UNIVERSITY OF CALIFORNIA, SAN FRANCISCO AND THE SAN FRANCISCO DEPARTMENT OF PUBLIC HEALTH

ENROLLMENT CONSENT TO PARTICIPATE IN A RESEARCH STUDY
DOT DIARY OPTIMIZATION PILOT

PRINCIPAL INVESTIGATORS
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Introduction

You are being asked to take part in a research study. This consent form can help you decide if you want to join the study. Take your time in deciding whether to join. You do not have to join the study and you will be treated the same no matter how you decide. Please read this form carefully and ask any questions you may have. If you decide to participate in this research study, you will be asked to sign this informed consent. You will be provided a copy of this form to keep.

You are being asked to take part in this study because you are an HIV-negative man who has sex with men.

Please keep the following in mind:

- Your participation in this study is completely voluntary.
- You may quit the study at any time.
- If you decide not to join or to quit the study, it will not affect your relationship with the San Francisco Department of Public Health or UCSF.

Why is this study being done?

Pre-exposure prophylaxis (PrEP) is the use of a daily anti-HIV pill, Truvada®, by HIV-negative people to help prevent HIV infection. PrEP has been shown to be safe and effective and has been approved by the US Food and Drug Administration. However, studies show that some young men who have sex with men (MSM) find it difficult to take the pill once a day as prescribed. Monitoring how well people take PrEP in research studies and providing support to help people with pill-taking are important for the success of these studies.

Smartphone apps have been created to help remind people to take their medication, but these tools do not confirm that pills have been swallowed. Directly observed therapy (DOT), where people come to the clinic to have someone watch them swallow their pills, has been used to ensure pill-taking. However, the cost and complexity of DOT has kept it from being used widely in studies. The researchers are working with a technology company, AiCure, to develop a smartphone app, DOT Diary, which combines these two strategies. DOT Diary reminds people when it is time to take their medication, and uses motion-sensing technology to visually and

automatically confirm the pill was swallowed. The app uses the smartphone's camera to make sure that the right person is taking the right medication at the right time.

The DOT Diary app also includes a sexual diary to help young MSM keep track of when they are having sex, whether their sexual activity is being protected by PrEP, and when it is particularly important to take PrEP. The sexual diary allows users to track their sexual encounters, sexual acts during each encounter, and ratings of their partners. The app shows all days PrEP was taken and all days sexual activity occurred, allowing participants to see whether their sexual encounters were covered by PrEP. The app will also show the estimated level of protection achieved from PrEP (low, medium, high) and provide messages on how many more doses of daily PrEP are needed to reach high protection from PrEP. These levels of protection should only be used as advisory, and cannot be used to absolutely predict the transmission of HIV. It is important that you talk with your study clinician and healthcare provider for prescription information, and always take the medication as instructed by them. If you are unsure as to what medication you are supposed to take or how to take it, please contact your study clinician and healthcare provider.

The goal of this study is to understand people's experiences using this new app. What we learn from this study will help improve the design, accuracy, and ease of use of the app.

This study is being funded the United States National Institute of Mental Health. This study is being conducted by Susan Buchbinder, MD, and Albert Liu, MD, MPH, of the San Francisco Department of Public Health (SFDPH) and the University of California, San Francisco (UCSF).

How many people will take part in this study?

We plan to enroll up to 20 men in this study. About 10 men from the San Francisco Bay Area will be enrolled.

What will happen if I participate in this research study?

The study includes a total of 4 visits, including the screening visit that will start today after you sign this consent form.

All visits will take place in a private room at this research clinic.

Screening Visit: We will ask you questions to confirm that you are able to join the study. We will also ask you to provide your contact information, including where you live and how we can get in touch with you. You will be given an overview of the study and review this consent form. We will ask you questions to make sure that you understand the study's goals and requirements. After successfully answering these questions, we will ask you to sign this consent form if you agree to take part in the study. About three teaspoons of blood will be taken from an arm vein to test your blood counts and kidney function. Your blood will also be tested for HIV, Hepatitis B, and syphilis infection. We will also counsel you on how you can reduce your risk for HIV and

other sexually transmitted infections. These procedures will make sure it is safe for you to take part in the study.

Enrollment Visit: Study staff will review your lab results and confirm that it is safe for you to take part in the study. We will collect about 2 drops of blood from one of your fingers to complete a rapid HIV test. If this test is positive, we will collect additional blood from a vein in your arm to test whether you are infected with HIV. We will perform a swab of your throat and rectum and collect a urine sample to test for sexually transmitted infections (STDs). You will be asked questions about your medical health, including what medications you are taking, and have a brief physical examination. Some of these procedures may be done at your screening visit.

