

# Overview of the Garrett Lee Smith Memorial Youth Suicide Prevention Program

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# Disclaimer

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# Suicide as a Public Health Problem

- Suicide is the 2<sup>nd</sup> leading cause of death for 10- to 24-year-olds in the US in the year 2018 (CDC, 2020)
- Suicide is the leading cause of death among college students (Turner et al., 2013).
- Suicide is the 10<sup>th</sup> leading cause of death across all age groups in the US. (CDC, 2020)
- Concern about suicidal behavior or risk is one of the primary causes of child psychiatric emergencies and hospitalizations

# The Garrett Lee Smith (GLS) Program

- Garrett Lee Smith, son of Senator Gordon and Mrs. Sharon Smith, died by suicide in 2003
- In 2004, the Garrett Lee Smith Memorial Suicide Prevention Act passed by Congress
- Provides, on a competitive basis, funding for suicide prevention activities to states, tribal groups, and college campuses
- As of 2019, 291 campus grants awarded to institutions of higher education, 124 grants have been awarded to state grantees, and 75 grants have been awarded to tribal grantees

# The Garrett Lee Smith (GLS) Program

- All GLS grantees had a comprehensive public health approach to suicide prevention
- Gatekeeper training was a core part of all GLS programs: more than 96% of state, tribal, and campus grantees conducted gatekeeper trainings
- In gatekeeper training programs, individuals learn about warning signs for suicide, learn to identify individuals at risk and how to approach them, and how to refer them as appropriate for needed care
- Gatekeeper training always occurred in concert with other suicide prevention programming

# Comprehensive Public Health Community-Based Suicide Prevention Program

Provide suicide risk identification training to gatekeepers

Improved identification of suicidal risk factors in at-risk youths

Increased referrals in timely and appropriate manner

Increase in no. of youths identified at risk, referred for services, and treated

Reduced suicide risk factors and mortality rate

## Gatekeeper Trainings

### Screening Programs

### Lifeskills Development & Wellness Activities

### Hotlines and Helplines      Coalitions and Partnerships

### Direct Services and Traditional Healing Practices

### Policies and Protocols for Intervention and Postvention

### Assessment and Referral Trainings

### Outreach & Awareness      Means Restriction

# Building Evidence for Impact

- Impact data at a national level focused on outcomes associated with state and tribal programs
- Because of ubiquity of gatekeeper trainings as part of suicide prevention efforts, these were used as a proxy for GLS Implementation
- Outcomes:
  - Suicide Attempts Following Implementation
  - Suicide Mortality Following Implementation
  - Cost Effectiveness
  - Long-Term Effects of GLS Program on Suicide Mortality

