



# Research That Expands the Evidence on Sexual Risk Avoidance and Sexual Risk Cessation

December 7, 2020; 12:00 –1:30 PM EST



# Welcome and Opening Remarks

**Diane Foley**

Acting Principal Deputy Assistant Secretary for Health

Deputy Assistant Secretary for Population Affairs

Office of the Assistant Secretary for Health



# Sharing and Celebrating the Benefits of Collaboration

- Collaboration Goal:
  - Generate theory and evidence-based products and resources
  - Address evidence gaps (related to sexual risk avoidance education)
- Many Voices and Perspectives:
  - Office of the Assistant Secretary for Health
  - Office of Population Affairs
  - Administration for Children, Youth and Families', Family and Youth Services Bureau
  - Office of Planning, Research and Evaluation
  - RTI International (contractor)
  - Mathematica (contractor)
  - Youth
  - Youth-serving providers and grantees

# Welcome and Opening Remarks

**Naomi Goldstein**

Deputy Assistant Secretary for Planning, Research, and Evaluation  
Director, Office of Planning, Research and Evaluation  
Administration for Children and Families



# OPRE Overview

Sexual Risk Avoidance and Sexual Risk Cessation Research

Caryn Blitz  
12/7/2020



Mathematica  
Progress Together



# OPRE Overview

- The Office of Planning, Research and Evaluation (OPRE) builds and disseminates knowledge about effective approaches to helping low-income children and families through rigorous research and evaluation projects including:
  - Evaluations of existing programs and innovative approaches to help low-income children and families
  - Research syntheses
  - Descriptive and exploratory studies
- OPRE conducts research and other activities in the areas where Congress has given us authority and funds.
- OPRE also coordinates several efforts across ACF: Performance Management, the Paperwork Reduction Act (PRA), the Public Assistance Reporting Information System (PARIS), Advance Planning Documents (APDs), and the general improvement and use of data.

# OPRE Sexual Risk Avoidance (SRA) and Sexual Risk Cessation (SRC) Research

- Background
  - Work began in 2017 with the goal to expand knowledge related to supporting optimal health for youth on two topics: sexual risk avoidance and sexual risk cessation
  - Work has been conducted collaboratively between OPRE/ACF and OASH/OPA
  - Some of the research is being/will be used to inform select FYSB products
- Agenda - brief overview of the SRA/SRC work (more detail to follow on select products)
  - MoRAToRIOHM: SRA and SRC conceptual models\*
  - MYReASOHN: SRC conceptual model, program model\*, and curriculum module
  - IDEAS: SRA national survey for youth and parents, case studies
  - SSAvER: Literature reviews and economic analyses on benefits of youth sexual delay and the success sequence \*

# **\*MoRAToRIOHM/MYReASOHN:**

## **Developing Conceptual Models for Sexual Risk Avoidance and Cessation**

- Project goals
  - Develop two complementary conceptual models related to preventing youth risk behaviors
  - Identify factors that research suggests influence outcomes related to youth sexual risk avoidance and cessation
  - Inform ongoing SRA program innovations and improvements
  - Contribute to an optimal health model for youth
- Products: Two briefs
  - “Conceptual Models to Depict the Factors that Influence the Avoidance and Cessation of Sexual Risk Behaviors Among Youth” (released February 2020)
  - “Factors Influencing Youth Sexual Activity: Conceptual Models for Sexual Risk Avoidance and Cessation” (to be released December 2020)

# **\*MYReASOHN:**

## **Program Model and Curriculum Module for Sexual Risk Cessation**

- Project goals
  - Engage and inform policymakers and practitioners about how to encourage sexually experienced youth to avoid further sexual risk by resuming the avoidance of sex
  - Develop a program model to help guide programs to help youth with sexual experience to return to avoiding sexual risk
  - Create a supplemental curriculum module on sexual risk cessation
- Products: Brief and module
  - “Respect Yourself: How healthy boundaries and healthy choices lead to optimal health” (to be released in December 2020)
  - “A cessation curriculum module for high school students” (to be released December 2020)

# IDEAS:

## Information, Data Collection, and Exploration of Avoidance of Sex

- Project goals
  - Identify age-appropriate strategies, skills, messages, and themes that resonate with youth; inform ongoing program innovations and improvements
- Study 1: National survey of youth and parents
- Key study activities:
  - Identify factors associated with SRA through secondary data analysis of the National Longitudinal Study of Adolescent to Adult Health (Add Health) to inform survey items
  - Identify and develop survey items
  - Pilot test surveys with youth and parents; conduct surveys
- Products: TBD (study on hold due to COVID-19)

# IDEAS:

## Information, Data Collection, and Exploration of Avoidance of Sex

- Study 2: Case studies of SRAE programs
- Key study activities:
  - Identify programs that engage in or have developed unique approaches or programming
  - Conduct site visits, classroom observations, documents review, and semi-structured interviews with program, school and/or community-based staff
- Products: Study briefs
  - “IDEAS from the field: Case study of the Healthy Visions Program” (released June 2019)
- Upcoming: Case study on parent engagement

# \*SSAvER:

## Savings from Sexual Avoidance and Empowerment Over Risks

- Study 1: Calculate the economic savings from delayed voluntary sexual activity
- Key study activities:
  - Review existing research on the benefits of delayed sexual activity
  - Design and conduct an economic analysis of the savings from delayed voluntary sexual activity
  - Obtain input from outside experts to inform the economic analysis
- Products: Study reports
  - “Assessing the Benefits of Delayed Sexual Activity: A Synthesis of the Literature” (released July 2020)
  - “Economic Benefits of Delayed Sexual Activity” (to be released December 2020)

# \*SSAvER:

## Savings from Sexual Avoidance and Empowerment Over Risks

- Study 2: Conduct an economic analysis of the “success sequence”
- Key study activities:
  - Review prior research on the success sequence
  - Design and conduct an analysis of the association between the success sequence and household income and family stability in early adulthood
  - Obtain input from outside experts to inform the analysis
- Products: Study reports
  - “Success Sequence: A Synthesis of the Literature” (to be released December 2020)
  - “Benefits of the Success Sequence for Household Income and Family Stability ” (to be released Winter 2021)

# Disclaimer

All MPR presentations were prepared under a contract with the Administration for Children and Families (ACF)

- The Office of Planning, Research, and Evaluation within ACF oversees the work Mathematica carries out
- Sponsored by the Office of the Assistant Secretary for Health at the U.S. Department of Health and Human Services

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# Welcome and Opening Remarks

**Elizabeth Darling**

Commissioner and Acting Associate Commissioner  
Administration on Children, Youth & Families



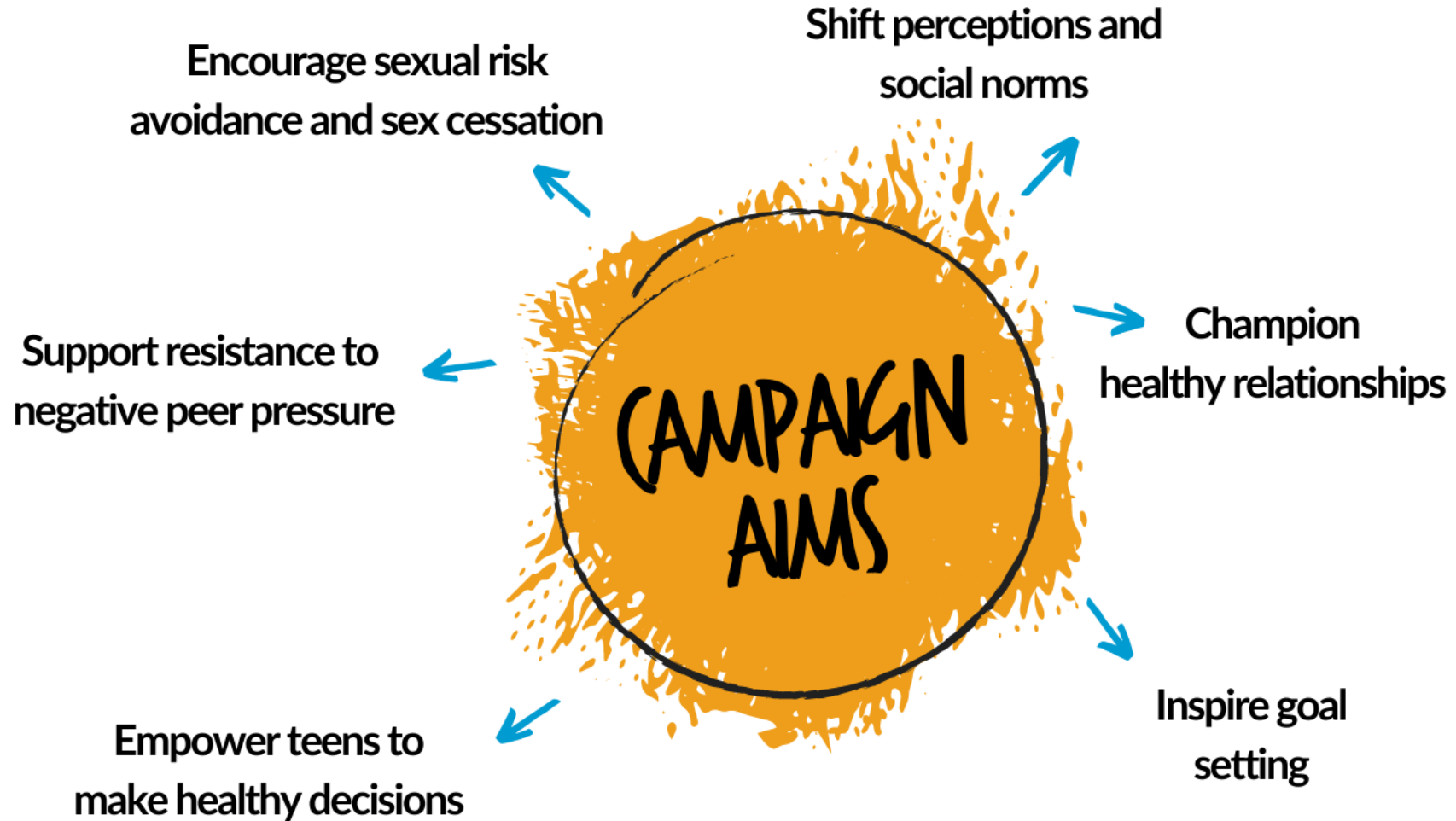


# Sexual Risk Avoidance Research, Training, and Social Media Marketing

Introducing...

