



HARBORVIEW INJURY PREVENTION & RESEARCH CENTER

**HARBORVIEW MEDICAL CENTER
AND
UNIVERSITY OF WASHINGTON
SCHOOL OF MEDICINE**

Monica S. Vavilala, MD, Director
Frederick P. Rivara, MD, MPH
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INTRODUCTION TO HIPRC

Monica S. Vavilala, MD, Director, HIPRC
Professor & Vice Chair of Anesthesiology & Pain Medicine
Professor of Pediatrics
University of Washington

HIPRC MISSION

To reduce the impact of injury and violence on people's lives through research, education, training and public awareness.

SPONSORSHIP

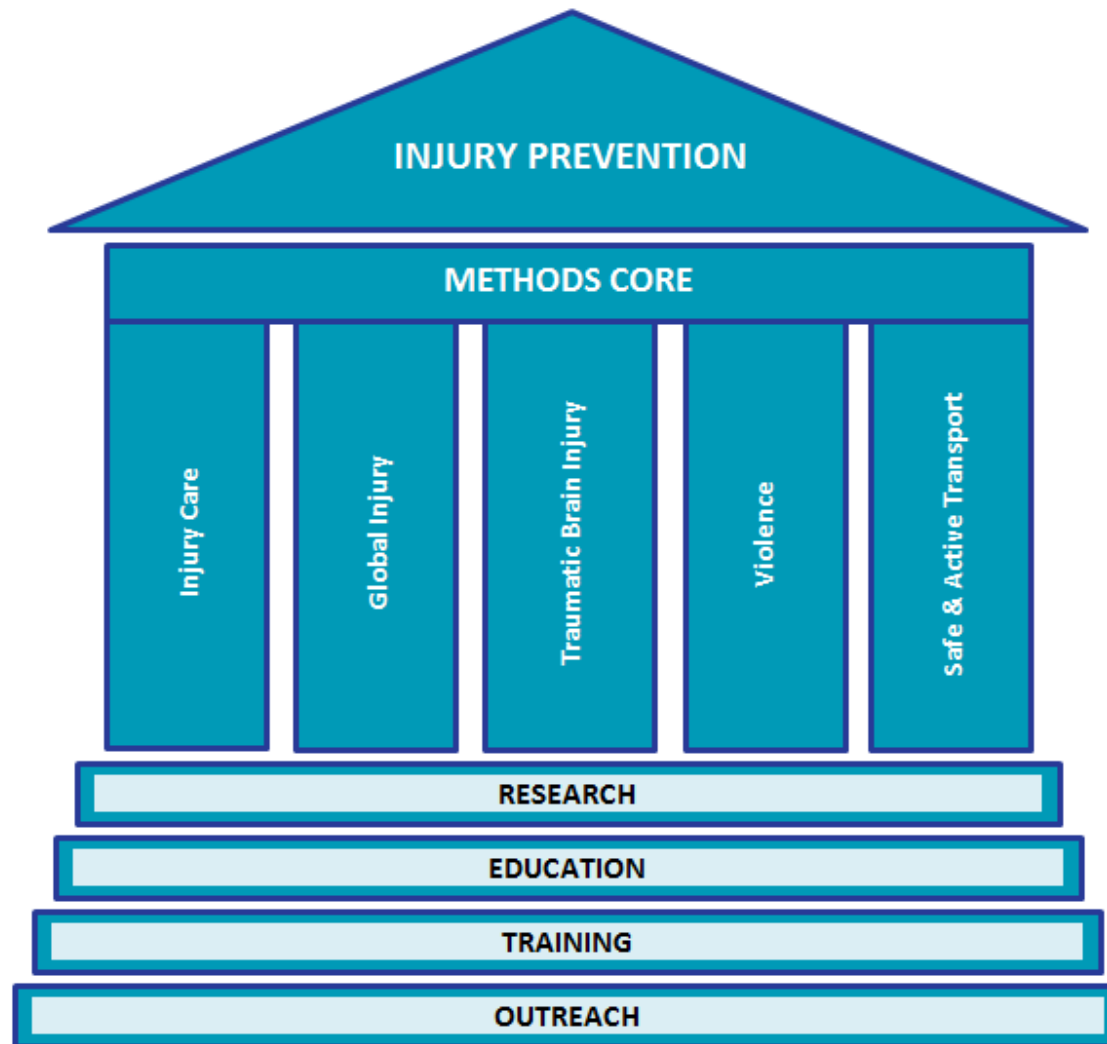
UW Medicine

HARBORVIEW
MEDICAL CENTER

UW Medicine

UW SCHOOL
OF MEDICINE

FROM PREVENTION TO REHABILITATION



30 YEAR IMPACT

- Fire retardant pajamas
- National highway speed limits
- Bicycle helmet laws
- Seat belt and child passenger restraint laws
- Apartment window guards
- Smoke detectors
- Violence/penetrating injury programs
- Distracted driving legislation

INTERDISCIPLINARY FACULTY

Faculty Composition

- 16 Core Faculty
- 70 Associate Faculty
- 22 Departments
- 7 UW Schools



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- A large purple bracket on the right side of the slide, grouping the list of disciplines.
- Medicine
 - Public Health
 - Nursing
 - Pharmacy
 - Social Work
 - Engineering
 - Law

DISCIPLINES

N=32

- Alcohol & Drug Abuse Institute
- Allergy & Infectious Disease
- Anesthesiology & Pain Medicine
- Biobehavioral Nursing & Health Systems
- Biostatistics
- Cardiology
- Emergency Medicine
- Epidemiology
- Geography
- Geriatrics
- Global Health
- Health Services
- Industrial & Systems Engineering
- Law
- Mechanical Engineering
- Medicine
- Neurological Surgery
- Ophthalmology
- Orthopaedics & Sports Medicine
- Otolaryngology
- Pathology
- Pediatrics
- Pharmacy
- Public Health
- Pulmonary & Critical Care
- Psychiatry
- Nursing
- Radiology
- Rehabilitation Medicine
- Social Work
- Surgery
- Urology

