Distribution Agreement

In presenting this thesis or dissertation as a partial fulfillment of the requirements for an advanced degree from Emory University, I hereby grant to Emory University and its agents the non-exclusive license to archive, make accessible, and display my thesis or dissertation in whole or in part in all forms of media, now or hereafter known, including display on the worldwide web. I understand that I may select some rights to the copyright of the thesis or dissertation. I also retain the right to use in future works (such as articles or books) all or part of this thesis or dissertation.

Signature:

_____	20th April 2022
Amy Large	Date

A Comparative Analysis of National and State-Level Pre-Exposure Prophylaxis (PrEP) Communications in the United States

By

Amy Large

Master of Public Health

Hubert Department of Global Health

Kate Winskell, PhD

Committee Chair

Gaëlle Sabben, MPH

Committee Co-Chair

A Comparative Analysis of National and State-Level Pre-Exposure Prophylaxis (PrEP) Communications in the United States

By

Amy Large

B.S., Georgia Institute of Technology, 2019

Thesis Committee Chair: Kate Winskell, PhD

Committee co-Chair: Gaëlle Sabben, MPH

An abstract of

a thesis submitted to the Faculty of the

Rollins School of Public Health of Emory University

in partial fulfillment of the requirements for the degree of

Master of Public Health

in the Hubert Department of Global Health

2022

Abstract

A Comparative Analysis of National and State-Level Pre-Exposure Prophylaxis (PrEP) Communications in the United States

By Amy Large

The United States is home to around 1.2 million people living with HIV. In July 2012, the Food and Drug Administration (FDA) approved pre-exposure prophylaxis (PrEP), a daily antiretroviral pill to reduce HIV risk among populations at high risk of becoming infected. Despite its proven effectiveness in preventing HIV, PrEP is only taken by 23 percent of the eligible population. To address this issue, PrEP communication campaigns have been created both by local and national organizations to increase awareness and use of PrEP. This study was conducted to better understand the characteristics of existing PrEP communication material as well as the similarities and differences between national and state-level communications.

Five states – [Washington, California, Maine, Iowa, and Georgia] - were selected on account of their geographic, cultural, and epidemiological diversity. A systematic internet search identified one hundred posters and public service announcements. Using Microsoft Excel, the materials were assessed in relation to 7 communication material characteristics: Tone of Communication (formal, informal, positive, and neutral), Color Scheme (photo background, video testimonial, monotone, brightly colored, and primary-colored), PrEP or Prevention Mentioned, and Audience Demographics, i.e., Ethnicity, Gender, Sexual Identity, and Age. These 100 communications were then analyzed comparatively using MAXQDA software, focusing on the behavioral constructs implemented in the communication materials and comparing similarities and differences based on their place of origin.

National communications were found to be more comprehensive than state-specific communications in terms of the audience characteristics they targeted. The target audiences reflected in national communications were more inclusive of minority populations. National communication materials leveraged a greater number of constructs drawn from behavioral theories compared to state-specific communications.

Overall, this study identified areas for improvement when creating tailored communications for both national and state-specific levels. Increased PrEP communications that target specific and particularly at-risk populations in addition to utilizing a greater number of behavioral constructs could support improved PrEP-related awareness, knowledge, attitudes, and behaviors. These findings will provide a starting point for future health communications research to promote PrEP use.

A Comparative Analysis of National and State-Level Pre-Exposure Prophylaxis (PrEP) Communications in the United States

By

Amy Large

B.S., Georgia Institute of Technology, 2019

Thesis Committee Chair: Kate Winskell, PhD

Committee co-Chair: Gaëlle Sabben, MPH

A thesis submitted to the Faculty of the

Rollins School of Public Health of Emory University

in partial fulfillment of the requirements for the degree of

Master of Public Health

in the Hubert Department of Global Health

2022

ACKNOWLEDGMENTS

First and foremost, I would like to thank my thesis committee for their time, support, and feedback throughout this entire process. I appreciate all the efforts that Dr. Kate Winskell and Ms. Gaëlle Sabben have put into reviewing my thesis as well as their ideas to push me further in thinking critically on this project. I could not have completed this study without your support and guidance.

Finally, to my family and friends, I could not have done it without your support. I am grateful for the many late-night coffee runs and conversations that have allowed me to talk through my thought process as I have undertaken this journey.

Table of Contents

INTRODUCTION

Rationale:

The United States is home to around 1.2 million people living with HIV, 13 percent of whom are unaware that they are living with HIV and have never been tested (Centers for Disease Control and Prevention, 2021). Since the peak of the HIV/AIDS epidemic in the 1980s, the annual rate of new diagnoses has reduced from an estimated rate of 19.07 per 100,000 to 12.6 per 100,000 people, and total new HIV diagnoses have decreased from a high of 150,000 in 1987 to 34,800 in 2019 (Karon *et al*.,2001; Centers for Disease Control and Prevention, 2001 and Centers for Disease Control and Prevention, 2021). Despite the reduction in cases, African American and Hispanic/Latinx communities are disproportionately affected by HIV. African Americans account for 39.8 percent, and the Hispanic/Latinx population accounts for 25 percent of HIV diagnoses (AIDSVu, 2019). Men who have sex with men (MSM) are another population that is disproportionately affected. The MSM population accounts for 69 percent of new HIV cases. The Centers for Disease Control and Prevention (CDC) has found that African American MSM account for 25 percent of overall new HIV diagnoses, followed by Hispanic/Latinx MSM (21 percent). The South has the highest rate of new cases and the highest prevalence of HIV (AIDSVu, 2021). The South is known to have high poverty rates, some of the lowest median household income levels, and some of the highest rates of people living without health insurance, all factors which are believed to exacerbate the prevalence of HIV (DeNavas, 2010).

The geographic discrepancies in new diagnoses as a proportion of the population can be attributed to a multitude of reasons such as stigma, socioeconomic factors, and more prominent African American and Hispanic/Latinx populations (Adimora *et al*., 2014). The majority of the southern states have criminal laws pertaining to people who live with HIV and have prosecuted

people under these laws. Some of these laws include felony charges for failing to disclose HIV status or donating blood, organs, or other human tissues when living with HIV. In some states, people living with HIV can also face prosecution for exposing others to bodily fluids or sharing syringes; however, the law does not specify whether exposure must be intentional to face prosecution (AIDSVu, 2020).

To mitigate the effects of the HIV epidemic, the United States has created six indicators to measure the status of the epidemic, allowing for coordination of better responses and policies regarding HIV. Pre-exposure prophylaxis, also known as PrEP, coverage is one of these six indicators. In July 2012, the Food and Drug Administration (FDA) approved PrEP to reduce HIV infection risk (Burns *et al.,* 2014). PrEP is a daily prophylactic antiretroviral pill utilized to prevent HIV. People who are HIV-negative but are at medium to high-risk of HIV exposure are eligible to take PrEP as a prevention method (U.S. Department of Health and Human Services, 2021). The World Health Organization (WHO) has defined people deemed at substantial risk of contracting HIV as being "priority populations". This includes sex workers, men who have sex with men (MSM), and people who use needles for drug injections (World Health Organization, 2020). PrEP has been proven to be 99 percent effective when taken as prescribed in reducing the chances of getting HIV from sex and 74 percent effective in reducing the chances of getting HIV from injection drug use when taken as prescribed (Centers for Disease Control and Prevention PrEP, 2021). Since PrEP was approved by the FDA, the annual number of users prescribed PrEP in the US has increased from 821 to 29,799 and is considered one of the contributing factors to the 10 percent decrease in new HIV diagnoses (Song *et al.,* 2020). Despite the proven effectiveness, PrEP is only taken by 23 percent of the eligible population. In order to be

considered eligible for PrEP, people must be at least 13 years old, weigh 75 pounds minimum, and be at medium to high risk for HIV exposure via sex or injection drug use (CDC PrEP, 2021).

Communication surrounding PrEP has been focused on the aforementioned target populations to increase PrEP awareness and promote PrEP use among those most at risk for HIV. For PrEP usage to increase, communication materials must be effective. Some effective communication characteristics are (1) targeting a specific audience to optimize engagement with the communication and (2) using language that the audience can understand (DeMartino, 2009). These strategies allow viewers to better relate to the campaign as not only can they visualize themselves performing the behavior, but they are also able to understand the information and messages the materials are communicating.

PrEP communications have taken the form of digital marketing campaigns, using posters and fliers, as well as YouTube video campaigns. They have been created by various public health organizations and government organizations on the local, state, and federal levels. The goal of these communications is not only to increase awareness of PrEP and how it can prevent HIV, but also to educate people on the importance of consistently taking PrEP in order for it to remain effective.

PrEP communications will also vary depending on the state demographics, politics, and priority HIV communications are given. States individually determine the budget for communication campaigns; as a result, some states will allocate more funds to HIV communication than others. Therefore, state-specific campaigns will differ in the quality and quantity of communication materials. This research project aims to analyze various communication materials related to PrEP and examine if region plays a role in the PrEP communications created.

Problem Statement:

Pre-exposure prophylaxis (PrEP) is a prevention method that has proven to be effective in mitigating the risk of contracting HIV if exposed. Despite this proven effectiveness, PrEP is only taken by 23 percent of the eligible population. It is estimated that over one million people in the United States would benefit from utilizing PrEP, yet only 227,046 people are documented as using it (AIDSVu, 2019, CDC PrEP, 2021). There is minimal guidance on how to design PrEP communication materials to optimize effectiveness.

Purpose Statement:

This study seeks to provide recommendations on how to improve PrEP communication materials by assessing existing materials with reference to communication best practices to identify characteristics, strengths, and weaknesses of national and state-specific PrEP posters and PSAs. The main objective is to identify characteristics that are most likely to be effective based on principles of best practice in the context of a review of the collected posters and PSAs. This paper will apply behavioral constructs, targeting by audience demographics, and design characteristics addressed in other communications research to a range of communication posters and PSAs about PrEP, identifying promising approaches to communication messaging and potential areas of improvement in the posters and PSAs collected.

Significance Statement:

To increase the number of PrEP users, effective campaign communications and PSAs must be created targeting people who are at high risk of contracting HIV, highlighting the importance of PrEP usage, the benefits of taking PrEP, and PrEP accessibility. In order to do this, however, communication strategies with a solid evidence base for effectiveness must be identified and implemented when designing the posters and PSAs. This paper aims to address the

knowledge gap in public health communication strategies regarding the promotion of PrEP uptake and provide recommendations for those designing communication materials and implementing communication strategies.

LITERATURE REVIEW

HIV and PrEP Prevalence:

In 2019 over 1 million people in the United States were living with HIV, with a rate of 13 people per 100,000 being newly diagnosed annually (AIDSVu, 2019). PrEP usage has increased over the years; however, it is estimated that less than 25 percent of the eligible population takes PrEP (Office of Infectious Disease and HIV/AIDS Policy, 2022). In 2019, the highest percentage of those newly diagnosed with HIV were males, African Americans, and people aged 25-34 years (AIDSVu.org, 2019). CDC classifies MSM, transgender women who have sex with men, African American, and Hispanic/Latinx populations to be at high risk as they are disproportionately affected by HIV (CDC, 2019). Many barriers have been identified as contributing to the limited uptake of PrEP. These are access to PrEP, knowledge of PrEP, and stigma surrounding PrEP and HIV. To combat these issues, several organizations such as CDC, HIV.org, and various local and state departments of health have created PrEP communication and HIV prevention campaigns.