WE  
THINK  
TWICE

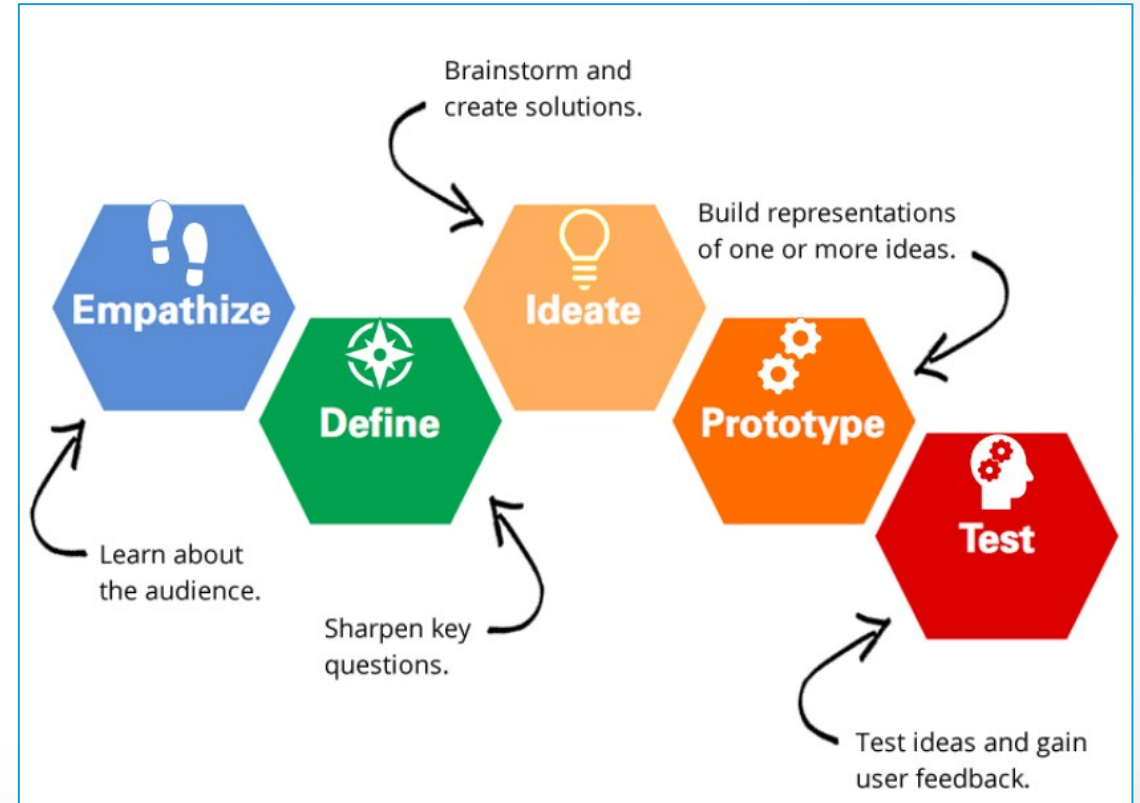
# Overview



# A Key Criteria: Youth-Centered Design

Understanding and empathizing with youth's realities and then co-creating, co-designing and testing solutions with them

Or simply  
= designing *with* youth *for* youth

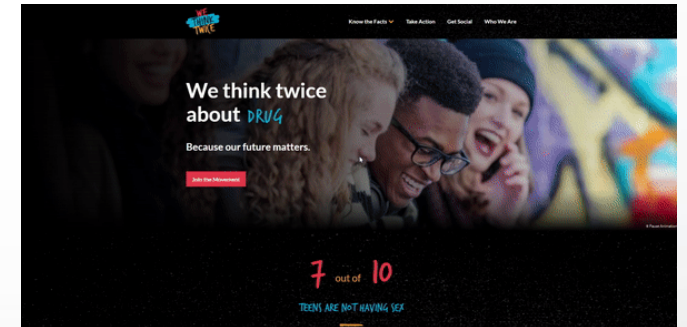


# Campaign Website

- ✓ Hub for youth-facing products and campaign information
- ✓ Optimized for mobile devices
- ✓ Updated weekly with new social media content
- ✓ Updated monthly with new featured products on the homepage



[wethinktwice.org](https://wethinktwice.org)



# Campaign Website

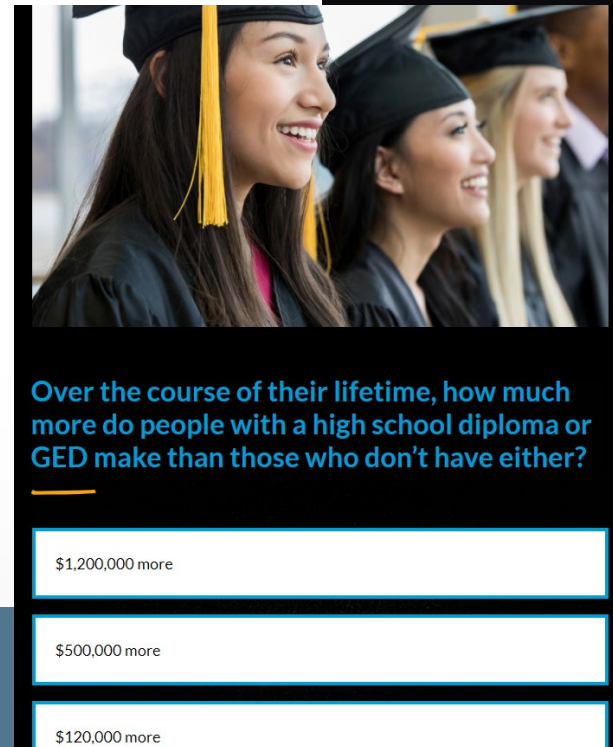
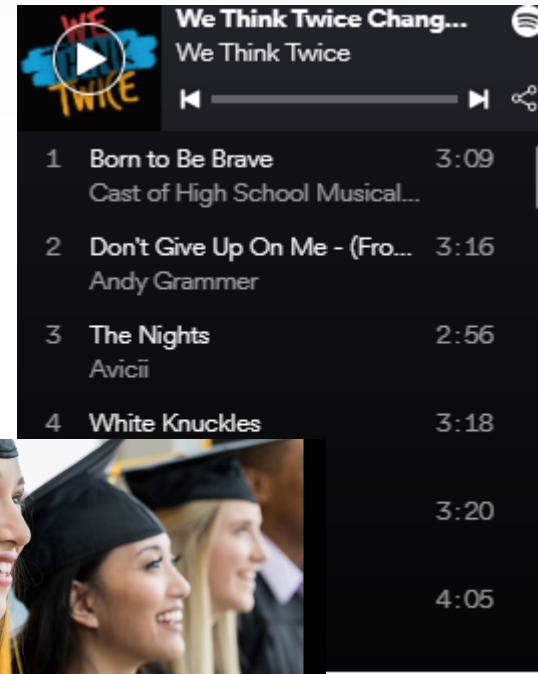
Highlights We Think Twice products and other youth-friendly resources

## Topics:

- Healthy Relationships
- Goal-Setting and Success
- Smart Choices
- Mental Health (including coping with COVID-19 challenges)

## Products:

- Quizzes
- Listicles
- Playlists
- Instagram posts
- Videos
- Infographics



MY GOAL IS

TARGET COMPLETION DATE

STEPS TO REACHING MY GOAL

STEP 1:

STEP 2:

STEP 3:

STEP 4:

TWO THINGS THAT WILL HELP ME REACH MY GOAL

ITEM 1:

ITEM 2:



# Digital Products for Youth

## Live on the Website

### QUIZZES

- *Check Your Reality*
- *Perfect Person*
- *Real Cost of Caring for a Baby in Your Teen Years*
- *Planning Today for a Better Tomorrow*

### LISTICLES

- *6 Secrets to Becoming an Inspiring Teen Leader!*
- *Your Goals. Your Future: 4 Steps You Can Take Today to Prepare for Tomorrow*

