

Linked Trauma/Crash Data in NV: What Trends Does it Show?

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Department of Surgery

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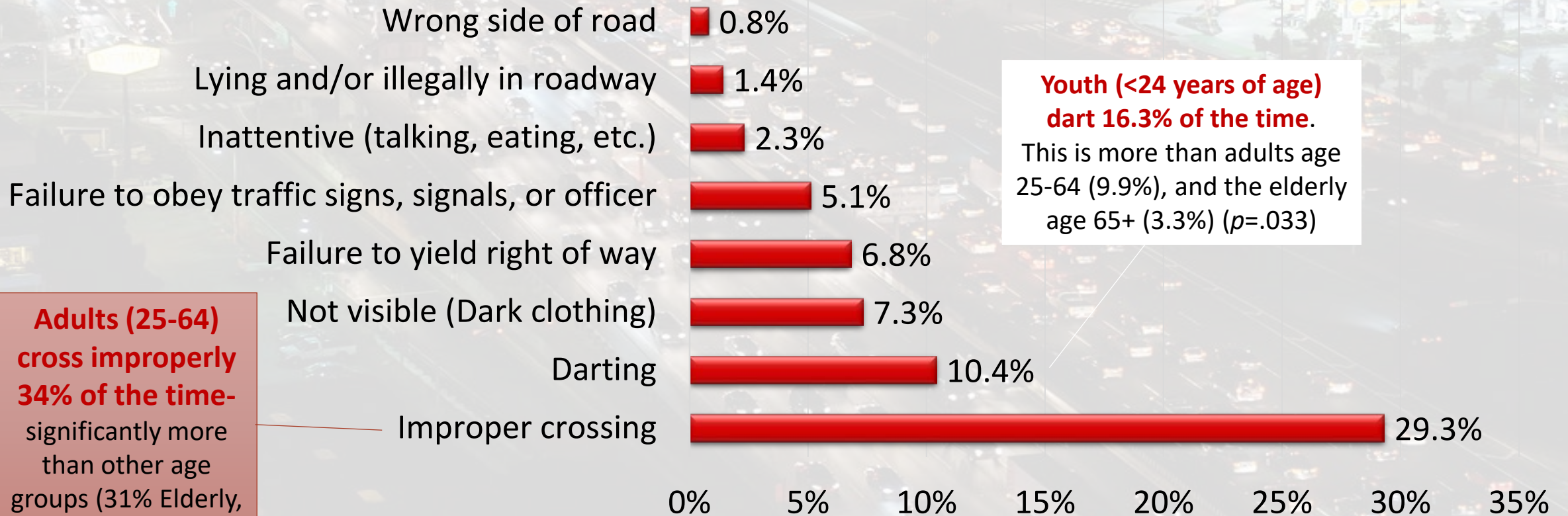


Nevada Office of Traffic Safety Database Grant

- Main objectives:
 - To **reduce/eliminate Nevada Road User injuries and fatalities** via evidence-based research
 - **Link Nevada crash data with Nevada trauma center registry data via personal identifiers.**
 - Maintain a longitudinal database (current: 2005-2016)
 - Respond to data requests from stakeholders
 - Testify during NV Legislative sessions
 - Community outreach and education
 - Actively participate on road-user task forces
 - Knowledge dissemination
 - **TREND newsletters** and **infographics** (minimum quarterly)
 - Professional conferences/meetings
- Link to google library:
 - <https://drive.google.com/open?id=0B2qSfw7l8XYqbXp1M1AwTURTZFE>

How Does the Crash Happen?

Pedestrian Behaviors 2013-2015 (N=355) – All Ages



Youth (<24 years of age) dart 16.3% of the time.

