



# **Decreasing injury-related trauma in Amish children age 0-16 years in Northeast Ohio**

Sapna Satyanarayan, MPH

Edward Barksdale, MD

Rainbow Babies & Children's  
Hospital

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# The Amish

- Christian religious group unique to the U.S.
- Primarily live in rural Ohio, Indiana, and Pennsylvania
- 17<sup>th</sup> century lifestyle

# The Farm

Where children  
live, play, and  
work



# Risk Factors for Injury-Related Trauma

Horse and buggy is primary mode of transportation



# Implications

- **Access**
- **Rapid population growth**
  - 30-40% increase per decade
  - 52% of population is younger than 20 years of age

# Hypotheses

- 1. Amish children are prone to accidental trauma because of their 17<sup>th</sup> century cultural practices**
- 1. Implementing a culturally-sensitive intervention will reduce the incidence of accidental trauma in Amish children**

# Specific Aims

- 1) Identify patterns of injury-related trauma among Amish children age 0-16 years in Northeast Ohio
- 1) Design and implement an intervention to reduce the pattern of injury-related trauma

# Specific Aims

- 3) Test the intervention among Amish youth in Northeast Ohio and evaluate the results
- 3) Create a general model for communicating health information to high-risk, culturally isolated populations



# Our Research Team

- Divisions of Pediatric Surgery and Pediatric Trauma, Rainbow Babies & Children's Hospital
- Strong interest in better serving the Amish community and preventing child injuries

# Collaborators

- Drs. Jill Korbin & Lawrence Greksa, Dept. of Anthropology
- LouAnn Marx, RN, UH Physician Relations
- Kathy Wesolowski, RBC Injury Prevention
- Dr. Sanjay Ahuja, RBC Hemophilia Treatment Center