You will complete an online survey that asks questions about your sexual behavior, drug use, knowledge and use of PrEP, and experience using technology. We will help you download the DOT Diary app onto your phone. Study staff will give you a one- to two-month supply of Truvada® for PrEP. We will watch you take your first dose using the app. You will talk with study staff about the importance of taking Truvada® every day and discuss strategies to make it easier to take PrEP every day. If it seems that you may have challenges, we will try to help by working through these with you.

Week 4 Visit: During your Week 4 visit, we will ask you to complete an online survey about your sexual behavior, drug use and your impressions of the app. We will ask you to complete a one-on-one interview with study staff to learn more about your experiences using the app. . We will collect about 2 drops of blood from one of your fingers to measure Truvada levels in your blood. You will be provided with additional Truvada® medication if needed.

Week 8 Visit: During your Week 8 visit, we will ask you to complete all of the activities completed during your Week 4 visit. Additionally, we will collect about four teaspoons of blood from an arm vein to test your blood counts and kidney function, and to test you for HIV and syphilis infection. This blood will also be used to measure Truvada® levels in your blood. We will perform a swab of your throat and rectum and collect a urine sample to test for sexually transmitted infections.
At each visit, we will work with you to ensure that you are able to access PrEP at the end of the study. This will include helping you find a provider who can prescribe you PrEP and referring you to a PrEP navigator who can help you with insurance coverage for PrEP medication and visits. We will also discuss ways to reduce your risk for HIV/STDs and give you condoms and lubricant.

If you are still in the process of getting access to PrEP at the end of the study, we may provide you with up to 3 months of Truvada® PrEP to prevent any gaps in taking it. It will be your responsibility to find a way to continue PrEP after the study.

This is a table of study procedures:

	Screening Visit	Enrollment Visit	Week 4 Follow Up	Week 8 Follow Up
Confirm Study Eligibility	X	X		
Obtain Informed Consent	X			
Test of Understanding	X			
Provide contact information	X	X	X	X
PrEP Safety Labs	X			
HIV Testing	X	X		X
STD Testing		X		X
Online Survey		X	X	X
Medical history and Physical (as needed at Weeks 4 and 8)		X		
Download DOT Diary App		X		
App Demonstration		X		
Receive PrEP pills		X	X*	X
Complete First Dose		X		
PrEP Adherence Counseling		X		
PrEP Navigation Services		X	X	X
Collect blood for Truvada® levels			X	X
1-on-1 Interview			X	X
Risk Reduction Counseling	X	X	X	X
Stipend	X	X	X	X

*PrEP pills will be provided at the week 4 visit if only 1 bottle was provided at enrollment

If you become HIV infected, we will refer you for care and treatment.

If you have another sexually transmitted infection during the study, we will provide counseling and will help you get treatment. We can provide treatment for gonorrhea and chlamydia here in the clinic at no cost to you. If you have syphilis, we can refer you to an SFDPH clinic for treatment and follow-up, but we cannot pay for it.

How long will I be in the study?

All study participants will be asked to take part in the study for about 8 weeks. Each study visit will take approximately 60-90 minutes. Using the app each day will take less than 5 minutes per day. In total, this study will take about 9-12 hours of your time.

How will you contact me?

We will ask you to give us information so that we can contact you to remind you of appointments that are coming up or that you missed, or to give you other important information about the study. This will include home and cell phone numbers, a mailing address, an email address, and other relevant contact information. We will contact you by the method you prefer before all of your visits to confirm the date and time of your appointment. If you miss an

appointment, we will try to contact you by any of the methods provided. You may change how the study staff contacts you at any time during the study.

By giving us your phone number, you understand that AiCure, the company that created this app, may provide a reminder alarm and may send an automated text message to this number if you are late taking your PrEP pills.

Can I stop my participation in the study?

Yes. Taking part in the study is entirely voluntary – you decide whether or not you want to be in the study. You can decide to stop at any time. Just tell the researcher or counselor right away if you wish to stop being in the study.

Also, the researcher may stop you from taking part in this study at any time if he or she believes it is better for you or if the study is stopped.

What risks can I expect from participating in this study?

