



Health-E You/Salud iTu™
**A Pre-visit App to Support
Patient-Centered
Contraceptive Choice & Use in
SBHCs**

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CA SBHC Conference
2023



Background: Unintended Pregnancy (UP)

- Over 80% of adolescent pregnancies are unintended.
- Despite steady declines, U.S. remains higher than all other industrialized nations.
- Significant disparities remain based on income, race and geographic location (and the intersectionality of these factors).
- Adolescents' knowledge of contraception is poor, options are overwhelming
- Stigma and discomfort with sexual health are barriers to care
- Teens often want to discuss sexual health with their provider but are reluctant to bring it up

Technology for Teen Health

Adolescents *prefer* computer-based interview tools and interventions compared to face-to-face

- More comfortable learning about sensitive health information.
- Greater disclosure of sexual health and other behaviors to computer.

Slack (1971); Fisher (1977); Millstein (1983); Ozer (2016)

Need for integration in health settings

- Drives user to App
- Offloads health education and assessments from provider
- Primes and supports patient & clinician prior to face-to-face encounter
- Support follow-up care (email and SMS mgs)

Health-E You/Salud iTu™

- An interactive, individually tailored, web-based mobile health application (app)
- Increases adolescents' knowledge, self-efficacy & supports contraceptive decision-making
- For providers, it makes the visit more efficient and effective:
 - offloads contraceptive counseling to the computer
 - prepares provider for visit with patient summary from app use
 - supports a more individually-tailored visit with patient-centered contraceptive care
 - uses a social justice framework



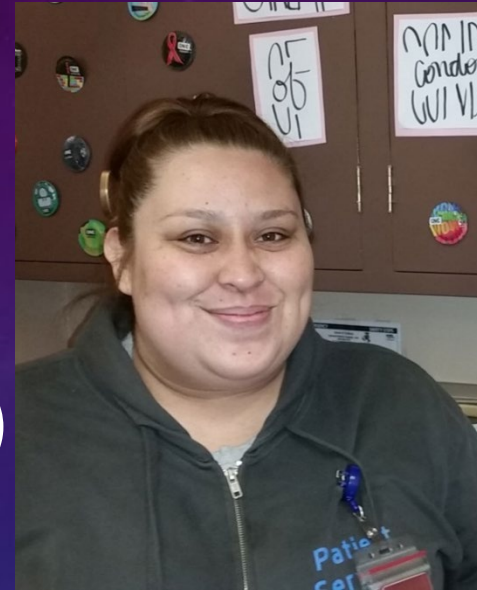
Health-E You/Salud iTu™

Developed in partnership with adolescents, providers and CBOs

- Advisory Boards (Youth & Community)
- Focus groups
- Interviews
- Usability Testing
- Pilot Testing (N & S CA)

Efficacy testing (CRCT)

NOW Implementation & eval



Overview of *Health-E You/Salud iTu*TM

- Youth selects language: English or Spanish
- Select clinic
- Answers a few questions to direct user to tailored content



Contraceptive Decision Support Pathway

- Assesses knowledge via MythBusters “game” & provides feedback
- Asks lifestyle & attitude questions that are important when selecting contraception (e.g. desire to avoid pregnancy, method efficacy, period regularity, privacy, contraceptive use hx, satisfaction, adherence)
- Potential contraindications (to further discuss with provider)

Health-E You/Salud iTu™

- Personalized recommendations starred
- Opportunity to learn about any method(s)

Health-E You

★ 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 1 week 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

