

Overview of the Garrett Lee Smith Memorial Youth Suicide Prevention Program

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Contract HHSS2832007000071 to ICF, National Suicide Prevention Evaluation, 2014-2019 (most recent contract). The evaluation of GLS was funded from 3 separate contracts from 2005-2019.

Disclaimer

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Suicide as a Public Health Problem

- Suicide is the 2nd 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 10th 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



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

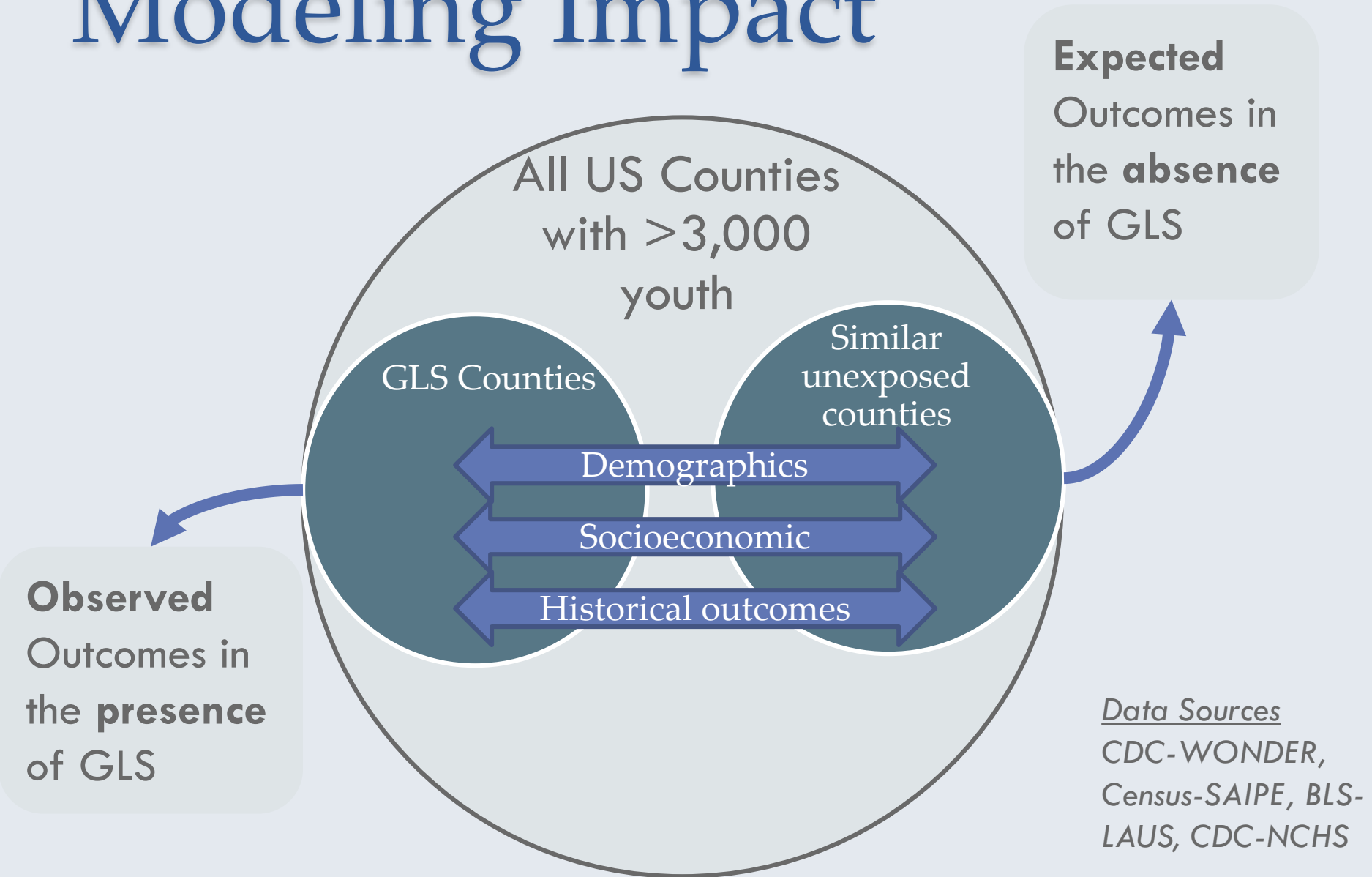
Model the impact

3

Test model
robustness with
control outcomes

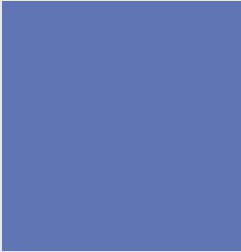
4

Modeling Impact



Impact on Youth Suicide Attempts

Youth aged 16-23



No effect seen on attempts among adults older than 23 years

Counties with GLS programming from 2006-2009

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

Impact measured from 2007-2010 (short term)

