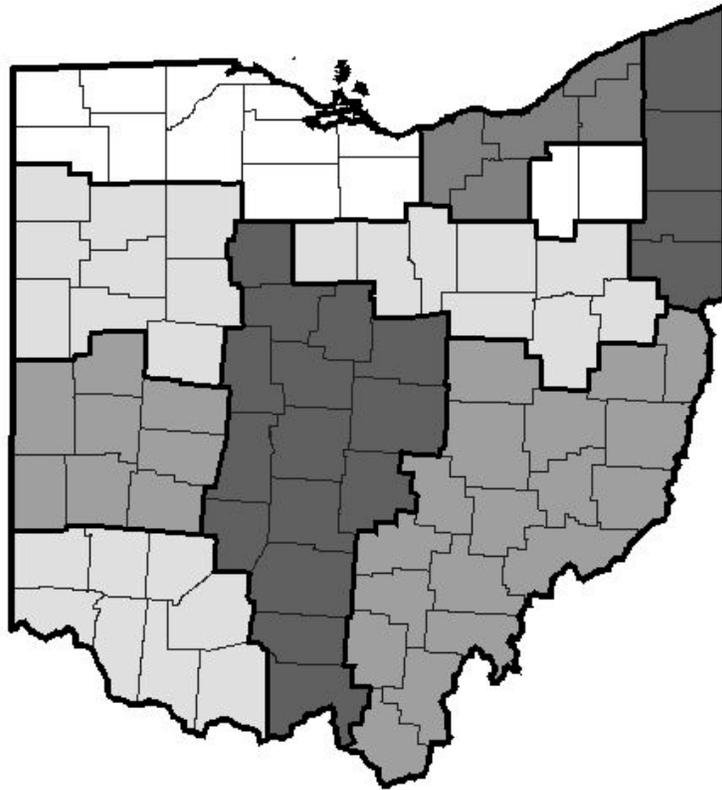


# **Special Studies: Trauma Care in Ohio**



***Report Topic #1: The Roles of Hospitals That Are Not  
Trauma Centers in the State of Ohio Trauma System***

**Prepared by:**

**The Hospital Council of Northwest Ohio**

**Great Lakes Marketing**

**Northwest Ohio Regional Trauma Registry**

**June 2003**

## Introduction

In fall of 2001, the Hospital Council of Northwest Ohio (HCNO), in conjunction with Great Lakes Marketing (GLM) and the Northwest Ohio Regional Trauma Registry (NORTR), was awarded a contract with the Ohio Department of Public Safety (ODPS) to study the role of non-trauma center hospitals in the state trauma system. The following report summarizes the research and provides suggestions for future study.

## Study Objectives

The goals of this project were as follows:

1. Profile existing Ohio non-trauma center resources for acute emergency care, laboratory, blood bank, in-patient care, diagnostic capabilities, surgical, intensive care, and rehabilitation.
2. Profile existing geographical relationships between non-trauma center hospitals and existing trauma centers.
3. Measure the impact of House Bill 138 destination guidelines and state triage protocols on non-trauma hospitals.
4. Determine level of collaboration between current non-trauma center hospitals and trauma center hospitals on issues regarding patient care and follow-up.

## Deliverables

The following lists each deliverable and the project goal it satisfies:

- **Excel database containing self-reported information.** GLM collected statistical information from 100% of Ohio hospitals by telephone, fax, and email. This information has been summarized in a hospital database, which lists information by region. These data can also serve as the pre-test information and can be compared with data collected after House Bill 138 has been in effect for at least one year. This deliverable satisfies Goal 1: *Profile of Existing Resources* and helps to satisfy Goal 4: *Determine Level of Collaboration*. The database has been provided to ODPS in electronic format.
- **State and Regional Fact Sheets.** The information from the database was used to create fact sheets for the state and each of the regions. These fact sheets are single-page summaries of key statistics, and they also include a map of the area hospitals (using hospital data provided by ODPS) to aid in regional planning efforts. This deliverable helps to satisfy both Goal 1: *Profile of Existing Resources* and Goal 2: *Profile of Geographical Relationships*. Copies are provided in Attachment One.

- **State Maps.** Information from the database was also used to create a series of state maps that allow for comparison between regions. The maps show all of the regions in the state and compare them on the key statistics. This deliverable helps to satisfy Goal 2: *Profile of Geographic Relationships*. Copies are provided in Attachment Two.
- **Perceptual Data.** In order to measure the impact of House Bill 138, GLM collected perceptual information from the hospitals in the absence of relevant statistics, since the trauma system has been in operation for less than a year. Information was provided by over 90% of Ohio hospitals. This deliverable satisfies Goal 3: *Impact of House Bill 138* and helps to satisfy Goal 4: *Determine Level of Collaboration*. A full analysis is provided in Attachment Three.

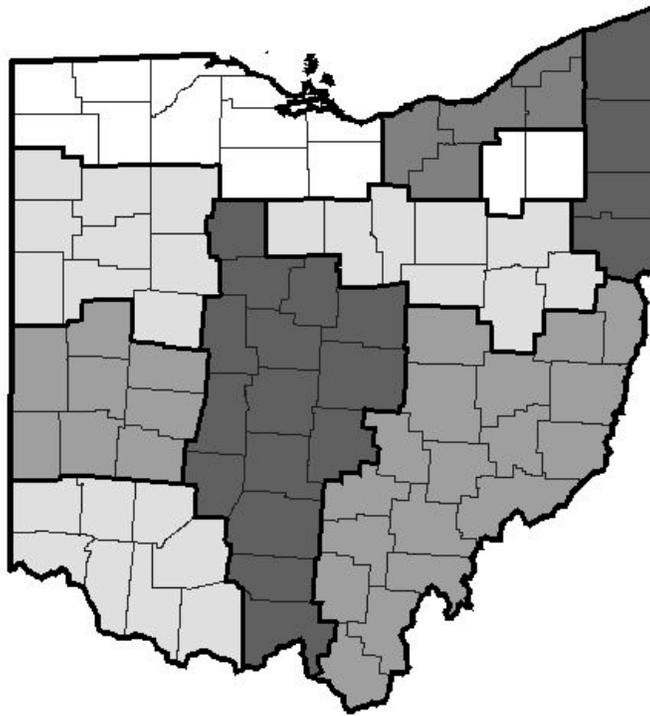
## Future Steps

This research provides a starting point for further evaluation of the state trauma system and the effects of House Bill 138. The following are suggestions for future research studies:

- **Post-Test Research.** Given that House Bill 138 has only been in operation since November of 2002, it was not possible to collect statistical data from the hospitals to determine what effects the trauma system changes have had on the non-trauma hospitals. A full year of data will be required to conduct the post-test and compare with the pre-test data collected during this project. Thus, a post-test should be conducted with Ohio hospitals in 2004 or 2005 to allow for at least a year's worth of experiences under the new trauma system guidelines. These data should be compared to the data collected through this project to determine the actual effect of House Bill 138 on the non-trauma centers.
- **In-depth Interviews.** For additional insight into the effects of House Bill 138, GLM recommends conducting one-on-one interviews with a random selection of non-trauma hospital CEOs and Emergency Supervisors. These interviews would provide additional data on the effects of the legislation and potential improvements that could be made. Approximately 10-20 interviews are recommended for this purpose.
- **Recalculate Regions.** If state regions are redefined, the existing database should be recalculated to reflect new regional boundaries.

**Attachment One:**  
**State and Regional Fact Sheets**

## Ohio Trauma System\*



Total population, 2000 Census:	11,353,140
Total number of hospitals:	165
Number of Level I Trauma Centers:	14
Number of Level II Trauma Centers:	15
Number of Level III Trauma Centers:	15
Number of Acute Care Hospitals working to become verified Trauma Centers:	35
Projected maximum number of Trauma Centers in region:	78
Number of staffed OR rooms:	1.01 per every 10,000 residents

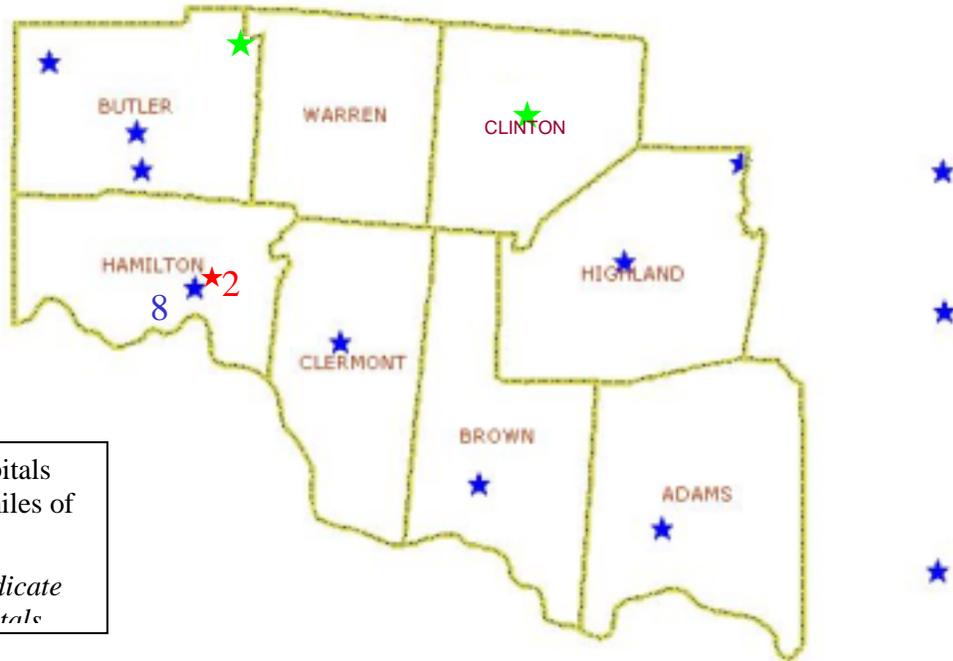
38 are adult trauma centers.
------------------------------

### **Number of staffed beds in**

Emergency Department:	2.70 per every 10,000 residents
Adult ICU:	2.09 per every 10,000 residents
Pediatric ICU:	0.24 per every 10,000 residents
Acute Care:	14.34 per every 10,000 residents
Pediatric Unit:	2.16 per every 10,000 residents
Total number of ED visits:	4466.02 per every 10,000 residents
Total number of ED visits for injuries:	994.23 per every 10,000 residents
Total number of OR cases performed:	994.36 per every 10,000 residents
Number of Acute Care Hospital patients transferred to a Trauma Center:	27,796

*\*Map data based on ODPS reports and current as of 2003. Statistical data self-reported by hospitals and current as of 2001.*

## Region One – South\*



Map shows all hospitals located within 15 miles of Region One.  
 The **blue** stars indicate acute care hospitals

Total population, 2000 Census:	1,665,503
Total number of hospitals:	20
Number of Level I Trauma Centers (designated on map by red star):	2
Number of Level II Trauma Centers:	0
Number of Level III Trauma Centers (designated on map by green stars):	2
Number of Acute Care Hospitals working to become verified Trauma Centers:	3
Projected maximum number of Trauma Centers in region:	7
Number of staffed OR rooms:	0.91 per every 10,000 residents

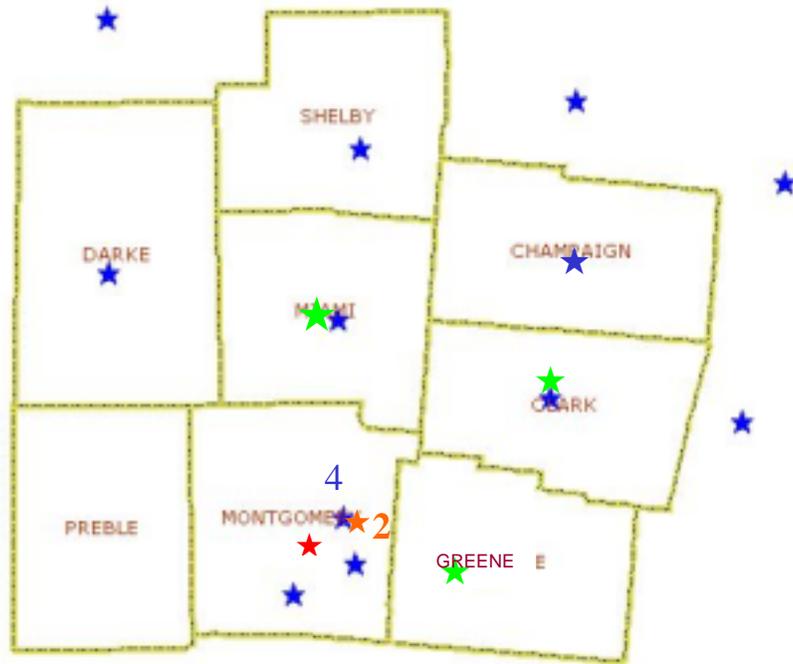
3 are adult trauma centers.

### Number of staffed beds in

Emergency Department:	2.41 per every 10,000 residents
Adult ICU:	1.74 per every 10,000 residents
Pediatric ICU:	0.14 per every 10,000 residents
Acute Care:	11.10 per every 10,000 residents
Pediatric Unit:	3.14 per every 10,000 residents
Total number of ED visits:	4069.76 per every 10,000 residents
Total number of ED visits for injuries:	813.40 per every 10,000 residents
Total number of OR cases performed:	836.74 per every 10,000 residents
Number of Acute Care Hospital patients transferred to a Trauma Center:	3082

\*Map data based on ODPS reports and current as of 2003. Statistical data self-reported by hospitals and current as of 2001.

## Region Two – Southwest\*



Map shows all hospitals located within 10 miles of Region Two. The **blue** stars indicate acute care hospitals.

Total population, 2000 Census:.....	1,133,004
Total number of hospitals:.....	16
Number of Level I Trauma Centers (designated on map by <b>red</b> star):.....	1
Number of Level II Trauma Centers (designated on map by <b>orange</b> star):.....	2
Number of Level III Trauma Centers (designated on map by <b>green</b> stars):.....	3
Number of Acute Care Hospitals working to become verified Trauma Centers:.....	4
Projected maximum number of Trauma Centers in region:.....	10
Number of staffed OR rooms:.....	1.06 per every 10,000 residents

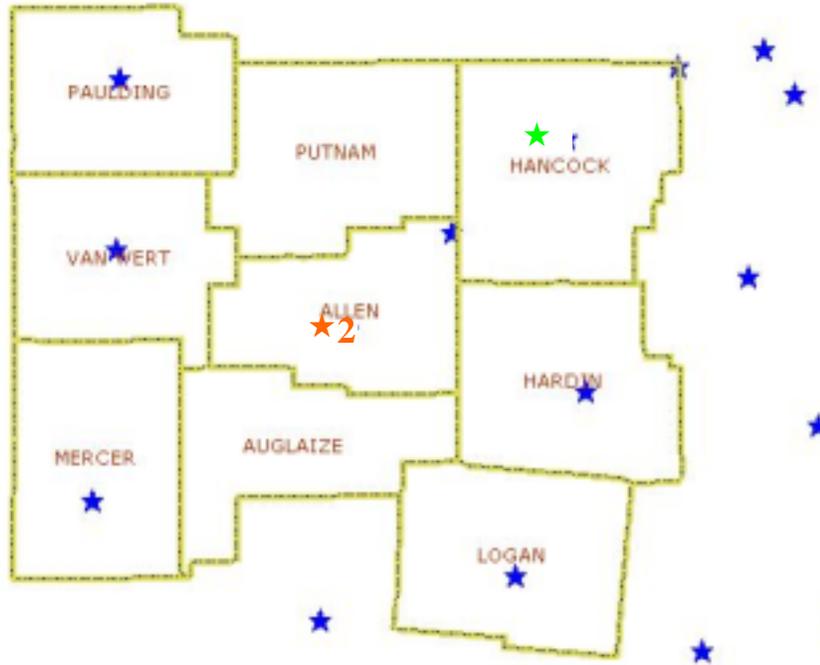
4 are adult trauma centers. 1 is a pediatric trauma center
---

### Number of staffed beds in

Emergency Department:.....	3.19 per every 10,000 residents
Adult ICU:.....	2.45 per every 10,000 residents
Pediatric ICU:.....	0.27 per every 10,000 residents
Acute Care:.....	13.13 per every 10,000 residents
Pediatric Unit:.....	4.31 per every 10,000 residents
Total number of ED visits:.....	4816.82 per every 10,000 residents
Total number of ED visits for injuries:.....	1265.71 per every 10,000 residents
Total number of OR cases performed:.....	825.57 per every 10,000 residents
Number of Acute Care Hospital patients transferred to a Trauma Center:.....	5787

\*Map data based on ODPS reports and current as of 2003. Statistical data self-reported by hospitals and current as of 2001.

## Region Three – West Central\*



Map shows all hospitals located within 15 miles of Region Three. The **blue** stars indicate acute care hospitals.