### VIDEO

- *Dreams Over Drama*

### MOTIVATIONAL SPOTIFY PLAYLIST

- *Changemakers Playlist*

### PLANNER

- *Goal-Setting Planner*

### INFOGRAPHIC

- *Write a Winning Resume*

## Under Development

### GAME

- *Healthy Relationships Challenge*




### MENTOR IDENTIFICATION TOOL

- *Find Your Mentors*

### VIDEOS

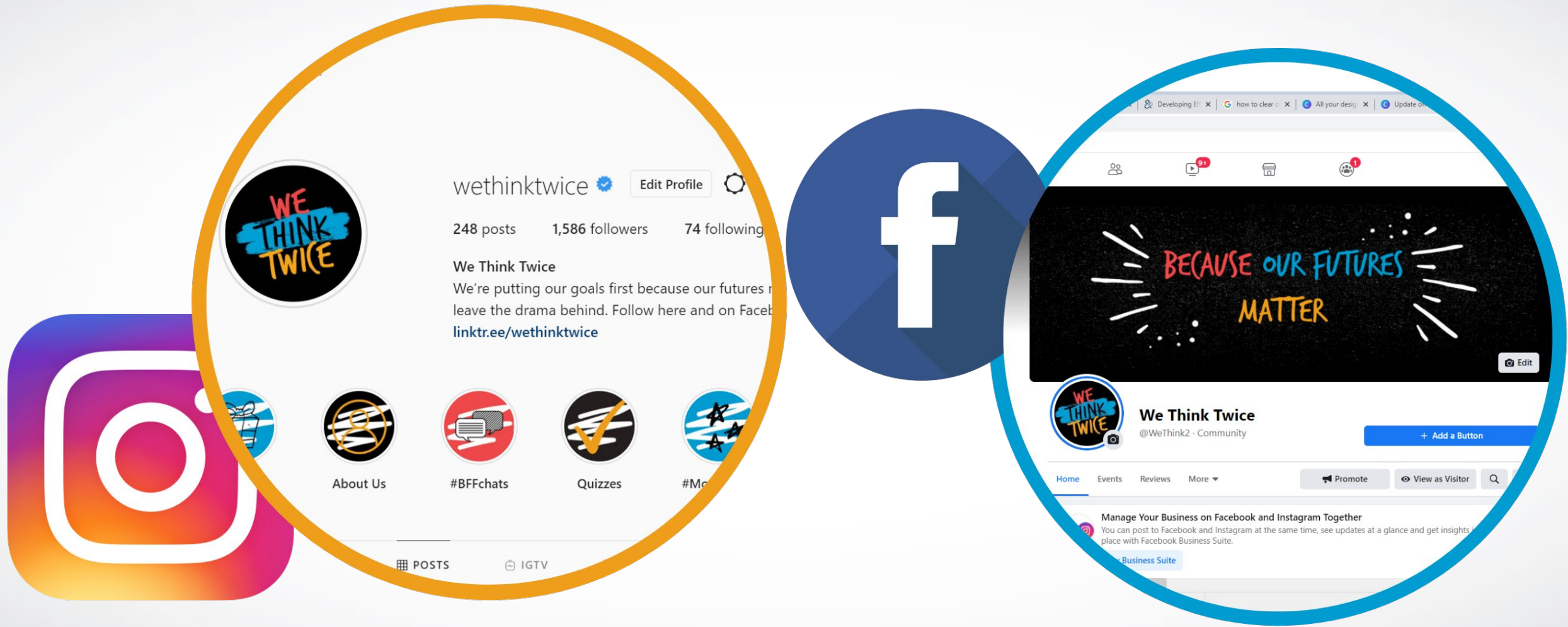
- *Our Goals, Our Lives* (inspiring teen stories)

# Website Metrics

EXPOSURE	INFLUENCE	ACTION
 <b>25,440</b> Users	 <b>19,888</b> Users via Social Media or Google	 <b>5,796</b> Quiz Submissions
<b>28,352</b> Sessions	<b>3,562</b> Users via Direct Link	<b>4,095</b> Video Views
<b>39,265</b> Pageviews	<b>1,060</b> Users via Email	<b>371</b> Downloads

Time Period: April 24 – December 2, 2020

# Instagram & Facebook



# Campaign Activities

## IMPLEMENT



### Community Engagement

- Post 3–5 times per week, publishing 240+ Instagram and Facebook posts that support goal setting and optimal health
- Participate in the online ecosystem following a comment and engagement policy
- Hosted a Playlist and Motivational Quote contest, with more in the works
- Engage youth influencers in campaign activities

## DEVELOP



### Social Media Messaging and Products

- Use organic post metrics and The Hive to brainstorm and fine-tune social media content
- Develop a variety of content types across stories and posts, including text-based graphics, photos, videos, and animated GIFs and memes
- Use social media advertising to cross-promote youth website and youth products and drive engagement

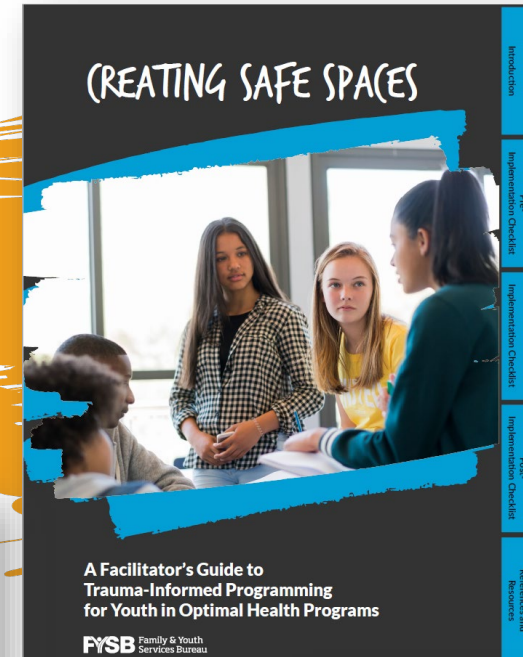
## MEASURE



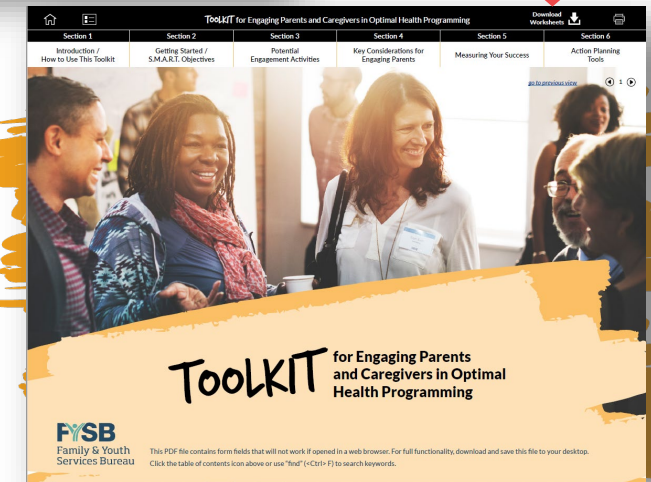
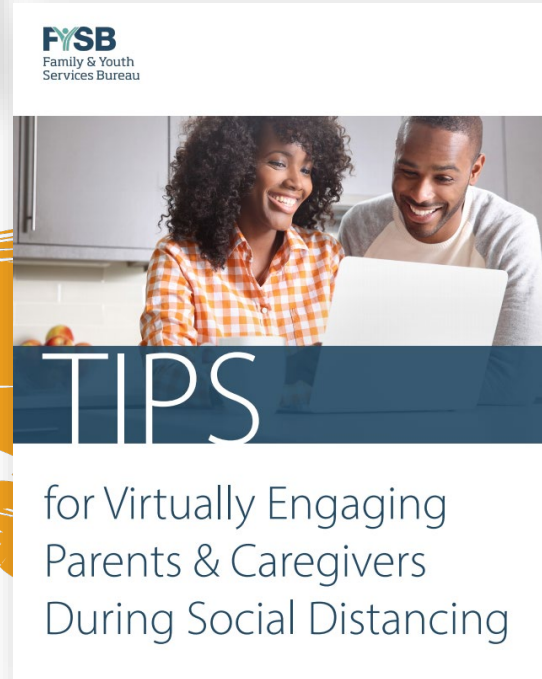
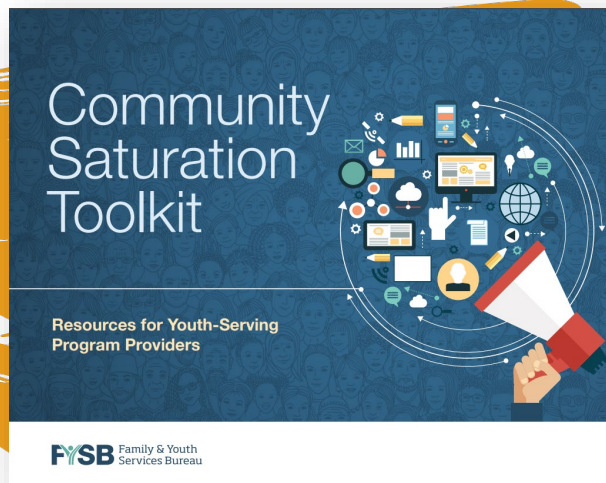
### Metrics

- 300+ youth engaged
- Over 6 million social media impressions
- Almost 100,000 video views and story completions
- Engagement continues to outperform industry standards

# Resources for Youth-Serving Professionals



Coming Soon



# Spread the Word



## Create

Want to voice your opinion and earn gift cards while you do? Join our online research community.

Shape the Campaign »

### TEENS:

Follow us and sign up for The Hive:  
[www.thehive.cmnty.com](http://www.thehive.cmnty.com)



## Champion

Does your organization serve youth? Are you an influencer who wants to collaborate?

Reach Out »

### ORGANIZATIONS:

Reach out to partner with us:  
[wethinkt@gmail.com](mailto:wethinkt@gmail.com)



## Amplify

Are you a parent, caregiver, teacher, coach, or youth mentor? Spread the word about We Think Twice with the teens in your life.