# Propensity Score Techniques

1

Select  
comparison  
counties using  
propensity score  
matching

2

Select  
combination of  
counties closely  
resembling  
outcome history

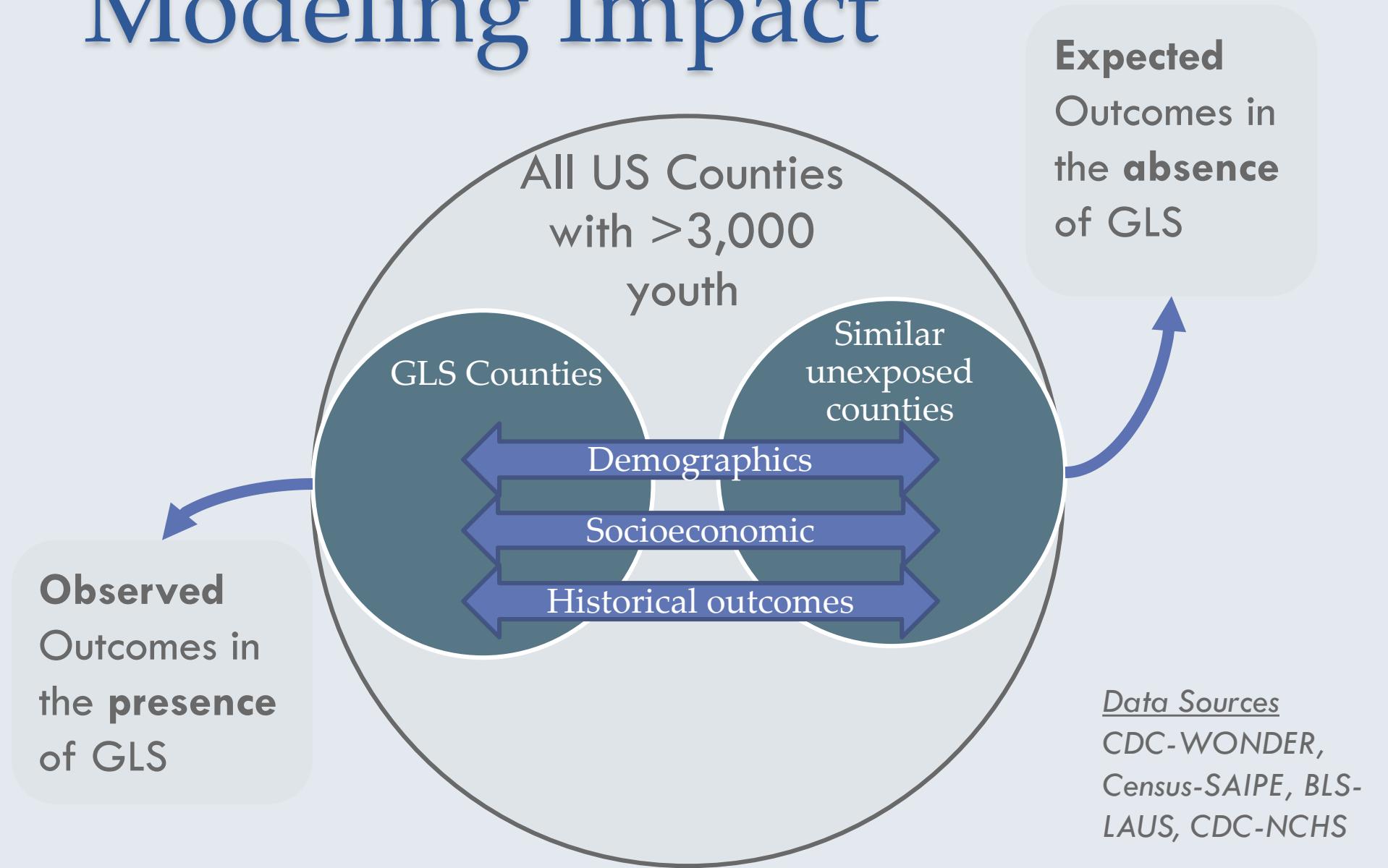
3

Model the impact

4

Test model  
robustness with  
control outcomes

# Modeling Impact



# Impact on Youth Suicide Attempts

Youth aged 16-23

Counties with GLS programming from 2006-2009

Impact measured from 2007-2010 (short term)

No effect seen on attempts among adults older than 23 years

- 4.9 fewer attempts per 1,000 youth one year following GLS implementation

- 79,379 averted suicide attempts through 2010

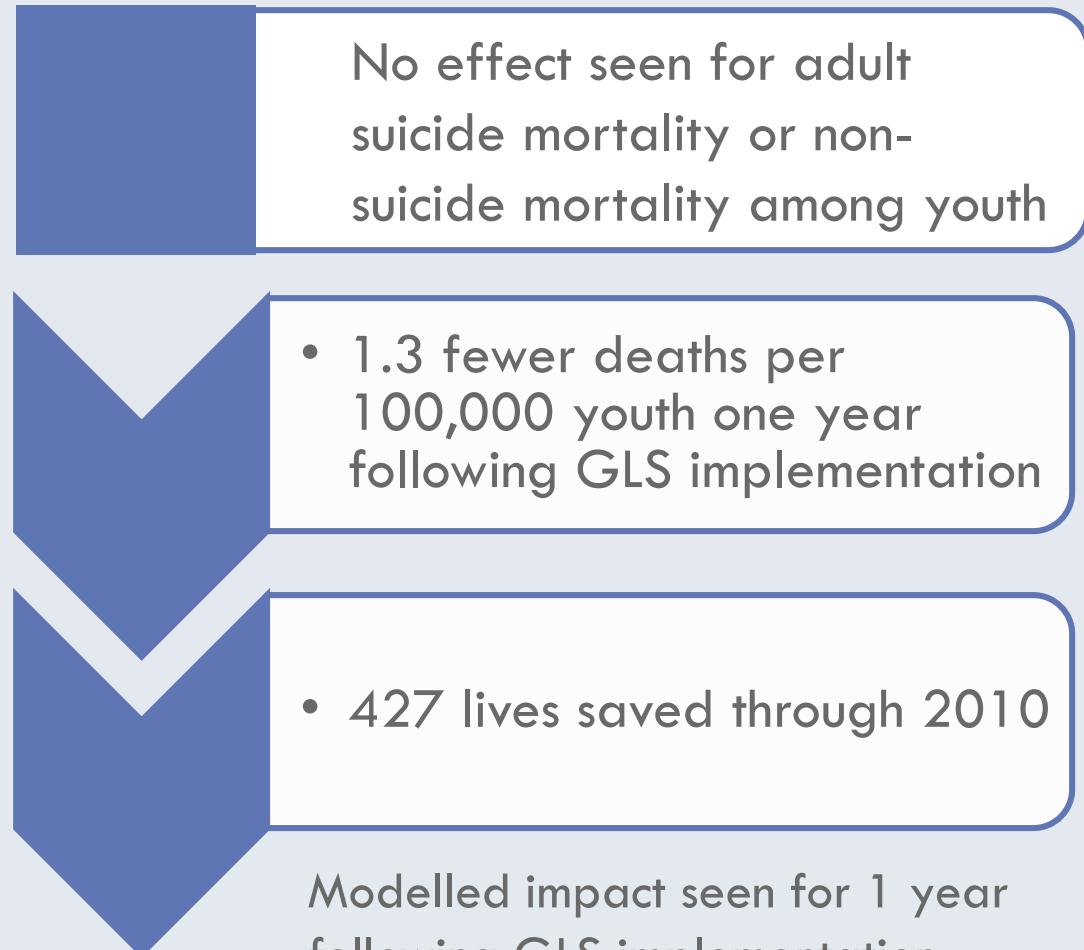
Modelled impact seen for 1 year following GLS implementation