Total population, 2000 Census:	429,931
Total number of hospitals:	10
Number of Level I Trauma Centers:	0
Number of Level II Trauma Centers (designated on map by orange star):	2
Number of Level III Trauma Centers:	1
Number of Acute Care Hospitals working to become verified Trauma Centers:	2
Projected maximum number of Trauma Centers in region:	5
Number of staffed OR rooms:	0.88 per every 10,000 residents

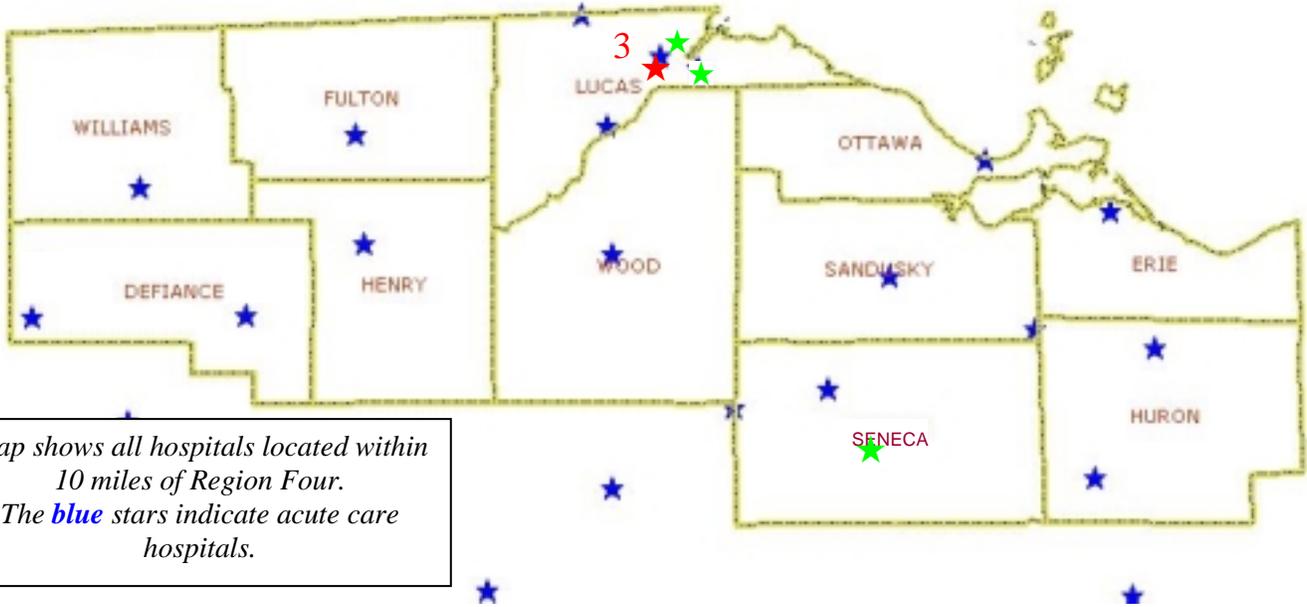
2 are adult trauma centers.

### Number of staffed beds in

Emergency Department:	2.56 per every 10,000 residents
Adult ICU:	1.65 per every 10,000 residents
Pediatric ICU:	0.28 per every 10,000 residents
Acute Care:	11.28 per every 10,000 residents
Pediatric Unit:	1.40 per every 10,000 residents
Total number of ED visits:	4337.16 per every 10,000 residents
Total number of ED visits for injuries:	1080.99 per every 10,000 residents
Total number of OR cases performed:	851.39 per every 10,000 residents
Number of Acute Care Hospital patients transferred to a Trauma Center:	1180

\*Map data based on ODPS reports and current as of 2003. Statistical data self-reported by hospitals and current as of 2001.

## Region Four – Northwest\*



Map shows all hospitals located within 10 miles of Region Four. The blue stars indicate acute care hospitals.

Total population, 2000 Census:	1,026,599
Total number of hospitals:	22
Number of Level I Trauma Centers (designated on map by red star):	3
Number of Level II Trauma Centers:	0
Number of Level III Trauma Centers (designated on map by green stars):	3
Number of Acute Care Hospitals working to become verified Trauma Centers:	8
Projected maximum number of Trauma Centers in region:	14
Number of staffed OR rooms:	1.08 per every 10,000 residents

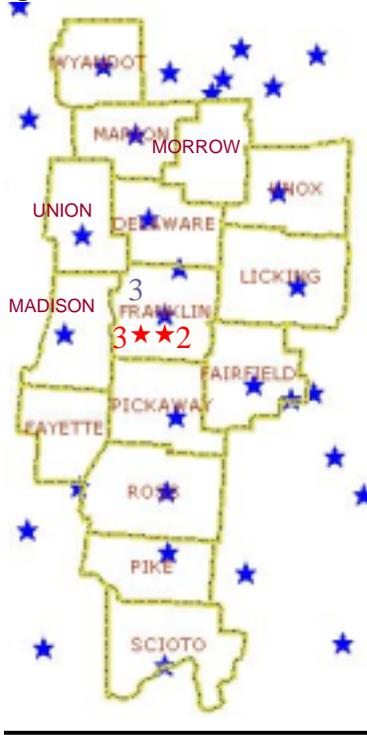
4 are adult trauma centers. 2 are both adult and
---

### Number of staffed beds in

Emergency Department:	3.22 per every 10,000 residents
Adult ICU:	2.33 per every 10,000 residents
Pediatric ICU:	0.27 per every 10,000 residents
Acute Care:	15.27 per every 10,000 residents
Pediatric Unit:	2.09 per every 10,000 residents
Total number of ED visits:	4992.16 per every 10,000 residents
Total number of ED visits for injuries:	1271.26 per every 10,000 residents
Total number of OR cases performed:	1150.09 per every 10,000 residents
Number of Acute Care Hospital patients transferred to a Trauma Center:	2552

\*Map data based on ODPS reports and current as of 2003. Statistical data self-reported by hospitals and current as of 2001.

## Region Five – Central\*



Map shows all hospitals located within 20 miles of Region Five. The **blue** stars indicate acute care hospitals.

Total population, 2000 Census: .....	1,964,987
Total number of hospitals: .....	23
Number of Level I Trauma Centers (designated on map by <b>red</b> star): .....	3
Number of Level II Trauma Centers (designated on map by <b>orange</b> star): .....	2
Number of Level III Trauma Centers: .....	0
Number of Acute Care Hospitals working to become verified Trauma Centers: .....	5
Projected maximum number of Trauma Centers in region: .....	10
Number of staffed OR rooms: .....	0.92 per every 10,000 residents

4 are adult trauma centers.

### Number of staffed beds in

Emergency Department: .....	2.72 per every 10,000 residents
Adult ICU: .....	1.47 per every 10,000 residents
Pediatric ICU: .....	0.37 per every 10,000 residents
Acute Care: .....	15.43 per every 10,000 residents
Pediatric Unit: .....	0.40 per every 10,000 residents
Total number of ED visits: .....	4847.27 per every 10,000 residents
Total number of ED visits for injuries: .....	915.91 per every 10,000 residents
Total number of OR cases performed: .....	823.17 per every 10,000 residents
Number of Acute Care Hospital patients transferred to a Trauma Center: .....	4004

\*Map data based on ODPS reports and current as of 2003. Statistical data self-reported by hospitals and current as of 2001.

## Region Six – Southeast\*



Map shows all hospitals located within 20 miles of Region Six. The **blue** stars indicate acute care hospitals.

Total population, 2000 Census:.....	715,843
Total number of hospitals:.....	16
Number of Level I Trauma Centers:.....	0
Number of Level II Trauma Centers:.....	0
Number of Level III Trauma Centers (designated on map by <b>green</b> stars):.....	3
Number of Acute Care Hospitals working to become verified Trauma Centers:.....	6
Projected maximum number of Trauma Centers in region:.....	9
Number of staffed OR rooms:.....	0.82 per every 10,000 residents

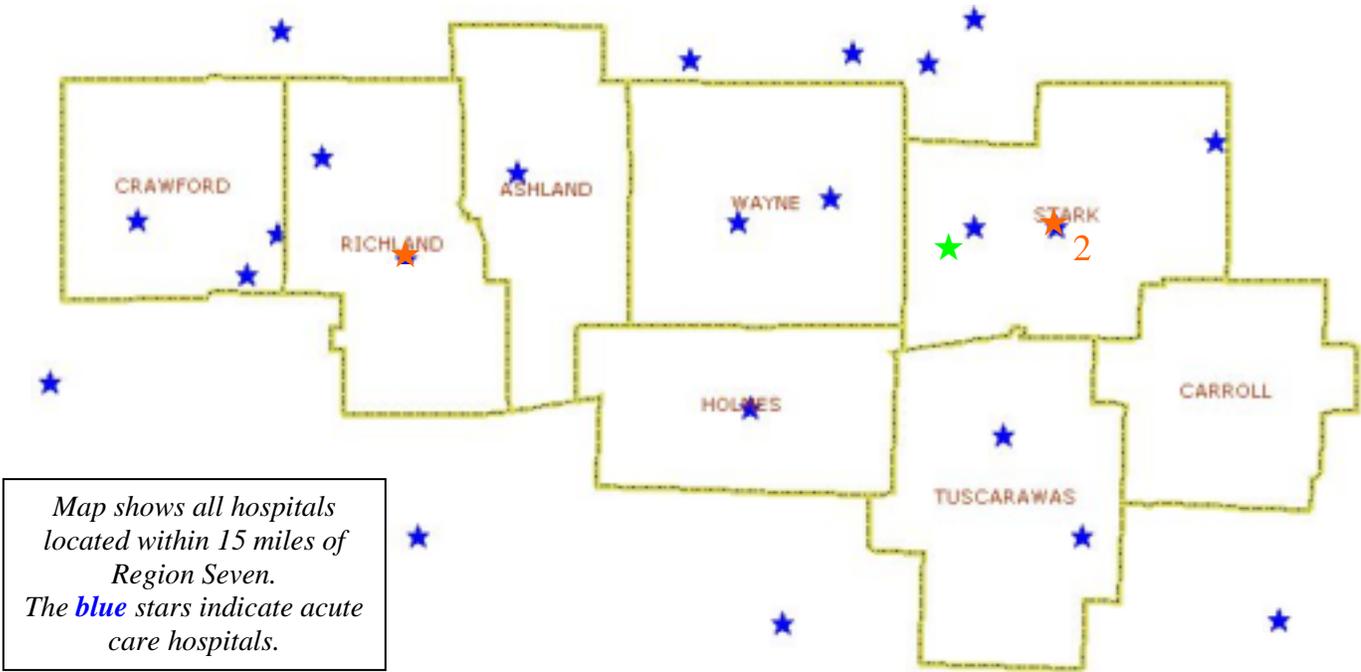
3 are adult trauma centers.  
0 are pediatric trauma

### **Number of staffed beds in**

Emergency Department:.....	2.51 per every 10,000 residents
Adult ICU:.....	1.79 per every 10,000 residents
Pediatric ICU:.....	0.31 per every 10,000 residents
Acute Care:.....	14.28 per every 10,000 residents
Pediatric Unit:.....	2.37 per every 10,000 residents
Total number of ED visits:.....	4819.91 per every 10,000 residents
Total number of ED visits for injuries:.....	927.87 per every 10,000 residents
Total number of OR cases performed:.....	744.77 per every 10,000 residents
Number of Acute Care Hospital patients transferred to a Trauma Center:.....	3696

\*Map data based on ODPS reports and current as of 2003. Statistical data self-reported by hospitals and current as of 2001.

## Region Seven – East Central\*



Total population, 2000 Census:.....	876,696
Total number of hospitals:.....	16
Number of Level I Trauma Centers:.....	0
Number of Level II Trauma Centers (designated on map by <b>orange</b> stars):.....	3
Number of Level III Trauma Centers (designated on map by <b>green</b> star):.....	1
Number of Acute Care Hospitals working to become verified Trauma Centers:.....	3
Projected maximum number of Trauma Centers in region:.....	7
Number of staffed OR rooms:.....	0.95 per every 10,000 residents

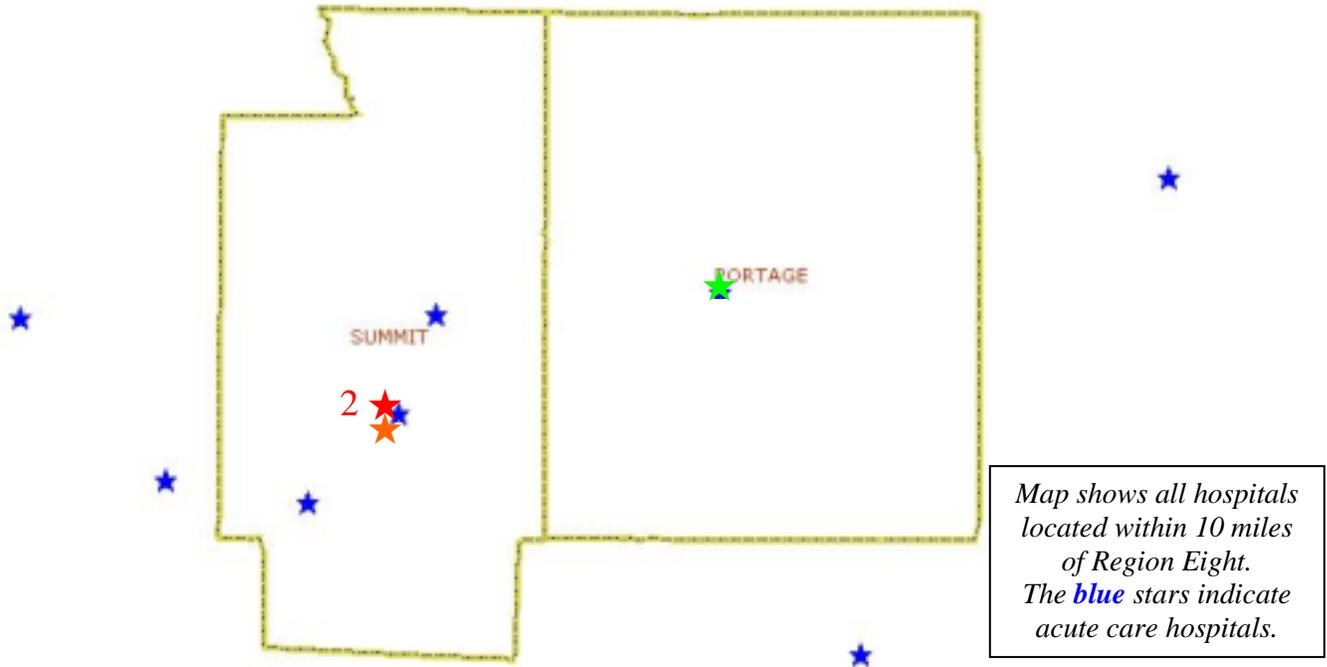
3 are adult trauma centers.

### Number of staffed beds in

Emergency Department:.....	2.79 per every 10,000 residents
Adult ICU:.....	1.62 per every 10,000 residents
Pediatric ICU:.....	0 per every 10,000 residents
Acute Care:.....	12.75 per every 10,000 residents
Pediatric Unit:.....	1.25 per every 10,000 residents
Total number of ED visits:.....	4509.59 per every 10,000 residents
Total number of ED visits for injuries:.....	1168.77 per every 10,000 residents
Total number of OR cases performed:.....	839.46 per every 10,000 residents
Number of Acute Care Hospital patients transferred to a Trauma Center:.....	1223

\*Map data based on ODPS reports and current as of 2003. Statistical data self-reported by hospitals and current as of 2001.

## Region Eight – Northeast Central\*



Total population, 2000 Census:.....	694,960
Total number of hospitals:.....	7
Number of Level I Trauma Centers (designated on map by <b>red</b> star):.....	2
Number of Level II Trauma Centers (designated on map by <b>orange</b> star):.....	1
Number of Level III Trauma Centers (designated on map by <b>green</b> star):.....	1
Number of Acute Care Hospitals working to become verified Trauma Centers:.....	1
Projected maximum number of Trauma Centers in region:.....	5
Number of staffed OR rooms:.....	0.79 per every 10,000 residents

2 are adult trauma centers.  
1 is a pediatric trauma center

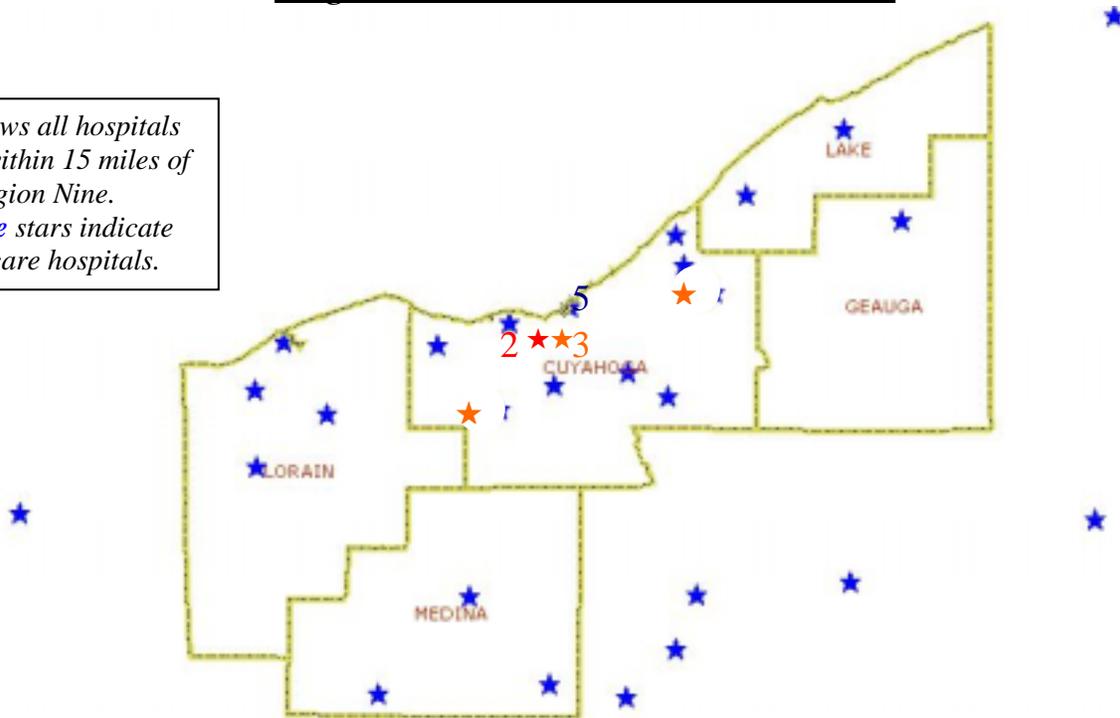
### **Number of staffed beds in**

Emergency Department:.....	2.01 per every 10,000 residents
Adult ICU:.....	1.18 per every 10,000 residents
Pediatric ICU:.....	0 per every 10,000 residents
Acute Care:.....	16.10 per every 10,000 residents
Pediatric Unit:.....	0.43 per every 10,000 residents
Total number of ED visits:.....	3451.39 per every 10,000 residents
Total number of ED visits for injuries:.....	793.64 per every 10,000 residents
Total number of OR cases performed:.....	686.27 per every 10,000 residents
Number of Acute Care Hospital patients transferred to a Trauma Center:.....	1606

\*Map data based on ODPS reports and current as of 2003. Statistical data self-reported by hospitals and current as of 2001.

