Value Based Nursing Workforce

State of the Nursing Workforce in an Era of Health Care Reform: Data, Trends, and New Collaborations
Denver, CO
June 10-12

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Nursing Value, Big Data, and Workforce Considerations

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Value Equation

Business Model

Value = Quality / Price (cost)

Healthcare Model

Value = Outcomes/ Price (cost)

Barriers to Measuring Value of Nursing Care

- Nursing costs are unknown
- Reported = only averages
- Nursing cost ≠billing ≠reimbursement
- Payment ≠“optimum” nursing care
- Nursing economic value?
- Without clear value, nurses are vulnerable

Approaches to Data Driven Value

Clinical Component (Patient)

- Better population health
- Improve patient experience
- Higher quality of care
- Alignment of providers to best meet patient needs
- Data driven real-time clinical support
- Optimize clinical resources to minimize harm, improve outcome

Operational Component (System)

- Lower costs
- Seamless integration of care
- Alignment of resources/costs with billing and reimbursement
- Data driven value systems: costs, quality, performance, efficiency, effectiveness
- Optimizing the “system” of care

Big Data Concepts

- Volume
- Velocity
- Variety
  - Diverse representations of data
  - Complexity and multiple/mixed media, e.g. video, sound, pictures, texting, Twitter, Facebook, etc.
  - Autonomous data sources with distributed and decentralized controls
- (Veracity) or how good are the data?

Wu, X., et al. (2014) Data mining with big data. Knowledge and Data Engineering, IEEE Transactions on 26, 97-107

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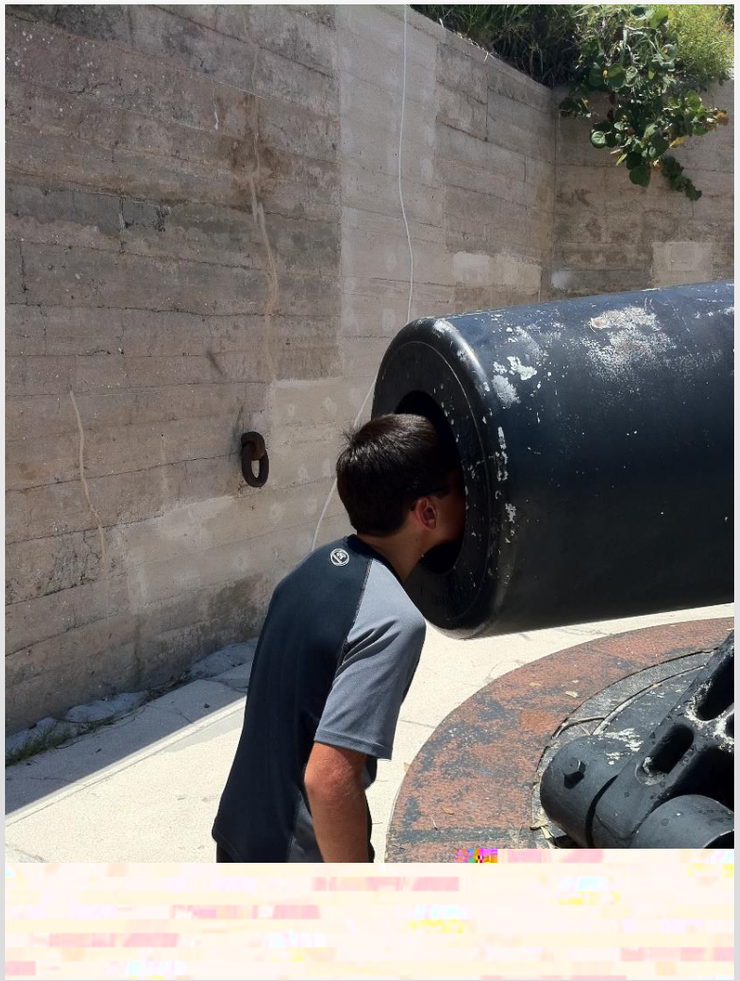
Rethinking Nursing/Healthcare Data