History of PrEP:

PrEP is an HIV prevention method approved by the FDA in 2012 after two years of clinical trials. However, it was not until 2014 when the CDC provided guidelines about who was eligible for PrEP, and 2015 when WHO released recommendations surrounding PrEP use (Elion & Coleman, 2016). After approval, researchers investigated ways to implement and scale-up PrEP and identified barriers to this process. Major obstacles to implementation and scale-up were that people needed to view themselves as people who were at risk for HIV and eligible for PrEP, that doctors needed to be able to recognize when PrEP should be mentioned as a preventative

measure to their patients, and the fact that PrEP is a pill that needs to be taken daily in order to be effective in preventing HIV (Elion & Coleman, 2016). Since the approval of PrEP as an HIV prevention method, PrEP communications have been created at a national and state level to combat these barriers. Trainings and doctor-specific communications have also been designed to improve doctors' recognition of when to prescribe PrEP (Elion & Coleman, 2016). Over the years, PrEP communications have evolved to incorporate the latest knowledge surrounding PrEP, but there is little research on if the communications have been successful.

Barriers to PrEP Use:

Access to PrEP

In order for people to take PrEP, they need to receive a prescription from a doctor and test negative for HIV; both stipulations are factors in creating significant PrEP usage barriers. A study by Pinto *et al.* (2018) showed that people's type of insurance plays a role in their ability to obtain PrEP as the cost varies based on insurance coverage. Insurance also contributes to the cost of doctors' visits and HIV tests. If people cannot afford to see a doctor or test for HIV, they cannot access PrEP. In this study, people that did not have insurance or could not pay the remainder of the balance after insurance were provided information about PrEP access programs. These programs, such as nationwide Ready Set PrEP, discussed where people could go to receive PrEP prescriptions, get tested for HIV, and methods to pay for PrEP. Although Pinto et al. found that these programs increase access to PrEP, limited budgets create program sustainability issues, further decreasing access to PrEP (Pinto *et al.,* 2018).

Doctors' specializations also contributed to the number of prescriptions given. People who specialize in HIV care and prevention are more likely to prescribe or discuss PrEP as a prevention option compared to primary care providers (Turner *et al.,* 2018). However, the

majority of the population will see a primary care provider when seeking PrEP due to cost issues and the limited availability of PrEP clinics.

Knowledge of PrEP

For PrEP to be used, people who are eligible need to be aware of what PrEP is, how to use it, and how to access it. A systematic review conducted on people's awareness of PrEP found that many who did not identify as part of the MSM population were unaware that they were eligible for PrEP (Auerbach *et al.,* 2015). Further contributing to these issues, HIV prevention was not discussed with their doctors, nor were patients provided with information about PrEP. Furthermore, people who knew about PrEP were not aware of how often PrEP should be taken or how they could start the process of accessing PrEP. Although some PrEP communications answered these questions, not everyone had access to the communications.

Stigma

A multitude of studies have been conducted to understand the stigma surrounding HIV and PrEP. A contributing factor identified in these studies to the limited communications was the stigma surrounding HIV and ways to prevent HIV. For certain communities, such as adolescents and religious groups, communications were limited as people did not want to discuss HIV and sexual activity (Pinto *et al*., 2018). One particular study found that most people viewed the primary sources of stigma surrounding people who take PrEP to be related to homophobia (Chittamuru *et al.,* 2019). Due to these stigmas, people were less likely to undergo HIV testing and talk to their doctors about taking PrEP. Another result of stigma is that certain doctors were not having conversations about HIV testing and prevention with their patients, contributing to the lack of PrEP prescriptions. The lack of conversations resulted from doctors not always being aware of PrEP and not wanting to discuss PrEP as an option for HIV prevention with their

patients. Depending on the patient's age, doctors were less willing to prescribe PrEP. It was found that adolescents (13-17) and young adults (18-26) were the least likely to be prescribed PrEP and to be made aware that PrEP was a method for HIV prevention (Hart-Cooper *et al*., 2018). Some of the hesitation to prescribe PrEP is believed to result from not wanting to discuss sexual activity in relation to preventing HIV, especially with adolescents (Hart-Copper *et al*., 2018).

Evidence of Campaign Effectiveness:

There have been minimal studies conducted on the effectiveness of PrEP communications; however, campaign effectiveness has been studied for other behavior change communications. Those studies have identified important characteristics of well-designed materials to promote behavior change. A study by Friedman *et al.* (2016) looked at factors that supported communication campaign effectiveness and found that campaigns that demonstrated rationale for behavior change, such as tobacco cessation, resulted in higher efficacy. Furthermore, campaigns focused on specific, targeted audiences and rooted in behavioral change theory were more likely to incite the desired behavior change (Friedman *et al.,* 2016). Another vital aspect to be considered when aiming to maximize campaign effectiveness is the mode of communication as well as how widespread the communication's reach is. The more frequently the communication is shown and the larger the audience reached correlates to more individuals potentially having greater exposure to the desired behavior change message.

For this reason, digital media communications such as PSAs are preferred to printed communications as they have the potential for greater reach and the potential to be seen more frequently than printed campaigns (Friedman *et al*., 2016). A suggested way to combat the limited frequency of exposure to printed campaigns was to utilize multiple platforms to display

the communication message. Using social media and printed materials increased the availability of the message to the general public and increased the number of people who saw the communication campaign (Friedman *et al.,* 2016). Two additional factors that further contributed to campaign effectiveness were the behavioral constructs incorporated into the campaigns as well as the targeting of specific populations to maximize audience engagement.

Behavioral Constructs:

The Health Belief Model incorporates key behavioral constructs that promote audiences' engagement with health communications (Rosenstock, 1966). It has been argued that the more Health Belief Model constructs included in health communications, the more effective the communication is at promoting behavior change (Carpenter, 2010). Certain constructs are deemed essential when communicating about risky behaviors. In order for behavior change to be successful, the audience must believe they have a high chance of getting the mentioned disease or condition (perceived susceptibility). If the audience does not think they are at risk for the disease, they will not adopt the behavior (Champion & Skinner, 2008).

Similarly, the audience must believe they can adopt the desired behavior (self-efficacy) and that the benefits of changing their behavior outweigh inaction (perceived benefits). In addition to the Health Belief Model's constructs, it was found that incorporating accessibility of resources that promote the behavior change and specific examples of the behavior to be modeled promoted further prompted behavior change (Collins & Obregon, 2000). Mentioning access to resources enabled the audience to learn more about the desired behavior change, such as how they could afford prevention measures and where they could go to receive PrEP or resources to afford PrEP. For communications that did not include this information, people self-reported being less likely to enact the behavior change (Houts *et al*., 2006; Collins & Obregon, 2000).

Audience Demographics:

Targeted communications have been found to be more effective as audience engagement with communications is increased (Kreuter & Wray, 2003). By including specific populations, such as focusing on groups of a specific ethnicity, gender, sexual identity, age, and location, people can identify with campaigns and are more likely to pay attention to the desired behavior change. While targeted communications are ideal, non-targeted campaigns can still be effective as they are not definitively excluding populations (Kreuter & Wray, 2003). Sophus and Mitchell's systematic review discovered that campaigns with multiple communications targeted to specific populations increased awareness about the desired behavior change as measured by pre and post questionnaire results (2018). Non-targeted campaigns also increased behavior change awareness but not at the same rate as targeted campaigns. One suggestion was to implement targeted communications to reach the at-risk groups while also creating non-specific communications to reach the general population. Houts *et al*. (2006) found that the best way to increase audience engagement and target the audience was to use photos or videos. Visuals attracted the audience's attention more often than communications that only included text, as images are easy for people to identify with.

Selection of States for this Study:

Mouhanna *et al*. (2020) recommend in a past study that when analyzing communications, materials from each region should be collected and analyzed to better understand how state and regional demographics play a role in communication strategies and audience targeting. Following this recommendation, HIV prevalence, the prevalence of PrEP users, and the demographics of those who are living with HIV were all considered to determine what states would be included in this analysis to ensure representation across a range of states (Table 1).

Location	**HIV Prevalence (per 100,000)**	**PrEP Users (per 100,000)**	**Percentage of people living with HIV who are African American**	**Percentage of people living with HIV who are Hispanic/Latinx**	**Percentage of people living with HIV who are Caucasian**
National	380	81	39.8%	25%	28.7%
Washington	219	≥ 100	16.7%	16.2%	55.3%
California	401	≥94	16.4%	38.8%	36.2%
Maine	141	≥41	17.8%	7%	71.6%
Iowa	110	≥56	22.7%	10.5%	59%
Georgia	639	≥73	68.5%	7.9%	17.7%

Table 1: HIV and PrEP Statistics from *2019 AIDSVu Data*

PrEP education was another factor in deciding what states would be selected. When comparing PrEP education by region in the United States, one study found that the Northeast scored the highest, followed by the South and then the West. The Midwest scored the lowest on all aspects pertaining to PrEP education (Bunting *et al*., 2020). This does not reflect the prevalence of PrEP use in the states of those regions, as California and Washington (West) have

the highest prevalence of PrEP users, followed by Georgia (South), then Iowa (Midwest), then Maine (Northeast).

Researchers in a 2018 study analyzed the availability of PrEP clinics based on various factors. The study found that the majority of the United States had less than one clinic that provided PrEP per 100,000 people. Washington and Maine were above the national average with 2.2 clinics per 100,000, California had one clinic per 100,000, and Iowa and Georgia both had 0.4 clinics per 100,000 (Siegler *et al*., 2018). States were ranked into quintiles based on the ratio of PrEP clinics to HIV diagnoses as well as the ratio of clinics to size of the PrEP-eligible population. These rankings found that Washington and Maine were in the first quintile for the ratio of clinics to both HIV diagnosis and eligible population. Iowa was in the second quintile for the ratio of clinics to HIV diagnosis but in the third quintile for the ratio of clinics to PrEP eligible population. California was in the third quintile for the ratio of clinics to both HIV diagnosis and eligible population, while Georgia was in the bottom percentile for both (Siegler *et al*., 2018).

Summary of Current Problem and Study Relevance:

A discrepancy between people who are eligible for PrEP versus the people who actually take PrEP has been noted by the CDC and HIV.gov. HIV.gov is an organization that is a part of the U.S. Department of Health and Human Services focusing on increasing awareness about HIV/AIDS. Minimal knowledge surrounding PrEP communications and their overall effectiveness in increasing the uptake of PrEP may be contributing to this phenomenon. Studies have been conducted on campaign effectiveness for other health behaviors, and the factors linked to effectiveness in these studies will be used to analyze the collected PrEP communications. This

study is being conducted in hopes of providing recommendations on optimal components of future behavior change communications around PrEP.

METHODS

Data Collection Methods:

Data consisting of PrEP-related public service announcements (PSAs) available on YouTube and posters on the websites of federal, state, local government, and public health organizations were collected from national campaigns and five states with varying HIV prevalence rates (Table 1) according to the 2019 United States HIV Prevalence Map (AIDSVu, 2019). These states were Georgia (GA), California (CA), Washington (WA), Maine (ME), and Iowa (IA).

Collection of materials occurred over two months using a standardized set of search terms and a set period for when the materials were produced. The eligibility period was from 2012 to 2021, as 2012 was when the FDA approved PrEP usage in the United States (Burns 2014). From September 27th, 2021, to October 20th, 2021, preliminary data was gathered using predetermined search terms for consistency and to minimize bias (Table 2). Based on the previous data collected, search terms used a priori were determined to be too narrow as they produced very few results. A greater number of search terms were used to fix this issue, and the search terms became more specific to target the various campaign materials that met the inclusion criteria. Data collection continued from October 22nd, 2021, to November 20th, 2021.

.

A Priori Search Terms – Used September 27th – October 20th	**Refined Search Terms – Used October 22nd – November 20th**
HIV PSAs PrEP	HIV prep communication flyers
HIV Iowa PrEP PSAs	HIV prep communication posters
HIV California PrEP PSAs	Maine HIV PrEP campaigns
HIV Washington PrEP PSAs	California HIV PrEP campaigns
HIV Georgia PrEP PSAs	Washington HIV PrEP campaigns
HIV Maine PrEP PSAs	Georgia HIV PrEP campaigns
	Iowa HIV PrEP campaigns
	HIV PrEP PSAs
	HIV PrEP campaign materials

Table 2: *A Priori and Refined Search Terms*

Inclusion criteria for analysis were nationwide and state-specific (Maine, Georgia, Iowa, Washington, and California) posters or PSAs that mentioned PrEP or HIV prevention (e.g., HIV chill pill). Materials that did not meet the inclusion criteria were excluded. Using these inclusion criteria, 133 materials (33 PSAs plus 100 posters) were collected. Of the 133 materials collected, 33 were excluded leaving 100 PSAs and posters to be analyzed (Figure 1).