## Region Nine – Northeast Coast\*

Map shows all hospitals located within 15 miles of Region Nine.  
The **blue** stars indicate acute care hospitals.



Total population, 2000 Census:	2,148,143
Total number of hospitals:	29
Number of Level I Trauma Centers (designated on map by red star):	2
Number of Level II Trauma Centers (designated on map by orange stars):	5
Number of Level III Trauma Centers:	0
Number of Acute Care Hospitals working to become verified Trauma Centers:	3
Projected maximum number of Trauma Centers in region:	10
Number of staffed OR rooms:	1.38 per every 10,000 residents

5 are adult trauma centers.  
1 is a pediatric trauma center.

### Number of staffed beds in

Emergency Department:	2.70 per every 10,000 residents
Adult ICU:	3.36 per every 10,000 residents
Pediatric ICU:	0.37 per every 10,000 residents
Acute Care:	17.51 per every 10,000 residents
Pediatric Unit:	2.86 per every 10,000 residents
Total number of ED visits:	4400.13 per every 10,000 residents
Total number of ED visits for injuries:	986.74 per every 10,000 residents
Total number of OR cases performed:	1180.99 per every 10,000 residents
Number of Acute Care Hospital patients transferred to a Trauma Center:	3790

\*Map data based on ODPS reports and current as of 2003. Statistical data self-reported by hospitals and current as of 2001.

## Region Ten – Northeast Border\*



Map shows all hospitals located within 15 miles of Region Ten. The **blue** stars indicate acute care hospitals.

Total population, 2000 Census:	697,474
Total number of hospitals:	9
Number of Level I Trauma Centers (designated on map by red star):	1
Number of Level II Trauma Centers:	0
Number of Level III Trauma Centers:	0
Number of Acute Care Hospitals working to become verified Trauma Centers:	0
Projected maximum number of Trauma Centers in region:	1
Number of staffed OR rooms:	0.76 per every 10,000 residents

The trauma hospital is verified for both adults and pediatrics

### Number of staffed beds in

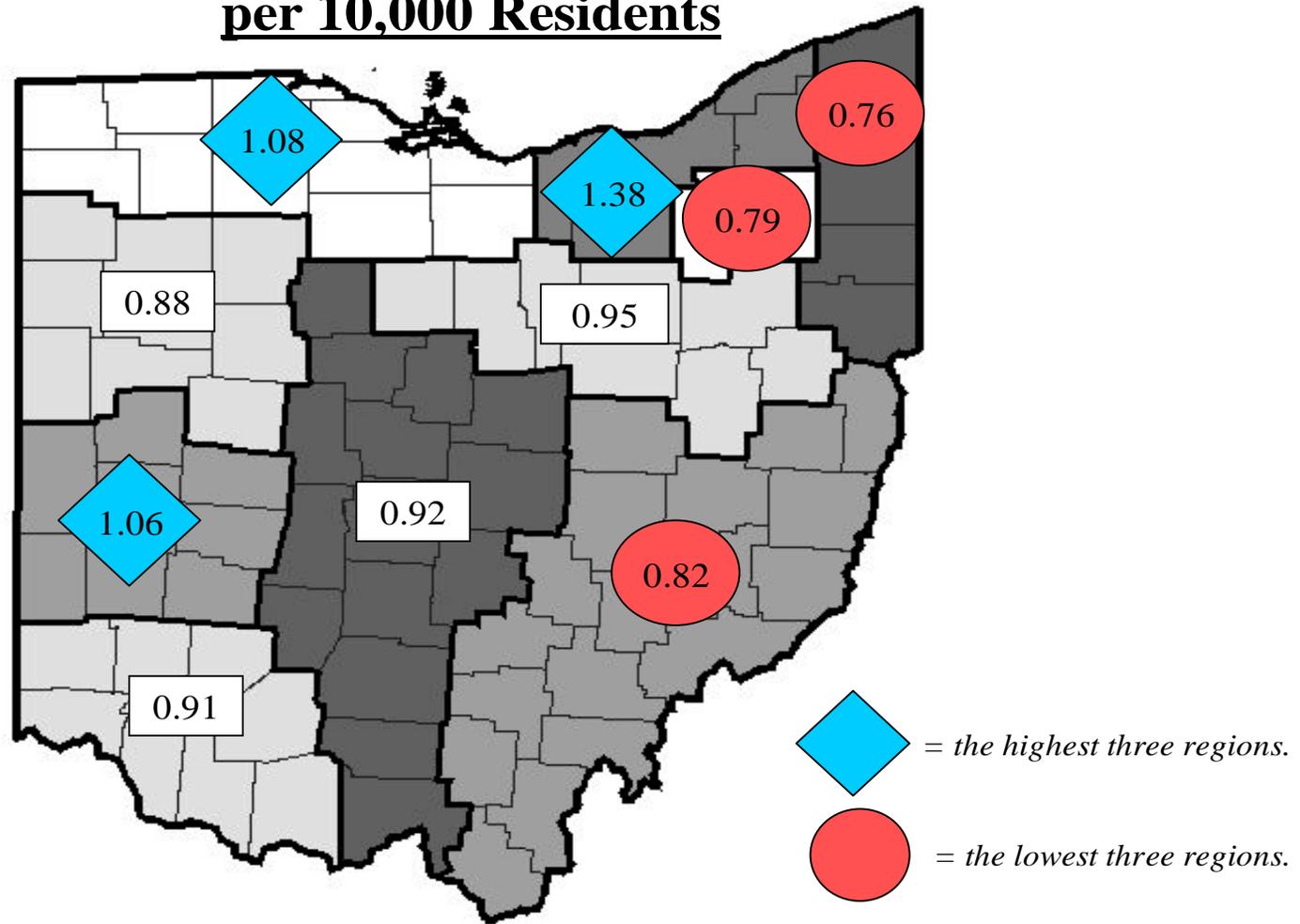
Emergency Department:	2.57 per every 10,000 residents
Adult ICU:	1.96 per every 10,000 residents
Pediatric ICU:	0.09 per every 10,000 residents
Acute Care:	11.97 per every 10,000 residents
Pediatric Unit:	2.41 per every 10,000 residents
Total number of ED visits:	3869.29 per every 10,000 residents
Total number of ED visits for injuries:	816.12 per every 10,000 residents
Total number of OR cases performed:	735.41 per every 10,000 residents
Number of Acute Care Hospital patients transferred to a Trauma Center:	876

\*Map data based on ODPS reports and current as of 2003. Statistical data self-reported by hospitals and current as of 2001.