Privacy Risks: You may be embarrassed or feel uncomfortable with some of the questions that you are asked during the study. You do not have to answer any questions that make you feel uncomfortable.

Although every reasonable effort has been taken, privacy during internet or phone communication cannot be guaranteed. It is possible that additional information beyond that collected for research purposes may be captured and used by others not associated with this study for unauthorized purposes.

Taking part in research may involve a loss of privacy, but your information will be handled with maximum privacy. It is possible that others may learn that you are part of this study and they may think that you are infected with HIV or are at high risk for infection with HIV. It may also be possible that someone who has access to your phone or computer may see what you enter. The most common risks we know about are family or friends worrying, getting upset or angry, or assuming that you are HIV infected and treating you unfairly as a result.

You may also feel some anxiety or discomfort from using the DOT Diary app. We will give you instructions on how to use the app during your study visits.

Risk of Overage Fees: Standard message rates apply for text messages that are sent to your personal phone. Please review your current text message plan to estimate what, if any, additional charges you may be billed for.

Risks of Pain or Discomfort: Blood will be collected from an arm vein and by finger-stick. Risks of blood draws include pain when the needle pierces the skin, fainting, bruising, and/or infection. STD testing involves minimal physical discomfort, but you may not be comfortable

having rectal and throat swabs. Being tested for STDs may also cause anxiety regardless of test results.

HIV testing risks: Being tested for HIV may cause anxiety regardless of the test results. A positive test indicates that you have been infected with the HIV virus. Receiving positive results may make you very upset. If your test is negative, there is still the possibility that you could be infected with the HIV virus and test positive at some time in the future. Also, it is always possible that the test results could be wrong.

Drug Risks: There is a risk of side effects from Truvada®. This medication is approved for daily use in HIV-negative persons for HIV prevention. The following is a list of side effects that were seen in people taking Truvada®. It is not expected that all people will have these side effects. It is possible that you could have a side effect not on the list. Please tell study staff if you have any side effects, or if you have any questions about side effects.

The following side effects have been associated with the use of Truvada®:

- Gastrointestinal problems (such as nausea, abdominal pain, diarrhea, or vomiting)
- Flatulence (gas)
- Headache
- Rash
- Dizziness, tiredness, or inability to sleep

Rare, but serious side effects include:

- Worsening or new kidney damage or kidney failure
- Bone pain and bone changes such as thinning and softening which may increase the risk of breakage
- Allergic reaction
- Lactic acidosis (build-up of too much acid in the body) and enlarged liver with fatty liver that may result in liver failure, other complications and death have been reported with the use of anti-HIV medicines alone or in combination. Some nonspecific symptoms that might indicate build-up of lactic acid include: unexplained weight loss, stomach discomfort, nausea, vomiting, fatigue, weakness, and shortness of breath. Please let the clinic know right away if you have these symptoms.
- If you have Hepatitis B and suddenly stop taking Truvada, it can cause a "flare" or worsening of your hepatitis.

HIV infection and drug resistance: If you become infected with HIV or Hepatitis B during this study there is a risk that the virus may become resistant to one or both of the medications that are in Truvada® (tenofovir and emtricitabine), or to lamivudine (a medication similar to emtricitabine). This resistance could limit your options for treatment. Also, Truvada® does not protect against other sexually transmitted diseases. We will counsel you on other ways to protect

yourself from HIV and STIs, like using condoms every time you have sex. A vaccine against Hepatitis B is available and can protect you from Hepatitis B infection.

Are there benefits to taking part in the study?

As a part of this study, you may receive up to 5 months of Truvada® as PrEP for free. The information that you provide may help improve the app and may benefit future PrEP studies and people taking PrEP for HIV prevention.

What other choices do I have if I do not take part in this study?

You are free to choose not to take part in the study. If you decide not to take part in this study, there will be no penalty to you. You will not lose any of your regular benefits, and you can still continue to take part in other studies offered by the study site.

Will information about me be kept private?

We will label most of your records with a code number, not your name or other personal information. However, it is possible for our study staff to identify you. We will not share your name with anyone who does not need to know your name.

Surveys will be entered online and saved in secure databases and will not include your name. Information saved on the app will be encrypted by the app and transmitted wirelessly to a server at AiCure where it will be stored securely. We will follow best-practice security precautions, however, it may be possible for your information to be viewed by others who are successful at breaking these measures. Audio and video recordings from the app will be erased from the app after it is transmitted to the secure server and will only be available to study staff for review. Any collected data may be processed by AiCure in order to improve the software app. Videos will be destroyed on or before January 1, 2020.

