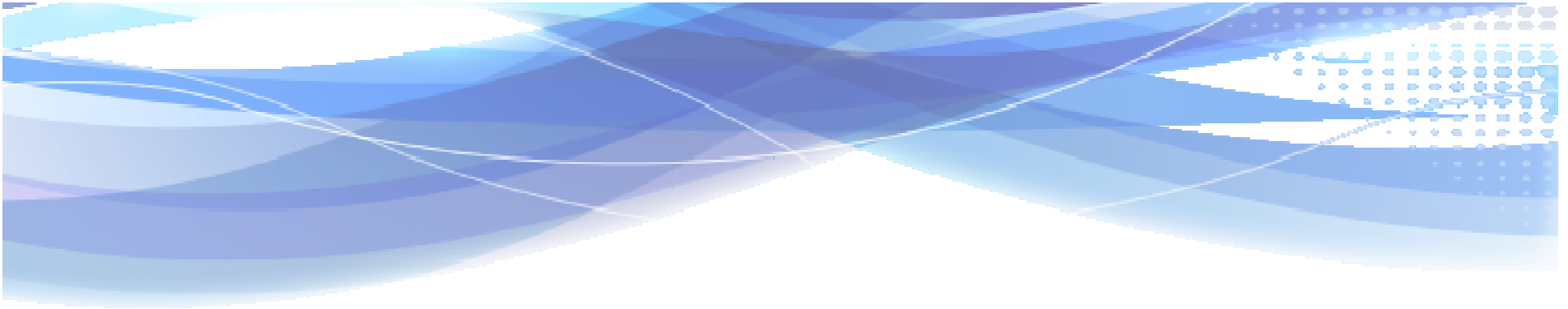


Safety Shower:

- Completed events:
 - Good Samaritan Trauma Services on May 9:
 - Pilot launch of program reached 25 new mothers
 - More than 60 people attended the event.
 - St. Vincent Evansville on August 15:
 - Reached 26 new mothers.
- Program included education on:
 - Safe sleep
 - Child passenger safety
 - Fire safety
 - Breastfeeding
 - WIC
 - Medicaid enrollment
 - Pet safety

Automotive Safety Program Zoo Clinic:

- Held on June 22 at Indianapolis Zoo:
 - Funds from ISDH were used to purchase free or reduced car seats for event.
 - Total number of inspections\seats distributed out:
 - Inspections: 151 English, 101 Spanish.
 - Seat Distributions: 127 English, 83 Spanish.
 - Total inspections were 252 with 210 seats given out.



Fall Prevention Update



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Department of Health



Stepping On:

- *Stepping On* is a high-level, evidence based program proven to reduce falls and build confidence in older adults.
 - Developed in Australia originally:
 - WI developed an American version, yielding a 50% reduction in falls.

Stepping On (continued):

- Held August 1-3 at ISDH:
 - 4 trauma centers attended and will have 3-year licensure:
 - Community Hospital Anderson
 - St. Vincent Anderson
 - IU Health Bloomington
 - Memorial Hospital of South Bend
 - University of Indianapolis Center for Aging and Community
 - Indiana State Department of Health





Stepping On (continued):

- IU Health Methodist, IU Health Arnett, and Franciscan Health Crown Point are current license holders.
- ISDH will be the main licensure holder.

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



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Department of Health

Email questions to: indianatrauma@isdh.in.gov

IMAGETREND™
CONNECT
2017



EMR Integrations

Nick Regier, Product Sales Manager

Problem Statement

- Data from EMRs must be keyed into ImageTrend manually



Health Information Hub

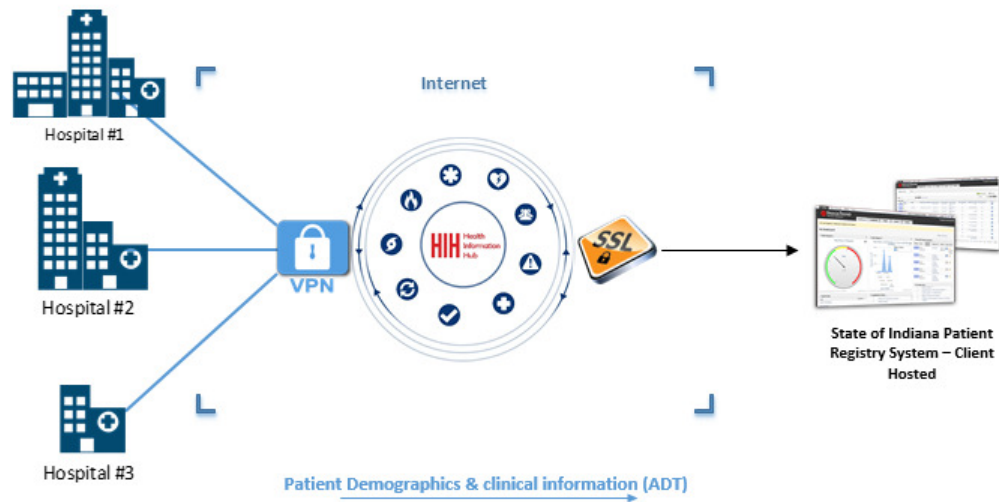
- Health Information Hub (HIH) value proposition
 - Patient demographics and clinical data flow into ImageTrend
 - Saves time by reducing keystrokes
 - Improve accuracy of data
 - Increased productivity
 - Reduce number of re-abstracted records

- [Trauma News - June 8th, 2015](#)



Health Information Hub

- Vendor Agnostic Message Broker
 - Epic
 - Cerner
 - Meditech
 - Allscripts
 - Ect.,



Health Information Hub - HL7 Interface

Facilities Data Exchange Report Writer More

Welcome, Nick Regier Logout 0

IMAGETREND
PATIENT REGISTRY

ImageTrend Hospital

Dashboard Incidents Staff Users Setup

You are logged in. Welcome, Nick Regier

System Notifications
ICD-10
Make sure you ask me how our ICD-10 search works.

My Dashboard Display Preferences

Recently Created Incidents

Validity	Date	Medical Record #	Registry #	Patient	Type	Status
0 %	Jul 12 17:57		ITH -16-00152		+	
0 %	Jul 12 17:40		ITH -16-00151		+	
0 %	Jul 12 11:07		ITH -16-00150		+	
0 %	Jul 12 11:05		ITH -16-00149		+	
0 %	Jul 11 08:56		ITH -16-00148		+	
98 %	Jul 8 13:32		ITH -16-00147	Michael Patock	+	

Admits to Review

Validity	Date	Medical Record #	Registry #	Patient	Type	Status
None						

Recently Viewed Incidents

Validity	Date	Medical Record #	Registry #	Patient	Type	Status
98 %	Jun 28 16:56	1333	ITH -16-00142	TODD K YORK	+	Imported
0 %	Jun 28 16:31		ITH -16-00141		+	
0 %	Jun 28 14:25		ITH -16-00140		+	
98 %	Jun 28 14:10	234234	ITH -16-00123	Chris K Hemsworth	+	Imported

Cases by Admission Day of Week (Sample)

Admission Day of Week	Count Of Incidents
Sunday	0
Monday	0
Tuesday	0
Wednesday	0
Thursday	0
Friday	0
Saturday	0
Not Reported	1,000

Health Information Hub





Regional Updates

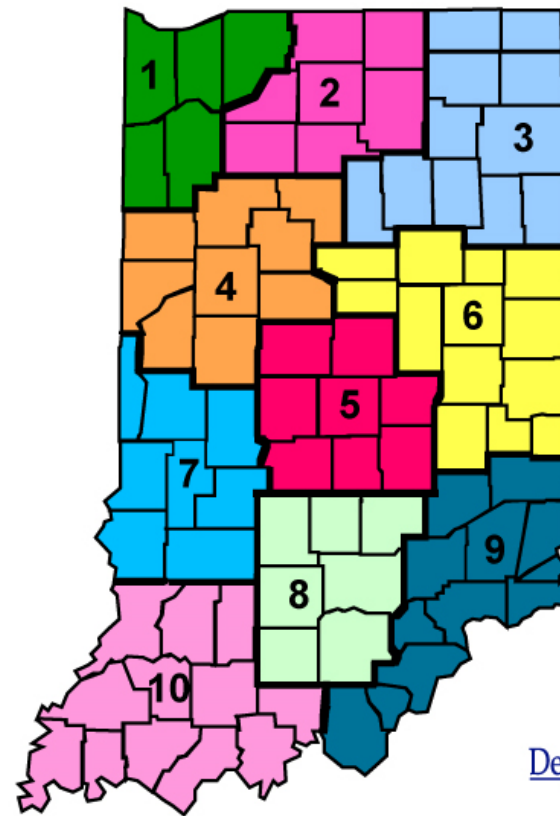


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Regional updates

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



Email questions to: indianatrauma@isdh.in.gov



Subcommittee Update

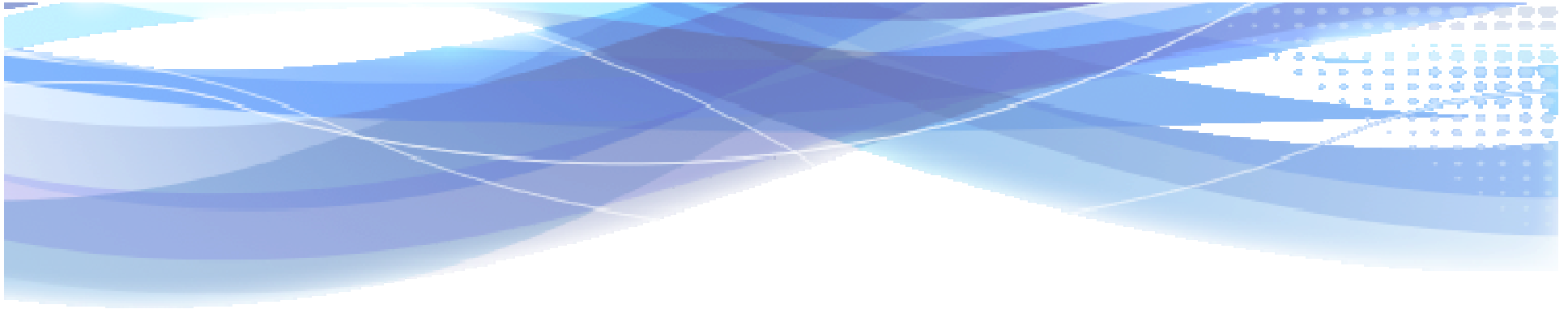
Designation Subcommittee

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

**August 14, 2017
Lewis Jacobson, MD, FACS
Committee Chair**

**Dr. Ben Zarzaur, Lisa Hollister, Dr. Scott Thomas, Dr. Stephanie
Savage, Dr. Emily Fitz, Jennifer Konger, Jennifer Mullen, Judi
Holsinger, Kelly Blanton, Missy Hockaday, Wendy St. John, Katie
Hokanson, Ramzi Nimry**



ISDH Trauma Designation

Subcommittee Meeting Agenda

08/17/17

1. One Year Reviews

a. Community Health Network Anderson



Community Health Network Anderson

- **Located: Anderson, Indiana**
- **Seeking: Level III adult trauma center status**
- **The one year review was reviewed and no deficiencies were discovered by the subcommittee**
- **Consultation Visit: May 2016**
- **Verification visit scheduled for: July 11 & 12, 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	07/11-07/12, 2017
Franciscan Health Crown Point	Crown Point	III	Adult	12/18/2015	February 2017	09/26-09/27, 2016	12/04-12/05, 2017
Reid Health	Richmond	III	Adult	12/18/2015	February 2017	02/02-02/03, 2016	06/13-06/14, 2017
Terre Haute Regional Hospital	Terre Haute	II	Adult	12/18/2015	February 2017	09/08-09/09, 2016	08/29-08/30, 2017
Union Hospital	Terre Haute	III	Adult	02/26/2016	April 2017	09/01-09/02, 2016	06/29-06/30, 2017
Memorial Hospital & Health Care Center	Jasper	III	Adult	08/24/2016	October 2017	05/16-05/17, 2017	May 2018

*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



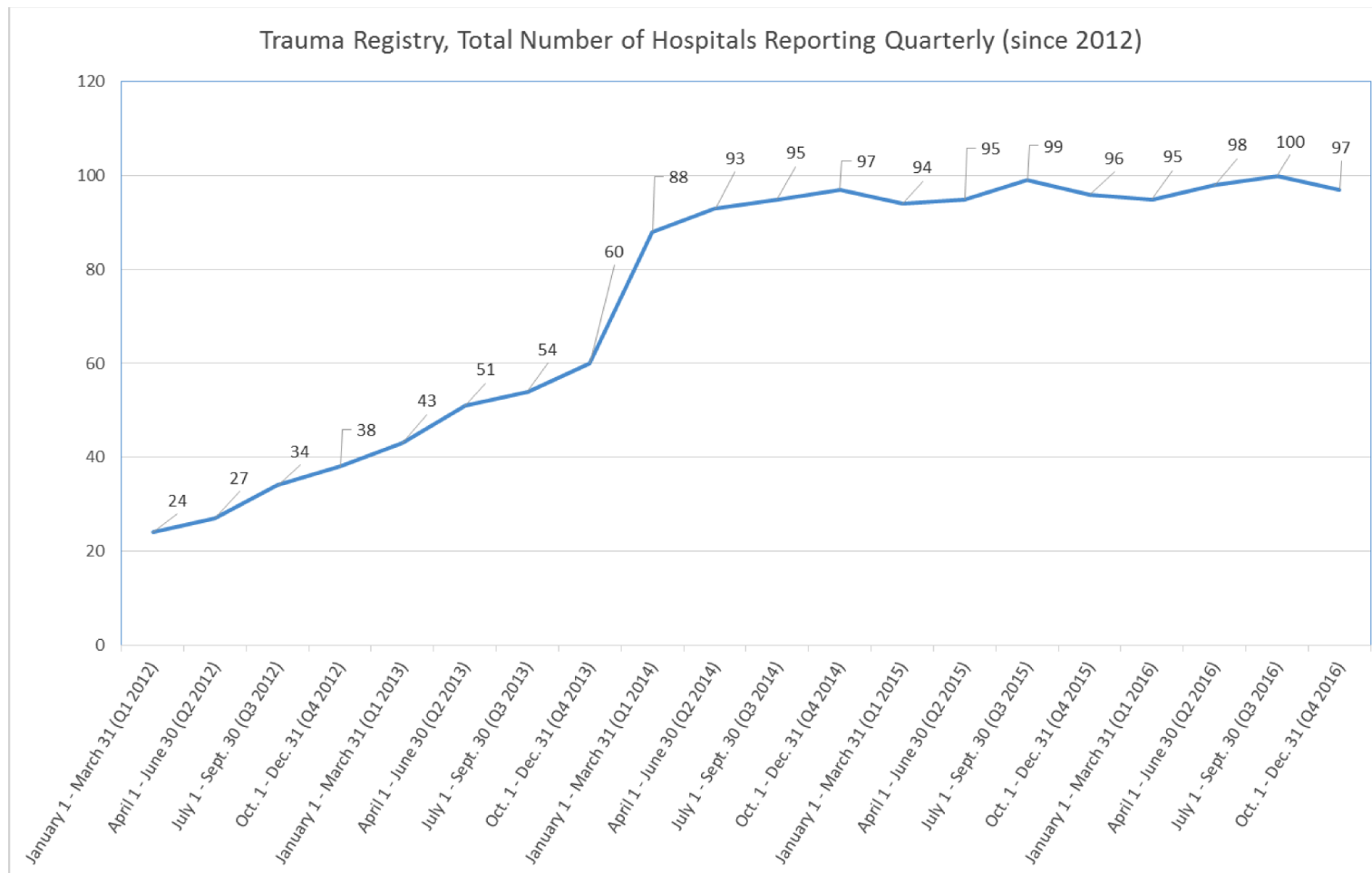
ISDH Performance Improvement Subcommittee May 2017 update

Committee Members: **Chair** Stephanie Savage, MD, Amanda Rardon, Amelia Shouse, Andy VanZee, Angela Cox-Booe, Annette Chard, Bekah Dillon, Brittanie Fell, Carrie Malone, Christy Claborn, Chuck Stein, Dawn Daniels, Dusten Roe, Emily Grooms, Jennifer Homan, Jennifer Mullen, Jodi Hackworth, Kelli Vannatter, 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, Michelle Ritchey, Missy Hockaday, Olivia Roloff, Peter Jenkins, MD, Regina Nuseibeh, Rexene Slayton, Sarah Quaglio, Spencer Grover, Tammy Robinson, Tracy Spitzer, Wendy St. John