- 
- 79,379 averted suicide attempts through 2010

Modelled impact seen for 1 year following GLS implementation

Impact on Youth Mortality

Youth aged 10-24

No effect seen for adult suicide mortality or non-suicide mortality among youth

Counties with GLS programming from 2006-2009

- 1.3 fewer deaths per 100,000 youth one year following GLS implementation

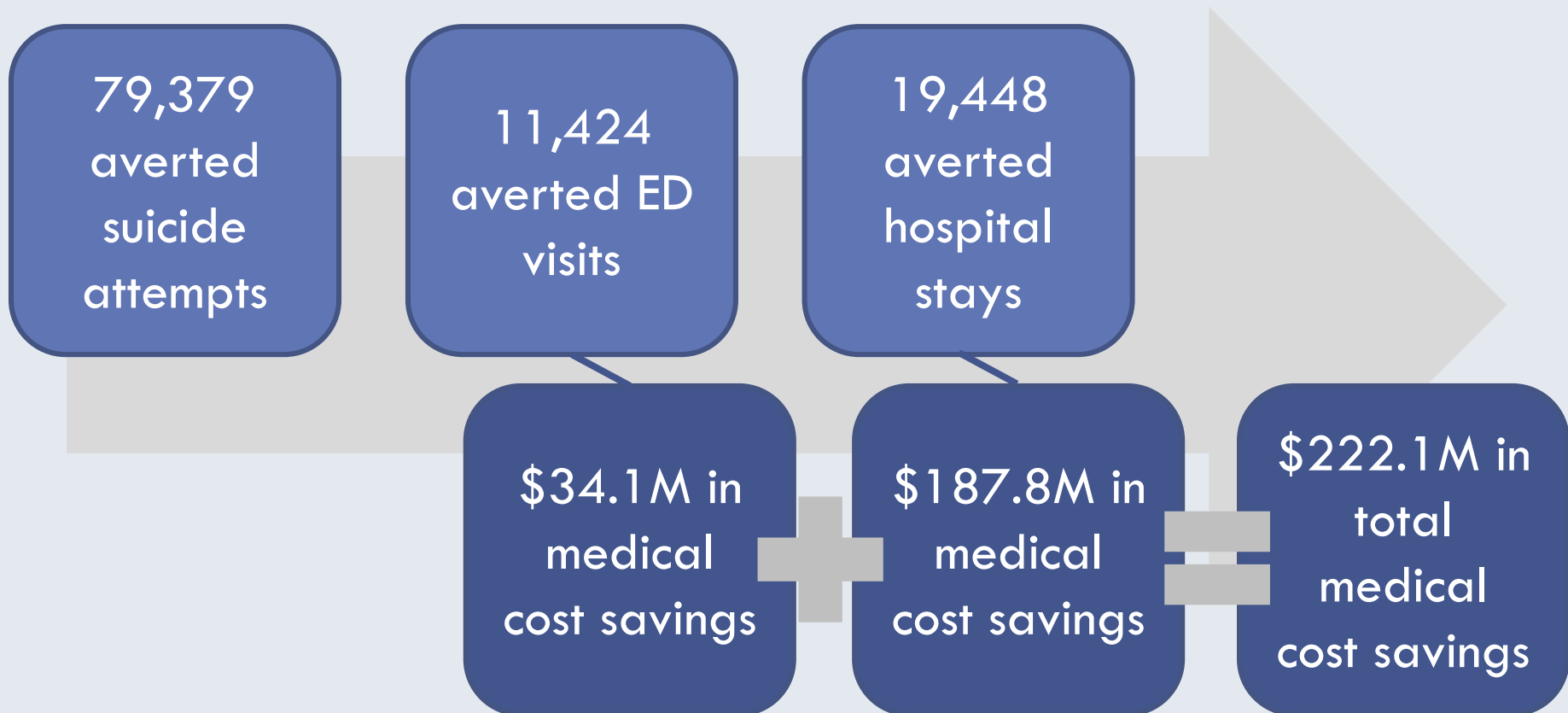
Impact measured from 2007-2010 (short term)