Share our Instagram »

### EVERYONE:

Share and promote our website and social media channels:  
[www.wethinktwice.org](http://www.wethinktwice.org)

@wethinktwice 

@WeThink2 

# Questions?



# Factors Influencing Youth Sexual Activity: Conceptual Models for Sexual Risk Avoidance and Cessation

Hande Inanc  
December 7, 2020



## Working definitions:

**Conceptual model:** A representation of the factors, supported by evidence, that influence key outcomes of interest, along with an illustration and related narrative

**Sexual risk avoidance:** Not engaging in consensual sexual activity

**Sexual risk cessation:** Discontinuing consensual sexual activity after having engaged in it

## Project objectives

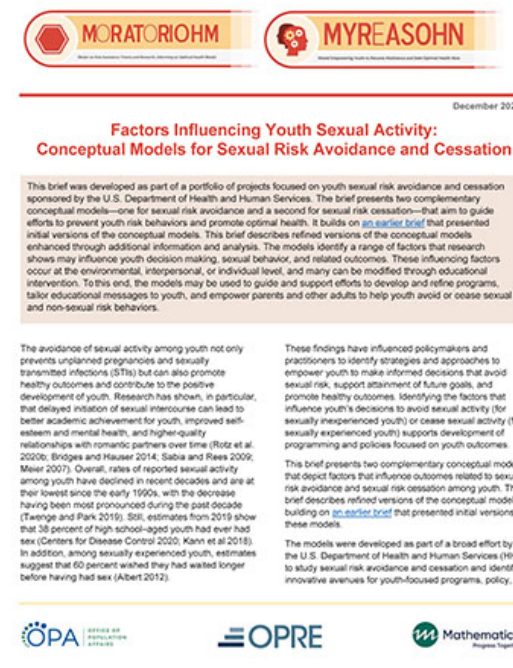
- Develop two complementary conceptual models for preventing youth risk behaviors related to sexual risk avoidance and cessation
- Identify factors that research shows influence key outcomes

# Project publications

## Brief on the initial models released in January 2020



## Brief on the refined models to be released in December 2020



12/7/2020

# Two-stage approach to develop and refine the models: Initial conceptual models (2018-2019)

## Summary of methods:

1. In consultation with experts, identified potential factors that may influence relevant behavioral outcomes
2. Conducted an in-depth literature review
3. Reviewed 88 relevant articles and assessed the relevance and rigor of each article using a defined set of criteria
4. Assigned an evidence rating to each factor, based on an assessment of each article's relevance and rigor
5. For each factor, reviewed and synthesized evidence of an association between the factor and key outcomes

## Initial conceptual models:

- Identified 38 distinct factors for inclusion:
  - 36 for sexual risk avoidance,
  - 20 for sexual risk cessation
- Identified 17 factors for which there was insufficient evidence for inclusion

# Two-stage approach to develop and refine the models: Refined conceptual models (2020)

## Summary of methods:

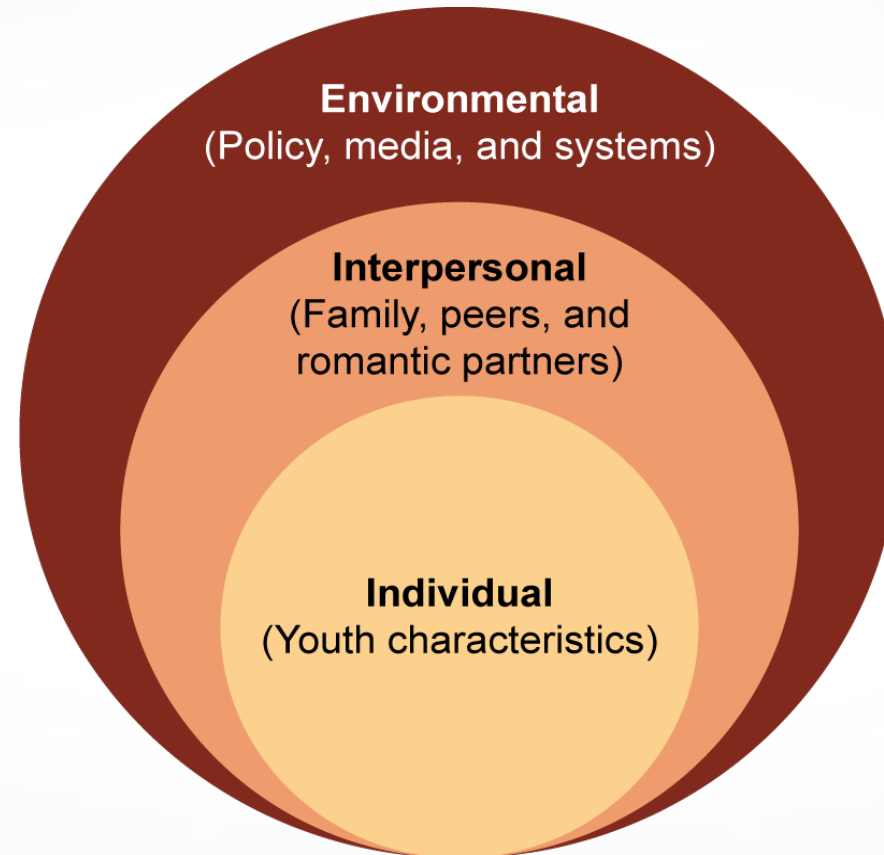
1. For potential factors omitted from initial avoidance model, used secondary analysis of Add Health data to examine association between each factor and age at sexual initiation
2. Conducted a supplementary literature review focused on other potential factors omitted from one or both models
3. Reviewed 17 relevant articles, following the same process as for the initial models
4. To further examine non-sexual behavioral outcomes, reviewed findings from two recent reports on impacts of delayed sexual activity

## Refined conceptual models:

- Identified 10 new factors for sexual risk avoidance, and 7 new factors for sexual risk cessation
- Together, the refined models encompass 51 distinct factors:
  - 46 factors for sexual risk avoidance
  - 27 factors for sexual risk cessation
- Identified 2 new outcomes