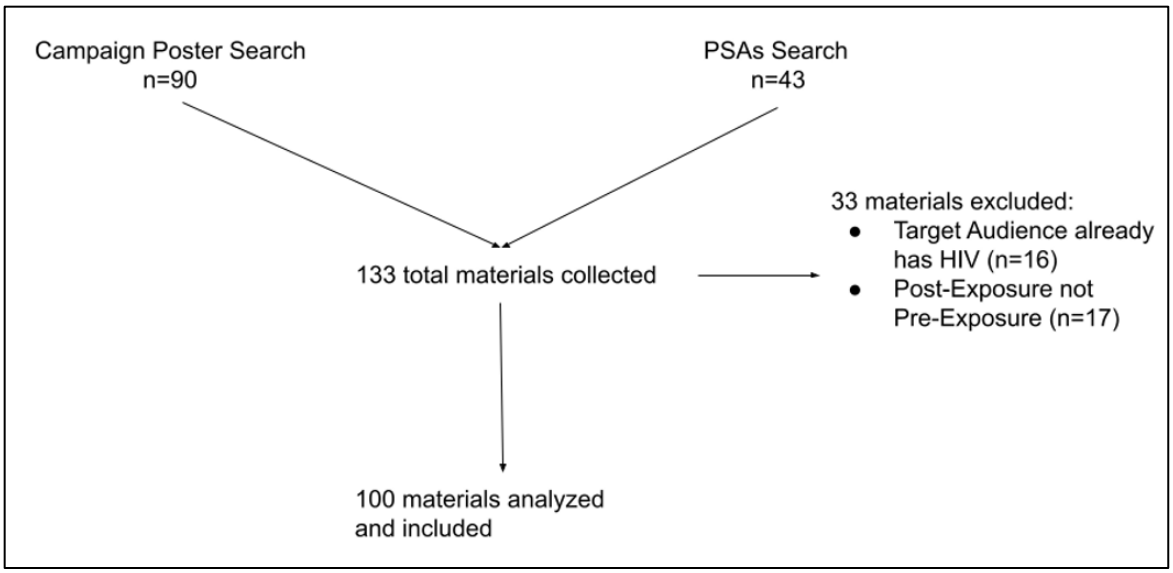


Figure 1: *Search Results Inclusion and Exclusion Criteria*

As this study is a review of communication materials in the public domain and no research interaction between data collector and human subject occurred, this did not meet the criteria for human subjects' research and IRB approval was not sought.

Data Analysis Methods:

Using content analysis approaches, communication posters and PSAs were coded and analyzed in MAXQDA. A codebook was created with seven codes that were based on behavioral constructs used in communications (Rosenstock, 1966; Collins & Obregon, 2000). An example of the code is "Perceived Benefits," which was used when there was any mention of benefits from using PrEP, such as reducing the risk of HIV. Posters and PSAs were divided into Document Sets in MAXQDA based on the location of the communication; the sets were as follows: National, Washington, California, Maine, Iowa, and Georgia.

Data was also input into Excel to stratify and analyze additional variables found in the document sets. Seven other variables were collected: Tone of Communication (formal, informal, positive, and neutral), Color Scheme (photo background, video testimonial, monotone, brightly colored, and primary colored), PrEP or Prevention Mentioned, Audience Demographics (i.e., Ethnicity, Gender, Sexual Identity, and Age). Variables were categorized based on observed characteristics in the communications. Tone of Communication was determined based on Nielsen Norman's "Four dimensions of Tone of Voice" (Moran K., 2016). Color scheme was broken down into different categorical variables based on the background of campaign posters and PSAs.

Explicit mention of PrEP or prevention was categorized as a yes/no, while audience demographics were classified into several groups. Ethnicity was categorized as African American, Hispanic, Caucasian, Asian American, Indigenous, and not mentioned. If only one ethnicity was mentioned, it was categorized as that ethnicity only and if multiple ethnicities were included, they were categorized with all ethnicities mentioned. Gender was categorized as male only, female only, male and female, transgender, and not mentioned. Sexual Identity was broken

down into implied sexual identity and explicitly mentioned sexual identity and included MSM, women who have sex with women, opposite gender, both same and opposite gender, and not mentioned. Age was divided into four categories: Adolescent (13-17), Adults (18-64), Older Adults (65+), and not mentioned.

RESULTS

General PrEP Communication Composition and Design:

One hundred different PrEP communication materials were collected and divided between two groups, Campaign Posters (n = 73) and Public Service Announcements (n =27) based on their medium (Appendix A and B). These groups were then further stratified based on location, i.e., national, or specific to one of the states (Table 3). While campaign posters were found for each selected state, PSAs were only found at the national level or specific to Washington state.

	Total	**National**	**Washington**	**California**	**Maine**	**Iowa**	**Georgia**
Total Number of Communication Materials	100	64	17	12	4	2	1
Number of Campaign Posters	73	42	13	12	4	1	1
Numbers of PSAs	27	22	4	0	0	1	0

Table 3. *PrEP Communication Material Distribution*

The main organizations that created these materials were CDC partnered, with Ready Set Prep, Let's Stop HIV Together and Ending the HIV Epidemic (n =51), HIV Chill Pill (n=13), various state and local departments of health (n= 12), and the HIV.gov I'm Ready Campaign (n = 11). The remaining posters and PSAs were created by multiple smaller organizations (n=13),

eight of which were non-profits: Greater than Aids, Please PrEP Me, and San Francisco AIDS Foundation. The remaining five (What is PrEP, PrEP Iowa, and PrEP Access Assistance Program) did not mention what type of organization they were. Despite 98 percent (n=98) of the materials including the word "PrEP" or "pre-exposure prophylaxis", only 90 percent (n=90) mentioned that PrEP is used to prevent HIV. Thirty-eight percent (n=38) of the communication materials mentioned that PrEP was a pill that should be taken daily.

PrEP communication materials were classified into formal tone (n=38) and informal tone (n=62) based on the language included in the posters and PSAs. Materials classified as informal could also be categorized as positive (n=26) or neutral (n=36) depending on the color scheme, text, and images. The same classification was used for both posters and PSAs. Formal tone communications included phrases such as "Talk to your doctor to see if PrEP is right for you" or "PrEP is a pill that is taken once a day to prevent HIV" (Appendix D). Informal communications used phrases such as "Keep it real, take PrEP" or "I take PrEP and I'm ready" (Appendix C). Positive tone was expressed through brightly colored posters, with images or videos of people smiling, as well as empowering phrases such as "This is my saving grace" and "become your own superhero" (Appendix D). Neutral tone was demonstrated through a lack of images and language that simply communicated the information "Reduce your risk of HIV" (Appendix D).

Among national-level communications, 44 percent (n=28) used a formal tone and 56 percent (n=36) an informal tone. Of the 36 informal tone communications, 19 percent (n=7) used a positive tone and 81 percent (n=29) a neutral tone. Washington's communications were 35 percent (n=6) formal in tone, 65 percent (n=11) informal, 73 percent of the informal communications (n=8) had a positive tone and 27 percent (n=3) had a neutral tone. California's communications were 8 percent (n=1) formal in tone, 92 percent (n=11) informal, 64 percent of

the informal materials (n=7) had a positive tone and 36 percent (n=4) had a neutral tone. One hundred percent (n=4) of Maine's materials were informal and positive in tone, whilst both Iowa (n=2) and Georgia (n=1) were 100 percent formal in tone.

Tables 4 and 5 illustrate the color schemes implemented in the communication materials. Eleven percent of the materials were brightly colored (n=11), with six of them being posters and five PSAs. Twenty percent (n=20) were monotone; of these, 17 were posters, and three were PSAs. Seventeen percent were primary color materials, with all of them being posters. Over 50 percent of the materials (n= 52) utilized a photo background; of these, 33 were posters and 19 were PSAs.

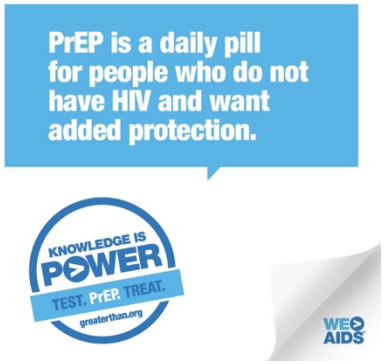
Brightly Colored: (CDC SheisWell, 2021)	Monotone: (GreaterthanAids, 2020)
	
Photo Background: (Our Sexual Revolution, n.d.)	Primary Colors: (Ready, Set, PrEP Resources, 2021)
	

Table 4. *Color Schemes of PrEP Communication Posters*

Brightly Colored: (CDC SheisWell,2021) 
Monotone: (HIV ChillPill, 2018) 
Video Background: (CDC, 2017) 

Table 5. *Color schemes of PrEP PSAs*

Table 6 presents the various color schemes used by the PrEP PSAs and campaign posters.

	Total	National	Washington	California	Maine	Iowa	Georgia
Color Scheme							
Number of Communications	**n=100**	**n=64**	**n=17**	**n=12**	**n=4**	**n=2**	**n=1**
Posters							
Photo Background	23	14	9	10	0	0	0
Brightly Colored	6	2	0	0	4	0	0
Monotone	17	12	1	2	0	1	1
Primary Colors	18	14	3	0	0	1	0
PSAs							
Video Testimonial	19	15	3	0	0	1	0
Brightly Colored	5	5	0	0	0	0	0
Monotone	3	2	1	0	0	0	0

Table 6. *PrEP Communication Material Color Scheme Distribution*

Images or video testimonials from people were the predominant approach, although Maine, Iowa, and Georgia did not employ this strategy. Brightly colored materials were adopted in a total of 11 material (6 posters and 5 PSAS) with only national campaigns and the state of Maine utilizing this color scheme. Maine was also the only state not to use any other color schemes. All the posters that were classified as primary colors were federal, Washington, or Iowa state government campaigns, as well as the I'm Ready Campaign from HIV.org.

PrEP Communication Material Demographics:

The communication materials (n=100) were also categorized into different audience demographics: ethnicity, gender, sexual identity, and age, and stratified based on location.

Ethnicity

Table 7 presents the various target audiences of the communication materials based on ethnicity; they are further categorized based on the communication dissemination location.

	Total	National	Washington	California	Maine	Iowa	Georgia
Ethnicity							
Number of Communications	**n=100**	**n=64**	**n=17**	**n=12**	**n=4**	**n=2**	**n=1**
African American only	31	20	6	3	2	0	0
Hispanic only	8	3	3	2	0	0	0
Caucasian only	5	3	1	0	0	1	0
African American and Hispanic	4	4	0	0	0	0	0
African American and Caucasian	2	1	1	0	0	0	0
Hispanic and Caucasian	4	1	0	2	1	0	0
African American, Hispanic, and Caucasian	13	9	0	2	1	1	0
African American, Hispanic, Caucasian, and Asian American	4	4	0	0	0	0	0
Indigenous	1	1	0	0	0	0	0
Not mentioned	28	18	6	3	0	0	1

Table 7. *PrEP Communication Material Ethnicity Demographics*

Majority of the communications included photos or text referencing African Americans as a target population for PrEP (n= 54), with only Georgia not having a specific communication for the African American population. Photos or text targeting a Hispanic/Latinx population were

the next most common group of materials (n=33), followed by pictures or text targeting a Caucasian population (n=28). Asian Americans and Indigenous people were only referenced as the target audience of five communication materials (n=4 and n=1, respectively) and both only in national campaigns. Certain communication materials (n=28) did not include photos or reference a specific target population, hence could not be classified. Of the 28 materials with no referenced population, 27 were posters and one was a PSA.