**Attachment Two:**  
**State Maps**

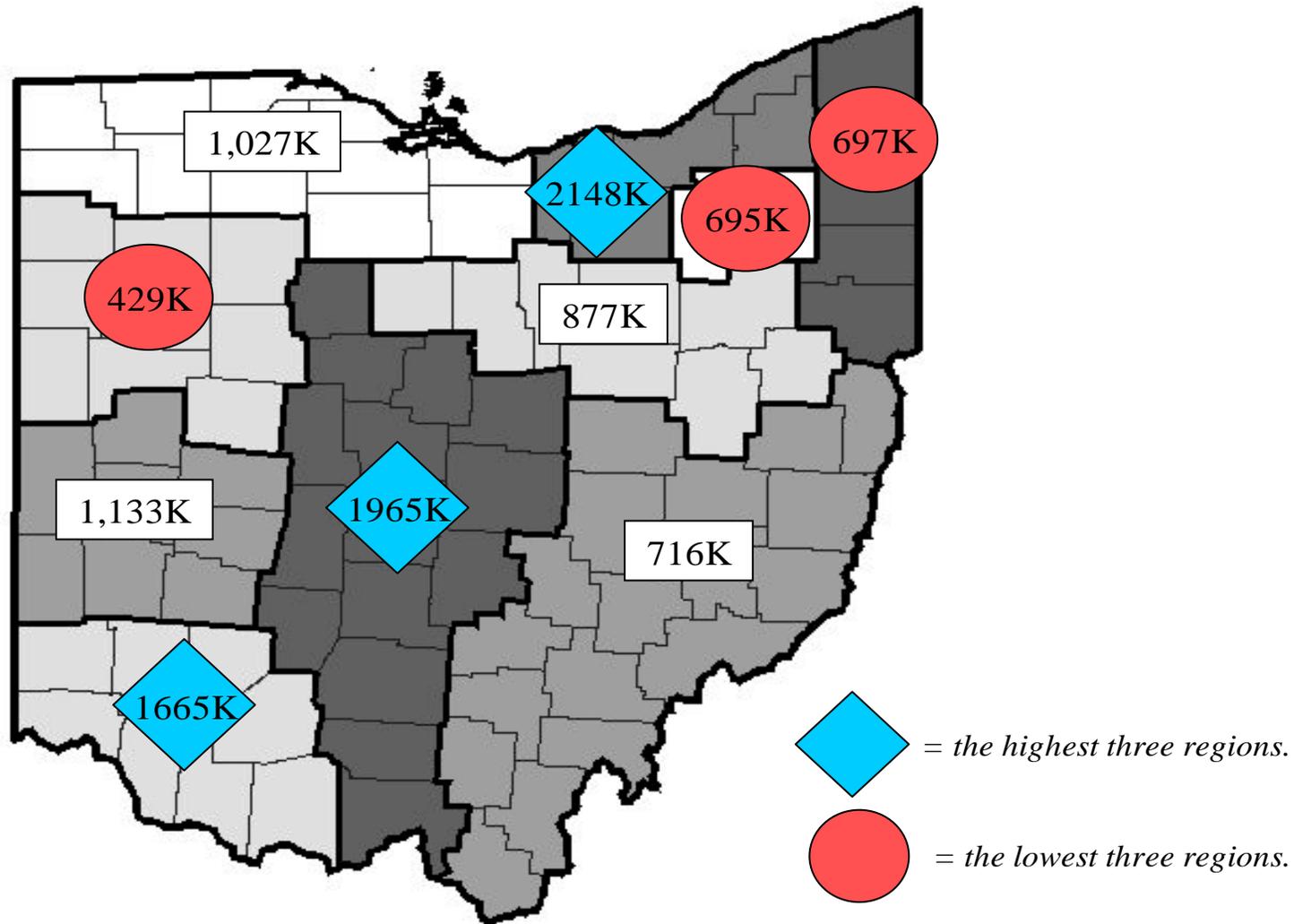


# Number of Staffed OR Rooms per 10,000 Residents



*Data reflect self-reported hospital survey information based on 2001 activity.*

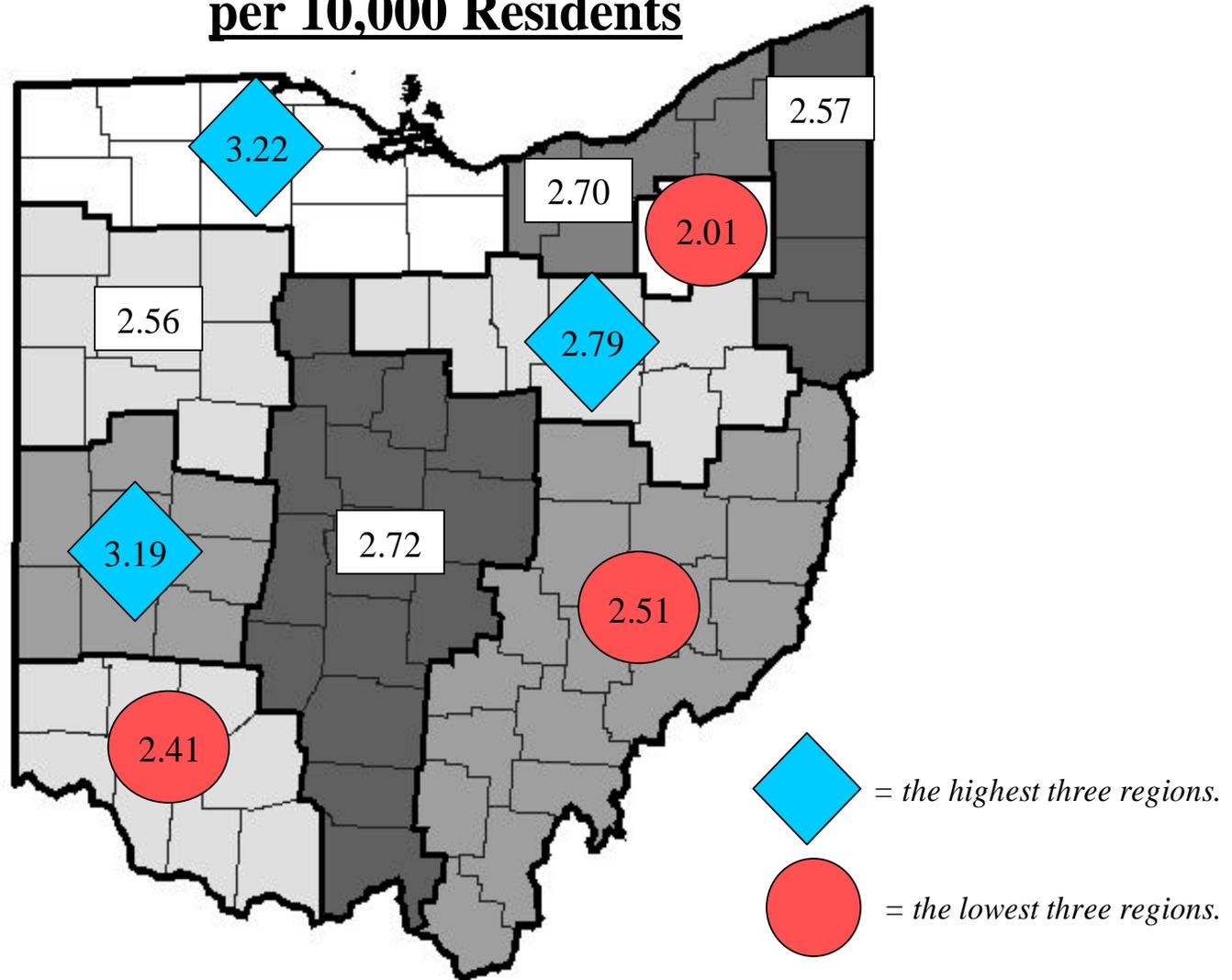
# Region Populations



*Data reflect self-reported hospital survey information based on 2001 activity.*

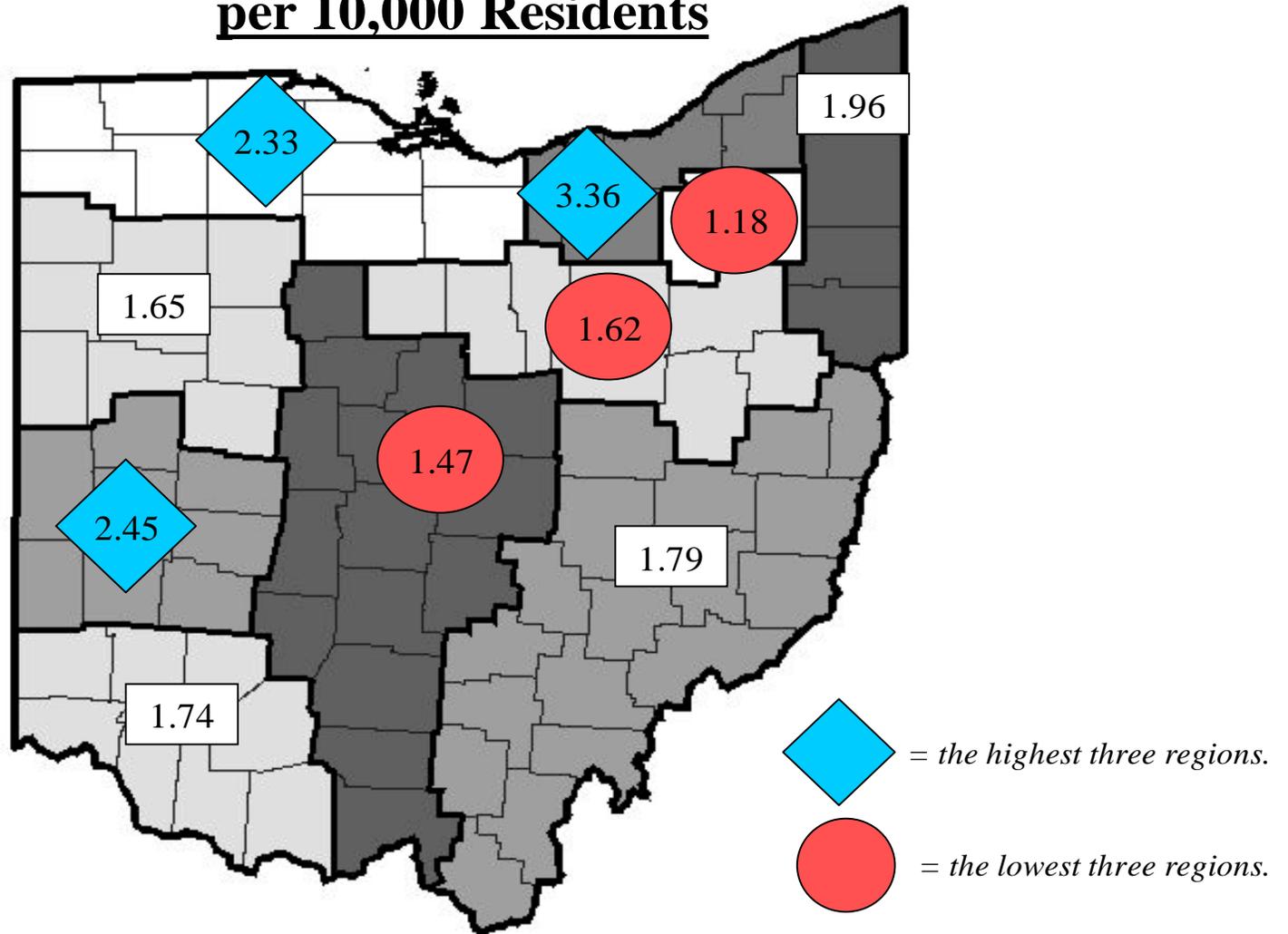
# Number of Staffed ED Beds

## per 10,000 Residents



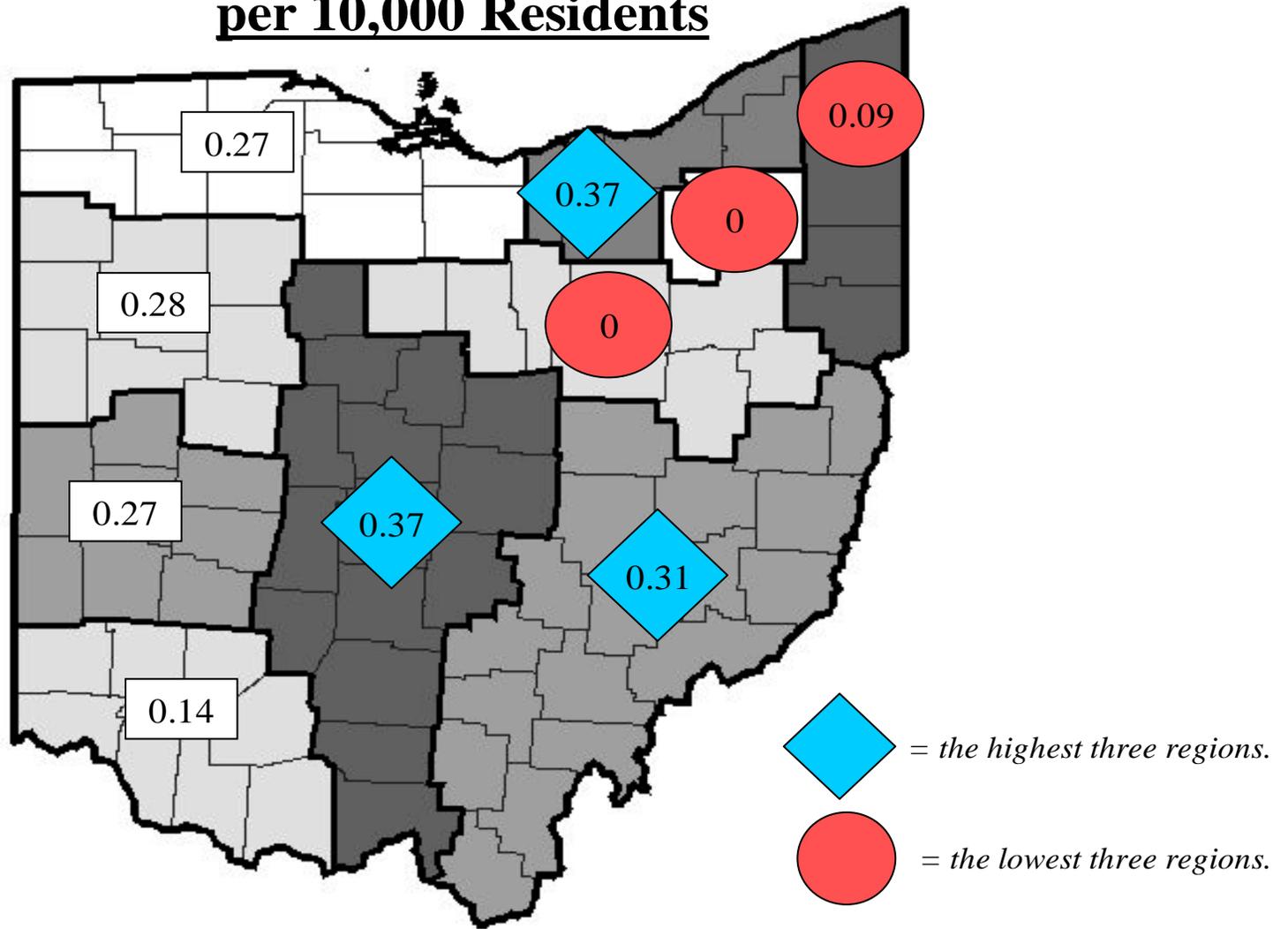
*Data reflect self-reported hospital survey information based on 2001 activity.*

# Number of Staffed Adult ICU Beds per 10,000 Residents



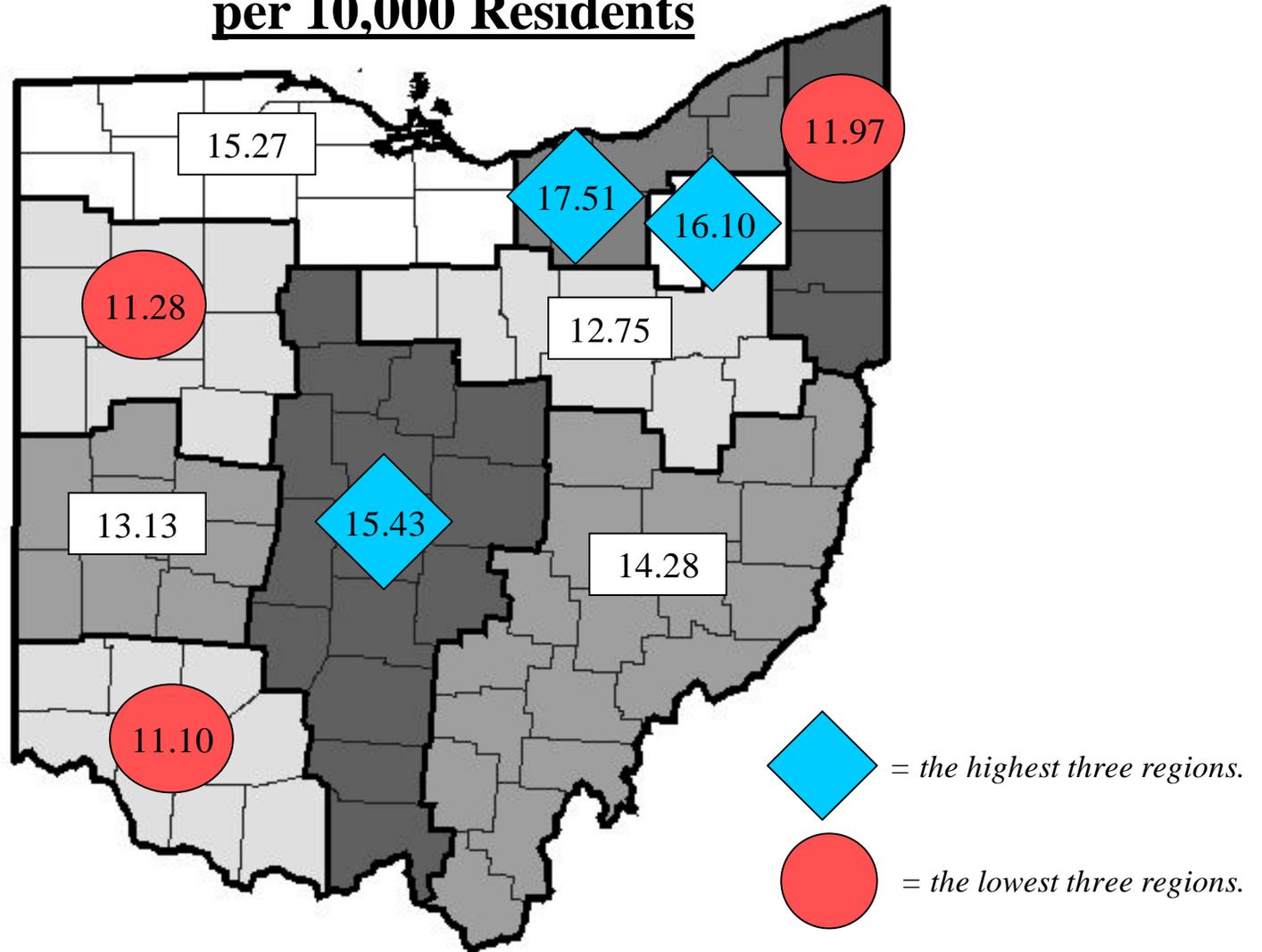
*Data reflect self-reported hospital survey information based on 2001 activity.*

# Number of Staffed Pediatric ICU Beds per 10,000 Residents



*Data reflect self-reported hospital survey information based on 2001 activity.*

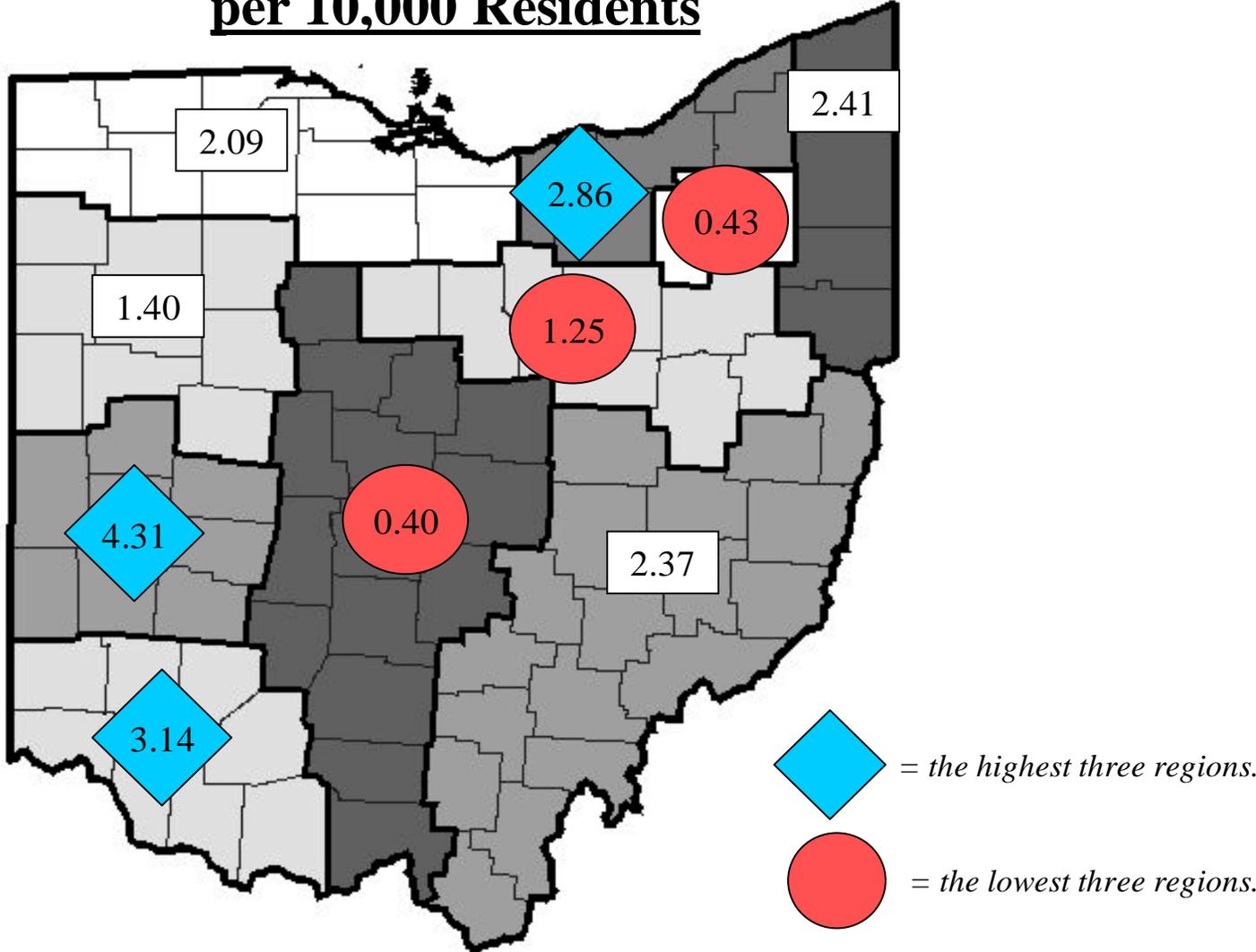
# Number of Staffed Acute Care Beds per 10,000 Residents



