

Promoting Sexual & Reproductive Health Care for Adolescents:

Opportunities for School-Based Health to Close the Gap for Males

Health-E You / Salud-iTu

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Funding Support

PCORI® Dissemination & Implementation Award DI 2020C2-20372 (PI: Tebb)
NIH NICHD R01HD109141 (PI: Marcell; co-I: Tebb)
UCSF REAC Funding from the Springer & Wikman Funds (PI: Tebb, co-I: Marcell)

Nice to meet you!



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Case 17-year-old male

- 1st sexual experience was at age 9
- History of >10 sex partners
- Current partner is pregnant (unplanned) & she wanted to continue pregnancy
- He was concerned about his future & how having a child now would interfere with his life plans
- He had no experience with infant care
- He was grateful to discuss these issues since no doctor had ever done so before

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Objectives

1. **Analyze** local data from Maryland on male adolescents' sexual behaviors & experiences
2. **Discuss** barriers & opportunities for supporting male sexual & reproductive health (SRH)
3. **Describe** how *Health-E You*, a web-based mobile app, can be implemented to support SRH for all youth in a clinic setting, including males

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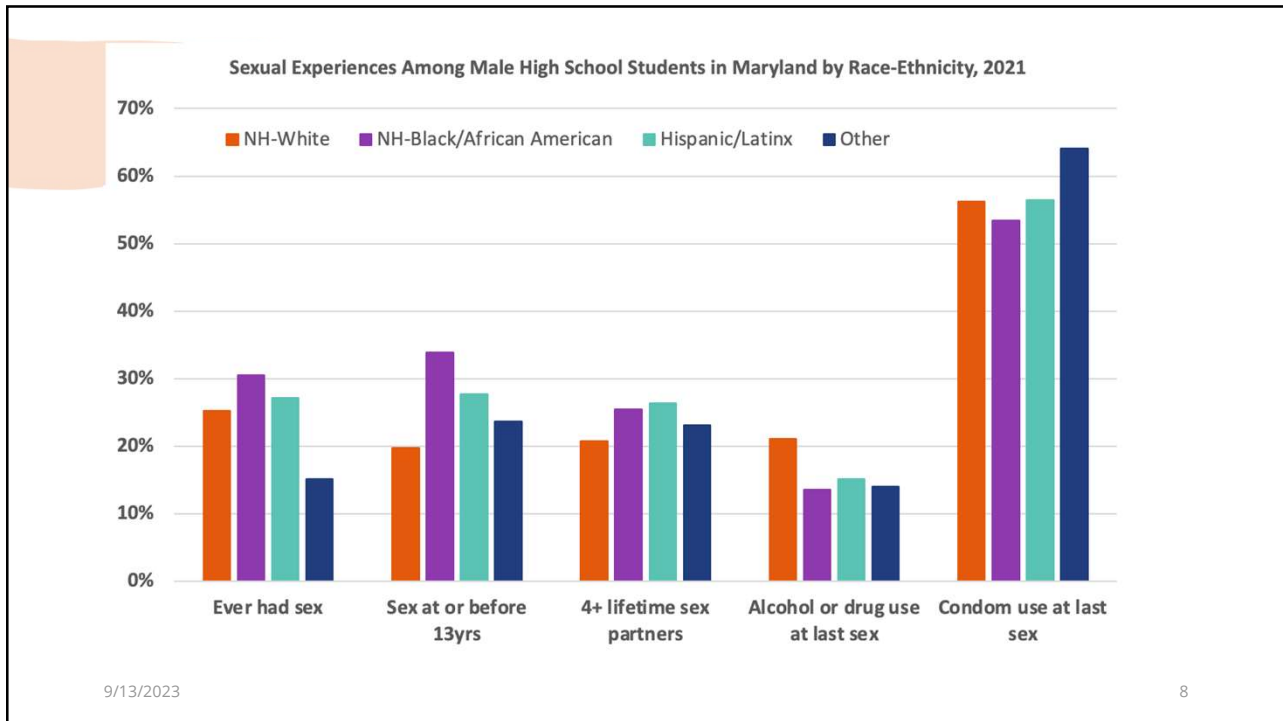
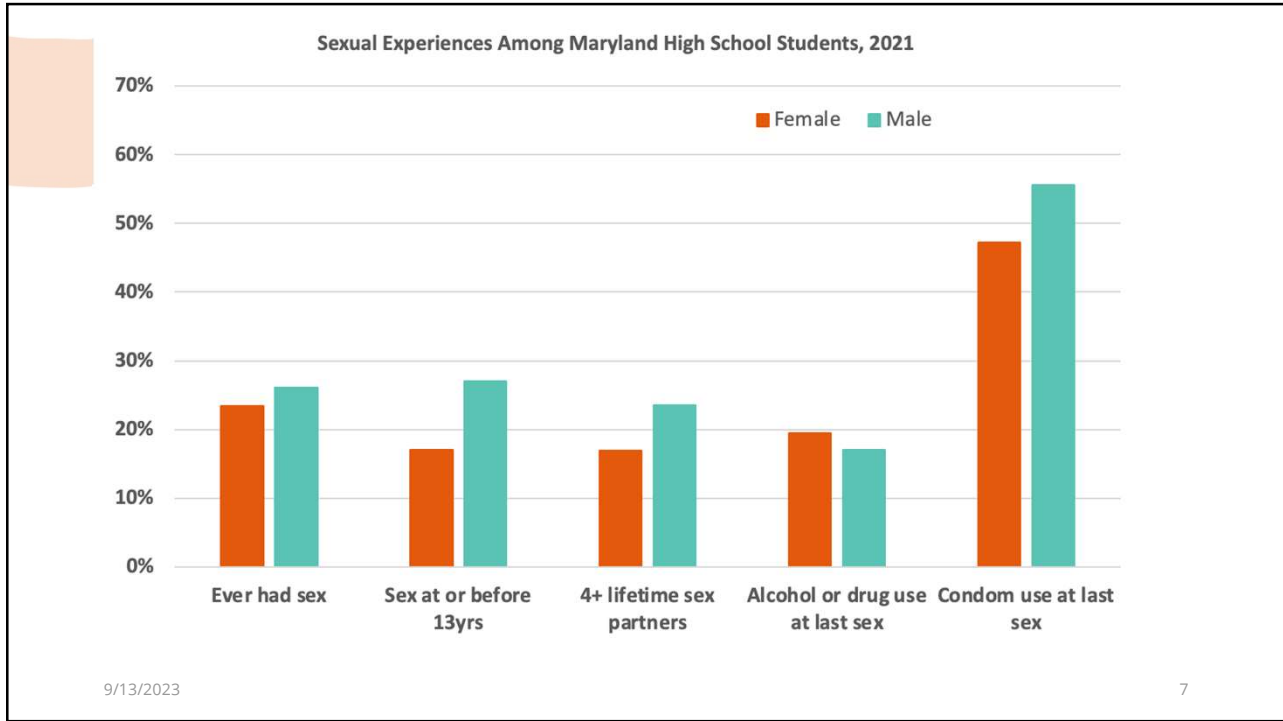
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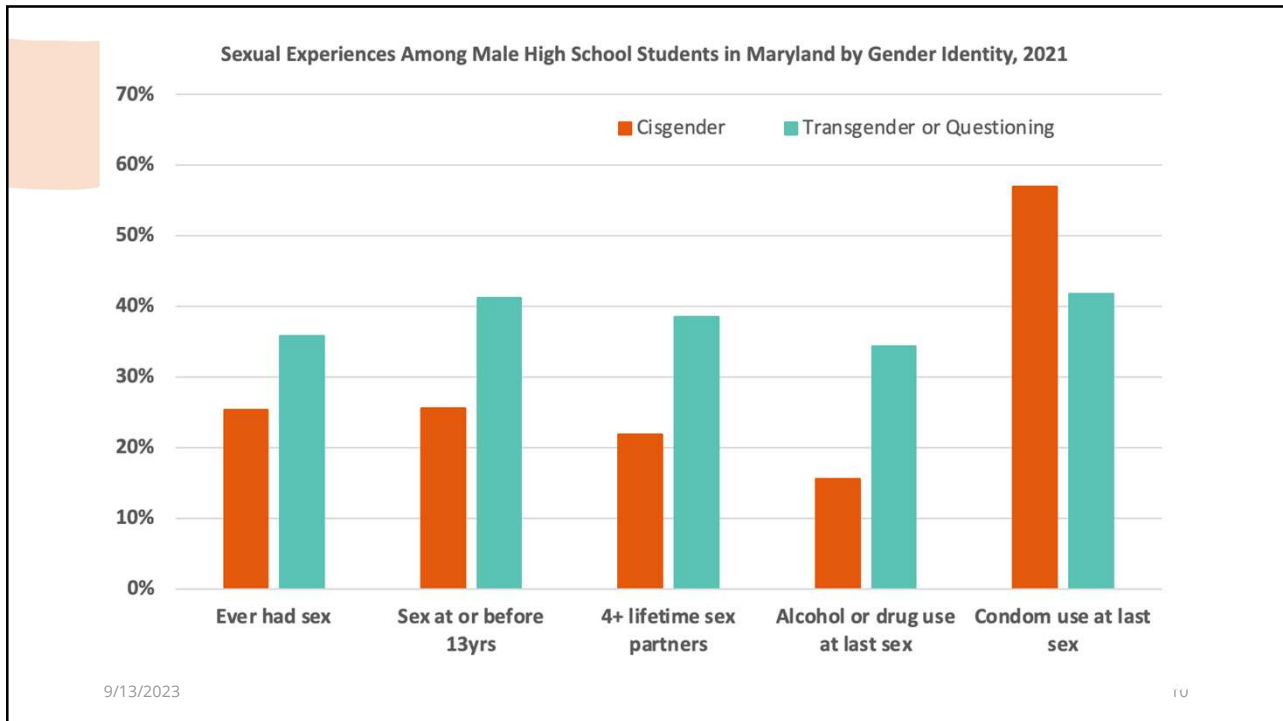
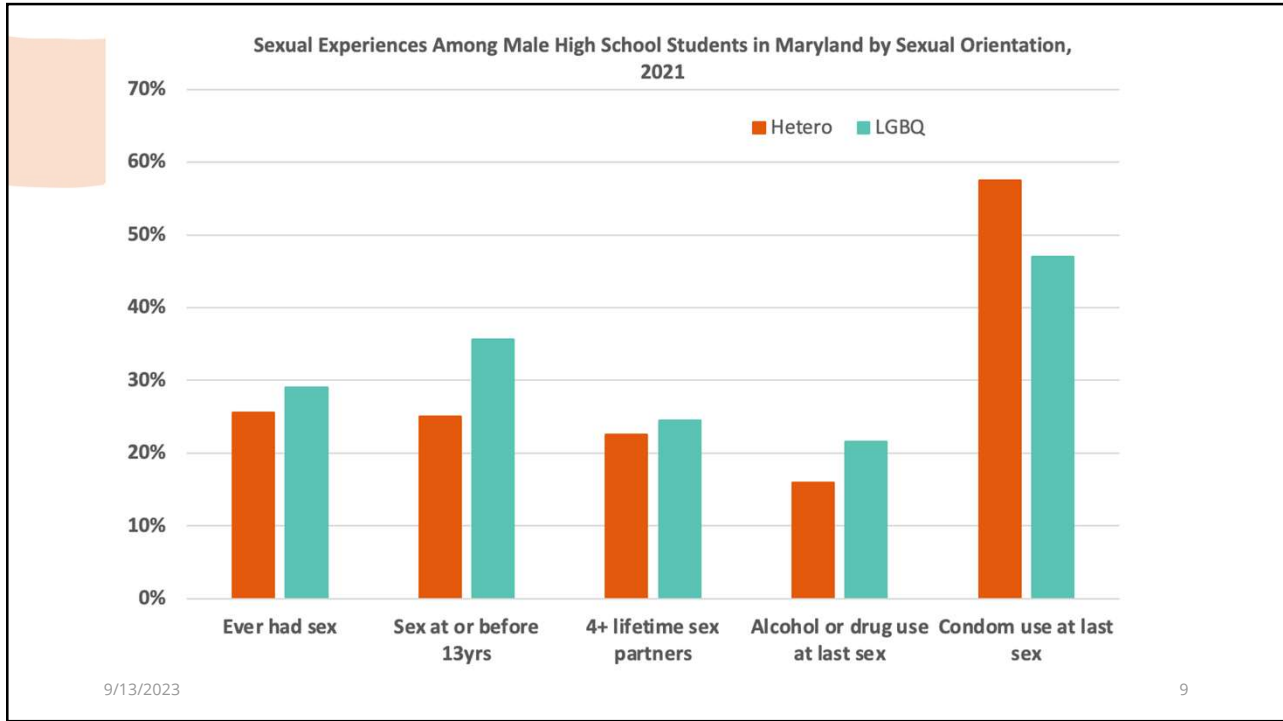