National PrEP communications were the only ones that referenced all target populations included in the table, as they were the only ones to include Indigenous populations as well as Asian American populations. Unlike the national materials, Washington's materials primarily focused on single populations instead of addressing multiple populations in one communication; this was done by having the same communication campaign with different versions for different audiences. California's differed from other materials as the Hispanic/Latinx population was referenced in the majority of their materials compared to the other states predominately targeting African American populations. Iowa was the only state to primarily focus on only the Caucasian population, as this population was targeted in both their poster and PSA. Georgia did not reference any specific ethnicity in its campaign poster.

Gender

Communications were divided based on the targeted gender referenced either in images or in text (Table 8).

	Total	National	Washington	California	Maine	Iowa	Georgia
Gender							
Number of Communications	**n=100**	**n=64**	**n=17**	**n=12**	**n=4**	**n=2**	**n=1**
Male only	40	26	7	5	2	0	0
Female only	13	9	3	1	0	0	0
Male and Female	21	11	2	3	2	2	1
Non-Binary	2	2	0	0	0	0	0
Transgender	2	2	0	0	0	0	0
Not mentioned	22	14	5	3	0	0	0

Table 8. *PrEP Communication Material Gender Demographics*

PrEP communications primarily focused on a male audience (n=61) as they were the direct target of the communication as seen in the images and included text. Females were a secondary target audience (n=33) as references in pictures and text were predominantly male with females as a minor subset. “Condoms can also be a way to prevent HIV” was a common phrase in communications that included females in the targeted communication. Communications not explicitly referencing any gender made up 22 percent of the communications (n=22). A small percentage of communications targeted a non-binary and transgender community (n=2 for each population). Several communications did not specify specific people who could take PrEP in images or in text, hence could not be classified by target gender. National communications were the only materials to incorporate non-binary and

transgender populations (Figure 2) (Prevent HIV Your Way CDC, n.d).

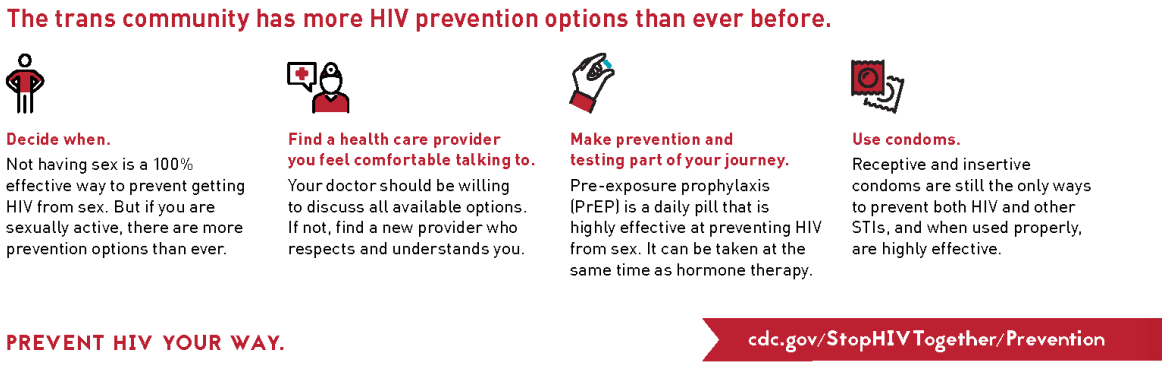


Figure 2. *Example of National Campaign Poster for Transgender Population*

Fifty-eight percent (n=37) of the national communications included men as a target population and 31 percent (n=20) included women as a target population (Figure 3) (Ready, Set, PrEP HIV.gov, n.d.). Similarly, 53 percent (n=9) of Washington's materials included males (Figure 4) (HIV ChillPill, n.d.) and 29 percent (n=5) included females. Two-thirds of California's communications included males and another third included females (Figure 5) (CDC Let's Stop HIV Together, 2021). Maine had half of the materials include males and females, and the other half focused specifically on males. Both Iowa and Georgia included males and females in all of the communications.

Figure 3. *Example of National Campaign Poster for Female and Transgender Female Population*

Figure 4. *Example of Washington Campaign Poster for Male Population*

Figure 5. *Example of National Poster for Male and Female Population*

Sexual Identity

In the various communication materials, sexual identity was either implied, explicitly stated, or not mentioned at all (Table 9).

	Total	National	Washington	California	Maine	Iowa	Georgia
Sexual Identity							
Number of Communications	**n=100**	**n=64**	**n=17**	**n=12**	**n=4**	**n=2**	**n=1**
Implied MSM	9	7	0	0	2	0	0
Explicit MSM	5	4	1	0	0	0	0
Implied same gender	5	3	0	1	0	1	0
Implied either same or opposite gender	2	0	0	2	0	0	0
Implied opposite gender	4	2	0	0	2	0	0
Explicit both same and opposite gender	3	2	0	0	0	0	1
Not mentioned	72	46	16	9	0	1	0

Table 9. *PrEP Communication Material Sexual Identity Demographics*

In the various communication materials, sexual identity was either implied, explicitly stated, or not mentioned at all (Table 9). Seventy-two percent (n=72) of the communication materials did not mention sexual identity as a factor in the targeted audiences of the materials. Twenty percent (n=20) of the materials implied an audience targeted by sexual identity; however only 8 percent (n=8) of materials explicitly indicated the sexual identity of the targeted

audiences. National communications, as well as communications from Maine, were the only materials to imply the targeted audience was MSM. The state of Washington had one poster that explicitly stated MSM, and the rest of the materials did not mention a population. National campaigns had four materials, three PSAs and one poster, that explicitly stated PrEP was for MSM, as well as two PSAs that explicitly stated PrEP was for individuals of any sexual identity. Georgia was the only other location that had a material explicitly stating PrEP was for same-sex and opposite-sex partners, while the other states just implied it. California, Maine, and Iowa were the only ones not to have communication materials explicitly state sexual identity; they either implied it or did not mention it.

Age

Age groupings followed the CDC guidelines for age classification, where age markers were clearly represented in the materials; in some cases, this meant clear representation in pictures and in others, age ranges explicitly indicated in the text. Anyone aged 13 – 17 was considered to fall into the adolescent group, 18-64 was considered adult, and 65 and up was classified as an older adult (Table 10).

	Total	National	Washington	California	Maine	Iowa	Georgia
Age							
Number of Communications	**n=100**	**n=64**	**n=17**	**n=12**	**n=4**	**n=2**	**n=1**
Adolescents (13-17)	2	1	1	0	0	0	0
Adults (18-64)	71	45	11	10	3	2	0
Older Adults (65+)	0	0	0	0	0	0	0
Not mentioned	27	18	5	2	1	0	1

Table 10. *PrEP Communication Material Age Demographics*

Over 70 percent of the materials were targeted towards adults, with 27 percent not mentioning a specific age range. Two materials mentioned the adolescent age group but contradicted one another on the minimum age eligible to take PrEP. One CDC poster created in 2021, along with the Washington State Department of Health, explicitly stated that individuals aged 13-64 were eligible to take PrEP. However, another CDC poster also created in 2021 referenced people from the ages of 15 to 64 (CDC, 2021). Other communications stated anyone who is sexually active could take PrEP. As these did not provide a specific age range, they were categorized as "age not mentioned". The majority of the national, Washington, California, Maine, and Iowa communication materials targeted adults, whereas the state of Georgia did not specifically mention any age grouping in the poster.

PrEP Behavioral Constructs:

Five of the seven behavioral constructs used to analyze communication materials were adapted from the Health Belief Model: Perceived Benefits (n=79), Cue to Action (n=77), Perceived Susceptibility (n=49), Self-Efficacy (n=23), and Perceived Severity (n=0)

(Rosenstock, 1966). The other two behavioral communication constructs, Specific Actionable Change in Behavior (n=51) and Accessibility (n=37) were selected as additional codes as they were used for analysis in several other studies (Collins & Obregon, 2000). Table 11 illustrates examples of the behavioral constructs found in the communication posters and PSAs.

Behavioral Construct	**Example**
Perceived Benefits	PrEP is a daily pill that prevents HIV".
Cue to Action	"Talk to your Doctor and see if PrEP is right for you" "To Learn More About How PrEP Can Support You Visit www.cdc.gov/hiv/basics/prep.html"
Specific Actionable Change in Behavior	"Start Talking. Stop HIV. Talk PrEP"
Perceived Susceptibility	"PrEP is for people without HIV who are at very high-risk for acquiring it from sex"
Accessibility	"Most insurance, including Medicaid, covers PrEP. If you don't have insurance, there are options" "Any prescribers can provide PrEP"
Self-Efficacy	"Own your HIV prevention, Prevent HIV your way, take PrEP"

Table 11. *Examples of Behavioral Constructs*

Figures 6 through 9 illustrate the seven behavioral constructs in the materials. Figure 6 is a national poster that includes six of the seven constructs (Perceived Benefits, Cue to Action, Specific Actionable Change in Behavior, Perceived Susceptibility, Accessibility, and Self-Efficacy) (PleasePrEPMe, n.d.). Figure 7 is a national poster with four of the seven constructs (Perceived Benefits, Cue to Action, Specific Actionable Change in Behavior, and Perceived Susceptibility) (Talk PrEP CDC, n.d.). Figure 8, from the state of Washington, has one of the constructs (Perceived Benefits) (GreaterthanAids, 2020), and Figure 9 is a national poster that has none of the constructs (Ready, Set, PrEP HIV.gov, n.d.).

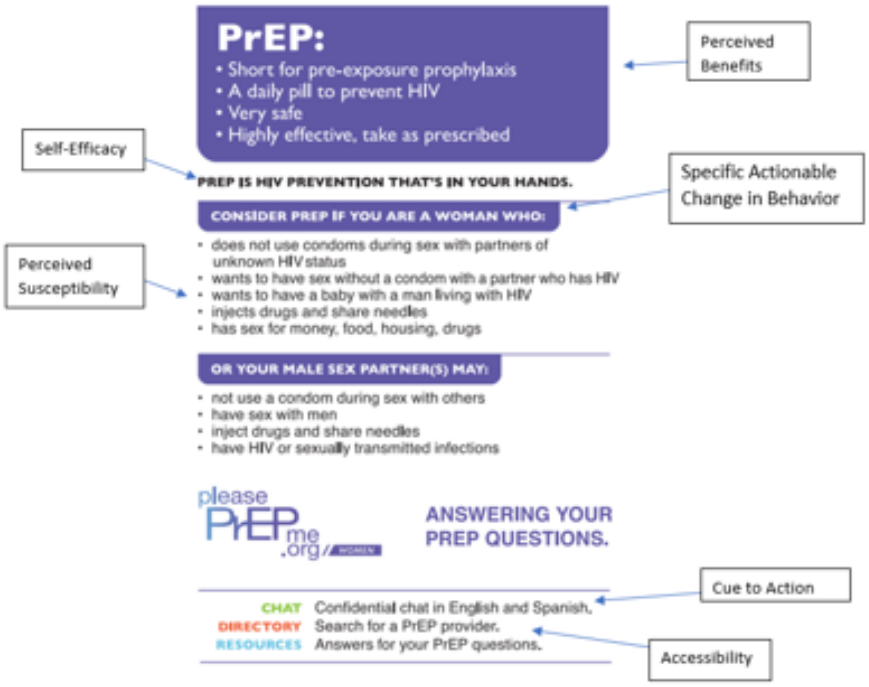


Figure 6. *Example PrEP Campaign Poster with six of the seven behavioral constructs*