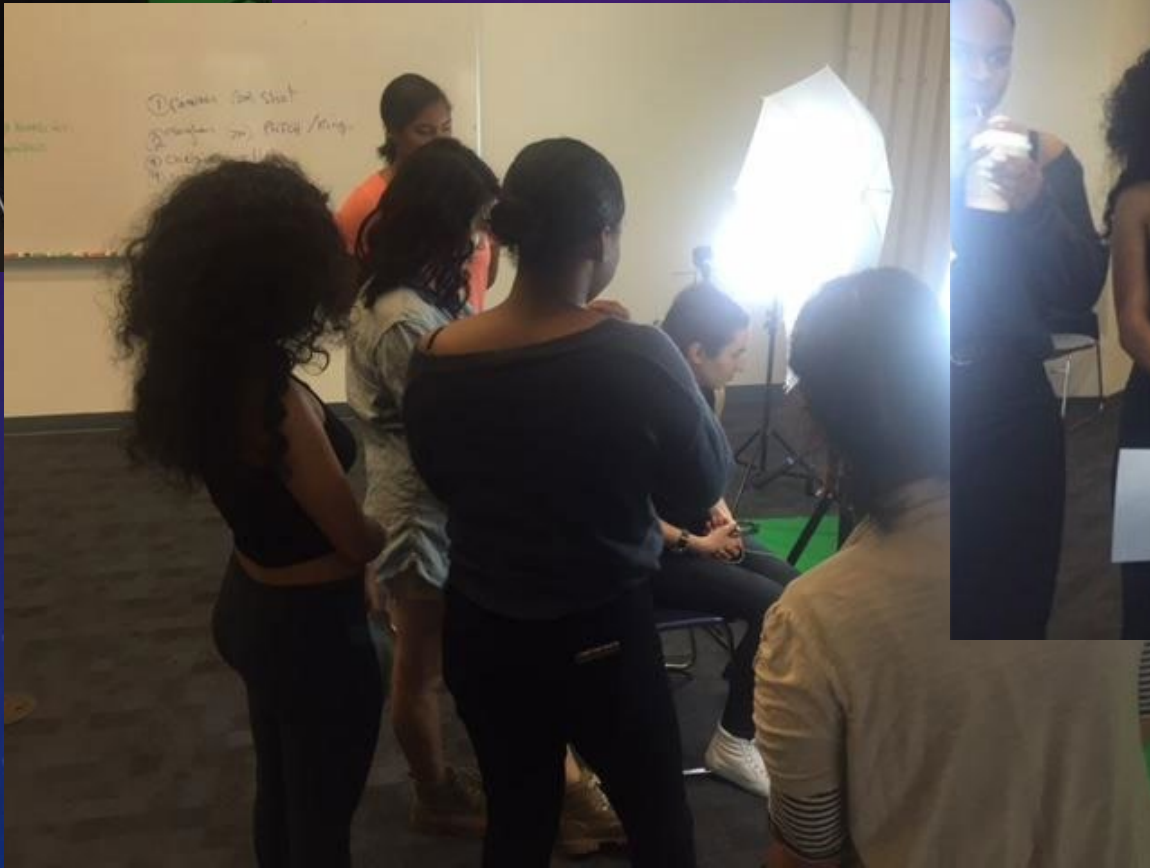


Nurse Practitioner Le Flore Jacobs
facts about IUDs



Kristy,
17 years old
Kristy, 17, on the IUD
I use the IUD and love it!

Video Development Youth-Led



Cluster Randomized Control Trial (CRCT)

CRCT of 18 SBHCs in LA

- 18 SBHCs randomized to use App or standard of Care
- Adolescents provided iPad at check-in (App or SRH Questionnaire)
- Completed online survey: 48 hour, 3- and 6-months post-visit
- Participants received up to \$70 to complete all surveys
- Enrolled 1,360 sexually active Latinas (684 intervention; 676 control); Mean age = 16.4yrs