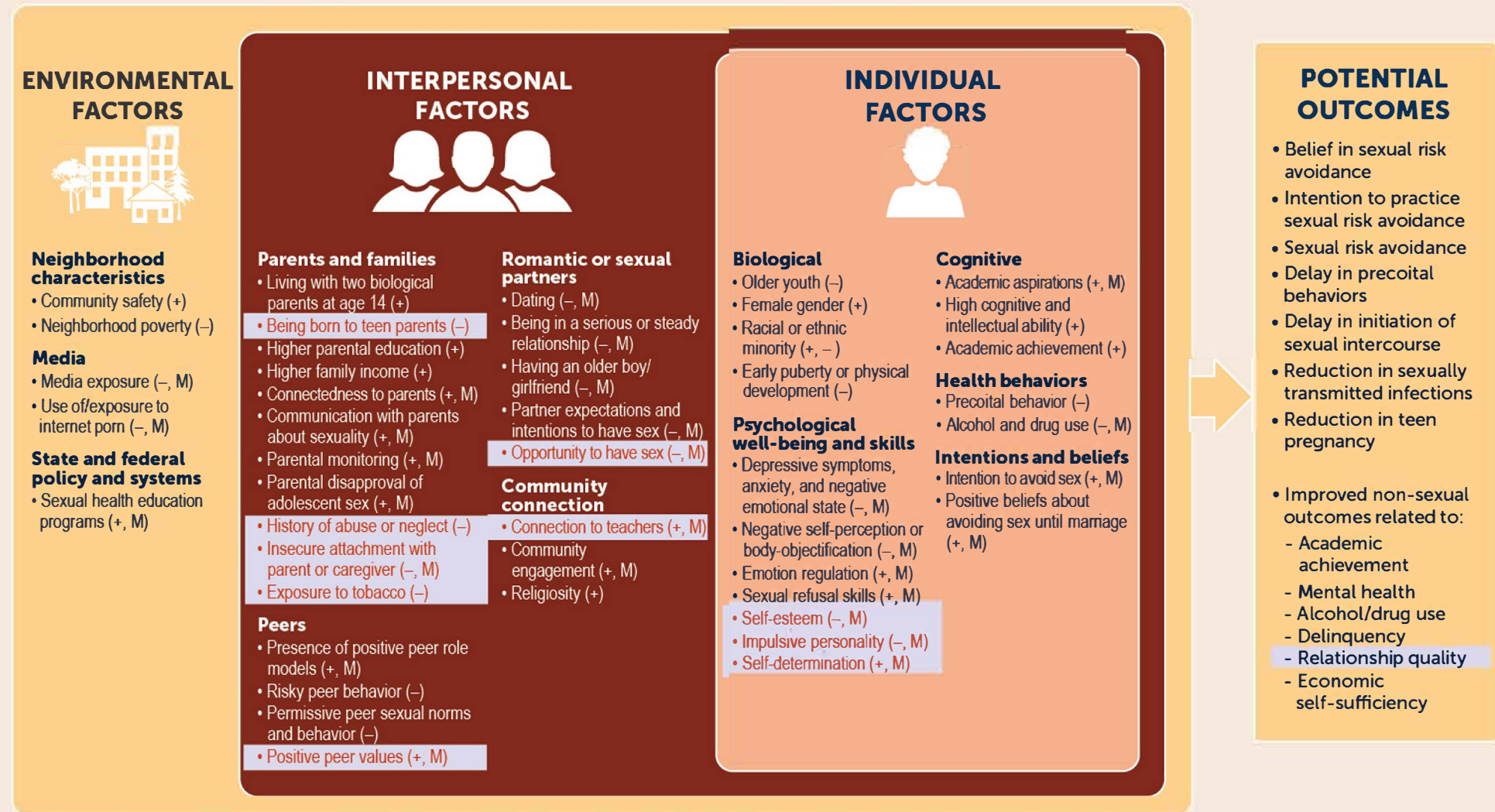
# Guiding theoretical framework

Figure 1. Social ecological model



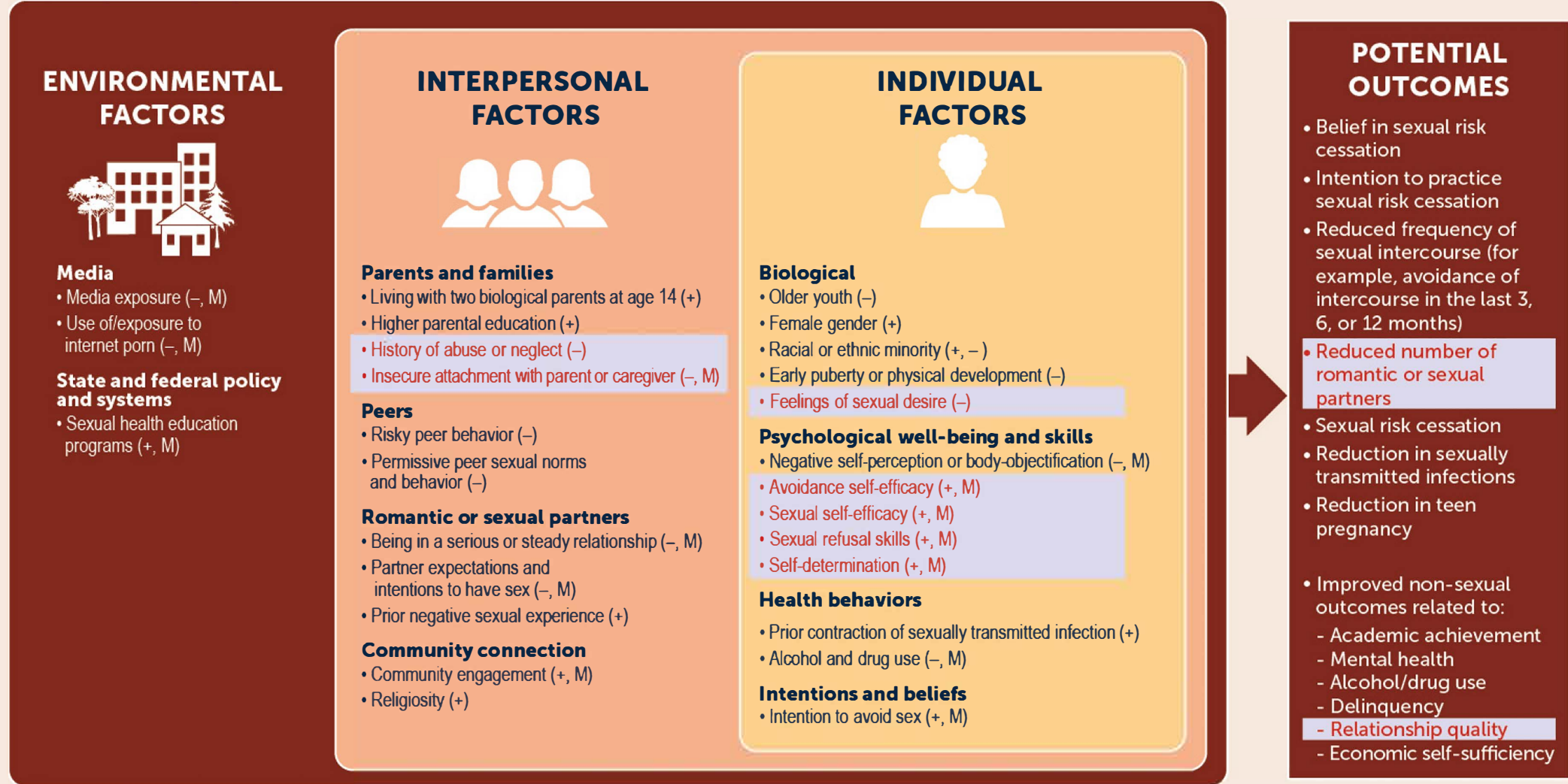
Note: Adapted from Bronfenbrenner 1977.

**Figure 2. Conceptual model for sexual risk avoidance**



Sexual risk avoidance is defined as not engaging in consensual sexual activity. The figure displays factors identified through a literature review and secondary analysis of Add Health data as influential on sexually inactive youth on at least one of the potential outcomes. Only those factors identified as having sufficient evidence are included. Factors and outcomes added during the refinement phase are highlighted in gray. (The highlighting does not signify other differences in factors and outcomes.) Factors fall into three interrelated categories: environmental, interpersonal, and individual. They are grouped in order from distal to proximal in relation to the outcomes. Factors are marked as a protective factor or a risk factor based on whether the evidence showed that the factor was a positive (protective) influence (+) on the intended SRA outcomes or a negative (risky) influence (-) on the outcomes. In one case (racial or ethnic minority), evidence was mixed on the directionality of the influence. Given this, we labeled this factor with both a (+) and a (-). Factors may interact with each other to influence outcomes. Factors that are considered potentially modifiable by program intervention are marked with an "M".

Figure 3. Conceptual model for sexual risk cessation



Sexual risk cessation is defined as discontinuing consensual sexual activity after having engaged in it. This figure displays factors identified through a literature review as influential for sexually active youth on at least one of the potential outcomes. Only those factors identified as having sufficient evidence are included. Factors and outcomes added during the refinement phase are highlighted in gray. (The highlighting does not signify other differences in factors and outcomes.) Factors fall into three interrelated categories: environmental, interpersonal, and individual. They are grouped in order from distal to proximal in relation to the outcomes. Factors are marked as a protective factor or a risk factor based on whether the evidence showed that the factor was a positive (protective) influence (+) or a negative (risky) influence (–) on potential outcomes related to sexual risk cessation. In one case (racial or ethnic minority), evidence was mixed on the directionality of the influence. Given this, we labeled this factor with both a (+) and a (–). Factors may interact with each other to influence outcomes. Factors that are considered potentially modifiable by program intervention are marked with an “M”.

# Factors omitted from the refined models

## Inconclusive evidence

- Exposure to public health campaigns <sup>a,c</sup>
- Use of social media <sup>a</sup>
- Exposure to alcohol or drugs <sup>a</sup>
- Connection to positive adult role model (other than parent or teacher) <sup>a</sup>
- Public commitment to avoidance <sup>a,c</sup>
- Access to contraception <sup>a</sup>
- Availability of family planning services <sup>a</sup>
- Impulsive personality <sup>c</sup>

## No literature identified (cessation)

- Exposure to alcohol, tobacco or drugs
- Housing instability
- Permissive parental sexual norms
- Access to contraception
- Availability of family planning services
- General risk-taking
- School characteristics
- Values
- Connection to positive adult role model
- Use of social media
- Positive peer values
- Being born to teen parents

a= sexual risk avoidance; c = sexual risk cessation

# Key limitations of the models

- They do not identify causality, that is, whether factors have causal effects on key outcomes
- They do not support an assessment of the magnitude of factors' effects or the relative influence of factors
- It is beyond the scope of the study to examine the complex interactions between factors and target outcomes
- The analysis does not support a comprehensive assessment of subgroup differences

# Practical implications

- Program practitioners and curriculum developers can use the models to refine programming to target the modifiable factors that research shows influence target outcomes
- Policymakers can also use the models to inform future funding priorities so that future programming reflects the modifiable factors identified by the models.
- Models are informing the development of a:
  - Program model for sexual risk cessation (Crowley et al. 2020), along with a related curriculum module
  - Program model for sexual risk avoidance education (SRAE)

# Potential next steps for future research

1. Test the causal influence of some factors through experimental evaluations
2. Assess the relative magnitude of the influence of specific factors
3. Examine the factors with inconclusive evidence or no literature
4. Examine the relative importance of influencing factors for particular youth subgroups
5. Identify how the influencing factors interact
6. Examine (qualitatively) the implications of the models for practice

# For more information

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# Questions?



# Program Model for Sexual Risk Cessation

Heather Zaveri, Jacqueline Crowley, Betsy Keating  
December 7, 2020



# What is a program model?

A program model depicts all components for a program or intervention

- **Components** are the core elements of a program or intervention

A program model provides a framework for existing and future programs

- **Policymakers:** Guide development of future grant programs
- **Curriculum developers:** Develop new or modify existing programs
- **Program implementers:** Assess whether programming meets needs of population, and if not, identify possible modifications

# Why develop a program model for sexual risk cessation?

- Sexually active youth may experience unintended health outcomes like sexually transmitted infections and unintended pregnancies
- Empowering youth to decide to avoid sexual risk, including through sex cessation, can promote optimal health

Often, the needs of youth who have sexual experience have not been well addressed by programs

# Data sources for program model

- Conceptual model
- Review of selected curricula
- Literature review
- Input from experts

# Sections of the program model

- **Implementation inputs:** Key components of the intervention such as the program design, features, and infrastructure
- **Implementation outputs:** Process-level information about implementation related to staff, service delivery, and participant engagement
- **Outcomes:** Youth behavior, knowledge, attitudes, intentions, and skills that the program model intends to affect
- **Context:** Individual and community factors that may influence implementation

## Implementation inputs

### Program design

**Program objectives:** Encourage all adolescents to choose or return to sexual risk avoidance. For youth with sexual experience, encourage cessation of sexual activity through goal setting and skill-building that increases self-efficacy to support this behavior change.

**Content:** Programs targeting sexual risk cessation should address:

- Sexual cessation
- Benefits of and barriers to ceasing sexual activity
- Sexual health
- Sexual consent
- Communication, negotiation, and refusal skills
- Building healthy relationships
- Self-perception
- Setting goals to encourage the cessation of sexual activity
- Identifying and engaging supportive peers and trusted adults
- Role of media and online interactions

**Program approaches:** Programs can start with group sessions for broad or targeted groups to help identify youth who are considering cessation of sexual activity. Offer individualized services to these youth to support their return to a lifestyle without sex.

### Program features

**Target population:** Youth with sexual experience; however, some content and messages are applicable to general youth populations.

**Curricula:** Identify curricula consistent with content and objectives.

**Teaching strategies:** For individualized support, use strategies like motivational interviewing, mentoring, and case management. For group sessions, incorporate a range of teaching strategies such as lecture, discussion, role-play, games, and worksheets, and include hands-on or interactive activities.

**Setting:** The model may work in multiple settings (including schools, community organizations, and clinics). Identify an appropriate setting based on the curriculum selected, population served, and type of individualized support.

**Service delivery plan:** When individualized support follows group sessions, begin with curriculum delivery by a trained facilitator. Individual follow-up then should reinforce curriculum messages. If individualized support is the main approach, trained facilitators provide all services. The number and length of group and individual sessions may vary.

**Supplemental services:** As appropriate, refer youth to supportive services or offer youth opportunities for community engagement.

**Program materials:** Give facilitators all materials needed to deliver both group and individual content, such as a manual, PowerPoint slides, handouts, flip charts, and DVD players.

### Implementation system/ infrastructure

**Staff selection/requirements:** Identify facilitators with adequate skills and experience, which may include past experience working with youth, comfort discussing sexual health, and commitment to encouraging youth to cease sexual activity to avoid sexual risk.