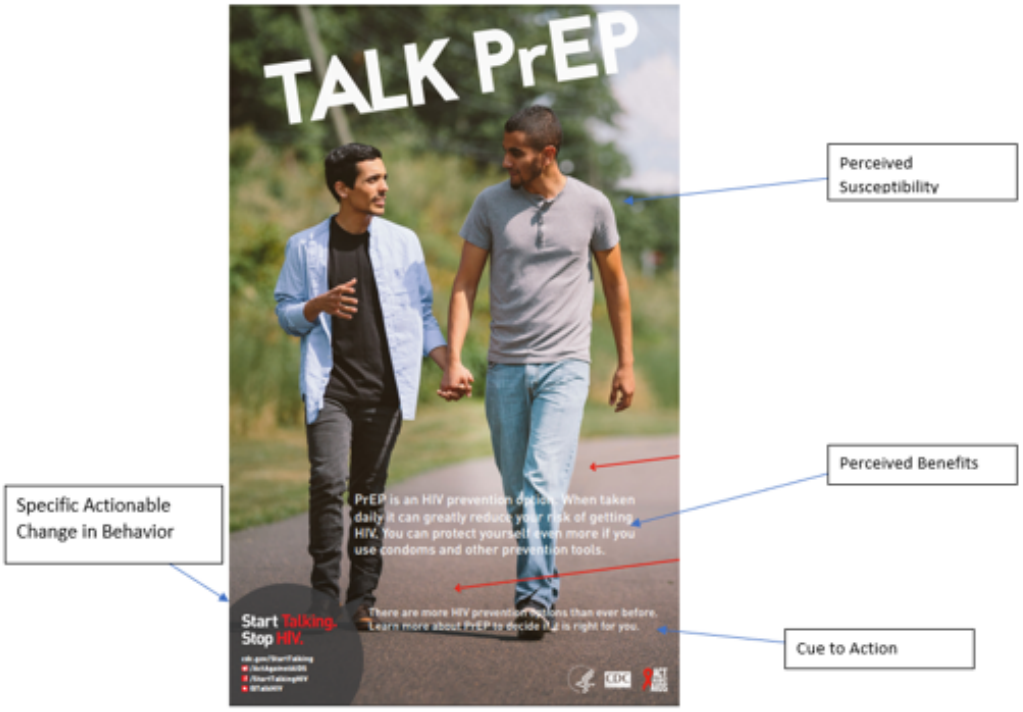


Figure 7. *Example PrEP Campaign Poster with four of the seven behavioral constructs*

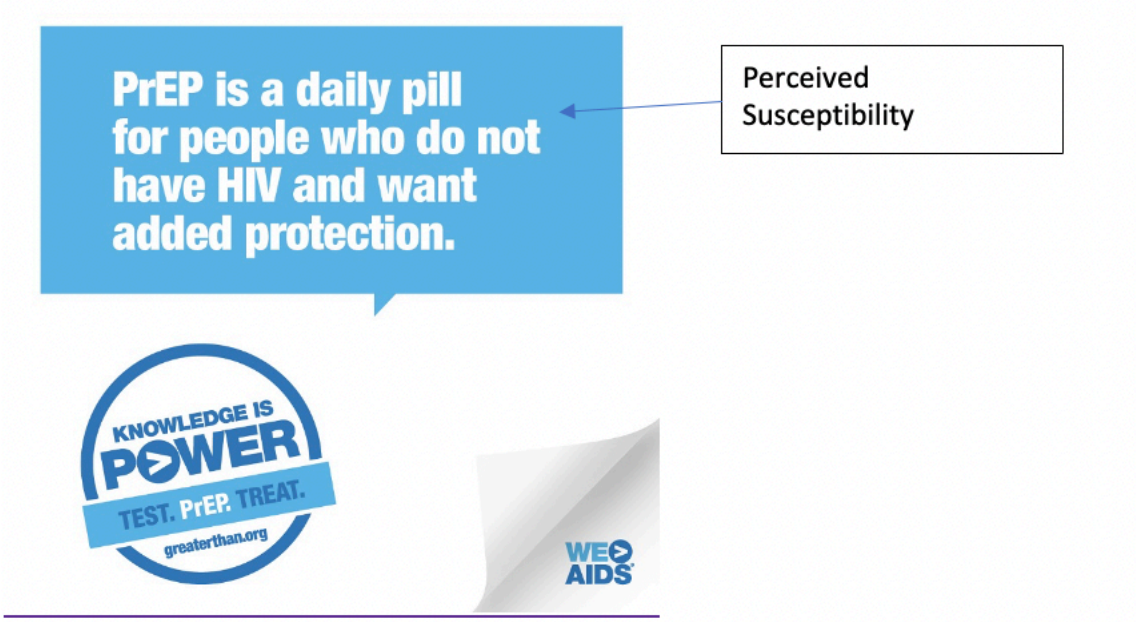


Figure 8. *Example PrEP Campaign Poster with one of the seven behavioral constructs*

Figure 9. *Example PrEP Campaign Poster with none of the seven behavioral constructs*

Over half of the communication materials (n=54) were coded simultaneously for both Perceived Benefits and Cue to Action. The Perceived Benefits code was also found to frequently co-occur with the Specific Actionable Change in Behavior (n=39) and Perceived Susceptibility (n=32) codes. Self-Efficacy was found to be paired least often with other constructs. Self-Efficacy was found to occur most often with Cue to Action (n=10). Table 12 displays the number of behavioral constructs found in collected posters and PSAs.

	National	Washington	California	Maine	Iowa	Georgia
Perceived Benefits	53	13	10	0	2	1
Cue to Action	58	4	10	4	1	0
Specific Actionable Change in Behavior	37	9	2	1	2	0
Perceived Susceptibility	24	9	10	4	1	1
Accessibility	29	2	4	0	2	0
Self-Efficacy	17	6	0	0	0	0
Perceived Severity	0	0	0	0	0	0

Table 12: *Behavioral Constructs Coded in Communication Materials*

Of the 64 PrEP communications created nationwide, six of the seven constructs were used in at least one communication. Cue to Action and Perceived Benefits overlapped in 75 percent (n=48) of the total national communications. Perceived Susceptibility and Specific Actionable Change in Behavior were found together in 53 percent of Washington's materials (n=9). Forty-seven percent (n=8) of those materials incorporated Perceived Benefits, Perceived Susceptibility, and Specific Actionable Change in Behavior. Unlike national communications and those from Washington, California's most prevalent constructs were Perceived Benefits,

Perceived Susceptibility, and Cue to Action with 58 percent of materials (n=7) including all three. Maine's communications did not follow the trend of using Perceived Benefits in conjunction with Perceived Susceptibility, as Maine was the only state not to include Perceived Benefits in communications. Half (n=1) of Iowa's communications followed the trend of using Perceived Benefits, Perceived Susceptibility, and Cue to Action in conjunction. Georgia's one state-specific communication material followed the overall trend of using Perceived Benefits and Perceived Susceptibility together in communication materials.

The most common perceived benefit included in majority of the communications was "PrEP reduces your risk of HIV" or "PrEP is a daily pill that prevents HIV". In national communications "Take PrEP for a peace of mind" was an additional common benefit incorporated into messages. These benefits were the same regardless of the communication being a poster or a PSA. The most common Cue to Action message was "visit your doctor to talk about PrEP" or "go to GetYourPrEP.org to see if you qualify for PrEP". The only construct presented different in posters versus in PSAs was Perceived Susceptibility. Posters mentioned a brief overview of populations at risk of HIV being eligible for PrEP; however, PSAs mentioned that anyone who was sexually active was at risk for HIV and should take PrEP. The remaining constructs Self-Efficacy, Accessibility, and Specific Actionable Behavior Change – did not have common messages throughout the communications.

Temporality:

Communication materials were created between 2012 and 2021. Maine has the only communications created in 2012. National communications were created in a number of different years, with materials from 2014, 2015, 2017, and 2018 through 2021. Washington and California had communications created between 2018 and 2021; Iowa and Georgia had only 2021

communications. Most of the brightly colored communications (n=6) were created in 2012 and 2014. Starting in 2018, photo background and video testimonial became more predominant as the color scheme. In the early communication materials (2012-2015) the audience demographics were primarily male focused, compared to later materials which include the female, transgender, and non-binary populations. Similarly, the earlier campaigns (2012-2015) did not have many communications that specifically mentioned ethnicities or sexual identity. The later campaigns (2016 -2021) included more targeted materials in terms of ethnicity and sexual identity. Age remained relatively consistent over time with including adults as the target population of the communication. Two 2021 campaigns did include adolescents in their target population which had not been included in years previous. The behavioral constructs found in the communications evolved over time. The initial campaigns included minimal use of constructs and rarely used more than two. The later communications incorporated several constructs in each material.

DISCUSSION

Summary:

This study had two main objectives: To identify characteristics of PrEP communication materials that are most likely to be effective based on principles of best practice in communication campaigns, as well as to identify features found in the collected campaign posters and PSAs (Carpenter C., 2010; Champion & Skinner 2008). Campaign posters and PSAs developed for audiences at the national and state level were collected. The five states (Washington, California, Maine, Iowa, and Georgia) were selected based on HIV prevalence per 100,000 residents in the state, demographics of people living with HIV in the state, as well as the total number of PrEP users per state, to cover a range of these indicators.

While the majority (n=90) of the collected communication materials discussed PrEP overtly, 10 of them did not mention that it is used for HIV prevention. Of those 10, four communications were nationwide, one was from Washington, one was from California, and four were from Maine. Certain studies contend that not openly stating that PrEP is an HIV prevention method in materials about PrEP is related to HIV-related stigma, resulting in difficulties in communicating what PrEP is for (Schwartz & Grimm 2016; 2022). Despite PrEP being a drug that prevents HIV and is recommended for anyone who is at high risk for exposure, HIV still carries a connotation of being primarily of concern to the MSM population. This connotation results in many people believing that they are not at risk for HIV and therefore that PrEP is not for them; it also prevents many people who do not identify as MSM from learning more about it (Ojikutu *et al*., 2018).

The first PrEP communications were created in 2012 once the FDA approved the prophylactic treatment to prevent HIV; ten years later, new PrEP communications are still being

developed (Sophus & Mitchell, 2019). Over the years, the target audience has changed based on the evolving knowledge surrounding at-risk populations for HIV, as well as people that are less often reached with messages regarding PrEP. Maine's PrEP posters were created in 2012 and all followed a brightly colored scheme. In contrast, the majority of the other states' remaining communications included in this study were created from 2018 to 2021 and used photo background/ video testimonials, monotone, or primary colors. Only a few of the national communications were brightly colored and these were primarily PSAs created in 2021. As PrEP communications have developed over time, brightly colored communications have become less prevalent. This could be a result of communications becoming more reliant on photo background and video testimonials, as the brightly colored communications were created shortly after the FDA approved PrEP. Also, over the years preference for photos on a monotone background allowing for more direct audience engagement may also have contributed to the decline in brightly colored communications (Liu *et al.,* 2019).

Photos and video testimonials draw attention to communications (Houts *et al.,* 2006). People are more attracted to health communications when there are visuals as opposed to just text. Furthermore, engagement is increased if people identify with the images displayed. Studies hypothesize that images increase the likelihood of text information being read (Houts *et al.,* 2006), hence a large number of posters and PSAs including either a photo or a video testimonial. This research could explain why the majority of the communications identified used photo background and video testimonial.

HIV and PrEP Use Prevalence at the National and State Levels:

Table 13 displays the HIV prevalence as well the prevalence of PrEP use at the national level and at the level of the selected states.