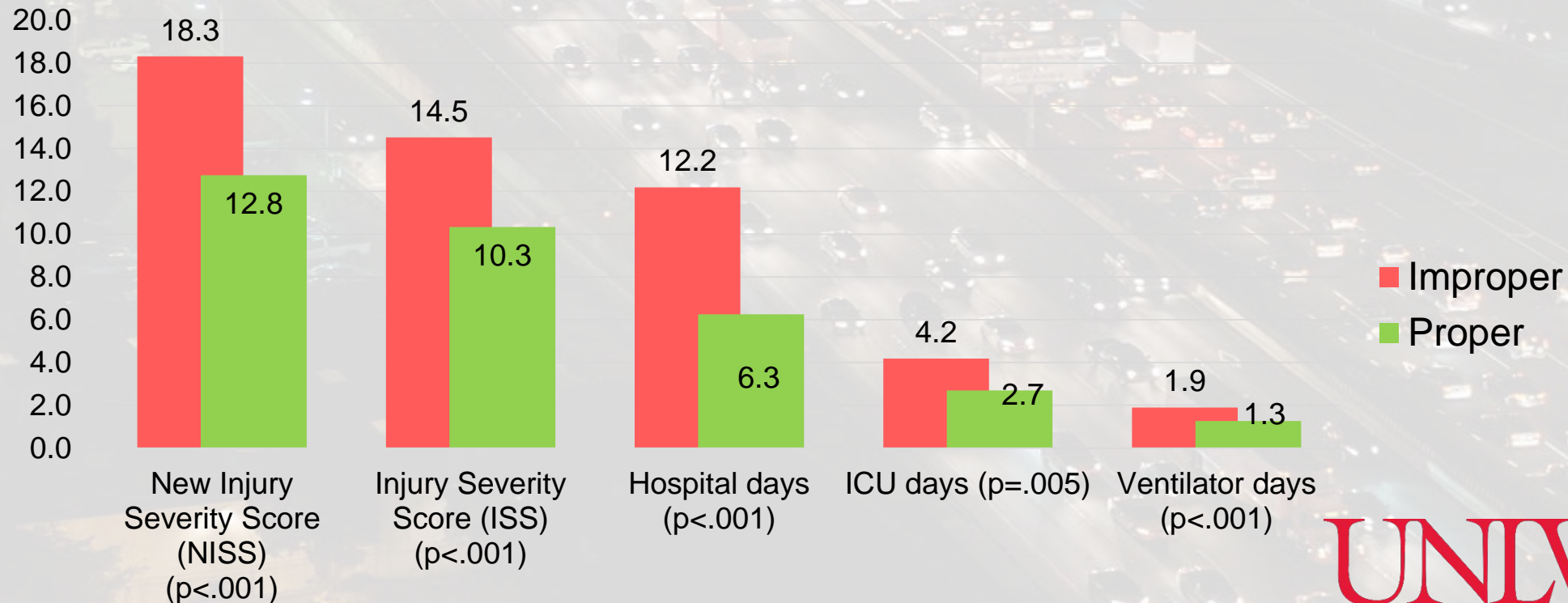
This is more than adults age 25-64 (9.9%), and the elderly age 65+ (3.3%) ($p=.033$)

Adults (25-64) cross improperly 34% of the time-
significantly more than other age groups (31% Elderly, 18% Youth; $p=.028$)

Hospital Outcomes for Pedestrians

2013-2015 (N=355)