*Data reflect self-reported hospital survey information based on 2001 activity.*

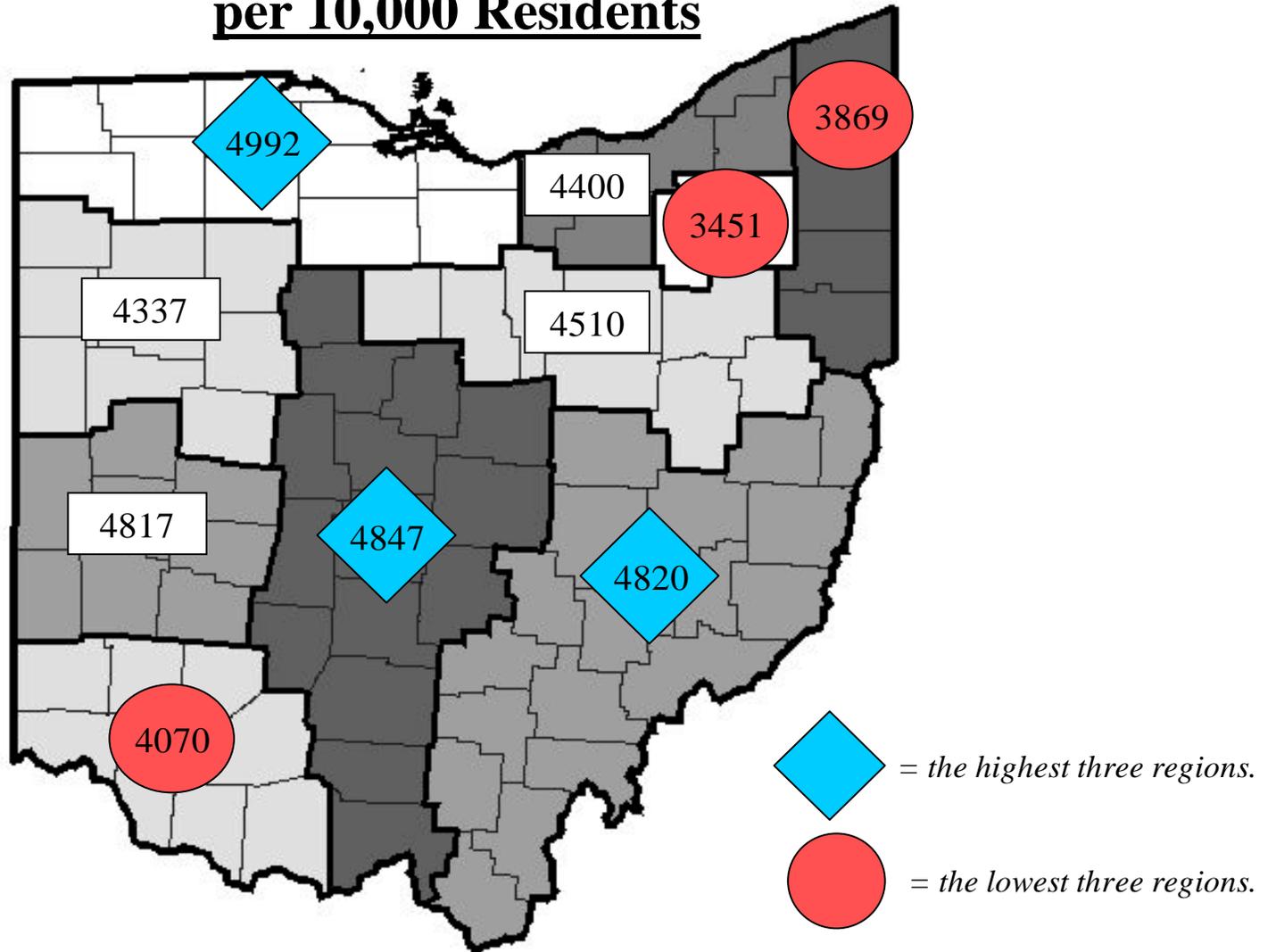
# Number of Staffed Pediatric Unit Beds

per 10,000 Residents



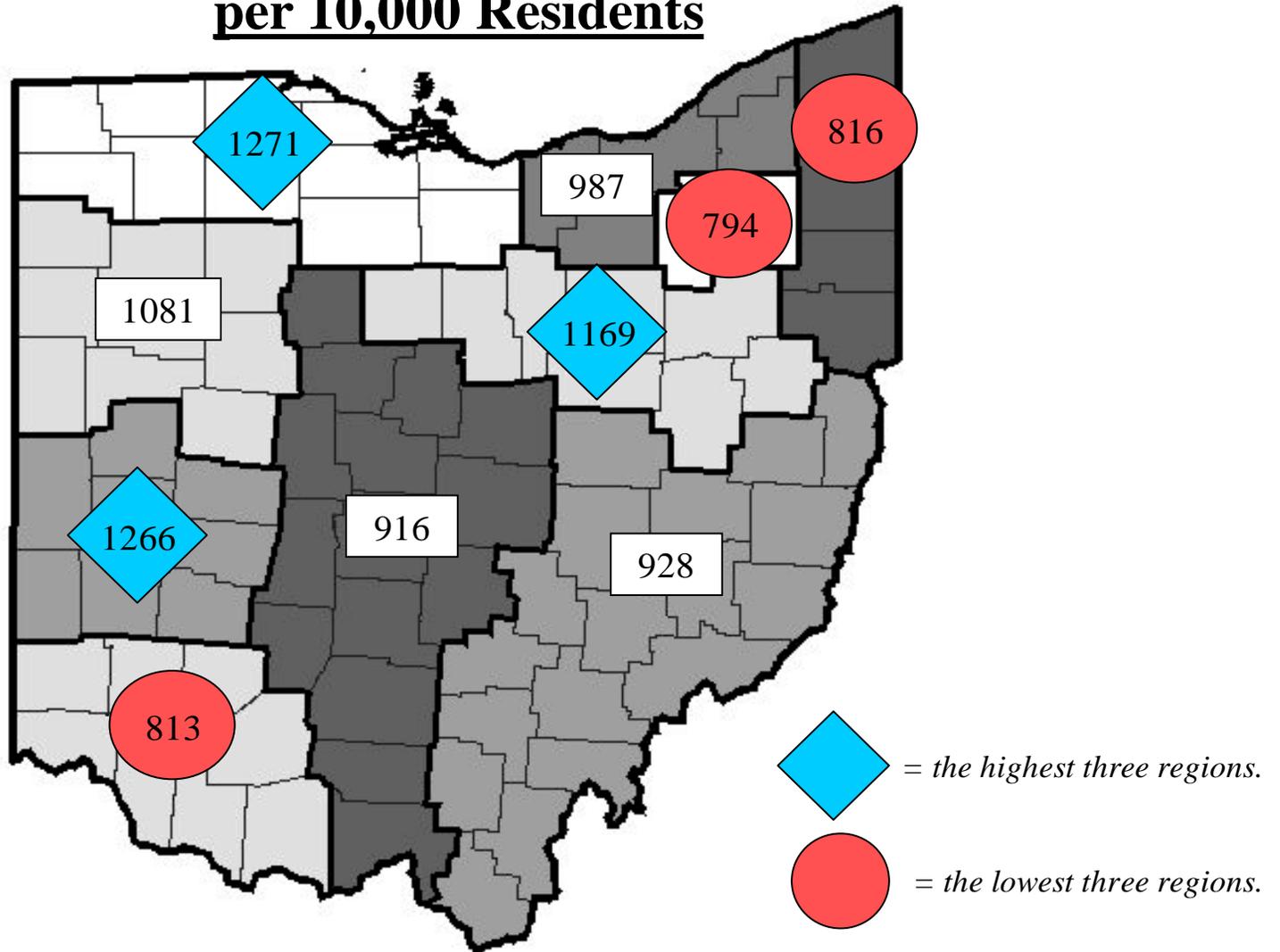
*Data reflect self-reported hospital survey information based on 2001 activity.*

**Number of ED Visits**  
**per 10,000 Residents**



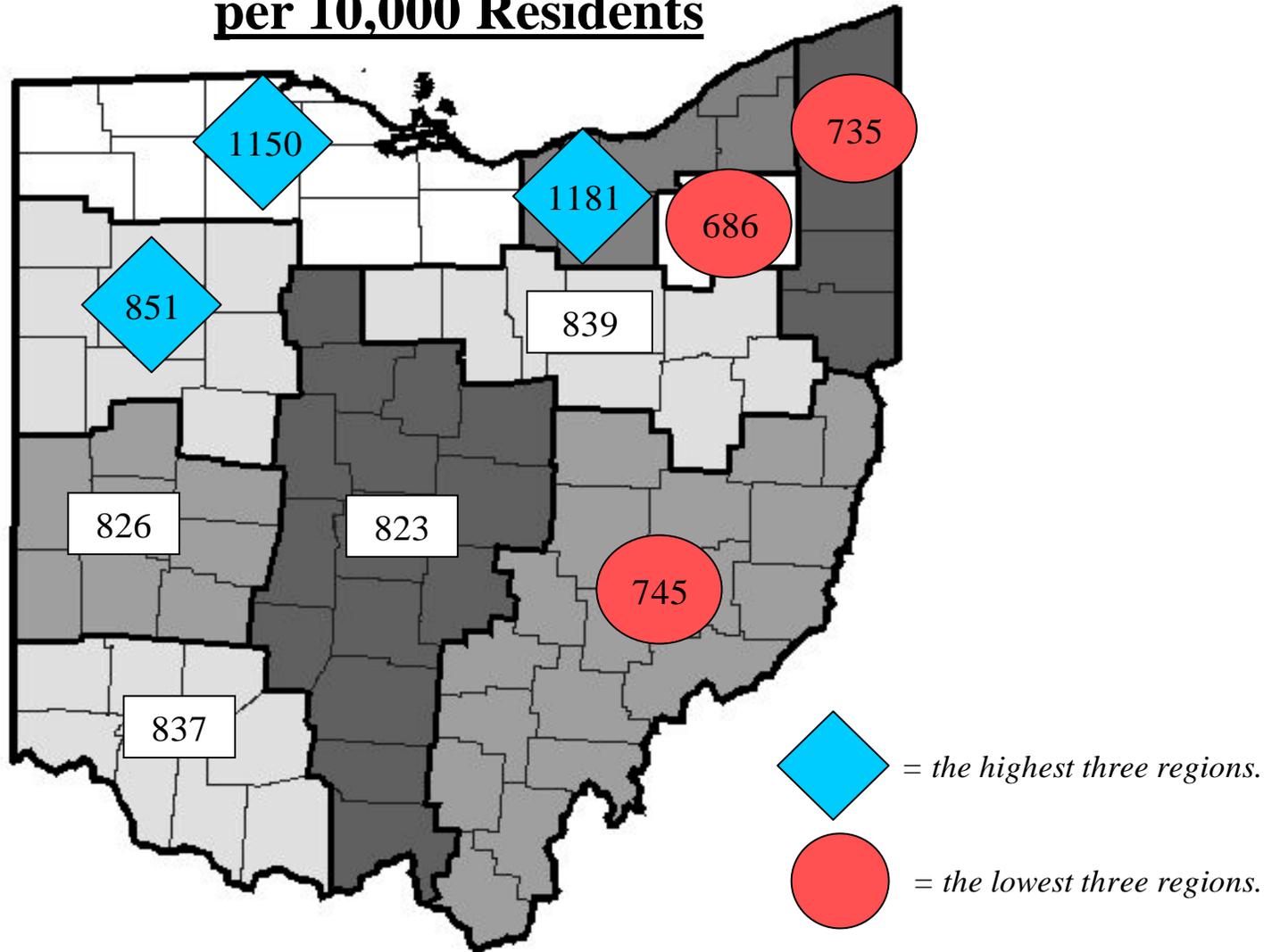
*Data reflect self-reported hospital survey information based on 2001 activity.*

# Number of ED Visits for Injuries per 10,000 Residents



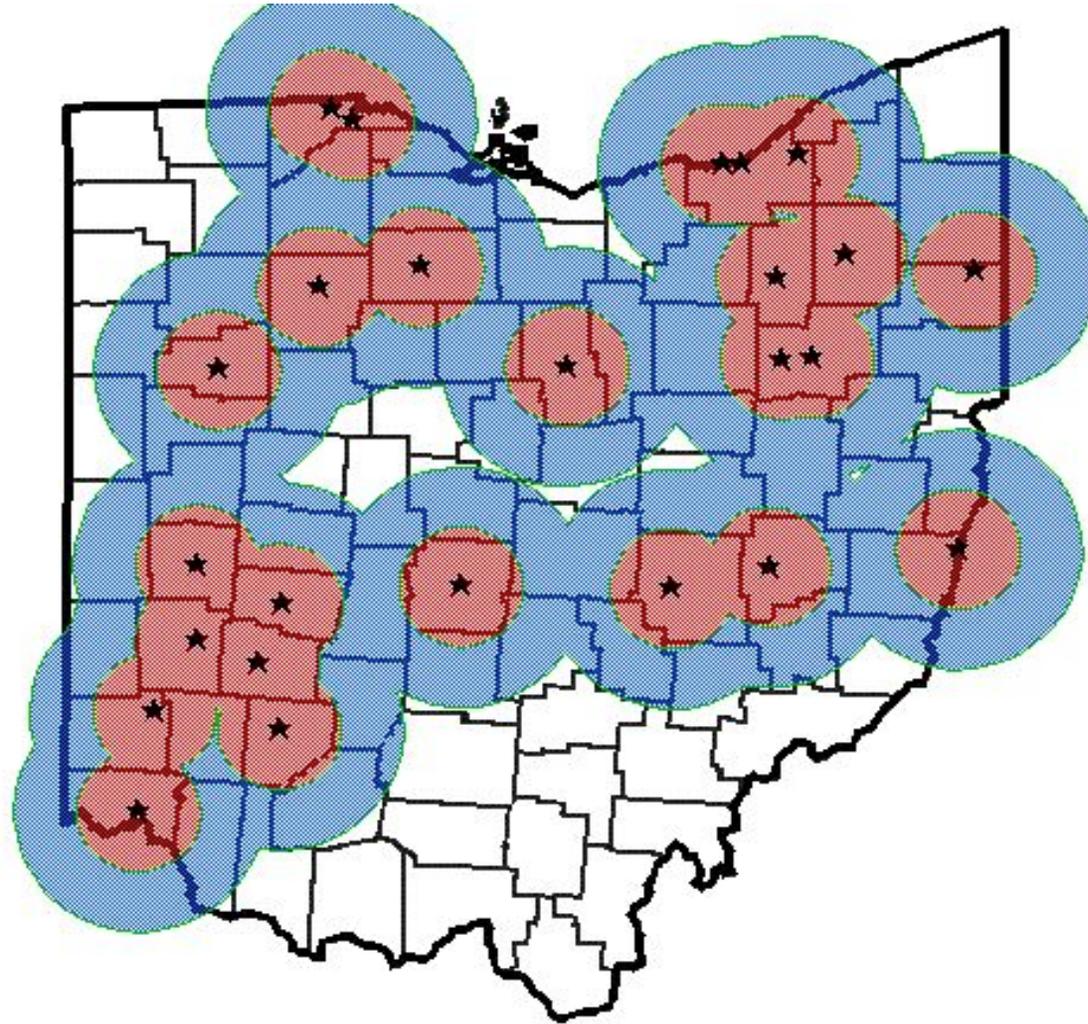
*Data reflect self-reported hospital survey information based on 2001 activity.*

# Number of OR Cases Performed per 10,000 Residents



*Data reflect self-reported hospital survey information based on 2001 activity.*

## Proximity to Trauma Centers



*\*Areas shown in red are within 15 mi. of a trauma center.*

*Areas shown in blue are within 30 mi. of a trauma center.*

*Map shows all cities with a trauma center as of May 2003.*



**Attachment Three:**  
**Perceptual Data**

# Opinions About Ohio's Trauma System

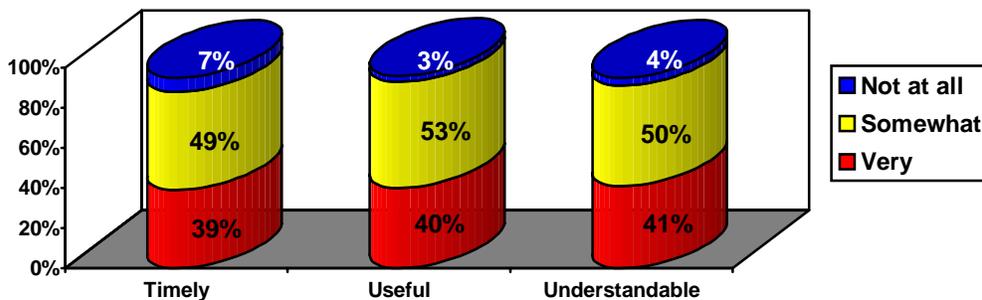
May/June, 2003

In May and June of 2003, GLM conducted research with Ohio hospitals by telephone, fax, and email to determine their awareness and opinions of Ohio's trauma system. A total of 151 hospitals out of 165 hospitals contacted (92%) completed the questionnaire. The participants included CEOs, Trauma Coordinators, and Emergency Supervisors. For the purposes of this analysis, both verified and provisional hospitals are classified as trauma hospitals. The following report summarizes the responses from 39 trauma hospitals and 112 acute care hospitals.

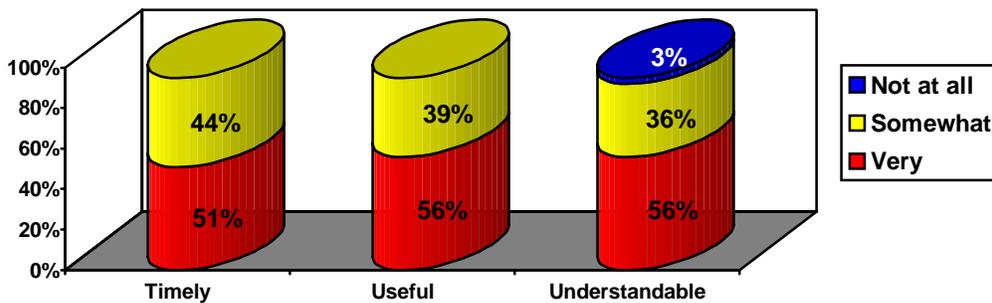
## Awareness

- Nearly all (96%) of Ohio hospitals consider themselves to be *very* or *somewhat* familiar with Ohio's trauma system. Just over one-half (58%) consider themselves *very familiar*, 38% are *somewhat* and 3% are *not at all familiar* with Ohio's trauma system. Acute care hospitals are less likely to be *very familiar* with the trauma system (53% compared to 72% of trauma centers).
- Less than half of the respondents rated the trauma system-related communications they received as *very timely*, *very useful*, or *very understandable*. The following graphs show the ratings provided for each issue for the total sample, as well as the ratings provided by trauma hospitals only and acute care hospitals only. Note that less than 10% gave the lowest ratings, and the acute care facilities were less satisfied with the quality of the communications than the trauma hospitals.

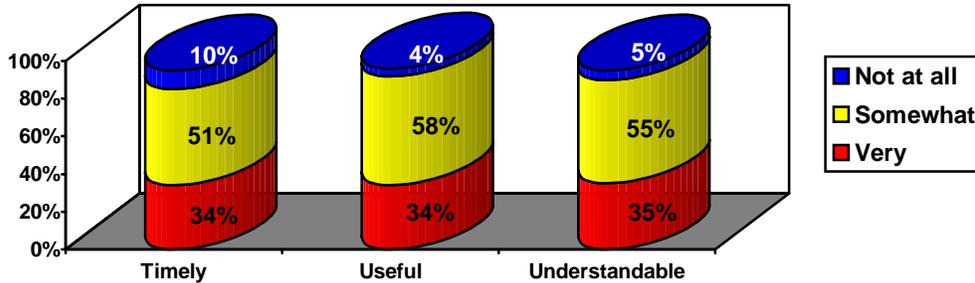
**Opinions About Trauma Related Communications - Total Sample**



**Opinions About Trauma Related Communications - Trauma Hospitals**

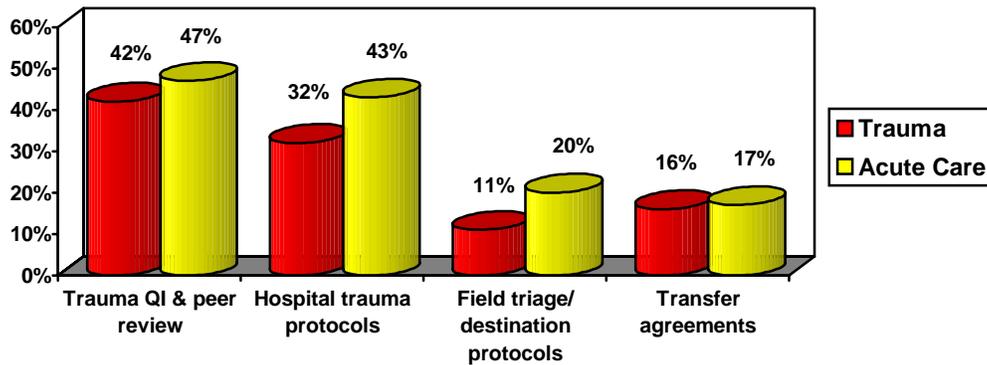


### Opinions About Trauma Related Communications - Acute Care



- Over two-thirds of the respondents said they need more information about the trauma system (63% of trauma centers and 69% of acute care hospitals). Specifically, they want more information about trauma QI and peer review (46%) and hospital trauma protocols (40%). An additional 17% wanted more information on field triage or destination protocols and 17% wanted information on transfer agreements.

