

# **Evidence Based Registry**

**Judy Mikhail, PhD, RN**



# The MTQIP Journey....

- Thank you for 10 Years



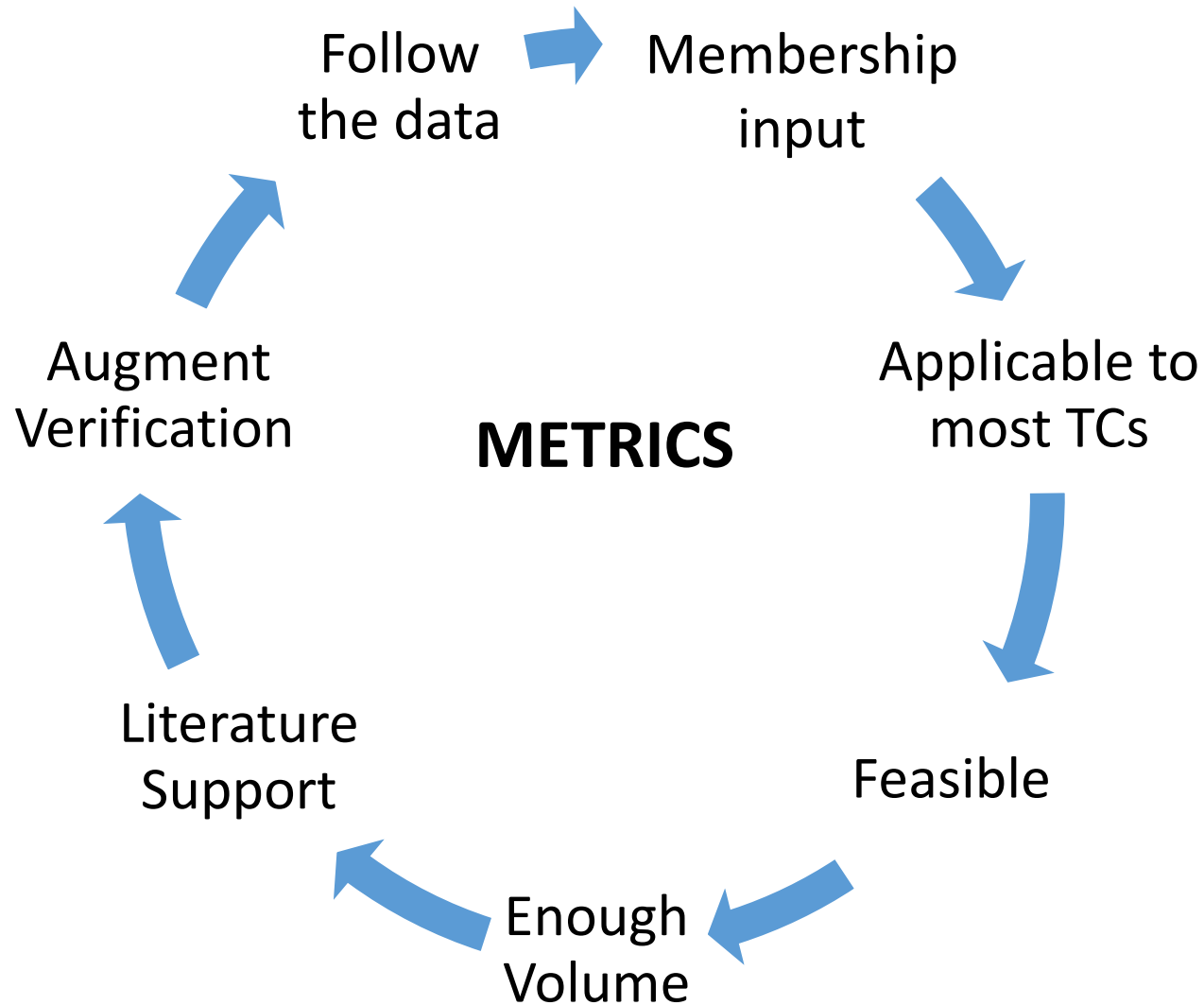
# Trauma Registries



# MTQIP



# Evidence Based Metrics Development



# The Spread of Knowledge Can Be Accelerated



**Knowledge is contagious.**

**Increasing the contact rate means  
researchers “catch” an idea faster.**



**KEEP  
CALM  
AND  
SHARE  
KNOWLEDGE**

# Trauma Registries Worldwide Spread



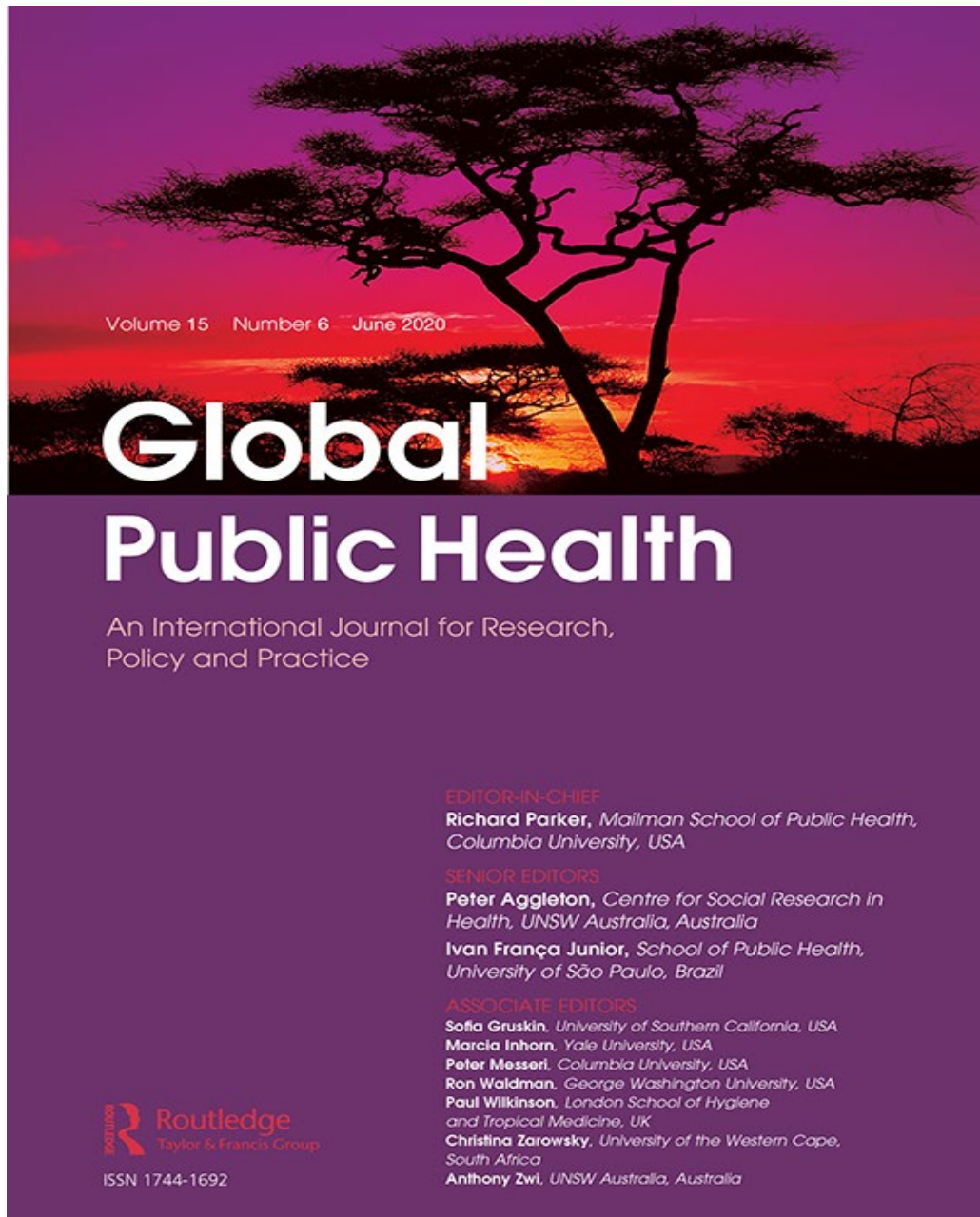




# Developing a Low Budget Trauma Registry

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Articles

# Trauma registry implementation and operation in low and middle income countries: A scoping review

Leah Rosenkrantz, Nadine Schuurman & Morad Hameed

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## ABSTRACT

Injury is a major public health crisis contributing to more than 4.48 million deaths annually. Trauma registries have proven highly effective in reducing injury morbidity and mortality rates in high income countries. They are a critical source of information for injury prevention, benchmarking care, quality improvement, and