**Staff training and certification:** Train facilitators on the skills necessary to implement the program, including the selected curriculum and facilitation quality, as necessary. Build capacity of implementation sites by training staff (like teachers in schools or providers in clinics) to promote program sustainability.

**Staff supervision and support:** Provide facilitators with supervision, feedback, and coaching to support high-quality program delivery and interactions with youth. May include group and/or individual feedback.

**Recruitment strategies for youth:** Form strong partnerships with implementation sites or other community organizations with adequate staff resources and access to youth in the target population. Develop processes for obtaining consent.

**Engagement and retention strategies for youth:** Collaborate with implementation sites to deliver programming at convenient times and places for youth. Consider offering incentives to youth.

**Partnerships:** Establish partnerships with medical providers or health clinics, mental health organizations, and other relevant service providers.

**Referrals:** Define process for referring youth to other community service providers as needed and appropriate.

**Data systems:** Develop system to facilitate tracking of program implementation, including youth enrollment and participation and referrals. Use data to address challenges and guide program improvement.

**Measurement of fidelity:** Define a process and develop tools for monitoring adherence to program expectations. If available, use existing fidelity tools.

## Implementation outputs

### Staff

Staff with knowledge and skills to deliver the program and coordinate services with schools, community organizations, or clinics  
Credibility and comfort of staff with youth  
Staff satisfaction and commitment to the program model  
Receipt of sufficient training, support, and supervision, for staff to successfully carry out their jobs

### Service delivery

Program provided at intended dosage  
Program delivers core content and activities with fidelity  
Facilitators address individual needs of youth  
Facilitators coordinate with partner staff to address youth needs

### Participant responsiveness

Youth enroll at expected pace  
Youth attend program regularly and complete intended components  
Youth satisfied with program services

## Outcomes

### Changes in knowledge, attitudes and intentions

- Relevant knowledge, including about sexual health, communication and refusal skills, healthy relationships, identifying and engaging supportive peers and trusted adults, benefits of cessation, and the role of media and online interactions
- Attitudes supportive of sexual risk cessation
- Sexual risk cessation intention

### Changes in skills and behaviors

- Skill development related to sexual health, communication and refusal skills, healthy relationships, identifying and engaging supportive peers and trusted adults, goal-setting, and role of media and online interactions
- Decreased number of romantic or sexual partners
- Decreased frequency of sexual activity
- Discontinuation of sexual activity (for example, in last 3, 6, 12 months)
- Improvement in non-sexual outcomes, such as:
  - Academic achievement
  - Mental health
  - Relationship quality
  - Self-sufficiency
- Decrease in non-sexual outcomes, such as:
  - Alcohol/drug use
  - Delinquency
- Decrease in sexually transmitted infections
- Decrease in teen pregnancy

## Context

Availability and accessibility of other services, community norms and values related to adolescent sexual behavior, community context (pregnancy rates, economic conditions), and relevant national, state, or local policies.

## Implementation inputs

### Program design

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**Setting:** The model may work in multiple settings (including schools, community organizations, and clinics). Identify an appropriate setting based on the curriculum selected, population served, and type of individualized support.

**Service delivery plan:** When individualized support follows group sessions, begin with curriculum delivery by a trained facilitator. Individual follow-up then should reinforce curriculum messages. If individualized support is the main approach, trained facilitators provide all services. The number and length of group and individual sessions may vary.

**Supplemental services:** As appropriate, refer youth to supportive services or offer youth opportunities for community engagement.

**Program materials:** Give facilitators all materials needed to deliver both group and individual content, such as a manual, PowerPoint slides, handouts, flip charts, and DVD players.

### Implementation system/infrastructure

**Staff selection/requirements:** Identify facilitators with adequate skills and experience, which may include past experience working with youth, comfort discussing sexual health, and commitment to encouraging youth to cease sexual activity to avoid sexual risk.

**Staff training and certification:** Train facilitators on the skills necessary to implement the program, including the selected curriculum and facilitation quality, as necessary. Build capacity of implementation sites by training staff (like teachers in schools or providers in clinics) to promote program sustainability.

**Staff supervision and support:** Provide facilitators with supervision, feedback, and coaching to support high-quality program delivery and interactions with youth. May include group and/or individual feedback.

**Recruitment strategies for youth:** Form strong partnerships with implementation sites or other community organizations with adequate staff resources and access to youth in the target population. Develop processes for obtaining consent.

**Engagement and retention strategies for youth:** Collaborate with implementation sites to deliver programming at convenient times and places for youth. Consider offering incentives to youth.

**Partnerships:** Establish partnerships with medical providers or health clinics, mental health organizations, and other relevant service providers.

**Referrals:** Define process for referring youth to other community service providers as needed and appropriate.

**Data systems:** Develop system to facilitate tracking of program implementation, including youth enrollment and participation and referrals. Use data to address challenges and guide program improvement.

**Measurement of fidelity:** Define a process and develop tools for monitoring adherence to program expectations. If available, use existing fidelity tools.

## Implementation outputs

### Staff

Staff with knowledge and skills to deliver the program and coordinate services with schools, community organizations, or clinics  
Credibility and comfort of staff with youth  
Staff satisfaction and commitment to the program model  
Receipt of sufficient training, support, and supervision, for staff to successfully carry out their jobs

### Service delivery

Program provided at intended dosage  
Program delivers core content and activities with fidelity  
Facilitators address individual needs of youth  
Facilitators coordinate with partner staff to address youth needs

### Participant responsiveness

Youth enroll at expected pace  
Youth attend program regularly and complete intended components  
Youth satisfied with program services

## Outcomes

### Changes in knowledge, attitudes and intentions

- Relevant knowledge, including about sexual health, communication and refusal skills, healthy relationships, identifying and engaging supportive peers and trusted adults, benefits of cessation, and the role of media and online interactions
- Attitudes supportive of sexual risk cessation
- Sexual risk cessation intention

### Changes in skills and behaviors

- Skill development related to sexual health, communication and refusal skills, healthy relationships, identifying and engaging supportive peers and trusted adults, goal-setting, and role of media and online interactions
- Decreased number of romantic or sexual partners
- Decreased frequency of sexual activity
- Discontinuation of sexual activity (for example, in last 3, 6, 12 months)
- Improvement in non-sexual outcomes, such as:
  - Academic achievement
  - Mental health
  - Relationship quality
  - Self-sufficiency
- Decrease in non-sexual outcomes, such as:
  - Alcohol/drug use
  - Delinquency
- Decrease in sexually transmitted infections
- Decrease in teen pregnancy

## Context

Availability and accessibility of other services, community norms and values related to adolescent sexual behavior, community context (pregnancy rates, economic conditions), and relevant national, state, or local policies.

# Program design: objectives

- Encourage all youth to cease or continue to avoid sexual activity

For youth with sexual experience, support cessation of sexual activity through goal setting and skill building

# Program design: Content

## Sexual cessation

### Benefits and barriers to ceasing sexual activity

- Sexual health information
- Sexual consent
- Communication, negotiation, and refusal skills
- Building healthy relationships
- Self-perception
- Setting goals to encourage the cessation of sexual activity
- Identifying and engaging supportive peers and trusted adults
- Role of media and online interactions

# Program design: Approaches

- Start with group sessions to identify youth who are considering cessation of sexual activity
- Offer individualized services to support a return to lifestyle without sex

# Program features: Teaching strategies

- For individualized support, use strategies like:
  - Motivational interviewing
  - Mentoring
  - Case management
- For group sessions, use range of teaching strategies:
  - Lecture
  - Discussion
  - Role-play
  - Games
  - Worksheets
  - Hands-on and interactive activities

# Intended outcomes

- Changes in knowledge, attitudes, and intentions
  - Relevant knowledge, such as benefits of cessation and communication and refusal skills
  - Attitudes and intentions consistent with sexual risk cessation
- Changes in skills and behavior
  - Skill development
  - Sexual behaviors, such as number of sexual partners, frequency of sexual activity, or discontinuation of sexual activity
  - Non-sexual outcomes, such as academic achievement or relationship quality

# Next step: supplemental curriculum module

- Using the program model, developing 2-lesson curriculum module focused on sexual risk cessation
- Module's goal
  - Guide youth to view cessation as a viable option by understanding the optimal health benefits of discontinuing sexual activity, if it has begun, and help youth determine and communicate their boundaries in relationships and sexual activity, including the choice to discontinue sexual activity to avoid unhealthy risks.

# For more information

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# Questions?



# Economic Benefits of Delayed Sexual Activity

Dana Rotz  
December 7, 2020



Mathematica  
Progress Together



# Benefits of delayed sexual activity

Evidence of a wide variety of benefits of delayed sexual activity, for example:

- Delaying sexual activity from the early teen years to the later teen years reduces the chances of a pregnancy early in adolescence (Finer and Philbin 2013)
- Delayed sexual activity reduces the chances of STI transmission (Forhan et al. 2009)
- By reducing the chances of early childbearing, delayed sexual activity increases the chances of high school graduation among girls (Sabia 2007; Sabia and Rees 2009, 2011).
- Delaying sexual activity until age 20 reduces the chances of being married or cohabiting at ages 24 to 32 but improves relationship satisfaction among those who do marry or cohabit (Harden 2012)

See Rotz et al. 2020 for additional information

# Savings from Sexual Avoidance and Empowerment over Risks (SSAvER) project goals

Quantify in economic (dollar) terms the benefits of adolescents' delaying voluntary sexual activity

- Called the "net economic benefit"
- Estimate represents the overall, lifetime per capita benefit of delayed sexual activity that accrues when a single adolescent chooses to delay sex

Account for as many benefits as possible

Research questions:

- What is the overall benefit to society when an adolescent delays voluntary sexual activity?
- How does the benefit of delayed adolescent sexual activity vary according to the specific age cutoff used to define delay?
- How much of the benefit to society accrues to the individual adolescents who choose to delay sexual activity, and how much accrues to taxpayers?