RESEARCH FOCUS



Traumatic Brain Injury



Safe & Active Transport



Injury Care

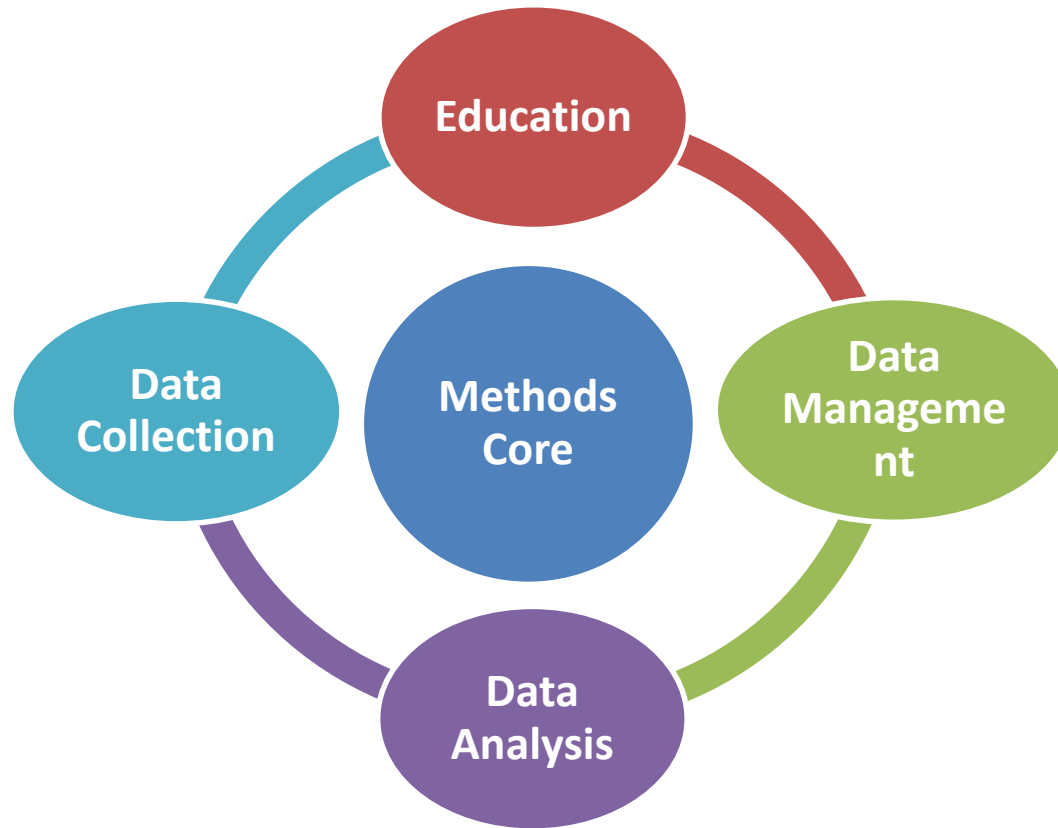


Violence Prevention



Global Injury

METHODS CORE



TRANSFORMATIVE RESEARCH

PROJECT



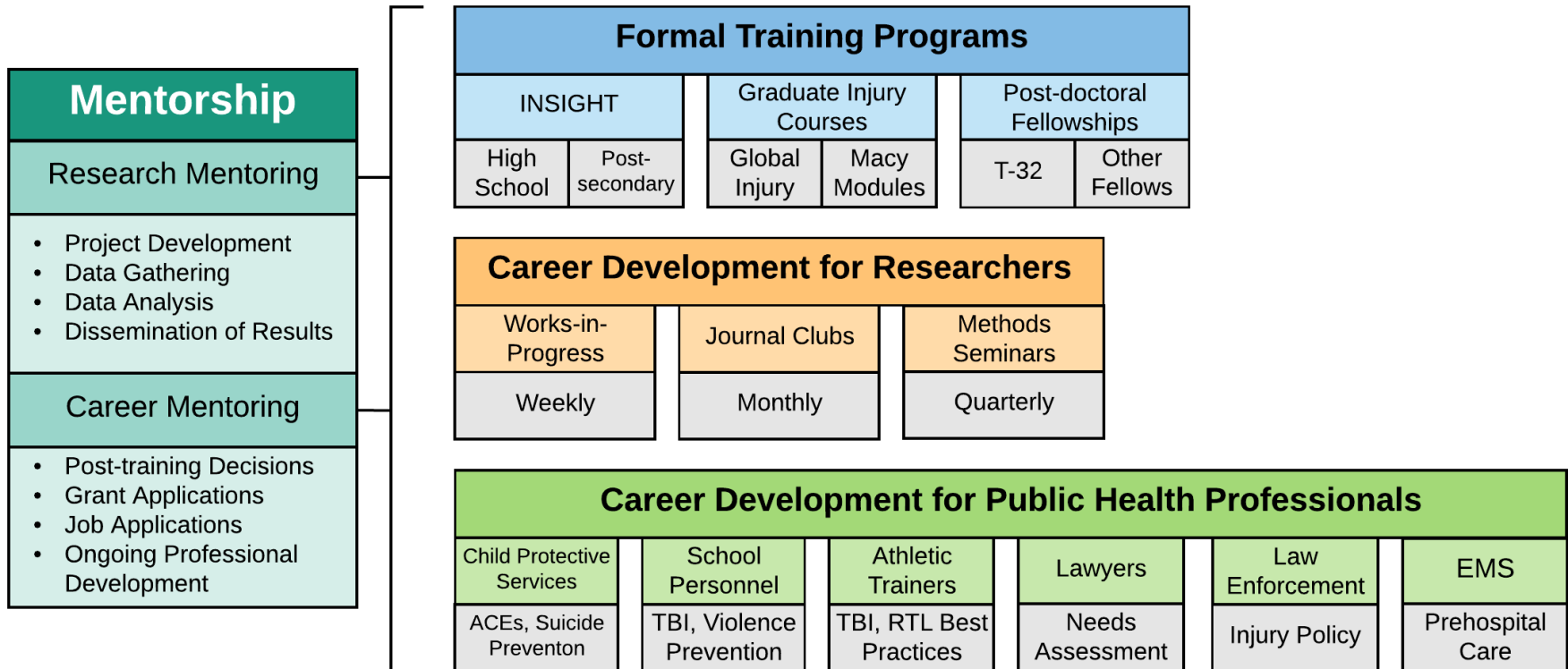
- ED Alcohol Brief Intervention
- Imaging in ICU
- Pediatric TBI Guidelines Adherence & Outcomes
- Firearm Violence Research
- Nutrition in Trauma Patients

IMPACT



- Reduced Admission Rates
- Reduced Imaging Costs
- Interdisciplinary Care Pathway & Increased Evidence-Based Care
- Brief Violence Intervention Reduces Injuries
- Redefine NPO Status & Improve Outcomes

TRAINING & CAREER DEVELOPMENT



PIPELINE TRAINING



POLICY OUTREACH



Dr. Beth Ebel at distracted driving law signing with Gov. Jay Inslee.



Dr. Fred Rivara and Dr. Monica Vavilala at a gun violence press conference with Seattle Mayor Jenny Durkan.