### Trauma System Related Information Needs

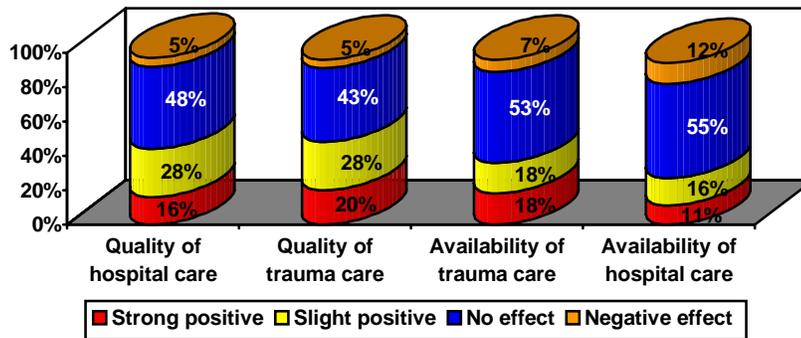


- About half (43%) of the respondents had problems implementing required trauma system elements. Trauma QI and peer review (28%) caused the most problems, followed by hospital trauma protocols (19%) and transfer agreements (13%). Note that the acute care hospitals are more likely to have had problems (50% had problems compared to 26% of the trauma hospitals).

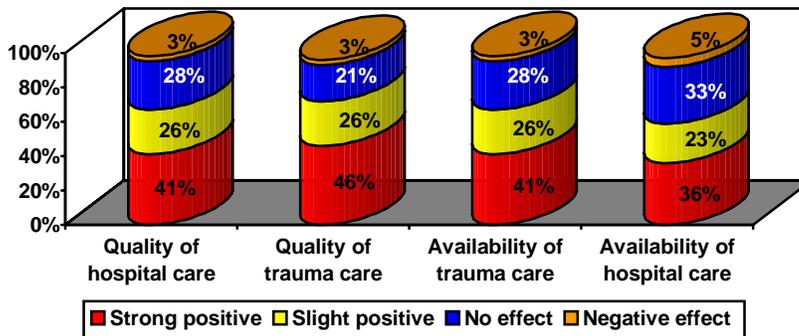
# Implementation

- About 12% have seen negative effects on their community as a result of the trauma system implementation. (Note the research was conducted 6 months after the official implementation date.) About 15% of acute care hospitals report a negative effect, compared to 5% of trauma hospitals. The following graphs summarize the responses by total sample, trauma hospitals only, and acute care facilities only. Note that the trauma hospitals are more likely to see positive effects on the community in comparison to the acute care facilities.

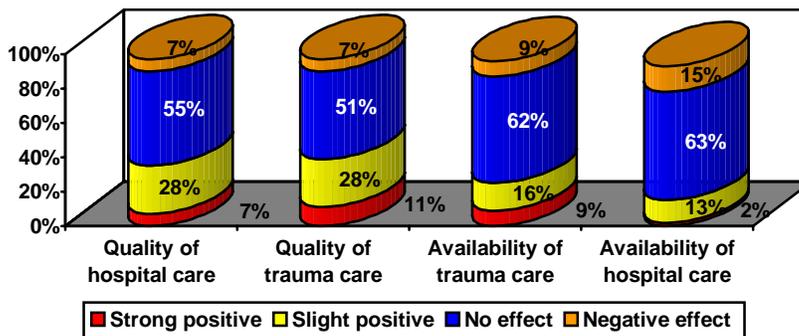
**Effects on the Local Community - Total Sample**



**Effects on the Local Community - Trauma Hospitals**

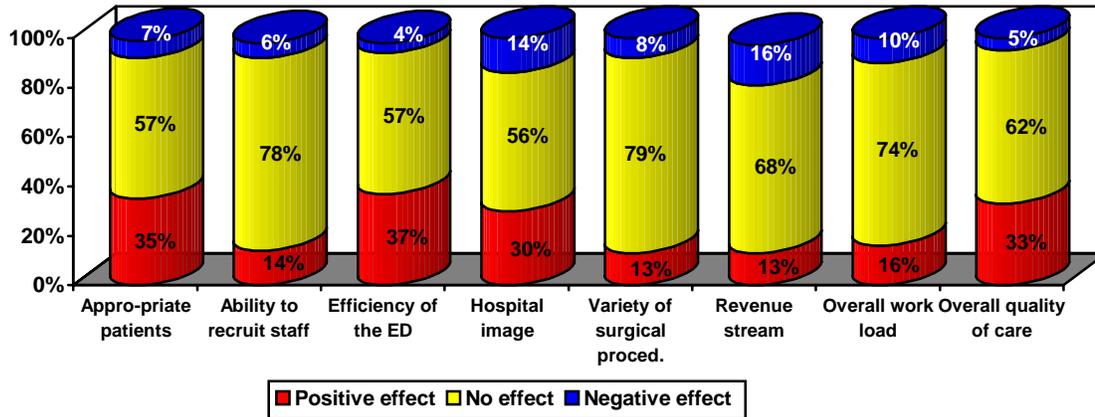


**Effects on the Local Community - Acute Care**

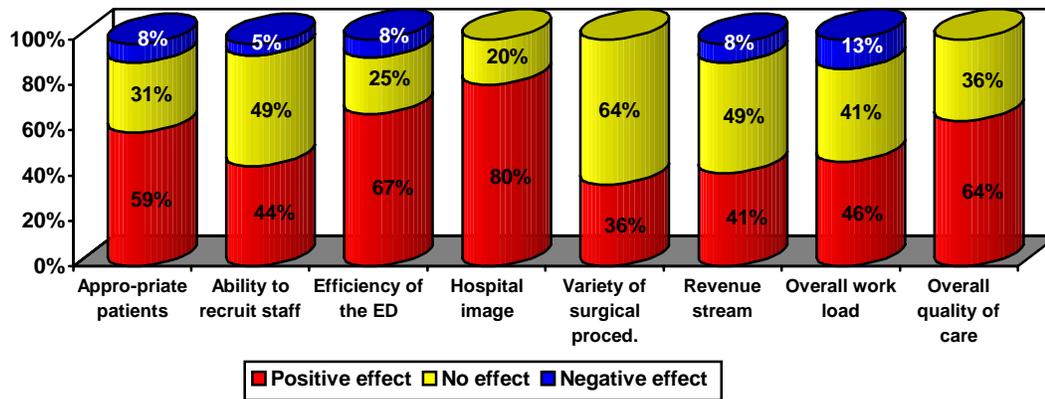


➤ When the respondents were asked to rate the effects on their facility, the following factors received the most negative mentions: revenue stream (16% negative) and image of the hospital in the community (14% negative). About 20% of acute care hospitals reported at least one negative effect, compared to 15% of trauma hospitals. Most of the trauma hospitals are showing a positive impact, particularly in terms of hospital image, efficiency, and overall quality of care. The following graphs summarize their responses by total sample, trauma hospitals only, and acute care facilities only.

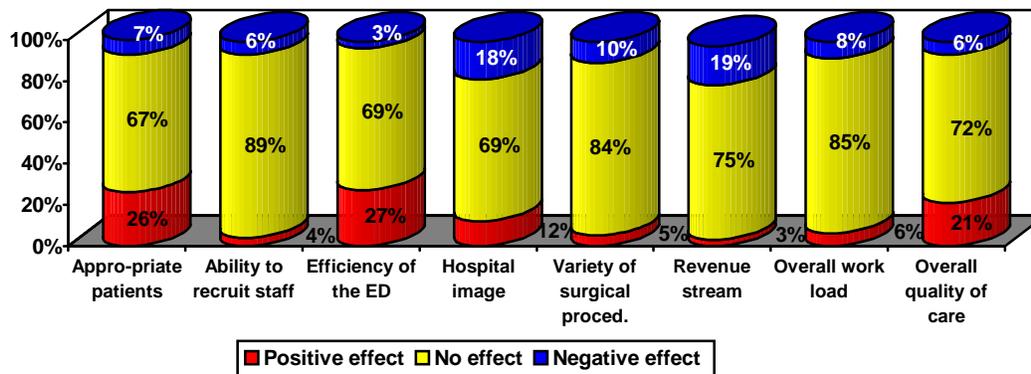
**Effects on the Hospitals - Total Sample**



**Effects on the Hospitals - Trauma Hospitals**

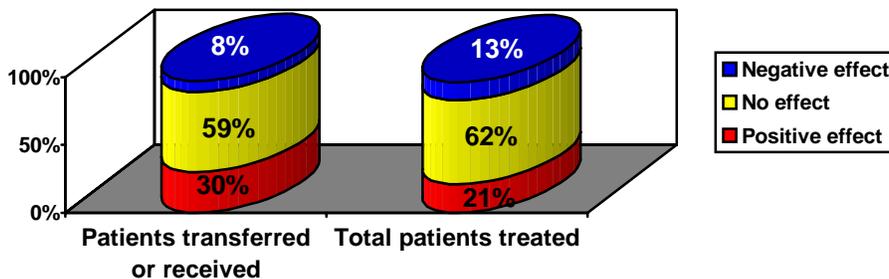


**Effects on the Hospitals - Acute Care**

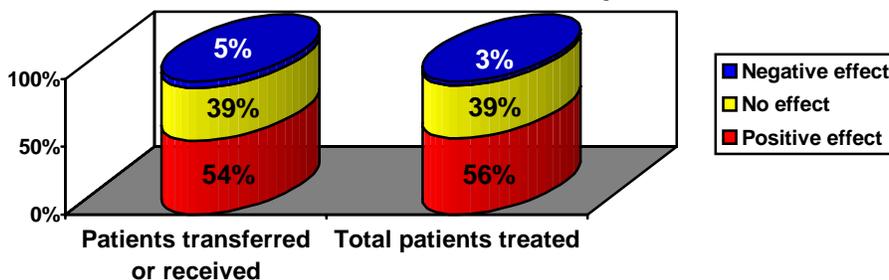


- About 56% of trauma hospitals report a positive effect on patient flow, conversely only 8% of acute care hospitals have seen a positive effect. The following graphs summarize their responses by total sample, trauma hospitals only, and acute care facilities only. Note that the trauma hospitals are more positive about the overall effects on patient volume than the acute care facilities.

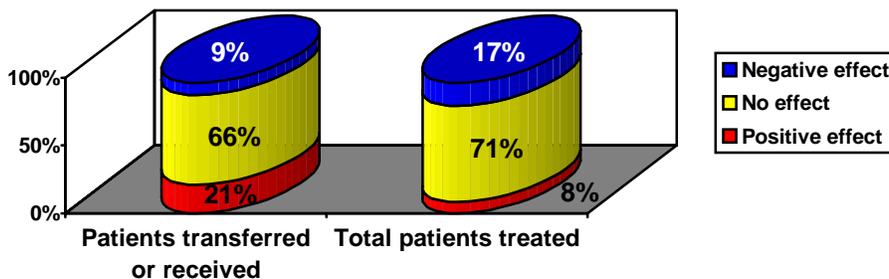
**Effects on Patient Volume - Total Sample**



**Effects on Patient Volume - Trauma Hospitals**



**Effects on Patient Volume - Acute Care**



- Only 4% of the respondents have seen changes in their staffing levels as a result of the trauma system implementation. About 1% reported a decrease in staffing. About 10% of trauma hospitals hired more staff as a result of the implementation.
- Three-quarters (79%) of hospitals that are not Level I trauma centers said that patients are *rarely* repatriated after being transferred to a higher-level trauma center.
- About 44% of trauma centers have made changes at their hospital as a result of the implementation, decreasing to 20% of acute care facilities.

## Summary

- Trauma hospitals are most likely to report a positive impact, with about three-quarters seeing some positive changes in their hospital and community as a result. Only about a third of acute care facilities saw a positive impact.
- Overall, about 20% of the acute care facilities reported a negative impact on their facility as a result of the trauma system implementation, compared to 10% of trauma hospitals.
- The following problems were most often cited by acute care facilities as a result of the trauma system implementation:
  - Problems in arranging or developing required elements of the trauma system.
  - Decreased revenue stream.
  - Decreased image of hospital within the community.
  - Decreased availability of hospital care in the community.
  - Decreased patient flow at their hospital.
- The following benefits were most often cited by trauma facilities as a result of the trauma system implementation:
  - Increased image of their hospital.
  - Increased efficiency of the ED.
  - Increased quality of care at their hospital.
  - Increased appropriateness of patients received at their hospital.
  - Increased patient flow at their hospital.



## OHIO'S TRAUMA SYSTEM OPINION SURVEY

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### 1. How familiar are you with Ohio's Trauma System?

	Total	TYPE OF HOSPITAL	
		Trauma	Acute
Number of Respondents	148	39	109
Very familiar	86 58.1%	28 71.8%	58 53.2%
Somewhat familiar	56 37.8%	11 28.2%	45 41.3%
Not very familiar	2 1.4%	0 0.0%	2 1.8%
Not at all familiar	2 1.4%	0 0.0%	2 1.8%
No answer	2 1.4%	0 0.0%	2 1.8%

OHIO'S TRAUMA SYSTEM OPINION SURVEY

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2. How would you describe the communications from the Ohio Department of Public Safety and the Ohio Hospital Association regarding the implementation of the trauma system? (CODES FOR MARY: 1 = VERY TIMELY, 2 = SOMEWHAT TIMELY, 3 = NOT TIMELY, 9 = NO ANSWER)

	Total	COMMUNICATION RATINGS				Mean
		Very	Somewhat	Not	DontKnow	
Timeliness	148 100.0%	57 38.5%	73 49.3%	11 7.4%	7 4.7%	1.7
Usefulness	148 100.0%	59 39.9%	78 52.7%	4 2.7%	7 4.7%	1.6
Understandable	148 100.0%	60 40.5%	74 50.0%	6 4.1%	8 5.4%	1.6

OHIO'S TRAUMA SYSTEM OPINION SURVEY

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2. How would you describe the communications from the Ohio Department of Public Safety and the Ohio Hospital Association regarding the implementation of the trauma system? (CODES FOR MARY: 1 = VERY TIMELY, 2 = SOMEWHAT TIMELY, 3 = NOT TIMELY, 9 = NO ANSWER)

TRAUMA HOSPITALS ONLY

	Total	COMMUNICATION RATINGS				Mean
		Very	Somewhat	Not	DontKnow	
Timeliness	39 100.0%	20 51.3%	17 43.6%	0 0.0%	2 5.1%	1.5
Usefulness	39 100.0%	22 56.4%	15 38.5%	0 0.0%	2 5.1%	1.4
Understandable	39 100.0%	22 56.4%	14 35.9%	1 2.6%	2 5.1%	1.4

OHIO'S TRAUMA SYSTEM OPINION SURVEY

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2. How would you describe the communications from the Ohio Department of Public Safety and the Ohio Hospital Association regarding the implementation of the trauma system? (CODES FOR MARY: 1 = VERY TIMELY, 2 = SOMEWHAT TIMELY, 3 = NOT TIMELY, 9 = NO ANSWER)

ACUTE CARE HOSPITALS ONLY

	Total	COMMUNICATION RATINGS				Mean	Mean
		Very	Somewhat	Not	DontKnow		
Timeliness	109 100.0%	37 33.9%	56 51.4%	11 10.1%	5 4.6%	0 0.0%	2.1
Usefulness	109 100.0%	37 33.9%	63 57.8%	4 3.7%	5 4.6%	0 0.0%	2.0
Understandable	109 100.0%	38 34.9%	60 55.0%	5 4.6%	6 5.5%	0 0.0%	2.1

## OHIO'S TRAUMA SYSTEM OPINION SURVEY

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Please provide comments that will help us understand your answers to Question 2.

### TRAUMA HOSPITALS ONLY

The ODPS/Trauma Committee has driven the implementation. Mike Glenn is always available.

We need more information; many people unaware of Trauma System.

ODPS has been excellent providing essential information regarding trauma system development. The information is complex and sometimes difficult to present clearly.

This is difficult for me to determine as I went to all Trauma state meetings, sat on registry and hospital sub committees, so I am well informed. I don't know if I can say that is because of OHA or ODPS.

Seems to be a bit unorganized.

We used Trauma Town meetings, website updates, and trauma guidelines.

Have had no community problems with ODDS.

Our institution is a Trauma Center and material was available Via Trauma Center sources. Little was received from other means.

The state system didn't necessarily fit the ideal system already well established in Toledo, especially in reference to delineating between levels 1,2,3, and 4 to patient transport.

As part of SORTS, information is disbursed via the regional group. I am not familiar with communications from ODPS.

### ACUTE CARE HOSPITALS ONLY

Legislative writing is not "always understandable". I strongly believe that many hospital providers do not realize the true impact of this legislation, and the impact it will have on their practice. This is especially true in non-metropolitan areas.

I did not receive much information; I contacted other hospitals for information.

Some ambiguity over who must be transferred out. DNR & transfer?

Information sometimes too "cerebral." Tell me what I need to know, not the entire volume of literature available.

## OHIO'S TRAUMA SYSTEM OPINION SURVEY

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Please provide comments that will help us understand your answers to Question 2.