Location	HIV Prevalence (per 100,000 population)	Prevalence of PrEP Use (per 100,000 population)
National	380	81
Washington	219	≥100
California	401	≥94
Maine	141	≥41
Iowa	110	≥56
Georgia	639	≥73

Table 13: *HIV and PrEP prevalence by region from 2019 AIDSVu Data*

When comparing the states with the national average, certain states have a higher HIV prevalence and other states have a higher prevalence of PrEP use. It was found that the regions PrEP education varied with the Northeast having the highest PrEP education followed by the South, the West, and then the Midwest (Bunting *et al.,* 2020). These education rankings do not reflect the prevalence of PrEP use of states in those regions. As California and Washington (West) had the highest prevalence of PrEP users, followed by Georgia (South), then Iowa (Midwest), then Maine (Northeast). These states only make up part of each geographic region, which could explain the discrepancy in the data between PrEP education and use. Also, of course, people can have knowledge of PrEP but not use it. This may be either because they do not qualify for a prescription, because they choose not to take it even with a prescription, or because they do not self-identify as someone who should take PrEP. All these are important

points to consider when looking at the regional discrepancies in prevalence of PrEP use and knowledge of PrEP. Of particular interest are the Northeast which has the highest PrEP education score but the lowest prevalence of PrEP use and the West, which scored third in PrEP education but has the highest prevalence of PrEP use. Both situations are causes for concern, as one area has the knowledge but does not utilize the medication, while the other is not as strong on PrEP education but has a considerably larger proportion of eligible people using PrEP.

When comparing the number of PrEP communications with the overall prevalence of PrEP use for the states in the West, the trend is similar for California and Washington. They have the highest prevalence of PrEP use and had the most PrEP communications. However, this relationship between PrEP prevalence and volume of communications does not continue when comparing the other regions: Maine and Iowa both had more communications than Georgia, yet they had a lower prevalence of PrEP use than Georgia.

This could be a result of several factors. One is that California, Washington, and Maine are all considered liberal states, whereas Iowa and Georgia are more conservative. Politically and socially conservative states are more likely to have stigma surrounding HIV and PrEP use compared to more liberal states (Schnarrs *et al.,* 2018). Stigma still surrounds HIV and PrEP as there is still, for some, an association between those and homosexuality, which is viewed more negatively in socially conservative places. This negative connotation creates a significant barrier to increasing the uptake of PrEP (Ojikutu *et al.,* 2018). Depending on who oversees the government budgets at the state and national levels, the amount of funds allocated to PrEP communications will vary based on the priorities of the administration (Nakelsky *et al*., 2022). As many of the communications are created by governmental organizations, understanding how the various states' governments and their funding priorities can impact communications is

crucial. Both the funder and creator of the communications may influence what populations are represented in the materials. As a result, materials created or funded by conservative states or organizations could potentially not include certain populations or groups deemed lower priority or inappropriate audiences, such as transgender or non-binary individuals, MSM, or adolescents.

Demographics:

Ethnicity

At the national level, African American, Caucasian, and Hispanic/Latinx populations account for the highest proportions of the population living with HIV at 39.8 percent, 25 percent, and 28.7 percent, respectively (AIDSVu, 2019). Washington, Iowa, and Maine report Caucasians as the largest population living with HIV. California reports the majority populations as Caucasian and Hispanic/Latinx, while Georgia reports African Americans as the majority population for new HIV diagnoses as well as HIV prevalence (AidsVu.org, 2019). Nonetheless, none of the states focused their communications solely on these populations. Communications focused instead on targeting the African American population as well as the Hispanic/Latinx population, which are disproportionately affected by HIV in the United States (Hess *et al*., 2017), regardless of the distribution of local at-risk populations. Asian American or Indigenous population-specific communications were limited even at the national level. This could result from the CDC not classifying these populations as at a high risk for HIV infection compared to other ethnicities (Hess *et al*., 2017). Tailored communications have been found to be more effective, as intended audiences pay more attention to information that they can relate to (Kreuter & Wray, 2003). Having specific populations mentioned or illustrated in the posters and PSAs, allows those populations to identify and engage with the communication, yet this could also increase stigma if communications are widely disseminated. However, untailored messages can

still be effective when attempting to communicate information to a broader audience as they can also avoid the risk of increasing stigma towards certain minority populations. Over a quarter of the communications gathered did not specify a target population, and the tailored communications were not inclusive of all the populations at medium to high risk of HIV. Not explicitly identifying the audience allows room for interpretation and can increase the number of people who engage with the communication, while also avoiding the risk of contributing to stigma (Kreuter & Wray, 2003).

Gender

Communications focused more commonly on males followed by females, with some of the communications targeting both genders. Males are viewed as higher risk as MSM are one of the main at-risk populations (Hess *et al*., 2017). In line with this risk, at least one material at the national level and from each state targeted the male population. Over the years, PrEP communications appeared to change which genders were targeted; instead of just targeting males like in earlier posters and PSAs, more recent campaigns began to target females and transgender females independently, as well as both males and females together. This change could be attributed to the CDC's evolving guidelines on who is deemed to be at risk of HIV, as there has been an increased awareness of how females and transgender populations are at risk. This was evident in the shift of communication materials from 2012 and 2014 to the materials created in 2018 to 2021, although females and transgender females were still targeted at a lower rate, possibly because they are not deemed as high-risk as their male counterparts. Communications including females or transgender females comprised 36 percent (n=36) of the materials, while communications including males comprised 61 percent (n=61) of the materials. Many of the female-specific communications included the message that condoms can also prevent HIV and

other sexually transmitted infections and diseases (STIs and STDs), yet few male-specific communications included a mention of condoms. As HIV is an STI, several studies have found that women who are at risk of exposure to HIV nevertheless choose not to take PrEP or discuss PrEP because they do not want to be seen as promiscuous (Bradley & Hoover, 2019).

Several posters and PSAs also did not specifically mention genders in their textual content, which creates a potential opportunity for people who identify as non-binary or are transgender to engage with the communication (Kreuter & Wray, 2003). Non-binary and transgender populations are addressed explicitly by four 2021 communication materials which were only found on a national level. National communications tend to represent a broader range of populations than state communications due to their goal of needing to reach a wider audience. Government politics (i.e., liberal versus conservative) in certain states such as Iowa and Georgia can affect whether non-binary genders are included in communications (Ojikutu *et al.,* 2018; Eakle, Venter, Rees, 2018).

Sexual Identity

Sexual identity was either explicitly stated, implied, or not mentioned in the posters and PSAs. The majority of the communication materials did not mention sexual identity or only implied sexual identity; this could be due to the sensitive nature of sexual identity (Olusanya *et al.,* 2021). Not including a specific target allows for stigma to be minimized and decreases the risk of fueling stigma when the communications cannot be disseminated to the targeted populations directly. Washington and Georgia were the only states that did not imply a specific sexual identity; Georgia did not have any communications that did not mention sexual identity, while Washington's communications had several that did not mention sexual identity. This could be a result of the creator of the communication not wanting to overtly mention same-gender

couples. Despite MSM being a high-risk population, very few communications were targeted towards this population specifically. Several communications included MSM as a subset population and addressed everyone who is sexually active. Updated CDC guidelines now include everyone who is sexually active and has a high chance of exposure to HIV in PrEP eligibility, increasing communications that include all sexualities or communications that do not specify sexualities as a result (CDC, 2021).

Age

Anyone who is 13 or older and meets the high-risk eligibility criterion is eligible to take PrEP; however, majority of the communications targeted the adult age range of 18 to 64 years of age. In the United States, people are allowed to medically consent to testing and treatment without a parent's approval at the age of 18. This consent eligibility allows for people to get tested for HIV and receive PrEP without parental knowledge once they are no longer minors (Culp & Caucci, 2012). However, there are exceptions to this medical consent rule; in Iowa minors under the age of 18 can expressly consent to HIV testing or treatment without parental consent. California and Washington allow for minors (youngest eligible age not mentioned) to test and receive treatment for STIs, including HIV, without parental consent. Maine and Georgia allow minors to receive STI testing and treatment without parental consent but do not class HIV as an STI, nor can minors consent to HIV testing or treatment without parental consent (Culp & Caucci, 2012). The consent laws for minors and the requirement for a negative HIV test to receive a PrEP prescription may explain why Maine and Georgia do not target adolescents in their PrEP communications. For the other states, adolescents could be a target population as they can receive PrEP without needing their parents to approve it.

Nonetheless adolescents are not a target population for communication materials about PrEP in any state except in one Washington communication and one national communication; and even then, the posters vary in the minimum age indicated for PrEP eligibility. Both communications were created in the same year, however, Washington states that anyone 13 or older is eligible for PrEP, and the national poster states anyone 15 or older. Consent laws could play a role in the age minimum as the national campaign is utilized in states where minors have to be at least 15 to undergo HIV testing, whereas a minimum age is not specified for Washington (Culp & Caucci, 2012).

Behavioral Constructs:

Rosenstock's key constructs in the Health Belief Model – Perceived Susceptibility, Perceived Severity, Perceived Benefits, Cue to Action, and Self-Efficacy – are important components in behavior change communications (Rosenstock, 1966). A meta-analysis of several studies showed that the more constructs included in a particular communication material, the more effective the communication is likely to be (Carpenter, 2010). Champion and Skinner (2008) argue that for communications about behaviors deemed "risky" to lead to behavior change, Perceived Susceptibility must be accounted for in the communication. Without the inclusion of visuals of the people who are at risk and need to change their behavior, the communications will not have the same level of engagement from their target audience. Perceived Benefits and Self-Efficacy are two constructs, in addition to Perceived Susceptibility, that are associated as being effective in leading behavior change. This corroborates what was seen in the data, as those three constructs were used the most overall. Perceived Benefits was also frequently paired with Perceived Susceptibility in the same communication posters and

PSAs. The incorporation of Perceived Benefits could be due to wanting to motivate and provide hope to people who are identified as being at-risk.

The fact that national communications have a higher frequency of behavioral constructs utilized compared to state communications may be attributed to the likelihood of having better access to behavioral expertise. Budgets for national campaigns most likely are larger than their non-profit counterparts. This in turn provides the national communications with a larger budget to consult a behavioral theory expert or to have such an expert on staff, resulting in more behavioral constructs being used in conjunction with one another.

Limitations:

As only a subset of all existing HIV PrEP communications was collected and analyzed, this sample is not representative of all the PrEP communications developed and used in the United States since the approval of PrEP for HIV prevention. In addition to nationwide communications, only five of the 50 states' PrEP communications were included in this research project. They were chosen strategically based on the prevalence of PrEP use and HIV prevalence, which means the results are not generalizable to the remaining 45 states. Communication strategies may vary on a state-by-state basis depending on local organizations and departments of health. Also, depending on the state's prioritization of sexual health and specifically HIV prevention, the budget for PrEP communications could vary significantly as HIV prevalence and PrEP access differs across the nation. To address this limitation, further research should be conducted on the other 45 states' PrEP communications to ascertain the differences and similarities in campaign materials and the strategies they use.

There is a potential that additional PrEP communications that meet the inclusion criteria exist, as specific search terms were used as well as a set time period, which might not identify all

eligible campaign posters and PSAs. Using the internet to collect these communications also relies on the communications being available online, which impacts the results collected. As PrEP communications began as early as 2012 and have continued to the present day, it is possible that not all the communications throughout the years can be found on websites. As a result, further research should be conducted to expand the search terms to encompass all years during which PrEP communication materials were created. Researchers could also reach out to organizations that are known to develop HIV prevention and PrEP communications to identify communication materials that are not available in a digital format.

Due to the evolving nature of health communications, new PrEP communications are constantly being created. One campaign created by the CDC specifically targeting women called "She is Well" engendered a multitude of new materials after the data collection period had ended.

RECOMMENDATIONS

This study identified important behavioral constructs and audience demographics of existing PrEP behavior change communications that can serve as a point of departure for the creation of new materials on this topic. As not a lot of research has been done on the effectiveness of PrEP behavior change communications, this study can be used as the foundation for further research into behavior change communications and their overall potential for effectiveness based on principles identified in behavior change communication research and theoretical frameworks.