Dr. Sam Arbabi teaches bleeding control to Lt. Gov. Cyrus Habib at Stop the Bleed Legislative Day

COMMUNITY OUTREACH

Motor Vehicle Safety

- WA State Distracted Driving Legislation
- Booster Seat Informational Website (boosterseat.org)

Traumatic Brain Injury

- Concussion Prevention for Coaches & Student Athletes
- Pre-Hospital TBI Care for First Responders
- Return to Learn Guidelines for WA School Districts

Violence Prevention

- Suicide Prevention Website & Presentations
- Firearm Injury Intervention for Patients
- Safe Storage Firearm Lockbox Giveaway Events

Trauma & Emergency Preparedness

- Stop the Bleed Trainings
- Geriatric Trauma Guidelines

Substance Abuse

- PTSD Intervention in Trauma Care Setting

Home & Recreational Safety

- Fireworks Injury Prevention Social Media Campaign
- WA Drowning Prevention Network

COMMUNITY PARTNERS

SDRG

WIPP
Western Pacific Injury Prevention Network

CDC
Injury Prevention

WASHINGTON COURTS

Brain Injury Alliance
WASHINGTON

SEATTLE POLICE

WSP
WASHINGTON STATE POLICE

RAINIER SCHOLARS

Gf

WASHINGTON STATE DEPARTMENT OF Health

WASHINGTON POISON CENTER

FOREFRONT

King County

NHTSA

CSIR

SAVIR

SAFE KIDS

Media Education

HIPRC

UW

W SCHOOL OF NURSING UNIVERSITY OF WASHINGTON

UW Medicine
UW SCHOOL OF MEDICINE

UW Medicine
HARBORVIEW MEDICAL CENTER

W SCHOOL OF SOCIAL WORK UNIVERSITY OF WASHINGTON

HARBORVIEW INJURY PREVENTION & RESEARCH CENTER
COMMUNITY PARTNERSHIPS

WEBSITE & SOCIAL MEDIA

The screenshot shows the website for Harborview Injury Prevention & Research Center. At the top, there is a navigation menu with links for 'About Us', 'Research', 'Education', 'News & Events', and 'Outreach'. Below the menu is a search bar. The main header features the 'HiFi' logo and the tagline 'Helping Individuals with Firearm Injuries'. A sub-header reads: 'A Violence Prevention study is testing community-based intervention to support gunshot wound victims'. The main content area is divided into several sections: a central message about reducing the impact of injury and violence; a 'COMMUNITY RESOURCES' section with logos for 'STOP THE BLEED WASHINGTON', '#EndSuicideWA', and 'BoosterSeat.org'; an 'UPCOMING EVENTS' section listing three events; and a 'SUBSCRIBE TO OUR NEWSLETTER' section with an email address field. On the left side, there are three news articles with images and brief descriptions.

HARBORVIEW INJURY PREVENTION & RESEARCH CENTER

About Us | Research | Education | News & Events | Outreach

Search the website

HiFi

Helping Individuals with Firearm Injuries

A Violence Prevention study is testing community-based intervention to support gunshot wound victims

Harborview Injury Prevention & Research Center

Reducing the impact of injury and violence on people's lives through research, education, training and public awareness.

COMMUNITY RESOURCES

STOP THE BLEED WASHINGTON

#EndSuicideWA
PWH Suicide Prevention Resource Center

BoosterSeat.org
The Right Seat. Every Trip. Every Time.

UPCOMING EVENTS

1. Work-in-Progress: 'Fireworks Legislation and the Incidence of Severe Firearm-related Injuries in Washington State' with Sherice Epstein, M.D., MPH
September 26 @ 1:00 pm - 2:00 pm
2. Stop the Bleed Training (UW Personnel Only)
September 28 @ 8:00 am - 12:00 pm
3. Journal Club - Methods with Ali Rowhani-Rahbar, M.D., Ph.D., MPH
October 5 @ 1:00 pm - 2:00 pm

View All Events

SUBSCRIBE TO OUR NEWSLETTER

Email Address*

Geriatric care, burn management and more featured at trauma conference

HPRC members highlighted the multidisciplinary nature of effective trauma care at the 2018 UW Medicine EMS & Trauma Conference Sept. 17-18. From a break out talk on geriatric care to a panel on burn management and talks on opioid use, Stop the Bleed program, and more. See all highlights. How every member of the medical team works [...]

[Read more](#)

INSIGHT program awarded federal research education grant

Harborview Injury Prevention and Research Center's INSIGHT Summer Research Program has been awarded a \$500,000 grant by the National Institutes of Health to support research training and career development. The INSIGHT Research Program is an innovative, paid summer internship where undergraduates, graduate and medical students complete hands-on, mentored research projects on injury prevention and control. [...]

[Read more](#)

Fellow wins grant to study traumatic pelvic fracture outcomes

HPRC postdoctoral research fellow and Department of Urology geriatric urology reconstructive surgery fellow Nabil Zahedi, M.D., has been awarded \$25,000 by the Sexual Medicine Society of North America to study the

Police, hospital records show warning signs of future firearm injury

An individual's history of substance use, mental disorder and arrest can indicate an elevated risk of getting shot, according to a new study from the University of Washington School of Public Health. These warning signs illustrate the growing challenges healthcare and police

WWW.HIPRC.ORG

 @HIPRC

WHY HOSPITALS SHOULD BE INVOLVED WITH VIOLENCE PREVENTION

Frederick P. Rivara, MD, MPH

Seattle Children's Guild Endowed Chair in Pediatric Research

Vice Chair & Professor, Department of Pediatrics

University of Washington

What do we mean by violence?

- Assault
 - Fatal
 - Non-fatal
 - Child abuse
 - Sexual assault
 - Intimate partner violence
 - Elder abuse
- Suicide
- Unintentional shootings

How big is the problem: Fatalities

In 2016, there were:

- 19,911 homicides
 - 1750 child abuse deaths
 - 40% of female homicides are IPV
- 44,965 suicides
- 495 unintentional firearm deaths

