

Rural Trauma Team Development Course Significantly Reduced

Decision Time to Transfer Serious Trauma

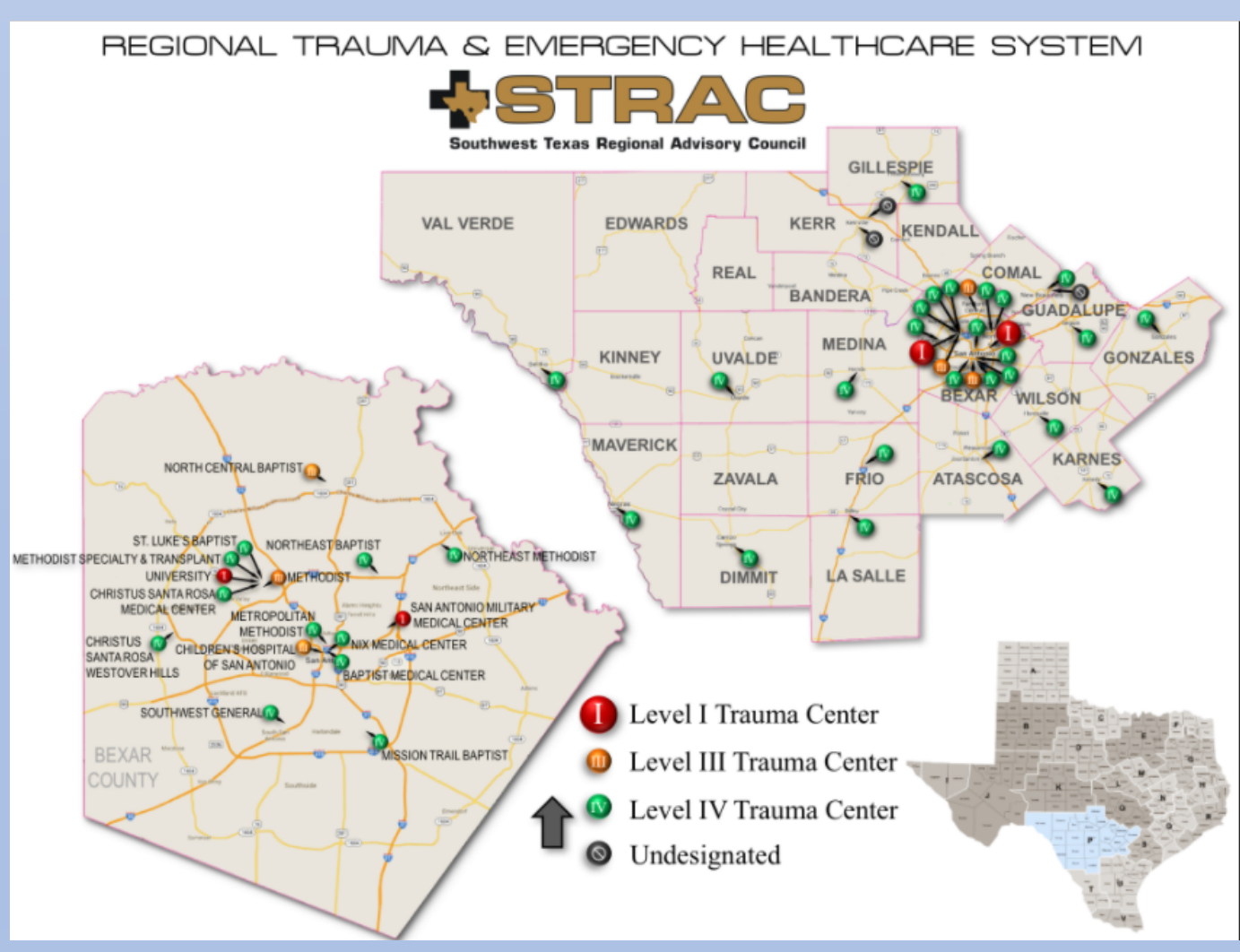
^{1,2}David A. Wampler, PhD; ³Rose Marie Bolenbaucher, MSN, RN; ¹Ronald Stewart, MD; ⁴Melissa Hoefner, EMT-P; ^{2,4}Rena Summers, BA; ^{2,4}Tasia Long, MHS; ³Luisa Cochran, RN; ³Mark Brister, RN; ³Amber Hicks, RN; ³Matthew Lozano RN; ³Tracy Cotner-Pouncy, BA, RN; ^{2,4}Eric Epley, BA; ^{1,2}Brian Eastridge, MD