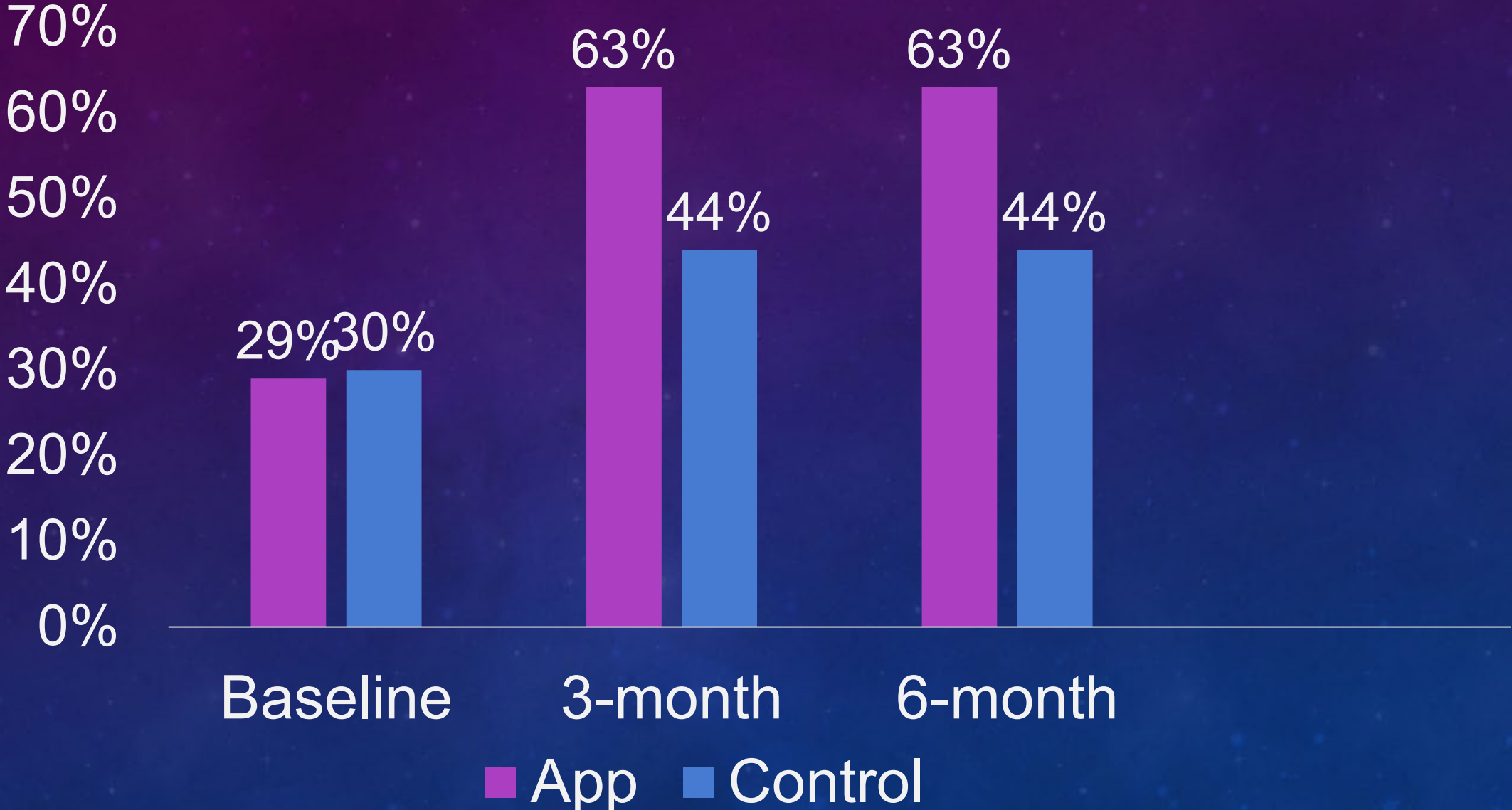
Tebb et al., Study Protocol. BMJ. 2018

Tebb et al., Implementation Evaluation. JMIR Mhealth Uhealth. 2019

Results

- **Knowledge:** Mean score on 7-item contraceptive knowledge scale increased from pre to post-App (3.3 vs. 4.9; $t=16.40$, $p<.001$)
- **Self-Efficacy:** How confident are you...
 - 1) in talking with your doctor about birth control
 - 2) having the information to choose birth control
 - 3) using birth control correctly
- Self-efficacy increased significantly from baseline to 48-hour follow-up among app users ($b = 1.64$, 95% CI 1.01–2.27, $p < 0.001$).
- Increases for app users were sustained at the 6-month follow-up.