- 427 lives saved through 2010

Modelled impact seen for 1 year following GLS implementation

Impact on Cost Savings

Utilized suicide attempt findings (2007-2010)



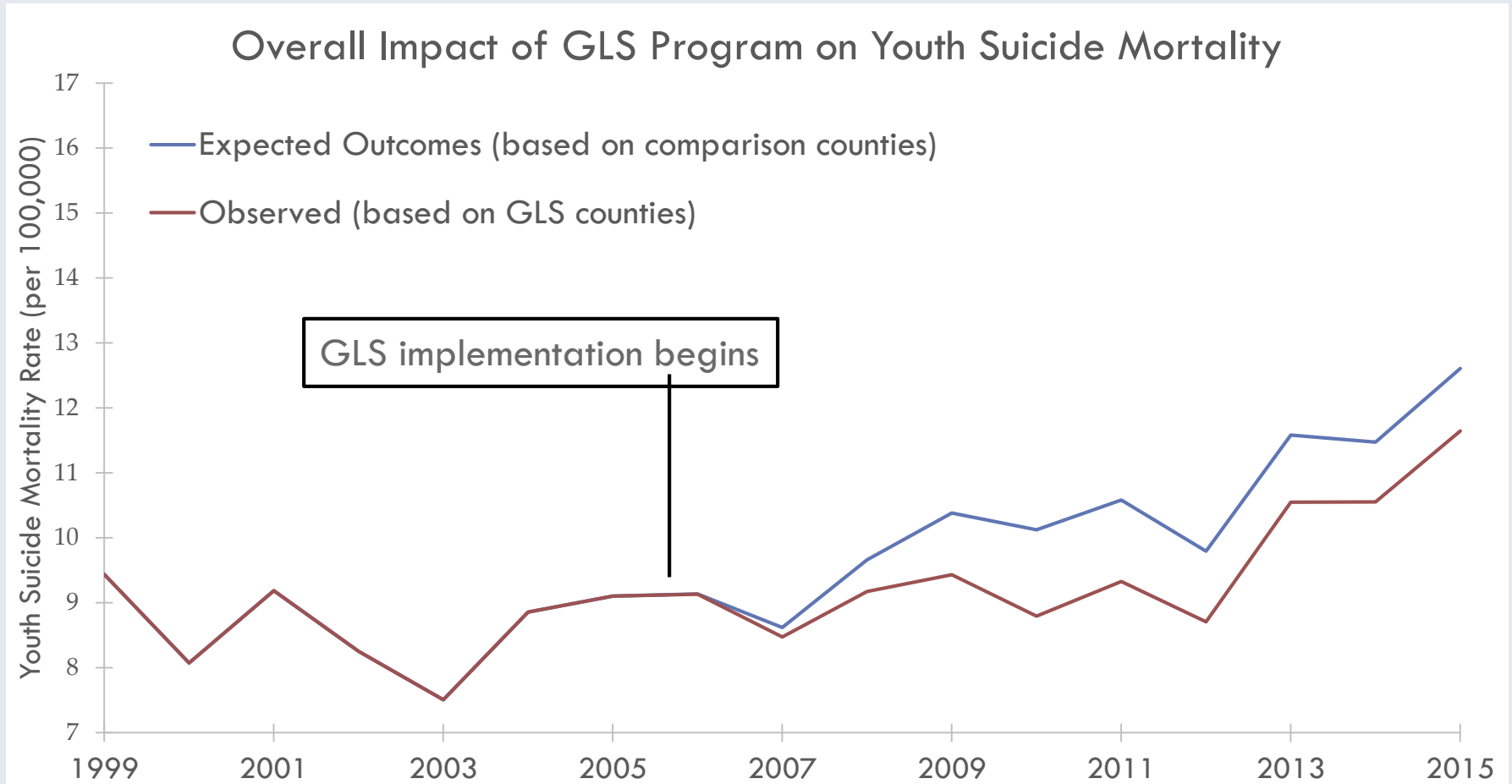
Impact on Cost Savings

**\$222.1M in
total medical
savings over 4
