

***Shands at the  
University of Florida  
Level I Trauma Center  
Fiscal Year 2009 Report***



***Committed to  
excellence in care.***



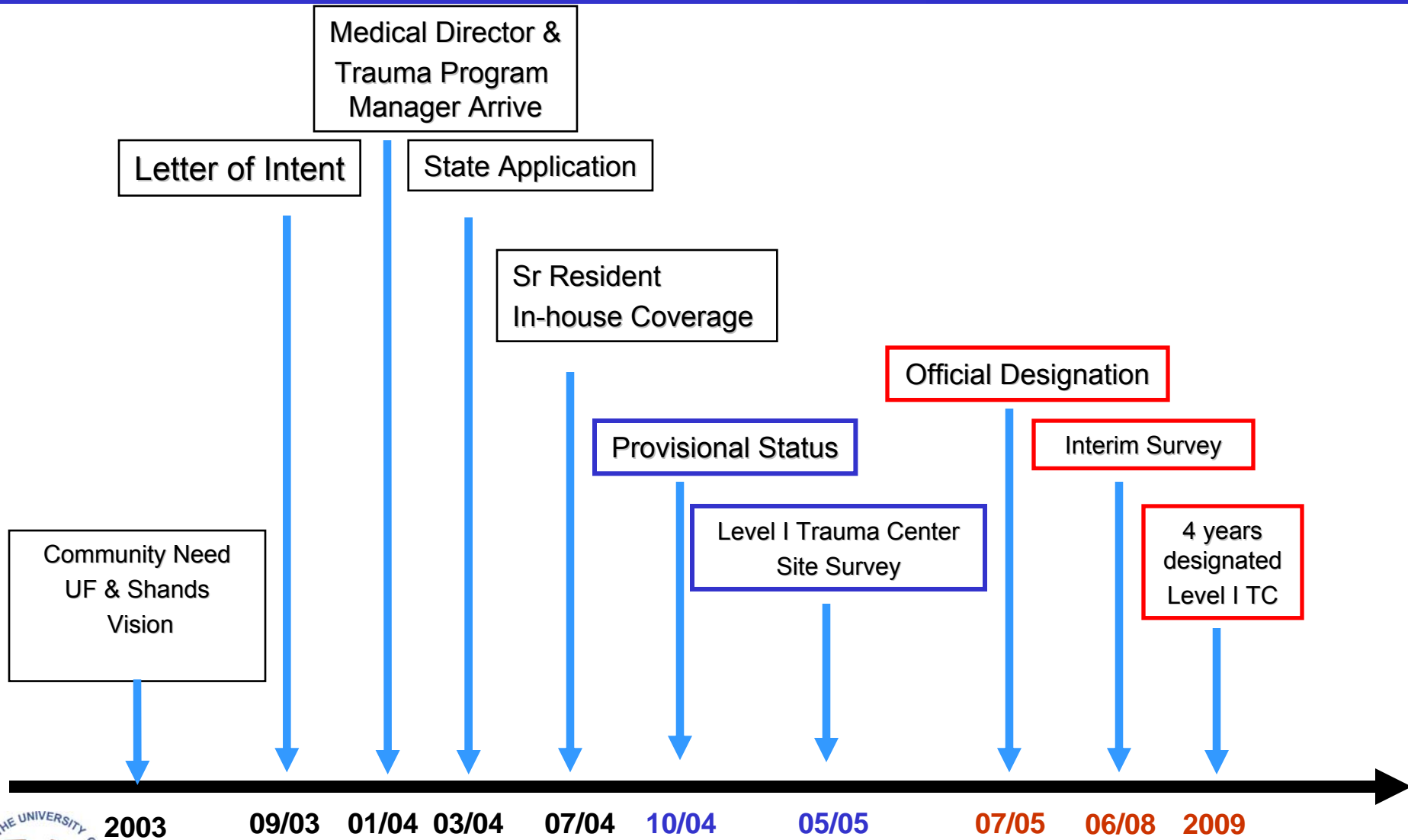
## Mission Statement

- To provide excellent patient care, to collaborate in improving community health, and to create an environment that supports education and research in the health sciences.



*believe in our mission*

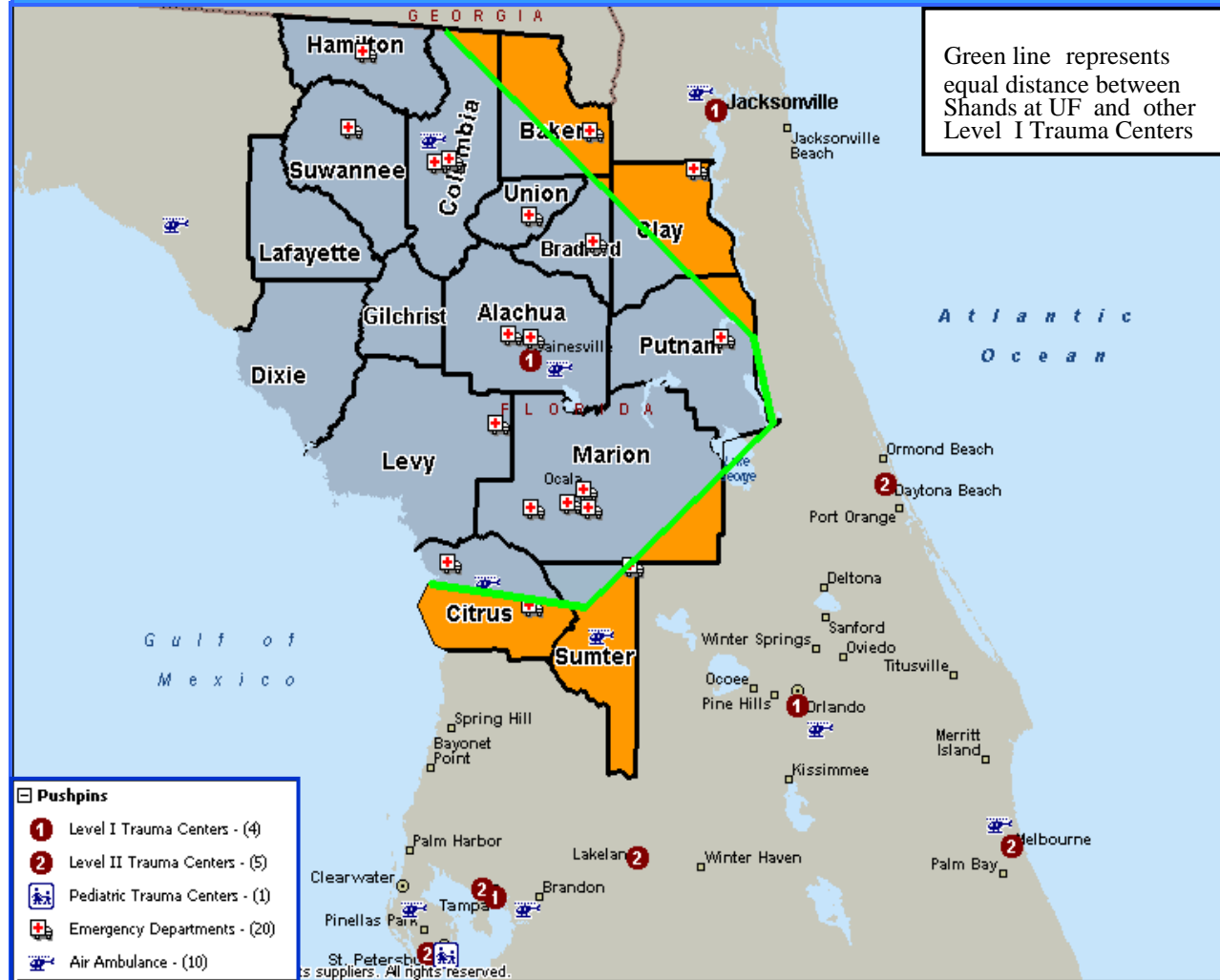
# Where We Have Been



# Shands at UF Level I Trauma Center Service Area

## Demographics

- ◆ Counties= 12 w/  
\*1 mill+ people
- ◆ Acute Care Hospitals= 16
- ◆ Pre-hospital providers= 15
- ◆ Helicopters= 5



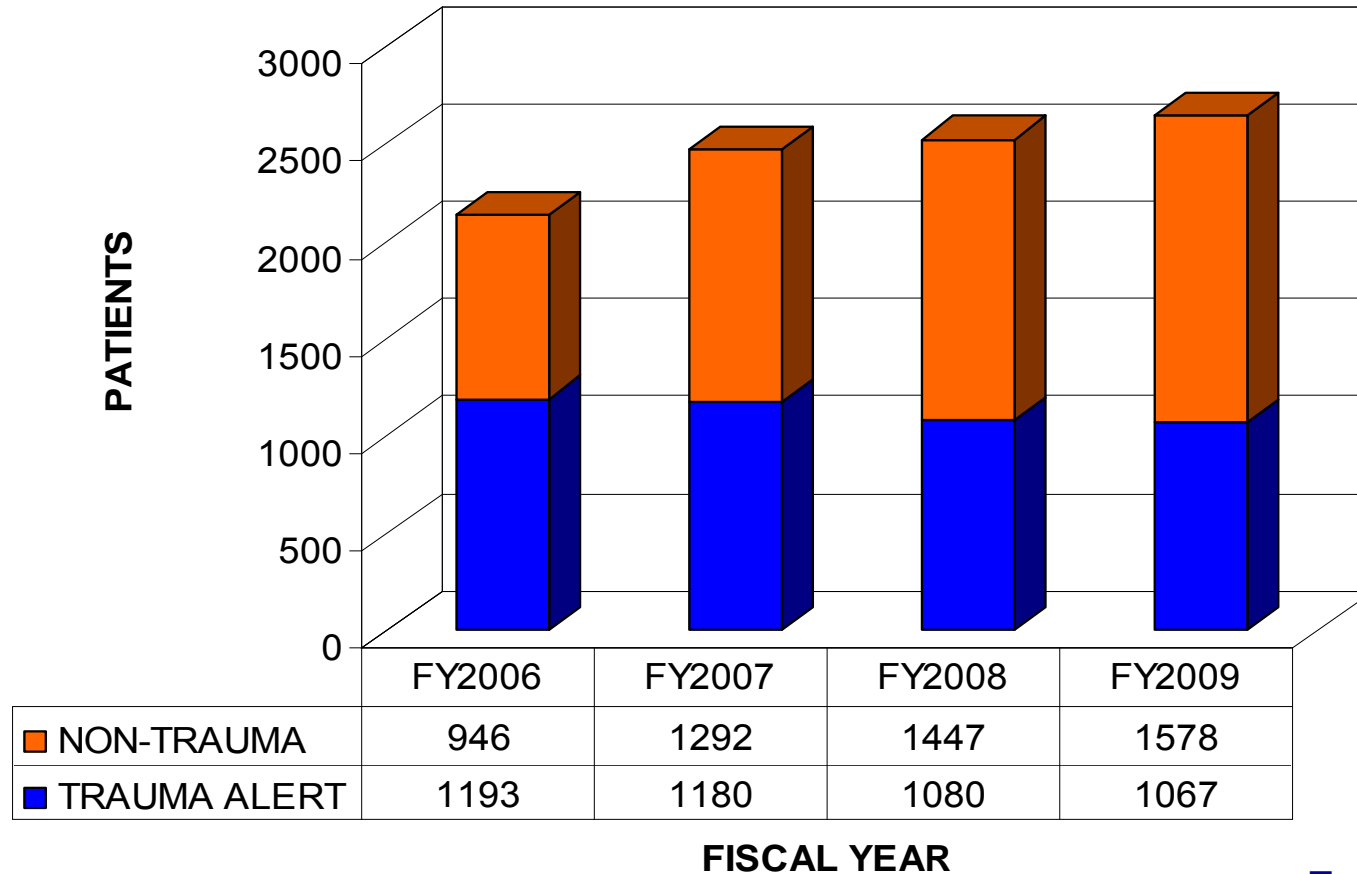
*\*Since 2004 the service area population has grown from 850,000+ to just over 1 million, which represents a 15% increase.*