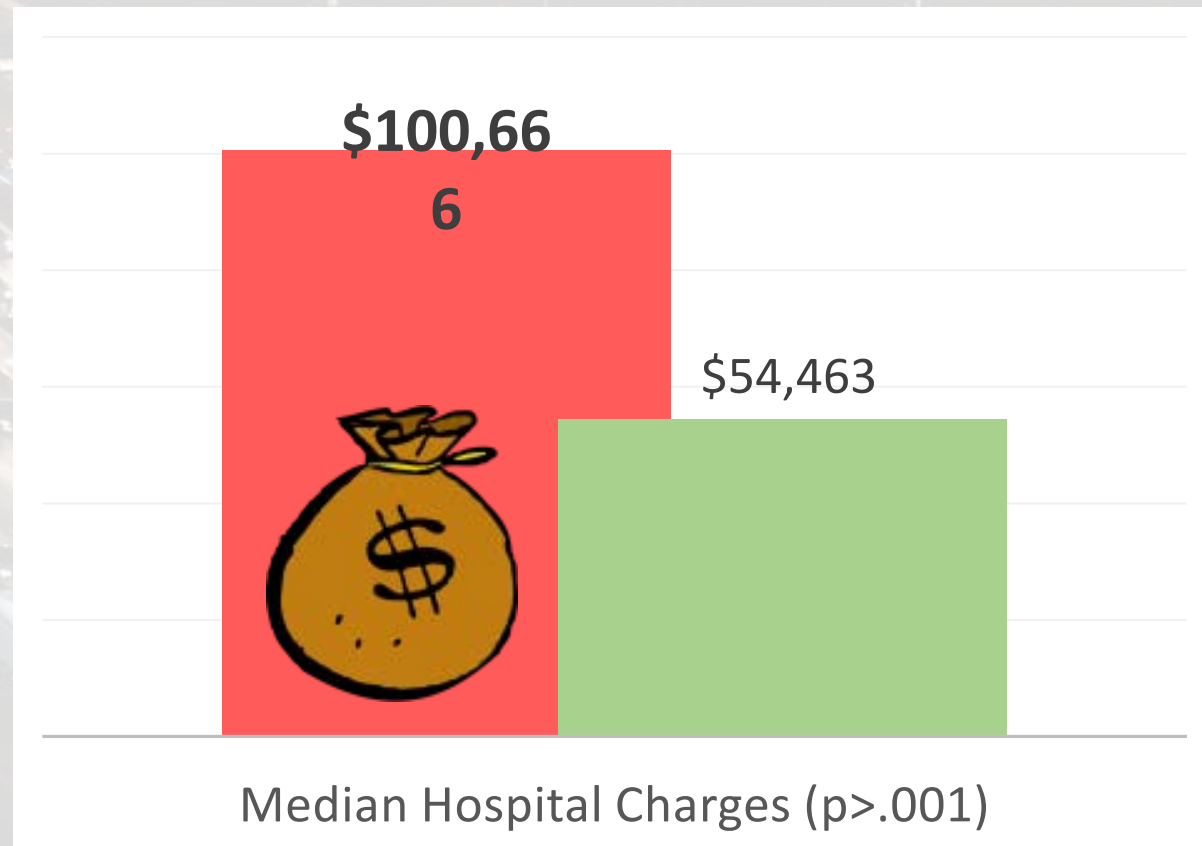
29.3% (n=104) of pedestrians involved in a crash and brought to a Nevada Trauma Center were **crossing improperly** at the time of crash. In comparison to pedestrians who crossed properly, those who crossed improperly had **higher injury severity scores** (note: higher scores = worse injuries) and spent **more days in the hospital, more days in the ICU, and more days on the ventilator**



Median Hospital Charges:

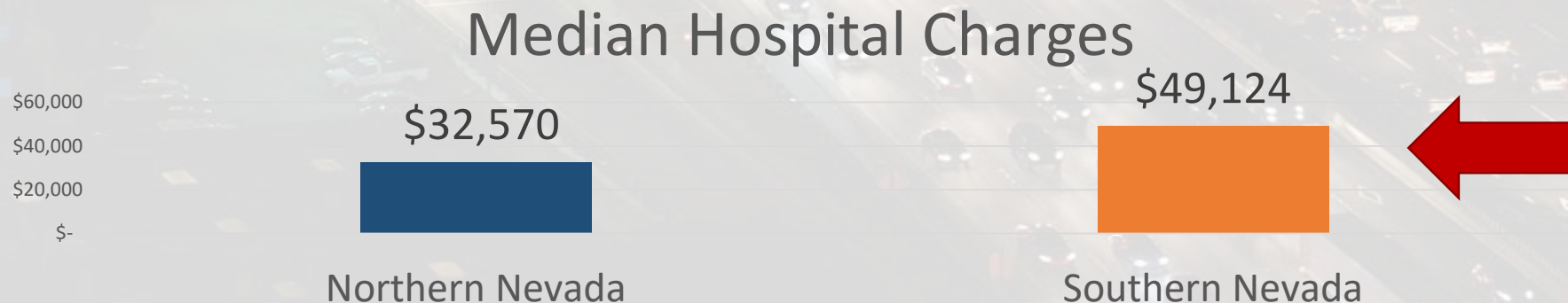
PROPERLY crossing when struck charges, versus **IMPROPERLY** crossing when struck charges tells the story very clearly

\$46K plus is a lot of pain and suffering!