We will do our best to make sure that the personal information gathered for this study is kept private. However, we cannot guarantee total privacy. Your personal information may be given out if required by law. If you test positive for gonorrhea, chlamydia, syphilis, or HIV on a confirmatory test we are required to report the result and your personal information to your local health department. If information from this study is published or presented at scientific meetings, your name, videos or images and other personal information will not be used.

Study staff will have access to your study records. Your records may also be reviewed by groups who watch over this study to see that we are protecting your rights, keeping you safe, and following the study plan. These groups include:

- San Francisco Department of Public Health
- Emory University
- Representatives of the study protocol team, including members from RTI International, AiCure, and the University of California, San Francisco

- The University of California San Francisco, Institutional Review Board (IRB)
- The US National Institutes of Health and its study monitors
- The US Office for Human Research Protections

All reviewers will take steps to keep your records private.

To help us protect your privacy, we have obtained a Certificate of Confidentiality from the National Institutes of Health. With this Certificate, the researchers can use the Certificate to legally refuse to disclose information that may identify you, even by a court subpoena, in any federal, state, or local civil, criminal, administrative, legislative, or other proceedings.

Exceptions to Confidentiality

A Certificate of Confidentiality does not prevent researchers from voluntarily disclosing information about you, without your consent. For example, we will voluntarily disclose information about incidents such as child abuse, and intent to hurt yourself or others.

State and local regulations require that health care workers, including study staff at the clinic, report known or likely cases of child abuse, including child sexual abuse. Health care workers must report a participant's intention to harm others to the police and to the intended victim. We may also need to break privacy if a participant is a danger to himself or others. In cases of elder or dependent adult abuse, a report may need to be made to the proper authorities. Details of injuries by criminal acts, including domestic violence may also be reported. These exceptions are to help assure your safety and well-being and public safety.
If you test positive for HIV or other reportable STDs, we are required by California law to report your results to state and local health departments with your name and other identifying information, as needed.

What are the costs of taking part in this study?

You will not be charged for any of the study procedures.

Will I be paid for taking part in this study?

At the end of the first study visit you will be reimbursed $50 to cover transportation costs, any data use overage or text message fees and your time. You will also be reimbursed $75 for completing your enrollment visit and $100 at both your 4-week and 8-week follow up visits. If you complete all study visits and requirements, you will receive $325.

Participants who screen but do not enroll in the study will be provided $25 at the end of the screening visit.

What are my rights if I take part in this study?

Taking part in this study is your choice. You may choose either to take part or not to take part in the study. If you decide to take part in this study, you may leave the study at any time. No matter what decision you make, there will be no penalty to you in any way. You can still get your care from our institution the way you usually do.

We will tell you about new information or changes in the study that may affect your health or your willingness to continue in the study. In the case of injury resulting from this study, you do not lose any of your legal rights to seek payment by signing this form.

Who can answer my questions about the study?

You can talk to the researcher(s) about any questions, concerns, or complaints you have about this study. Contact the researchers, Drs. Susan Buchbinder at 415-437-7478 or Albert Liu at 415-437-7408.

For questions about your rights while participating in this study, contact the office of The University of California San Francisco IRB at 415-476-1814, by email at irb@ucsf.edu, or by mail at Institutional Review Board, UCSF, Box 0962, San Francisco, CA 94143.

CONSENT FOR FUTURE CONTACT

You may also want to be contacted to possibly participate in additional research studies in the future.

To do this we will need your permission. Please read the following statement carefully and then circle YES or NO. No matter what you decide, it will not affect your healthcare or your participation in the study.

> *"Someone may contact me in the future to ask me if I want to participate in other research."*

YES	NO

STUDY PARTICIPATION CONSENT

You have been given a copy of this consent and the Experimental Subjects Bill of Rights for you to keep. You will be asked to sign a separate form authorizing access, use, creation, or disclosure of health information about you.

PARTICIPATION IN THIS RESEARCH IS VOLUNTARY. You have the right to refuse to participate or to withdraw at any point during this study without penalty or loss of benefits to which you are otherwise entitled.

If you wish to participate in this study, please sign below.

_____
Volunteer's Name (typed or printed)

_____ _____ _____
Volunteer's Signature *Date* *Time*

_____
Person Obtaining Consent's Name (typed or printed)

_____ _____ _____
Person Obtaining Consent's Signature *Date* *Time*