- **10,972 trauma admissions**
  - ◆ Average 6.5 trauma patients daily
  - ◆ 85% adults vs 15% pediatrics
  - ◆ 69% male
  - ◆ 27% in (16-29 yr) old age group
  - ◆ 77% blunt trauma
- **31% with ISS >15**
- **4.9 mortality rate overall**  
*(NTDB 4.8% 1.5 mill pts)*



# Trauma Alert Patients vs Non-Trauma Alert Patients FY 2006 – FY2009



Trauma Alert %

*FY 2009= 40.3%*  
*FY 2008= 43.7%*  
*FY 2007= 47.7%*  
*FY 2006= 55.7%*



# Trauma Patients Discharged by Quarter FY2006 – FY2009

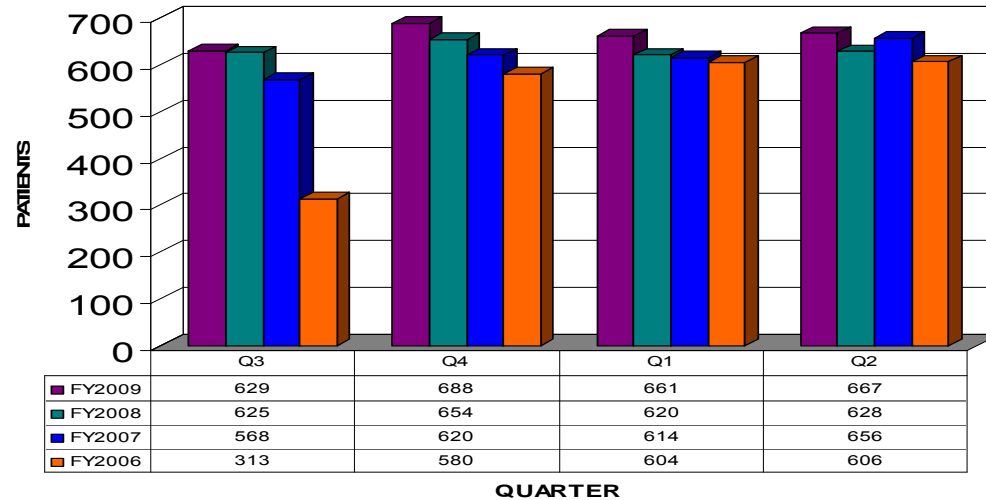
## ALL POPULATION

*FY09 N= 2,645*

*FY08 N= 2,527*

*FY07 N= 2,458*

*FY06 N= 2,103*



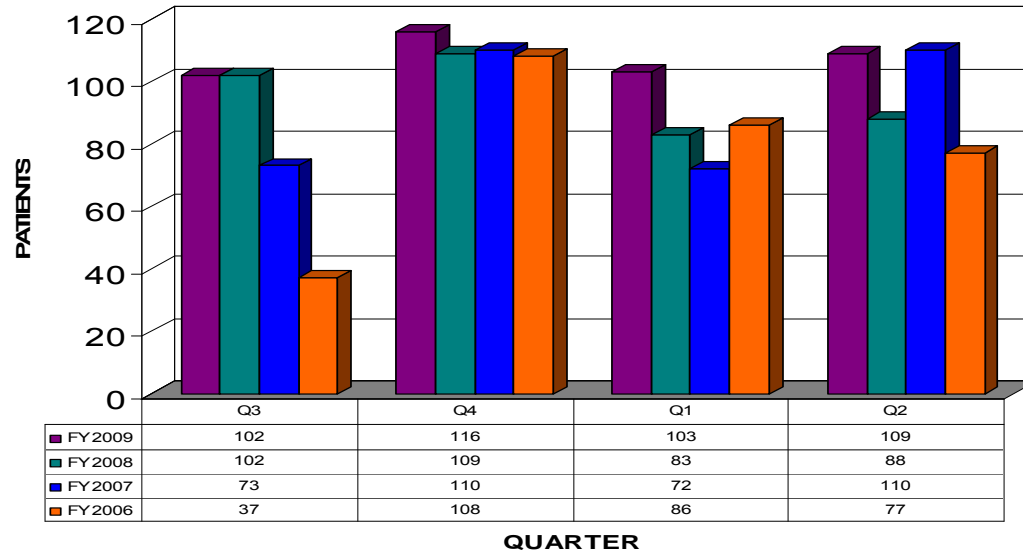
## PEDIATRIC POPULATION

*FY09 Peds N= 430 (16.3%)*

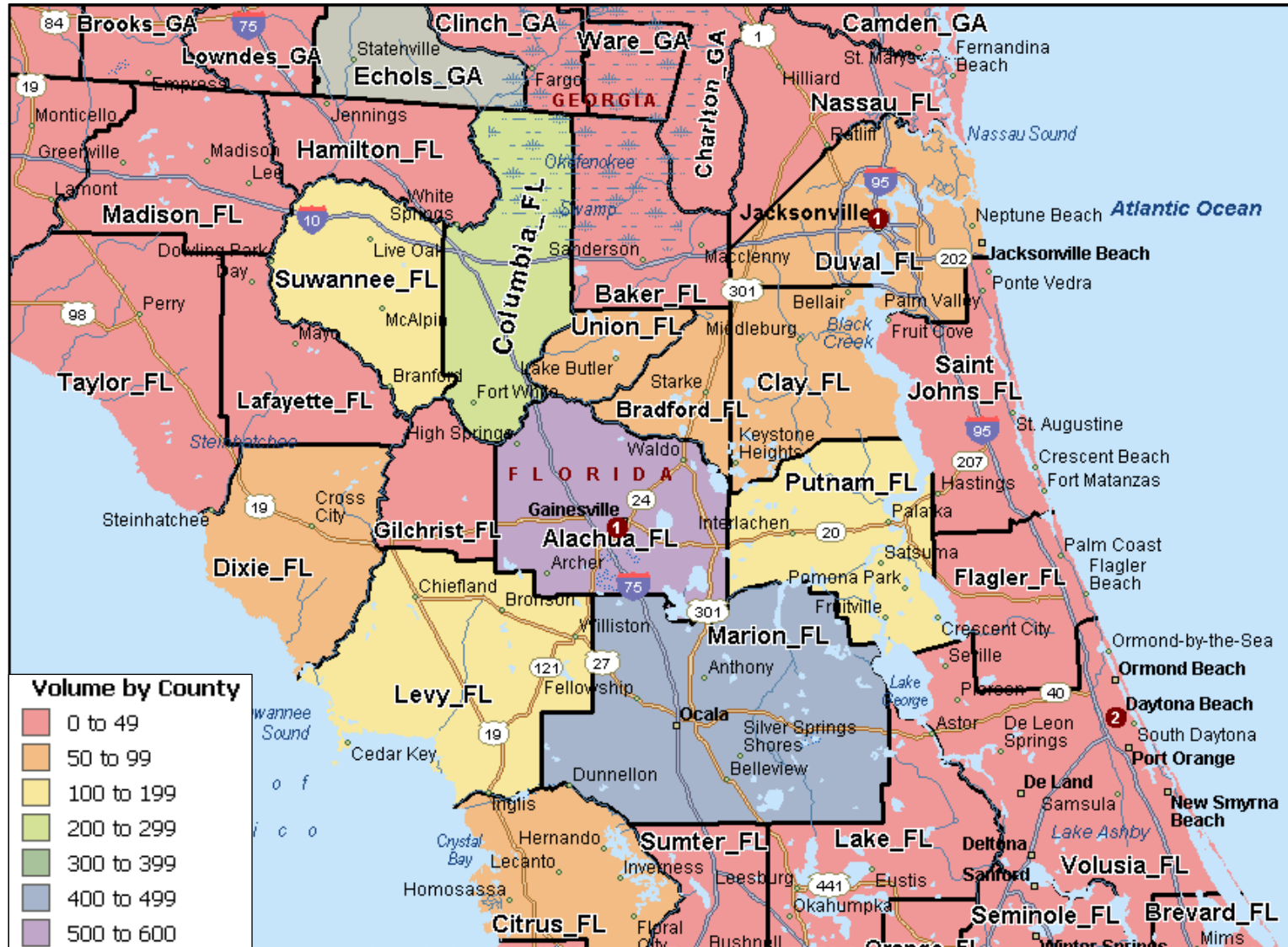
*FY08 Peds N= 382 (15.1%)*

*FY07 Peds N= 365 (14.8%)*

*FY06 Peds N= 308 (14.6%)*



# Trauma Cases by Injury Location Discharged from SUF in FY09

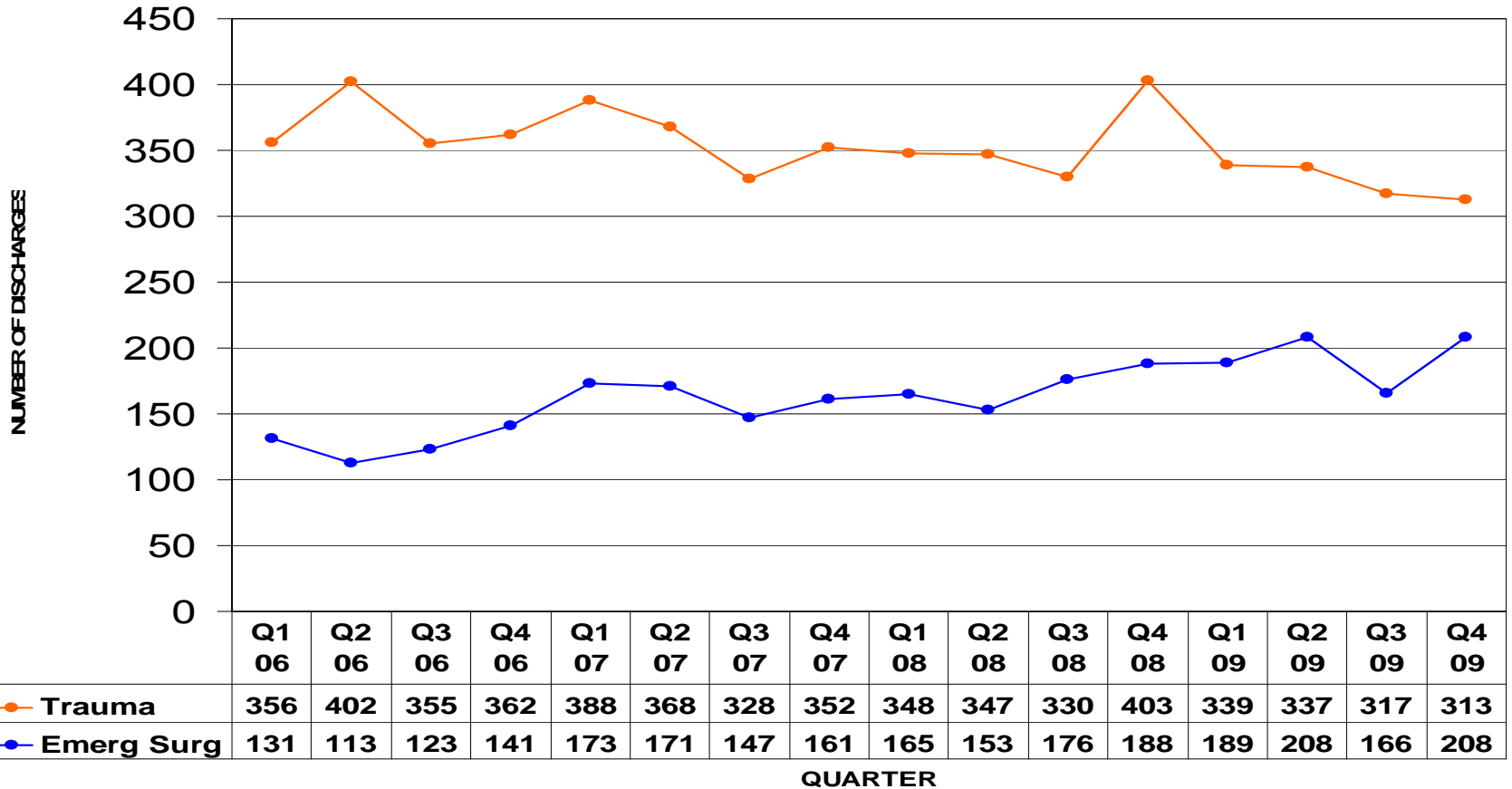


Source: FY09 Injury by Location file, SUF Trauma Registry.