ISDH Staff: Katie Hokanson, Ramzi Nimry, Camry Hess

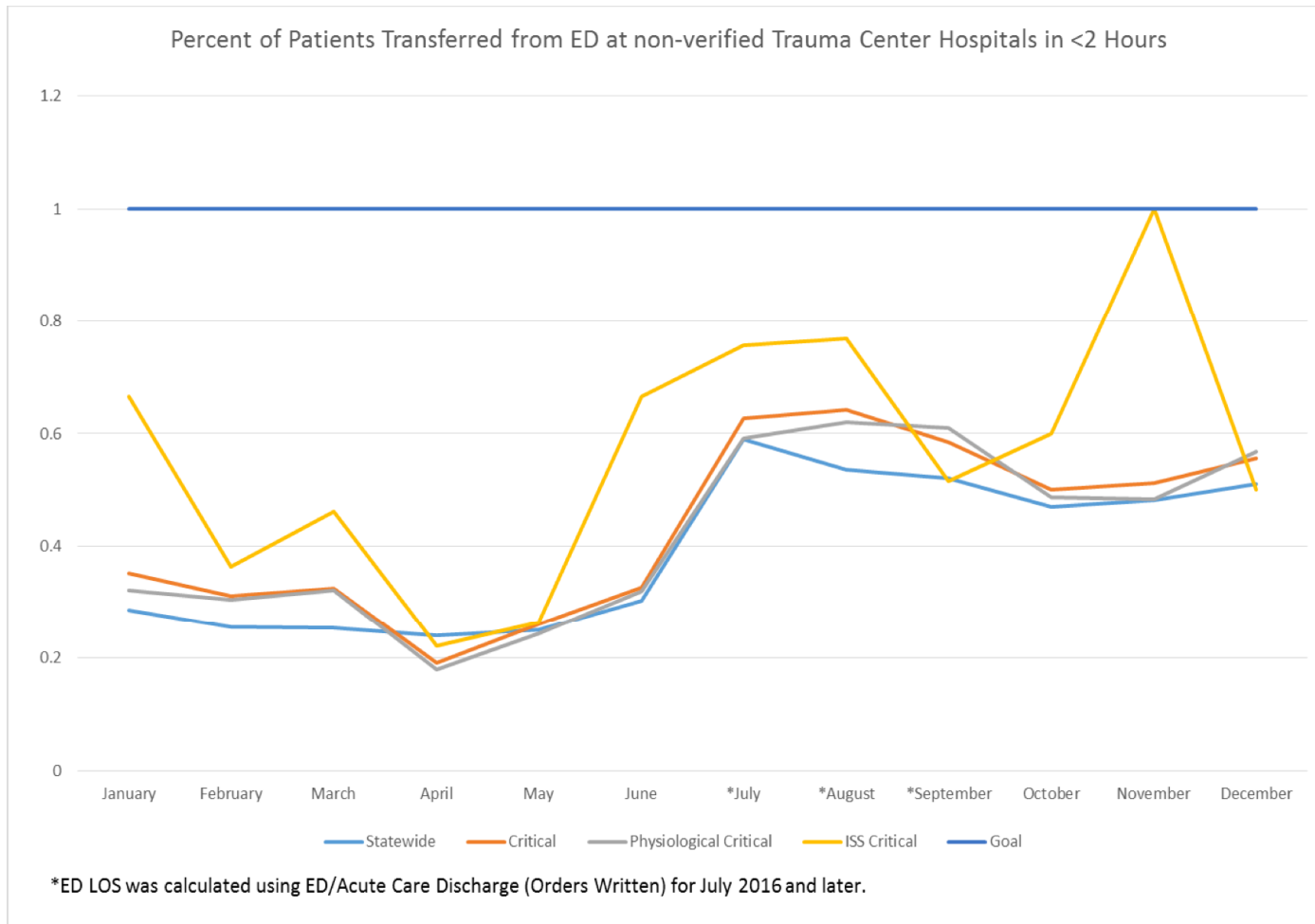
PI Update – May 2017

Hospital Reporting Indiana Trauma Registry



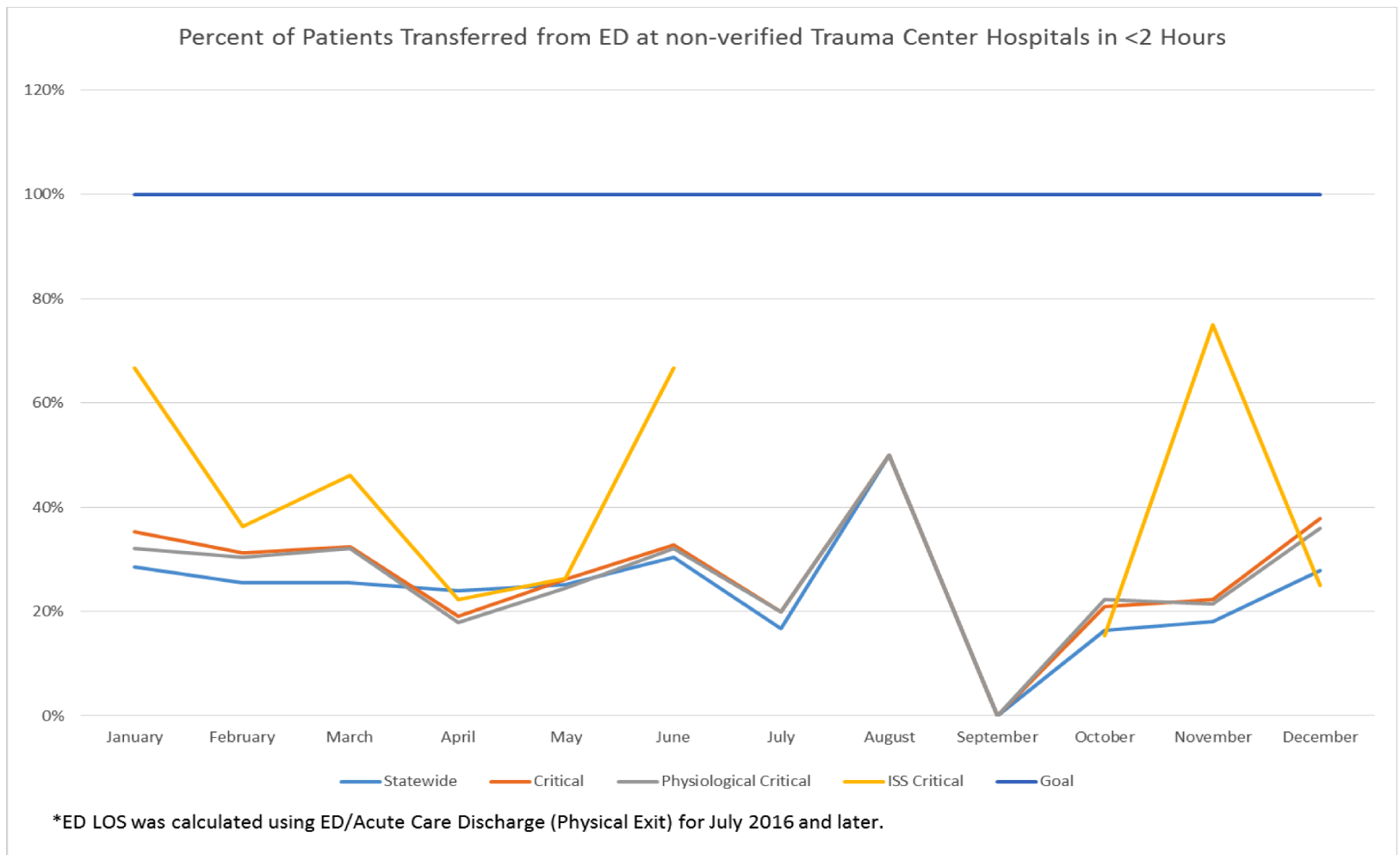
PI Update – May 2017

ED Length of Stay – Time to Orders Written



PI Update – May 2017

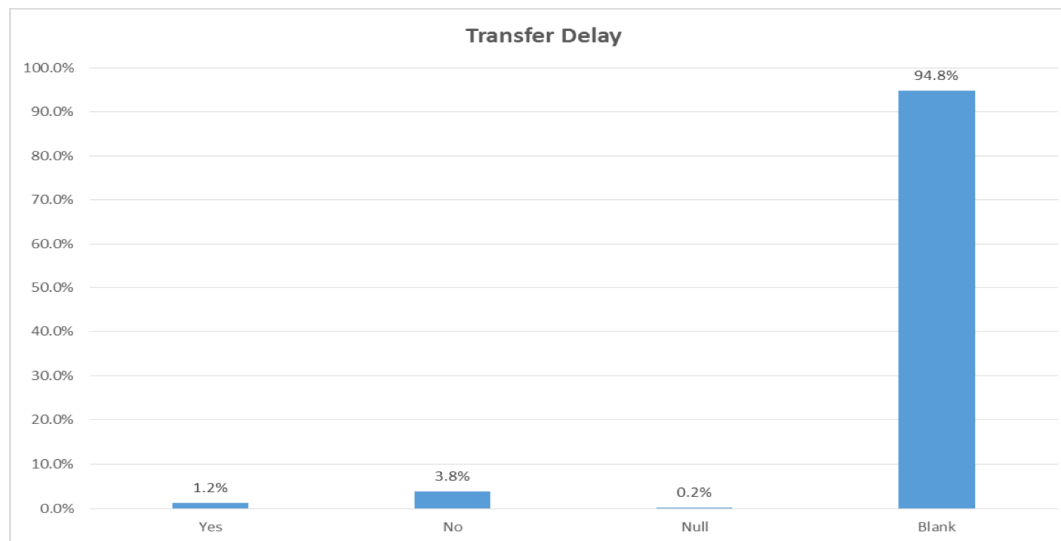
ED Length of Stay – Time to ED Departure



PI Update – May 2017

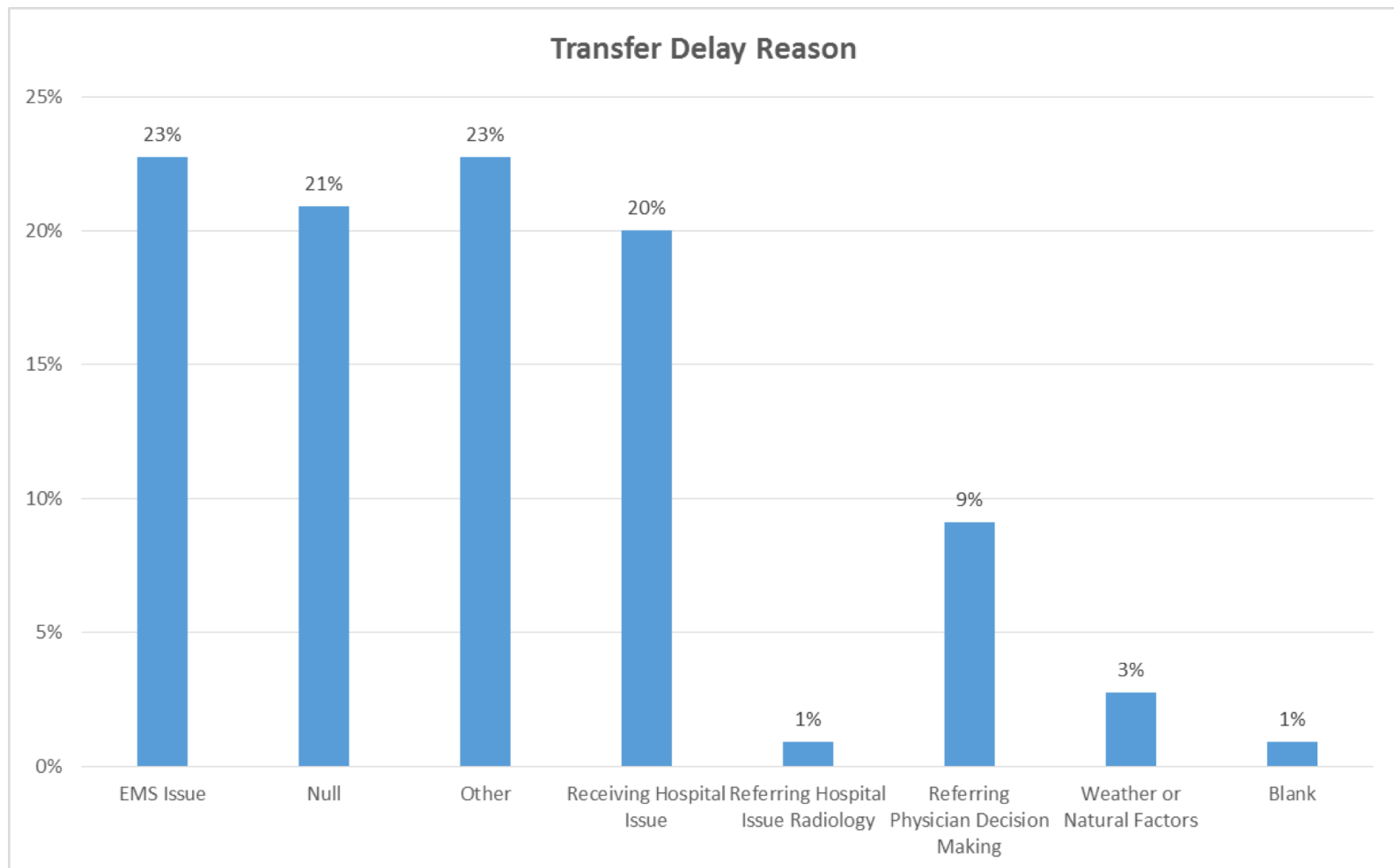
Transfer Delays

- Few centers are actually reporting data on transfer delays
- Will start focusing on the need to report in district meetings



PI Update – May 2017

Transfer Delays





PI Update – May 2017

Trauma Registry Quiz

- Participation poor recently (29% in April)
- Requesting hospitals to stress importance of quiz
 - Standardize codes/ensure data quality
- Registrars asked to forward real cases for discussion in recurring quizzes
- Survey to determine how quiz may be more helpful/identify barriers to participation



PI Update – May 2017

Indiana Trauma Transfer Guidelines

- Additional changes made at most recent PI meeting
- Will forward for committee review and discussion



Next Meetings

July 11 from 10:00-11:00am EST at the ISDH (Larkin Conference Room or via conference call line). **CANCELED**

September 12 from 10:00-11:00am EST at the ISDH (Larkin Conference Room or via conference call line).

November 14 from 10:00-11:00am EST at the ISDH (Larkin Conference Room or via conference call line).

Trauma Recovery Model

Dr. Ben Zarzaur, *Trauma Medical Director*
Eskenazi Health



Indiana State
Department of Health

Email questions to: indianatrauma@isdh.in.gov

Injury Aftermath: Its not *just* a broken leg

Ben Zarzaur, MD, MPH
Associate Professor of Surgery
Trauma Medical Director, Eskenazi Health
Director, Center for Outcomes Research in Surgery
Indiana University School of Medicine

No Disclosures



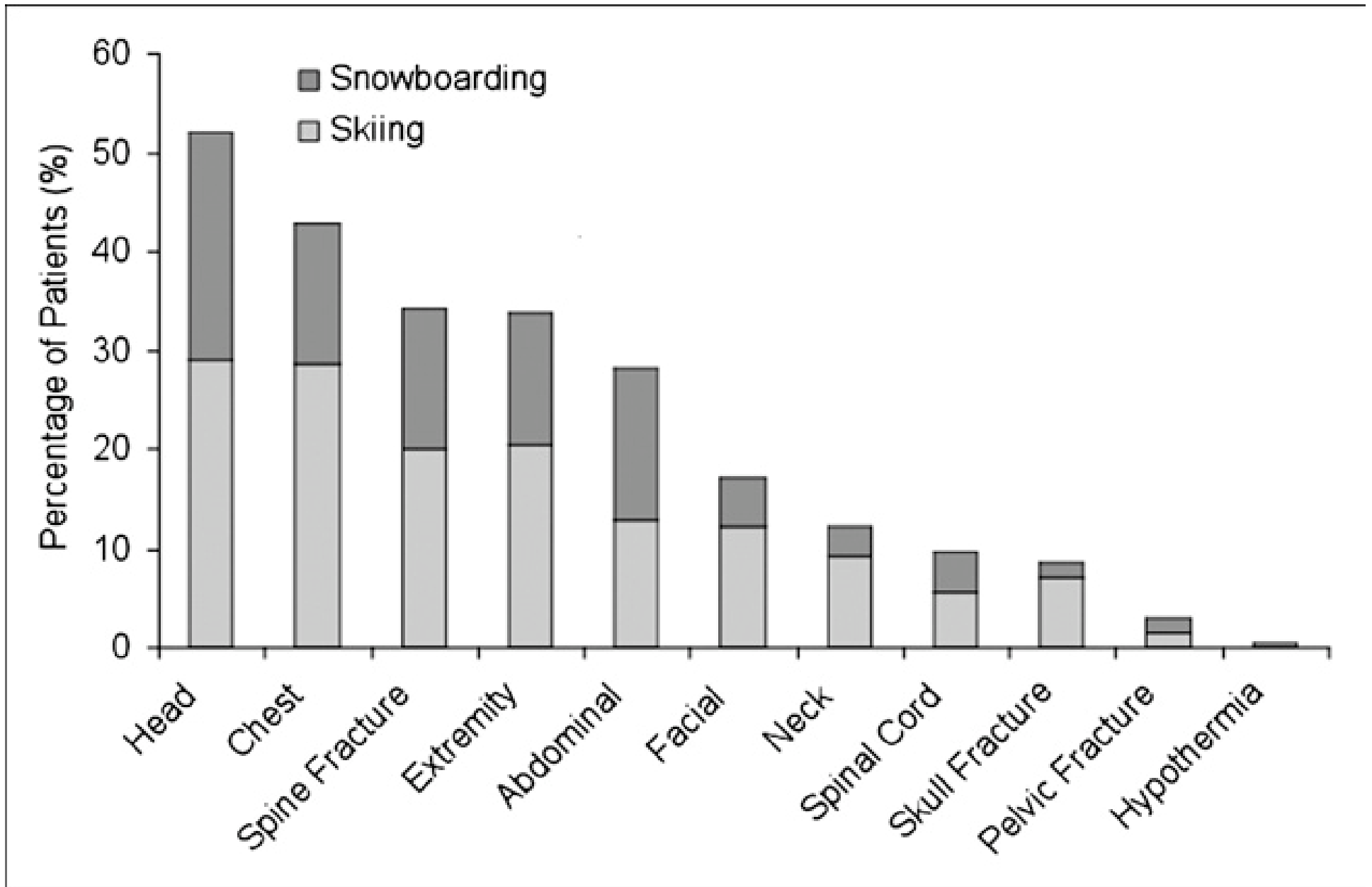


TABLE 1.—*Demographics of Skiers Injured at Mammoth-June (California) Ski Resorts Over a 9-Year Period*

<i>Characteristic</i>	<i>1983 to 1992</i>
Total injuries, No.....	24,340
Mean age (SD), years	27.9 (13.5)
<i>Sex</i>	
Male, %	50
Female, %	50
<i>Ability</i>	
Beginner, %.....	19
Low intermediate, %.....	13
Intermediate, %	43
Advanced, %.....	18
Expert, %.....	4
Racer, %.....	2

SD = standard deviation

Davidson TM, Laliotis AT WMJ 1996

The Injury



CRESTED BUTTE COLORADO



For detailed map of Yocell Bowl, see other side.

TERRAIN PARK

KIDS' PARK

Base Area
Map on other side

PROSPECT
climbing area
Ski-to-hike-out occasionally
For schedule and more details visit our web
(970)348-0990

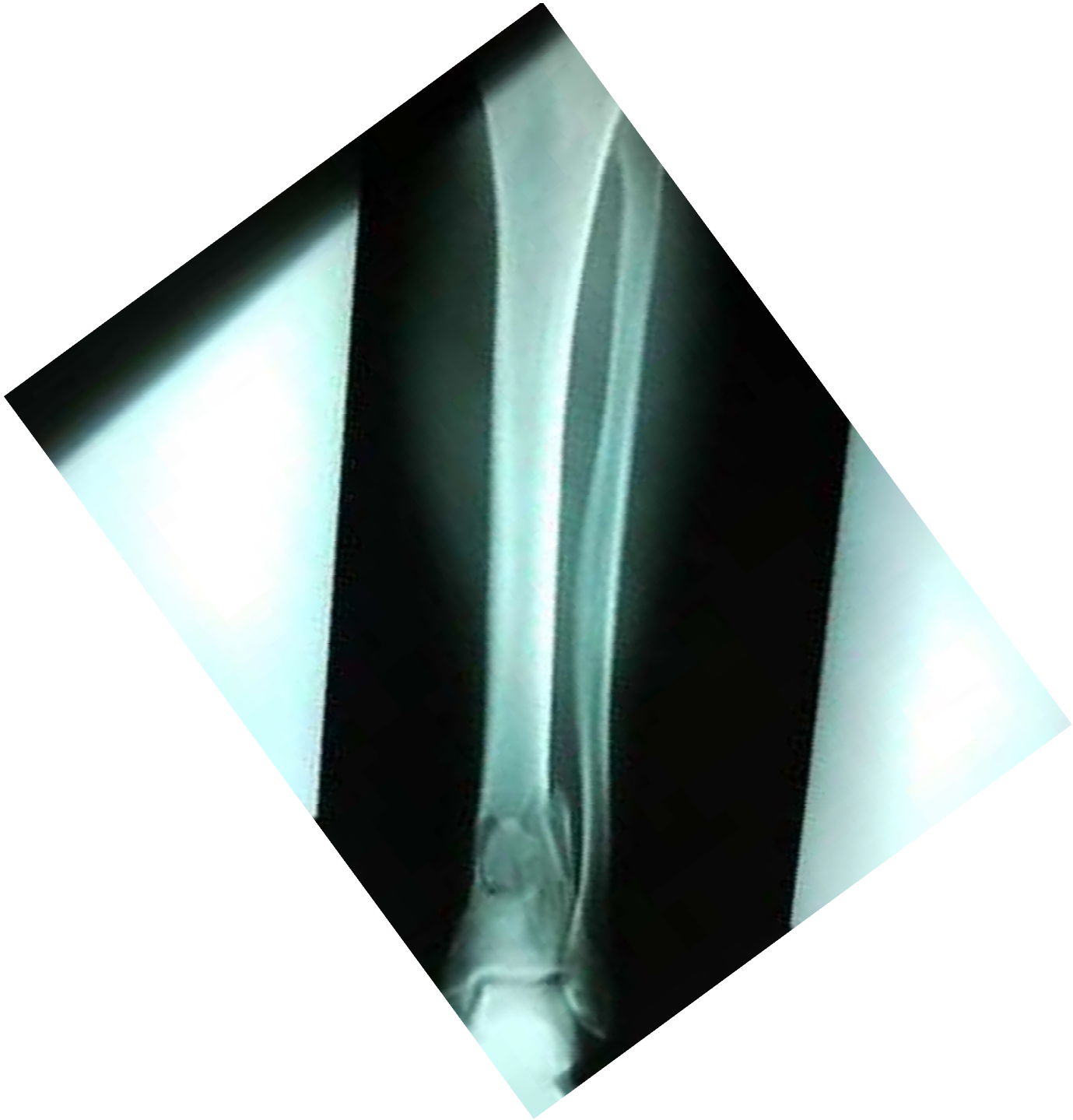
The Crested Butte Ski Area is located in the
Sawatch National Forest and is under permit
from the Forest Service.