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### Review

## Maximizing the potential of trauma registries in low-income and middle-income countries

Leah Rosenkrantz,<sup>1</sup> Nadine Schuurman,<sup>1</sup> Claudia Arenas,<sup>2,3</sup> Andrew Nicol,<sup>4,5</sup> Morad S. Hameed<sup>3,6</sup>

### ABSTRACT

Injury is a major global health issue, resulting in millions of deaths every year. For decades, trauma registries have been used in wealthier countries for injury surveillance and clinical governance, but their adoption has lagged in low-income and middle-income countries (LMICs). Paradoxically, LMICs face a disproportionately high burden of injury with few resources available to address this pandemic. Despite these resource constraints, several hospitals and regions in LMICs have managed to develop trauma registries to collect information related to the injury event, process of care, and outcome of the injured patient. While the implementation of these trauma registries is a positive step forward in addressing the injury burden in LMICs, numerous challenges still stand in the way of maximizing the potential of trauma registries to inform injury prevention, mitigation, and improve quality of trauma care. This paper outlines several of these challenges and identifies potential solutions that can be adopted to improve the functionality of trauma registries in resource-poor contexts. Increased recognition and support for trauma registry development and improvement in LMICs is critical to reducing the burden of injury in these settings.

### BACKGROUND

Injuries kill approximately 4.8 million people a year and account for 10% of deaths worldwide—32% more than the number of deaths from tuberculosis

*quality of care in either a defined medical setting or a program. The concept includes the assessment or evaluation of the quality of care; identification of problems or shortcomings in the delivery of care; designing activities to overcome these deficiencies; and follow-up monitoring to ensure effectiveness of corrective steps".<sup>6</sup>) have also played a critical role in this regard.<sup>6–8</sup>*

The establishment of trauma systems in high-income countries (HICs) tackles injury through both of these avenues. Trauma systems address the complex organizational problem of injury on the local, regional, and national scale through the coordination of numerous resources and services required for effective trauma management.<sup>9</sup> They represent a coordinated public health response to injury control through prevention and treatment and have proven highly effective in reducing rates of injury morbidity and mortality in HICs.<sup>10–13</sup>