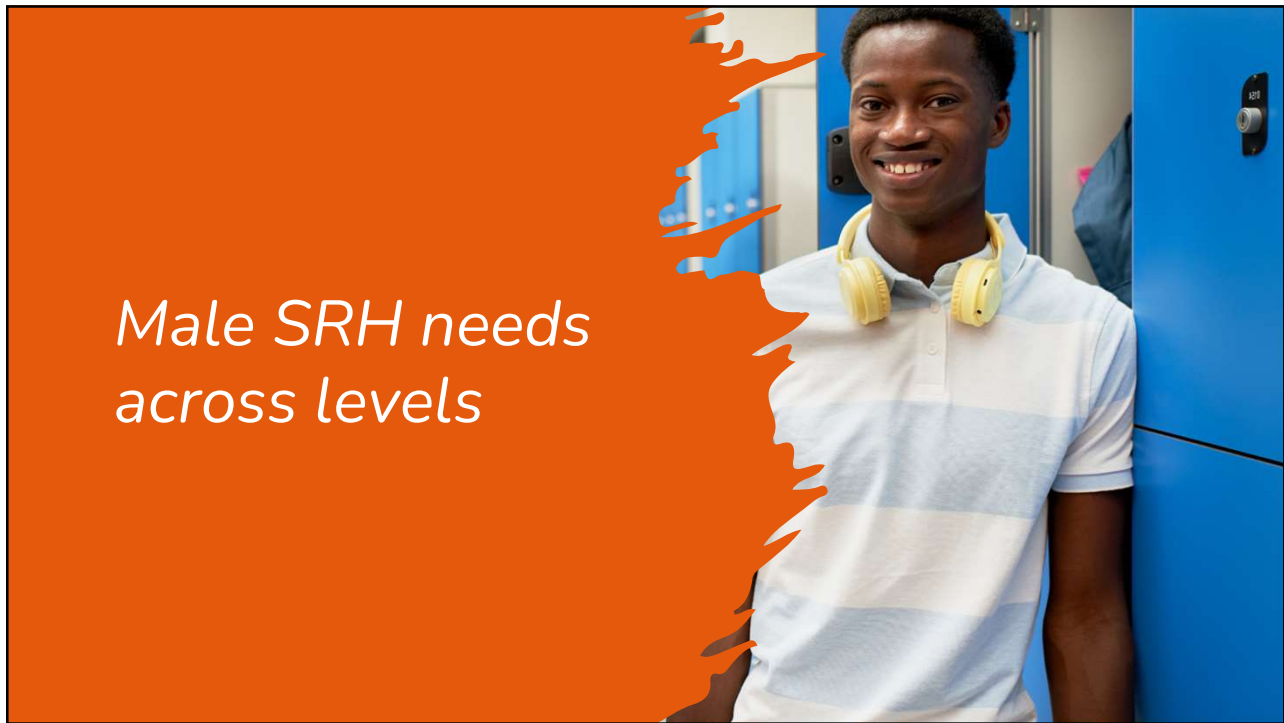
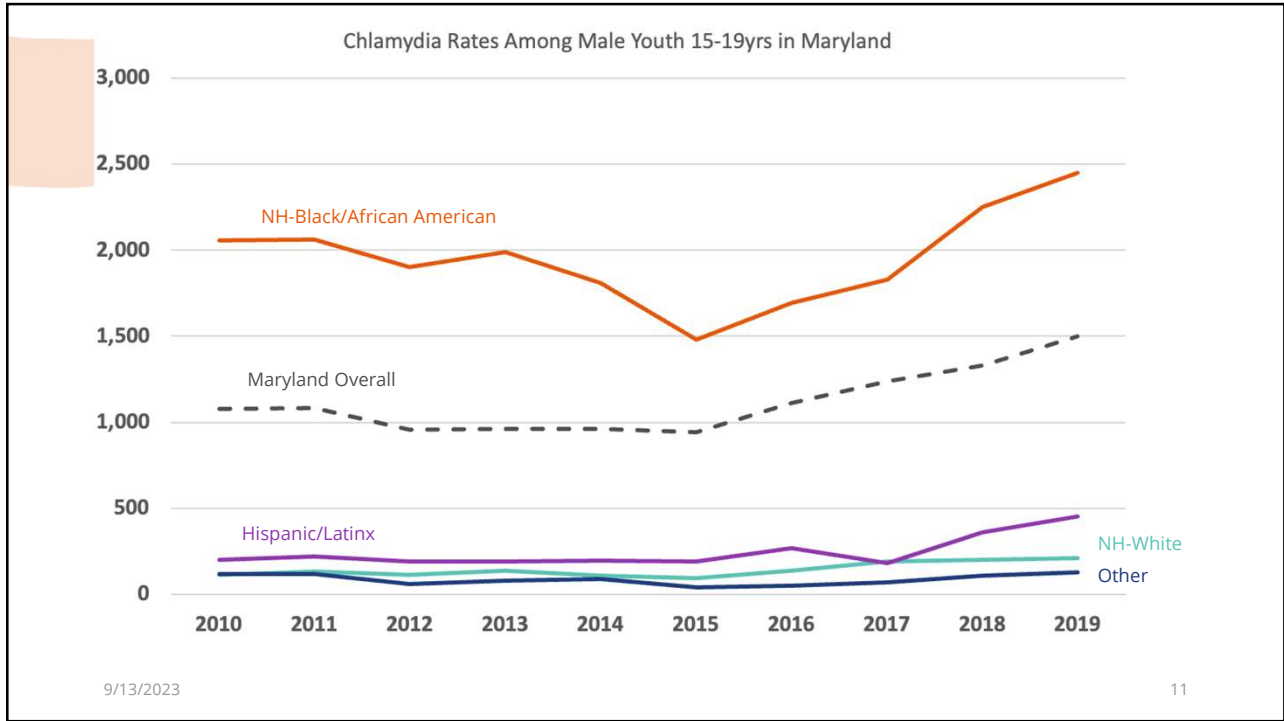
Youth Risk Behavior Survey (YRBS)

