



"Bad to the Bone": A Basic Approach to Improving Timely Antibiotic Administration in Pediatric Open Fractures

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Background

Open fractures constitute a small amount of all pediatric fractures. However, these fractures have the greatest risk for contamination and adverse complications. In the past, the treatment of pediatric open fractures has mirrored the management in adults. The consensus in a literature review conducted affirms that all open fractures should receive antibiotics within 3 hours of presentation to a facility to reduce the risk of infection.

Contrastingly, the American College of Surgeons (ACS) Best Practice Guidelines in the Management of Orthopedic Trauma, released in 2015, state that all open fractures should receive intravenous antibiotics within 60 minutes of presentation.

Objectives

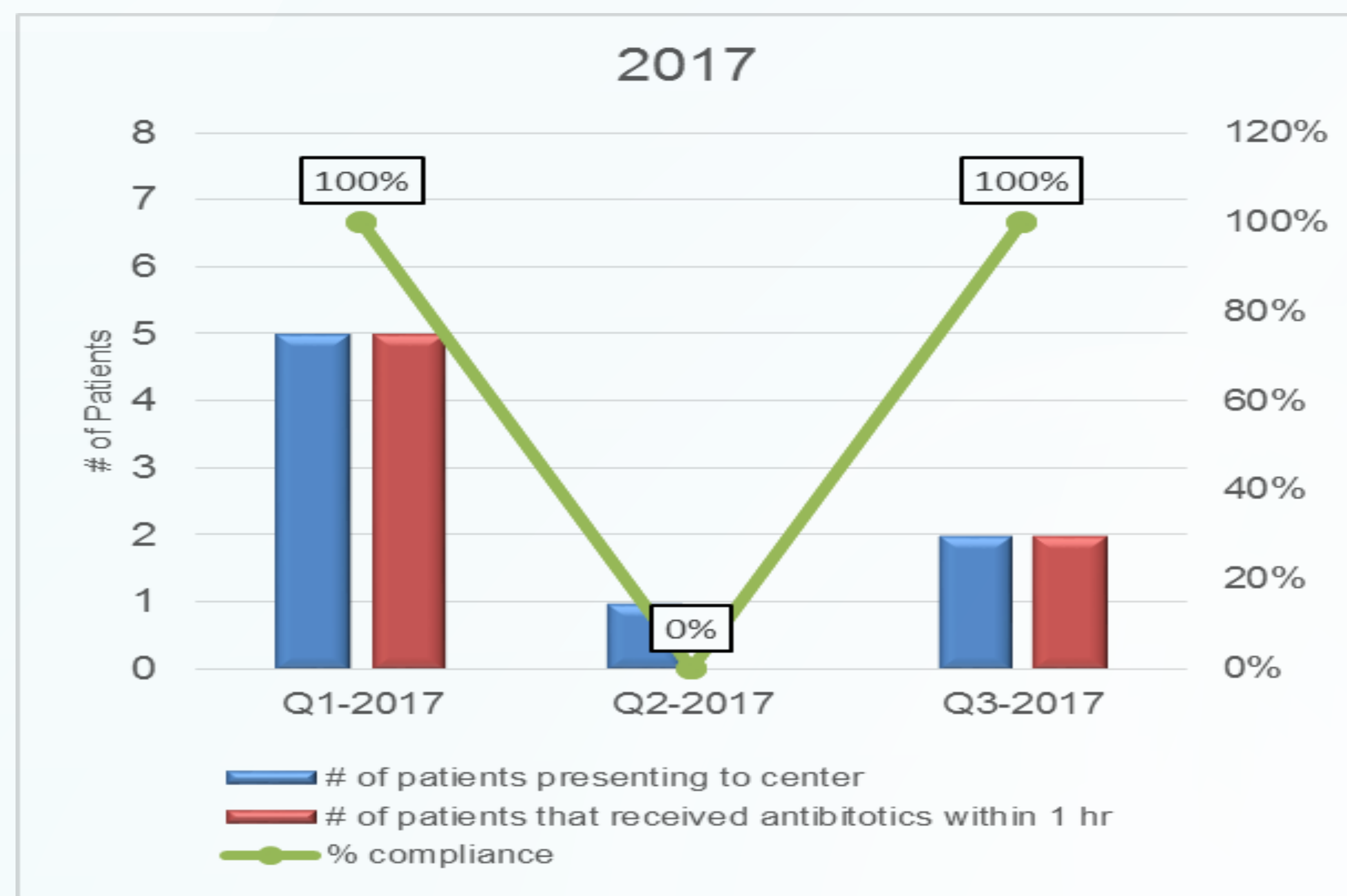
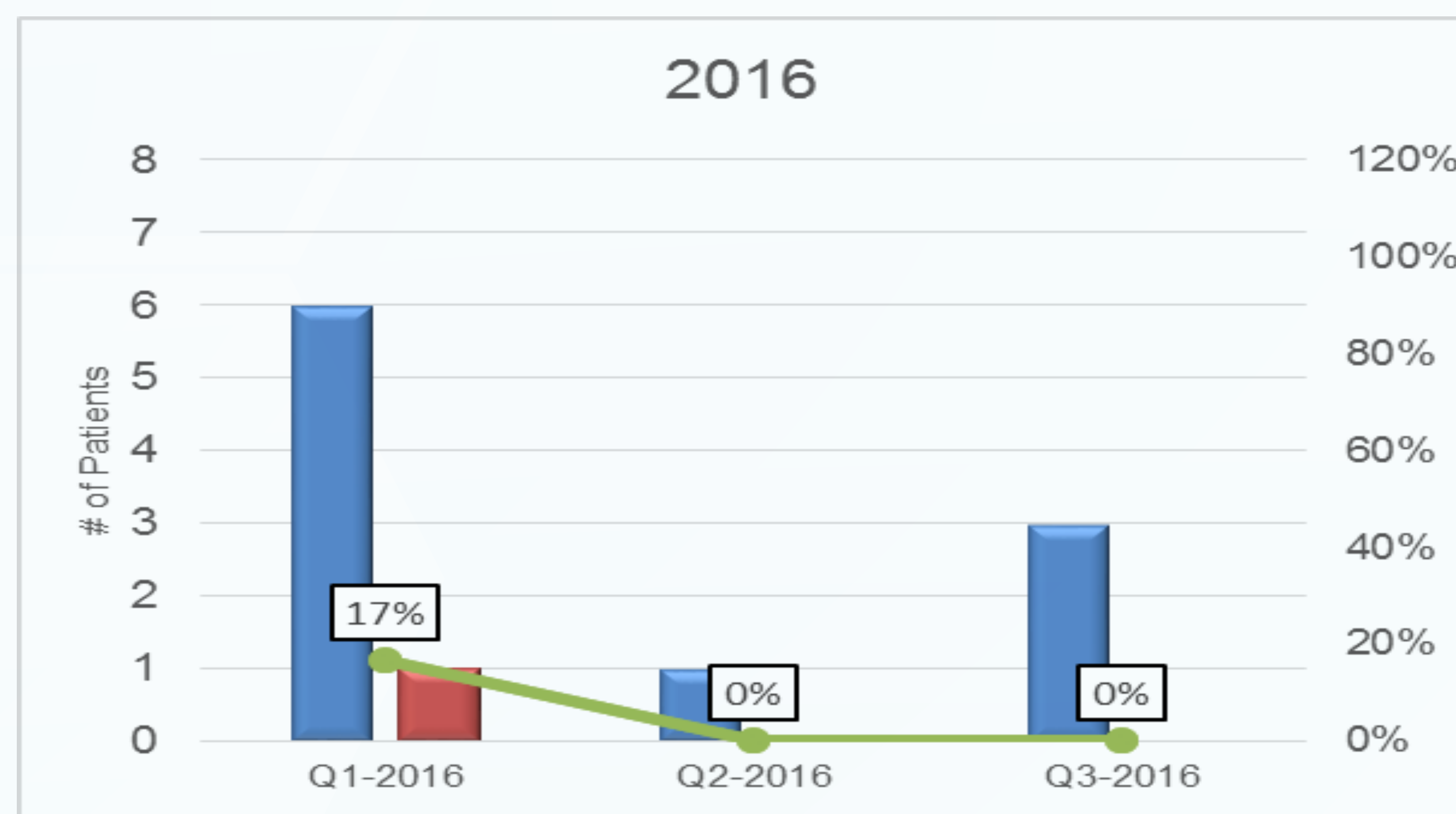
- Discuss the importance of timely antibiotic administration in pediatric open fractures.
- Demonstrate how basic education can influence change in patient outcomes.
- Discuss ways to sustain change and comply with best practice guidelines.

Methods

- Review of prospectively collected trauma database of 503 patients for 2016.
- Multidisciplinary team comprising of Trauma and Orthopedic Surgeons and Emergency Medicine physicians and staff created "Bad to the Bone" educational campaign to address this issue.
- Education campaign completed in the form of email blasts, in services, trauma meetings and physician and nurse huddles.