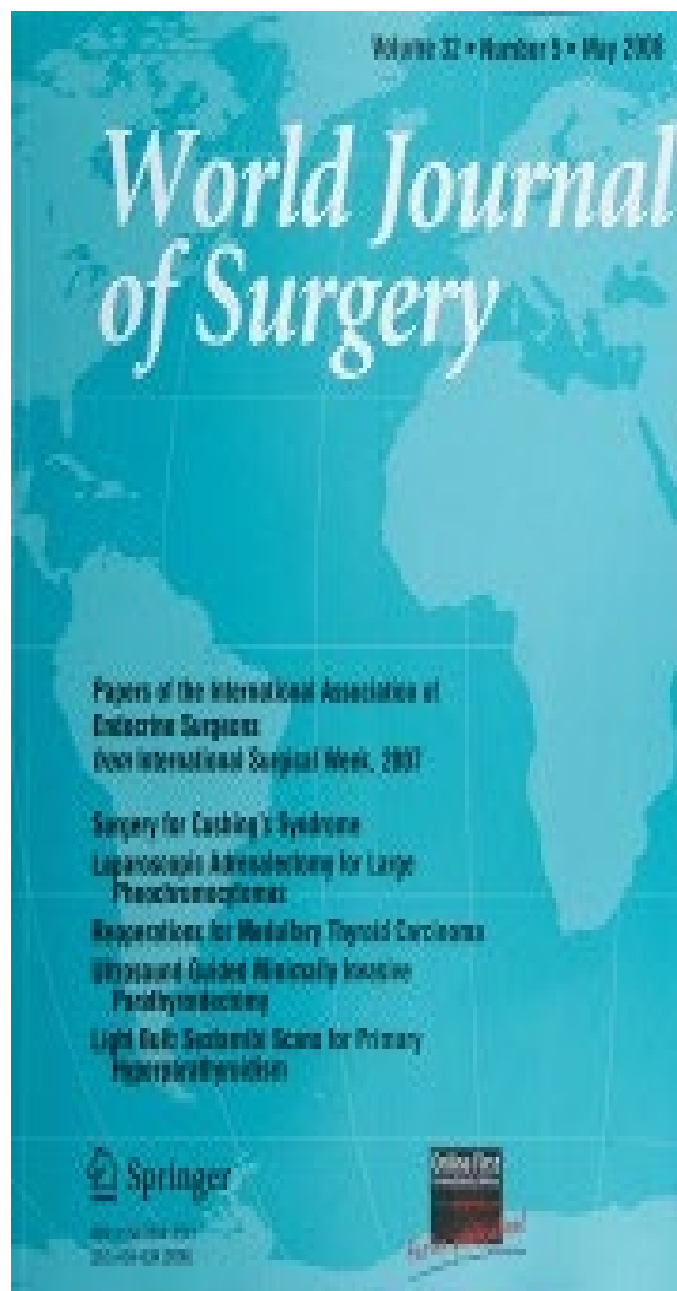
A critical first step in the development of these trauma systems is the collection and analysis of injury data in the form of a trauma registry.<sup>14</sup> Trauma registries record information related to the injury event, process of care, and outcome of the injured patient.<sup>9–15</sup> These data are vital to informed decision-making across the *entire* continuum of trauma care from injury prevention and mitigation to pre-hospital and hospital care, and finally rehabilitation and community care.

While HICs have built their trauma systems





- **Trauma Registry Implementation in Low- And Middle-Income Countries: Challenges and Opportunities**
- [Krishna Bommakanti<sup>1</sup>](#), [Isabelle Feldhaus<sup>2</sup>](#), [Girish Motwani<sup>2</sup>](#), [Rochelle A Dicker<sup>2</sup>](#), [Catherine Juillard](#)



Surgery in Low and Middle Income Countries | Published: 20 June 2019

# Establishing a Multicentre Trauma Registry in India: An Evaluation of Data Completeness

[Gowri Shivasabesan](#) , [Gerard M. O'Reilly](#), [Joseph Mathew](#), [Mark C. Fitzgerald](#), [Amit Gupta](#), [Nobhojit Roy](#), [Manjul Joshipura](#), [Naveen Sharma](#), [Peter Cameron](#), [Madonna Fahey](#), [Teresa Howard](#), [Zoe Cheung](#), [Vineet Kumar](#), [Bhavesht Jarwani](#), [Kapil Dev Soni](#), [Pankaj Patel](#), [Advait Thakor](#), [Mahesh Misra](#), [Russell L. Gruen](#), [Biswadev Mitra](#) the Australia-India Trauma Systems Collaboration (AITSC)

*World Journal of Surgery* **43**, 2426–2437(2019) | [Cite this article](#)

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## Abstract

## Background

The completeness of a trauma registry's data is essential for its valid use. This study aimed to evaluate the extent

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# Trauma Registry: Focus, Funding and the Future

- 2019 Apr;89(4):276
- Kate L King, Zsolt J Balogh
- Department of Traumatology, John Hunter Hospital and The University of Newcastle, Newcastle, New South Wales, Australia.



Original Scientific Report | Published: 19 April 2019

# Trauma Surveillance and Registry Development in Mozambique: Results of a 1-Year Study and the First Phase of National Implementation

[Fadi Hamadani](#) , [Tarek Razek](#), [Ezio Massinga](#), [Shailvi Gupta](#), [Monica Muataco](#), [Paloma Muripiha](#), [Catarina Maguni](#), [Vania Muripa](#), [Ivandra Percina](#), [Aassis Costa](#), [Prem Yohannan](#), [David Bracco](#), [Evan Wong](#), [Sam Harper](#), [Dan L. Deckelbaum](#)  & [Otilia Neves](#)

*World Journal of Surgery* **43**, 1628–1635(2019) | [Cite this article](#)