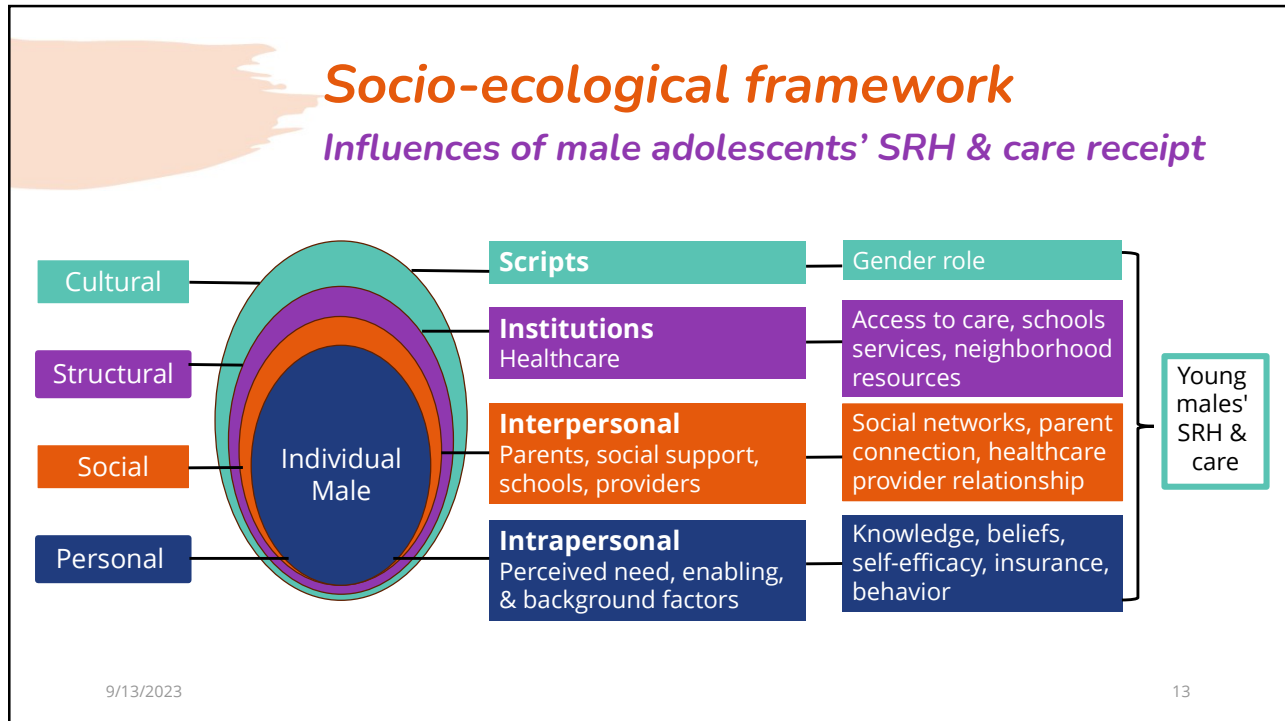
- Survey conducted every 2 years among high school students in 44 states, 28 local school districts, 3 territories, and 2 tribal nations
- Maryland data is representative to the county- and state-level
- Most recent data was collected in Fall 2021

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Why address young males' SRH needs?

Cultural Context

Structural Context

Social Context

Personal Context

- **Meet males' SRH needs in their own right**
 - Most have sex by age 18
 - In metro areas, up to 30% have sex at age 12 or younger
 - High STI/HIV rates, unintended partner pregnancy
- Engage them in normal part of growth & development
- Involve them as critical partners in family planning
- Improve capacity for parenting & infant/child health outcomes
- Use SRH as
 - Clinical hook to address other health needs
 - Opportunity to learn how to seek care & about its importance
- **Improve health outcomes of partners**

Marcell et al. Male Training Center. 2014.
Frey et al. Am J Obstetrics & Gyn. 2008; 199:S389-95.

Young males lack SRH knowledge & skills

Cultural Context

Structural Context

Social Context

Personal Context →

- Low awareness & knowledge about all birth control, including condoms¹
- Condom skills not well-established
Condom failure not uncommon events²
 - 31% ≥1 episode of **condom breakage** in last 3 months³
 - 14% ≥1 episode of **condom slippage** in last 3 months³

¹Borrero, et al. Contraception. 2013;88:532-8
²Reece M et al. J Sex Med. 7(Suppl):266-76
³Crosby RA et al. STI. 2007; 83:71-5

The “Boy code” & traditional masculinity ideology

Cultural Context →

Structural Context

Social Context

Personal Context

Masculinity ideologies¹

Socially constructed beliefs men adhere to culturally defined behavioral standards (be tough, not express emotions, avoid asking for / seeking help, sexual double standards)

Young males who endorse more traditional beliefs are at higher risk for

- Engaging in problem behaviors
- Experiencing negative health outcomes
- Not engaging in health care²

These beliefs are reinforced by media

- 12% of all content is sexual in nature¹
- Positive sexual health content was rare (<½ of 1%; or 0.19%)



¹Pleck. A New Psychology of Men. 1995. NY: Basic Books.
²Marcell et al. Pediatrics. 2007; 119:e965-74.