# Patients Admitted or Discharged by TRE Service

## Number of Discharges by Quarter



**2006 N= 1983**  
**Trauma= 1475 (74.4%)**  
**Emerg Surg= 508 (25.6%)**  
**(Source: hospital data)**

**2007 N= 2088**  
**Trauma= 1436 (68.8%)**  
**Emerg Surg= 652 (31.2%)**  
**(Source: hospital data)**

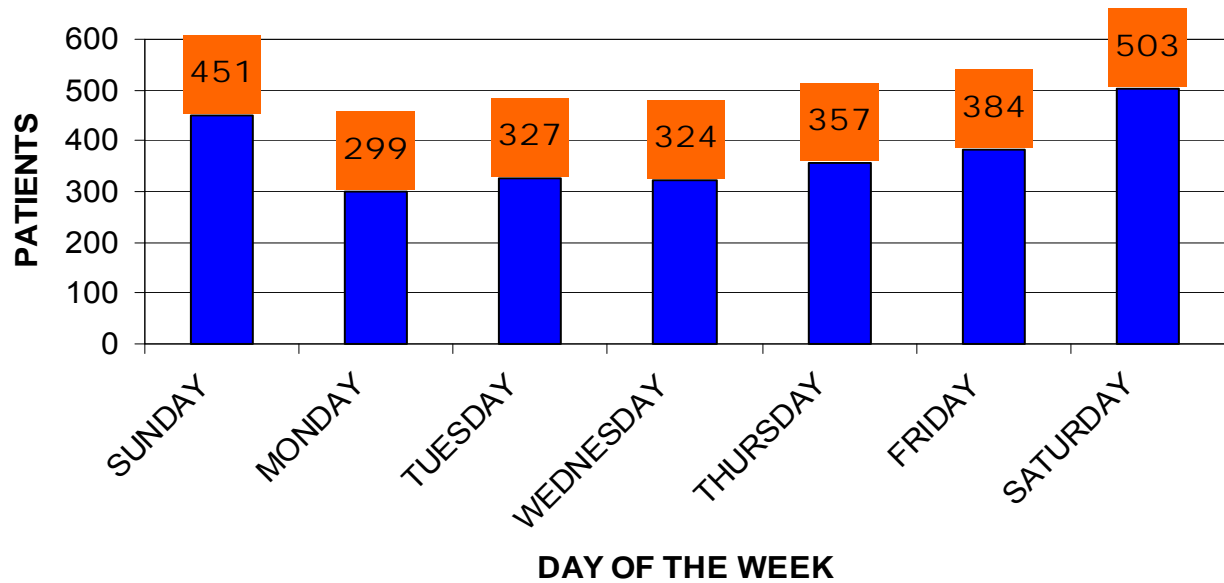
**2008 N= 2110**  
**Trauma= 1428 (67.7%)**  
**Emerg Surg= 682 (32.3%)**  
**(Source: hospital data)**

