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# Naloxone Co-Prescribing Across a Large Health System: A Quality Improvement Project

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Ms. Hemphill and Drs. Kimball and Silvia have no financial conflicts of interest to disclose

## Introduction

- Naloxone availability and administration saves lives
- The CDC recommends naloxone co-prescribing for patients with OUD and other eligibility criteria
- Maine Medical Center's baseline was found to be 6% in one clinic. This held true across the entire MaineHealth system.

## Methods

- In 2017, we started monitoring Naloxone Co-prescribing rates quarterly on an individual subsystem basis, stratifying by indication diagnosis listed in the EMR. Indication diagnoses were limited to:
  - OUD
  - Concurrent Benzo Rx
  - Concurrent Sedative Rx
  - >50MME/day Opioid Script
  - History of other SUD
  - History of Overdose
- Simultaneously, we conducted a series of PDSA cycles based on the following interventions:
  - Implementation of Naloxone standing order (Q2 2017)
  - Providing on-site training (Q3 2017)
  - Development of MaineHealth Opioid Prescribing Guidelines (Q3 2018)
  - Development of online educational modules (Q3 2018)
  - Implementation of a Best-Practice Advisory that will appear with opioid/MOUD order in eligible patients (Q3 2019)
- With each cycle, we evaluated the impact it had on Naloxone co-prescribing both system-wide as well as within each individual subsystem

## Results

- MAJOR FINDINGS
  - BPA was associated with greatest overall change system wide - 12%
  - In 2018, Western Maine Health (WMHP) identified Naloxone as an AIP goal. Led to largest individual subsystem change - 30%
- MINOR FINDINGS
  - Online Educational Modules/Guidelines had a significant but less substantial impact - 7%