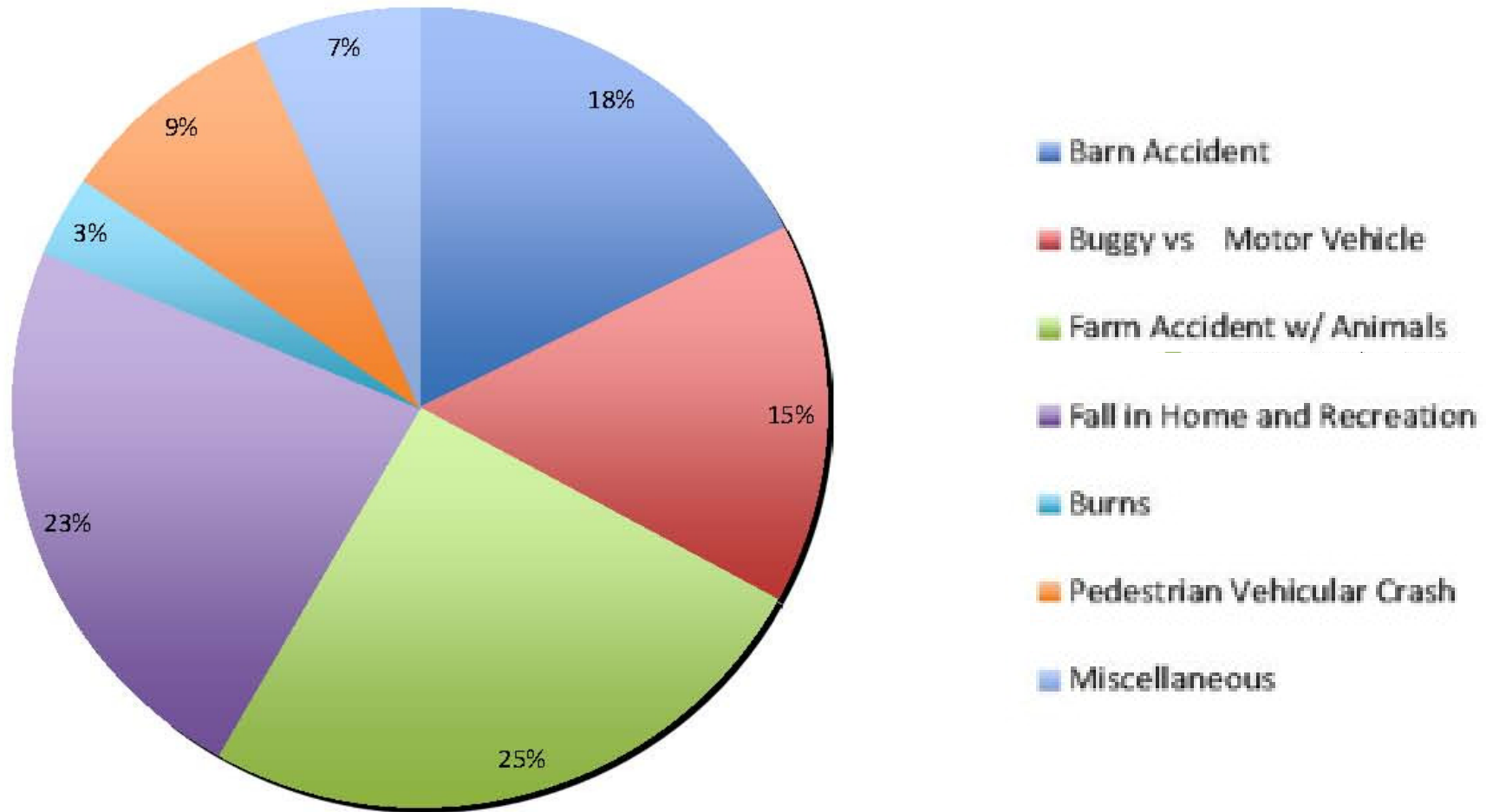
# Das Deutsch Clinic



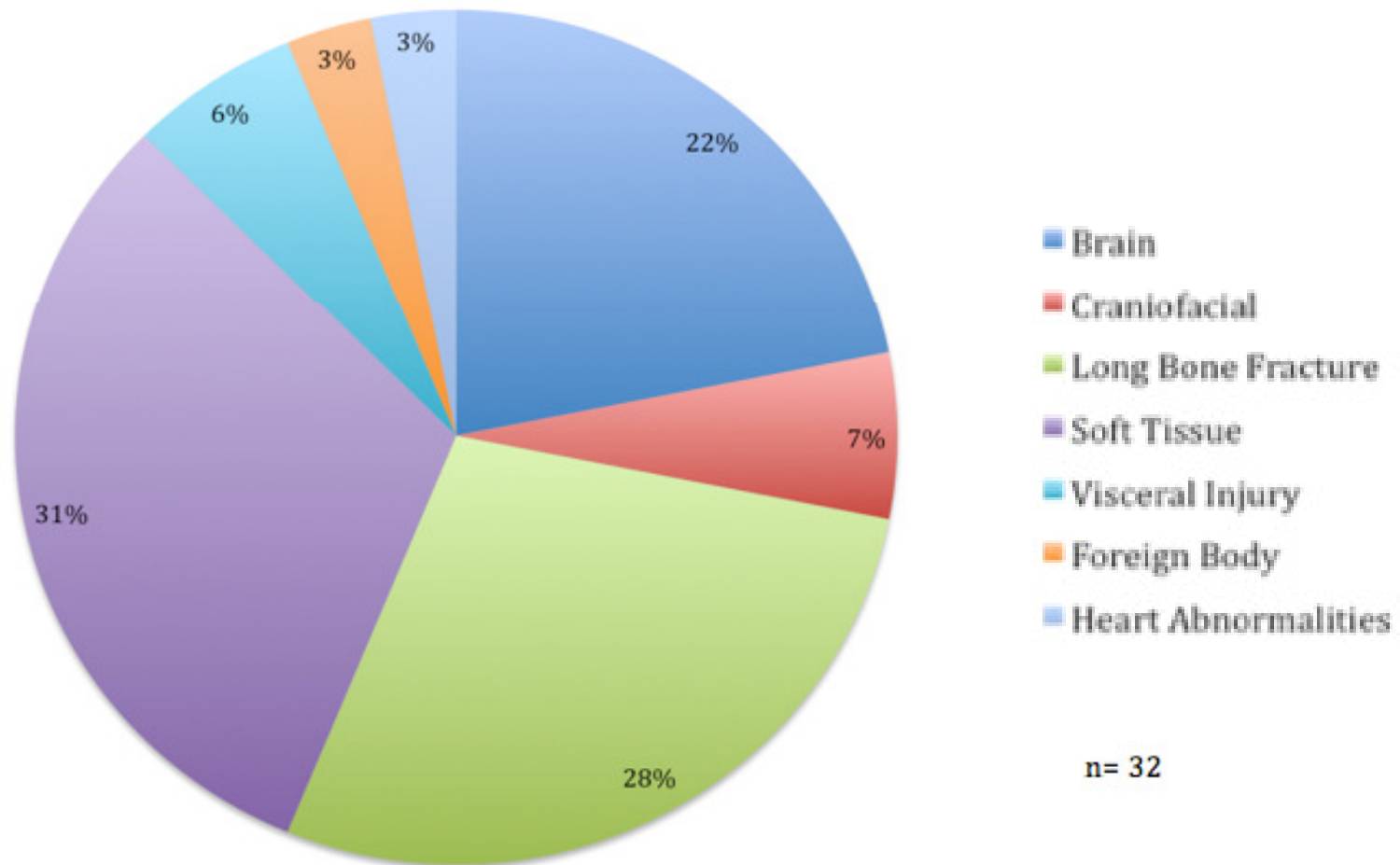
# Preliminary Work

- Ten-year chart review from 1989 to 