Areas for improvement were also identified in this study. Many communications did not include specific target population demographics. Although non-specific communications allow all populations to feel like they are being addressed and avoid contributing to stigmatization of marginalized populations, this approach limits the amount of engagement people have with said materials as they may not identify closely with those represented. Targeted communications engender a higher level of engagement, which increases the likelihood of behavior change. Furthermore, the collected and analyzed communications were not inclusive of the various ethnic groups present in the United States. Asian American and Indigenous populations were directly targeted in four total communications, of which they were not the sole target population. Other populations that received limited communications were the transgender and the MSM populations, both of which are considered to be at high risk for HIV. In order to promote uptake of PrEP among these groups, these populations need to be addressed more directly in future PrEP communications; however, it is important to recognize the role that stigma can play when creating these communications.

Another area for improvement is the overall purpose of the behavioral constructs included in the PrEP communications. Several of the PrEP communications did not incorporate the word “PrEP”, nor did they mention that the communication was about HIV prevention. It is hard to promote behavior change about PrEP uptake if the audience does not know what the communication is for or what PrEP is. To address this issue, communications should include clear references to PrEP as well as mentioning that it is used to prevent HIV. A multitude of the communications included only a few of the behavioral constructs that have been identified as contributing to behavior change. Studies show that Perceived Benefits, Perceived Susceptibility, and Self-Efficacy are three important constructs that should be overtly included in communications if the desired behavior change is to occur. Despite this, many of the communications did not include these constructs and a few of the communications did not leverage any behavioral construct in their messaging. It is crucial for the communications to incorporate appropriate behavioral constructs that are drawn from behavior change communication theory if their intended goal is to promote behavior change. In order for the materials to have the potential to increase the number of people taking PrEP and reduce people’s overall risk of HIV, changes to communications must be incorporated to boost their effectiveness.

REFERENCES

Adimora, A. A., Ramirez, C., Schoenbach, V. J., & Cohen, M. S. (2014). Policies and politics that promote HIV infection in the Southern United States. AIDS (London, England), 28(10), 1393.

Answering Your PrEP Questions. (n.d.). PleasePrEPMe Digital Files. Retrieved from https://pleaseprepme.org/digital-files.

Auerbach, J. D., Kinsky, S., Brown, G., & Charles, V.. (2015). Knowledge, Attitudes, and Likelihood of Pre-Exposure Prophylaxis (PrEP) Use Among US Women at Risk of Acquiring HIV. AIDS Patient Care and Stds, 29(2), 102–110. http://doi.org/10.1089/apc.2014.0142

Avert. (2020, February 25). Pre-exposure prophylaxis (PREP) for HIV prevention. Retrieved September 29, 2021, from https://www.avert.org/professionals/hiv-programming/prevention/pre-exposure-prophylaxis.

Bradley, E.L.P., Hoover, K.W., 2019. Improving HIV Preexposure Prophylaxis Implementation for Women: Summary of Key Findings From a Discussion Series with Women's HIV Prevention Experts. Women's Health Issues 29, 3–7.. doi:10.1016/j.whi.2018.08.004

Bunting, S.R., Garber, S.S., Goldstein, R.H., Ritchie, T.D., Batteson, T.J., Keyes, T.J., 2020. Student Education About Pre-exposure Prophylaxis (PrEP) Varies Between Regions of the United States. Journal of General Internal Medicine 35, 2873–2881.. doi:10.1007/s11606-020-05736-y

Burns, D. N., Grossman, C., Turpin, J., Elharrar, V., & Veronese, F. (2014). Role of oral pre-exposure prophylaxis (PrEP) in current and future HIV prevention strategies. Current HIV/AIDS Reports, 11(4), 393-403.

Carpenter, C.J., 2010. A Meta-Analysis of the Effectiveness of Health Belief Model Variables in Predicting Behavior. Health Communication 25, 661–669.. doi:10.1080/10410236.2010.521906

Centers for Disease Control and Prevention. (n.d.). AtlasPlus - Charts HIV and PrEP. Centers for Disease Control and Prevention. Retrieved September 28, 2021, from https://gis.cdc.gov/grasp/nchhstpatlas/charts.html.

Centers for Disease Control and Prevention. Estimated HIV incidence and prevalence in the United States, 2015–2019. HIV Surveillance Supplemental Report 2021;26(No. 1). http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html. Published May 2021. Accessed [date].

Centers for Disease Control and Prevention. (n.d.). HIV and AIDS --- United States, 1981--2000. Centers for Disease Control and Prevention Retrieved December 1, 2021, from https://www.cdc.gov/mmwr/preview/mmwrhtml/mm5021a2.htm#:~:text=As%20a%20result%20of%20these%20and%20other%20HIV,to%20an%20estimated%2040%2C000%20per%20year%20since%201992.

Centers for Disease Control and Prevention (2021, August 9). HIV in the United States and dependent areas. Centers for Disease Control and Prevention. Retrieved from https://www.cdc.gov/hiv/statistics/overview/ataglance.html

Centers for Disease Control and Prevention. (2021, August 6). *Pre-exposure prophylaxis (prep)*. Centers for Disease Control and Prevention. Retrieved from https://www.cdc.gov/hiv/risk/prep/index.html

Centers for Disease Control and Prevention. (n.d.). *Public Health Media Library*. Centers for Disease Control and Prevention. Retrieved from https://tools.cdc.gov/medialibrary/index.aspx#/results

Centers for Disease Control and Prevention. (2021). *#sheswell: Prep for women*. Centers for Disease Control and Prevention. Retrieved from https://www.cdc.gov/stophivtogether/sheiswell/index.html

Centers for Disease Control and Prevention. (2017). *Start Talking Stop HIV: PrEP*. Retrieved from https://www.youtube.com/watch?v=9-Ovt1I1fxg.

Centers for Disease Control and Prevention. (2021, January 10). *Social Media Toolkit - January 2021*. Centers for Disease Control and Prevention Let's Stop HIV Together. Retrieved April 18, 2022, from https://www.cdc.gov/stophivtogether/partnerships/toolkit/january-2021-toolkit.html

Champion, V. L., & Skinner, C. S. (2008). The health belief model. Health behavior and health education: Theory, research, and practice, 4, 45-65.

Chittamuru, D., Frye, V., Koblin, B. A., Brawner, B., Tieu, H. V., Davis, A., & Teitelman, A. (2020). PrEP Stigma, HIV Stigma, and Intention to Use PrEP among Women in New York City and Philadelphia. Stigma and health, 5(2), 240–246. https://doi.org/10.1037/sah0000194

Collins O. Airhihenbuwa, & Rafael Obregon (2000) A Critical Assessment of Theories/Models Used in Health Communication for HIV/AIDS, Journal of Health Communication, 5:sup1, 5-15, DOI: 10.1080/10810730050019528

Culp, L., Caucci, L., 2013. State Adolescent Consent Laws and Implications for HIV Pre-Exposure Prophylaxis. American Journal of Preventive Medicine 44, S119–S124.. doi:10.1016/j.amepre.2012.09.044

DeMartino, R. (Ed.). (2009). *Communicating in a Crisis: Risk Communication Guidelines for Public Officials*. DIANE Publishing.

DeNavas-Walt, C. (2010). Income, poverty, and health insurance coverage in the United States (2005). Diane Publishing.

Digital files. PleasePrEPMe. (n.d.). Retrieved from https://pleaseprepme.org/digital-files

Division of HIV/AIDS Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, Centers for Disease Control and Prevention (CDC), U.S. Department of Health and

Human Services. (n.d.). Estimated HIV incidence and prevalence in the United States 2015-2019 Retrieved October 25, 2021, from https://www.cdc.gov/hiv/pdf/library/reports/surveillance/cdc-hiv-surveillance-supplemental-report-vol-26-1.pdf.

Eakle, R., Venter, F., Rees, H., 2018. Pre-exposure prophylaxis (PrEP) in an era of stalled HIV prevention: Can it change the game?. Retrovirology 15.. doi:10.1186/s12977-018-0408-3

Elion, R., & Coleman, M. (2016). The preexposure prophylaxis revolution: from clinical trials to routine practice: implementation view from the USA. *Current opinion in HIV and AIDS*, *11*(1), 67–73. https://doi.org/10.1097/COH.0000000000000222

Friedman, A. L., Kachur, R. E., Noar, S. M., & McFarlane, M. (2016). Health communication and social marketing campaigns for sexually transmitted disease prevention and control. Sexually transmitted diseases, 43, S83-S101.

Hart-Cooper, G. D., Allen, I., Irwin Jr, C. E., & Scott, H. (2018). Adolescent health providers' willingness to prescribe pre-exposure prophylaxis (PrEP) to youth at risk of HIV infection in the United States. Journal of Adolescent Health, 63(2), 242-244.

Hess, K.L., Hu, X., Lansky, A., Mermin, J., Hall, H.I., 2017. Lifetime risk of a diagnosis of HIV infection in the United States. Annals of Epidemiology 27, 238–243.. doi:10.1016/j.annepidem.2017.02.003

Hiv ChillPill Communication Materials. (n.d.). https://hivchillpill.org/share.html.

HIV.gov. (2021, September 9). *Ready, Set, Prep Resources*. Ready Set PrEP Resources. Retrieved from https://www.hiv.gov/federal-response/ending-the-hiv-epidemic/prep-program-resources

Houts, P. S., Doak, C. C., Doak, L. G., & Loscalzo, M. J. (2006). The role of pictures in improving health communication: a review of research on attention, comprehension, recall, and adherence. Patient education and counseling, 61(2), 173-190.

Karon, J. M., Fleming, P. L., Steketee, R. W., & De Cock, K. M. (2001). HIV in the United States at the turn of the century: an epidemic in transition. *American journal of public health*, *91*(7), 1060.

Kreuter, M. W., & Wray, R. J. (2003). Tailored and targeted health communication: strategies for enhancing information relevance. American journal of health behavior, 27(1), S227-S232.

Kudrati, S.Z., Hayashi, K., Taggart, T., 2021. Social Media & PrEP: A Systematic Review of Social Media Campaigns to Increase PrEP Awareness & Uptake Among Young Black and Latinx MSM and Women. AIDS and Behavior 25, 4225–4234.. doi:10.1007/s10461-021-03287-9

Liu, D., Baumeister, R. F., Yang, C.-C., & Hu, B.. (2019). Digital Communication Media Use and Psychological Well-Being: A Meta-Analysis. *Journal of Computer-mediated Communication*, *24*(5), 259–273. http://doi.org/10.1093/jcmc/zmz013

Moran, K. (2016, July 17). The four dimensions of tone of voice. Nielsen Norman Group World Leaders in Research-Based User Experience Four Dimensions of Tone of Voice. Retrieved from https://www.nngroup.com/articles/tone-of-voice-dimensions/

Mouhanna, F., Castel, A. D., Sullivan, P. S., Kuo, I., Hoffman, H. J., Siegler, A. J., ... & Kramer, M. R. (2020). Small-area spatial-temporal changes in pre-exposure prophylaxis (PrEP) use in the general population and among men who have sex with men in the United States between 2012 and 2018. Annals of Epidemiology, 49, 1-7.

Nakelsky, S., Moore, L., Garland, W.H., 2022. Using evaluation to enhance a pre-exposure prophylaxis (PrEP) social marketing campaign in real time in Los Angeles County, California. Evaluation and Program Planning 90, 101988.. doi:10.1016/j.evalprogplan.2021.101988

Office of Infectious Disease and HIV/AIDS Policy (2022, March 21). Ready, set, prep. HIV.gov. Retrieved from https://www.hiv.gov/federal-response/ending-the-hiv-epidemic/prep-program#:~:text=More%20than%201%20million%20people%20in%20the%20United,less%20than%20one-third%20of%20them%20are%20taking%20it.