- Very large and complex data systems (volume)
  - Statistical significance of large data
  - Time referenced data (e.g. stock market)
- Sipping from a fire hose (velocity)
  - Continuous data streams
  - Natural experiments
- Large data sets Complex data sets (variety)
  - Span multiple settings
  - Complex questions and answers



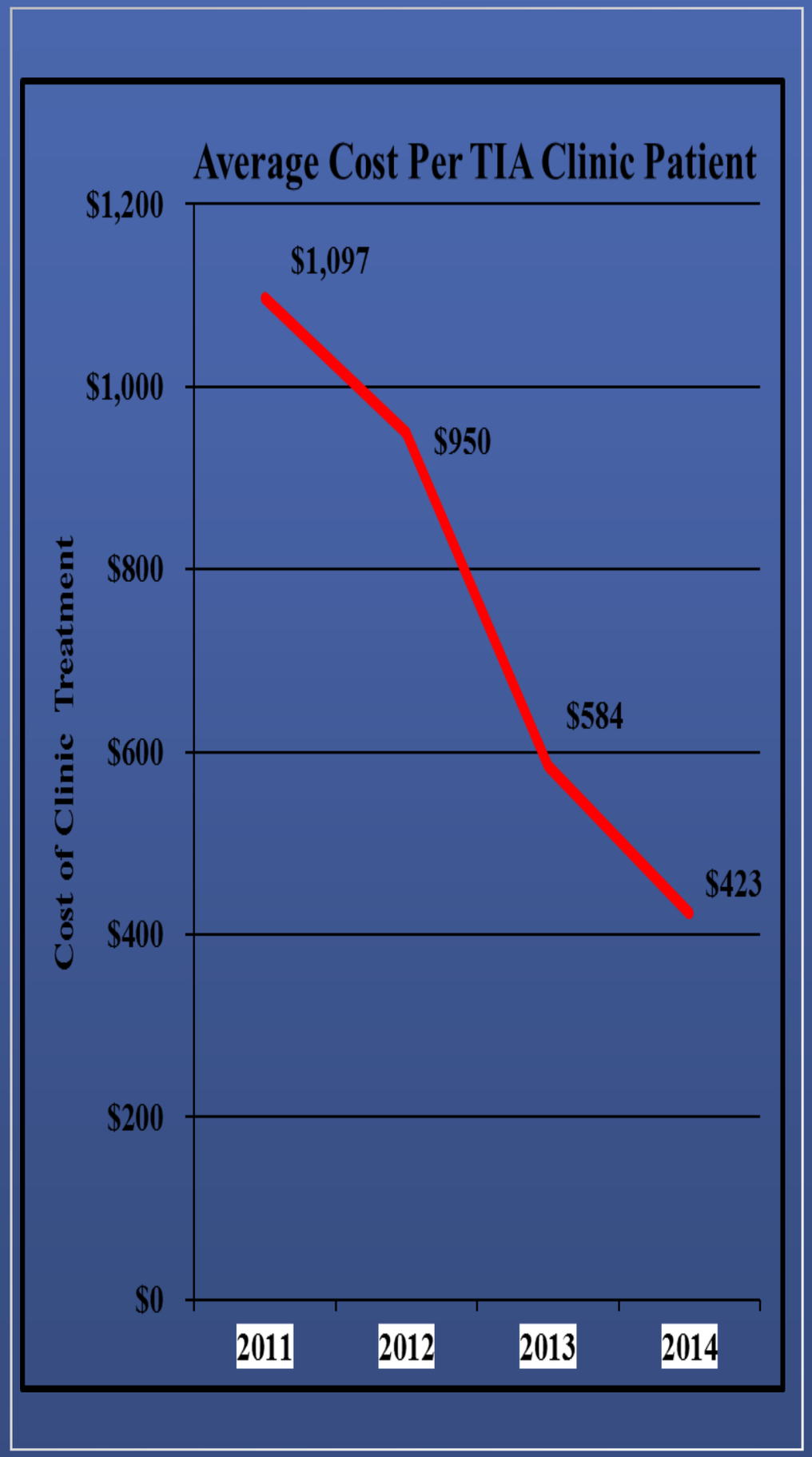
Nurse-led TIA clinic

PROCESS

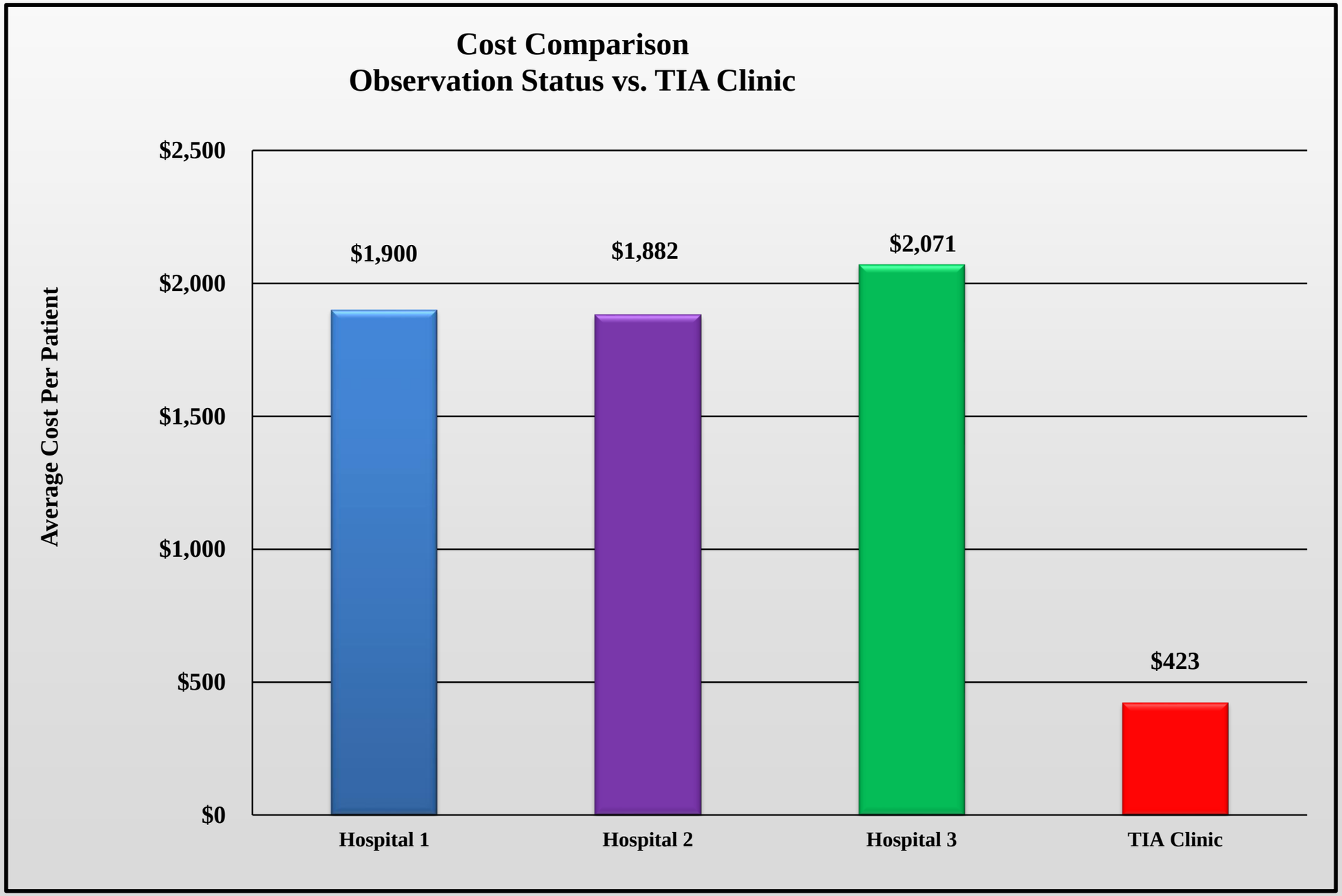
- Stroke incidence following TIA is greatest within a week.
- Low risk patient referred using ABCD2 tool
- Visit scheduled within 48 hours
- Full stroke workup with neuro consult