**2009 N= 2077**  
**Trauma= 1307 (62.9%)**  
**Emerg Surg= 770(37.1%)**  
**(Source: hospital data)**

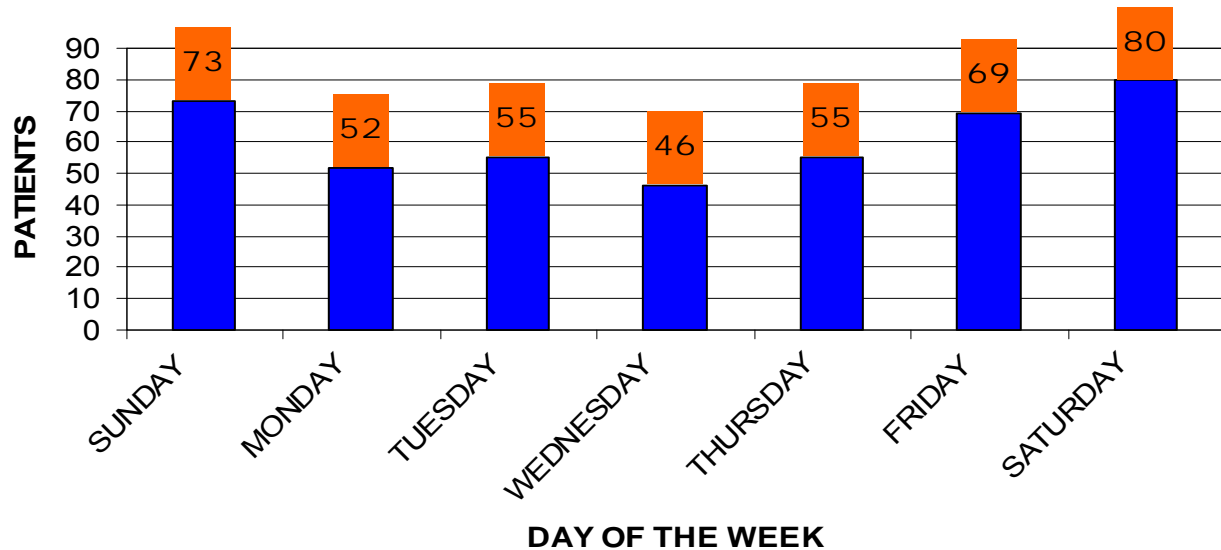


# ADMISSION BY DAY OF WEEK FY2009

## ALL POPULATION



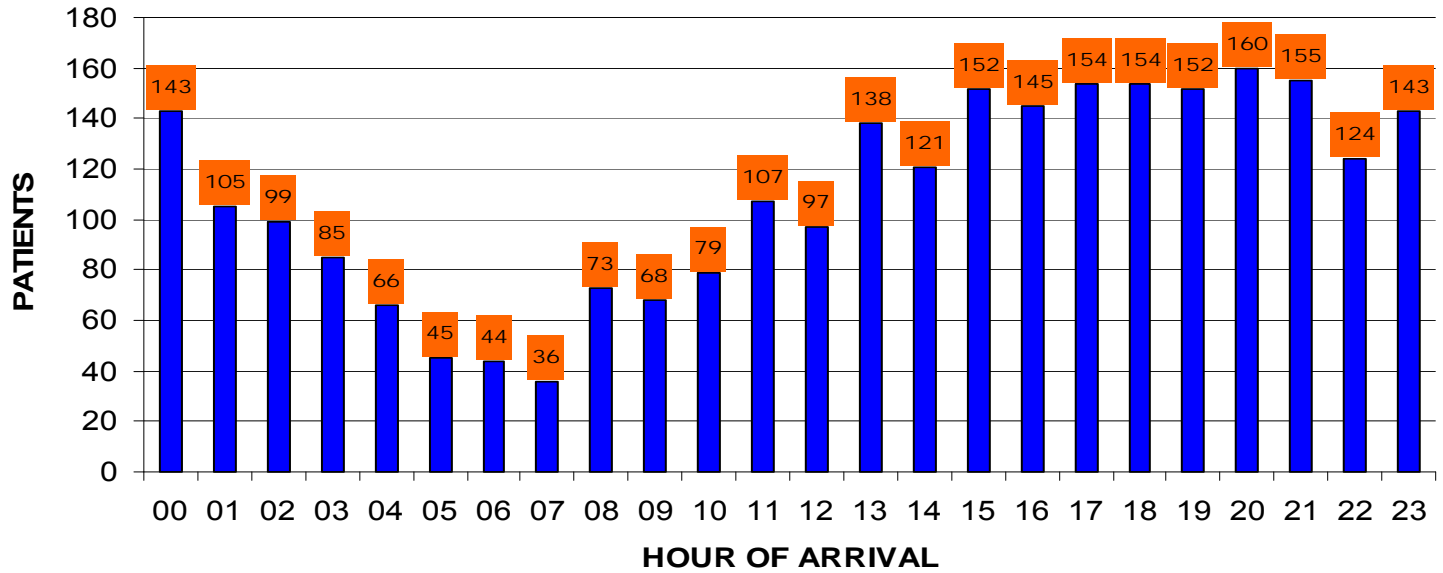
## PEDIATRIC POPULATION



# ADMISSION BY TIME OF DAY FY2009

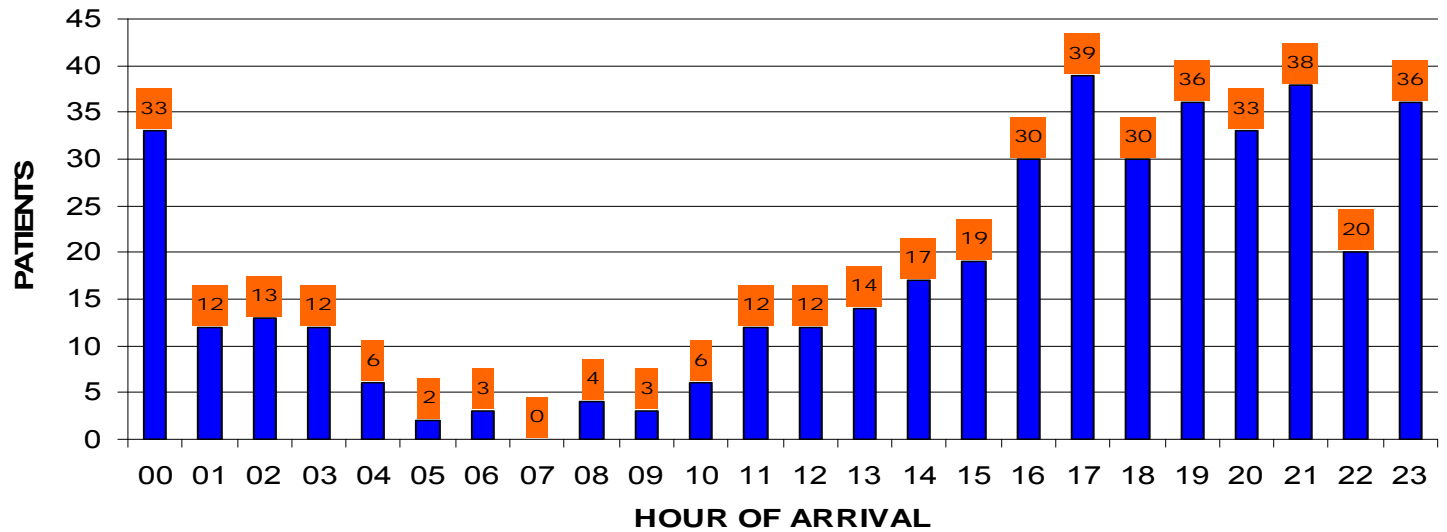
## ALL POPULATION

*Peak time is 20:00*

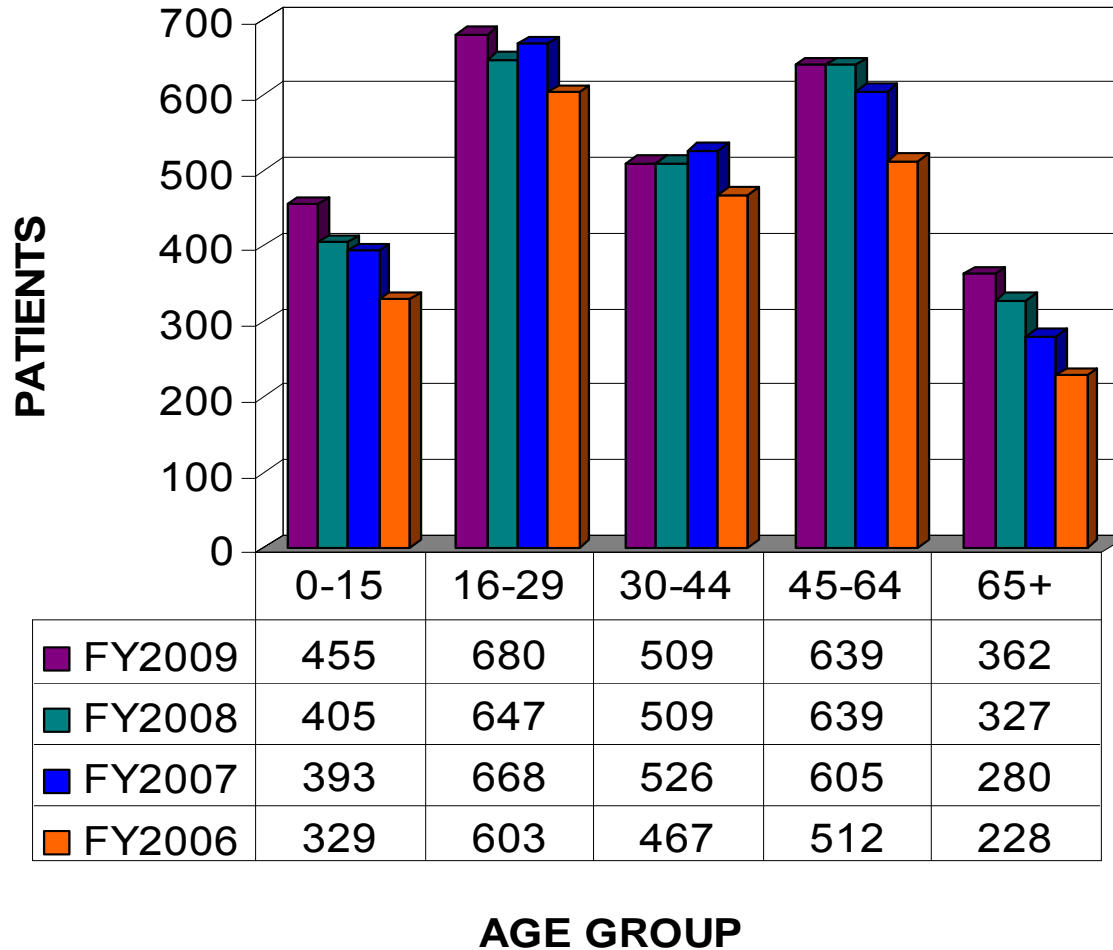


## PEDIATRIC POPULATION

*Peak time is 17:00*



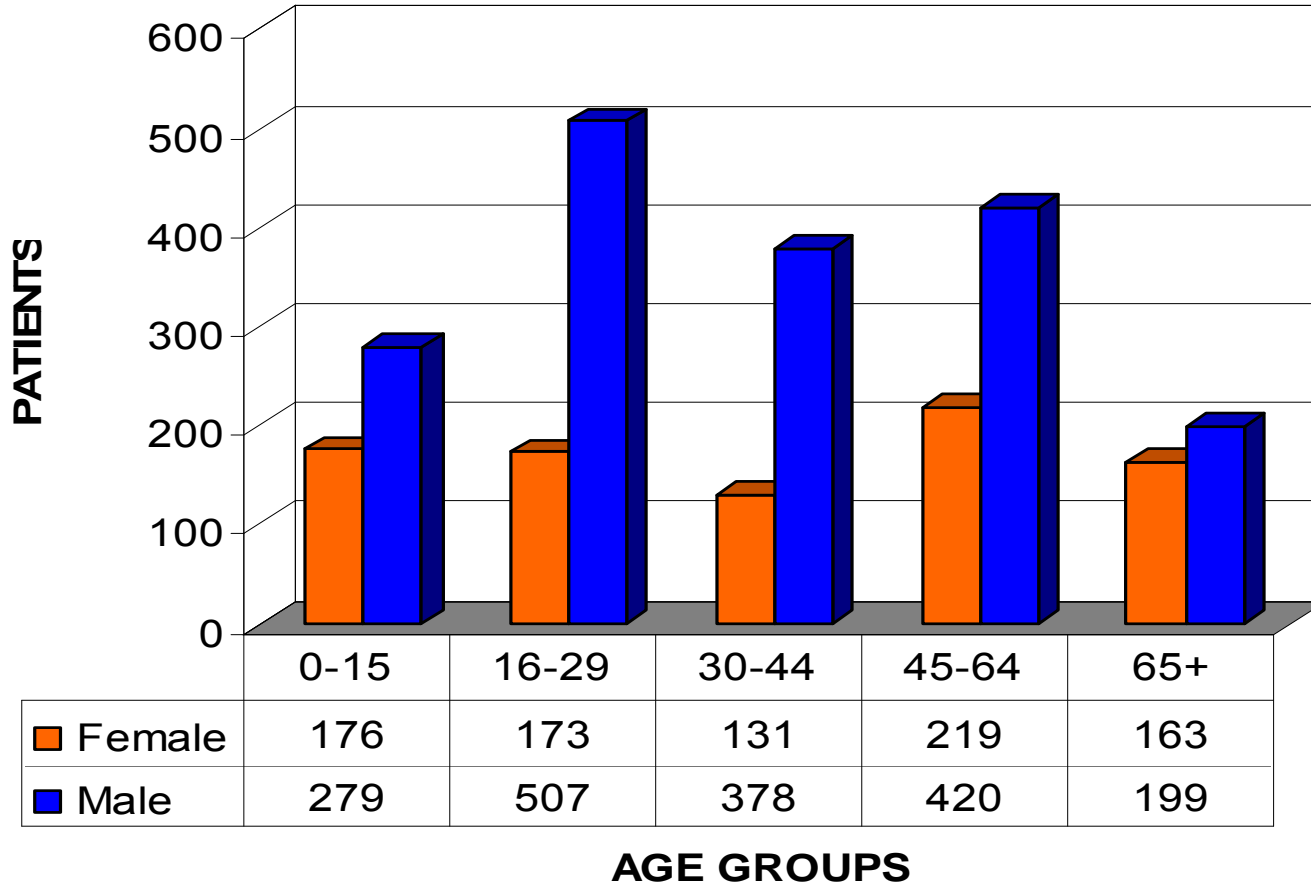
## AGE DISTRIBUTION FY2006 - FY2009



*The highest incidence of injury is in the 16-29 yr old age group, N= 2,598 (26.6%); peaks again in 45-64 yr old age group, N= 2,395 (24.5%) .*



# AGE DISTRIBUTION BY GENDER FY 2009

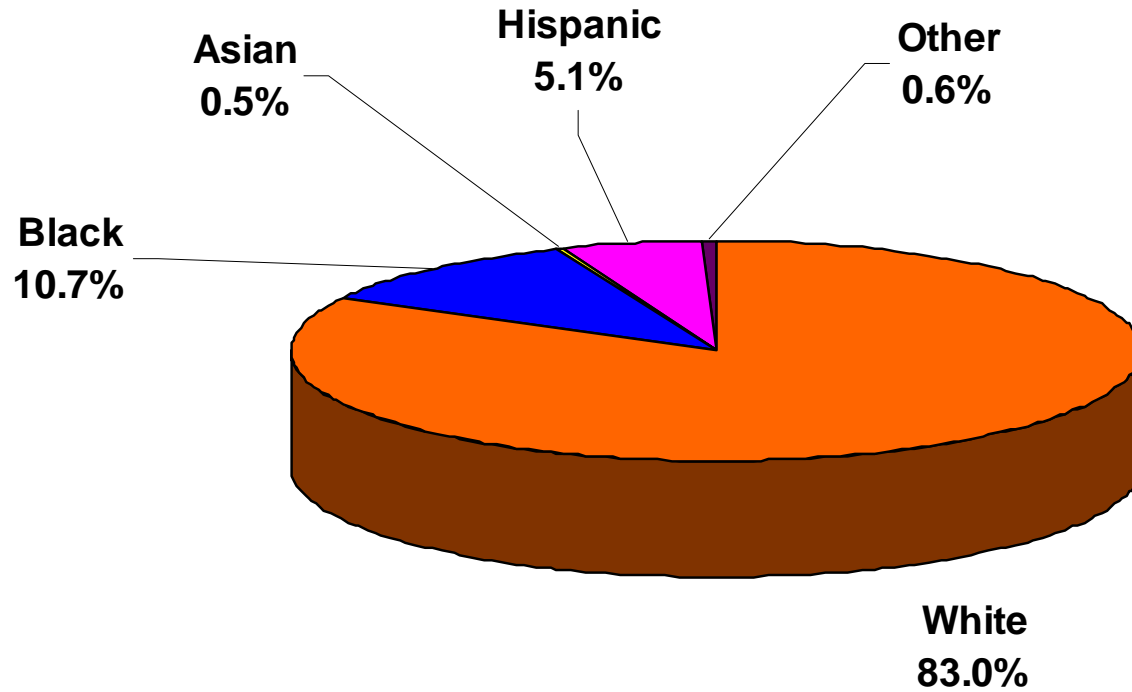


*The highest incidence of injury is male, 16-29 yr old age category, N= 507;*

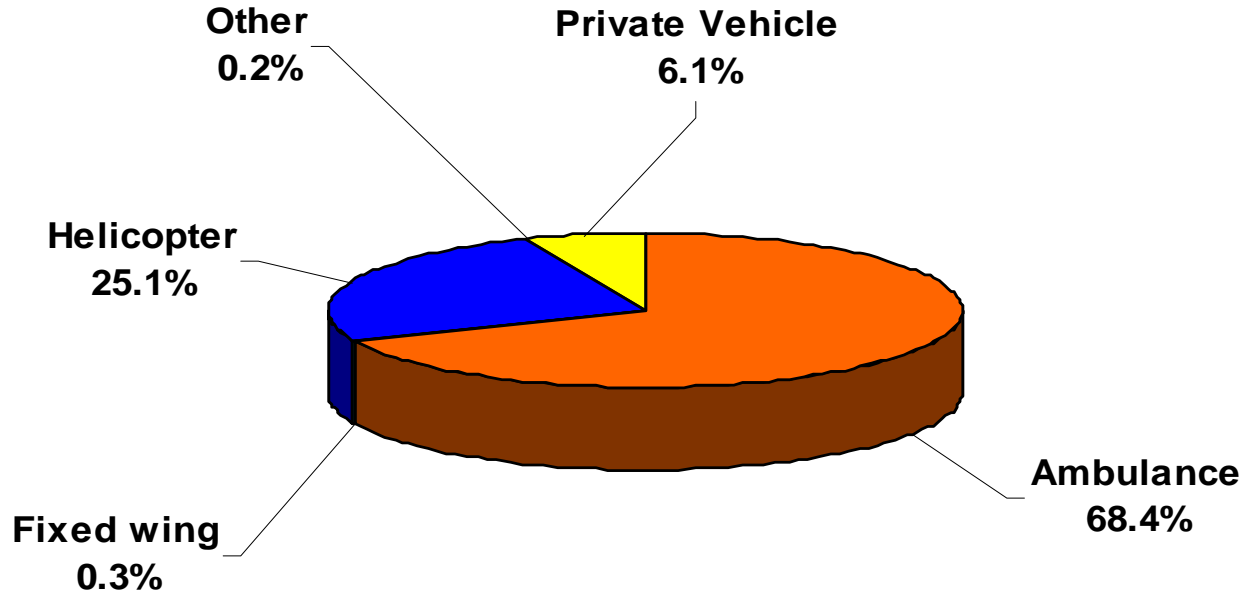
*Overall males comprise 67% of all trauma cases.*