¹ The University of Texas Health Science Center at San Antonio, San Antonio TX; ² Remote Trauma Outcomes Research Network, San Antonio TX; ³University Hospital System, San Antonio TX; ⁴Southwest Texas Regional Advisory Council, San Antonio

Background

- More than 60 percent of the country's trauma deaths occur in rural areas
- Rural Trauma Team Development Course (RTTDC) emphasizes a team approach to the care of the trauma patient
- The course includes:
 - Medical procedure education
 - Communication strategies
 - Team performance scenarios

Figure 1. Map of STRAC Region



MEDCOM

- Single point of access
- Auto Accept policy
- Specific Trauma Alert Activation Criteria
- 30 minute minimum activation guideline

Study Goal

This study compared patient transfer times prior to deployment of the RTTDC course and 12 months after each RTTDC course was presented at the rural facilities.

Methods

- MEDCOM Database Query of all trauma transfers from Level 4 to Level 1 Trauma facilities
- Time period: 1/1/2012 – 3/21/2016
- Descriptive statistics to describe time elements; t-test used to compare the means

Results

- 4700 patient transfers were included in the analysis
- 40 referring facilities included
- 16 RTTDC Courses provided

Figure 2. Distribution of Decision Times

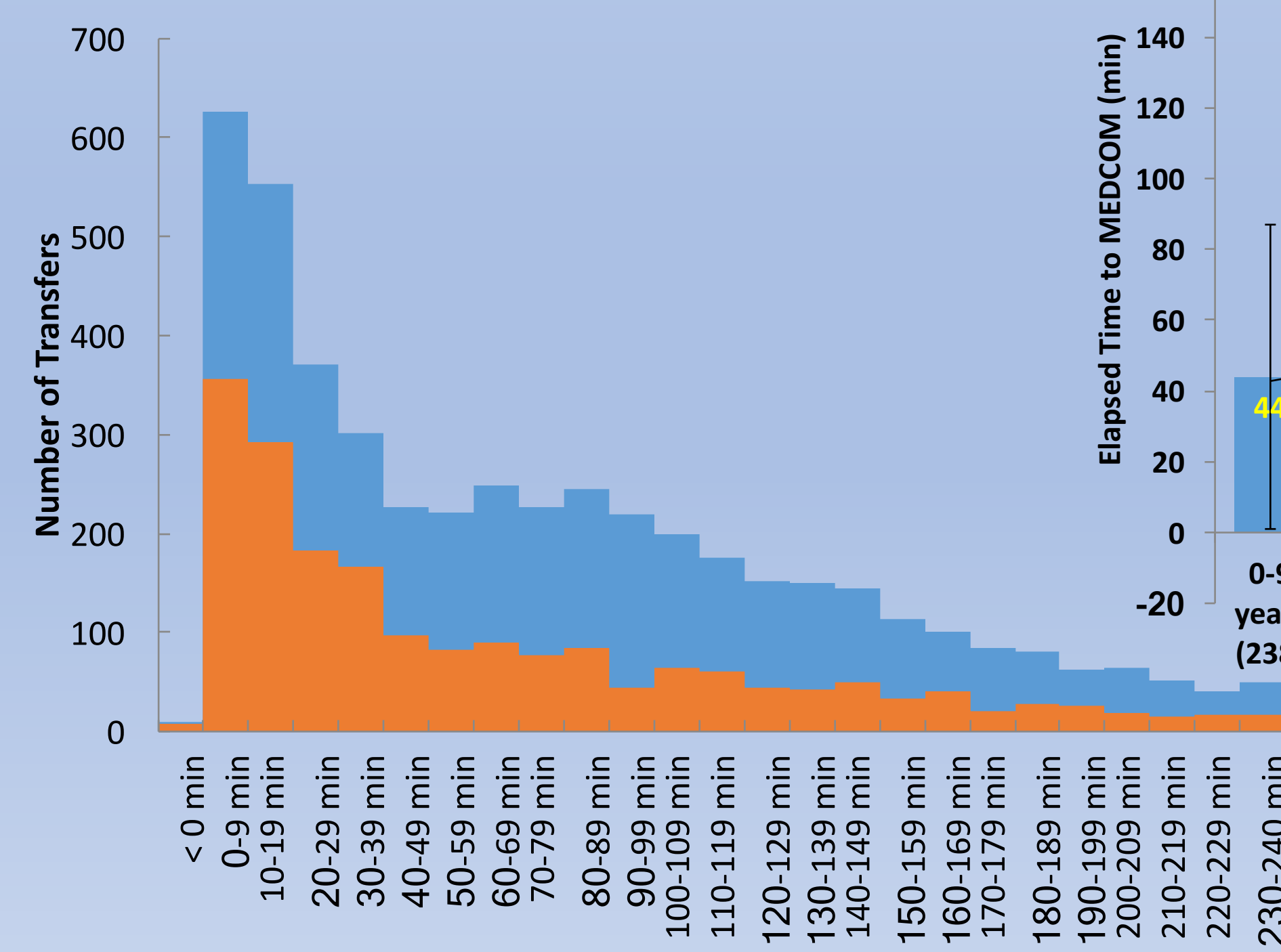