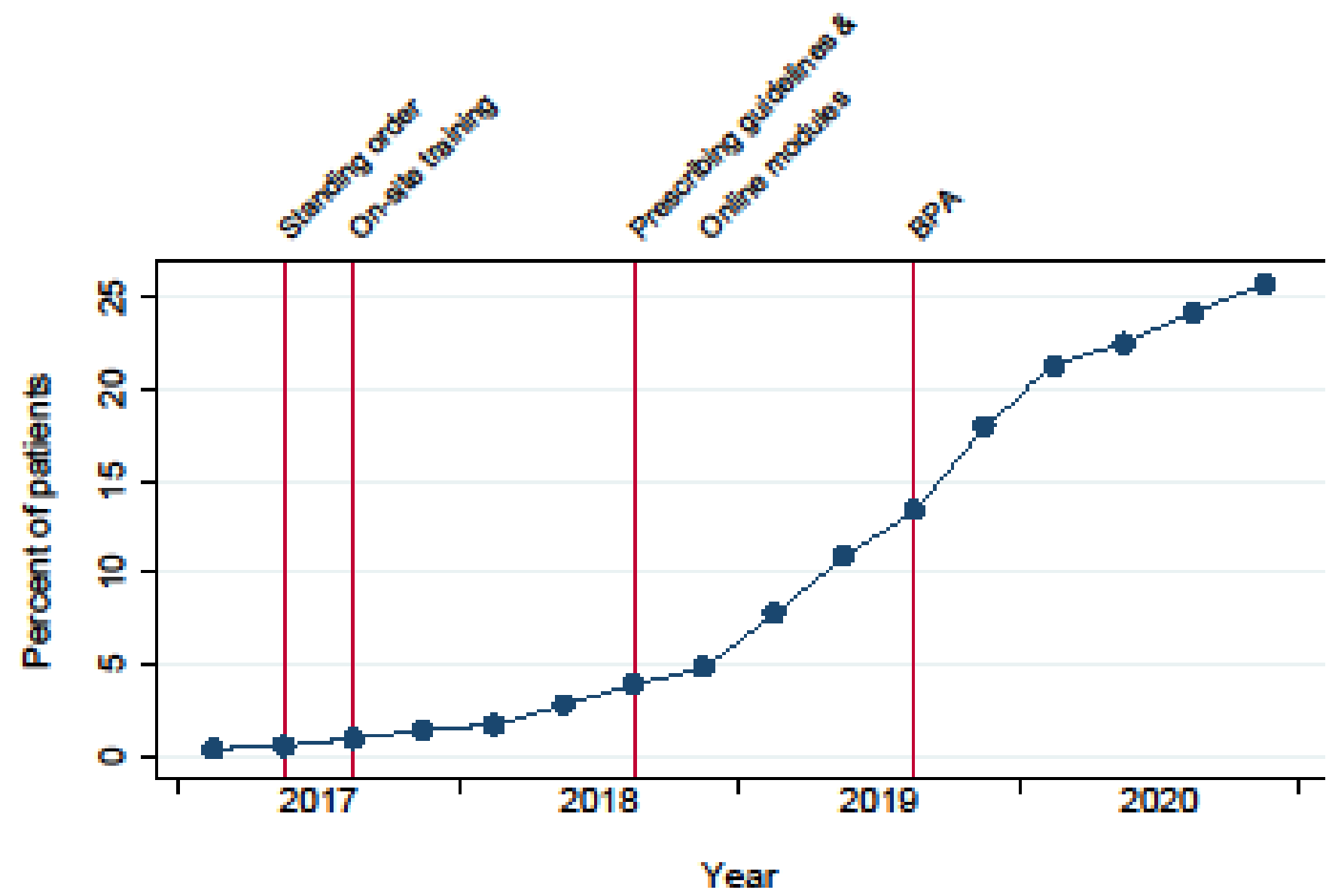


Fig 1. Effects on System-Wide Naloxone Co-prescribing

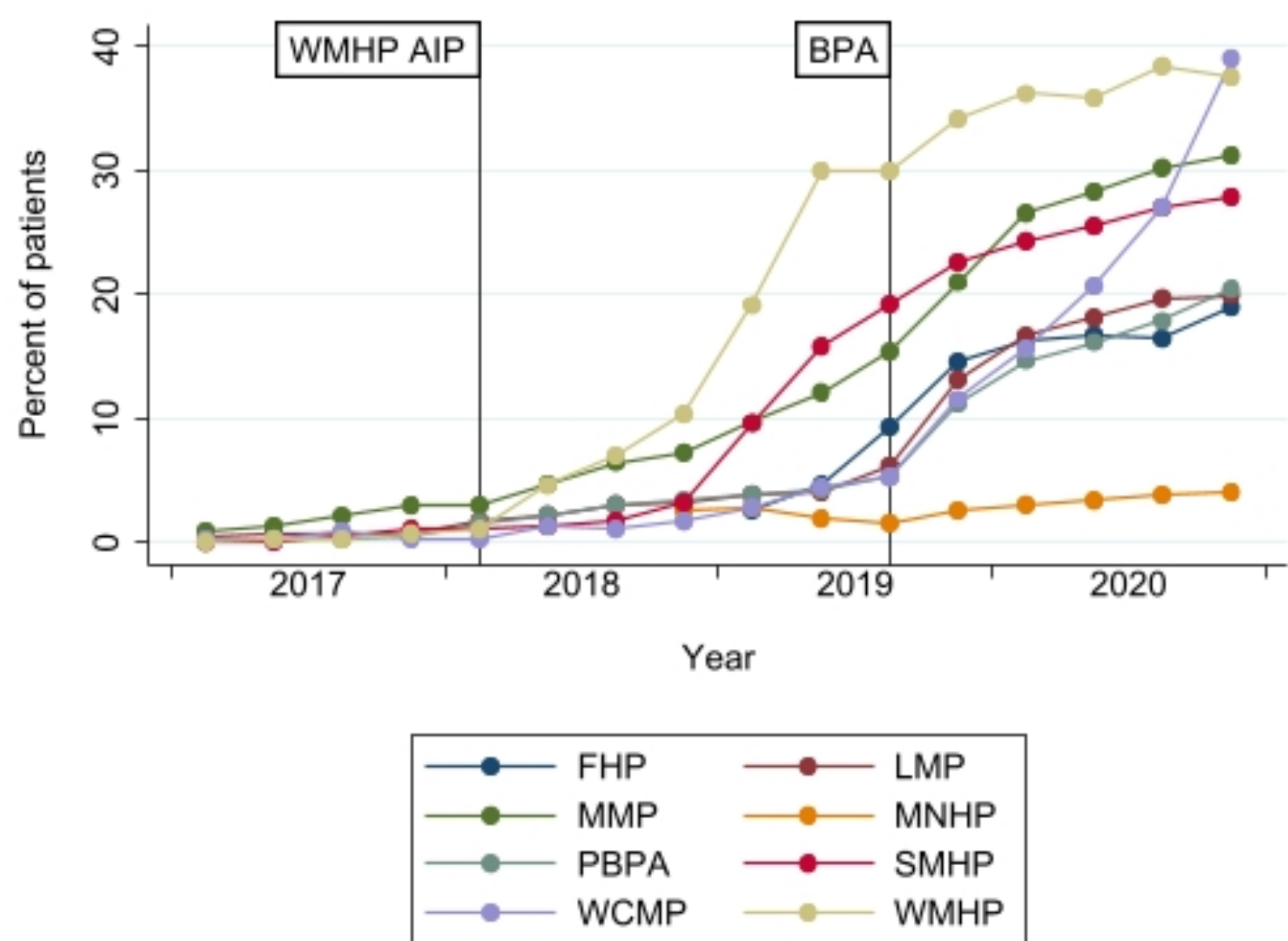


Fig 2. WMHP AIP Leads to Dramatic Rise in Co-Prescribing

In regards to increasing our Naloxone Co-prescribing, we had 2 major findings:

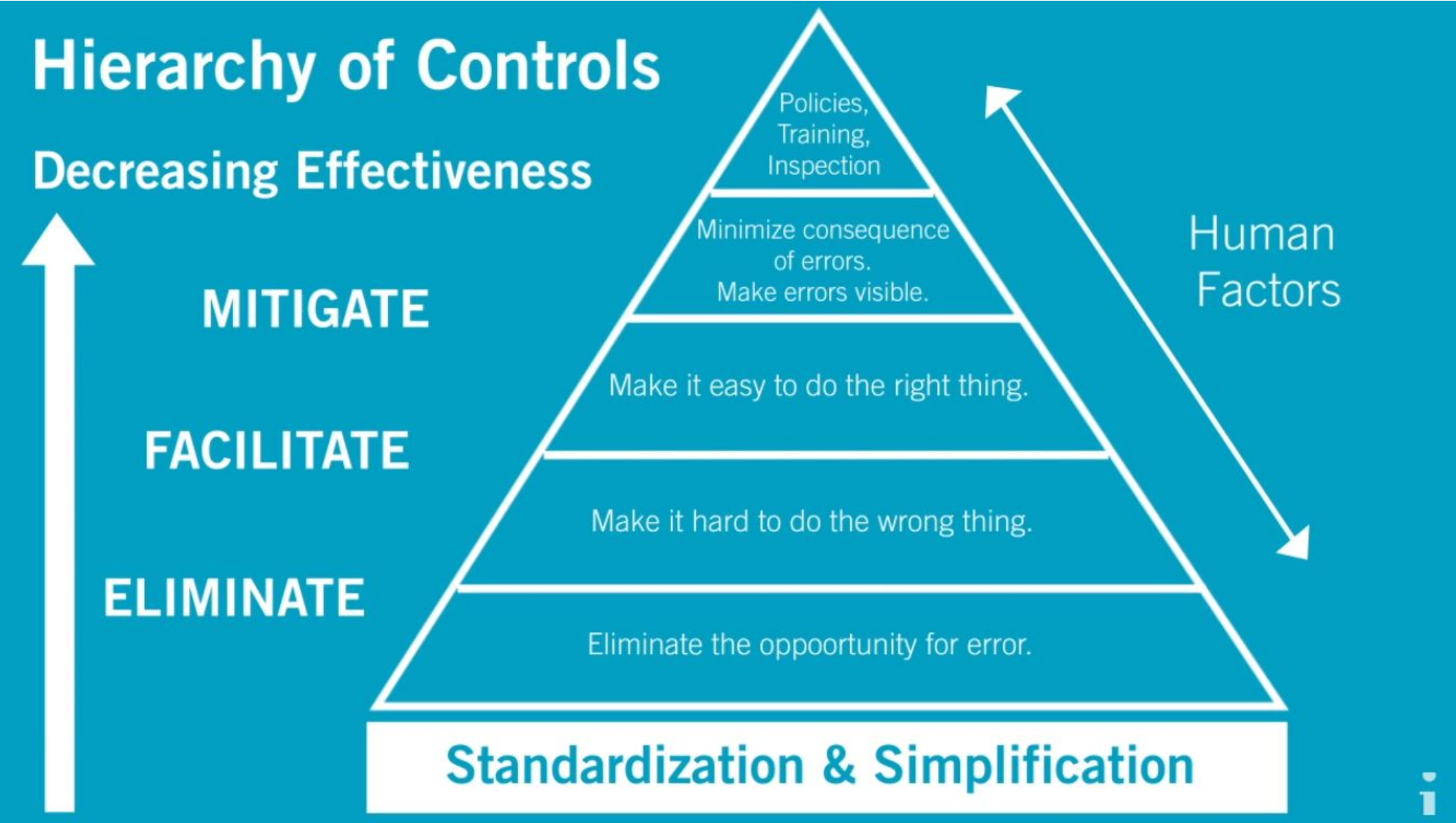
1. Our most effective system-wide change was to implement a Best Practice Advisory in the EMR.

2. The most effective individual change happened when the entire Western Maine system valued co-prescribing and frontline staff were empowered to change it.

## Discussion

- Our findings demonstrated that interventions higher on the Hierarchy of Control (see diagram and description below) have a greater impact on process improvement than educational efforts.
- Additionally, when we stratified the data, we found that WCMP had an anomalous rise in their naloxone co-prescribing rates, independent from our system-wide actions. This prompted our team to conduct a series of interviews with WMCP leadership and providers. We found that the entire team, from front line providers/staff to leadership, identified that naloxone co-prescribing was important to them (many because of the impact of opioid overdose they all saw in their community). Below is an excerpt from one such interview:

*"I really think leadership is a big part of the success. [The medical director] has been a driving force to normalize this treatment and breakdown any biases that staff would have. Our practice manager is an expert at utilizing state funded resources. She took on getting the state supplied [Naloxone] doses as soon as she found out about them. She similarly was instrumental in making us an opiate health home. And again we have always had a culture of involving MAs in quality endeavors and asking them to take ownership." – WCMP Provider*



The **Hierarchy of Controls** is a concept in Process Improvement that postulates the effectiveness of an intervention is proportional to the amount of control it has on human behavior. A common metaphor is a railroad crossing. Educating automobile drivers will have the least likelihood of reducing car-train accidents. Mitigation with warning signs will have an increasing effect. Facilitation with a railroad crossing arm will exponentially increase safety. But nothing comes close to Elimination of the problem, represented in building a tunnel for the automobiles to drive underneath the train tracks.

Figure is presented courtesy of the Institute for Healthcare Improvement

## Supplemental Graphs

- Supplemental Data can be viewed at the QR Code below



Or can be viewed by clicking [here](#)

## References

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