Results

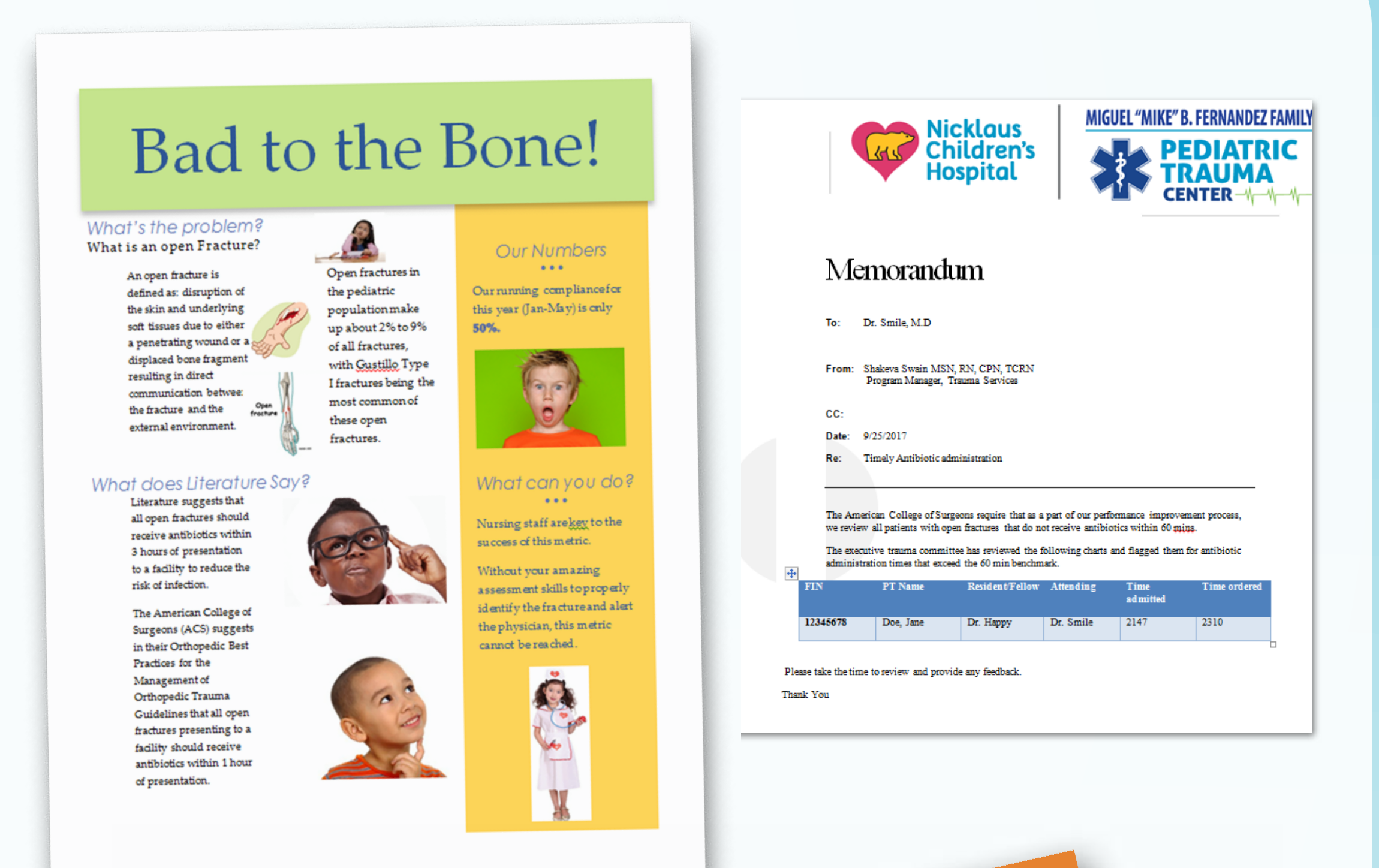
2016 Q1-Q3	10%
2017 Q1-Q3	88%



Conclusion

Basic education can be a simple solution to improving clinically driven metrics. The sustainability of clinically driven metrics enhanced by education also require constant reminders, refreshers and communication of the status of the metric.

Education on the importance of early recognition of open fractures and the significance of expediting delivery of antibiotics will prompt providers to provide care according to best practice.



References

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