OUTCOMES

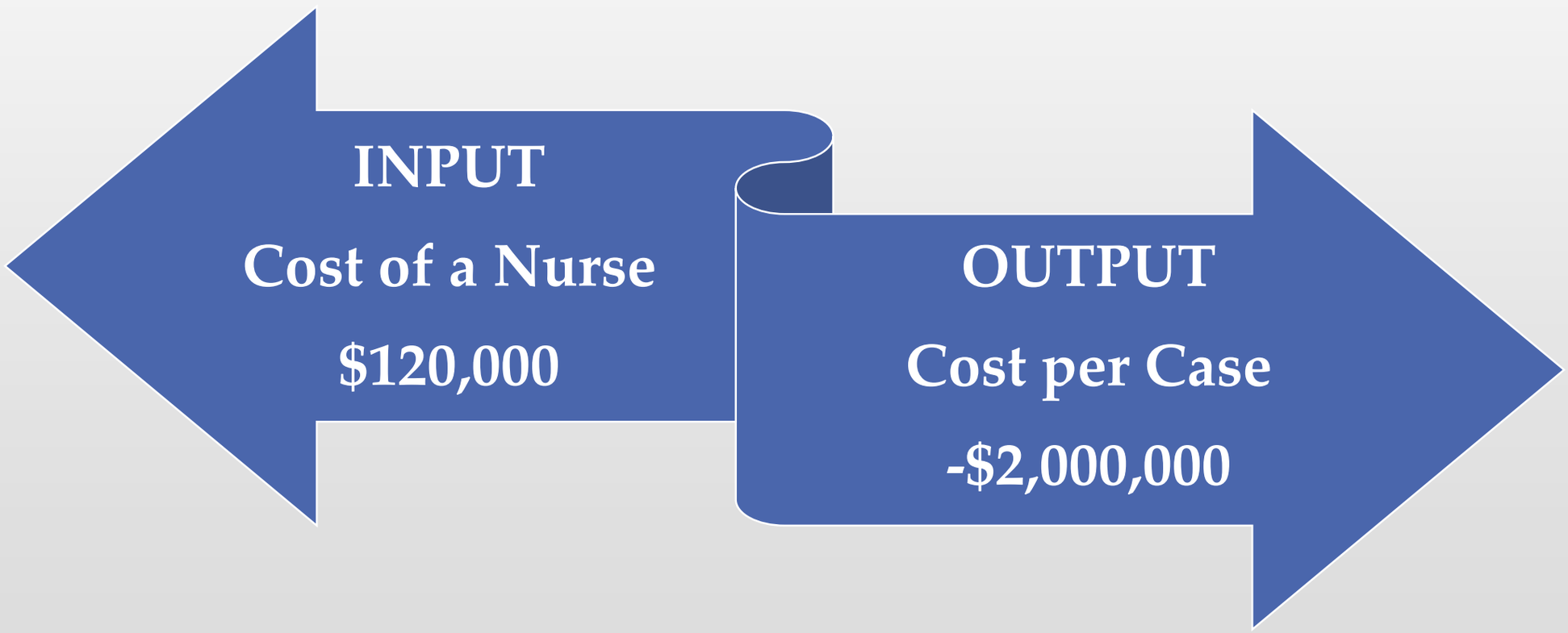
- No stroke events
- 95% patient satisfaction
- Fewer out of pocket expenses
- Saved $209,336 direct costs



Cost Comparison
Observation vs. TIA Clinic



Reducing Adverse Events



Summary Points

What do you take away today?

- Better understanding how to use existing data (including cost data) to improve care
- Optimize clinical and operational environments of care
- Move towards a data-driven and value-oriented approach to nursing practice
- Provide the “best” nursing care at the highest quality and lowest cost (the value equation) = best outcome
- The value of nursing can only be described when the financial impact is included