# RACE DISTRIBUTION FY 2009



# MODE OF TRANSPORT FY 2009

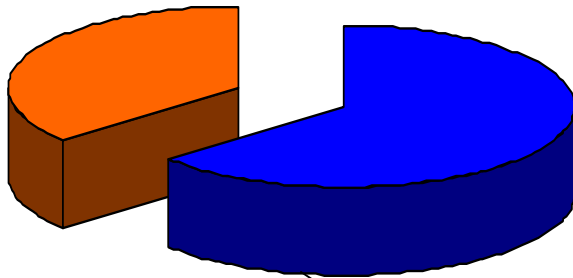


*25.1% of trauma patients arrive to the shock trauma center by helicopter.*



# SCENE TRANSPORTS FY 2009

Hospital  
Transfer  
36%

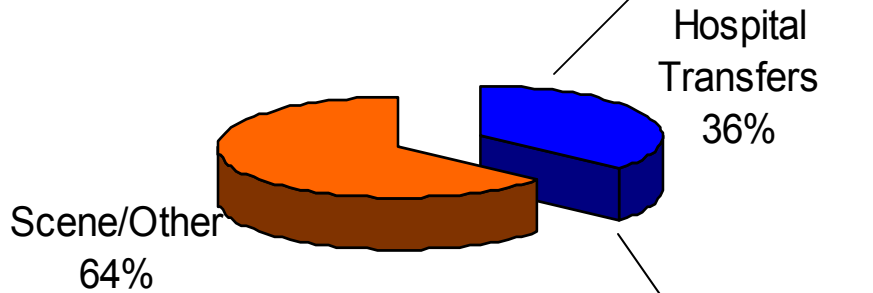


Scene/Other  
64%

AGENCY	TRANSPORTED FROM SCENE	PERCENT	SURVIVED
ALACHUA CO	402	26%	96%
SHANDSCAIR	276	18%	88%
MARION CO	219	14%	96%
TRAUMAONE LC	136	9%	96%
AEROMED 3	101	7%	87%
LEVY COUNTY	76	5%	95%
PUTNAM COUNTY	67	4%	97%
BRADFORD COUNTY	52	3%	100%
BAYFLIGHT	37	2%	92%
UNION COUNTY	27	2%	100%
AIRMEDIC	24	2%	79%
CLAY COUNTY EMS	22	1%	100%
DIXIE COUNTY	21	1%	100%
GILCHRIST CO.	16	1%	100%
TRAUMAONE JAX	15	1%	87%
COLUMBIA COUNTY	12	1%	100%
OTHER	29	2%	97%

*Over 2/3 of all trauma patients arrive the trauma center from the scene.*

# INTERFACILITY TRANSFER POPULATION FY 2009



TRANSFER HOSPITAL	NUMBER	PERCENT	SURVIVED
SHANDS @ LAKE SHOR	99	10%	98%
SHANDS @ LIVE OAK	82	9%	98%
MUNROE RMC	81	8%	95%
PUTNAM MED CTR	73	8%	100%
SHANDS @ JAX	70	7%	97%
NFRMC	53	6%	98%
LAKE CITY MEDIC	51	5%	96%
SHANDS @ AGH	50	5%	98%
SHANDS @ STARKE	45	5%	98%
TALLAHASSEE	41	4%	93%
SGRMC	36	4%	97%
VILLAGES	23	2%	91%
NATURE COAST	19	2%	100%
OCALA REGIONAL	18	2%	100%
SEVEN RIVERS	18	2%	94%
FLAGLER HOSPITA	12	1%	100%
LAKE BUTLER	12	1%	100%
WEST MARION COM	12	1%	100%
CAPITAL	11	1%	100%
CITRUS MEMORIAL	11	1%	91%
OTHER (42 Hospitals)	138	14%	96%
<b>Total</b>	<b>955</b>	<b>100%</b>	<b>97%</b>

*36% of the interfacility transfer patients are from Shands HealthCare system hospitals.*



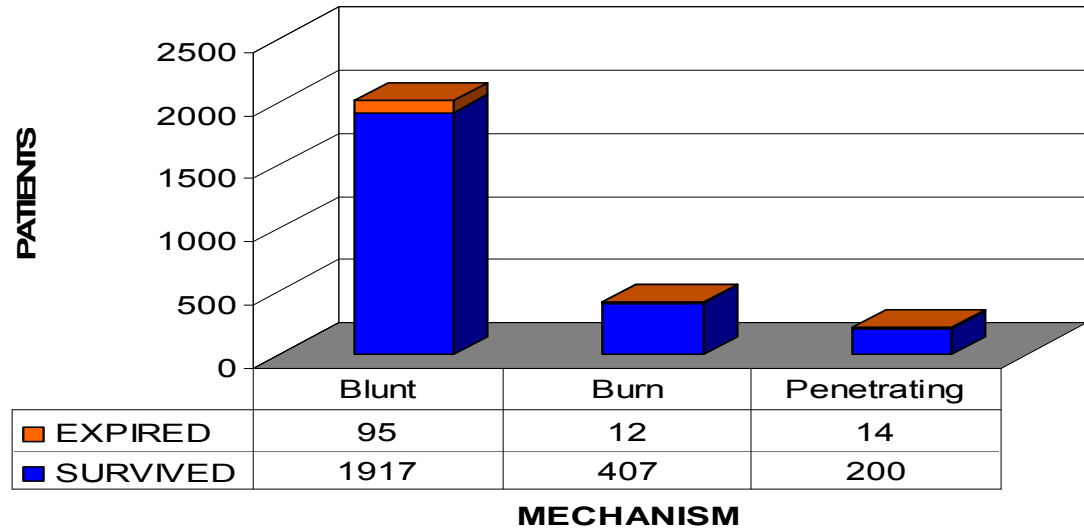
# TYPE OF INJURY BY MORTALITY FY2009

## ALL POPULATION

Blunt= 79%  
Burn= 12%  
Penetrating= 9%

*Mortality rate highest in penetrating trauma 6.2%*

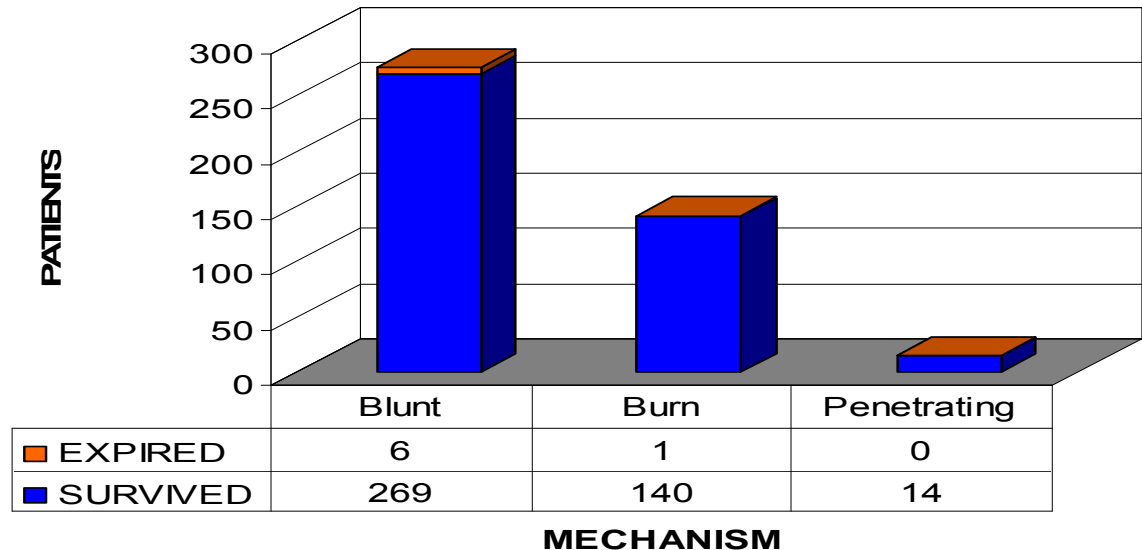
*Overall mortality rate= 4.8%*



## PEDIATRIC POPULATION

Blunt= 65%  
Burn= 32.8%  
Penetrating= 3.3%

*Mortality rate in pediatric trauma patients= 1.6%*



# MECHANISM OF INJURY FY2009

**ALL  
POPULATION**

CAUSE OF INJURY	NUMBER	PERCENT	SURVIVED
MVC	707	27%	95%
FALL	535	20%	95%
BURN	405	15%	97%
MCC	157	6%	95%
ASSAULT	90	3%	99%
ATV	81	3%	98%
GSW	78	3%	86%
HORSE	67	3%	99%
PEDESTRIAN	64	2%	88%
STAB	63	2%	97%
STRUCK	43	2%	98%
BICYCLE	41	2%	100%
PENETRATING	35	1%	97%
SPORTS	31	1%	97%
MVC/BICYCLE	30	1%	87%
MOPED/SCOOTER	23	1%	91%
MOTOCROSS/MCC	21	1%	100%
MVC/NON TRAFFIC	18	1%	100%
DIRTBIKE	15	1%	100%
MACHINE	15	1%	100%
SELF INFLICTED	14	1%	93%
FALLING OBJECT	12	0%	100%
WATER INJURY	12	0%	100%
ANIMAL INJURY	11	0%	100%
BOAT	10	0%	100%
OTHER	67	3%	93%



## MECHANISM OF INJURY FY2009

**PEDIATRIC  
POPULATION**

CAUSE OF INJURY	NUMBER	PERCENT	SURVIVED
BURN	143	33%	99%
FALL	81	19%	99%
MVC	63	15%	100%
ATV	24	6%	100%
BICYCLE	13	3%	100%
HORSE	13	3%	100%
PEDESTRIAN	13	3%	100%
SPORTS	13	3%	92%
STRUCK	10	2%	90%
MOTOCROSS/MCC	6	1%	100%
MVC/BICYCLE	6	1%	67%
MVC/NON TRAFFIC	5	1%	100%
PENETRATING	5	1%	100%
ABUSE	4	1%	75%
GSW	4	1%	100%
OTHER	27	6%	100%