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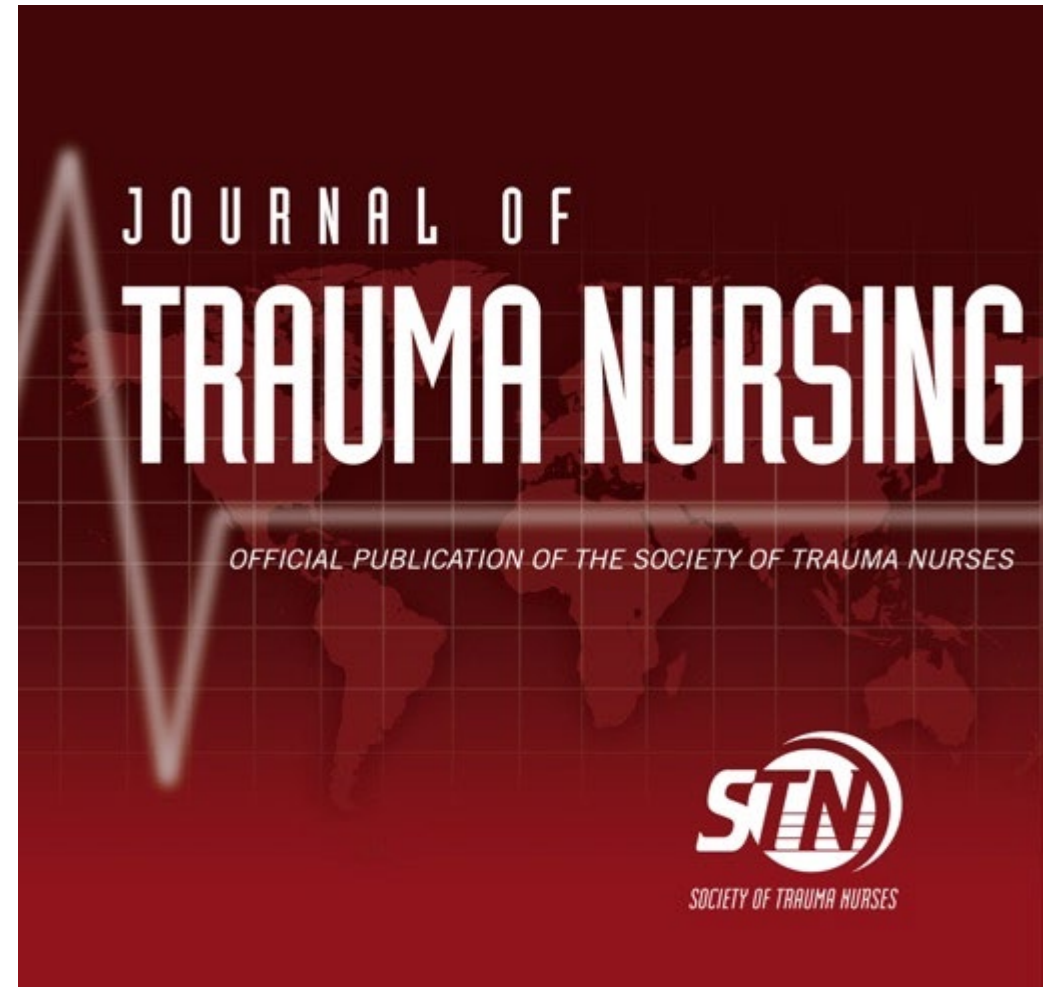
## Abstract