Health system structure (& culture)

Cultural Context

Existing structures

- Focus on maternal & infant/child health
- Informed by / reinforce cultural gender roles
- Lack integration across silos of family planning & sexual health

Structural Context

No single specialty, professional organization, Federal agency informs males' SRH care across lifespan vs. female-focused specialties

Social Context

Affordable Care Act (ACA) **missed policy opportunity¹** to expand preventive coverage to include men's contraception with no cost sharing (e.g., vasectomy, condoms)

Personal Context

Male adolescents **lack explicit SRH care hooks** to practice health care use skills

¹Sonfeld. Policy Review. 2015;18(2):34-39

Few young males receive SRH care

Cultural Context

Structural Context

Social Context

Personal Context

Topic & ages	Female	Male
	%	%
Asked about sex		
11-14	19	9
15-19	45	15
Discussed		
Puberty (11-14)	53	40
Birth control		
14-17	37	18
15-19	33	5
Counseled on		
STIs, HIV, pregnancy	61	34
Condoms	18	7
Time spent talking about sex	36 seconds	

Although baseline SRH care receipt is not much better for females, far fewer young males report SRH care receipt

Lafferty et al. Am J Pu Health. 2002;92:1179-83; Burstein et al. Pediatrics. 2003;111:996-1001. Chandra et al. NSFG. 2006-10; Alexander et al. Jama Peds. 2014; 168:163-9.

Guidelines that support SRH care delivery to young males

Cultural Context

Structural Context

Social Context

Personal Context

Organization of adolescent services

- 1993 AMA, Guidelines for Adolescent Preventive Services
- 1994 AAP, Bright Futures

Male adolescent-focused clinical / policy statements

- 2011 AAP, Male Adolescent Sexual & Reproductive Health Care, Clinical Report (1st of its kind)
- 2014 Title X, Quality Family Planning (QFP)
- 2018 SAHM, Advocating for Adolescent & Young Adult Male Sexual & Reproductive Health

Marcell, Wibbelsman, Seigel & Committee on Adolescence. Pediatrics. 2011;128:e1-19
Society of Adolescent Health & Medicine. 2018: 63:657-661

Goals for young males' SRH care

Cultural Context

Structural Context

Social Context

Personal Context

Prevent

- STIs & HIV
- Unintended pregnancy
- Reproductive cancers

Promote

- Healthy sexual development
- Reproductive life plan
- Preconception care
- Healthy relationships & behavior

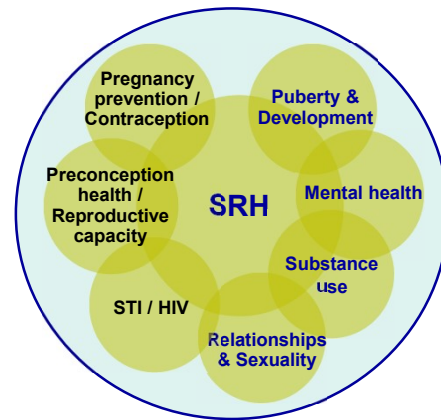
Reduce

- Sexual problems, infertility

Increase

- Quality of life & lifespan

Consider overlapping needs



Marcell et al. Am J Prev Med. 2015;49:S14-22

Young males' SRH care receipt

Ages 15-24 across 7 clinics, Baltimore 2014-16

Cultural Context

Structural Context

Social Context

Personal Context

- Majority of sexually active young males reported being asked about sex & STI test hx, & past STI/HIV tests, counseling
- Far fewer were asked about
 - Sexual orientation
 - Family planning
 - Counseling about condoms & pregnancy prevention, emergency contraception
 - Given condoms
- <1 in 10** received all recommended SRH services

SRH care receipt & items		Sexually active	
		Yes %	Never %
History questions about...	Sex		
	Sex with women/men/both	75	41
	Straight/gay/bisexual	59	28
	Type of sexual behavior	75	44
	Number sexual partners	77	34
	Condom use at last sex	84	16
	Family planning		
	Plans for having children	38	22
	Partner uses birth control	41	9
	Ever gotten someone pregnant	49	6
Labs/ Material	STI/HIV test		
	Tested for HIV	79	28
	Tested for STI	79	19
	Tests		
HIV	67	38	
STI other than HIV	65	16	
Counseling	Materials		
	Condoms	57	19
	Lubricant	33	9
	Reducing STI/HIV risk	73	41
	Using condoms correctly	52	22
Preventing pregnancy	51	41	
Emergency contraception	47	12	
Received all 18 recommended SRH care		9	2

Marcell et al. J Adol Health. 2018.

Young males' SRH care receipt

Ages 15-24 across 7 clinics, Baltimore 2014-16

Cultural Context

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Social Context

Personal Context

- Want compassionate, respectful, & empathetic clinicians who will maintain their confidentiality
- Choose clinician they see
- Feel they are understood & not judged
- Know what clinician will do before they do it

"They're supposed to tell you before they do that. My doctor [says] 'I'm about to check your testicles. Is that okay?'. Then I say 'Yes.' They're supposed to ask."
15-19 heterosexual African American male focus group
- Learn from their clinicians

"It would be good to know about your body so you can understand it better. Like about sexuality – it would be good to learn about...how to control yourself and how to be prepared...to be an adult." 15-19 heterosexual Hispanic male focus group
- Want greater confidence in clinician interactions when answering & asking questions

Marcell et al. J Adol Health. 2017.