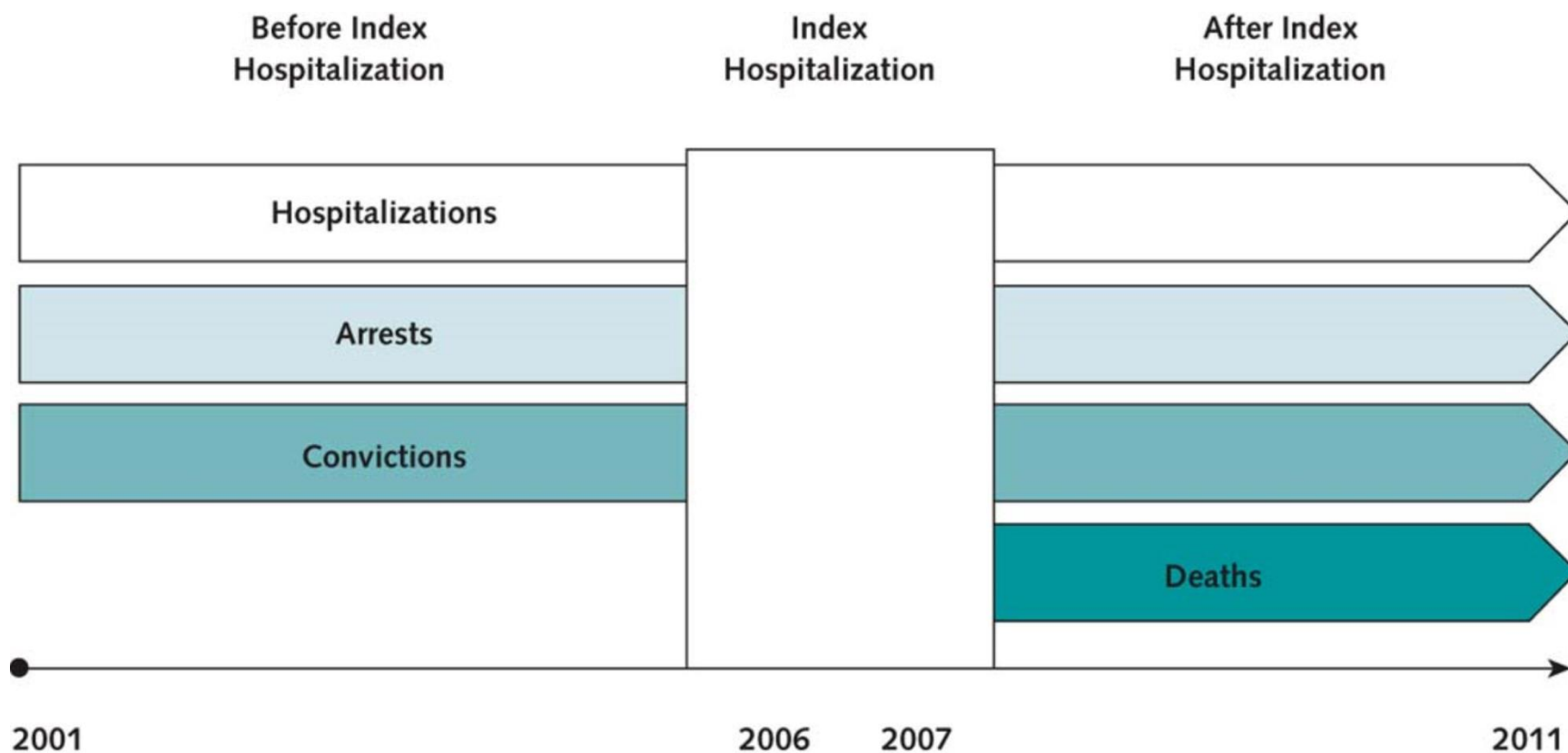
How big is the problem: ED visits and Hospitalizations, 2016

- Assaults: 1.5 million ED visits, 140,000 hospitalized
- Sexual assaults: 88,000 ED visits, 5,000 hospitalized
- Child abuse: 1.6 million ED visits, 5000 hospitalizations
- Suicide attempts: 500,000 ED visits, 316,000 hospitalized
- GSW: 116,000 ED visits, 30,000 hospitalizations

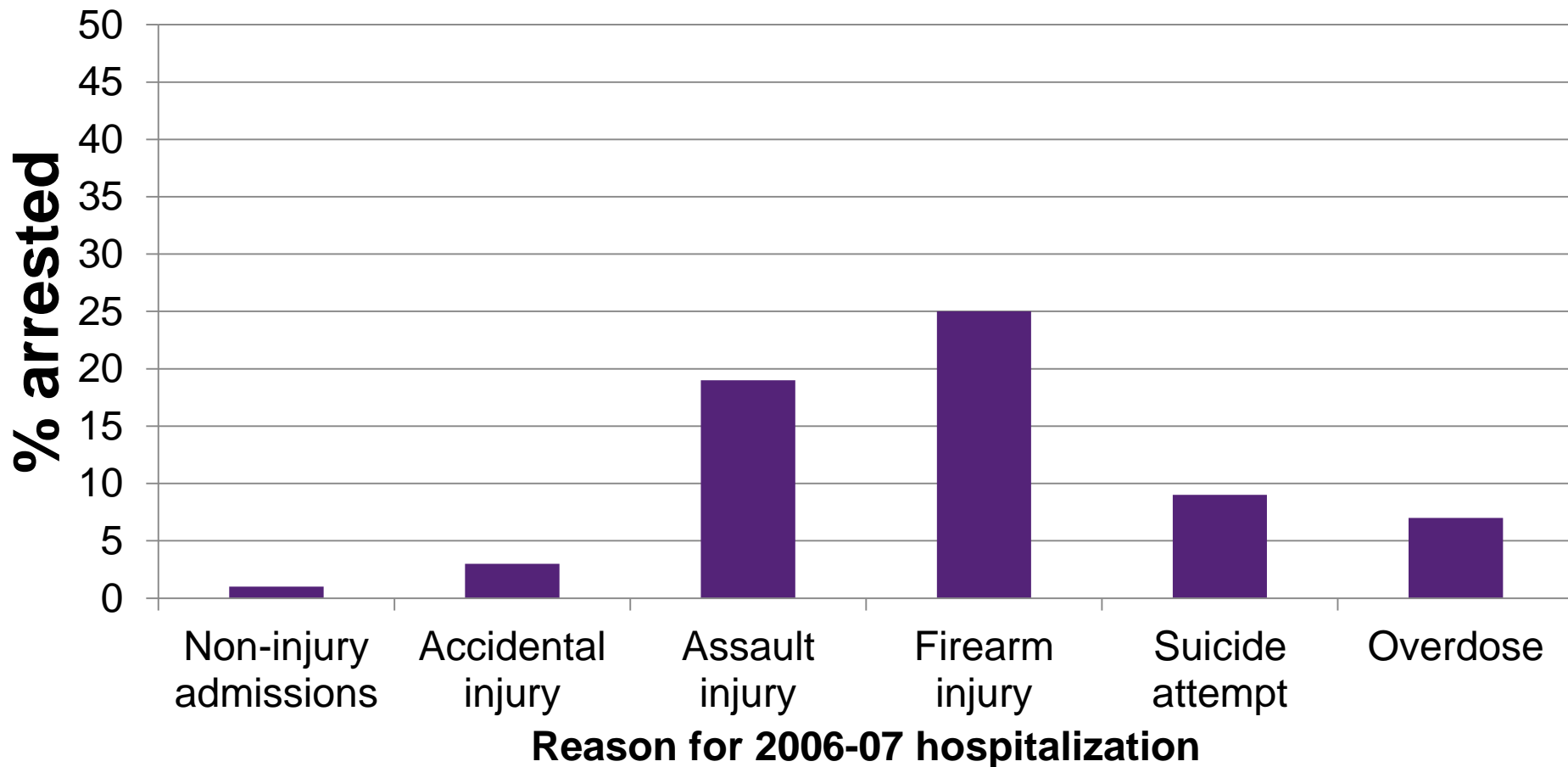
How big is the problem: cost

- Medical care costs: \$9 billion annually
- Work lost costs: \$27 billion annually