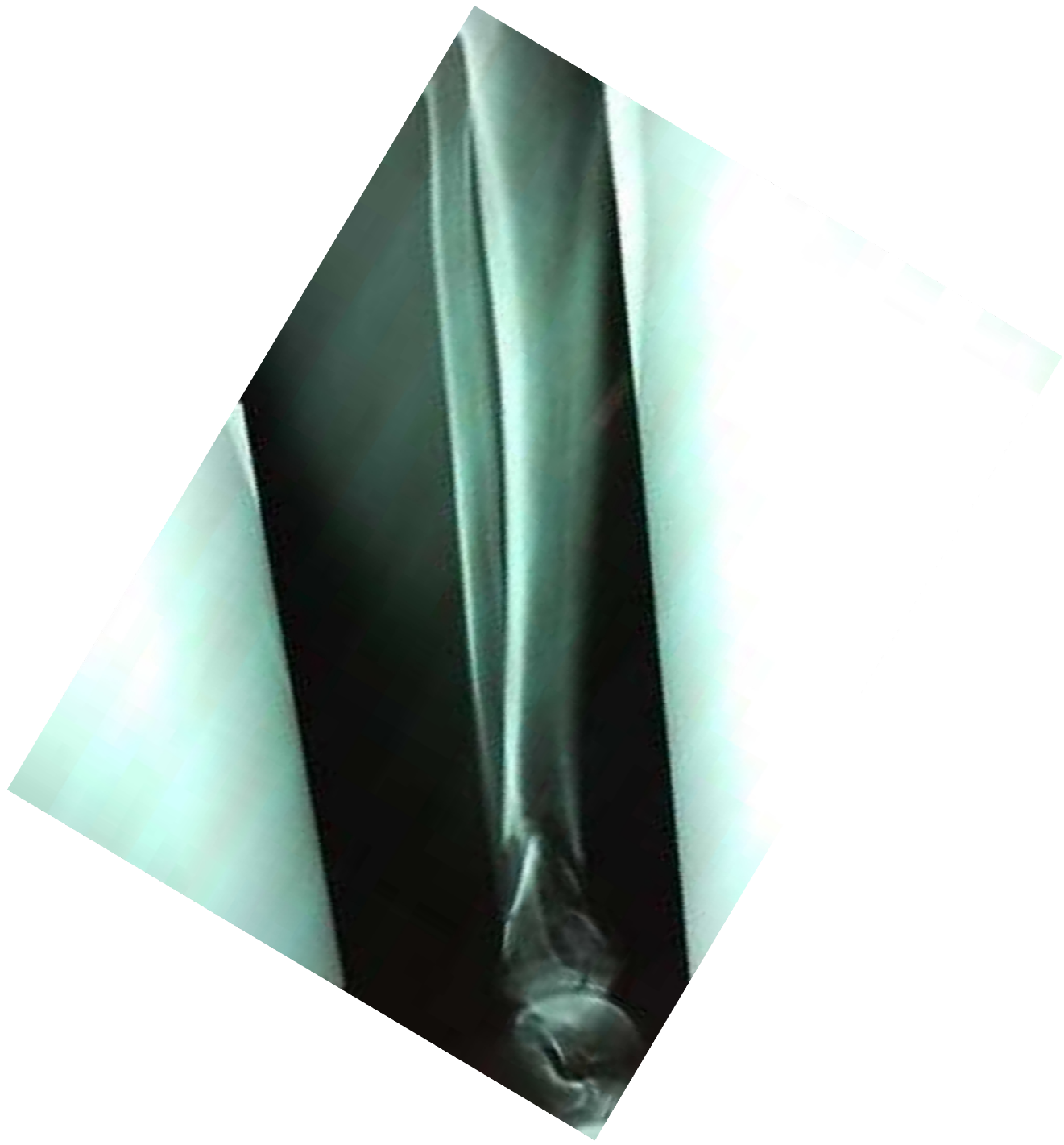
GREEN
POWER
Peak to Peak





(c) coloradoskihhistory.com







Outcome	Overall % (n)	ORIF % (n)	EF ± Limited IF % (n)
Patient reported a lot of difficulty...†			
With ankle stiffness	35.0 (28)	31.0 (13)	39.5 (15)
With ankle swelling	28.8 (23)	28.6 (12)	29.0 (11)
With ankle pain	32.5 (26)	33.3 (14)	31.6 (12)
Wearing different shoes‡	42.5 (34)	54.8 (23)	29.0 (11)
Running one block	72.5 (58)	66.7 (28)	79.0 (30)
Climbing a ladder	35.0 (28)	33.3 (14)	36.8 (14)
Doing usual recreational activities	43.8 (35)	38.1 (16)	50.0 (19)

SF-36 Scores

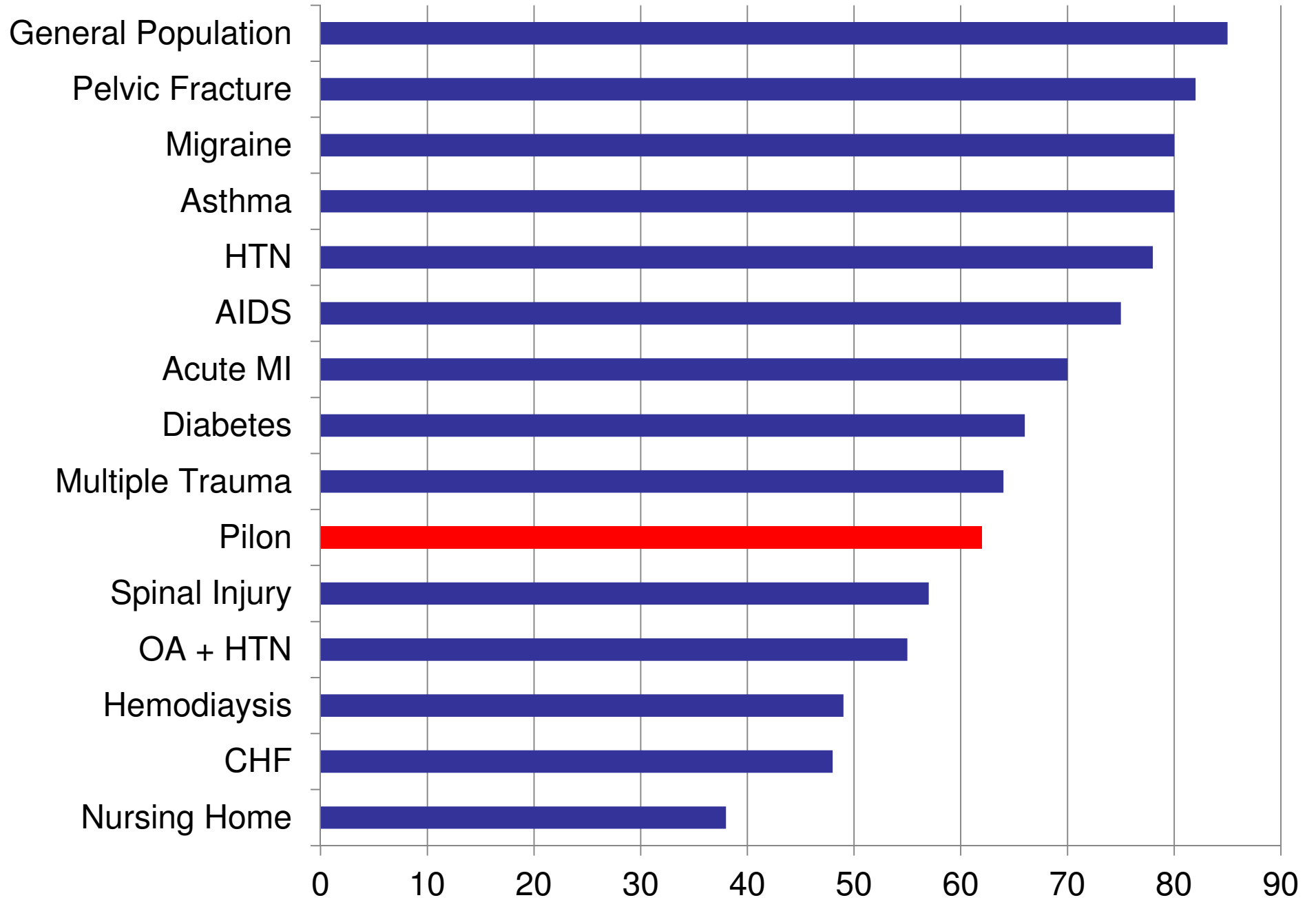
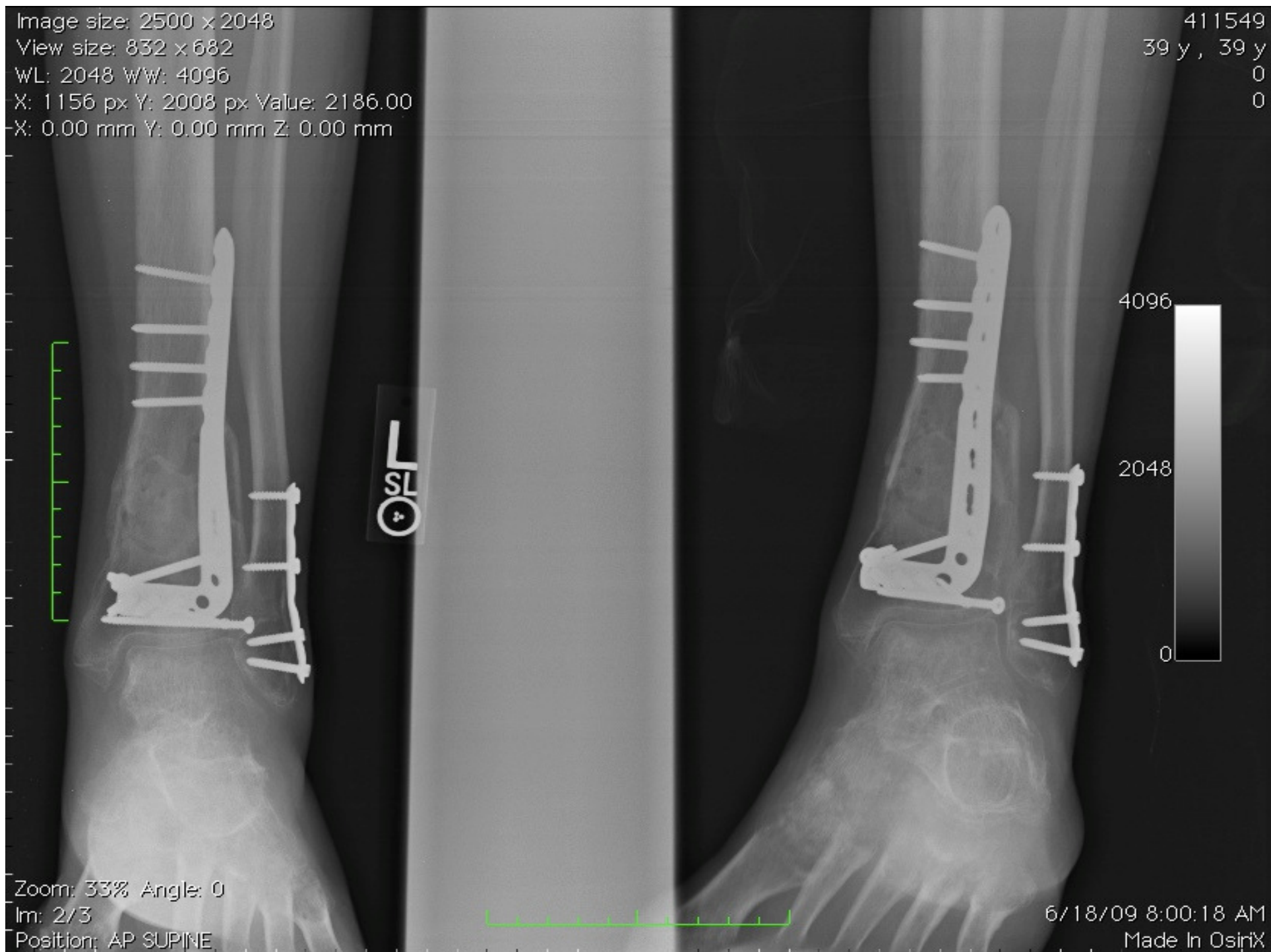


Image size: 2500 x 2048
View size: 832 x 682
WL: 2048 WW: 4096
X: 1156 px Y: 2008 px Value: 2186.00
X: 0.00 mm Y: 0.00 mm Z: 0.00 mm

411549
39 y , 39 y
0
0



Aftermath

Physical

- **Non-weight bearing**
 - **Must use crutches**
 - **Can not pick up and walk with my children**
 - **Can not stand in the shower**
 - **Stairs become a real danger/hassle**
 - **Can not drive a manual transmission vehicle**
 - **Can not operate**
- **Pain**
 - **Initially not bad**
 - **Post op nearly unbearable when standing**
 - **Kidney stone worse**
- **Increased Metabolism**
 - **Lost weight**
 - **Always hungry**
 - **Problem when you are non-weight bearing unless you live in the kitchen**

Resources

Resources

- **Financial**
 - **Copays**
 - **Hospital bills**
 - **Emergency room bills**
 - **Out of network**
 - **Transportation**
 - **Lost income**
 - **Increased child care costs**

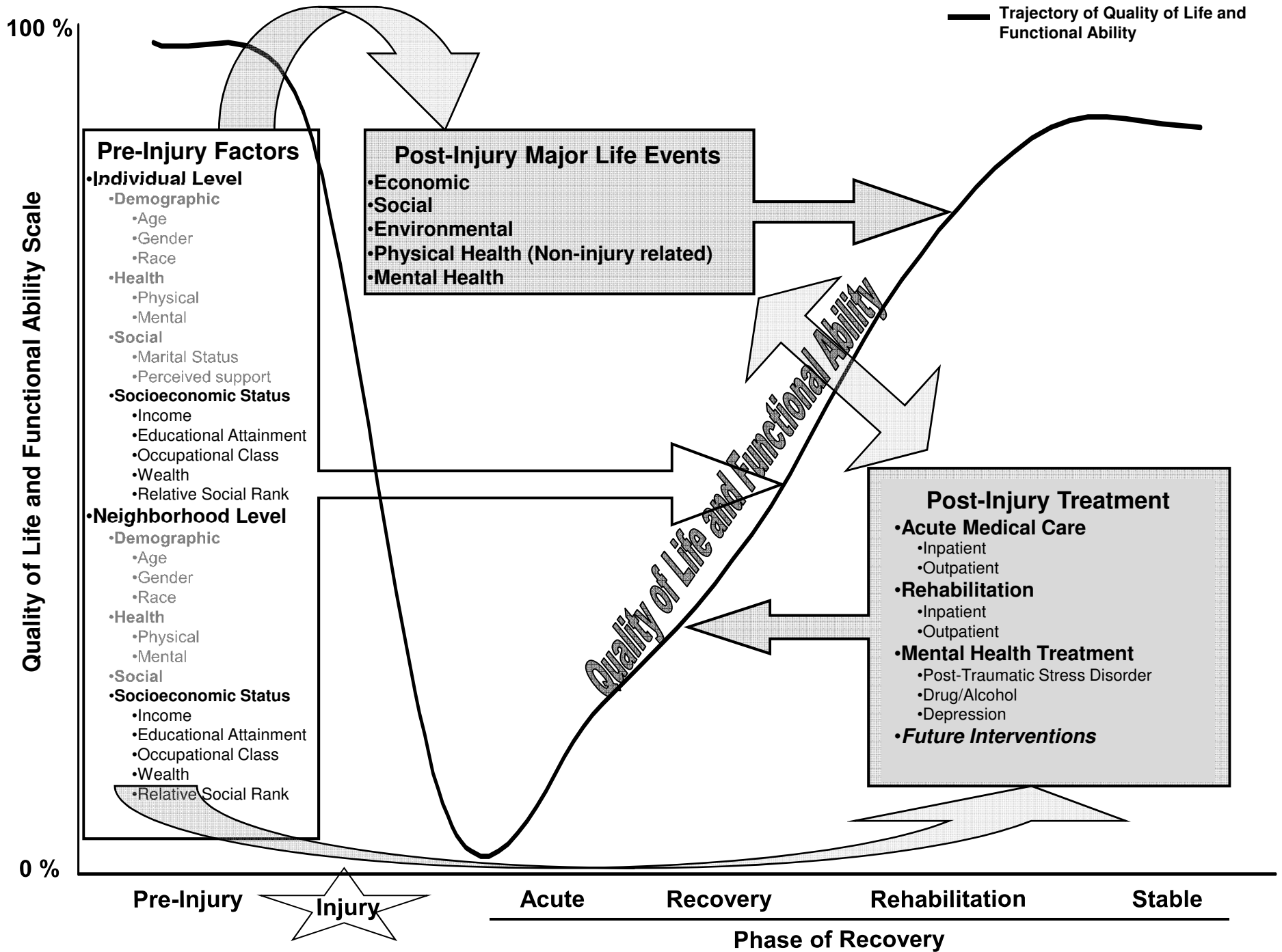
Isolating

But, I knew all of this...



The Study of Change

Health trajectories represent the patterns of health and attempt to describe the dynamic course of health and illness







**KEEP
CALM
AND
CHECK YOUR
ASSUMPTIONS**

What about patients with moderate to severe non-neurologic injury treated at trauma centers?

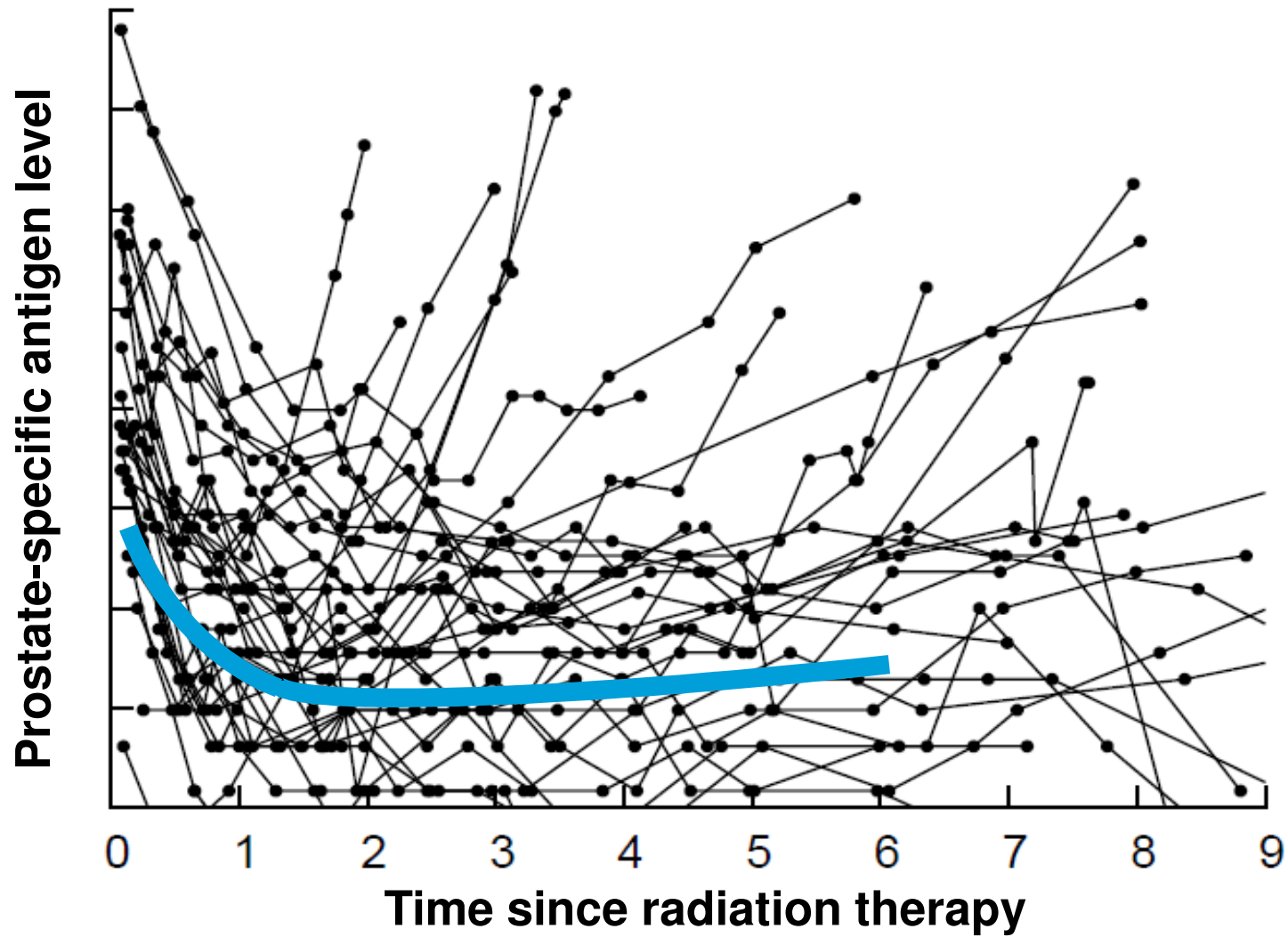
Methods

- **500 Adults**
 - **injury severity score > 10, but without traumatic brain injury or spinal cord injury were enrolled in the study.**
- **A baseline quality of life survey (SF-36) was administered at the time of admission and repeated at 1, 2, 4 and 12 months after injury**
- **Group based trajectory modeling was used (GBTM) to identify quality of life trajectories**
 - **Physical Component Score (PCS)**
 - **Mental Component Score (MCS)**