## Background

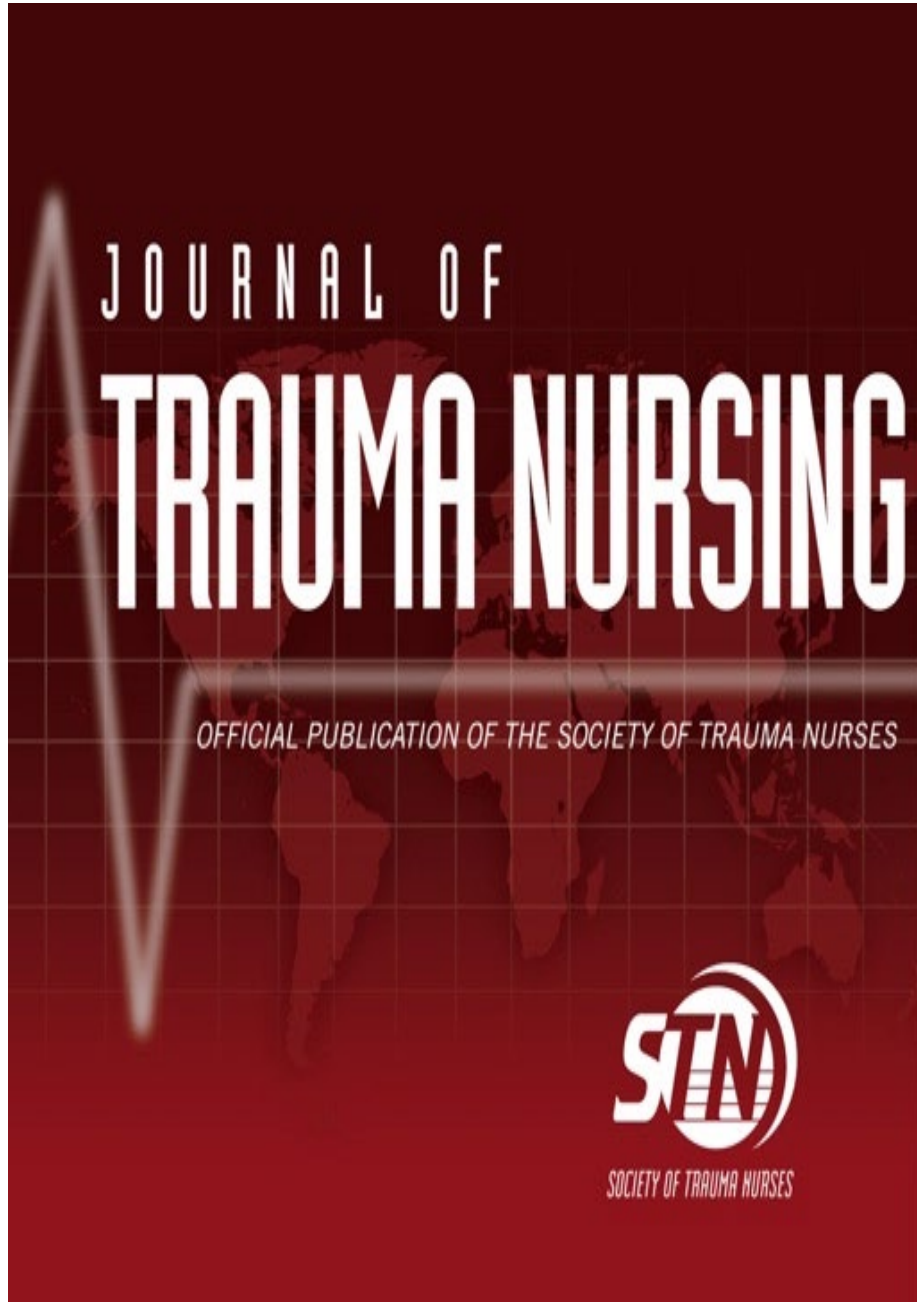
Mozambique has had no policy-driven trauma system and no hospital-based trauma registries, and injury was

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Publishing is about improving patient care  
Registrars and MCRs should publish







Pre COVID

QUALITY IMPROVEMENT

May/June 2020

## Trauma Data Quality Improvement: One Center's Experience With Telecommuting and Paperless Data Management

Sara Seegert, MSN, RN ■ Bethany Chapman, BSN, RN ■ Kelly Bork, AAS, RHIT ■  
Kimberly Runkle, AAS, RHIT ■ Chandra Eickhoff, AAS, RHIT

### Toledo Ohio Hospital System 4 Trauma Data Analysts

- 1 Level I
- 1 Level II Peds
- 4 Referring Hospitals
- 2 year review after transition to remote data abstraction