ACUTE CARE HOSPITALS ONLY

As EMS Director here, I have been very involved in the new trauma system; the state had many meetings across Ohio to deliver the message.

Some surveys were confusing, no clear instruction on what data points actually entailed when concerning urban, rural and exactly what information is being asked.

The best program was at OSU; OSHealth Network gave it.

Communication was early, continuous. Town meetings were great. Input from everyone was valued.

Some criteria changed after the Trauma System started.

Need more directions on local levels for non-trauma center hospitals.

Only way we have knowledge is to go to the web site for updates.

Attended service in Columbus regarding law.

None of our emergency doctors knew anything about the law until my education packets went out.

No standard of treatment and stabilization protocols.

A lot of confusion on deadlines and what was needed to begin process of trauma verification.

We dealt with the Greater Cincinnati Hospital Council trauma person and not with ODPS.

We didn't receive a lot or pay much attention because we're an acute care hospital.

There still seems to be some variance on interpretation of the trauma laws. Sometimes hospitals see things differently.

Information was provided to the administration, but not directly to the ED.

I kept checking for hospital trauma protocols on the ODPS website and then finally found out that none could be put out because of their need to be individualized to each institution.

Education was given to area hospitals and EMS.

**OHIO'S TRAUMA SYSTEM OPINION SURVEY**

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**3. Do you feel that you need more information on any of the following? (MULTIPLE MENTION)**

	Total	TYPE OF HOSPITAL	
		Trauma	Acute
Number of Respondents	145	38	107
Trauma QI and peer review	66 45.5%	16 42.1%	50 46.7%
Hospital trauma protocols	58 40.0%	12 31.6%	46 43.0%
No info needed	43 29.7%	13 34.2%	30 28.0%
Field triage protocols/ destination protocols	25 17.2%	4 10.5%	21 19.6%
Transfer agreements	24 16.6%	6 15.8%	18 16.8%
No answer	4 2.8%	1 2.6%	3 2.8%

**OHIO'S TRAUMA SYSTEM OPINION SURVEY**

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**4. Have you had any problems in arranging or developing any of the following? (MULTIPLE MENTION)**

	Total	TYPE OF HOSPITAL	
		Trauma	Acute
Number of Respondents	148	39	109
No info needed	69 46.6%	26 66.7%	43 39.4%
Trauma QI and peer review	41 27.7%	8 20.5%	33 30.3%
Hospital trauma protocols	28 18.9%	3 7.7%	25 22.9%
Transfer agreements	19 12.8%	4 10.3%	15 13.8%
Field triage protocols/ destination protocols	10 6.8%	2 5.1%	8 7.3%
No answer	15 10.1%	3 7.7%	12 11.0%

OHIO'S TRAUMA SYSTEM OPINION SURVEY

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5. Please rate the impact of the trauma system implementation on your immediate community for each of the following factors. (CODES FOR MARY: 1 = STRONG NEGATIVE, 2 = SLIGHT NEGATIVE, 3 = NO IMPACT, 4 = SLIGHT POSITIVE, 5 = STRONG POSITIVE, 9 = NO ANSWER)

	Total	IMPACT RATING					Don't Know	Mean
		Strong Negative	Slight Negative	No Impact	Slight Positive	Strong Positive		
Overall quality of hospital care	148 100.0%	4 2.7%	4 2.7%	71 48.0%	41 27.7%	24 16.2%	4 2.7%	3.5
Quality of trauma care	148 100.0%	3 2.0%	5 3.4%	64 43.2%	41 27.7%	30 20.3%	5 3.4%	3.6
Availability of trauma care	148 100.0%	4 2.7%	7 4.7%	79 53.4%	27 18.2%	26 17.6%	5 3.4%	3.4
Availability of services at your hospital	147 100.0%	6 4.1%	12 8.2%	81 55.1%	23 15.6%	16 10.9%	9 6.1%	3.2

OHIO'S TRAUMA SYSTEM OPINION SURVEY

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5. Please rate the impact of the trauma system implementation on your immediate community for each of the following factors. (CODES FOR MARY: 1 = STRONG NEGATIVE, 2 = SLIGHT NEGATIVE, 3 = NO IMPACT, 4 = SLIGHT POSITIVE, 5 = STRONG POSITIVE, 9 = NO ANSWER)

TRAUMA HOSPITALS ONLY

	Total	IMPACT RATING					Don't Know	Mean
		Strong Negative	Slight Negative	No Impact	Slight Positive	Strong Positive		
Overall quality of hospital care	39 100.0%	0 0.0%	1 2.6%	11 28.2%	10 25.6%	16 41.0%	1 2.6%	4.1
Quality of trauma care	39 100.0%	0 0.0%	1 2.6%	8 20.5%	10 25.6%	18 46.2%	2 5.1%	4.2
Availability of trauma care	39 100.0%	0 0.0%	1 2.6%	11 28.2%	10 25.6%	16 41.0%	1 2.6%	4.1
Availability of services at your hospital	39 100.0%	0 0.0%	2 5.1%	13 33.3%	9 23.1%	14 35.9%	1 2.6%	3.9

**OHIO'S TRAUMA SYSTEM OPINION SURVEY**

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5. Please rate the impact of the trauma system implementation on your immediate community for each of the following factors. (CODES FOR MARY: 1 = STRONG NEGATIVE, 2 = SLIGHT NEGATIVE, 3 = NO IMPACT, 4 = SLIGHT POSITIVE, 5 = STRONG POSITIVE, 9 = NO ANSWER)

ACUTE CARE HOSPITALS ONLY

	Total	IMPACT RATING					Don't Know	Mean	Mean
		Strong Negative	Slight Negative	No Impact	Slight Positive	Strong Positive			
Overall quality of hospital care	109 100.0%	4 3.7%	3 2.8%	60 55.0%	31 28.4%	8 7.3%	3 2.8%	0 0.0%	3.5
Quality of trauma care	109 100.0%	3 2.8%	4 3.7%	56 51.4%	31 28.4%	12 11.0%	3 2.8%	0 0.0%	3.6
Availability of trauma care	109 100.0%	4 3.7%	6 5.5%	68 62.4%	17 15.6%	10 9.2%	4 3.7%	0 0.0%	3.4
Availability of services at your hospital	108 100.0%	6 5.6%	10 9.3%	68 63.0%	14 13.0%	2 1.9%	8 7.4%	0 0.0%	3.4

## OHIO'S TRAUMA SYSTEM OPINION SURVEY

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Please provide comments that will help us understand your answers to Question 5.

TRAUMA HOSPITALS ONLY

We are Level I Trauma Center. Although the legislation did not drive our decision about level I.

Feel we are very lucky in this area, excellent care.

Central Ohio has four adult and one pediatric trauma center, with that commitment and legislation getting patients to trauma centers, I believe the quality of care has improved significantly.

We've seen no change in our numbers.

I believe we are impacted because the right patient is getting to the right place at the right time. There's still no data to prove that, though, and we still have a long way to go.

People were already going to the trauma center when needed.

I feel the legislation was a driving factor in making hospitals compliant and how they chose to provide Trauma care

The trauma system in central Ohio, Columbus was fairly fine tuned prior to legislation.

Trauma patients are taken to the closest trauma center or are transferred there for stabilization.

Our region had a well-developed voluntary Trauma referral pattern before the law was implemented.

Becoming a trauma-verified center helped us become better at what we were already doing.

Due to our decision to become level 3, the quality, continuity and peer review of trauma care has increased and improved dramatically. Having 3 level ones in the immediate area already means that overall availability of trauma care has not changed in the area.

We are operating at the Level III provisional status. While care has improved due to implementation of protocols, the impact has been minimal.

In Cleveland, Trauma System was and has been in place for some years.

## OHIO'S TRAUMA SYSTEM OPINION SURVEY

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Please provide comments that will help us understand your answers to Question 5.

ACUTE CARE HOSPITALS ONLY

We are a non-verified ER, and squads are taking patients elsewhere as a result. Plus, our surgeons are reluctant to admit due to new trauma regs. Just now seeing our numbers going down.

At the present time, no providers in our area are designated as Trauma Centers. We have provided several educational programs for our employees and physicians, which were positive. The sad fact is, in my opinion, trauma designation can actually have a negative impact on care.

There are patients we are capable of treating, but are hesitant to keep due to the law. This sends patients 50 miles away where families cannot have easy access to them.

Forced our ED to develop trauma protocols. Local level I & II facilities are very willing to take all cases.

Prior to trauma system, EMS was calling for transfers at site to trauma centers when appropriate.

We are a small rural hospital and transferred trauma patients before implementation. If anything, we are more in tune to the time element and do review all trauma charts.

We are not a trauma designation, so nothing has changed.

We looked at all systems to provide care.

If able to provide the service, must we transfer in all cases?

Potential negative impact on orthopedic services, signification yet to be determined.

Resources have decreased; patients with minor trauma wait longer.

We are a rural hospital that is more than 30 minutes away from level I, II, or III trauma hospital, so the patients are still brought to our hospital for immediate care and then transferred to a level I or II hospital.

Even before the new trauma system, our area (around greater Cleveland) had no problems with trauma patients. We had protocol and cooperation from all agencies delivering trauma care.

We are a small hospital and have always transferred trauma patients. We have now implemented QI on all trauma transfers.

Unfortunately, we are not able to meet trauma guidelines.

## OHIO'S TRAUMA SYSTEM OPINION SURVEY

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**Please provide comments that will help us understand your answers to Question 5.**

ACUTE CARE HOSPITALS ONLY

EMS providers do not understand to use rural hospitals when trauma center time is more than 35 minutes or deplete service from area.

Can't impact our facility if I have no knowledge of the program.

Central Ohio had been working cooperatively regarding trauma patients for two to three years. Implementing the Ohio Trauma System created very few changes for us.

Lorain County does not have a designated Trauma Hospital.

We are not a trauma level hospital, so the potential of losing those patients will have slight impact.

Don't see the trauma patients, if we do we send them to trauma center,

We have chose not to seek designation, continue to provide rapid triage/stabilization and transfer.

We live very far away from Level I center, so we still transfer when possible.

It increased our awareness, but as a rural hospital with the nearest trauma center 100 miles away; our process already included rapid assessment and transfer.

Assessing seeking trauma designation level III through a business plan development.

The state had high quality before the system. Hospitals have monitored and improved that quality, but not due to this system. The bill only served to fill the coffers of the American College of Surgeons for designation surveys.

Central Ohio had a very good voluntary agreement with all hospitals and EMS participating thru the Central Ohio Trauma System association. It is a non-profit group that meets regularly and has several sub committees dealing with diversion, ethics and emergency preparedness among other things.

We are now pushing our nurses into more trauma continuing education classes. Also implementing more policies to stabilize the patient quickly for transfer to a trauma center.

If the neighborhood in which we provide service can no longer be brought to us, then we and the community will suffer. We are the only emergency department in the area but since it cannot be a trauma center, patients who in the past came here will be forced to other facilities.

We're now limited on the hospitals that we can send patients to.

## OHIO'S TRAUMA SYSTEM OPINION SURVEY

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Please provide comments that will help us understand your answers to Question 5.

ACUTE CARE HOSPITALS ONLY

There's not much of a volume impact on services.

There is a trauma center 2 miles away from us.

Some shift of trauma traffic has been made directly to trauma centers, which I feel has positive impacts for patients. Trauma care has been unchanged in our hospital.

Transfers were expedited.

Squads are over-triaging and bypassing us. They call Life Flight, etc.

We track more stats now, and we QA patients we never did before.

We do not receive major trauma patients from the EMS system and those who come on their own continue to do so.

Another helicopter was obtained by the Level I near us and is stationed by our town - they can be here in 5 minutes.

We are a small rural hospital that was used to transferring trauma out.

The trauma system implementation has not really changed anything for us.

Our trauma patients were low volume, and we have not felt the impact.

**OHIO'S TRAUMA SYSTEM OPINION SURVEY**

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6. Please rate the impact of the trauma system implementation on your hospital for each of the following factors. (CODES FOR MARY: 1 = STRONG NEGATIVE, 2 = SLIGHT NEGATIVE, 3 = NO IMPACT, 4 = SLIGHT POSITIVE, 5 = STRONG POSITIVE, 9 = NO ANSWER)

	Total	IMPACT RATING						Mean
		Strong Negative	Slight Negative	No Impact	Slight Positive	Strong Positive	Don't Know	
Appropriateness of patients your hospital receives	148 100.0%	3 2.0%	7 4.7%	85 57.4%	37 25.0%	14 9.5%	2 1.4%	3.4
Ability to recruit staff such as physicians or nurses	148 100.0%	2 1.4%	7 4.7%	116 78.4%	14 9.5%	7 4.7%	2 1.4%	3.1
The efficiency of the Emergency Department at your hospital	148 100.0%	0 0.0%	6 4.1%	85 57.4%	41 27.7%	14 9.5%	2 1.4%	3.4
The image of your hospital in the community	148 100.0%	5 3.4%	15 10.1%	83 56.1%	27 18.2%	17 11.5%	1 0.7%	3.2
The variety of surgical procedures that your hospital	148 100.0%	5 3.4%	6 4.1%	117 79.1%	12 8.1%	7 4.7%	1 0.7%	3.1
The revenue stream for your hospital	148 100.0%	4 2.7%	20 13.5%	101 68.2%	18 12.2%	1 0.7%	4 2.7%	2.9
Overall work load at your hospital	148 100.0%	2 1.4%	12 8.1%	109 73.6%	18 12.2%	6 4.1%	1 0.7%	3.1
Overall quality of care at your hospital	148 100.0%	1 0.7%	6 4.1%	92 62.2%	34 23.0%	14 9.5%	1 0.7%	3.4

**OHIO'S TRAUMA SYSTEM OPINION SURVEY**

6. Please rate the impact of the trauma system implementation on your hospital for each of the following factors. (CODES FOR MARY: 1 = STRONG NEGATIVE, 2 = SLIGHT NEGATIVE, 3 = NO IMPACT, 4 = SLIGHT POSITIVE, 5 = STRONG POSITIVE, 9 = NO ANSWER)

TRAUMA HOSPITALS ONLY

	Total	IMPACT RATING					Don't Know	Mean
		Strong Negative	Slight Negative	No Impact	Slight Positive	Strong Positive		
Appropriateness of patients your hospital receives	39 100.0%	0 0.0%	3 7.7%	12 30.8%	15 38.5%	8 20.5%	1 2.6%	3.7
Ability to recruit staff such as physicians or nurses	39 100.0%	0 0.0%	2 5.1%	19 48.7%	11 28.2%	6 15.4%	1 2.6%	3.6
The efficiency of the Emergency Department at your hospital	39 100.0%	0 0.0%	3 7.7%	10 25.6%	16 41.0%	10 25.6%	0 0.0%	3.8
The image of your hospital in the community	39 100.0%	0 0.0%	0 0.0%	8 20.5%	18 46.2%	13 33.3%	0 0.0%	4.1
The variety of surgical procedures that your hospital	39 100.0%	0 0.0%	0 0.0%	25 64.1%	8 20.5%	6 15.4%	0 0.0%	3.5
The revenue stream for your hospital	39 100.0%	0 0.0%	3 7.7%	19 48.7%	15 38.5%	1 2.6%	1 2.6%	3.4
Overall work load at your hospital	39 100.0%	0 0.0%	5 12.8%	16 41.0%	13 33.3%	5 12.8%	0 0.0%	3.5
Overall quality of care at your hospital	39 100.0%	0 0.0%	0 0.0%	14 35.9%	14 35.9%	11 28.2%	0 0.0%	3.9

**OHIO'S TRAUMA SYSTEM OPINION SURVEY**

6. Please rate the impact of the trauma system implementation on your hospital for each of the following factors. (CODES FOR MARY: 1 = STRONG NEGATIVE, 2 = SLIGHT NEGATIVE, 3 = NO IMPACT, 4 = SLIGHT POSITIVE, 5 = STRONG POSITIVE, 9 = NO ANSWER)

ACUTE CARE HOSPITALS ONLY

	Total	IMPACT RATING					Don't Know	Mean	Mean
		Strong Negative	Slight Negative	No Impact	Slight Positive	Strong Positive			
Appropriateness of patients your hospital receives	109 100.0%	3 2.8%	4 3.7%	73 67.0%	22 20.2%	6 5.5%	1 0.9%	0 0.0%	3.3
Ability to recruit staff such as physicians or nurses	109 100.0%	2 1.8%	5 4.6%	97 89.0%	3 2.8%	1 0.9%	1 0.9%	0 0.0%	3.0
The efficiency of the Emergency Department at your hospital	109 100.0%	0 0.0%	3 2.8%	75 68.8%	25 22.9%	4 3.7%	2 1.8%	0 0.0%	3.4
The image of your hospital in the community	109 100.0%	5 4.6%	15 13.8%	75 68.8%	9 8.3%	4 3.7%	1 0.9%	0 0.0%	3.0
The variety of surgical procedures that your hospital	109 100.0%	5 4.6%	6 5.5%	92 84.4%	4 3.7%	1 0.9%	1 0.9%	0 0.0%	3.0
The revenue stream for your hospital	109 100.0%	4 3.7%	17 15.6%	82 75.2%	3 2.8%	0 0.0%	3 2.8%	0 0.0%	3.0
Overall work load at your hospital	109 100.0%	2 1.8%	7 6.4%	93 85.3%	5 4.6%	1 0.9%	1 0.9%	0 0.0%	3.0
Overall quality of care at your hospital	109 100.0%	1 0.9%	6 5.5%	78 71.6%	20 18.3%	3 2.8%	1 0.9%	0 0.0%	3.2

## OHIO'S TRAUMA SYSTEM OPINION SURVEY

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Please provide comments that will help us understand your answers to Question 6.