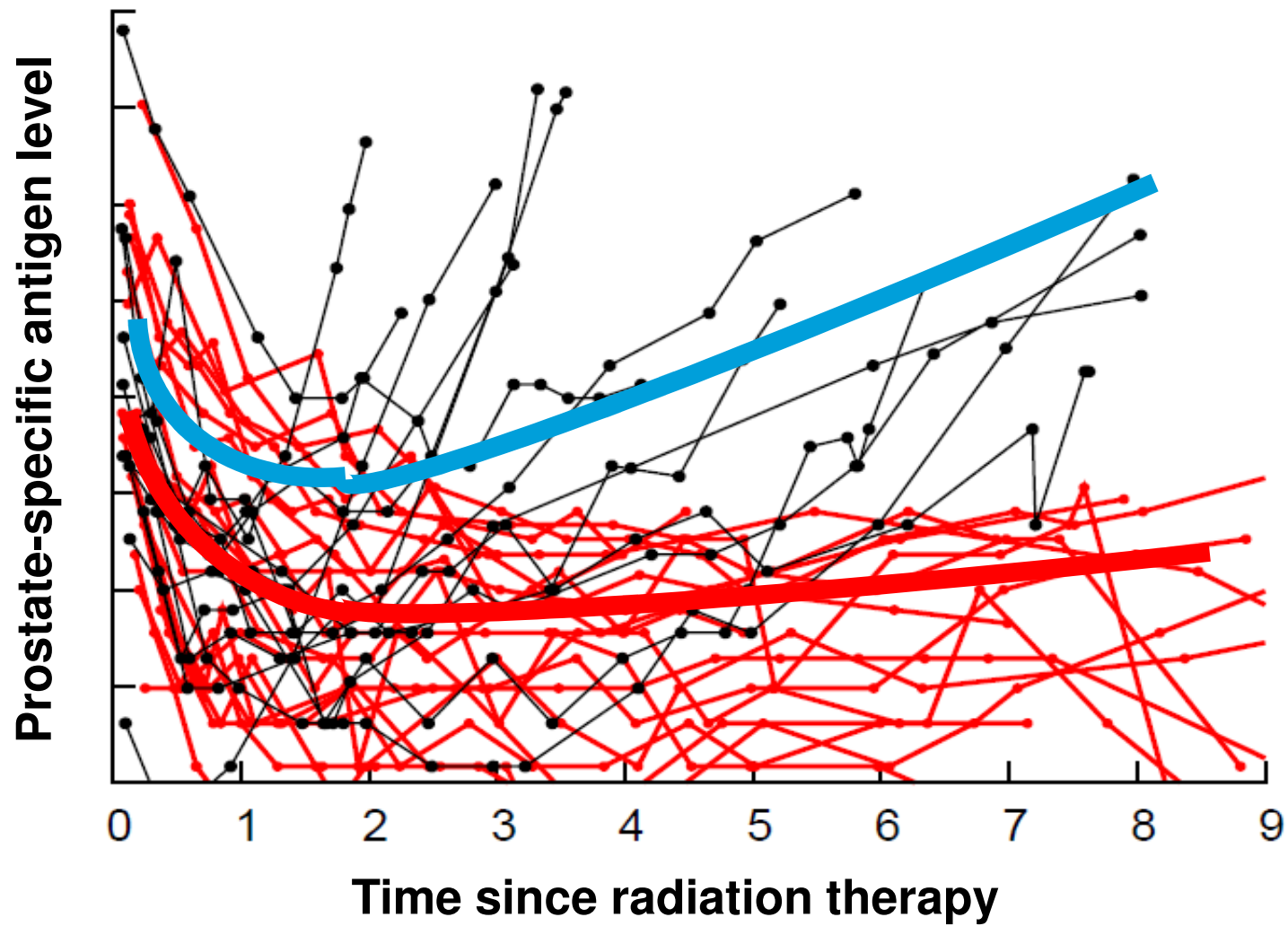
Brief Digression



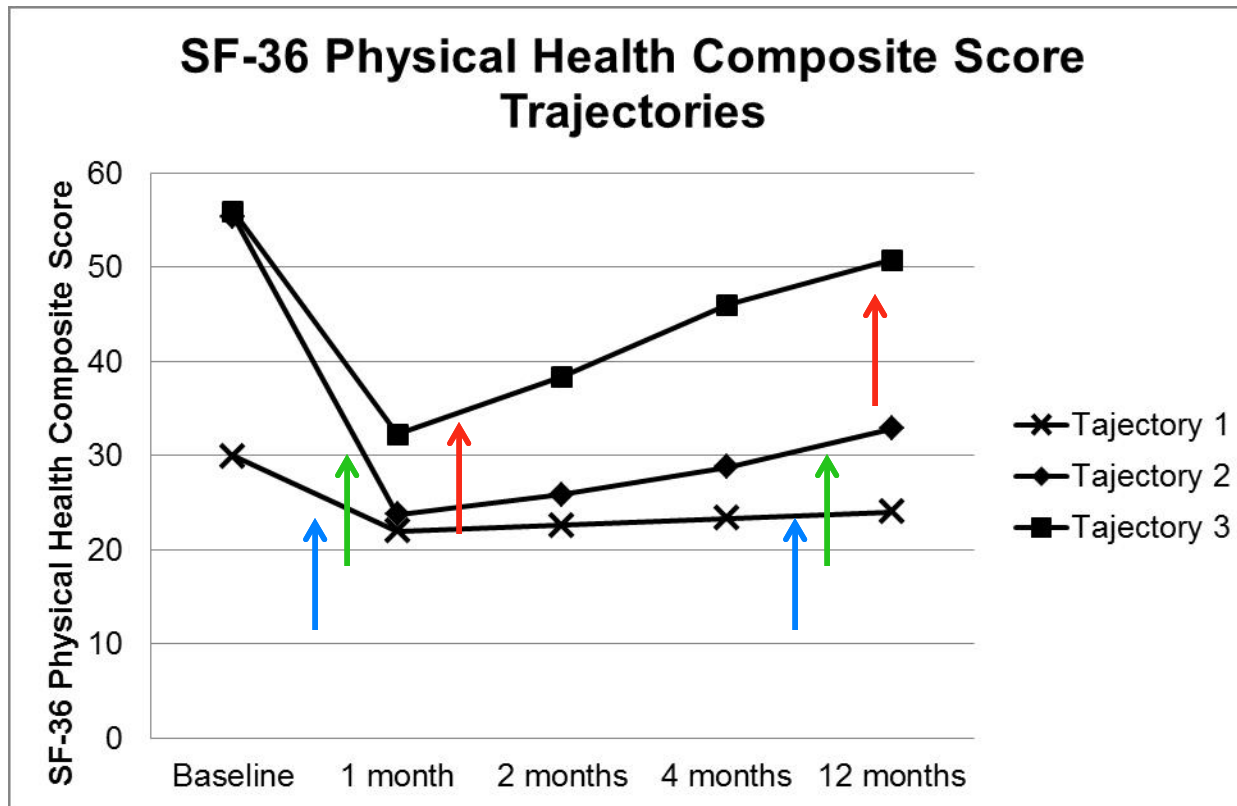
One Pattern



Two Patterns

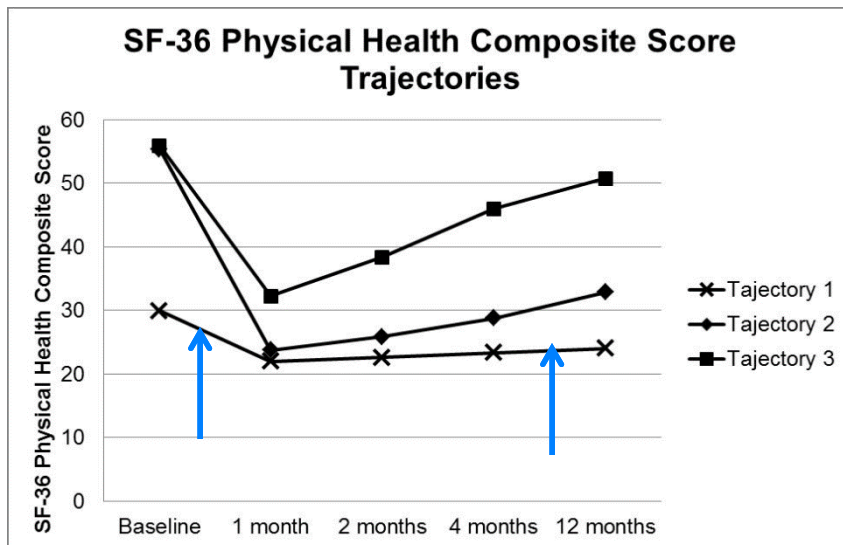


RESULTS: PCS TRAJECTORIES



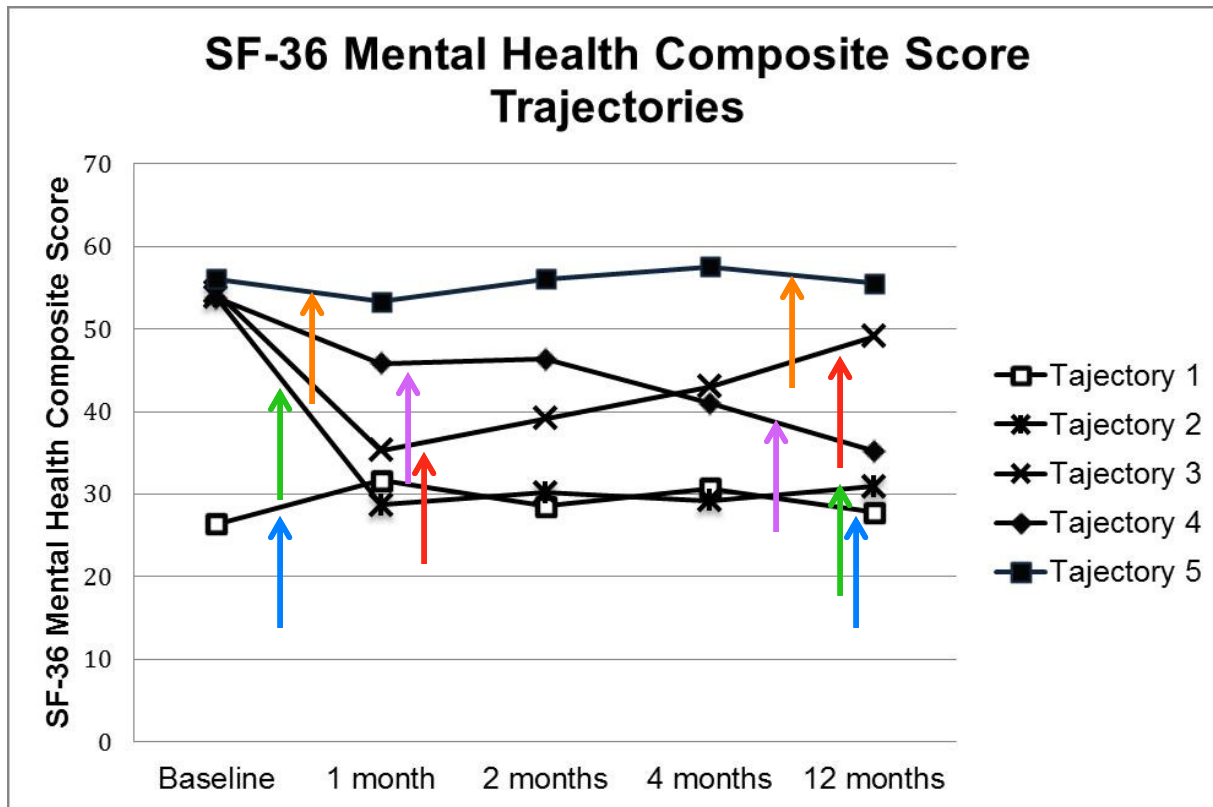
- **PCS had 3 distinct trajectories.**
- **Trajectory 1** (10.3%) is characterized by a lower baseline PCS, followed by no improvement over time
- **Trajectory 2** (65.6%) has a drastic decline in PCS 1 month after injury, but shows, slow consistent improvement over time.
- **Trajectory 3** (24.1%) also has a sharp decline in PCS but has a rapid recovery and reaches near-baseline levels of health by month 12.

RESULTS: PCS TRAJECTORIES



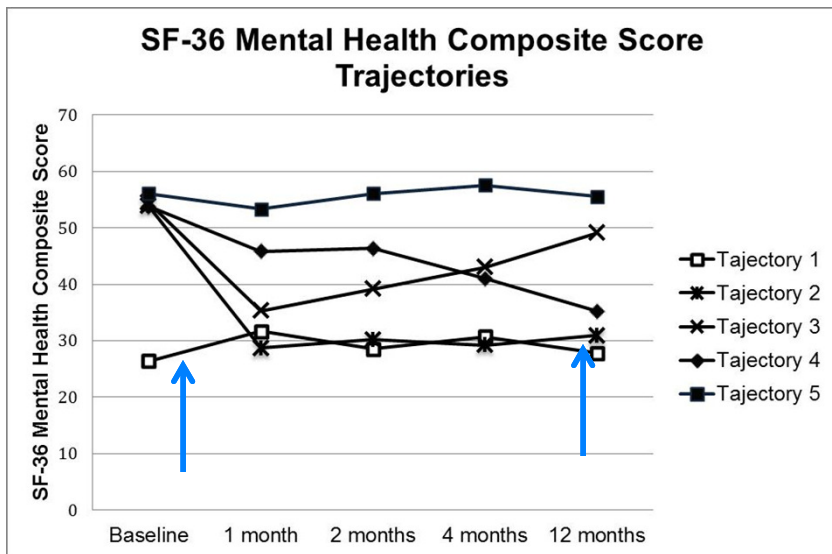
	PCS Trajectory		
	1	2	3
Age, mean (SD)	50 (13)	38 (14)	31 (12)
Female (%)	42.0	34.9	33.0
Race/Ethnicity (%)			
White	66.0	51.6	39.8
Black	34.0	47.8	58.3
Hispanic	0.0	0.0	1.9
Blunt (%)	86.0	76.4	70.9
ISS, mean (SD)	21 (12)	21 (10)	19 (10)

RESULTS: MCS TRAJECTORIES



- MCS had 5 distinct trajectories.
- **Trajectory 1** (9.5%), has a low MCS at baseline and continues to have low scores throughout the rest of the study
- **Trajectory 2** (14.4%) has a large decrease in MCS post-injury and does not recover over the next twelve months
- **Trajectory 3** (22.7%) has an initial decrease in MCS early after injury, followed by continuous recovery.
- **Trajectory 4** (19.1%) has a steady decline in MCS across most of the study
- **Trajectory 5** (34.3%) has consistently high MCS across all phases of recovery.

RESULTS: MCS TRAJECTORIES



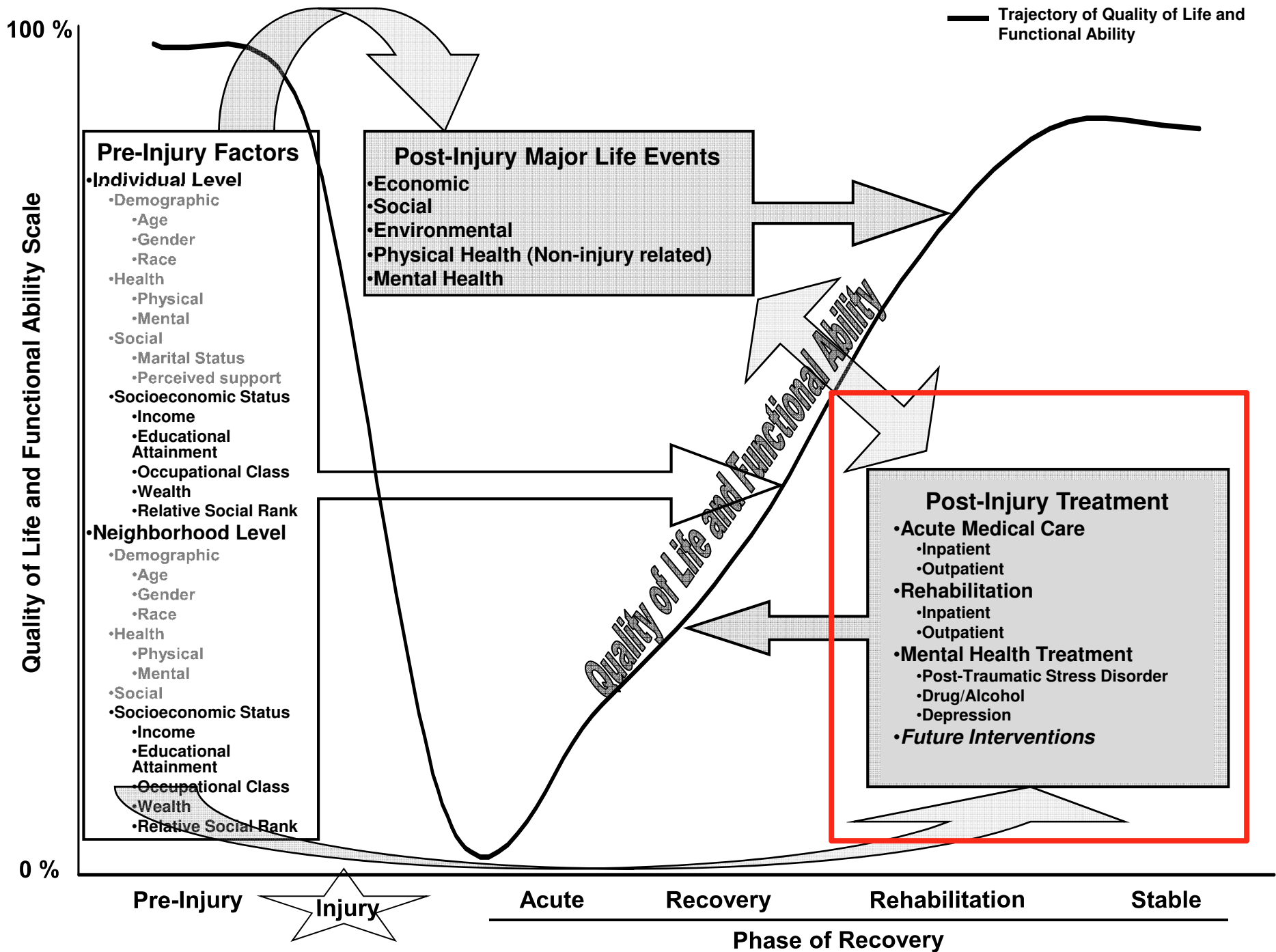
	MCS Trajectories				
	1	2	3	4	5
Age, mean (SD)	41 (13)	36 (12)	37 (14)	35 (12)	39 (16)
Female (%)	54.2	42.4	31.0	32.9	31.4
Race/Ethnicity (%)					
White	66.7	47.0	47.8	44.3	52.1
Black	33.3	53.0	49.6	55.7	47.4
Hispanic	0.0	0.0	0.9	0.0	0.5
Blunt (%)	89.6	66.7	73.5	79.7	76.3
ISS, mean (SD)	23 (11)	20 (11)	20 (10)	23 (9)	20 (10)

Implications

- **Not all patients experience the same pattern of recovery**
- **Certain endpoints may be more relevant for specific subpopulations of patients**
 - **Mental health may be more affected over the long-term than physical health**
 - **Functioning may decline more over time rather than improve (elderly)**
 - **Patients may have relapses of functional difficulties**
 - **% of pain free days rather than absolute pain level may be more important**
 - **Difficult to assess with static, fixed-interval measurements**