# Economic analysis estimates impacts, transforms them to dollars, and combines them

Estimate the impacts of delayed sexual activity on several “ingredients” using Add Health data

Estimate the dollar value of each ingredient using existing estimates from the literature

Multiply the impacts and the dollar values

Sum across all ingredients to get the total net benefit of delaying sexual activity

Delaying sexual initiation reduces the probability of a teen pregnancy by 15 percent.

The value of avoiding a teen pregnancy is \$25,000.

Delayed sexual activity leads to a reduction in teen pregnancy worth \$3,750 ( $0.15 \times \$25,000$ ).

# Estimates include a wide range of potential benefits of delayed sexual activity

## Pregnancy and childbearing

- Teen pregnancy
- Unintended pregnancy in adulthood

## Physical health

- Diagnosed with HIV
- Diagnosed with another sexually

## Substance use

- Underage drinking
- Tobacco use (at any age)
- Substance use disorder

## Delinquent behavior and criminal activity

- Youth involvement in justice system
- Adult criminal convictions

## Mental health

- Depression
- Anxiety

## Path to economic self-sufficiency

- Graduated from high school
- Enrolled in postsecondary education
- Obtained four-year college degree
- Adult receipt of public assistance

## Relationships

- Intimate partner violence
- Ever divorced

# Estimating the impacts of delayed sexual initiation

Used four methods to try to estimate impacts

- Propensity score methods
- Instrumental variables (two approaches)
- Comparison of siblings

Each method has strengths and weaknesses

- Used both a more stringent and a less stringent set of rules to determine how to combine impact estimates across methods

Estimate benefits

- For males, females, and all adolescents
- Based on measures of delay until age 15, 18, 20, 22, or the age of first marriage
- From the perspectives of individual adolescents, society as a whole, and other taxpayers

Approach vetted by experts on impact analysis, economic analysis, and sexual risk avoidance

# Summary of key findings

Estimates varied substantially based on the following key factors:

Population (males, females, or all adolescents)

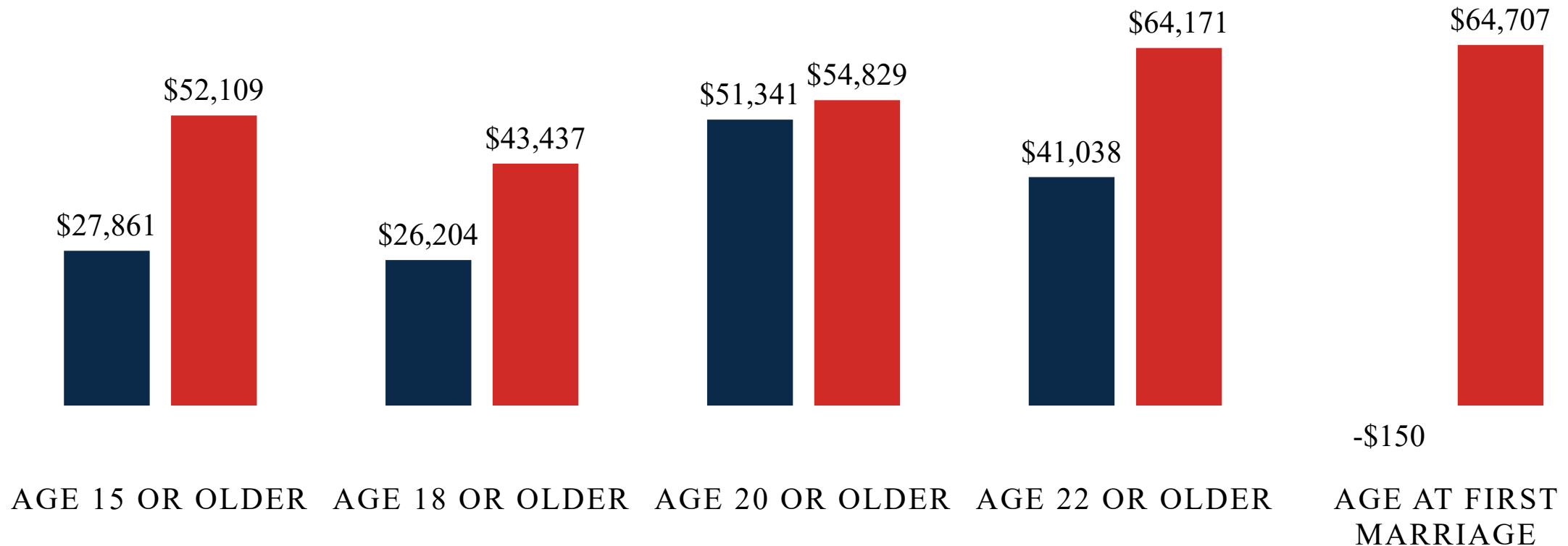
Age cutoff used to define delay (15, 18, 20, 22, or the age at first marriage)

Perspective (society, individual adolescents, other taxpayers)

Assumptions used to combine estimates (more or less stringent)

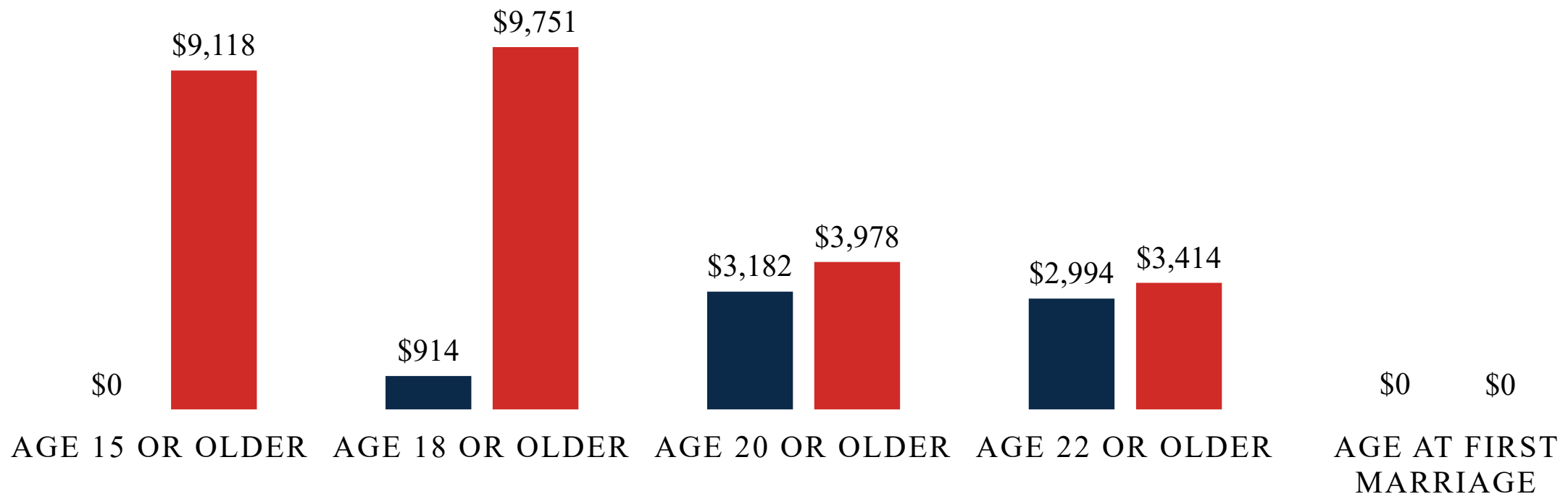
# Estimated benefits are consistently higher for females than for males