Examining risk of recidivism for GSW patients: Study design

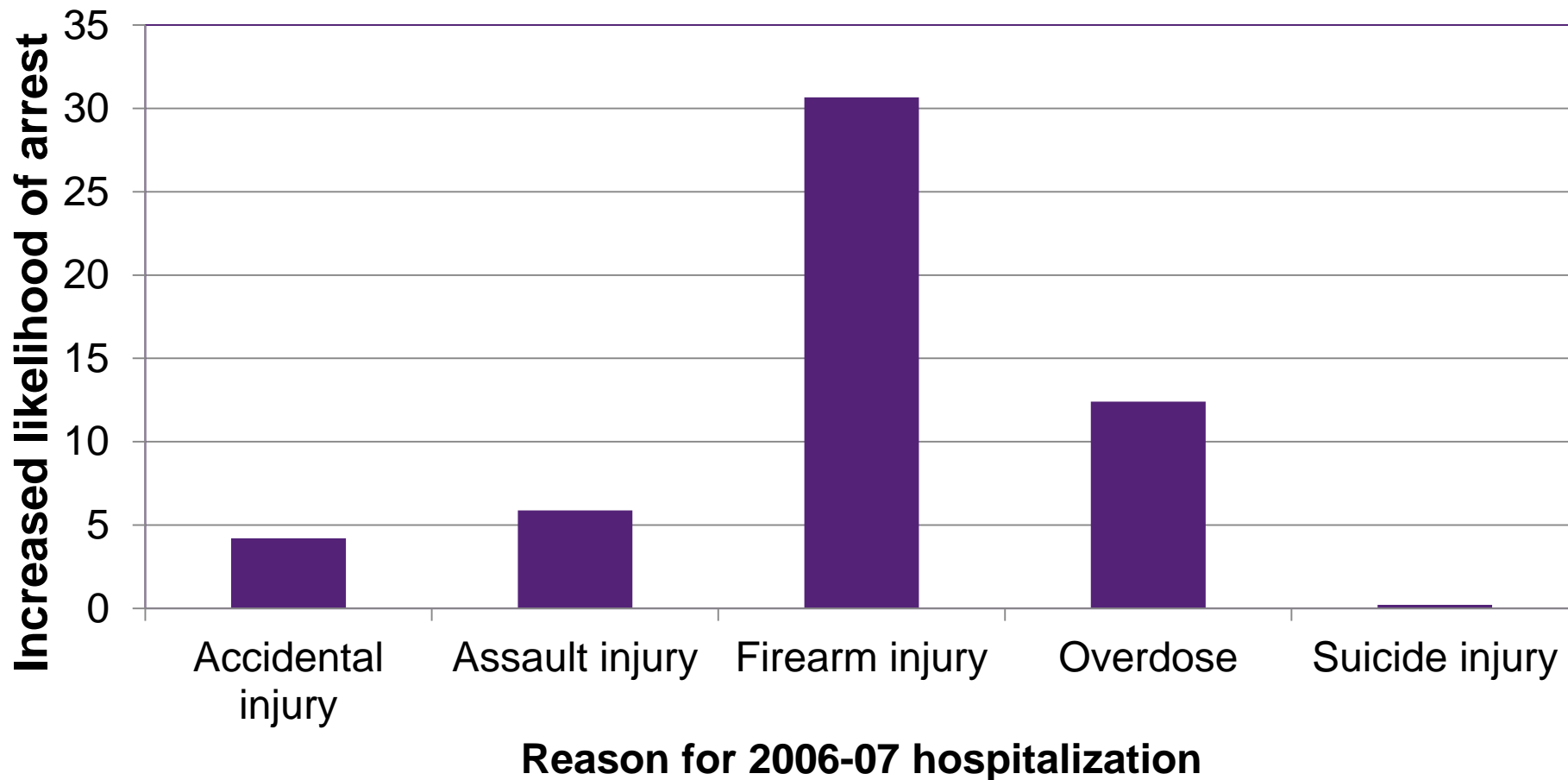


Arrests for **violent or firearm-related** crimes during 5 years after 2006-2007 hospitalization



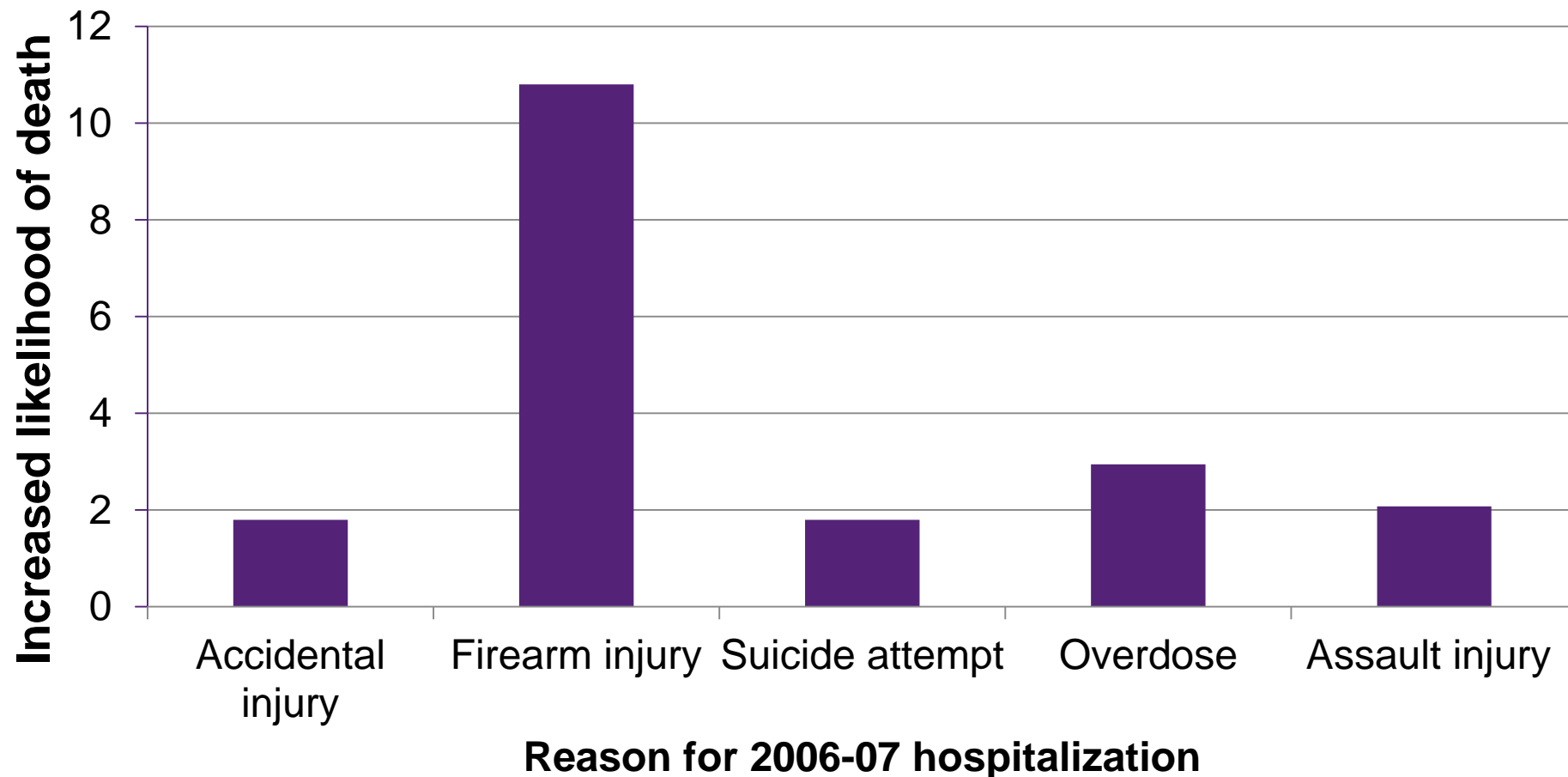
25% of people hospitalized in 2006-07 for firearm-related injury were arrested for violent or firearm-related crime over next 5 years