2009(n=120) of Amish children in the University Hospitals Trauma Registry

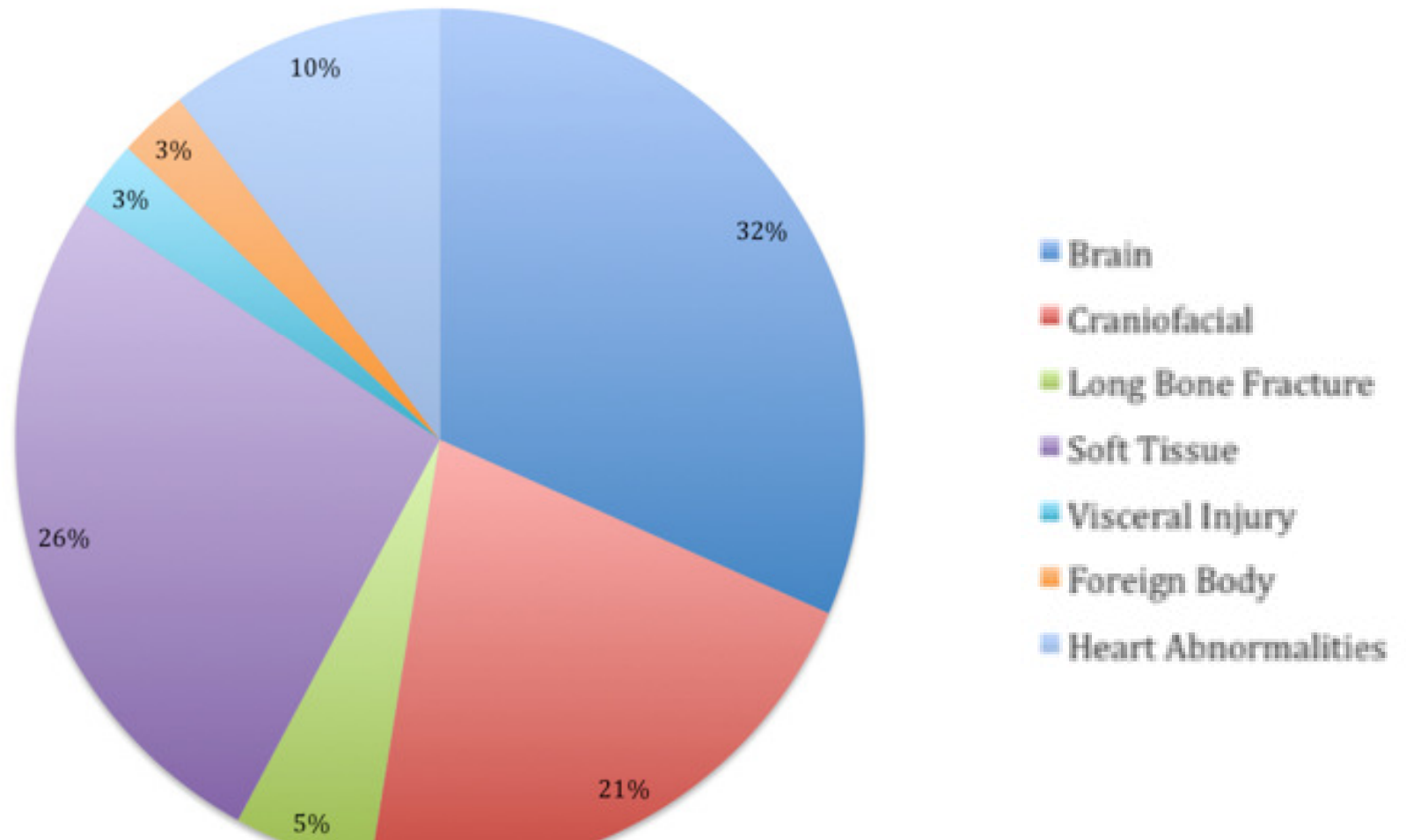
# Causes of Injury-Related Trauma in Amish Children