# ALL POPULATION DIPOSITION FROM TRAUMA RESUSCITATION ROOM FY2009

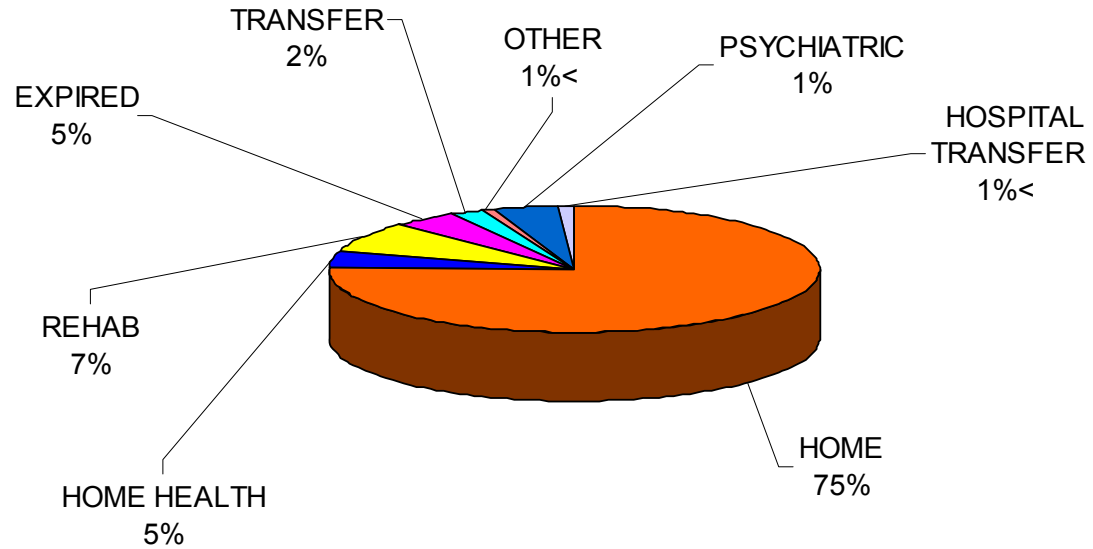
ED DISPOSITION	NUMBER	PERCENT	SURVIVED
TRAUMA UNIT	904	36%	100%
SICU	364	15%	86%
FLOOR	344	14%	99%
OR	260	10%	93%
PEDS FLOOR	241	10%	100%
BICU	203	8%	95%
PICU	71	3%	93%
ADTU	25	1%	100%
NICU	23	1%	87%
DEATH	22	1%	5%
TRAUMA IMC	21	1%	100%
T&R	18	1%	100%
94IMC	6	0%	100%
MICU	2	0%	50%
L&D	1	0%	100%

***36.8% of all trauma patients discharged from the trauma resuscitation area are either transferred to the OR or an ICU.***