Increased likelihood of being **hospitalized for firearm injury** within 5 years after 2006-07 injury hospitalization compared to people with other hospitalizations



Individuals hospitalized for firearm injury in 2006-07 were 30 times more likely to be re-hospitalized for another firearm injury than people admitted for non-injury reasons

Increased likelihood of **death due to firearm** within 5 years after 2006-07 injury hospitalization compared to other hospitalizations



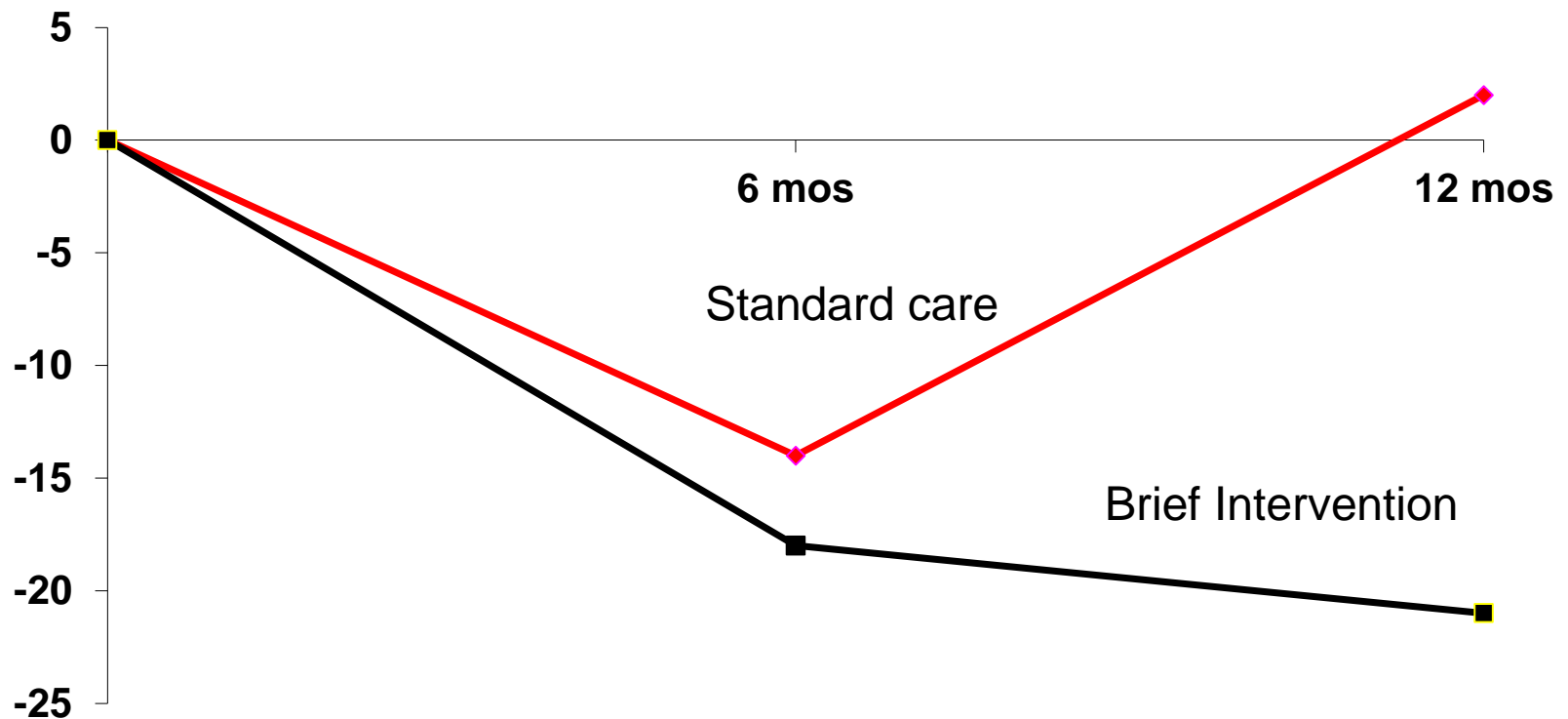
Individuals hospitalized with firearm injury in 2006-07 were 11 times more likely to die due to a gun over next 5 years than people admitted for non-injury reasons

Brief Interventions with Harborview's Trauma Patients

- **RCT of one counseling session during hospital stay:**
- **366 patients got BI + usual trauma care**
- **396 patients got usual trauma care**

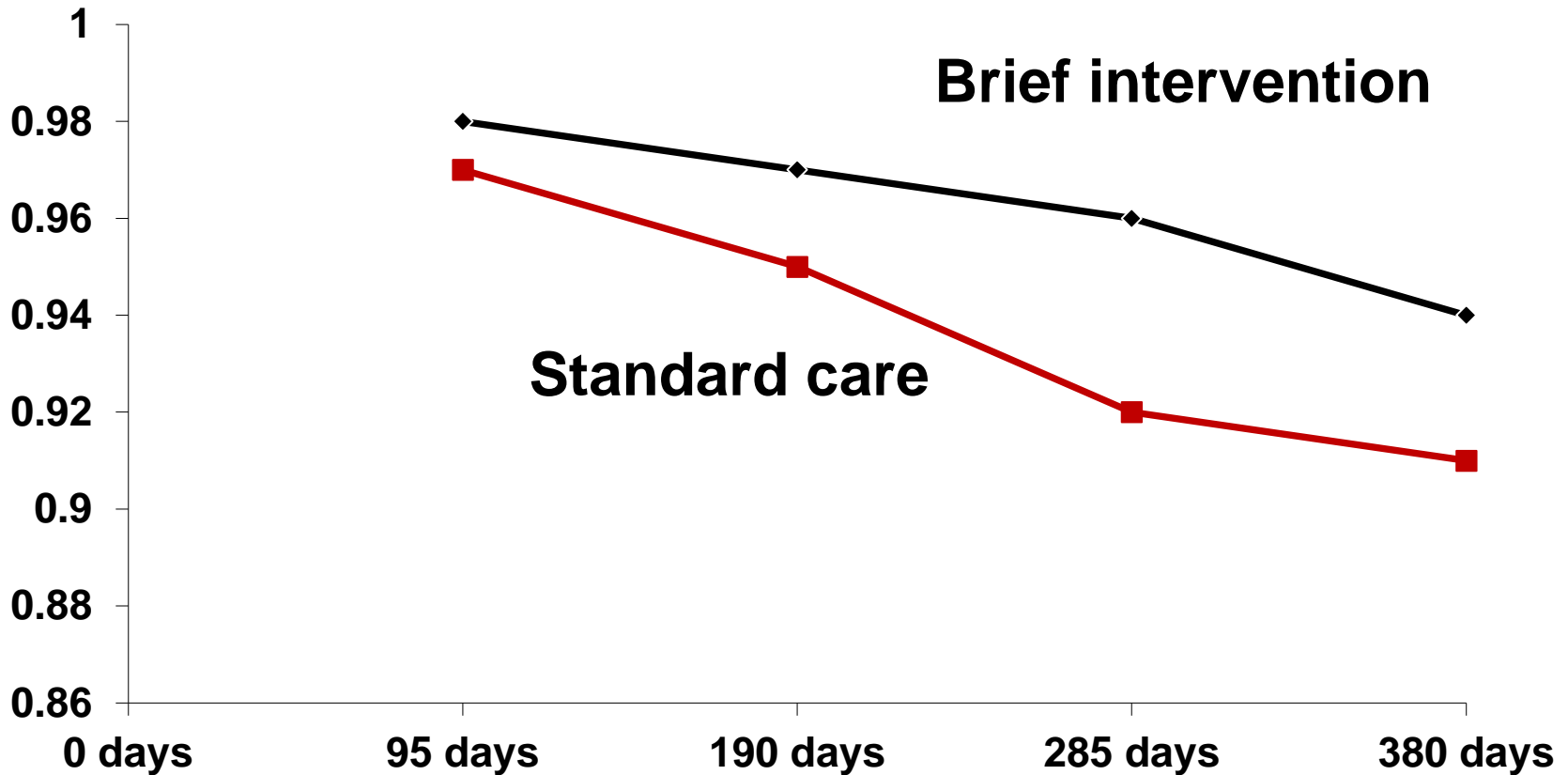
- **74% met DSM criteria for alcohol dependence**
- **mean standard drinks per week = 44**