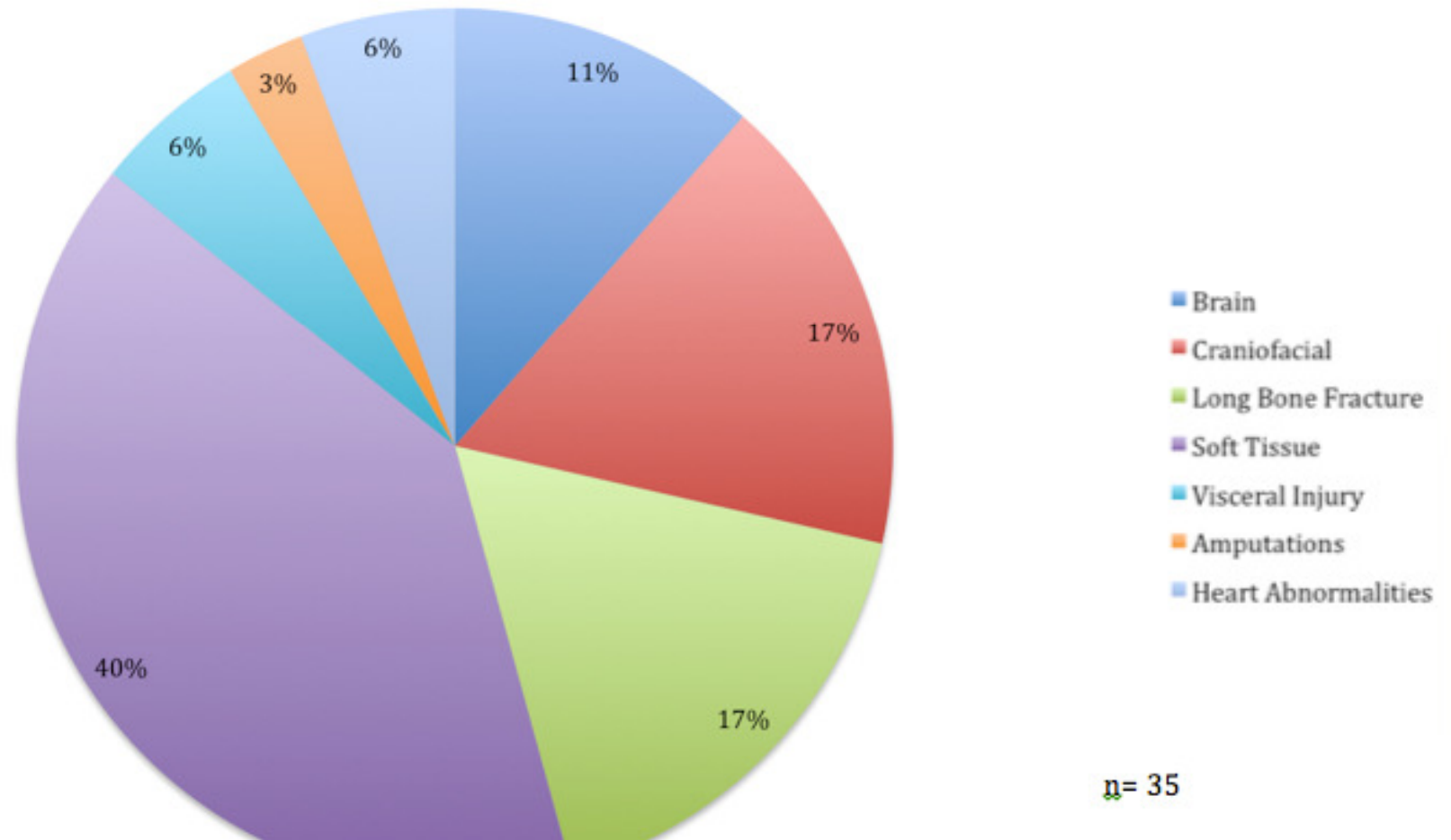
# Pattern of Injury of Non-Barn Falls



# Pattern of Injury of Falls in Barn

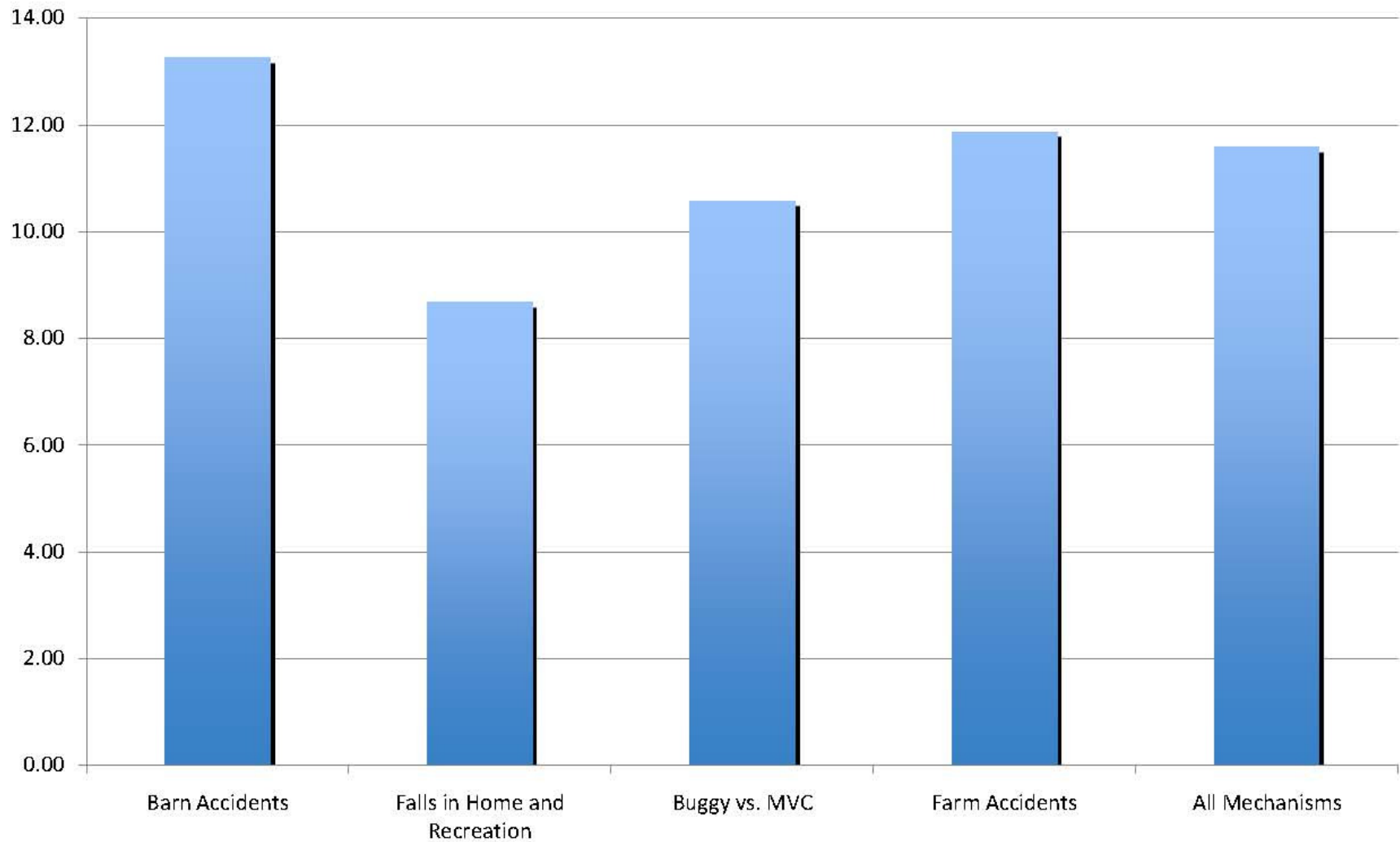