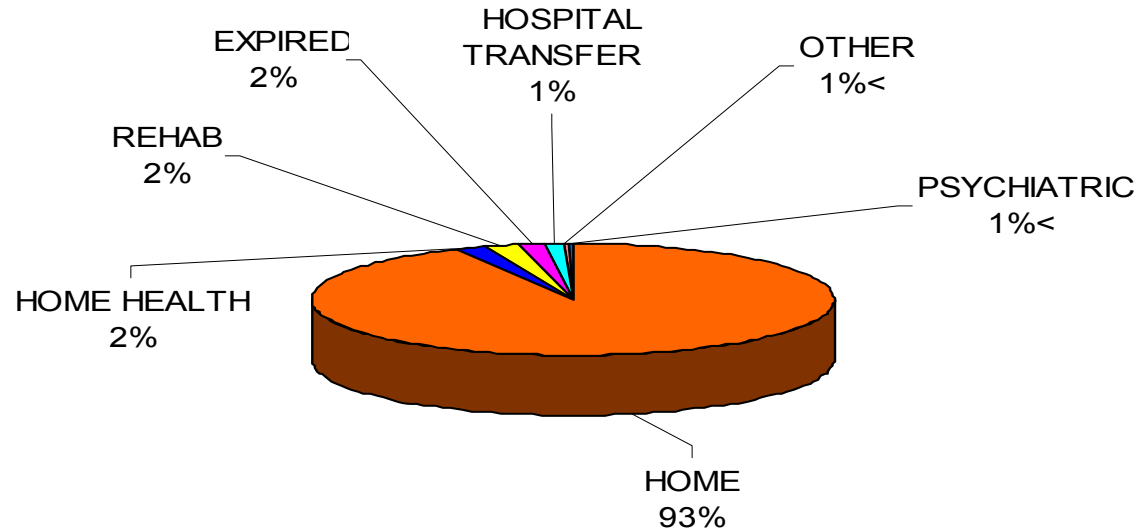


# HOSPITAL DISPOSITION FY2009

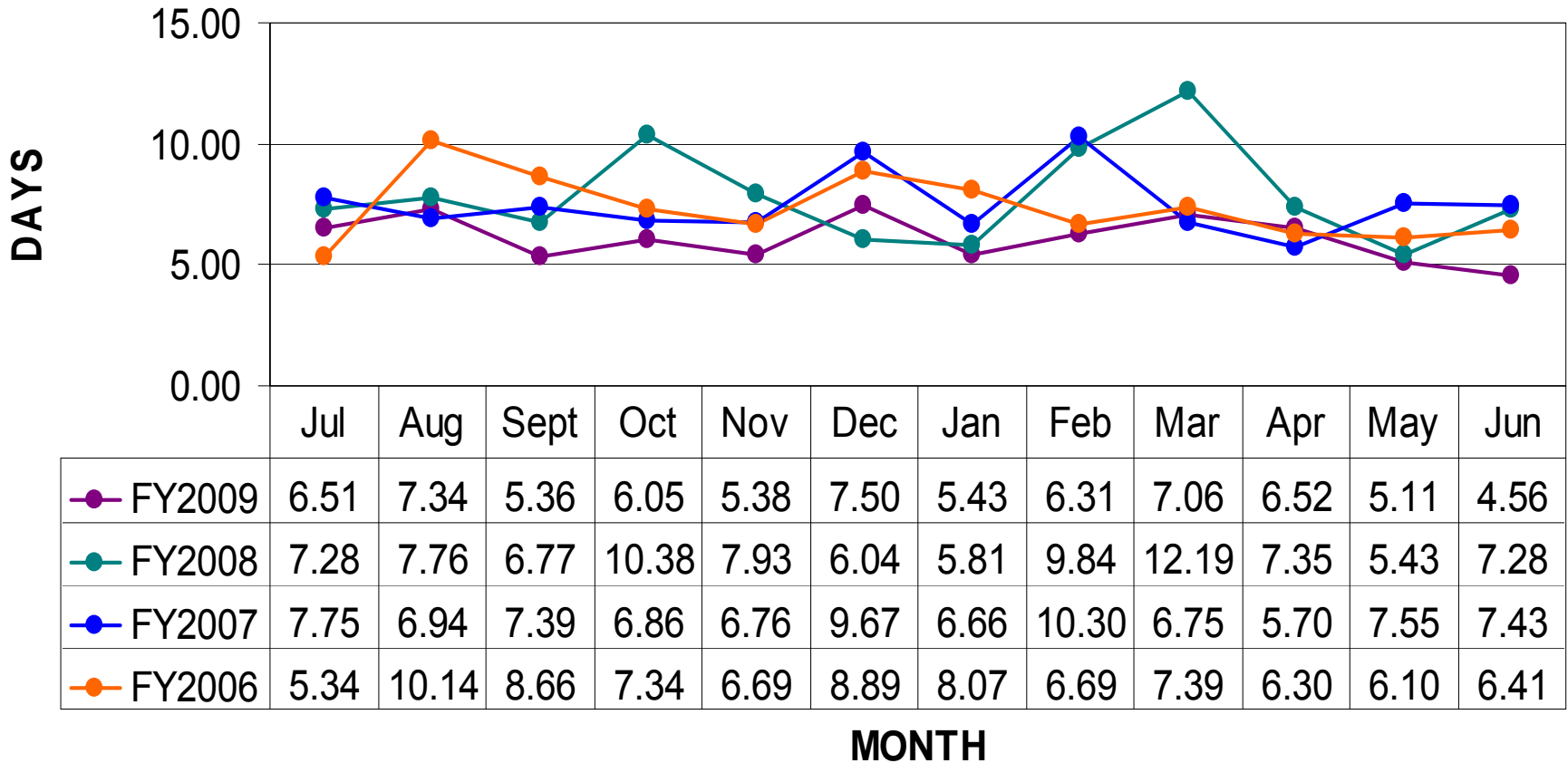
## ALL POPULATION



## PEDIATRIC POPULATION



# Outcome- Hospital Length of Stay



**Mean HLOS**

*FY09= 6.09 days*

*FY08= 7.84 days*

*FY07= 7.48 days*

*FY06= 7.33 days*

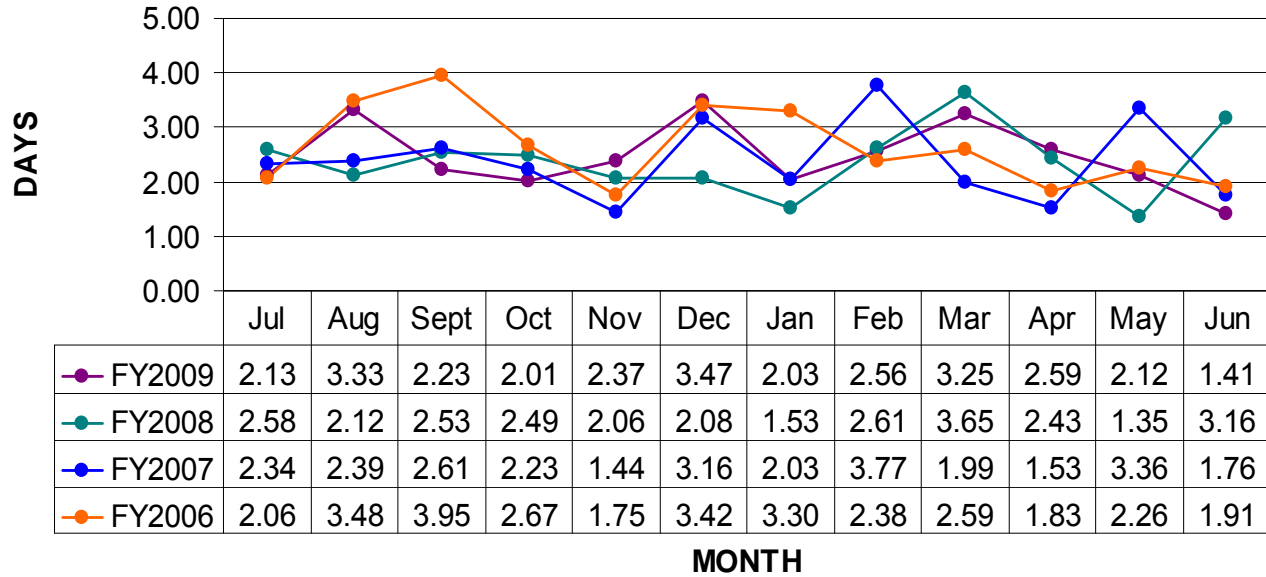


# Outcome- ICU LENGTH OF STAY

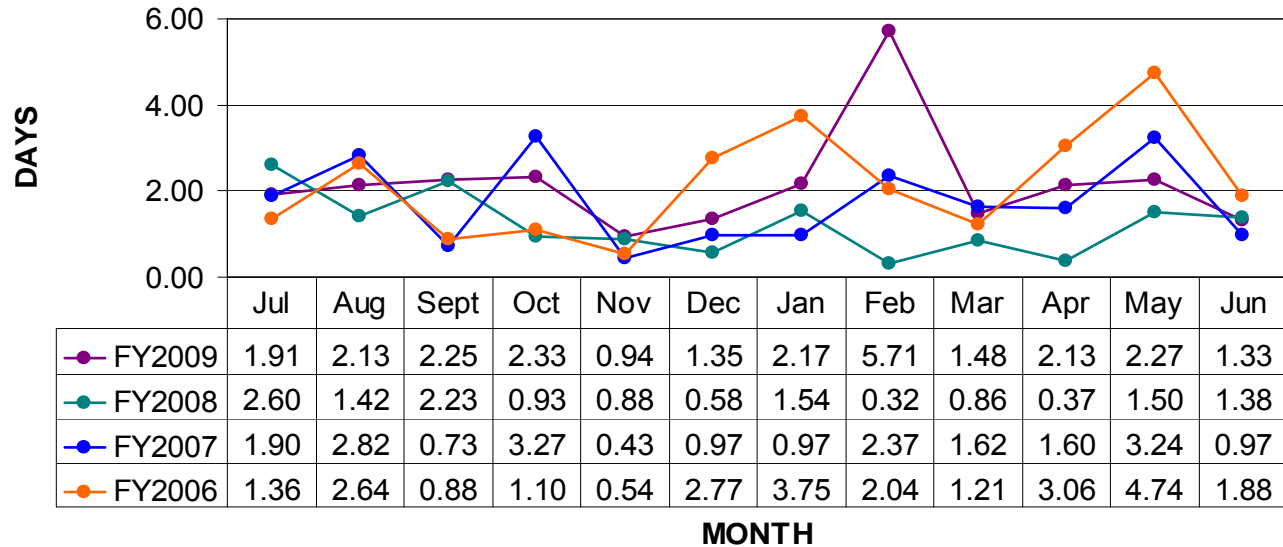
## ALL POPULATION

### Mean HLOS

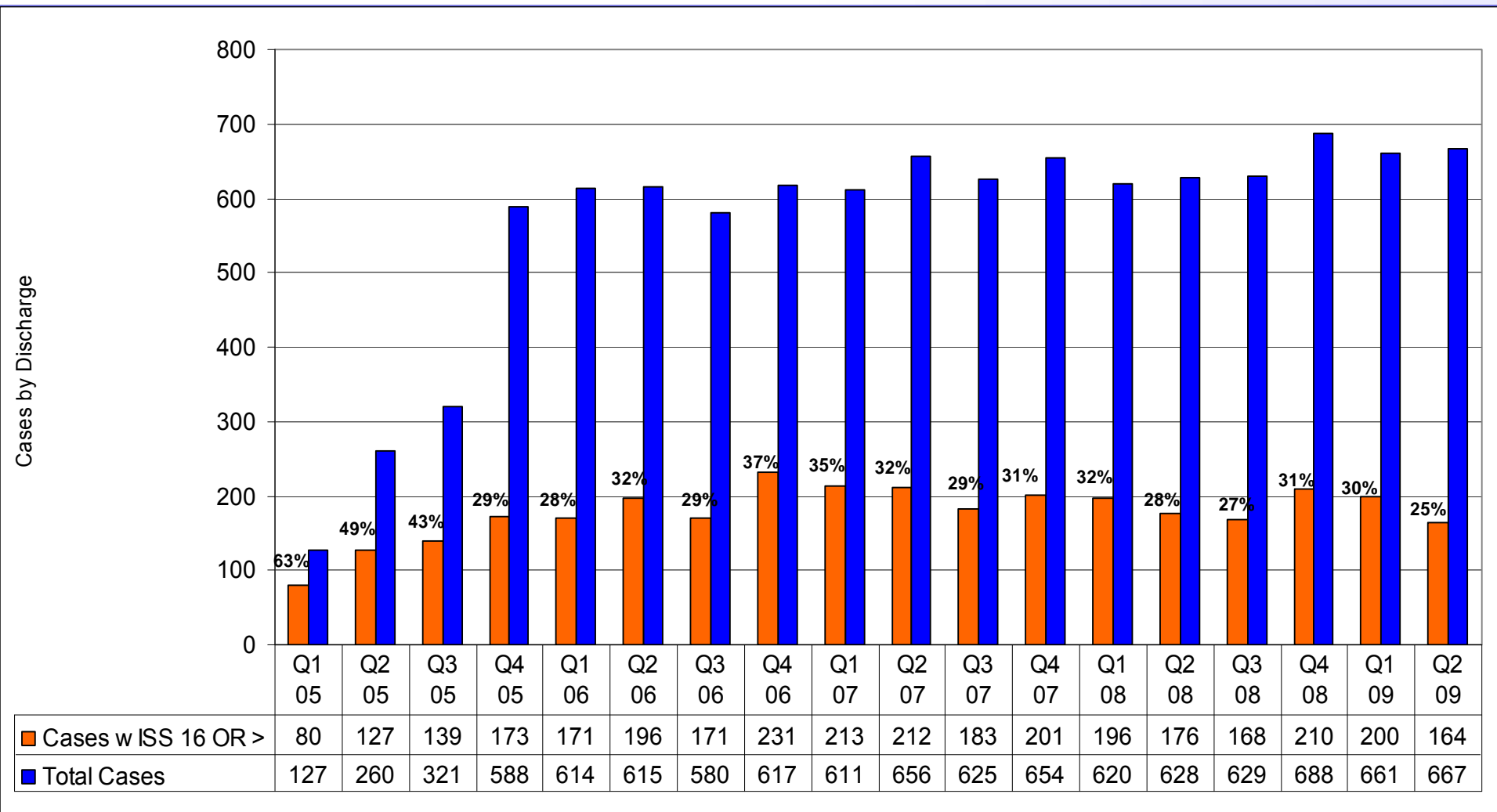
*FY09 = 2.46 days*  
*FY08 = 2.38 days*  
*FY07 = 2.38 days*  
*FY06 = 2.63 days*



## PEDIATRIC POPULATION



# Outcomes- Trauma Patients with ISS of 16 or higher

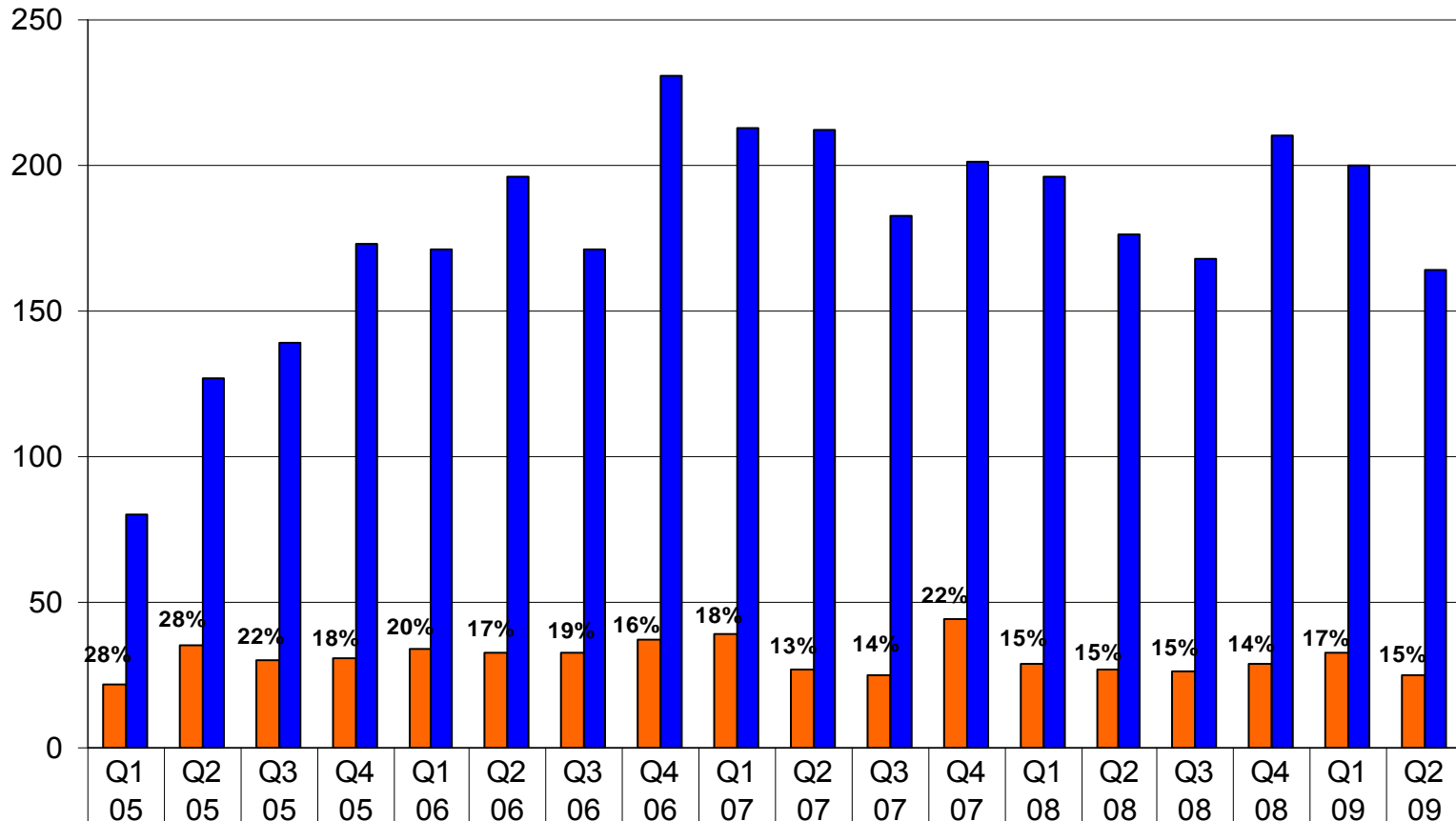


Note: 10/01/2005 Registry grows with addition of non-alert and transfer populations



# Outcomes- Mortality Among Trauma Patients with ISS of 16 or higher

Cases by Discharge



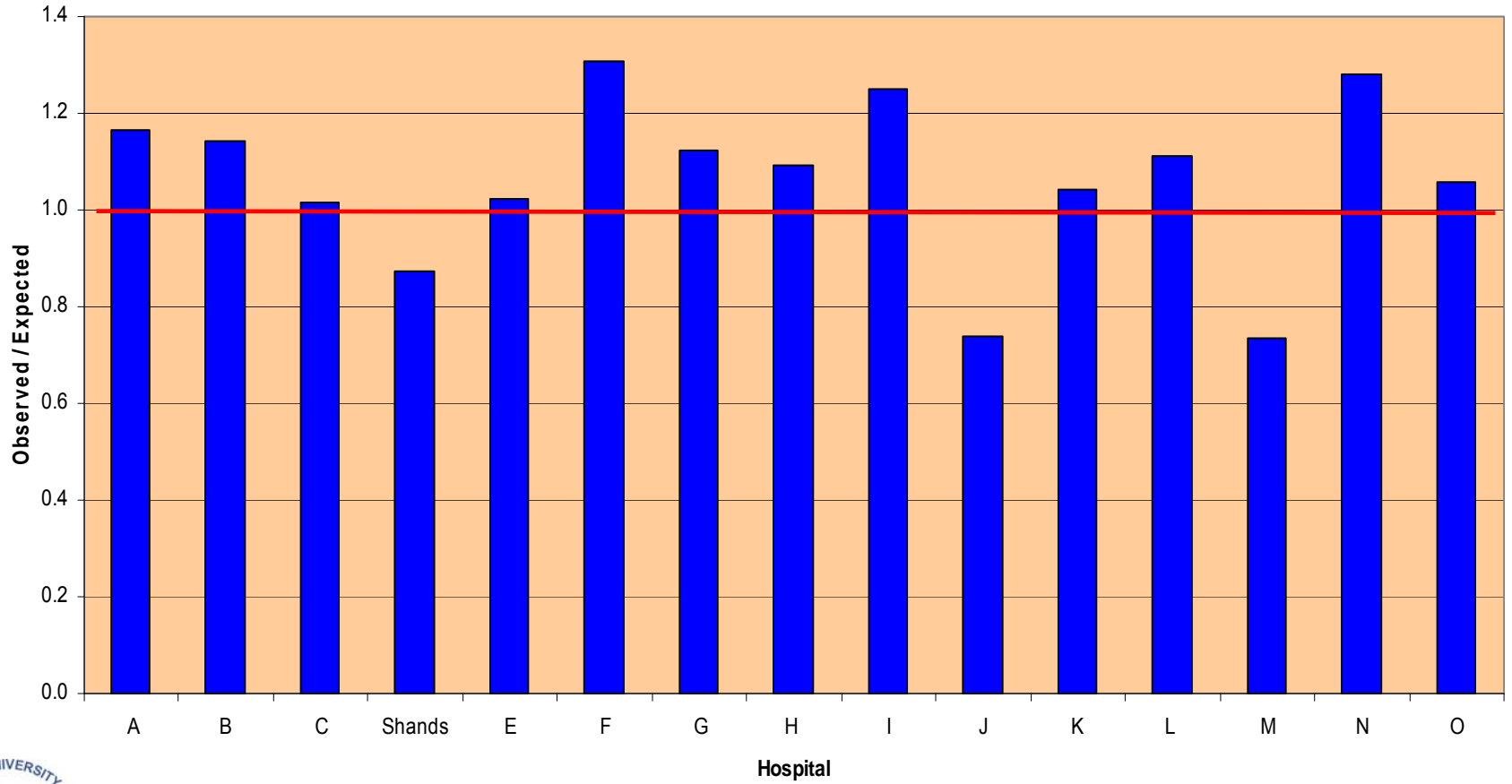
Deaths Among ISS 16 or >	22	35	30	31	34	33	33	37	39	27	25	44	29	27	26	29	33	25
Cases w ISS 16 or >	80	127	139	173	171	196	171	231	213	212	183	201	196	176	168	210	200	164