Young males' social context

Cultural Context

Structural Context

Social Context

Personal Context

Family context

- Males report mothers as one of their main sex info sources,² but quality of mothers' sex discussions with sons is lower than with daughters
- Mothers report lack of knowledge/skills talking about sex with sons

Peer context

- Men typically have smaller social networks than women¹
- Young males have smaller sexual health info peer networks than same-aged females²

Partner context

- Most young men believe they share equal responsibility with partner for contraception decisions³ & contraception use is improved when partners are involved together⁴

¹Fischer & Oliner. Social Forces. 1983;62:124-133. ²Dolcini et al. Res Hum Dev. 2012;9(1):54-77. ³Forste et al. Fam Plann Perspect. 1998;30:56-62. ⁴Grady et al. J Biosoc Sci. 2010;42:307-323.

Formal SRH education receipt

Cultural Context

Structural Context

Social Context

Personal Context

School context

- U.S. Dept of Ed does not regulate comprehensive sex ed¹; sex ed is at discretion of each state & school jurisdiction
- Most males do not get sex ed before they start having sex²
- Males & females report differential sex ed receipt³

	School	Parents
Birth control	F>M	F>M
Condoms		M>F
STIs/HIV	F=M	F=M

- For Males / Females who do not get sex ed by school &/or parents, clinicians do not fill the sex ed gap³

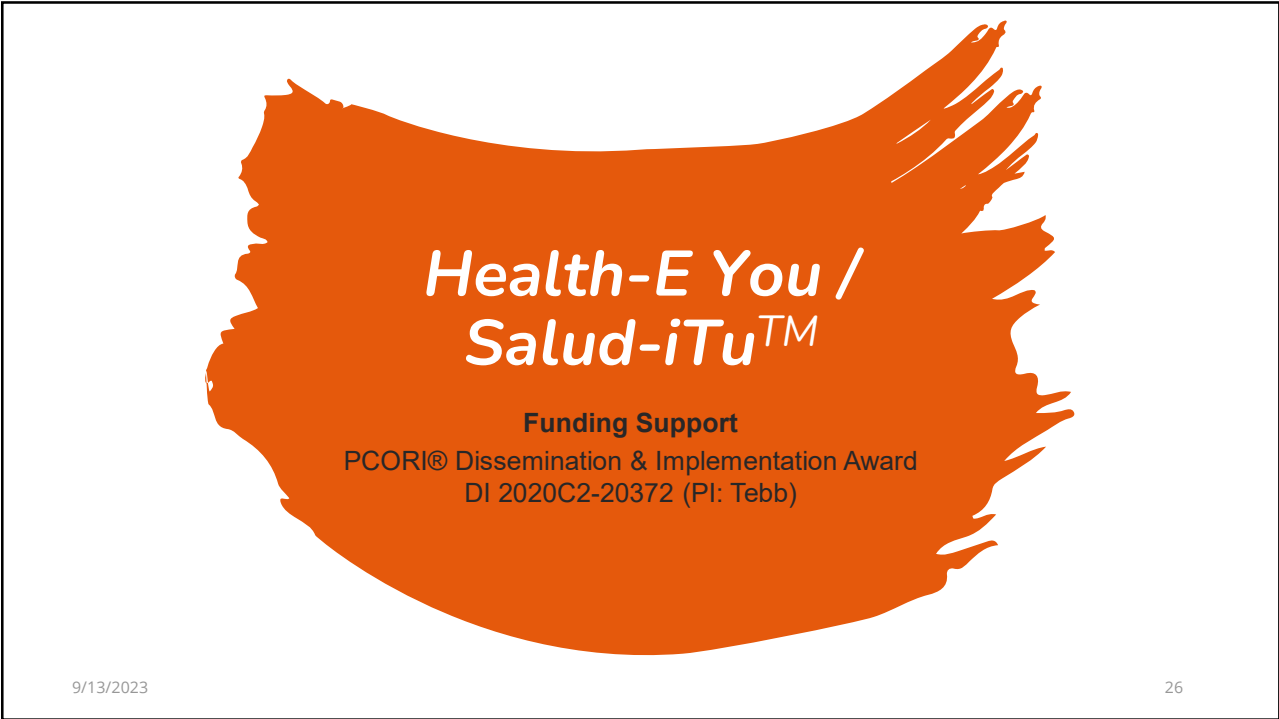
¹National sexuality education standards: Core content and skills, K-12. 2011. FoSE-Future of Sex Education

²Lindberg et al. Contraception. 2021

³Donaldson, Lindberg, Ellen, Marcell. J Adol Health. 2013;53:235-40



*Leveraging
SBHCs to support
SRH for youth*



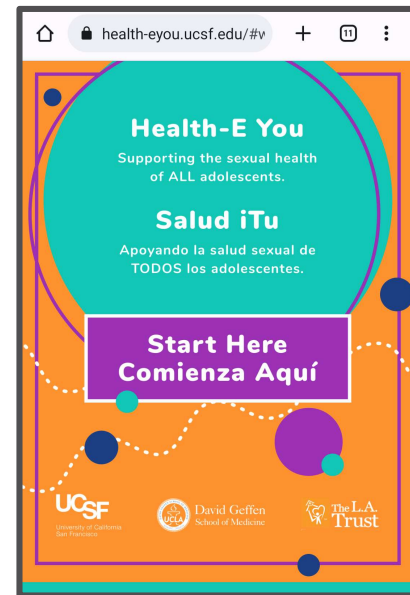
*Health-E You /
Salud-iTu™*

Funding Support

PCORI® Dissemination & Implementation Award
DI 2020C2-20372 (PI: Tebb)

Health-E You/Salud iTu™

- Adolescents & clinicians wanted a contraceptive decision-making support app
- Adolescents stated existing websites were hard to find, confusing & geared to older women



Health-E You/Salud iTu™

Developed in **partnership** with adolescents, providers and CBOs

- Advisory Boards (Youth & Community)
- Focus groups
- Interviews
- Usability Testing
- Pilot Testing
- Efficacy testing (CRCT)
- *NOW Implementation & eval*