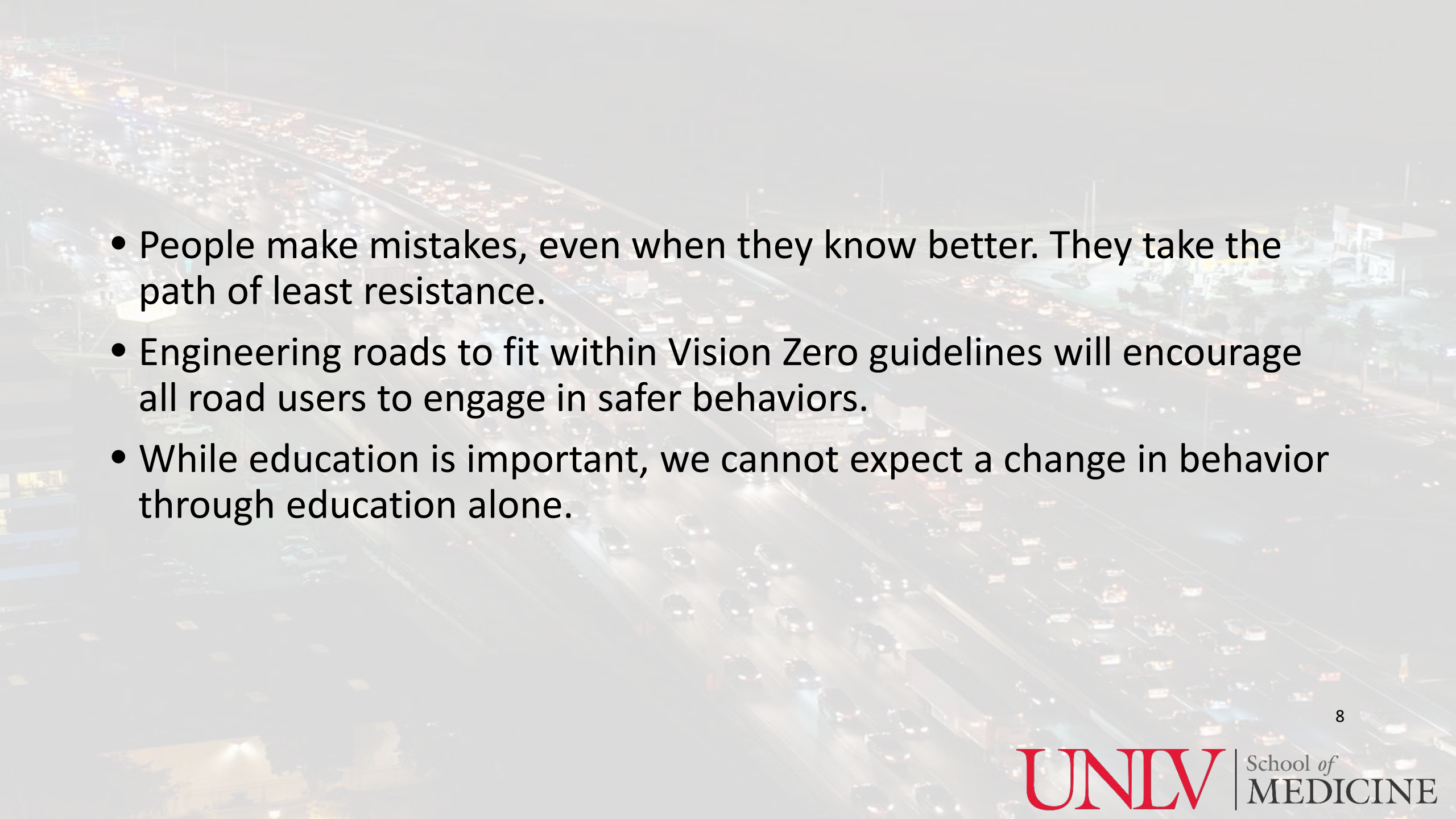
Injury Facts, Cost:

- Patients injured in pedestrian crashes and treated at trauma center resulted in an average of **\$18.4 million** in hospital charges annually. **Median hospital charges of a pedestrian crash patient was \$42,181.**
- Hospital charges for the 35% (**436 patients**) who didn't have medical insurance were an average of **\$5.8 million** annually or median of **\$47,034.00** (Years 2008-2012)
- Southern Nevada pedestrian crash patients paid significantly higher in hospital charges compared to Northern Nevada patients ($p < .001$).



What are some guesses that might explain this disparity between Northern and Southern Nevada?

(Data from linked Crash-Trauma year 2005-2015)

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- People make mistakes, even when they know better. They take the path of least resistance.
 - Engineering roads to fit within Vision Zero guidelines will encourage all road users to engage in safer behaviors.
 - While education is important, we cannot expect a change in behavior through education alone.

Thank you. Questions?

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