**Is it possible to modify the
post injury outcome
trajectory?**





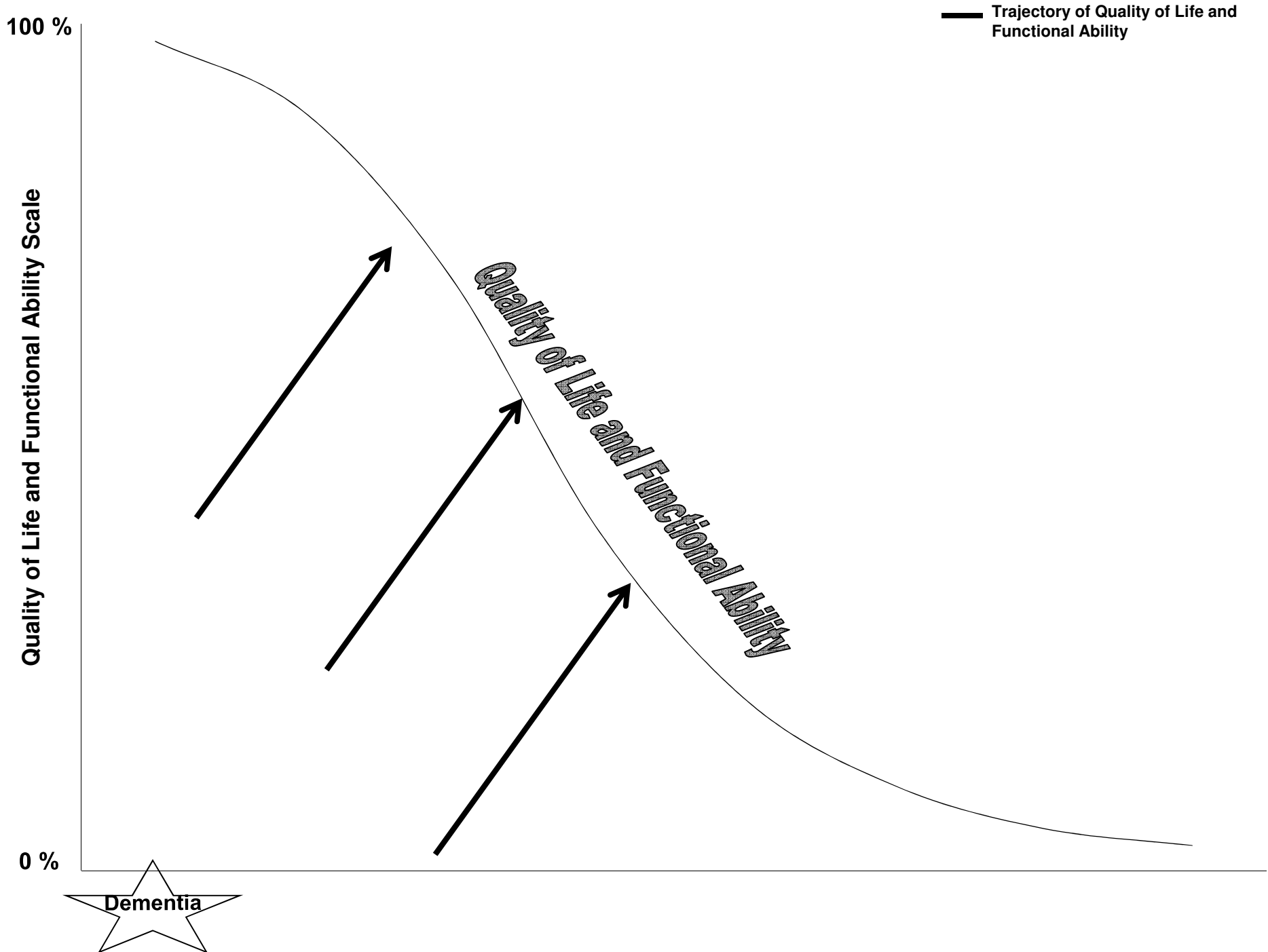
Collaborative Care

- **GRACE**

- Target population: older, frail, low income
Interdisciplinary team interacted with primary care physician
- Intervention Group
 - Improvement in quality of life
 - Lower ED and hospital utilization rates

- **PREVENT**

- Target population: Dementia
- Less depression
- Less anxiety
- Caregivers and participants



Vision

**To change hundreds of
thousands of lives at a time.**

**What do we need to do
change hundreds of
thousands of lives at time?**

Innovative and Scalable Healthcare Solutions





TM

Significance

- **Millions of injured people every year**
 - **“Classic” trauma**
 - **Elective surgery**
- **Huge potential impact**
 - **Overall quality of life**
 - **Healthcare utilization**

Gap

Does collaborative care work in a dynamic recovery situation?

Aims

- **Evaluate the ability of the TMH intervention to improve the physical recovery of the older injured patient.**
- **Evaluate the ability of the TMH intervention to improve the psychological recovery of the older injured patient.**
- **Evaluate the ability of the TMH intervention to reduce acute health care utilization of the older injured patient.**

Inclusion/Exclusion Criteria

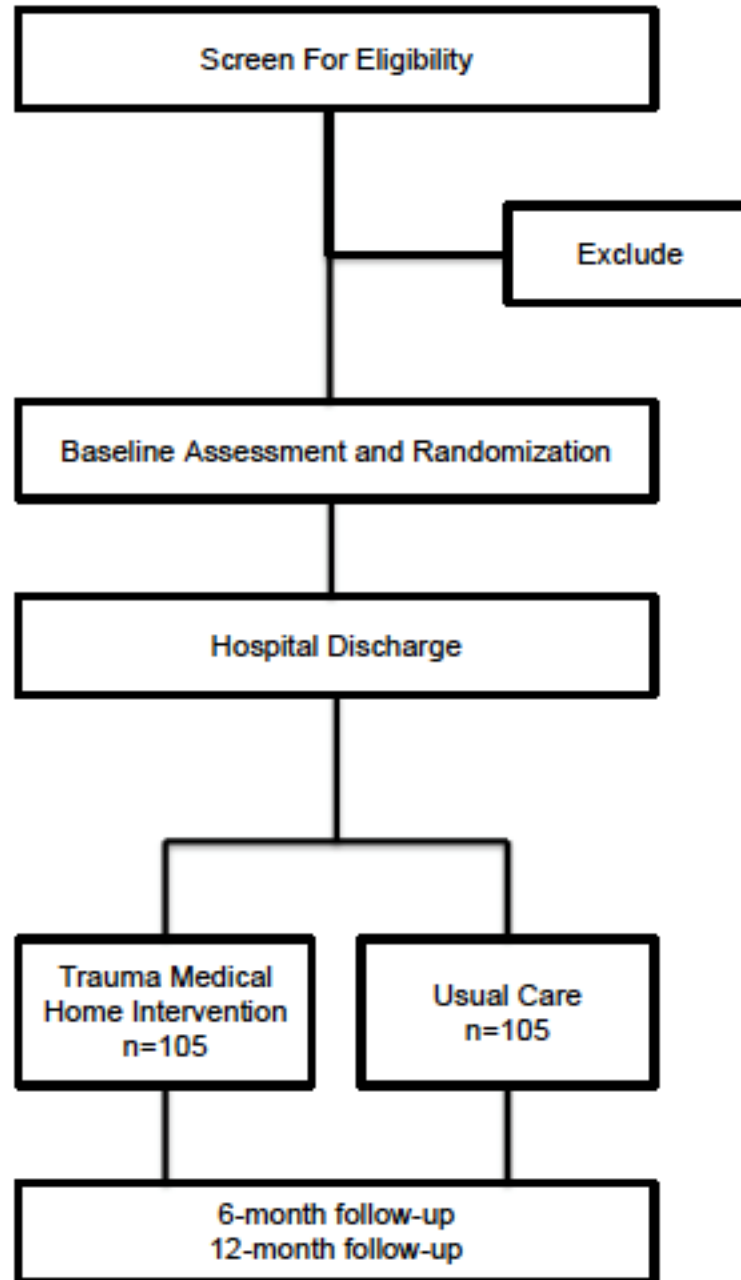
Inclusion

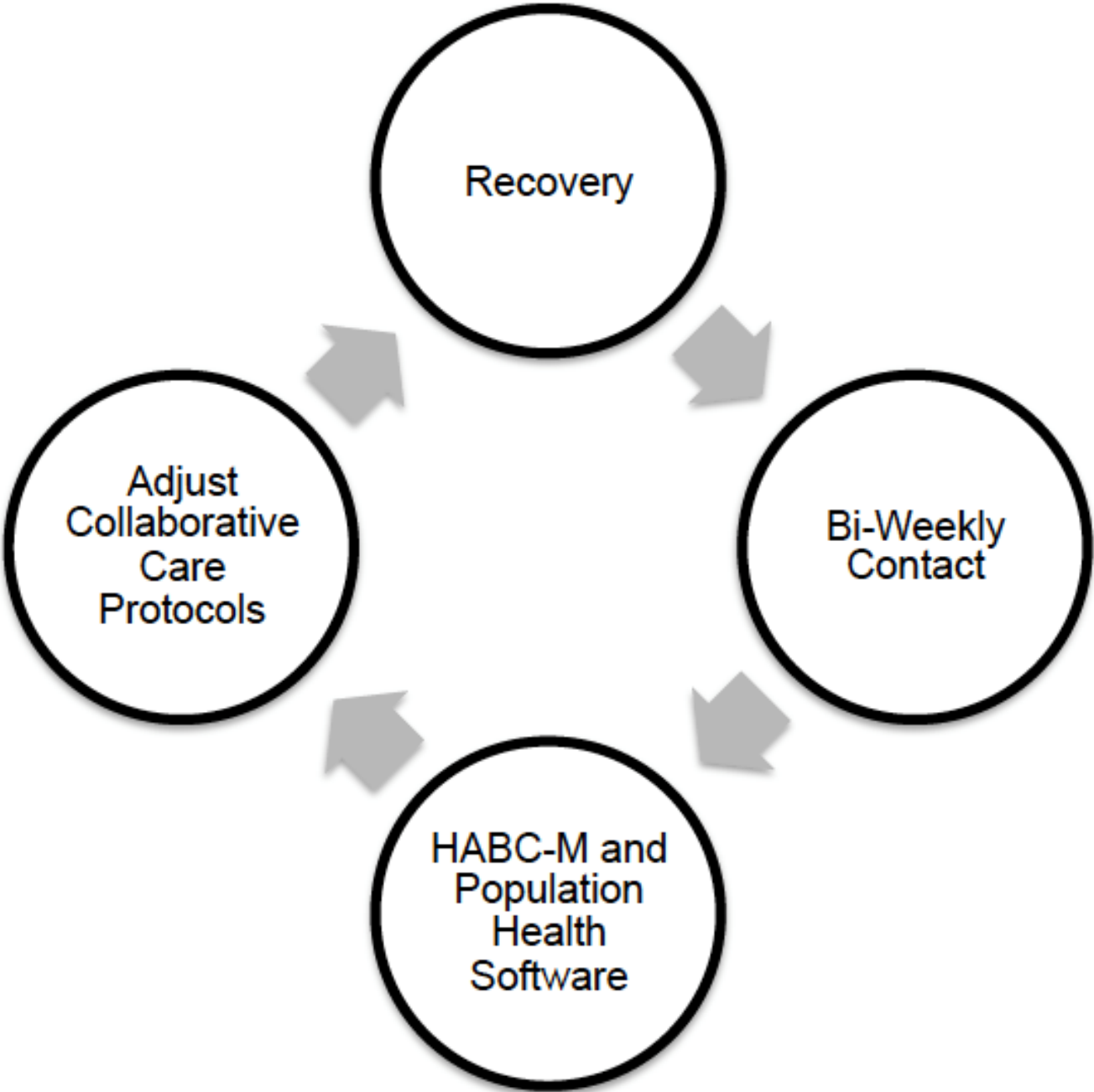
- **Adult age 50 years and older**
- **Admitted to Methodist or Eskenazi Hospitals**
- **English speaking**
- **Able to provide consent or have LAR to provide consent**
- **Access to a telephone**
- **ISS of 10 or greater**

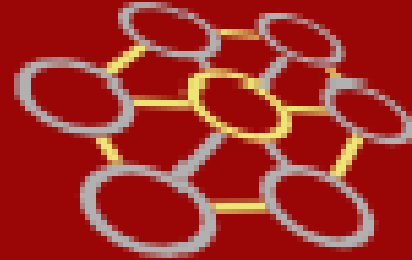
Exclusion

- **Self-reported diagnosis of cancer with short life expectancy**
- **History of dementing illness or other neurodegenerative disease**
- **Significant traumatic brain injury (Head AIS>2, or GCS<13 at time of enrollment)**
- **Spinal cord injury with persistent neurological deficit at enrollment**
- **Pregnant women**
- **Reside more than 100 miles from Indianapolis**
- **Incarcerated at time of enrollment**
- **Develop a stroke as a new event during hospitalization**









Trauma Medical Home

Conclusion

- **Not all patients will follow the same recovery trajectory**
 - After trauma or after elective surgery
- **Multimodal interventions with**
 - Sensing
 - Feedback loops
 - Collaborative care models
- **Potential to be scalable**
 - Standard tools, interventions, software

Crisis Text Lines

**Michael Dunn, *Crisis & Suicide Line*
Supervisor
Families First**



**Indiana State
Department of Health**

Email questions to: indianatrauma@isdh.in.gov

Crisis Text Lines

Providing Immediate Emotional Support to Teenagers or Anyone in Crisis or Experiencing Suicide Thoughts.



FamiliesFirst

Three 24/7 Crisis Text Lines

- Community Health Network
 - *Text **HELPNOW to 20121***
- Families First's Crisis & Suicide Intervention Service
 - *Text **CSIS to 839863***
- IU Health
 - *Text **SAFE2TALK to 85511***

These Free Crisis Text Lines Are Available to Anyone in Crisis and to Help Reduce and Prevent Suicide.

- Trained professionals and volunteer Clinical Associates (CAs) from the Crisis and Suicide Intervention Service (CSIS) of Families First Indiana, Inc. are available 24/7 to respond to texts.
- Accredited by the American Association of Suicidology
- Member of the National Suicide Prevention Lifeline Network

CSIS Volunteer CA Staff Training

- Undergo an extensive interview and assessment
- Submit to a background check
- Complete 40 hours of classroom instruction including a 15-hour Applied Suicide Intervention Skills Training (ASIST) workshop
- Experience on-the-job preparation
- Receive quarterly training updates
- Quality Assurance Monitoring

Data Collected

- Phone number
- School
- Address
- City
- State
- First name
- Gender identity
 - Female
 - Male
 - Unknown
- Age
- Zip code
- Issue 1
- Issue 2
- Issue 3
- Type of interaction
 - No response
 - Obscene visitor
 - Opted-out
 - Prank visitor
- Visitor served in military
 - No
 - Yes

Data Collected

- How learned of text line
 - Billboard
 - Brochure/Poster
 - Connect to Help 211
 - Family
 - Friend
 - Internet
 - Other
 - Phone book
 - Physician/Therapist
 - Police/Law Enforcement
 - School
 - TV/Radio
 - Unknown
 - Veterans crisis line
 - Visited previously

Data Collected

- Visitor Marital Status
 - Divorced
 - Married
 - Separated
 - Significant other
 - Single
 - Unknown
 - Widowed/Widower
- Current professional mental health help
 - No
 - Unknown
 - Yes
- Specify professional mental health help being received
- Visitor household
 - Couple-no kid(s) in home
 - Couple-with kid(s) in home
 - Extended-two family home
 - Non relative
 - Single-no kid(s) in home
 - Single parent home
 - Single-with kid(s) in home
 - Unknown

Data Collected

- Did visitor express that he/she felt reassurance as a result of visit?
 - No
 - Yes
- Level of service: information/support
 - Support accepted
 - Support rejected
- Level of service: Referral
 - Referral(s) accepted
 - Referral(s) rejected
- Level of service: active rescue: 911
 - No
 - Yes
- Level of service: advocacy/assistance (APS, CPS, etc)
 - No
 - Yes

Data Collected

Problem/Crisis

- Substance abuse
 - Alcohol
 - Cocaine
 - Crack
 - Heroin
 - Pills or Rx medications
 - Gambling
 - Other Addiction
 - Social media/gaming/texting
 - Sexual addiction
- Economic
 - General financial
 - Homeless/shelter
 - Tenant/Landlord complaint
 - Utilities
 - Holliday assistance
 - Unemployment
 - Other employment issue
 - Lack of insurance

Data Collected

Problem/Crisis

- Mental Health
 - Grief/Bereavement
 - Depressed
 - Anxiety
 - Suicidal
 - Homicidal
 - Incurable youth
 - Counseling/Support group search
 - Medication question/supply
 - Self-injury with no intent to die
 - Eating disorder
 - Loneliness
 - Anger control problem
 - Chronic mental illness

Data Collected

Problem/Crisis

- Social/Interpersonal
 - Personal adjustment
 - Love/Romance
 - Custody/Visitation
 - Legal problem/issue
 - Government/legal information
 - Divorce/Breakup
 - Human trafficking
 - Verbal/emotional abuse
 - Bullied
 - Sexual identity
 - Sexual activity
 - Parenting issue

Data Collected

Problem/Crisis

- Victimization
 - Adult abuse/neglect
 - Child abuse/neglect
 - Crime victim
 - Domestic violence
 - Natural disaster victim
 - Harassment/Stalking
 - Rape survivor/sexual assault
 - Other
 - Prior childhood abuse
- Physical Health
 - Acute illness/disability
 - Chronic illness/disability
 - Pregnancy
 - Abortion
 - Family Planning
 - STD testing
 - Insomnia

What Happens When CSIS is Texted to 839863?

Visitor CSIS

CSIS Hi, thanks for texting the Crisis Text line. One of us will respond shortly. To speak with a counselor immediately all 800-273- 8255 (To opt out text STOP) **19:34**

CSIS For information on your privacy rights please go to:
<http://www.preventionpaystext.com/policies/> **19:34**

CSIS So that we can help you better please text your first name, gender, age, zip code, how you found out about us, and (for students) what school you attend.
19:34

What Happens When CSIS is Texted to 85511 ?

- Visitor Aubrey. Female. 14. 47598. A poster **19:36**
- Safe2Talk Hi Aubrey. My name's Jordan .Thanks for trusting me. What may I help you with tonight? **19:38**
- Safe2Talk Are there Aubrey? **19:43**
- Visitor Hi Jordan. Ive been depressed for 3 months now and yesterday i almost died. I just feel completely worthless and alone **19:45**

What Happens When CSIS is Texted to 839863?

CSIS I'm sorry you've been struggling Aubrey .What were the circumstances regarding your almost dying yesterday? **19:47**

Visitor I almost fell out of a barn door on the third floor. **19:48**

CSIS On accident? **19:48**

Visitor Yes. I tripped because of my cat. **19:49**

CSIS So you're both okay now? **19:49**

What Happens When CSIS is Texted to 839863?

Visitor Yes **19:50**

CSIS So feeling depressed now for 3 months. What happened 3 months ago that may have caused these feelings? **19:51**

Visitor Um well theres was this boy i liked and then my friend went out with him but i dont think thats the reason. I honestly dont know. **19:53**

CSIS Please tell me why you feel you are depressed Aubrey. **19:54**

What Happens When CSIS is Texted to 839863?

Visitor I honestly dont know. I hasnt been as bad lately. **19:55**

CSIS You mentioned you feel completely worthless and alone. Who else knows you're feeling this way? **19:56**

Visitor No one. **19:58**

CSIS Are you in a lot of emotional pain? **19:59**

Visitor I havent been lately **19:59**

What Happens When CSIS is Texted to 839863?

CSIS When it has been worse, has the mental anguish been so severe you think about ending your life? **20:00**

Visitor Yes **20:01**

CSIS And when you think about taking your life, what method have you thought about? **20:02**

Visitor Theres been many. **20:03**

CSIS Would you mind sharing them with me please? **20:03**

What Happens When CSIS is Texted to 839863?

Visitor Hanging. Drowning. Jumping off of something high.
theres more. **20:05**

CSIS Thanks. Have you ever attempted to kill yourself?
If so, how recently? **20:06**

Visitor I have. I dont remember when. **20:08**

CSIS What kind of help did you receive? Were you
hospitalized or what happened? **20:09**

What Happens When CSIS is Texted to 839863?