years**

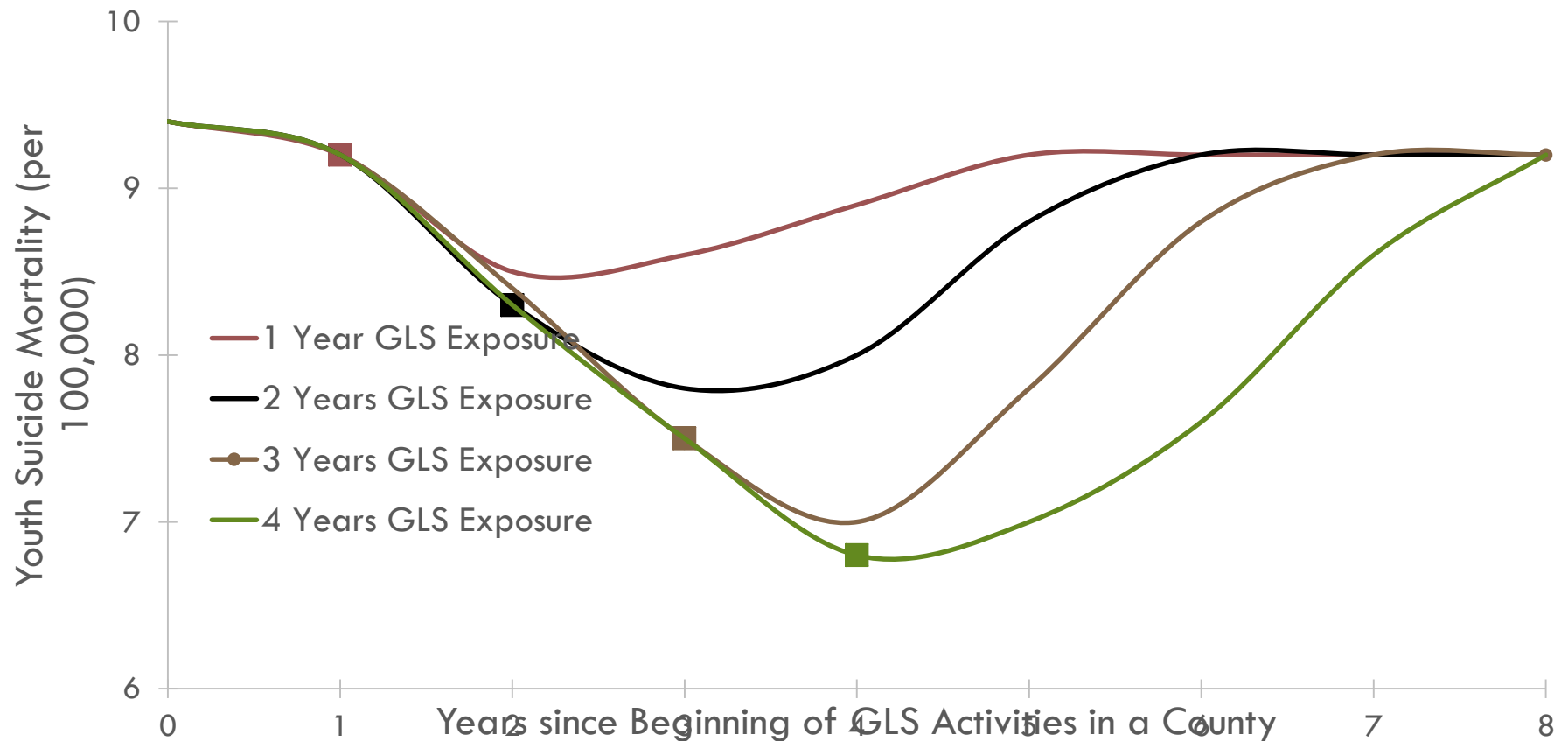
**\$49.4M in
total GLS costs
over 4 years**

**\$4.50 in medical cost
savings for each dollar
invested**

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

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