Use of Contraception



Results: Adolescent-Provider Communication

- Rates of discussing birth control with provider were higher for App users (89%) vs. Controls (69%), OR = 2.22, p=0.055

“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 know what you want, you’re gonna know what you want by the end of the video!” - adolescent

App Satisfaction (% Agree)

Providers' Report:

83% App engages teens in the contraceptive decision-making process

75% App helps provide individually-tailored discussions on
contraception

Adolescents' Report:

93% understood information on App

87% App gave useful birth control info

85% would recommend App to a friend

70% App improved the quality of visit



Contents lists available at [ScienceDirect](#)

Contraception

journal homepage: www.elsevier.com/locate/contraception

Original Research Article

Improving contraceptive use among Latina adolescents: A cluster-randomized controlled trial evaluating an mHealth application, *Health-E You/Salud iTu*

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Current Implementation Study Objectives

1. Expand implementation of the app through SBHCs across U.S.
2. Evaluate effectiveness on a more diverse population of adolescents (race/ethnicity & geographic location).
3. Assessing improvements in knowledge, self-efficacy, visit quality and contraceptive use over 6-month follow-up period.
4. Added brief mental health measures to examine relationship between contraceptive use and mental health over time.

Implementation Activities

Adapted app for expanded implementation

- + Added content that is gender inclusive and not based on sexual risk
- + Linked app on-line survey and SMS gift card incentives
- + Revised method of sharing information with the provider



Confidential App Use Report

eq_wellness_center

Patient Info

Partial name

ex_results_learn_more**survey_contact_email
ex_results**survey_contact_email

Cell Phone

ex_results_learn_more**survey_contact__cell_phone
ex_results**survey_contact__cell_phone

Gender

eq_describe_yourself**gender

Reason for Visit

lq_reason_for_visit**reason_for_visit
lq_reason_for_visit**reason_for_visit_other

Patient Hx

EverHadSex

eq_had_sex**had_sex
eq_sexual_contact**sexual_contact

Current Contraceptive Method (if any)

lq_what_you_use_prevent_pregnancy**what_you_use_prevent_pregnancy
lq_what_you_use_prevent_pregnancy**what_you_use_prevent_pregnancy_other

Method/s App Recommended

tr_top_recommendations**recommended

Method/s Patient Interested in Using

tr_methods_most_interested_in**methods_most_interested_in

Potential Contraindications (to discuss)

gh_general_health_history**general_health_history_contraindications

Topics Explored in App

ma_learn_more**topic

- App data stored in Salesforce
- Programmed to pull summary data and automatically generate secure e-mail to designated clinic staff/ clinician e-mail
- Teen user must consent to send summary e-mail to clinic

Implementation Steps

- Clinic staff sends out link/QR code to adolescent girls.
- Link directs them to on-line survey to assess eligibility & consent
 - Eligible adolescents immediately routed to app complete 3 surveys over 6 months for \$50
 - Ineligible adolescents are still offered opportunity to use the app and immediately routed to app
 - UCSF IRB approved for adolescent consent to participate; waiver of parental consent since part of confidential SRH care offered through SBHCs

Acknowledgements

UCSF

Kathleen Tebb PhD, PI

Claire Brindis DrPH, co-I

Elizabeth Ozer PhD, co-I

Lance Pollack PhD, Statistician

Marie Salem, MPH, Coordinator

UCLA

Loris Hwang, MD, Consultant

CA School-Base Health Alliance

Amy Ranger

L.A. Trust for Children's Health

Maryjane Puffer, Executive Director

Alex Zepeda MS, Analyst

Rosario Rico MPH, Consultant

Rosina Franco MD, Consultant

National Alliance of SBHC

Laura Brey, MS

Seleena Moore, MPH

Harper Byers

National Youth Advisory Board

28 SBHCs across 10 States

Funded through a Patient Centered Outcomes Research Institute (PCORI) Dissemination and Implementation Award (DI-2020C2-20372)