Brief Interventions at HMC: reductions in standard drinks per week



Brief Intervention group reduced Alcohol by 21 drinks per week vs. 2 for control group

Effects of brief intervention on re-injury



- **47% reduction in re-injury requiring hospitalization at HMC for Brief intervention vs. Controls**
- **Savings of \$3.81 for every \$1 spent on screening and intervention**

HELPING INDIVIDUALS WITH FIREARM INJURIES: A RANDOMIZED TRIAL

Ali Rowhani-Rahbar, MD, MPH, PhD

Associate Professor of Epidemiology, School of Public Health
Violence Prevention Section Leader, HIPRC
University of Washington

Background

- “Wraparound” programs for trauma patients at healthcare settings
- 2009: National Network of Hospital-based Violence Intervention Programs
 - Trauma informed care
 - “Teachable moment”
 - Interrupt the costly cycles of violent injury by transforming medical treatment into a catalyst for positive life changes

Significance

- Research on the effectiveness of these programs is critically needed to build robust empirical support for policy and practice.

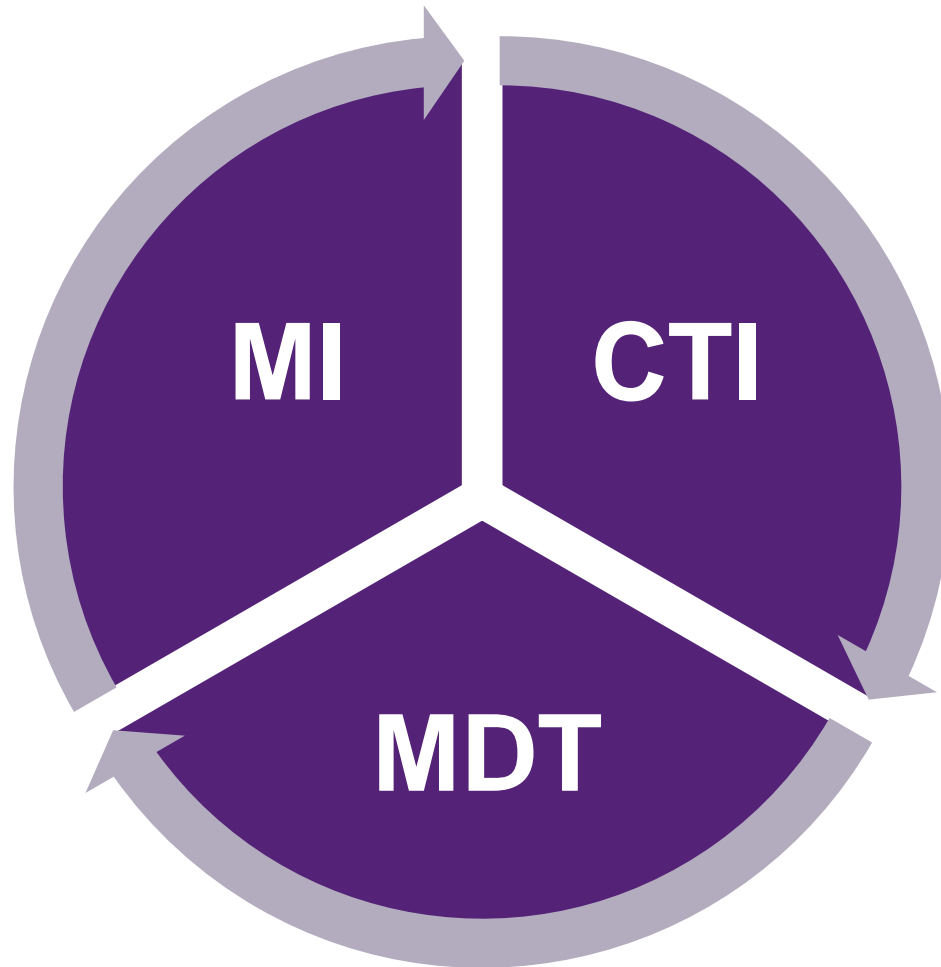
Approach

- Helping Individuals with Firearm Injuries (HiFi)
 - Ongoing RCT conducted among GSW patients presenting to HMC.
 - Study participants receive either an intervention or treatment as usual.
 - The unit of randomization is the calendar week
 - Study staff assign GSW patients to one of the two groups based on the week in which they present to HMC.