Visitor I didnt get any help because no one knew **20:10**

CSIS What kind of help do you feel you need? **20:11**

Visitor I really just need someone to rant too and tell everything **20:12**

CSIS Is that why you're visiting tonight? **20:13**

Visitor Yeah kinda. And i saw the poster and thought i need to find my own help. My gandma made a remark that im messed up and need therapy becaue i told her I was reading a book about suicide. **20:15**

What Happens When CSIS is Texted to 839863?

CSIS Who is an adult you trust and feel won't judge you? **20:16**

Visitor No one. I hate everyone pretty much **20:17**

CSIS Why do you suppose that is? **20:18**

Visitor Idk. **20:18**

CSIS Do you hate yourself too? **20:19**

Visitor Sometimes. **20:19**

CSIS Well please go ahead and rant and tell me everything since you don't have anyone you feel you can share your feelings with. That's why I'm here. **20:22**

What Happens When CSIS is Texted to 839863?

Visitor Please hold on im at a concert lol **20:23**

CSIS I'm sorry Aubrey. Help me understand...I thought you didn't have any friends and you felt all alone. **20:25**

Visitor I do. Im with my family **20:25**

CSIS How would you like me to help you? **20:26**

Visitor What do you mean? **20:39**

CSIS What would you like to have happen tonight as a result of your visit? **20:42**

What Happens When CSIS is Texted to 839863?

CSIS Are you still there Aubrey? If I don't hear from you soon I may have to disconnect so that i can serve other clients **20:47**

Visitor I would likke to have a better outlook on my life i guess. Sorry **20:49**

CSIS I can't provide you that. Only you have the power to make things happen by opening up to a trusted adult who can assist you in feeling better about yourself. **20:51**

Visitor I know **20:52**

What Happens When Safe2Talk is Texted to 85511?

CSIS Why not take the anonymous & confidential mental health screening at **20:52**

CSIS www/mhascreening.org **20:52**

CSIS Then print out the suggestions and use them as the basis to talk to a trusted adult about the way you are feeling. **20:52**

Visitor III try it **20:52**

CSIS It's a first step for getting help for yourself. **20:53**

Visitor I know **20:53**

What Happens When Safe2Talk is Texted to 85511?

CSIS Thanks Aubrey. Can I turn you loose and know and be assured that you won't do any harm to yourself in any way tonight? **20:54**

Visitor Yes. **20:55**

CSIS Aubrey please take good care of yourself because you are WORTH it. I'm glad we met and I wish you the best. Goodnight. **20:56**

Visitor Me too. Good night **20:56**

Questions?

Stigma – About the term “Suicide”

- For reasons we assume are related to the stigma and taboo surrounding suicide, the word “suicide” is subject to many qualifications that typically suggest both intent *and* outcome:
 - ❑ Die by suicide
 - ❑ Died by suicide
 - ❑ Attempt suicide
 - ❑ Attempted suicide
 - ❑ Suicidal behavior
 - ❑ Para-suicidal behavior (as in, like suicide but not quite)
 - ❑ Sometimes, self-harm behaviors done without any apparent thoughts of suicide.

Stigma – About the term “Suicide”

- We in the suicide prevention community are passionate about using language that does not stigmatize those who die by suicide or attempt suicide or stigmatize their loved ones.
- Unfortunately, this language is different from the terms that ordinary folks commonly use. Suicide is used as an action word in this workshop and various verb forms are used. For example
 - ❑ To suicide
 - ❑ Suiciding
 - ❑ Suicided

There are no such words—but perhaps there ought to be.

Stigma – About the term “Suicide”

- The first problem with the casual use of these terms is that their accuracy is very hard to determine. Did a person who suicided:
 - Want **to** die?
 - Want to **avoid** life?
 - Want to **attempt** suicide?
 - Or, want to **show** that they were in a lot of pain by **acting** as if they were suiciding?
- With these qualifications being added to suicide, an assumption is made about intent but that assumption may never be noticed.
 - The use of suicide as a verb, by itself and without qualifications, at least makes the question of intent obvious.

Stigma – About the term “Suicide”

- The second problem with traditional terms is that they perpetuate stigma and taboo. Consider the word ‘murder.’ One might think ‘murder’ has equally strong stigma and taboo associated with it. However murder, murdering, and murdered are words. Murdering is also a very complex behavior with many different and unusual motivations. Rather than try to resolve them all with qualifications, it is acceptable to just say “murder” and figure out what might be involved as best one can by the context.

We propose the same for “suicide:” just use the word and figure out what might be involved as best one can by the context or surrounding situation.

Stigma – About the term “Suicide”

- It's not at all uncommon to hear someone say or read in a news account that someone “committed” suicide. This is a pervasive term. Yet the word “commit” often has negative connotations. Think of what else the word “commit” is used for. Somebody
 - ❑ Committed murder
 - ❑ Committed rape
 - ❑ Committed robbery
 - ❑ Committed a sin
- What is the common denominator? The word “committed” in combination with a noun, often signifies a crime or another act of wrongdoing, such as
 - ❑ Committed adultery.

Stigma – About the term “Suicide”

- A person who survives suicide or dies by suicide is experiencing
 - Deep emotional pain
 - Hopelessness
 - Mental illness
 - All of the above
- Such pain does not make someone a criminal. Just as it does not make her/him
 - Weak
 - Cowardly
 - Selfish
 - Crazy
 - Attention seeking
- For all of these reasons, we will use the term “**died by suicide**,” a neutral, factual term.

About Families First

OUR MISSION

To create healthier communities by strengthening families and individuals during life challenges and changes.

OUR VISION

A community of healthy, capable and loving families.

OUR PASSION

Families First believes that strong families are the foundation of a healthy, productive society.

BECAUSE OF FAMILIES FIRST, COUNTLESS NUMBERS OF

- marriages have been salvaged
- children have been spared the loss of their families and entry into foster care
- older and challenged adults have remained independent in their own homes rather than in nursing homes
- violent and/or chemically dependent adults have gotten the treatment they needed to live safely and productively within their families and community
- people have become better parents, spouses, daughters, sons, and employees
- families have reconciled or been reunified
- crises have been deescalated
- deaths by suicide have been prevented

Families First

Mike Dunn

Crisis & Suicide Line Supervisor


michaeld@familiesfirstindiana.org

www.familiesfirstindiana.org

“There is no health without mental health”



Families First



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



Quarter 1 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 1 2017

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 1 2017

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 1 2017

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 - Frankfort Hospital

IU Health - White Memorial

Memorial Hospital (Logansport)

St. Vincent Williamsport Hospital

Email questions to: indianatrauma@isdh.in.gov

Hospitals reporting to the Indiana Trauma Registry - Quarter 1 2017

District 5

Community East Health Network
Community Hospital

Community North Health Network
Community Hospital

Community South Health Network
Community Hospital

Eskenazi Health

Franciscan Health – Indianapolis

Franciscan Health – Mooresville

Hancock Regional Hospital

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 1 2017

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 1 2017

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 1 2017

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

Baptist Health Floyd
Clark Memorial Hospital
Dearborn County Hospital
**Decatur County Memorial
Hospital**
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 1 2017

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. Vincent Evansville

St. Vincent Warrick

Email questions to: indianatrauma@isdh.in.gov

Summary of Hospitals Reporting Status- Q1 2017

New to Reporting / Started Reporting Again

- Community Hospital of Anderson & Madison Co.
- Franciscan Health Rensselaer
- Hancock Regional Hospital
- IU Health Frankfort Hospital
- IU Health Tipton Hospital
- Putnam County Hospital
- St. Vincent Evansville
- Terre Haute Regional Hospital
- Woodlawn Hospital

Email questions to: indianatrauma@isdh.in.gov

Summary of Hospitals Reporting Status- Q1 2017

Did not Report

- Dearborn County Hospital
- Decatur County Memorial Hospital
- Dukes Memorial Hospital
- Elkhart General Hospital
- Franciscan Health – Crown Point
- Franciscan Health – Dyer
- Franciscan Health – Hammond
- Franciscan Health – Indianapolis
- IU Health – La Porte
- IU Health – Starke Hospital
- Perry County Memorial Hospital
- Pulaski Memorial Hospital
- Riverview Hospital
- St. Mary Medical Center (Hobart)
- St. Vincent Fishers Hospital
- Sullivan County Community Hospital
- Valparaiso Medical Center

Email questions to: indianatrauma@isdh.in.gov

Quarter 1 2017 Statewide Report

- 7,805 incidents
- January 1 2017 – March 31, 2017
- 92 total hospitals reporting
 - 10 Level I and II Trauma Centers
 - 10 Level III Trauma Centers
 - 72 Non-Trauma Hospitals

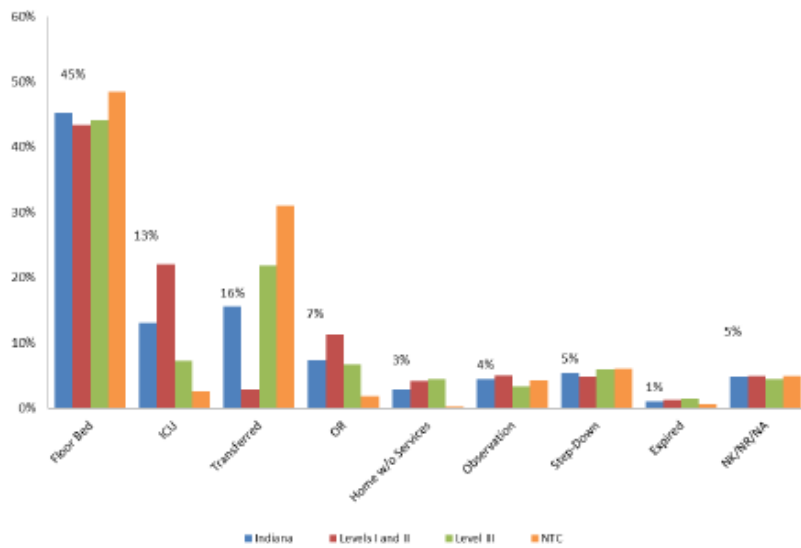


Indiana State
Department of Health

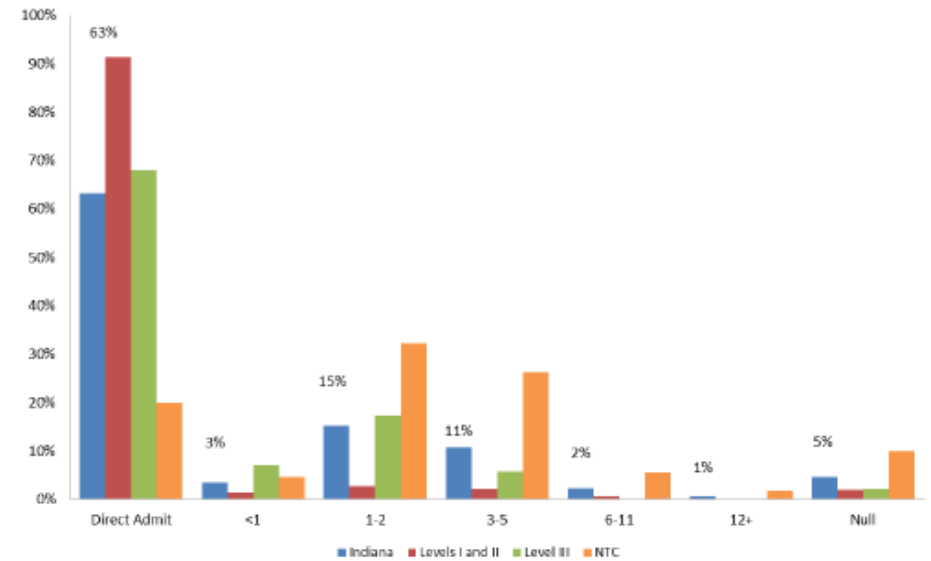
Email questions to: indianatrauma@isdh.in.gov

ED Disposition / Length of Stay - Page 2

ED Disposition by Percentage

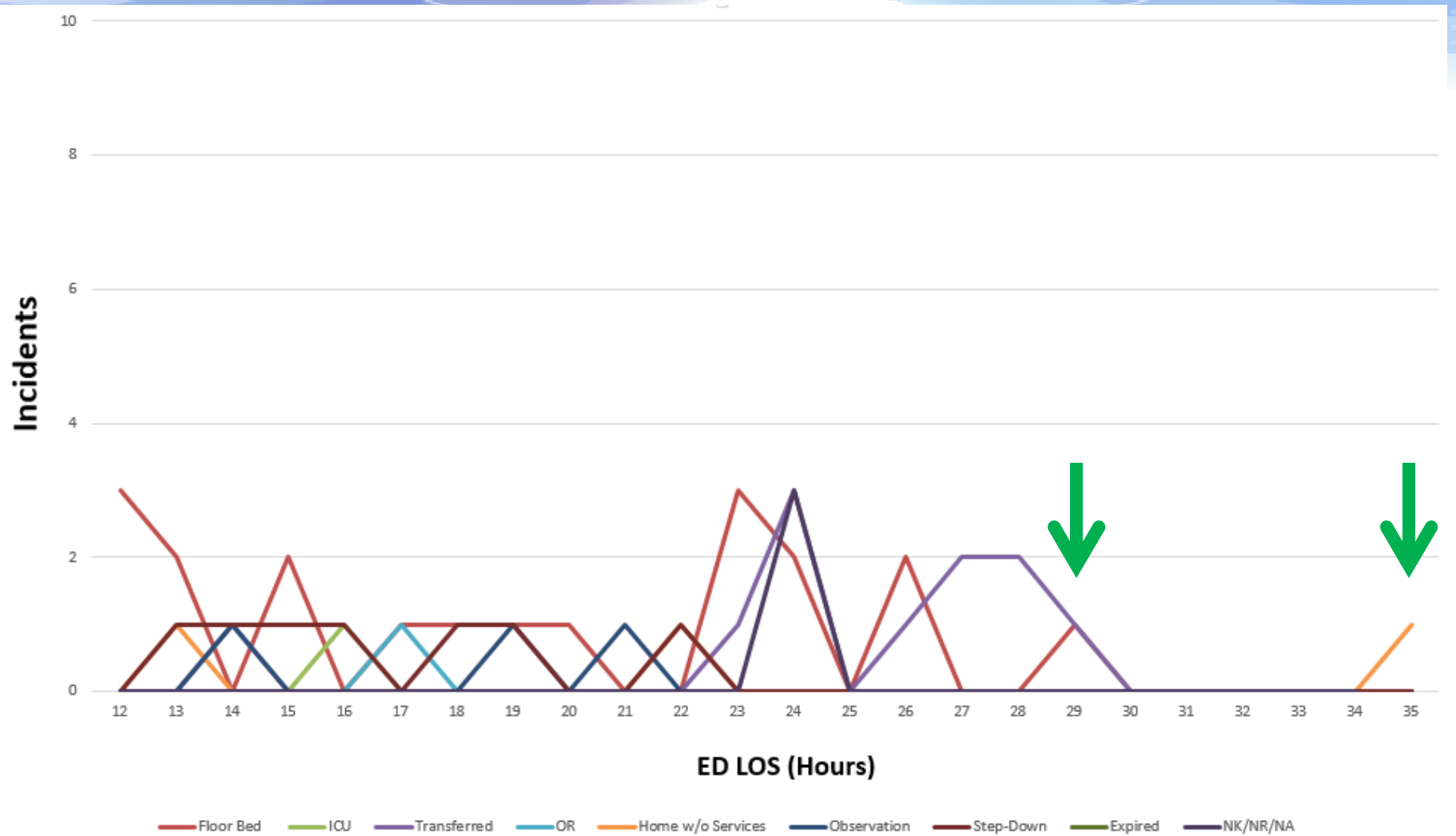


ED Length of Stay (Hours)



Email questions to: indianatrauma@isdh.in.gov

ED LOS > 12 Hours - Page 3



Email questions to: indianatrauma@isdh.in.gov

ED LOS > 12 Hours - Page 4

ED LOS > 12 Hours, N=48

Facilities	2 Level I and II 46 Non-trauma Centers	Region	17 North; 16 Central; 9 South; 6 Unknown/ Out of State
Average Distance from Scene to Facility	12.7 Miles	ISS	25 (1-8 cat); 16 (9-15 cat); 7 (No ISS)
Transport Type	29 Ambulance; 17 Private Vehicle; 2 Unknown	GCS Motor	2 (1 cat); 1 (5 cat); 34 (6 cat); 11 (unknown)
Cause of Injury	4 Transport; 37 Falls; 1 Overexertion; 1 Unspecified; 5 Not Identified	RTS—Systolic	4 (3-4)
Signs of Life	48 Yes	RTS—Resp. Scale	3 (3-4)
Age	63.8 Years (1-102 Years)	Resp. Assistance	22 Yes; 15 No; 11 Unknown
Gender	33 Female; 15 Male	ED LOS Hours	20.5 (12-35)
Interfacility Transfer	5 Yes; 43 No	ED Disposition	19 Floor; 3 Home without services; 1 ICU; 3 Observation; 1 OR; 7 Step Down; 11 Transferred; 3 Unknown

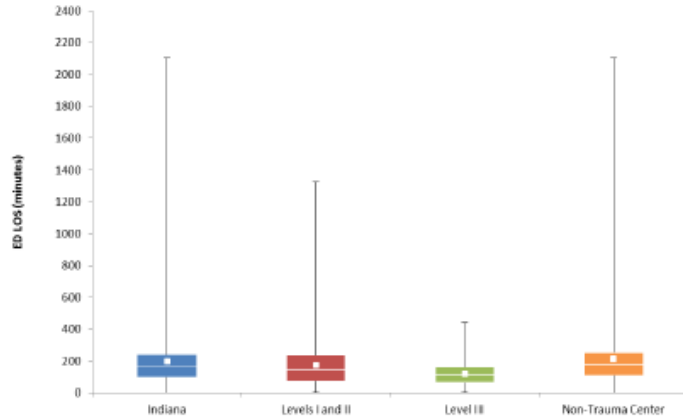
-Region was created from injury zip code. Missing = no injury zip or injury zip from out of state.

-Numbers represent counts per category or mean with minimum and maximum in parentheses.

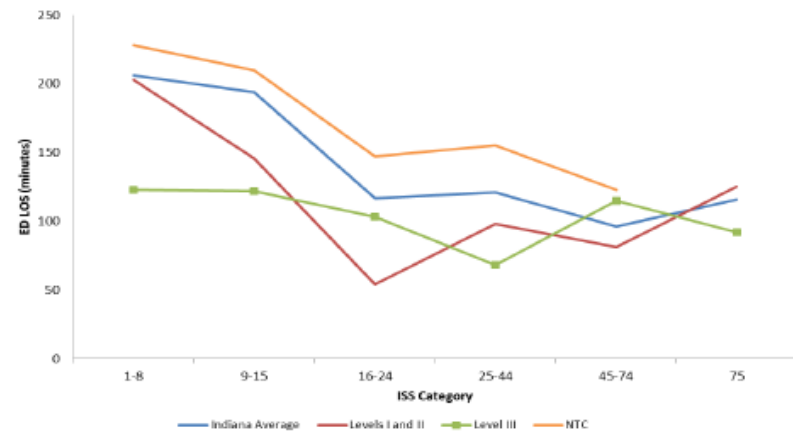
-No signs of life is defined as having none of the following: organized EKG activity, papillary responses, spontaneous respiratory attempts or movement, and unassisted blood pressure. This usually implies the patient was brought to the ED with CPR in progress (2015 Trauma Registry Data Dictionary, page 185).

ED Length of Stay: Bar & Whisker - Page 5

ED LOS (Minutes) - All Patients



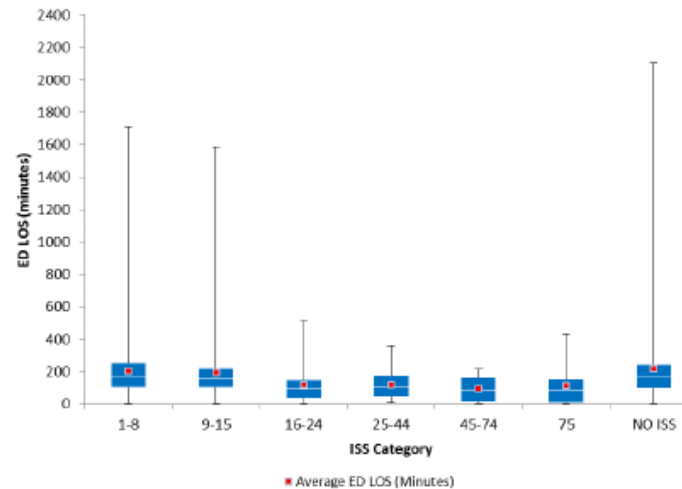
ED LOS (Minutes) by ISS



A table with all the values for ED LOS is found on page 52.