# Trauma Data Quality Improvement: One Center's Experience With Telecommuting and Paperless Data Management

Sara Seegert, MSN, RN ■ Bethany Chapman, BSN, RN ■ Kelly Bork, AAS, RHIT ■  
Kimberly Runkle, AAS, RHIT ■ Chandra Eickhoff, AAS, RHIT

## ABSTRACT

The American College of Surgeons requires that trauma centers collect and enter data into the National Trauma Data Registry in compliance with the National Trauma

data were being entered within 30 days and 100% of cases were being validated, without sacrificing effective and efficient communication between in-hospital and home-based staff. The institution also benefitted from reduced expense for

- Data entered within 30 days of discharge and 100% were validated
- Maintained a goal of data entry for 5-6 patients per day
- Increased efficiency = increased time for training/data validation
- Total of 2 calls off in 2 years
- Positives: time savings, environment, job satisfaction
- Drawbacks: Isolation, wait time for answers, network connection

ProMedica Toledo Hospital campus. The trauma services department currently employs four trauma data analysts, all of whom are American Health Information

the two flagship centers, as well as four of the outlying hospitals. Until 2018, these analysts worked on-site at the hospital with access to medical records and the

May/June 2020

QUALITY IMPROVEMENT

Shout out to Bronson!

# JOURNAL OF TRAUMA NURSING

## Timely Venous Thromboembolism Prophylaxis in Trauma: A Team Approach to Process Improvement

Loretta Farrell, BSN, RN ■ Oreste Romeo, MD, FACS ■ Ruth Johnson, MSN, RN

### ABSTRACT

Venous thromboembolism is a significant complication in trauma. Multisystem injury, advancing age, surgery, and blood transfusion all contribute to the risk of venous

trauma (Byrne et al., 2017; Geerts et al., 1996; Jacobs et al., 2017), as well as shortened time from injury to administration (Sumislowski, Kornblith, Conroy, Callcut, & Cohen, 2018).

As a Level I trauma center in the state of Michigan

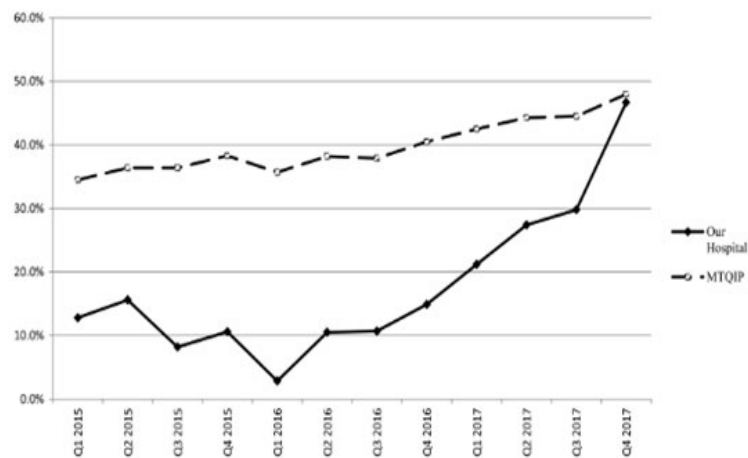


Figure 1. Quarterly venous thromboembolism prophylaxis compliance rates 2015-2017. MTQIP = Michigan Trauma Quality Improvement Project.