### TRAUMA HOSPITALS ONLY

Trauma Center had driven the overall improvement of care throughout the hospital.

We usually appropriately receive trauma patients. We really haven't utilized trauma designation to recruit. The slight negative impact at the hospital is due to census and hospital beds being full.

The perception among emergency nurses that "all trauma" patients would require transfer to our institution was partially responsible for some RN attrition.

A slight number of patients are now coming here that weren't before.

Increase specialized equipment and more than just ER nurses.

Strengthened and enhanced EMS destination choices. Raised visibility of our hospital as providing trauma care.

We already diverted level one trauma and pediatric traumas to level one facility. Being first level three among the other facilities and improving our own trauma care has helped our image, at least among care providers.

Emphasis should not have been with guidelines at the EMS level. They should transport to the nearest hospital. The hospital and the medical professionals should be the ones to make the decisions about transfers to trauma centers.

Mild increases in trauma.

As a Level III, we continue to transfer multi-system trauma to a higher level of care.

### ACUTE CARE HOSPITALS ONLY

Some orthopedic cases that our two board certified orthopods could and should be doing are being transferred out due to hospital not being a "trauma" hospital. This creates a negative impact on the family, as well as the patient when they are forced to go to Toledo or Cleveland for care.

We have always shipped those patients that we were not capable of treating. Our EMS system has always called Life Flight for critical patients.

Our EMS system has always been proactive to remove victims from site to trauma center if available. If not able, we have emergency trained physicians and nurses capable of stabilization and necessary interventions for patient treatment. We make every effort to ensure quality care and arrange care.

Up graded system/care where needed.

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## OHIO'S TRAUMA SYSTEM OPINION SURVEY

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Please provide comments that will help us understand your answers to Question 6.

ACUTE CARE HOSPITALS ONLY

Mandatory transfers of borderline cases well within the capability of facility has potential to have negative impact.

Trauma is another "stamp" we do not have. Region one resources are low.

Since we have not become a level I, II, or III trauma center, and we are more than 30 minutes away from any other hospital, there has been very little impact on our hospital because we daily transferred patients to these hospitals prior to the trauma system being implemented.

We have been delivering pre-hospital trauma courses and guidelines for trauma patients before the Ohio Trauma legislation.

Our hospital has limited surgery due to specialists. We are a rural hospital with many non-paying patients.

Our operations overall have not changed, however we have had some patients bypass us that we are able to care for and appropriately treat.

No information, no change, no impact.

Even before trauma bill we transferred trauma to other hospital due to small rural hospital unable to handle major traumas.

Were a very rural area and things aren't available to us like those in bigger hospitals, but we are growing.

We're the only game in town and have an excellent relationship with EMS. They have been taking appropriate patients to Level 2 facility even prior to Trauma System. Expect efficiency and quality to improve once training/implementation of protocol is complete.

Our Trauma Centers are dedicated to quality patient care.

Rural Hospital, certain services such as neurosurgery never has been available, perhaps greatest impact is awareness and need for less testing prior to transfer.

We lose valuable patients who can be treated at our facility without going to a trauma center.

Have not seen a change to our patient population. Multiple trauma usually is transferred from scene to level I trauma for past several years.

We are a small rural hospital approximately 50 miles away from a level I trauma center and, because of our location, we

see everything.

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## OHIO'S TRAUMA SYSTEM OPINION SURVEY

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Please provide comments that will help us understand your answers to Question 6.

ACUTE CARE HOSPITALS ONLY

The system has no impact. We were high quality before, and we still are now. The survey is slanted to make the system "look better" when it really has done very little to change or improve trauma care.

We may see some benefit from advertising as a level III, but our actual treatment of patients will not change.

Basically no change. Transfers/trauma are handled the same.

We are a rural hospital, non-trauma center. Our surgeons did not keep trauma patients anyhow. Not much has changed.

Our hospital is a rural hospital 30 minutes away from a trauma center. We still get our traumas if helicopter not flying.

Not a trauma center. Trauma patients transferred to appropriate care setting.

We now have to transfer trauma patients, so that makes our decision-making process easier.

Some cases don't come here now, but it's not substantial.

Possibly a loss of trauma cases to new trauma triage rules.

Increased education in ED department.

We're not getting patients we would have. We're not a trauma center.

We have had no turnover since this change; however, our QA/QI processes have improved.

We are not able to pursue Level III status, but the trauma registry, QA, and new trauma alert system for the ED are having a positive impact.

It affects our image with nearby hospitals.

We haven't necessarily lost any patients to other hospitals because of the protocols. We haven't seen much change - at least not yet.

Some people don't want to be transferred.

OHIO'S TRAUMA SYSTEM OPINION SURVEY

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7. Please check the box that best describes your impression of the change in the number of patients seen at your hospital since the implementation of the Ohio Trauma System in November 2002. (CODES FOR MARY: 1 = SIGNIFICANTLY LESS, 2 = SLIGHTLY LESS, 3 = NO CHANGE, 4 = SLIGHTLY MORE, 5 = SIGNIFICANTLY MORE, 9 = NO ANSWER)

		CHANGE IN NUMBER OF PATIENTS						
Total		Signific Less	Slightly Less	No Change	Slightly More	Signific More	Don't Know	Mean
Number of patients you transfer to a trauma center or	148 100.0%	2 1.4%	10 6.8%	87 58.8%	40 27.0%	4 2.7%	5 3.4%	3.2
Number of total patients your hospital treats	148 100.0%	2 1.4%	17 11.5%	92 62.2%	27 18.2%	4 2.7%	6 4.1%	3.1

OHIO'S TRAUMA SYSTEM OPINION SURVEY

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7. Please check the box that best describes your impression of the change in the number of patients seen at your hospital since the implementation of the Ohio Trauma System in November 2002. (CODES FOR MARY: 1 = SIGNIFICANTLY LESS, 2 = SLIGHTLY LESS, 3 = NO CHARGE, 4 = SLIGHTLY MORE, 5 = SIGNIFICANTLY MORE, 9 = NO ANSWER)

TRAUMA HOSPITALS ONLY

	Total	CHANGE IN NUMBER OF PATIENTS					Don't Know	Mean
		Signific Less	Slightly Less	No Change	Slightly More	Signific More		
Number of patients you transfer to a trauma center or	39 100.0%	0 0.0%	2 5.1%	15 38.5%	20 51.3%	1 2.6%	1 2.6%	3.5
Number of total patients your hospital treats	39 100.0%	0 0.0%	1 2.6%	15 38.5%	19 48.7%	3 7.7%	1 2.6%	3.6

OHIO'S TRAUMA SYSTEM OPINION SURVEY

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7. Please check the box that best describes your impression of the change in the number of patients seen at your hospital since the implementation of the Ohio Trauma System in November 2002. (CODES FOR MARY: 1 = SIGNIFICANTLY LESS, 2 = SLIGHTLY LESS, 3 = NO CHARGE, 4 = SLIGHTLY MORE, 5 = SIGNIFICANTLY MORE, 9 = NO ANSWER)

ACUTE CARE HOSPITALS ONLY

	Total	CHANGE IN NUMBER OF PATIENTS					Don't Know	Mean	Mean
		Signific Less	Slightly Less	No Change	Slightly More	Signific More			
Number of patients you transfer to a trauma center or	109 100.0%	2 1.8%	8 7.3%	72 66.1%	20 18.3%	3 2.8%	4 3.7%	0 0.0%	3.3
Number of total patients your hospital treats	109 100.0%	2 1.8%	16 14.7%	77 70.6%	8 7.3%	1 0.9%	5 4.6%	0 0.0%	3.2

## OHIO'S TRAUMA SYSTEM OPINION SURVEY

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**Please provide comments that will help us understand your answers to Question 7.**

### TRAUMA HOSPITALS ONLY

The number of patients as well as the number of transfers had gone up 71% annually.

Increase in demands, new policies implemented to deal with this.

The past five years we have seen steady growth in the number of trauma patients.

It's still a little too early to tell.

Our system here was established prior to legislation.

Volume up by 10%.

As a Level II trauma center, we now receive trauma patients from hospitals that never sent us patients prior to trauma bill.

Data collected is consistent with the previous 2 years.

### ACUTE CARE HOSPITALS ONLY

Patients who have been cared for here for 20 years now get transferred to a Trauma Center where the infection rates are 3 to 4 times what they are here, or in any of our area community hospitals. It doesn't seem like we are doing the patient any favor by transferring them to another facility.

I counted 12 patients last year that we kept that with the new law would have been questionable.

Main campus of our system is now Level II, so has made our transfers more seamless.

Patients still arrive in ER, but more likely to be transferred.

The same number still come to ER for stabilization and immediate treatment, but a few more have been transferred to a trauma center.

Some bypass our system to go to trauma center, but not many.

No information, no change, no impact.

Tend to be on cautious side and transfer.

## OHIO'S TRAUMA SYSTEM OPINION SURVEY

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Please provide comments that will help us understand your answers to Question 7.

ACUTE CARE HOSPITALS ONLY

We rarely receive any from other facilities.

Patients go straight to the trauma center that would normally come to us.

We recognize our limitations and effected transfers for many years.

We have only a trauma III 47 miles away that would take EMS out of local service area.

Rural hospital, only in area.

Trauma patients were already being appropriately transferred.

Sometimes have transferred patients that maybe we would not have transferred before, only to have them discharged from trauma center emergency departments.

Not much has changed.

It is my understanding that we will not get the patients at all.

We still receive trauma patients to stabilize them and transfer, but it's rare.

Our transfer-out numbers have not changed significantly.

Because we educated EMS to call helicopter.

More traumas are going directly from the scene to a trauma center, but also the ED doctor is more willing to send a patient to a trauma center now.

OHIO'S TRAUMA SYSTEM OPINION SURVEY

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8. Have you lost or gained staff as a result of the trauma system implementation?

	Total	TYPE OF HOSPITAL	
		Trauma	Acute
Number of Respondents	148	39	109
Lost staff	2 1.4%	1 2.6%	1 0.9%
Neither	140 94.6%	34 87.2%	106 97.2%
Gained staff	5 3.4%	4 10.3%	1 0.9%
No answer	1 0.7%	0 0.0%	1 0.9%

OHIO'S TRAUMA SYSTEM OPINION SURVEY

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9. When you transfer patients to a higher-level trauma center, how often are they repatriated for follow-up care (i.e., how often do they return to your hospital for follow-up care)?

	Total	TYPE OF HOSPITAL	
		Trauma	Acute
Number of Respondents	148	39	109
Not applicable, we are a Level I Trauma Center	13 8.8%	13 33.3%	0 0.0%
Nearly all of the time	5 3.4%	3 7.7%	2 1.8%
Most of the time	21 14.2%	4 10.3%	17 15.6%
Rarely	95 64.2%	18 46.2%	77 70.6%
No answer	14 9.5%	1 2.6%	13 11.9%

OHIO'S TRAUMA SYSTEM OPINION SURVEY

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10. Have you made any major changes in your hospital as a direct result of the new trauma system? If YES, please describe.

	Total	TYPE OF HOSPITAL	
		Trauma	Acute
Number of Respondents	147	39	108
<b><u>NO, WE HAVE NOT MADE CHANGES</u></b>	<b>107</b>	<b>22</b>	<b>85</b>
	<b>72.8%</b>	<b>56.4%</b>	<b>78.7%</b>
<b><u>YES, WE HAVE MADE THE FOLLOWING CHANGES:</u></b>	<b>39</b>	<b>17</b>	<b>22</b>
	<b>26.5%</b>	<b>43.6%</b>	<b>20.4%</b>
Developed trauma protocols/ guidelines	14 9.5%	5 12.8%	9 8.3%
Started Trauma Service/became a trauma center	9 6.1%	7 17.9%	2 1.9%
Improved care/trauma care	6 4.1%	2 5.1%	4 3.7%
Set up Trauma Response Teams	6 4.1%	4 10.3%	2 1.9%
Trauma education for staff	6 4.1%	1 2.6%	5 4.6%
Developed Trauma QI/peer review	6 4.1%	5 12.8%	1 0.9%
Updated/purchased equipment	4 2.7%	1 2.6%	3 2.8%

(continued)

OHIO'S TRAUMA SYSTEM OPINION SURVEY

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10. Have you made any major changes in your hospital as a direct result of the new trauma system? If YES, please describe.(continued)

	Total	TYPE OF HOSPITAL	
		Trauma	Acute
Number of Respondents	147	39	108
Extra meetings	4 2.7%	1 2.6%	3 2.8%
Working more closely with EMS/ prehospital care	3 2.0%	2 5.1%	1 0.9%
Have trauma surgeons on-call	1 0.7%	1 2.6%	0 0.0%
Developed Resuscitation Team	1 0.7%	1 2.6%	0 0.0%
Developed pediatric care	1 0.7%	1 2.6%	0 0.0%
Increased fees/expenses	1 0.7%	0 0.0%	1 0.9%
No answer what changes	3 2.0%	2 5.1%	1 0.9%
<b><u>NO ANSWER</u></b>	<b>1 0.7%</b>	<b>0 0.0%</b>	<b>1 0.9%</b>

**OHIO'S TRAUMA SYSTEM OPINION SURVEY**

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**11. Do you have any additional comments you would like to make about the implementation for the trauma system?**

TRAUMA HOSPITALS ONLY

Central Ohio has too many trauma centers for its population. You get better by doing more. The number of centers dilutes the population at all centers.

The problem is the lack of definitive language describing transfer obligations.

We are in much better shape to care for trauma patients since we developed an all-inclusive system.

Regional EMS is disorganized, with no central authority.

Helicopter continues to be grossly overused, is this a significant improvement?

ACUTE CARE HOSPITALS ONLY

In my opinion, the trauma system as passed is flawed. Ohio has turned over control to an outside agency by adopting the American College of Surgeon standards for all trauma levels. Ohio is the only state to do that. After the legislation was passed, which we did not oppose, the American College of Surgeons changed one of their standards to the "15 minute rule". The American College Surgeons standards are probably very good for Level I and Level II Trauma Centers, but Ohio is the only state where Level III Trauma Centers are controlled by the same standards.

It bothers our facility that a region can implement changes when only those voting members of the region, RPAB want the changes. Outside of these members there is no voting privilege.

We are a community hospital with two level I trauma centers one mile away. The EMS transports to the centers.

Requirements for transfer agreements leads to clauses requiring transferring facility to accept back patients after acute phase, but leaves discretion in hands of trauma center who can pick and choose who they keep or who they return.

Region I is not ready.

No major changes, met with staff and EMS under our medical director and reviewed new legislation with them.

We need funding for regional projects such as QA.

Transfer agreements, some certain language continuing transferring hospitals responsibilities that is unrealistic, en route squad/choppers call their Medical Directors, not us!

## OHIO'S TRAUMA SYSTEM OPINION SURVEY

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### 11. Do you have any additional comments you would like to make about the implementation for the trauma system?

ACUTE CARE HOSPITALS ONLY

Live in community with three level I trauma centers, saturated trauma community already. For the most part have not seen any major changes.

The Trauma System is a good concept; however, there are no funds available for what they want the regions to do. Surgeons lose interest in seeing patients in the ER, just transfer.

Difficulty getting physician participation and cooperation.

It did not have an impact; quality of care was high before and still is.

Sometimes it seems like a gray zone as to what should be transferred. Frustrating.

Feel Ohio Trauma System is a good system, but if you're an acute care facility and trying for a level III, it is hard to meet all the criteria if you're in a rural area.

We needed more meetings or discussions directly with the hospitals to better educate them at the beginning.

Maybe some assistance with protocols would have helped. Even generic ones to be modified would have helped.

We have to send patients to Columbus, which is 150-200 miles away. We did use Wheeling at one time, which is only 25 miles away, but they lost their trauma center.

We would like more information on becoming a verified Level III or to validate if we are even eligible.

**OHIO'S TRAUMA SYSTEM OPINION SURVEY**

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**12. Please check the box that best describes your hospital.**

	Total	TYPE OF HOSPITAL	
		Trauma	Acute
Number of Respondents	148	39	109
Acute care facility	107 72.3%	0 0.0%	107 98.2%
Verified Level I	13 8.8%	13 33.3%	0 0.0%
Verified Level II	10 6.8%	10 25.6%	0 0.0%
Verified Level III	1 0.7%	1 2.6%	0 0.0%
Provisional Level II	4 2.7%	4 10.3%	0 0.0%
Provisional Level III	11 7.4%	11 28.2%	0 0.0%
In transition	2 1.4%	0 0.0%	2 1.8%

**OHIO'S TRAUMA SYSTEM OPINION SURVEY**

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REGION	TYPE OF HOSPITAL		
	Total	Trauma	Acute
Number of Respondents	148	39	109
Region 1	16 10.8%	3 7.7%	13 11.9%
Region 2	11 7.4%	5 12.8%	6 5.5%
Region 3	10 6.8%	3 7.7%	7 6.4%
Region 4	13 8.8%	5 12.8%	8 7.3%
Region 5	23 15.5%	5 12.8%	18 16.5%
Region 6	12 8.1%	3 7.7%	9 8.3%
Region 7	16 10.8%	4 10.3%	12 11.0%
Region 8	6 4.1%	3 7.7%	3 2.8%
Region 9	22 14.9%	7 17.9%	15 13.8%
Region 10	6 4.1%	1 2.6%	5 4.6%
No answer	13 8.8%	0 0.0%	13 11.9%