Figure 3. Time to call MEDCOM as a function of patient age

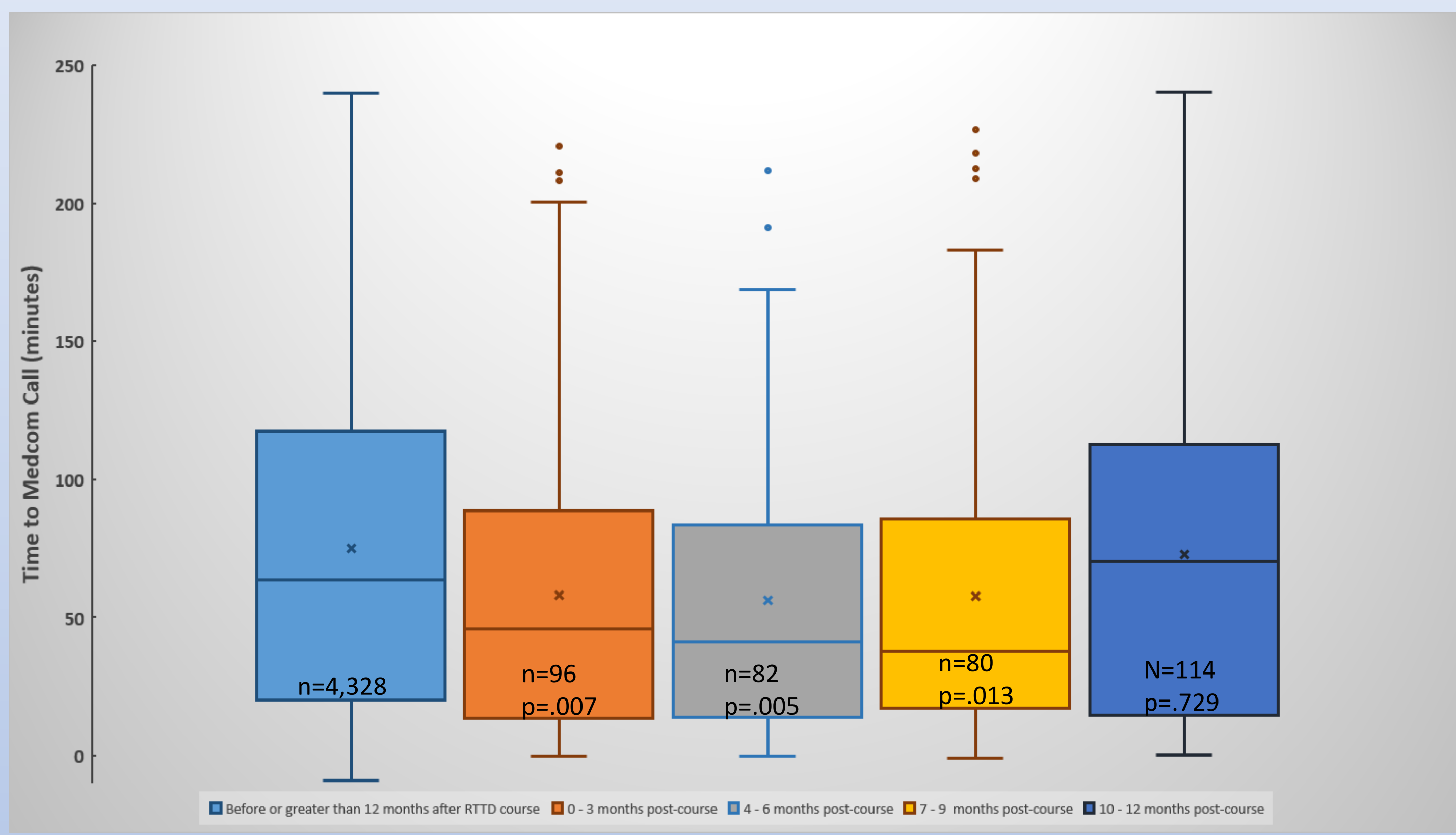
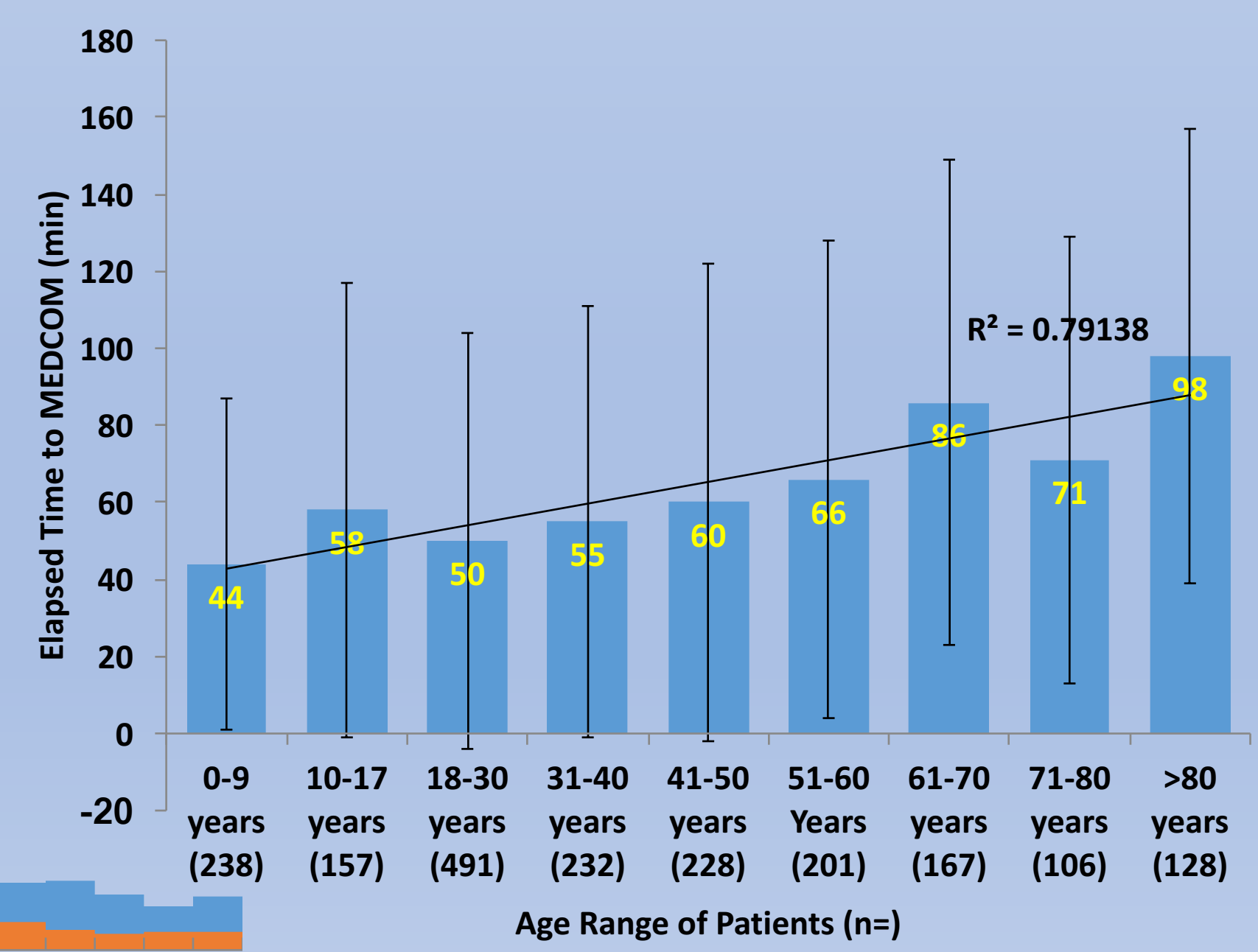


Figure 4. Box and Whisker Plot comparing time elapsed from patient arrival to call to MEDCOM

Discussion

- 23% reduction in decision time for all Patients
- 32% reduction in decision time for serious trauma
- Reduction in decision time diminished over the following twelve months returning to the pre-course baseline

Conclusion

The RTTDC course had a significant immediate reduction in the time to decide to transport all trauma victims, and the reduction was greater to serious trauma. The decision time improvement diminished faster than we expected.