### Key words

Process improvement, Team approach, Trauma, Venous thromboembolism prophylaxis

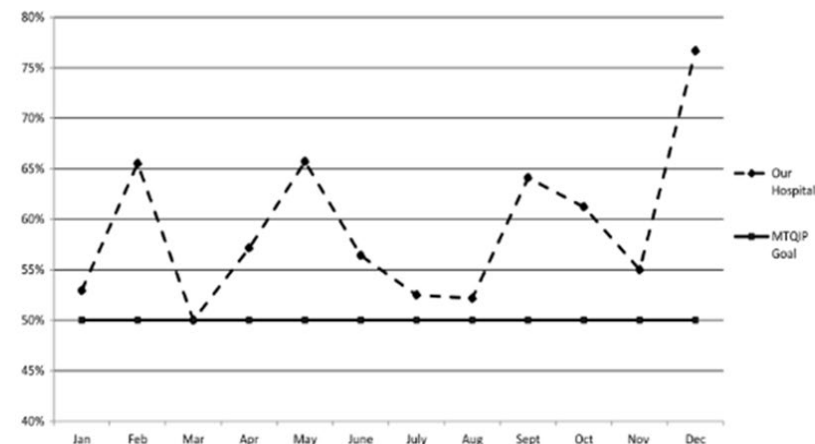
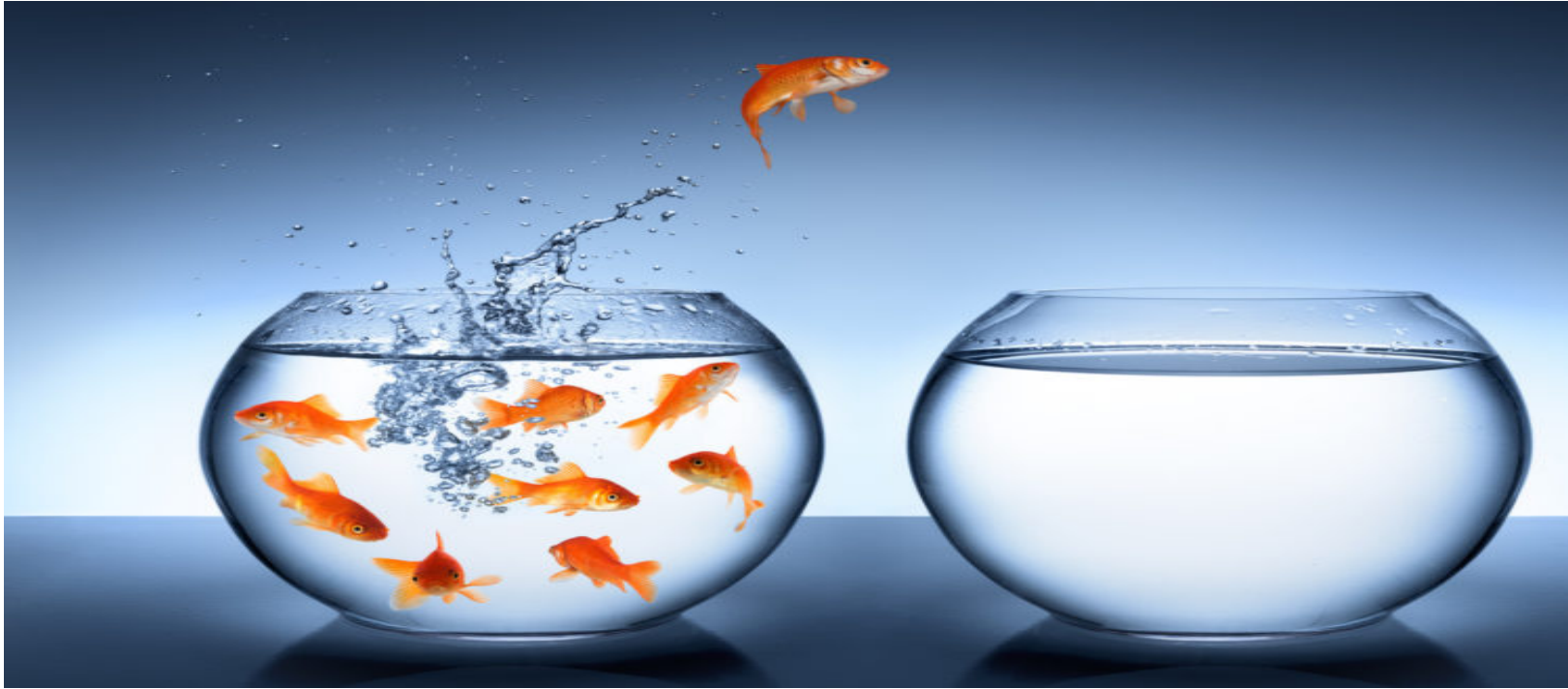


Figure 2. Monthly compliance rate for venous thromboembolism prophylaxis 2018. MTQIP = Michigan Trauma Quality Improvement Project.

variation, the MTQIP collaborative set the target that each trauma center was to achieve greater than 50% of its trauma admissions to receive VTE prophylaxis within 48 hr of admission. In fall 2017, an MTQIP data report indicated



Opportunity