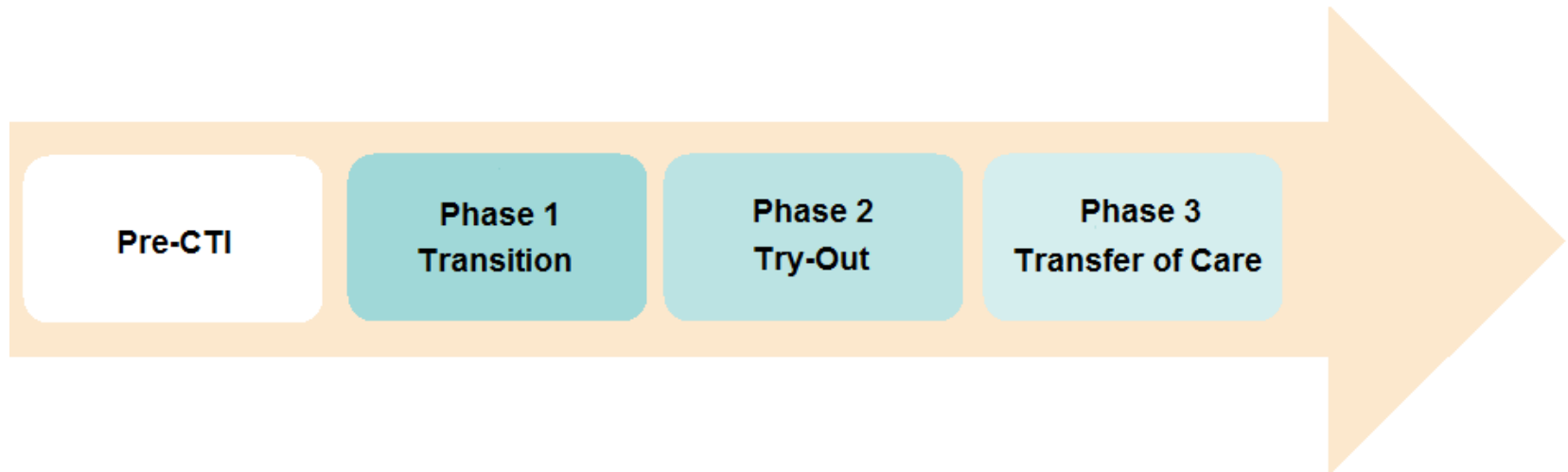
Enrollment and Follow-up Timeline

2016	2017	2018	2019
Enroll	Follow-up	Follow-up	
	Enroll	Follow-up	Follow-up
		Enroll	Follow-up

Intervention



Critical Time Intervention



Pre-CTI (Motivational Interview): Develop a trusting relationship with patient.

Phase 1 (Transition): Provide support & begin to connect patient to people and agencies that will assume the primary role of support.

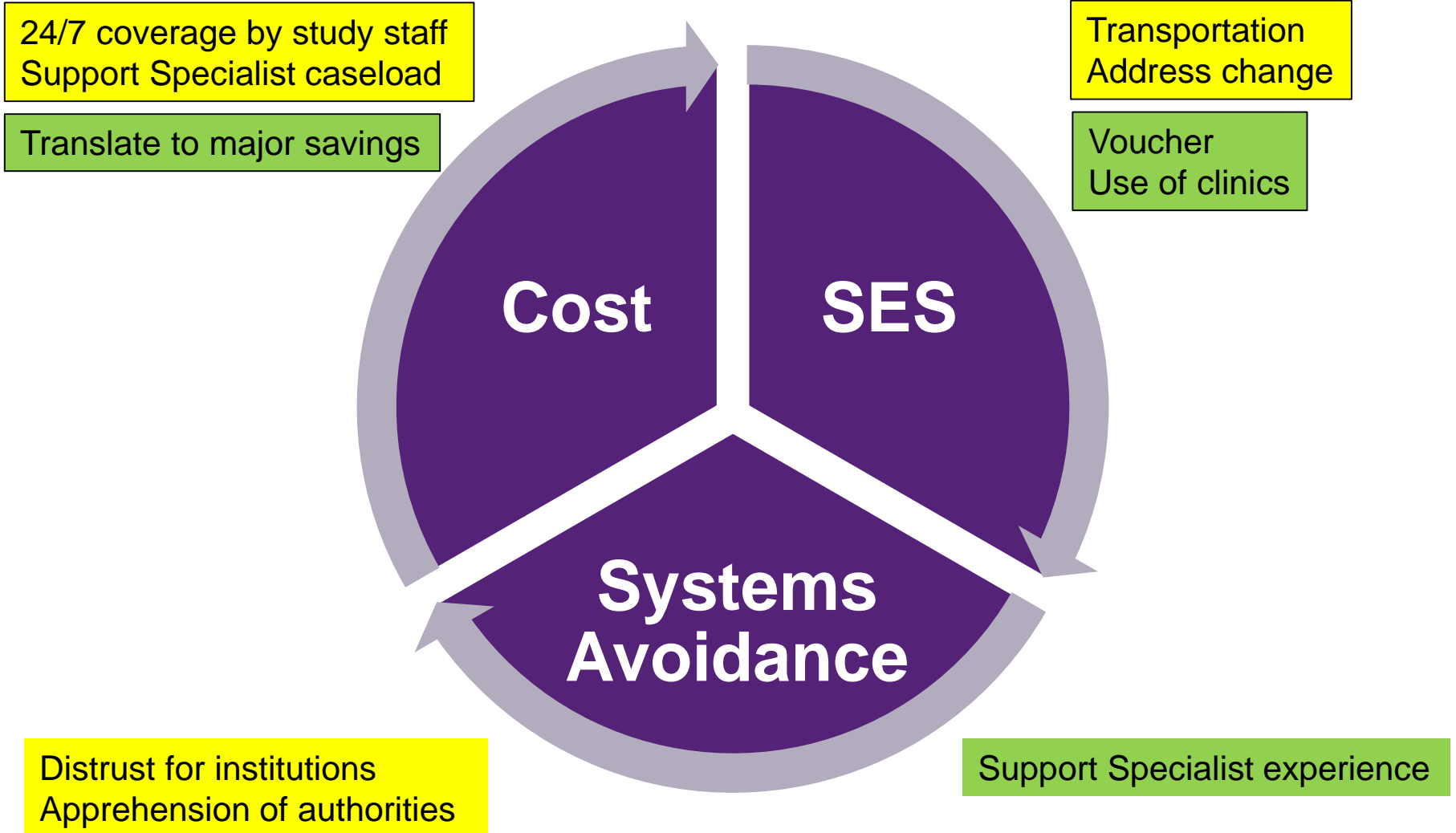
Phase 2 (Try-Out): Monitor and strengthen support network and patient's skills.

Phase 3 (Transfer of Care): Terminate CTI with support network in place.

Measures

- Using several administrative databases and self-reported surveys:
 - Criminal justice involvement including arrests and convictions
 - Healthcare utilization including hospitalizations and ED visits
 - Depression
 - Posttraumatic stress
 - Substance use
 - Life satisfaction
 - Social support
 - Physical and mental health-related quality of life
 - Exposure to violence

Challenges & Solutions



Conclusions

- With sufficient support, feasible and rewarding
 - *“I would have no clue what to do without you. I didn’t even know these services exist.”*
 - *“The counselor you referred us to is great and has been making a huge difference!”*
 - *“I wish there were more programs like this.”*
- Raising awareness about HVIPs
 - Enhanced communication among those involved in the implementation and evaluation of these program
 - Continued advocacy to harness additional sources of funding to contribute to the sustainability of HVIPs
 - Positively impacting lives of those affected by violence, and saving costs