Health-E You/Salud iTu™

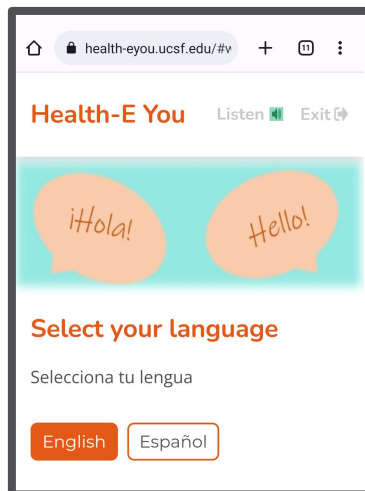
Health-E You: interactive, individually tailored, web-based mobile health application (app)

- Offloads education from clinician to computer with individually tailored messaging & content
- Prepares youth & clinician for visit (more efficient & effective use of time)
- Supports patient-centered contraceptive care
- Incorporates a social justice framework: emphasizes choice & access

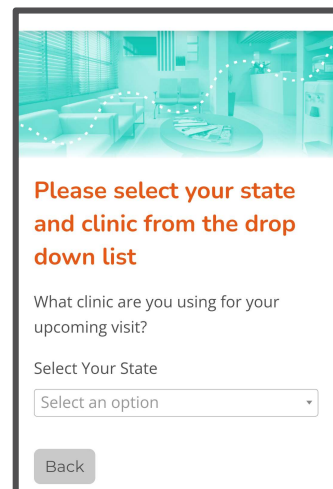


Health-E You/Salud iTu™

1. Clinic provides youth link to app
2. Youth selects language



3. Select State & clinic



Health-E You/Salud iTu™

Answer a few questions for tailored content

Pregnancy Risk: Contraceptive Decision Support
 MythBusters “game” with feedback
 Lifestyle & attitude questions to guide contraceptive choice
 Potential contraindications (discuss with clinician)

Not at Risk of Pregnancy
 Select from menu of SRH topics (contraception, condoms, PrEP & PEP, etc.)







Health-E You/Salud iTu™

Health-E You

- Personalized recommendations are starred, but choice is yours!
- Opportunity to learn about any method(s)

★ App recommendations, but the choice is yours! Touch any method to learn more.

Touch the starred methods to learn more about the options recommended for you:


★ Intra-Uterine Device		One time insertion. Nothing to do or remember for several years.
★ Implant		Quick and easy to insert. Nothing to do or remember for 3 years.
Shot/Depo		Private and effective as long as you get the shot on time - every 3 months.
Ring		Easy to insert. Keep in for 3 weeks, remove it, wait 1week and re-insert.
Patch		Need to change patch once a week.
Pill		Effective if taken every single day.



Health-E You/Salud iTu™: Contraceptive Info

BACK
EXIT

Intra-Uterine Device (IUD)




What is an IUD? It is a small t-shaped piece of plastic that makes it hard for sperm to attach to the egg. A trained provider places it in your uterus and you don't have to do anything for several years.

Why is the IUD a TOP choice for you:


- + It is one of the **most effective** contraceptives.
- + It is **safe** and has **few side effects**.
- + **No one can tell** you are using it.
- + Can be **removed at any time** and you can get **pregnant right away**
- + **DOES NOT** cause abortions or infections

Like most contraceptives, the IUD does not protect you from STDs or HIV. Be sure to use a condom every time you have sex. There are two types of IUDs hormonal or non-hormonal.

Learn more
See other contraceptive options
Continue



Nurse Practitioner Le Flore Jacobs
facts about IUDs



Krissy, 17, on the IUD
I use the IUD and love it!

App data stored in secure Salesforce system

- Programmed to pull summary data & automatically generate secure e-mail to designated clinic staff/ clinician e-mail
- Teen user consents to send summary e-mail to clinic by including partial name &/or phone number



Confidential App Use Report

Harbor Wellness Center

Patient Info

Partial name
Kathleen
T

Cell Phone
111-123-3456

Gender
Female

Reason for Visit
Well visit / checkup / physical

Patient Hx

EverHadSex
Yes
Genital

Current Contraceptive Method (if any)
None

Method/s App Recommended
IUD
Implant

Method/s Patient Interested in Using
Shot

Potential Contraindications (to discuss)
Non

Topics Explored in App

Cluster Randomized Control Trial (CRCT)

- CRCT of 18 SBHCs in LA
- 18 SBHCs randomized to use app or standard of care
- Intervention routed to app; controls to sexual health survey
- Online follow-up surveys at 48 hour, 3- & 6-months post-visit

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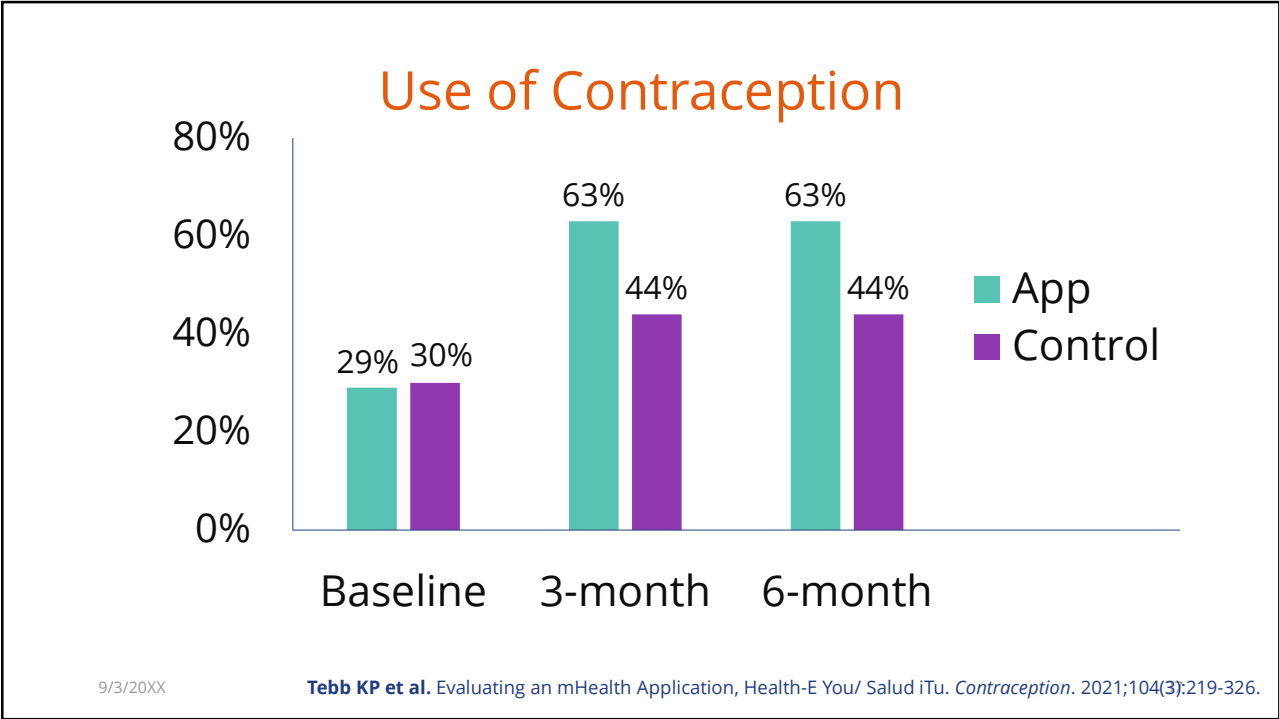
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CRCT Results