■ Males, less stringent approach    ■ Females, less stringent approach

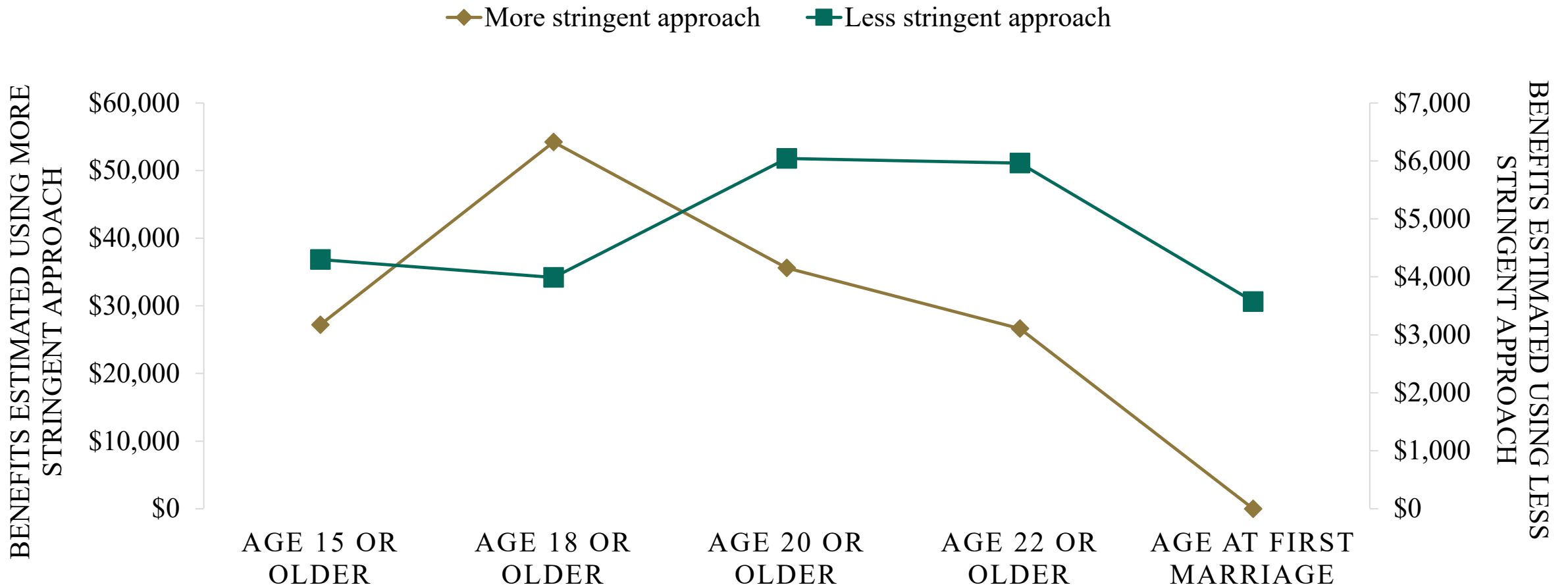


# Estimated benefits are consistently higher for females than for males

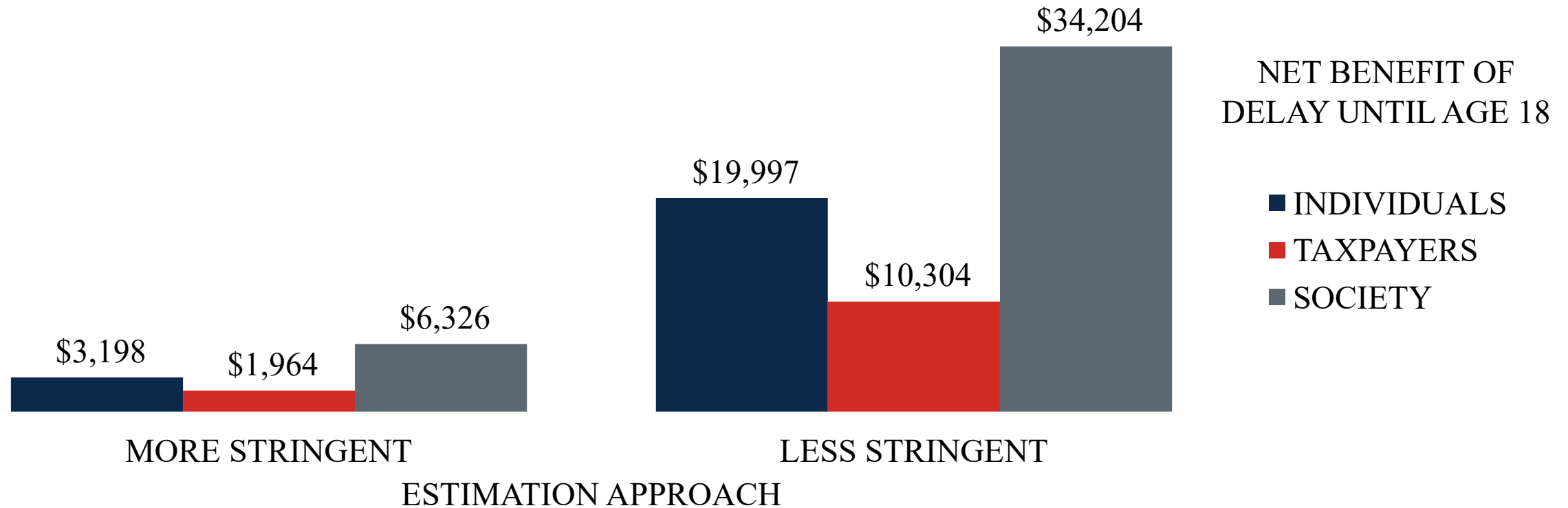
■ Males, more stringent    ■ Females, more stringent approach



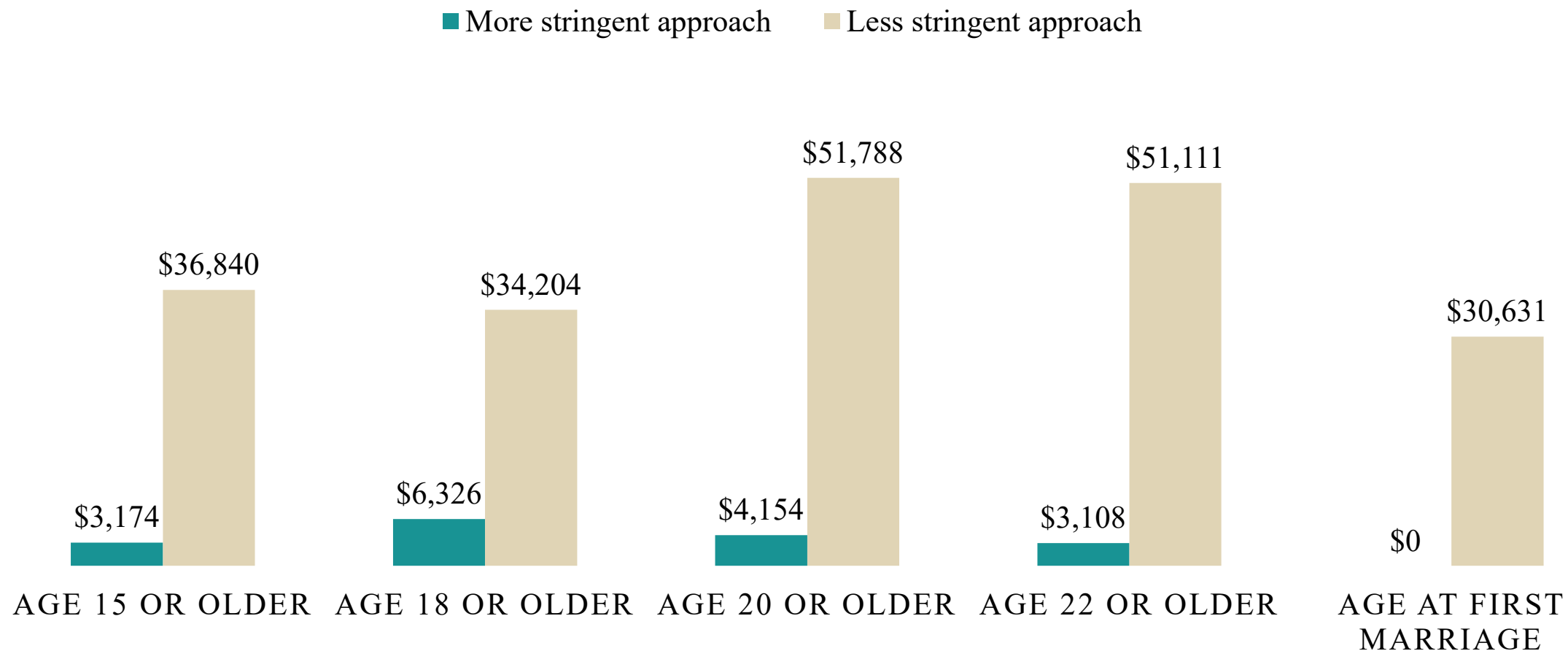
# No clear patterns based on the age cutoff used to define delay



# More benefits accrue to individual adolescents than to other taxpayers



# More stringent assumptions yield smaller estimates of net benefits



# Reductions in teen and unintended pregnancy account for some—but not all—of the net benefit

Reductions in teen and unintended pregnancy account for only a small fraction of the net benefits of delayed sexual activity

Example: Less-stringent estimate of the benefits of delay until age 18 for females

Potential benefit of delayed sexual activity	Estimated value in dollar terms
Reductions in teen pregnancy	\$3,403
Reductions in unintended pregnancy in adulthood	\$372
All benefits combined	\$43,437

# For more information

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# Success Sequence: A Synthesis of the Literature

December 7, 2020



Mathematica  
Progress Together



# What is the success sequence?

Term that has gained currency in discussions of federal programs and policies to reduce poverty and help adolescents and young adults achieve self-sufficiency as adults

Refers to a series of milestones in life that are associated with escaping poverty and joining the middle class

Described as a “sequence” to emphasize that the order of the milestones matters

# Success sequence model



# Literature synthesis research questions

How have researchers and commentators variously defined the success sequence?

What research exists on the individual milestones that make up the success sequence?

What does research indicate about the relationship between the success sequence milestones and economic outcomes in adulthood?

# How we identified studies

Started with three commonly-cited reports

- Haskins and Sawhill (2003) report on work and marriage
- Whitehead and Pearson (2006) report on teen romantic relationships
- Haskins and Sawhill (2009) book *Creating an Opportunity Society*

Searched electronic citation databases for the term “success sequence”

Searched electronic citation databases for specific milestones

- Education
- Employment
- Avoiding non-marital childbearing

# Definitions of the success sequence

Defined in varying ways

- We found at least 13 different specific definitions
- Definitions often influenced by available data

Most common definition comes from Haskins and Sawhill

- Obtain a high school degree
- Find a full-time job (at least 40 weeks/year for 35+ hours/week)
- Wait for marriage to have children

Specific definition continues to evolve

# Research on individual milestones

Large number of studies (economics, sociology, demography)

Education and employment lead to higher income

- Education → employment prospects → higher income
- Education → spouse's education level and employment → higher income

Economic returns of education are higher for disadvantaged groups

Link with marriage and childbearing is more complex

- Employment influences the timing of marriage, particularly for men
- Women with higher levels of education are less likely to have children outside of marriage
- Single-parent families → higher poverty rates
- Poor economic opportunities → fewer marriages and children

# Research on the overall success sequence

Fewer empirical studies (13 studies by 6 groups of researchers)

Mostly descriptive or correlational analyses

Measuring the success sequence can be challenging in practice

- Many national datasets capture only current employment or marital status
- Current status might not reflect sequence of prior life events

Full-time employment strongly predicts economic status

The association between the success sequence and adult outcomes varies by race

# Research gaps

Need for more empirical studies on the overall success sequence

Specific need for longitudinal data analysis

- Allows for measuring the success sequence more precisely
- Addresses the question of whether milestone order matters

Need to look at additional outcomes

- Existing studies focus mostly on economic outcomes
- Is there a connection with other outcomes in adulthood, such as family stability or personal well-being?

# Study Products

Research synthesis report forthcoming on OPRE website

Forthcoming economic analysis report expected in 2021

- Designed to address existing research gaps
- Uses longitudinal data from Add Health and NLSY-97
- Examines both economic and family stability outcomes in adulthood

# Final Questions and Answers

# Connect with OPRE



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