# Impact on Youth Mortality

Youth aged 10-24

Counties with GLS  
programming  
from 2006-2009

Impact measured  
from 2007-2010  
(short term)



# Impact on Cost Savings

Utilized suicide attempt findings (2007-2010)

79,379  
averted  
suicide  
attempts

11,424  
averted ED  
visits

19,448  
averted  
hospital  
stays

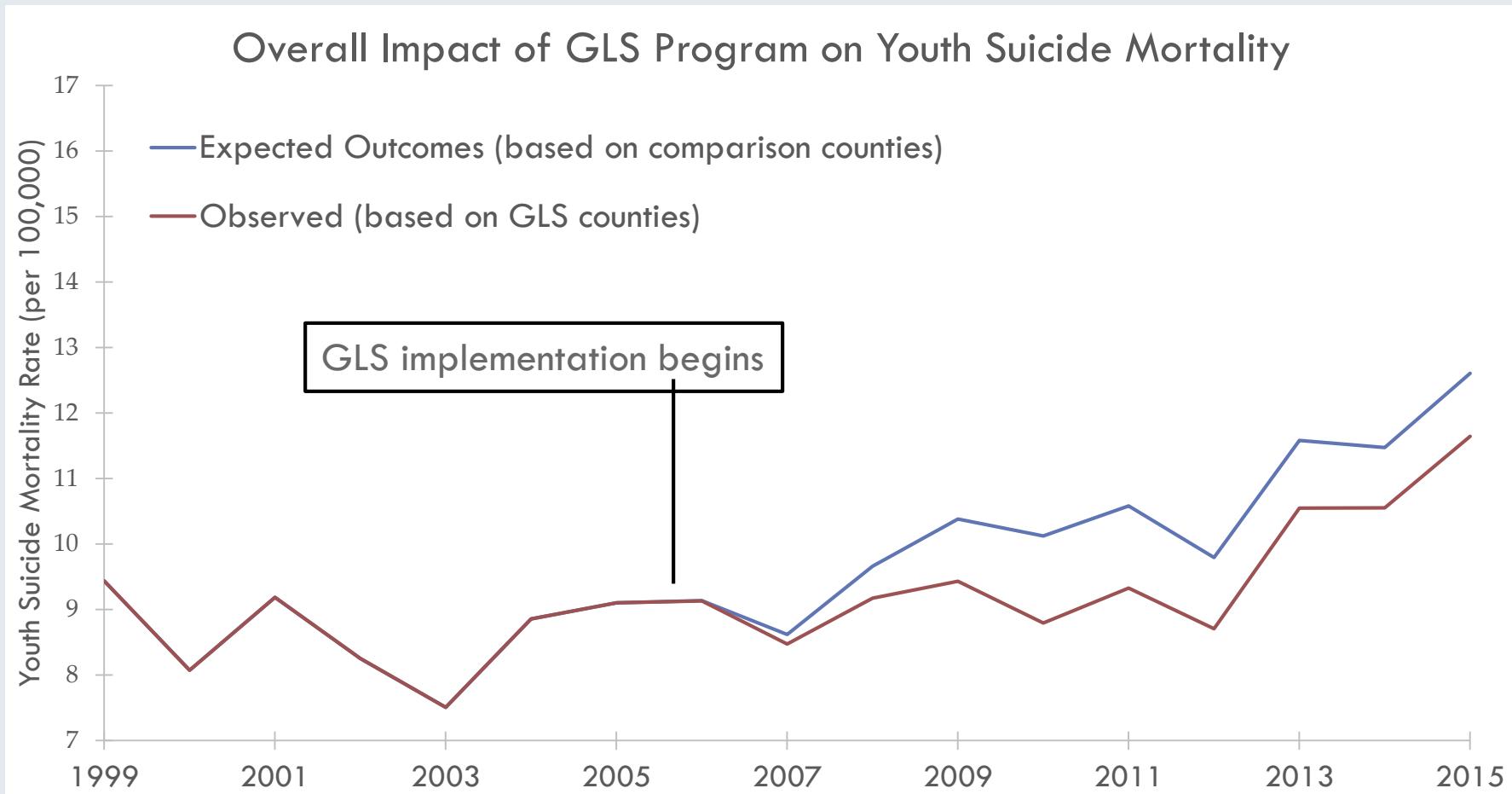
\$34.1M in  
medical  
cost savings

\$187.8M in  
medical  
cost savings

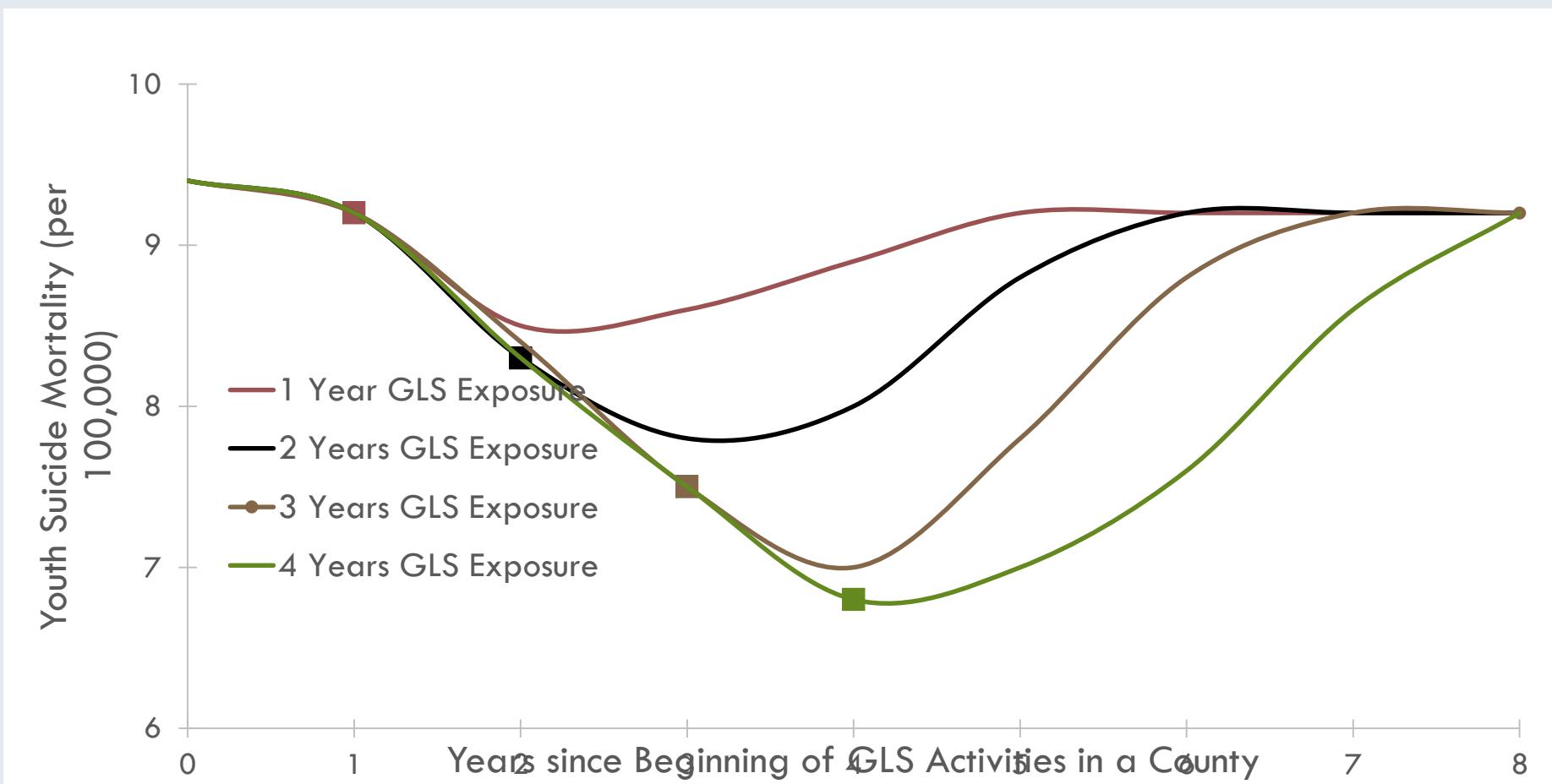
\$222.1M in  
total  
medical  
cost savings



# Long-term Impact on Youth Suicide Mortality



# Long-term Impact on Youth Suicide Mortality



# Conclusions and Lessons Learned

- Comprehensive GLS suicide prevention programming associated with lower than expected rates of suicide attempts and deaths
- Comprehensive GLS suicide prevention programming is cost-effective
- Greatest effects found with sustained suicide prevention programming, and in rural areas

# References

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