Note: 10/01/2005 Registry grows with addition of non-alert and transfer populations

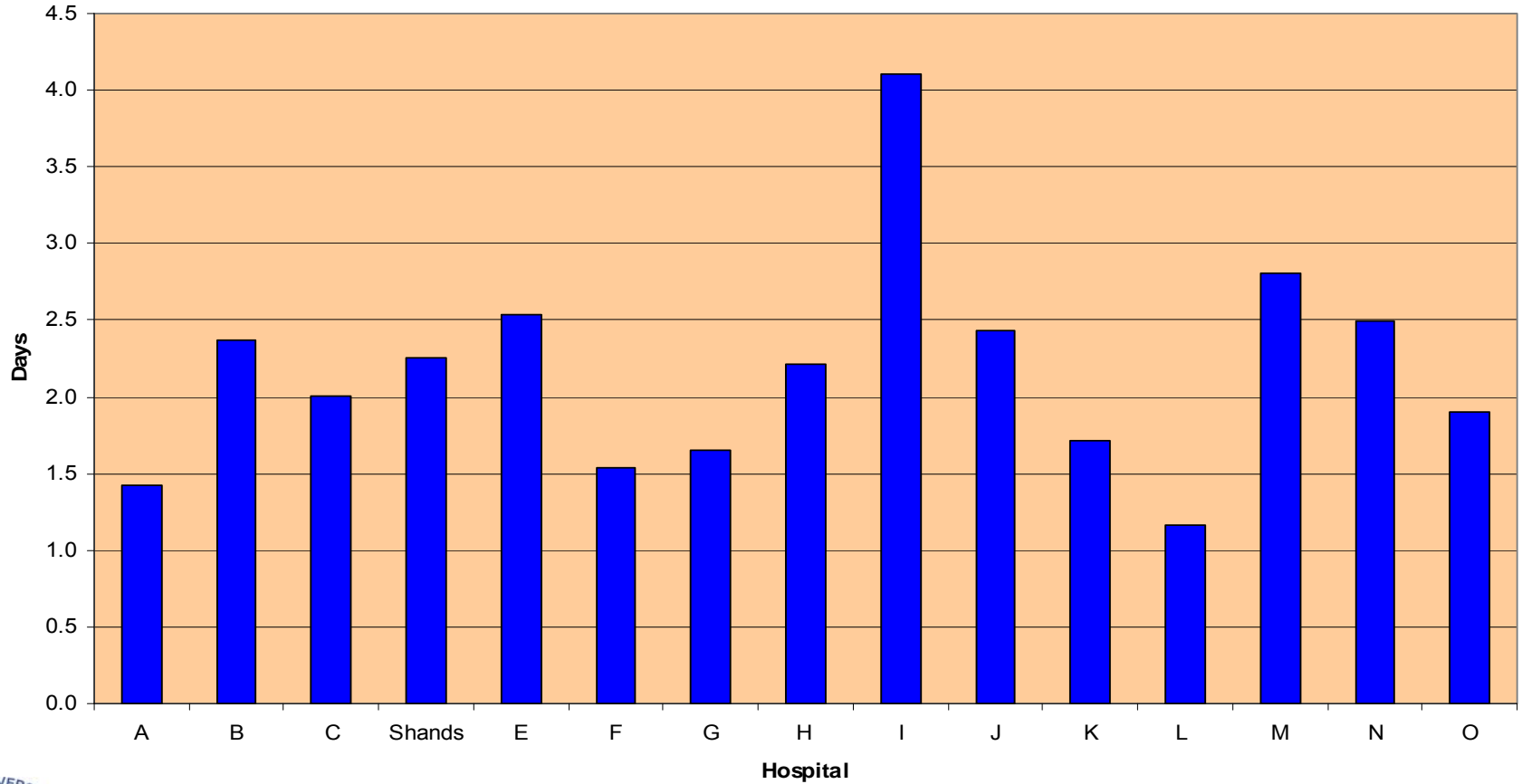
# UHC Data-- Hospital LOS Index

UHC Trauma  
(July 2008 - June 2009)  
Hospital Length of Stay (LOS) Index

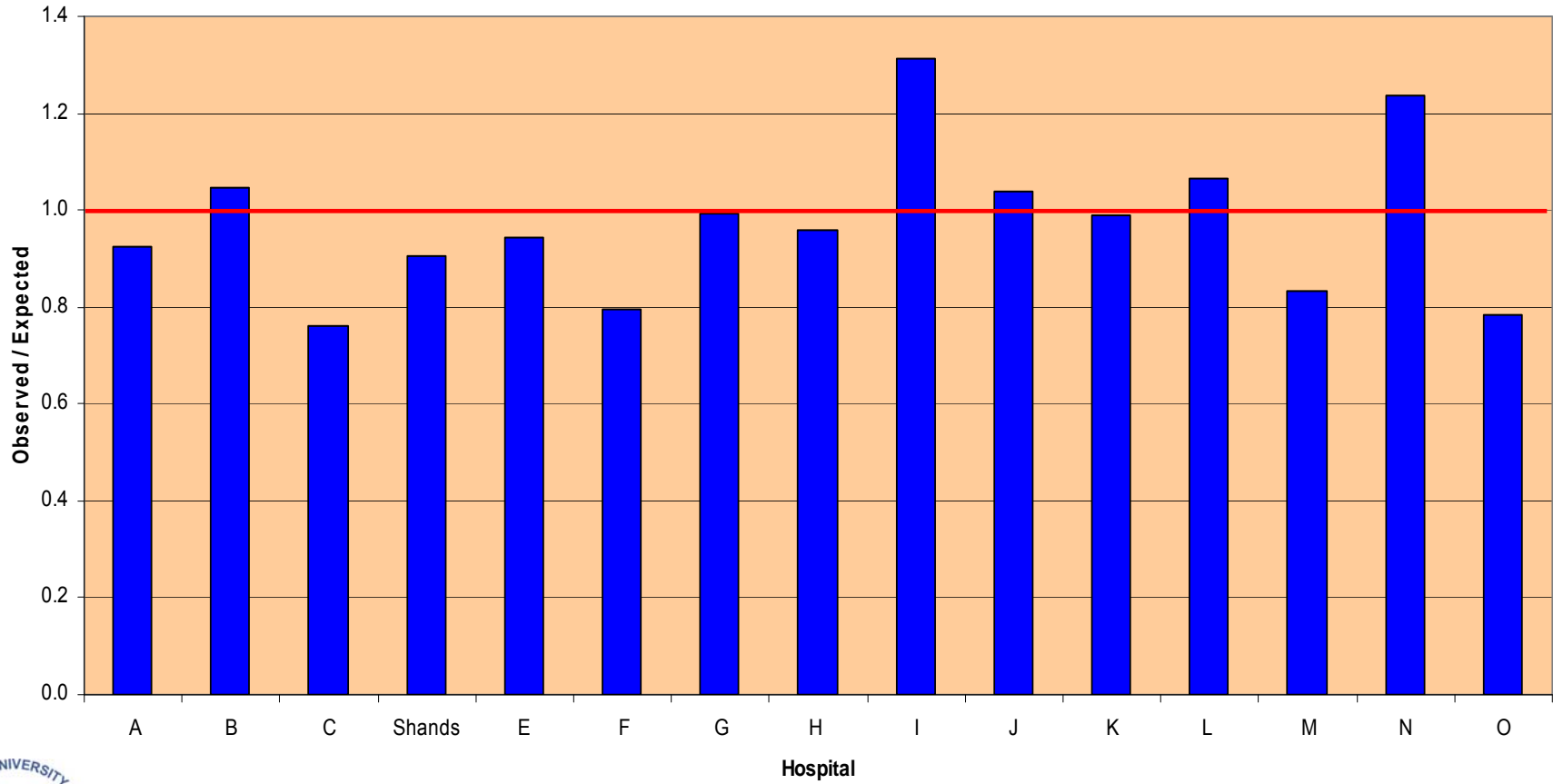


# UHC Data-- Mean ICU LOS

**UHC Trauma  
(July 2008 - June 2009)  
Hospital Mean ICU Length of Stay (LOS) - Shands Methodology**



UHC Trauma  
(July 2008 - June 2009)  
Hospital Mortality Index



# UHC Trauma Cases with Complications

HCO	Trauma Cases	Comp Among Trauma Cases	% of Trauma Cases with Any Complication	Decubitus	% of Trauma Cases with Decub	Ven Thromb/PE	% of Trauma Cases with Ven Thromb/PE	Wound Infection Among Trauma Cases	% of Trauma Cases with Wound Infection
A	2,518	178	7.07	12	0.48	51	2.03	17	0.68
B	1,140	106	9.30	4	0.35	18	1.58	3	0.26
C	2,114	184	8.70	16	0.76	42	1.99	4	0.19
Shands UF	3,165	329	10.39	20	0.63	42	1.33	29	0.92
E	1,662	199	11.97	15	0.90	20	1.20	24	1.44
F	1,798	180	10.01	22	1.22	39	2.17	14	0.78
G	2,116	269	12.71	32	1.51	37	1.75	18	0.85
H	2,713	356	13.12	32	1.18	48	1.77	10	0.37
I	2,254	226	10.03	14	0.62	61	2.71	12	0.53
J	2,519	341	13.54	13	0.52	124	4.92	27	1.07
K	1,971	184	9.34	11	0.56	51	2.59	11	0.56
L	1,585	144	9.09	11	0.69	40	2.52	7	0.44
M	4,504	582	12.92	59	1.31	56	1.24	28	0.62
N	1,629	148	9.09	13	0.80	62	3.81	6	0.37
O	5,695	764	13.42	34	0.60	81	1.42	33	0.58



# Organ Donor Outcomes-- SUF vs Trauma Statistics

	2006 FY	2007 FY	2008 FY	2009 FY	2010 FY*
Trauma Donors	12	20	14	20	6
<b>Organs Transplanted from TRE Donors</b>	42	60	42	65	25
<b>Average Organs Transplanted per donor</b>	3.50	3.00	3.00	3.25	4.17
<b>Trauma Conversion Rate</b>	80%	87%	67%	91%	86%
SUF Donors	31	38	29	28	14
<b>Organs Transplanted from SUF Donors</b>	100	94	71	107	53
<b>Average Organs Transplanted per donor</b>	3.23	2.47	2.45	3.82	3.79
<b>SUF Conversion Rate</b>	70%	78%	74%	80%	88%

\*2010 FY: YTD July 09 – Dec 09

**Goal Organs Tx Per Donor= 3.75+**

**Goal Conversion Rate = 75%+**