- N=1,360 sexually active Latinas (684 intervention; 676 control)
- Mean age = 16.4yrs
- We saw significant increases in contraception knowledge, self-efficacy, clinician discussions, & use

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Tebb KP et al. Evaluating an mHealth Application, Health-E You/ Salud iTu. *Contraception*. 2021;104(3):219-326.



“Having the app really helps me out, especially when I’m busy...when the students finish, they already have a list of informed questions. This makes my counseling visit more productive and a lot shorter.” -provider

“It’s helpful because if you don’t now what you want, you’re gonna know what you want by the end of the video!”
- adolescent

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Next Phase:

Adapting Health-E You for Male Youth

Funding Support
NIH NICHD R01HD109141
PI: Marcell; co-I: Tebb

Our team at Johns Hopkins is working with youth & clinicians to **adapt, test, & evaluate** *Health-E You* for diverse male youth!

Study Aims

- Now** **Adapt** *Health-E You* as a pre-visit, individually tailored, interactive, web-based SRH care tool for use with diverse groups of male adolescents
- Winter '23/'24** **Test** the updated *Health-E You* app to ensure acceptability, usability, & satisfaction by male youth & clinicians in SBHCs
- Spring '24** **Evaluate** the efficacy of *Health-E You* on sexually active male adolescents' knowledge, self-efficacy, beliefs, & behaviors about SRH care after the visit & condom use at 2-month follow-up

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Health-E You Content for Male Youth

Content menu

						
<p>Prevent HIV / STDs</p> <ul style="list-style-type: none"> • HIV & other STDs • Condoms • PrEP & PEP for HIV • Vaccines against cancers 	<p>Pregnancy prevention</p> <ul style="list-style-type: none"> • Condoms • Birth control options • Emergency contraception • Planning for pregnancy 	<p>Planning for pregnancy</p> <ul style="list-style-type: none"> • Preparing for pregnancy • Fertility concern 	<p>Healthy & safe relationships</p> <ul style="list-style-type: none"> • Healthy relationships • Age of consent • Supporting sexual, physical, & mental health 	<p>Pleasurable sex</p> <ul style="list-style-type: none"> • Consent • Lubricants, toys • Pornography • Performance concerns • Masturbation 	<p>Sexual health care</p> <ul style="list-style-type: none"> • Care you should get • Questions to ask • What to expect • How to connect • How doctor can help • Know your rights • LGBTQ+ care 	<p>Growth & development</p> <ul style="list-style-type: none"> • Puberty <ul style="list-style-type: none"> ◦ Menses ◦ Fertility concern • Gender identity • Sexual orientation

Core content

Back

Next

The Health-E You study

How can your clinic get involved?	<ul style="list-style-type: none"> • Partner with us to pilot test Health-E You in your clinic!
What's in it for your clinic?	<ul style="list-style-type: none"> • Get hands-on support to implement a tool to strengthen youth SRH care in Maryland • Incentives available for youth & clinic participants
What would be expected of your clinic?	<ul style="list-style-type: none"> • Implement <i>Health-E You</i> with your patients • Clinicians will be invited to participate in de-brief sessions
What is Hopkins' role?	<ul style="list-style-type: none"> • Recruitment, data collection, follow-up, participant gifts, training, technical assistance, & more!

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The Health-E You study cont.

What would implementation at your clinic look like?

- Work with clinic champion to ID easiest way to implement
- The app can be used for all genders on any device connected to the internet
- QR code links to informed youth consent & the app
- Brief patient summaries are shared with clinician in real time

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Interested in joining?

Contact Us

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Other resources by our team

Health-E You / Salud iTu™

Contact: Drs. Arik V. Marcell, Kathleen Tebb

<https://healthyouinfo.ucsf.edu>

Y2CONNECT

Comprehensive youth-resource guide for Baltimore City

Contact: Dr. Arik V. Marcell

Y2CONNECT.org

True You Maryland

Community-wide youth sexual health support in rural Maryland counties

Contact: Dr. Annie Smith



text4FATHER

Text messaging intervention for expectant fathers from mid-pregnancy through early infancy period

Contact: Dr. Arik V. Marcell

text4FATHER

Summary

Data from Maryland show male youth have significant SRH needs, particularly LGBTQ+ youth

Male sexual health is shaped by factors across multiple levels

- Cultural scripts about masculinity & gender
- Structural de-emphasis of male SRH
- Social factors through schools, families, peers, & partners
- Individual-level knowledge, attitudes, & behaviors

We hope *Health-E You*, our web-based mobile app, can positively influence the SRH of all youth – including males – through SBHCs

Thank you

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**Maryland Department of Health, Maternal & Child
Health Bureau**

Maryland Assembly for School-Based Health Care



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