# Pattern of Injury of Farm Accidents with Animals

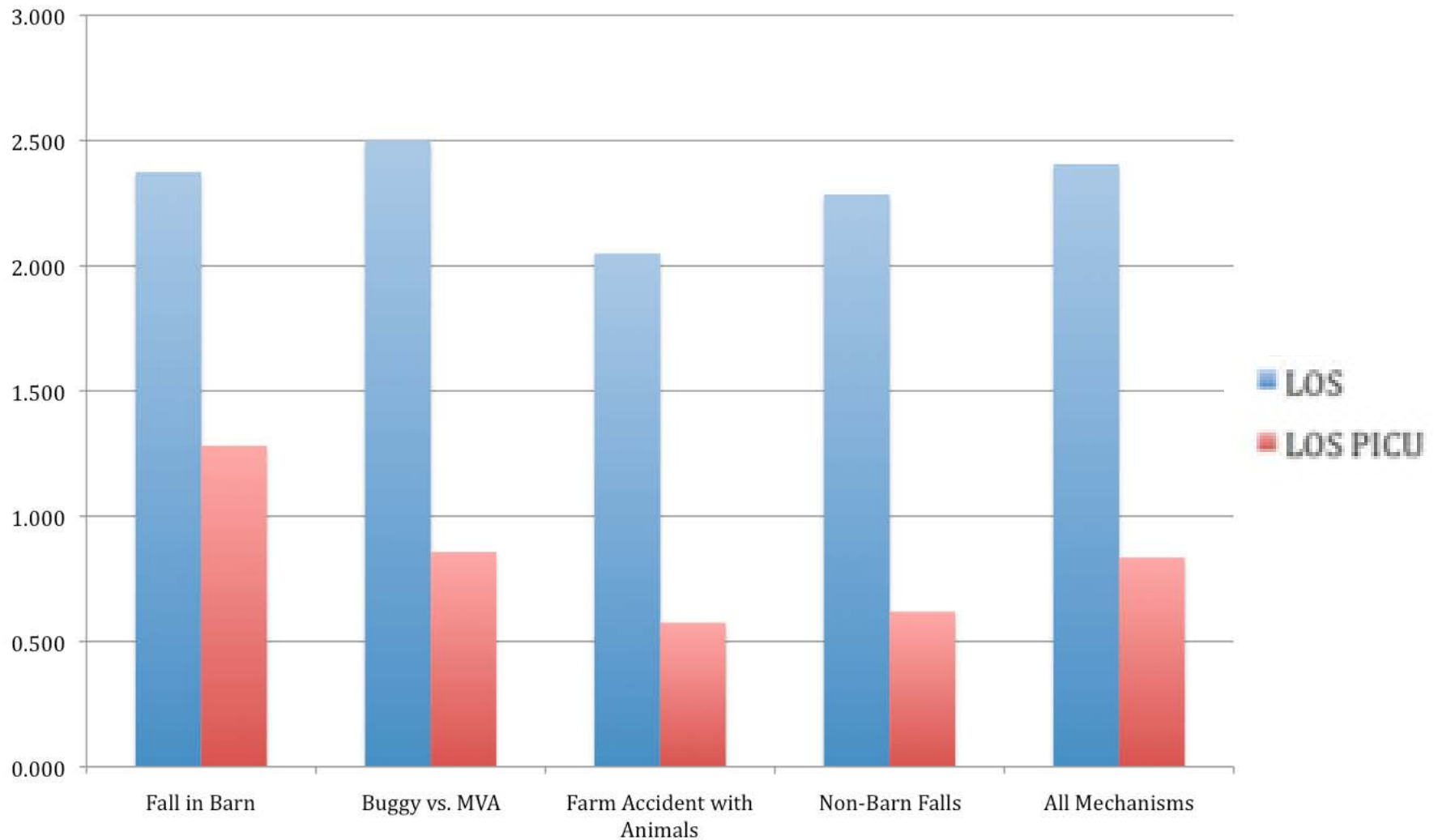




# Average Injury Severity Score



# Average Length of Stay





# Questionnaire Development

- Assess attitudes towards injury-related trauma in Amish youth age 10-16 years and injury-prevention strategies
- Pilot testing at Das Deutsch clinic