ED LOS (Minutes) by ISS

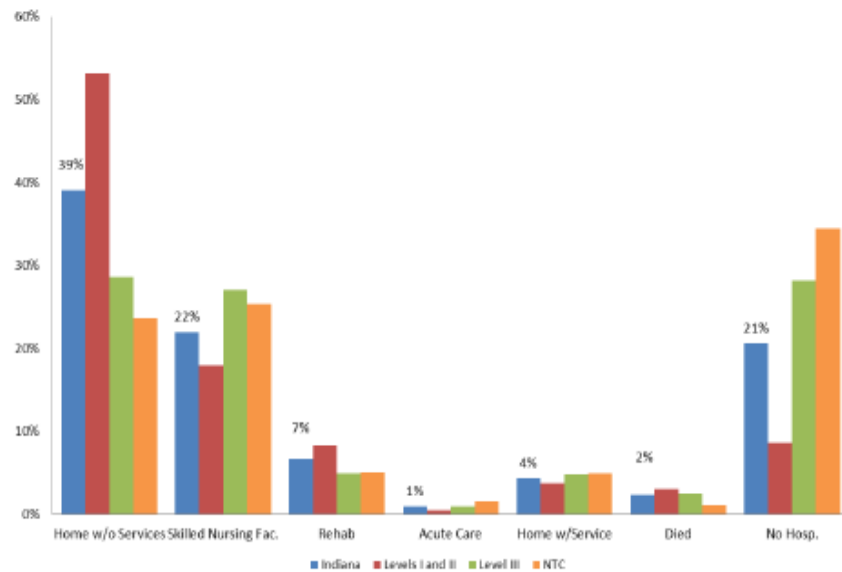
Note for EDLOS by ISS, there were 9 cases with ISS of 75; none were at a non-trauma center.



A table with values for ED LOS by ISS may be found on page 52

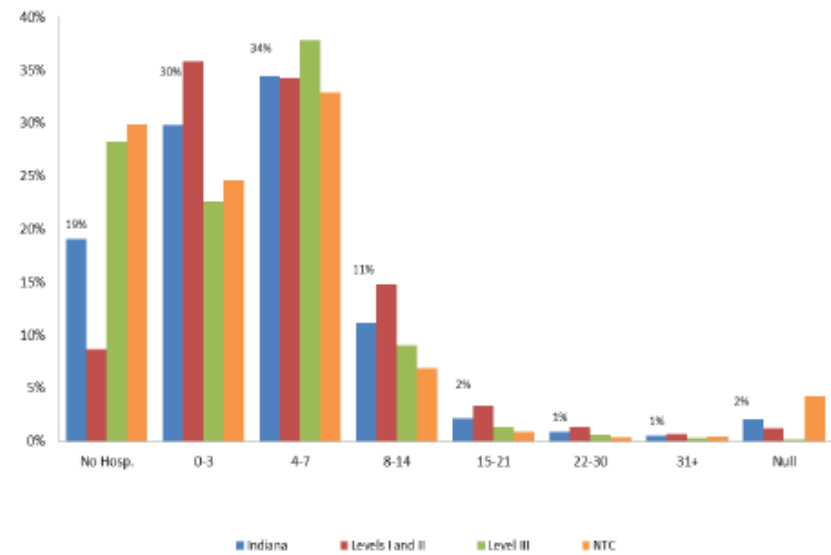
Hospital Disposition and LOS - Page 6

Hospital Disposition



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

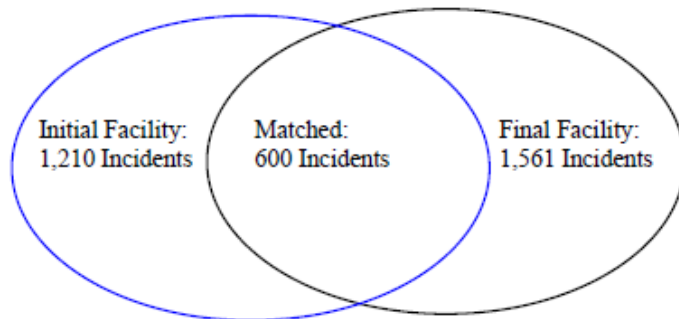
Hospital Length of Stay (days)



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Linking - Page 7

For Quarter 1 2017, of the 7,805 incidents reported to the Indiana Trauma Registry, 1,210 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, 600 cases were probabilistically matched. The linked cases make up 21% of the Q1 2017 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 4 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. Vincent – Clay Hospital
Greene County General Hospital	St. Vincent – Dunn Hospital
Harrison County Hospital	St. Vincent – Frankfort Hospital
IU Health Bedford Hospital	St. Vincent – Jennings Hospital
IU Health Blackford Hospital	St. Vincent – Mercy Hospital
IU Health Paoli Hospital	St. Vincent – Randolph Hospital
IU Health Tipton Hospital	St. Vincent - Salem Hospital
IU Health White Memorial Hospital	St. Vincent - Warrick 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	

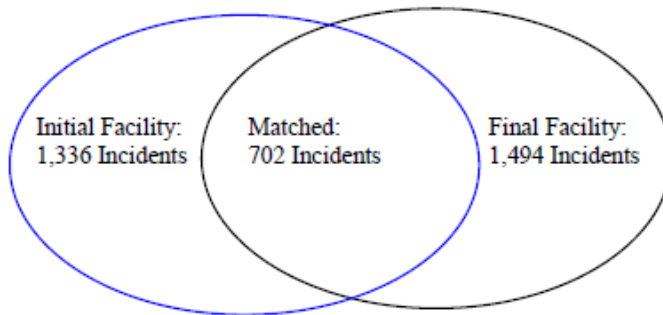
Rural Hospitals

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	

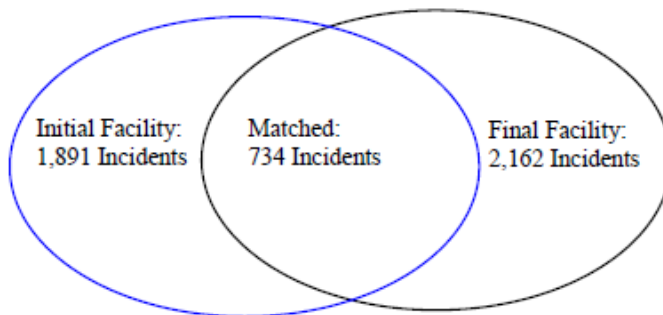
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Historical Links - Page 8

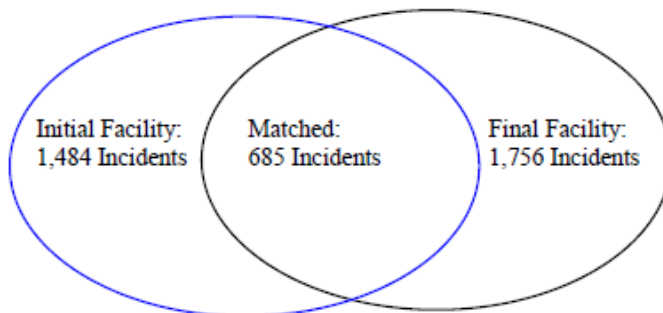
Historical Links



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.



For Quarter 3, 2016, of the 8,916 incidents reported to the Indiana Trauma Registry, 1,891 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, 734 cases were probabilistically matched. The linked cases make up 18% of the Q3 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.



For Quarter 4, 2016, of the 8,916 incidents reported to the Indiana Trauma Registry, 1,484 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, 685 cases were probabilistically matched. The linked cases make up 21% of the Q4 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.

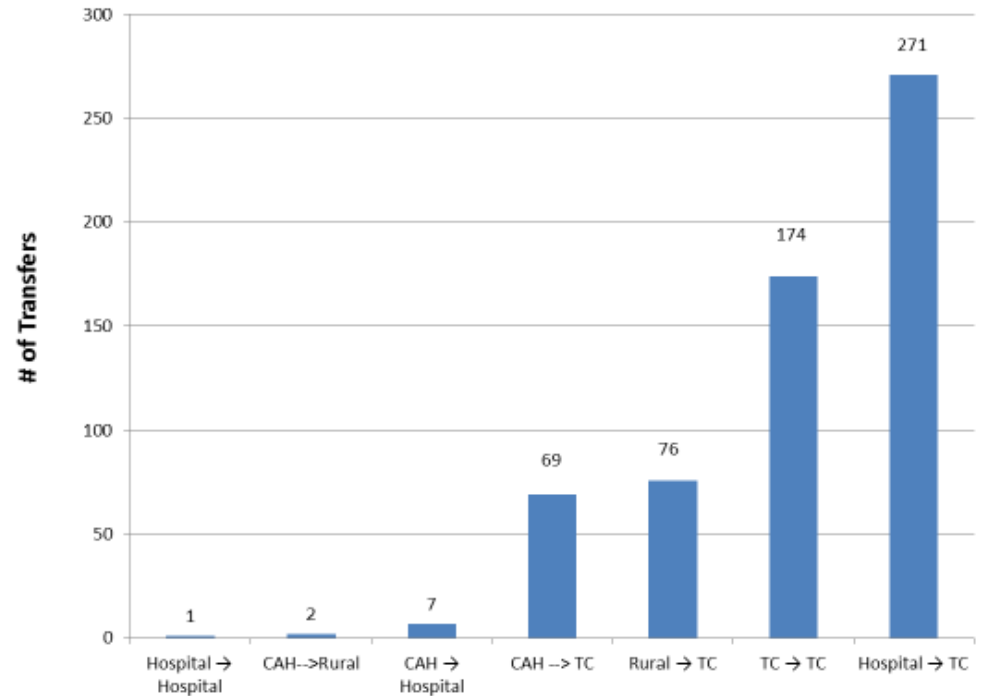
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Transfer Patient: Facility Type - Page 9

Facility to Facility Transfers

For Transfer Patients:		
Initial Hospital Type	Final Hospital Type	Incident Count
Hospital	Hospital	1
Critical Access Hospital	Rural Hospital	2
Critical Access Hospital	Hospital	7
Critical Access Hospital	Trauma Center	69
Rural Hospital	Trauma Center	76
Trauma Center	Trauma Center	174
Hospital	Trauma Center	271

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	600	186	156	55
EMS Notified to Scene	8.1 minutes	7.7 minutes	7.6 minutes	7.3 minutes
EMS Scene Arrival to Departure	22.2 minutes	32.4 minutes	35.8 minutes	18.7 minutes
EMS Scene Departure to Initial Hospital ED Arrival	19.7 minutes	16.2 minutes	15.7 minutes	17.1 minutes
Initial Hospital ED Arrival to Departure	2 hours 8.9 minutes	2 hours 3 minutes	2 hours 3.7 minutes	1 hour 52.6 minutes
Initial Hospital ED Departure to Final Hospital ED Arrival	2 hours 11.3 minutes	2 hours 5.5 minutes	2 hours 7.1 minutes	1 hour 56.9 minutes
TOTAL TIME	5 hours 10.2 minutes	5 hours 4.8 minutes	5 hours 9.9 minutes	4 hours 32.6 minutes

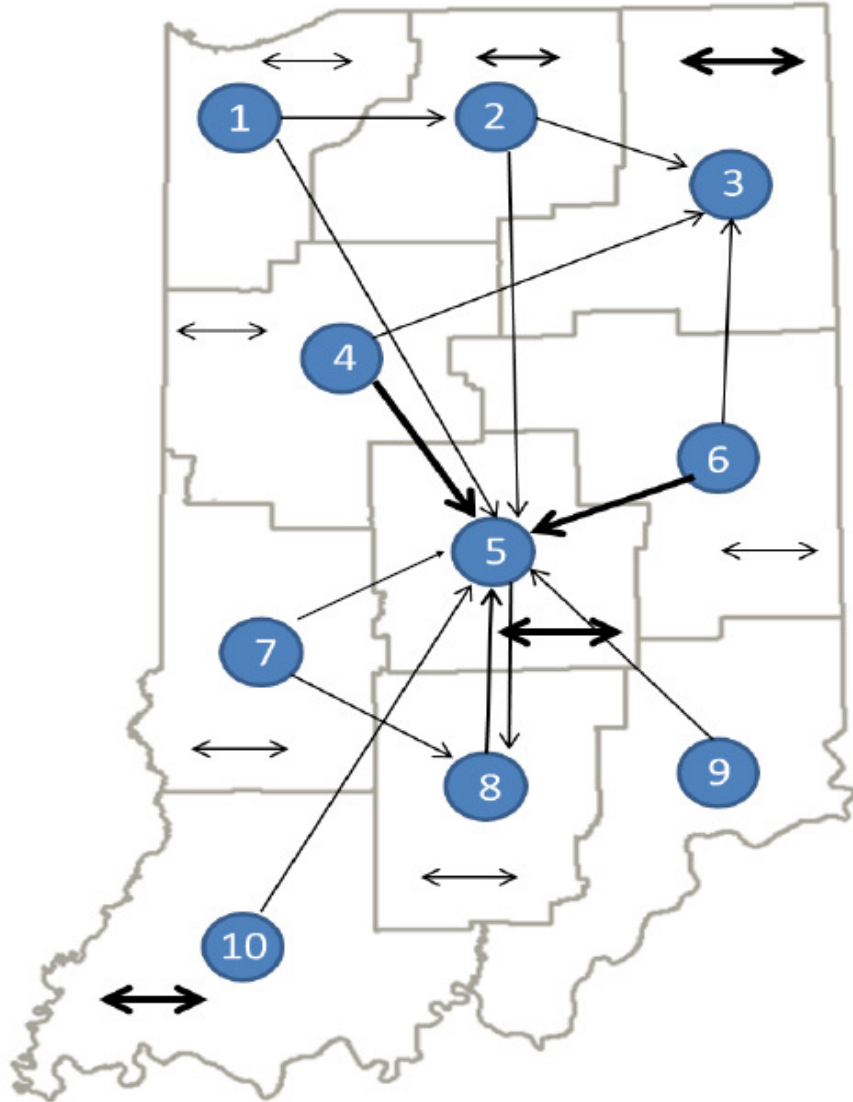
*Critical patient is defined as having a GCS \leq 12, OR Shock Index $>$ 0.9 OR ISS $>$ 15 at the initial hospital.

**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



For Transfer Patients:		
Public Health Preparedness District Initial Hospital	Public Health Preparedness District Final Hospital	Incident Counts
1	2	15
1	5	15
2	2	1
2	3	1
2	5	3
3	3	126
3	5	3
4	3	1
4	4	4
4	5	39
5	5	106
6	3	10
6	5	82
6	6	2
7	5	48
7	7	13
8	5	39
8	8	6
8	10	1
9	5	1
9	9	1
10	5	8
10	10	75

*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 - Page 12

For Transfer Patients:				
	All Transfer Patients	Critical*	Physiological Critical**	ISS Critical***
Number of Patients	600	186	156	55
Total Time	5 hours 10.2 minutes	5 hours 4.8 minutes	5 hours 9.9 minutes	4 hours 32.6 minutes
Total Mileage	52.3	59.0	59.9	61.5
Injury Scene to Initial Hospital Mileage***	8.2	7	6.7	7.8
Initial Facility to Final Facility Mileage	44.1	51.9	53.1	53.8

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	8.2	44.1	52.3	539	61
North Region	7.9	27	34.9	146	8
Central Region	8.1	54.4	62.5	321	42
South Region	8.8	31.3	40.1	72	11

*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.

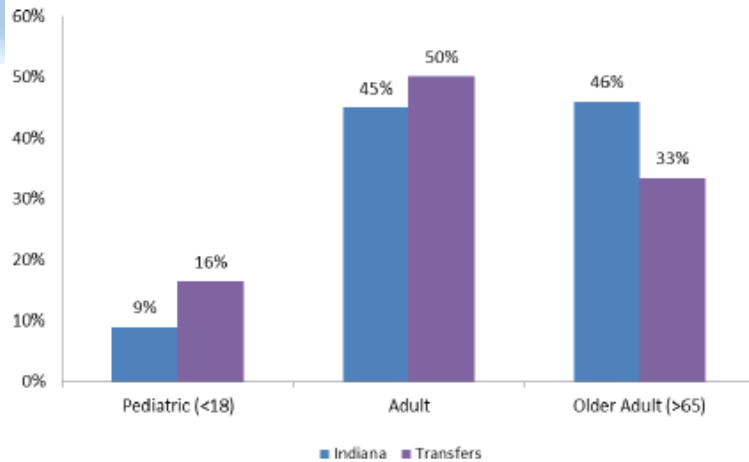
*** ISS Critical Transfer patient is defined as ISS > 15 at the initial hospital.

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

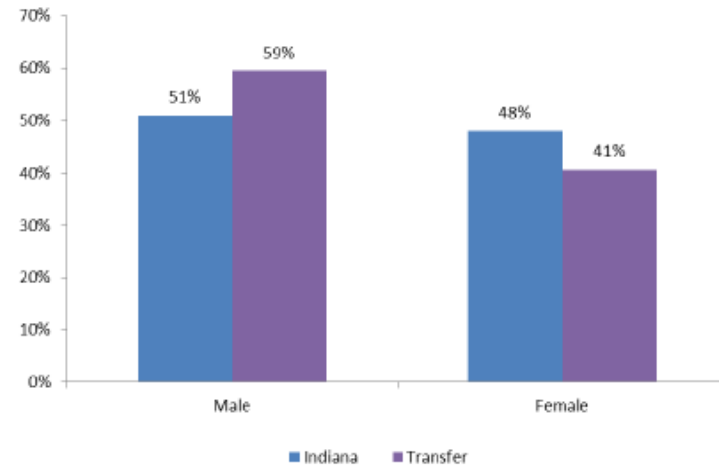
Statistics for Estimated Average Distance by Region calculated by Public Health Geographics, Epidemiology Resource Center, ISDH

Transfer Patient Population - Page 13

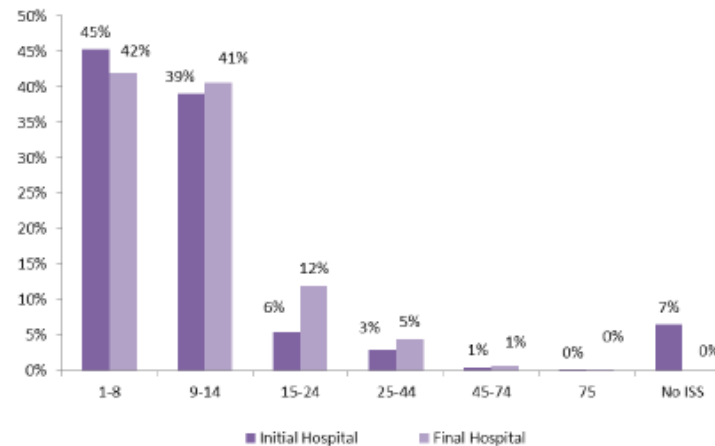
Patient Age Groupings



Patient Gender



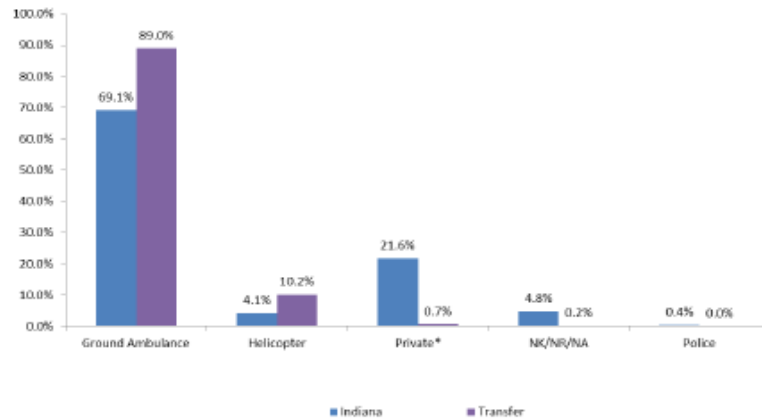
Injury Severity Score (ISS)