A short questionnaire to assess attitudes towards injury-related trauma among Amish children age 10-16 years in Northeast Ohio and perceived need for harm-reduction intervention

Principal Investigator: Edward Barksdale, M.D.

INSTRUCTIONS: Please circle your answer for each of the 15 questions below. Please think about your children between the ages of 10 and 16 when you are answering questions about activities. If your child is present, you may ask them to give you the information about what activities they are involved with.


Please do not put any identifying information on this sheet like your name or address to protect the confidentiality of your information.

1. Are you Amish?
  - a) Yes
  - b) No
2. How old are you?
3. What is your job?
4. Which county do you live in?
5. Are you:
  - a) Male
  - b) Female
6. How many children do you have?
7. How often do your children between the ages of 10 and 16 do the following (please check one):


	Never	Almost Never (less than once every six months)	Sometimes (2-3 times per month)	Often (2-3 times per week)	Very Often (more than 4 times per week)
Play on a Trampoline					
Ride a Bicycle, Scooter, or Rollerblade					



11. How important is safety education for your children between the ages of 10 and 16 for each of the following activities? following activities, on a scale of 1 to 5 (1 being “not important” and 5 being “very important”),?

	Very serious  Not serious				
	5	4	3	2	1
Trampoline use	5	4	3	2	1
Basketball	5	4	3	2	1
Baseball	5	4	3	2	1
Football	5	4	3	2	1
Bicycling, Rollerblading, Scootering	5	4	3	2	1
Stairs and other falling hazards in the home	5	4	3	2	1
Barn work	5	4	3	2	1
Water safety (around ponds and lakes)	5	4	3	2	1
Machinery used for carpentry	5	4	3	2	1
Machinery used for farming	5	4	3	2	1

12. How likely are you to change your behavior after learning more about accident prevention in the following areas, on a scale of 1 to 5 (1 being “not likely” and 5 being “very likely”),?

	Very likely  Not likely				
	5	4	3	2	1
Trampoline use	5	4	3	2	1
Basketball	5	4	3	2	1
Baseball	5	4	3	2	1
Football	5	4	3	2	1
Bicycling, Rollerblading, Scootering	5	4	3	2	1

Stairs and other falling hazards in the home	5	4	3	2	1
Barn work	5	4	3	2	1
Water safety (around ponds and lakes)	5	4	3	2	1
Machinery used for carpentry	5	4	3	2	1
Machinery used for farming	5	4	3	2	1

13. Who in your community is the best person to give you safety information?

- a. Schoolteachers
- b. Church bishop or other religious leader
- c. Doctors
- d. Elders in your family or community

14. What are some things that prevent Amish children from staying safe during work and play (for example, no protective clothes and shoes, or not knowing how to swim)?

15. What could we do to improve the safety of Amish children?



# Data Collection

Amish Health and  
Safety Fairs on July  
17 & July 31, 2010



# Data Collection

Amish bishops  
distributed  
questionnaires to  
local families



# Preliminary Results

- Approximately 100 surveys completed

# Preliminary Results

Strong interest in further education about water safety and proper use of carpentry machinery



# Preliminary Results

- Preference to be educated about safety by Amish elders and schoolteachers

# Lessons Learned

- Open Community
- Respect for Outsiders

# Next Steps

- Collaborate with Amish bishops
- Develop an educational curriculum for water safety and carpentry machinery



# Geauga County: Amish man drowns in pond

11:31 PM, Aug 5, 2011 | [comments](#)



GEAUGA COUNTY - The Geauga County Sheriff's department says dive crews pulled the body of a 19-year old Amish man from a pond Friday night.



Thank You