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Transfer Patient Population - Page 14

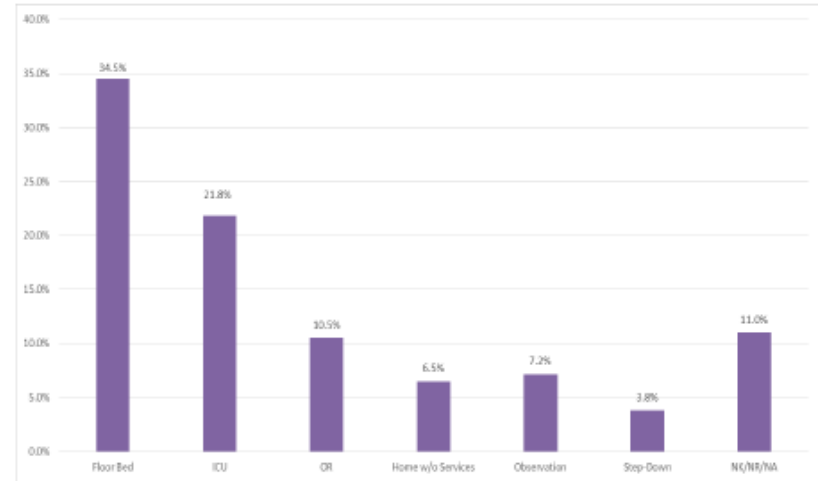
Transport Mode- Final Hospital



<1% Transport Mode: Police, Other

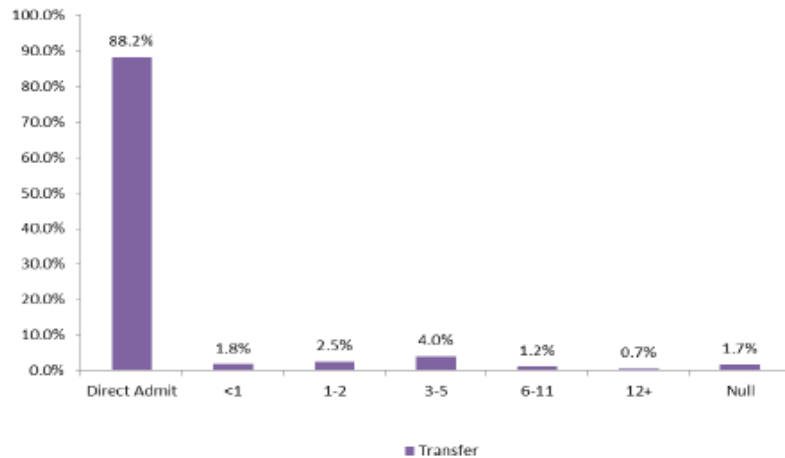
* Indicates Private/ Public Vehicle, Walk-in

ED Disposition by Percentage- Final Hospital

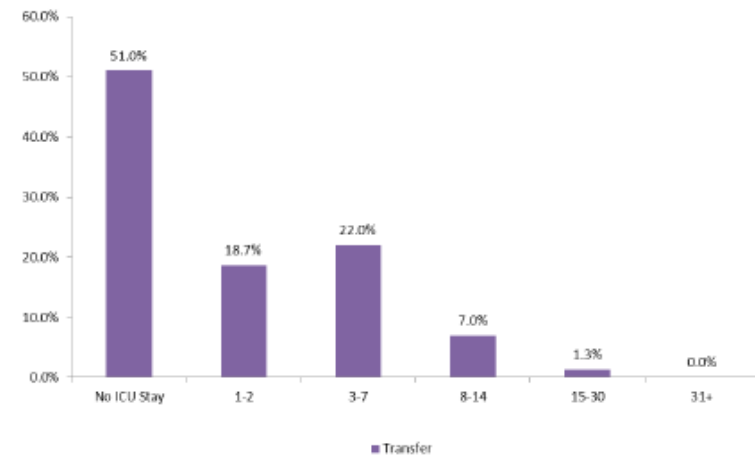


<1% : Transferred, Expired, AMA, Other

ED Length of Stay (hours)- Final Hospital



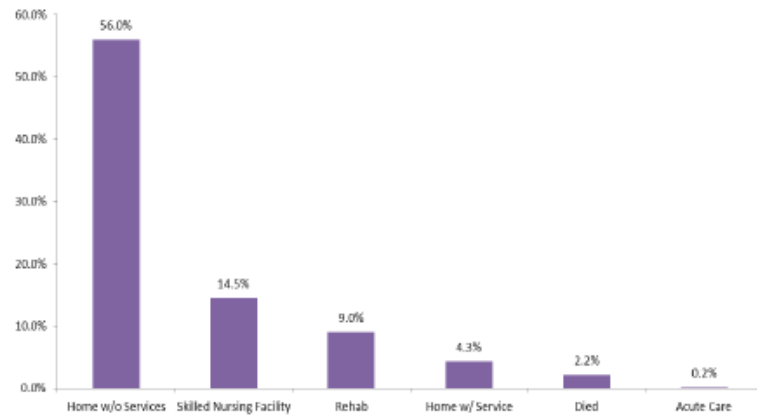
ICU Length of Stay (days)- Final Hospital



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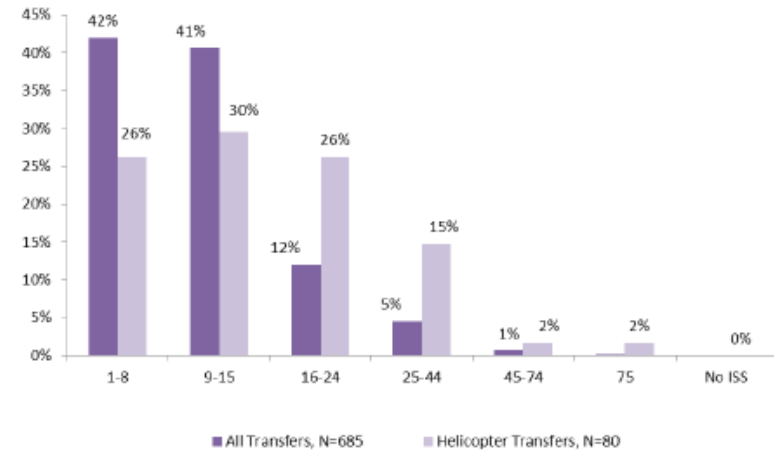
Transfer Patient Population - Page 15

Discharge Disposition- Final Hospital

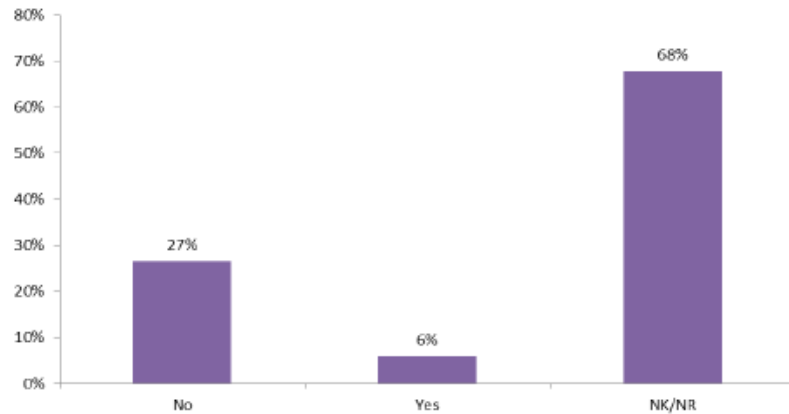


<1%: Acute care, AMA, another inst. Correctional, long-term care, hospice, psych hospital, no hospital stay

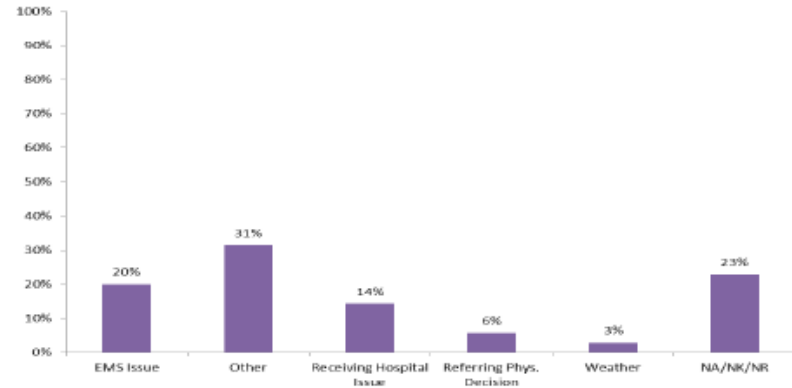
Helicopter Transfers by ISS- Final Hospital



Transfer Delay Indicated- Initial Hospital



Initial Facility Transfer Delay Reason



<1%: Receiving hospital radiology, missing

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Higher than Average ED LOS for Transferred Patients

Hospital ID

ID 3

ID 12

ID 31

ID 51

ID 88

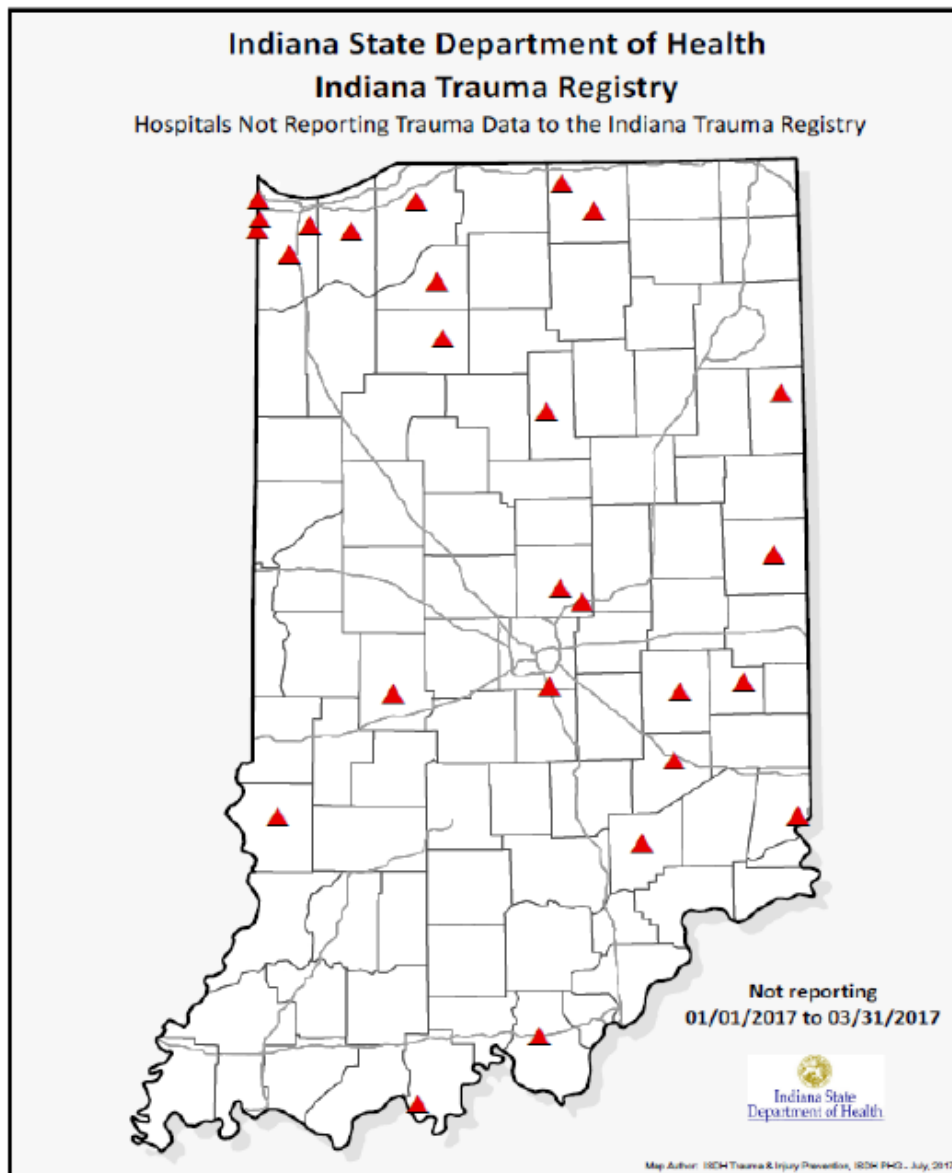
ID 108

ID 113

ID 120

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Not Reporting Map - Page 16



Hospital that did not report during Q1 2017:

- Adams Memorial Hospital
- Dearborn County
- Decatur County Memorial
- Dukes Memorial
- Elkhart General
- Fayette Regional Health
- Franciscan Health Crown Point
- Franciscan Health Dyer
- Franciscan Health Hammond
- Franciscan Health Indianapolis
- Franciscan Health Munster
- Harrison County
- IU Health Goshen
- IU Health LaPorte
- IU Health Starke
- Perry County Memorial
- Pulaski Memorial
- Riverview Health
- Rush Memorial
- St. Mary Medical Center—Hobart
- St Vincent. Fishers
- St. Vincent Jennings
- St. Vincent Randolph
- Sullivan County Community
- Valparaiso Medical Center

Reporting Map - Page 17

Indiana State Department of Health Indiana Trauma Registry

Hospitals Reporting Trauma Data Quarter 1
January 1, 2017 - March 31, 2017

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

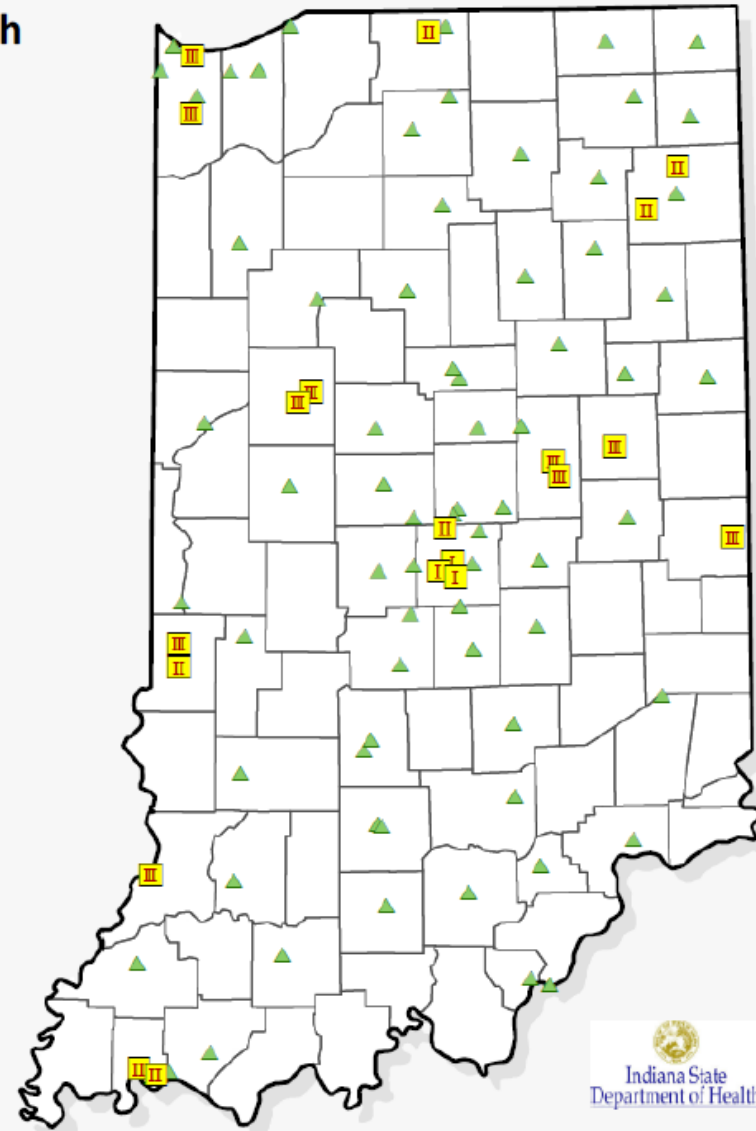
III Level III Trauma Centers

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
St Vincent Anderson
Union Hospital Terre Haute

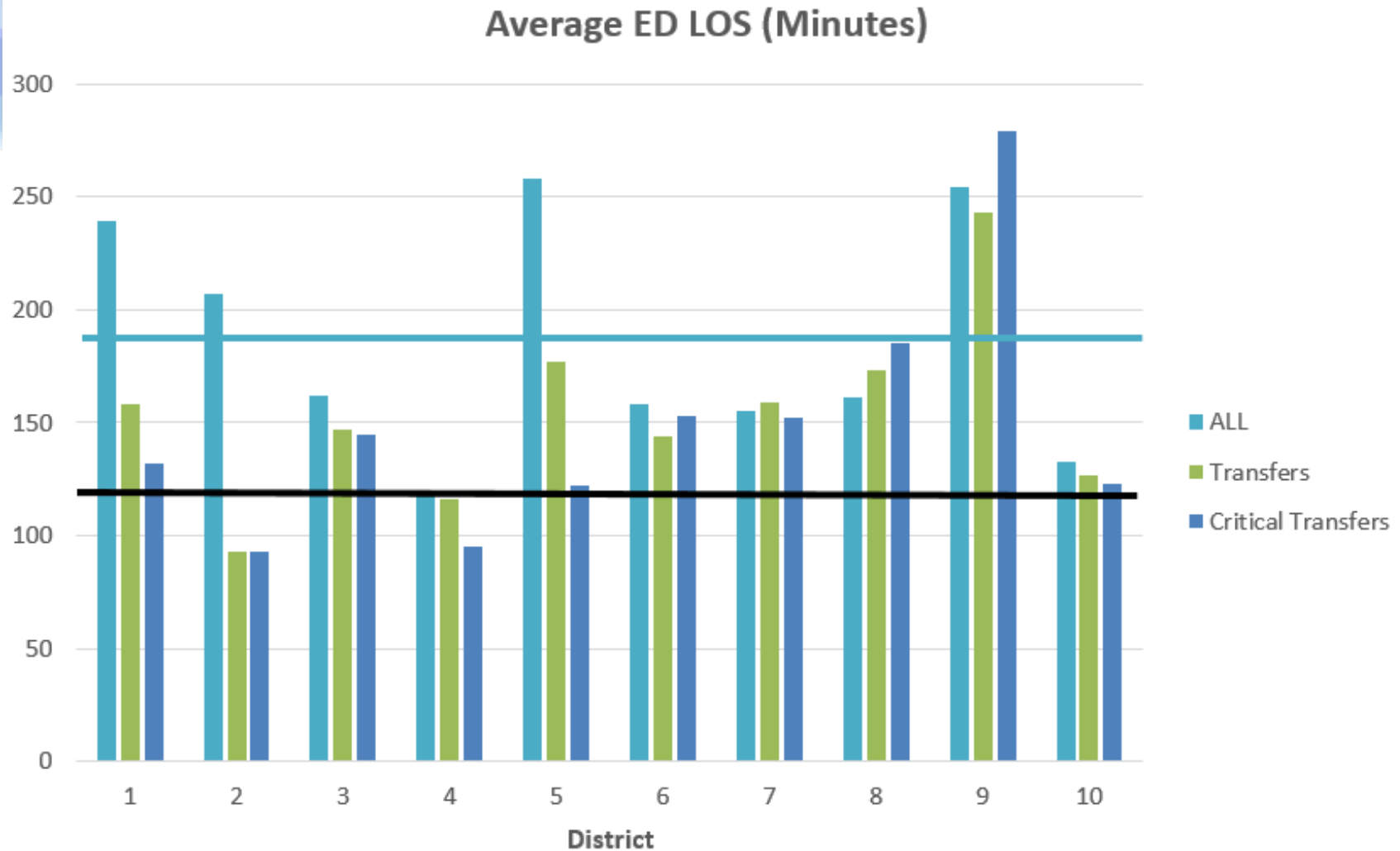
▲ Non-Trauma Hospitals

75 Non-Trauma Hospitals

Hospital categories include Verified and "In the Process"
Trauma Centers as of March 31, 2017.



ED LOS by District- Page 21



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Questions?



Indiana State
Department of Health

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Other Business



Indiana State
Department of Health

Email questions to: indianatrauma@isdh.in.gov

Committee Meeting Dates for 2017

- October 20
- December 15



Indiana State
Department of Health

Email questions to: indianatrauma@isdh.in.gov