Ojikutu, B.O., Bogart, L.M., Higgins-Biddle, M., Dale, S.K., Allen, W., Dominique, T., Mayer, K.H., 2018. Facilitators and Barriers to Pre-Exposure Prophylaxis (PrEP) Use Among Black Individuals in the United States: Results from the National Survey on HIV in the Black Community (NSHBC). AIDS and Behavior 22, 3576–3587.. doi:10.1007/s10461-018-2067-8

Olusanya, O.A., Tomar, A., Thomas, J., Johnson, P., Wigfall, L.T., 2021. HPV-Associated Anal Cancer Knowledge, Attitudes, and Health Communication Behaviors Among Non-clinical Providers at HIV/AIDS Service Organizations in Southern United States Region. Journal of Cancer Education.. doi:10.1007/s13187-021-02056-5

Oursexualrevolution.org. (n.d.). Our Sexual Revolution. Retrieved from http://oursexualrevolution.org.

Pinto, R.M., Berringer, K.R., Melendez, R., Mmeje, O., 2018. Improving PrEP Implementation Through Multilevel Interventions: A Synthesis of the Literature. AIDS and Behavior 22, 3681–3691.. doi:10.1007/s10461-018-2184-4

PrEP is Liberating. Prep is liberating. (n.d.). Retrieved from http://prepisliberating.org/

PrEP Materials. Greater Than AIDS. (2020, December 8). Retrieved from https://www.greaterthan.org/materials/

Prevent Hiv Your Way. (n.d.). PrEP Campaign Resources for Download. Retrieved from https://www.cdc.gov/hiv/risk/prep/index.html.

Resource: Prep facts. PrEP Facts. (n.d.). Retrieved from https://www.sfaf.org/resource-library/prep-facts/

Rosenstock, I. M. (1966). Why People use health services. The Milbank Memorial Fund Quarterly, 44, 94-124.

Schnarrs, P. W., Gordon, D., Martin-Valenzuela, R., Sunil, T., Delgado, A. J., Glidden, D., ... & McAdams, J. (2018). Perceived social norms about oral PrEP use: differences between African–American, Latino and White gay, bisexual and other men who have sex with men in Texas. *AIDS and Behavior*, *22*(11), 3588-3602.

Schwartz, J., Grimm, J., 2022. Communication Strategies for Discussing PrEP with Men Who Have Sex with Men. Journal of Homosexuality 69, 61–74.. doi:10.1080/00918369.2020.1813509

Schwartz, J., & Grimm, J. (2016). Uncertainty in online US news coverage of Truvada. Health Communication, 31(10), 1250–1257. doi:10.1080/10410236.2015.1055051

Siegler, A. J., Bratcher, A., Weiss, K. M., Mouhanna, F., Ahlschlager, L., & Sullivan, P. S. (2018). Location location location: an exploration of disparities in access to publicly listed pre-exposure prophylaxis clinics in the United States. Annals of epidemiology, 28(12), 858-864.

Song, H. J., Squires, P., Wilson, D., Lo-Ciganic, W. H., Cook, R. L., & Park, H. (2020) pre-exposure HIV pre-exposure prophylaxis prescribing in the United States, 2012-2018. Jama, 324(4), 395-397.

Sophus, A.I., Mitchell, J.W., 2019. A Review of Approaches Used to Increase Awareness of Pre-exposure Prophylaxis (PrEP) in the United States. AIDS and Behavior 23, 1749–1770.. doi:10.1007/s10461-018-2305-0

Talk PrEP. (n.d.). CDC Start Talking Stop HIV Campaign Resources. Retrieved from https://www.cdc.gov/hiv/risk/prep/index.html.

Turner, L. , Roepke, A. , Wardell, E. & Teitelman, A. M. (2018). Do You PrEP? A Review of Primary Care Provider Knowledge of PrEP and Attitudes on Prescribing PrEP. *Journal of the Association of Nurses in AIDS Care, 29* (1), 83-92. doi: 10.1016/j.jana.2017.11.002.

U.S. Department of Health and Human Services (2021, August 10). Pre-exposure prophylaxis (prep). National Institutes of Health. Retrieved December 1, 2021, from https://hivinfo.nih.gov/understanding-hiv/fact-sheets/pre-exposure-prophylaxis-prep

What is PrEP. (2018). *End AIDS - What's PrEP? - YouTube*. Retrieved from https://www.youtube.com/watch?v=rnMhGDppE6M.

World Health Organization. (n.d.). HIV/AIDS. World Health Organization. Retrieved from https://www.who.int/news-room/fact-sheets/detail/hiv-aids

APPENDICES

Appendix A. Washington Campaign Poster Materials Collected

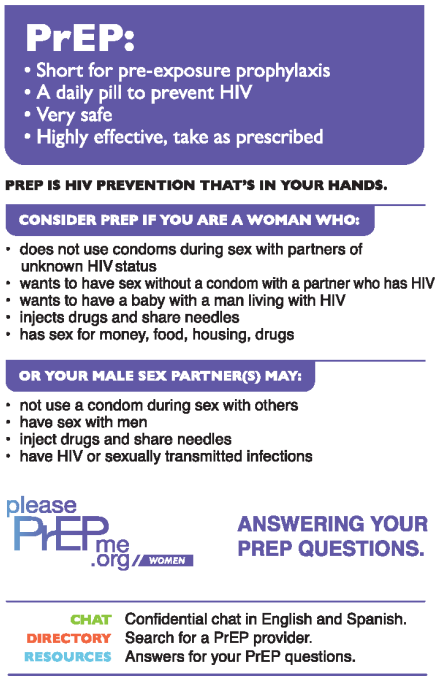

Chill Pill
I worried about getting HIV
Now I take a pill called PrEP
PrEP prevents HIV
HIVChillPill.org

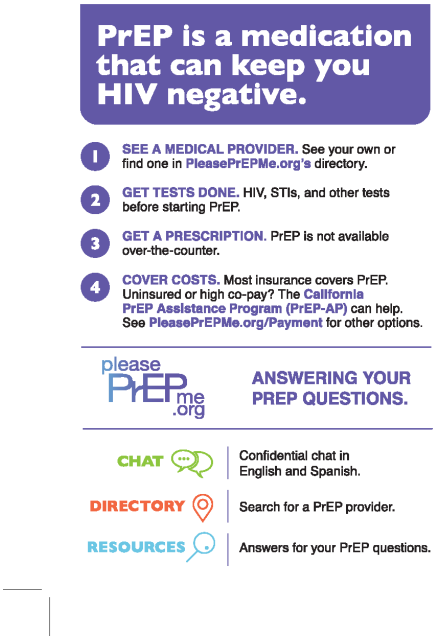

Chill Pill
I worried about getting HIV
Now I take a pill called PrEP
PrEP prevents HIV
HIVChillPill.org


Chill Pill
I worried about getting HIV
Now I take a pill called PrEP
PrEP prevents HIV
HIVChillPill.org


Chill Pill
I worried about getting HIV
Now I take a pill called PrEP
PrEP prevents HIV
HIVChillPill.org

Appendix B. California Campaign Poster Materials Collected

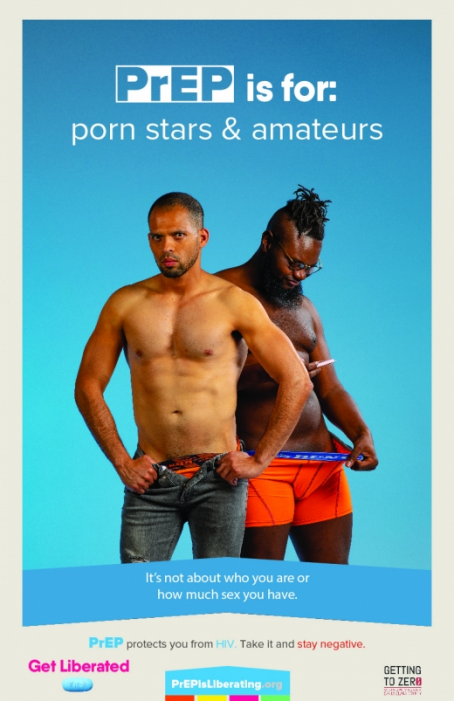



PrEP is a medication that can keep you HIV negative.
1 SEE A MEDICAL PROVIDER. See your own or find one in PleasePrEPMe.org's directory.
2 GET TESTS DONE. HIV, STIs, and other tests before starting PrEP.
3 GET A PRESCRIPTION. PrEP is not available over-the-counter.
4 COVER COSTS. Most insurance covers PrEP. Uninsured or high co-pay? The California PrEP Assistance Program (PrEP-AP) can help. See PleasePrEPMe.org/Payment for other options.
please PrEP me .org
ANSWERING YOUR PREP QUESTIONS.
CHAT Confidential chat in English and Spanish.
DIRECTORY Search for a PrEP provider.
RESOURCES Answers for your PrEP questions.


OUR SEXUAL REVOLUTION
PrEP
PrEP IS A PILL FOR PEOPLE WHO ARE HIV NEGATIVE IT PROTECTS YOU FROM HIV
PrEP IS SAFE AND EFFECTIVE
CONDOMS PREVENT OTHER STDS
OURSEXUALREVOLUTION.ORG
San Francisco Department of Public Health

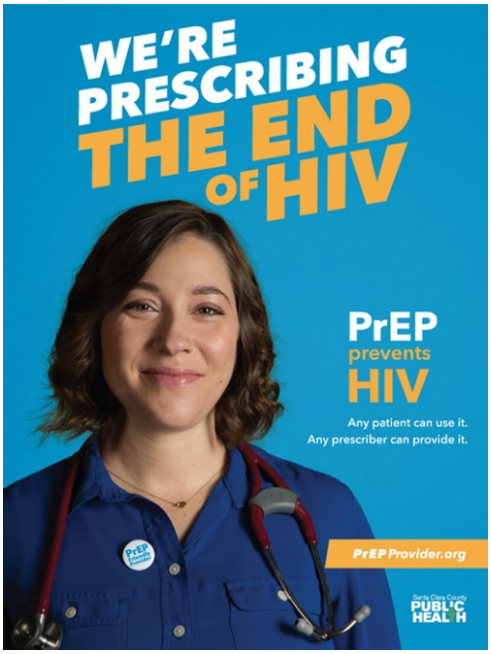

PrEP is for:
good boys & bad boys
It's not about who you are or how much sex you have.
PrEP protects you from HIV. Take it and stay negative.
Get Liberated
PrEPIsLiberating.org
GETTING TO ZERO


PrEP is for:
drag queens & bears
It's not about who you are or how much sex you have.
PrEP protects you from HIV. Take it and stay negative.
Get Liberated
PrEPIsLiberating.org
GETTING TO ZERO

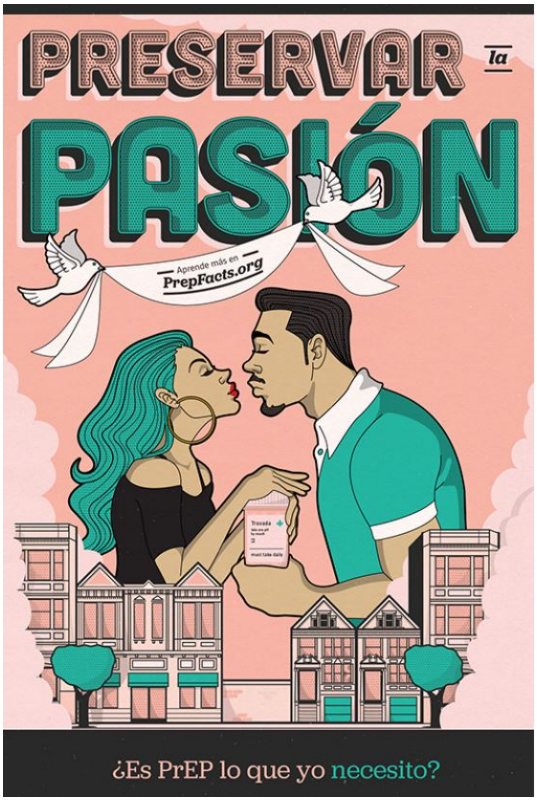

PrEP is for:
porn stars & amateurs
It's not about who you are or how much sex you have.
PrEP protects you from HIV. Take it and stay negative.
Get Liberated
PrEPIsLiberating.org
GETTING TO ZERO

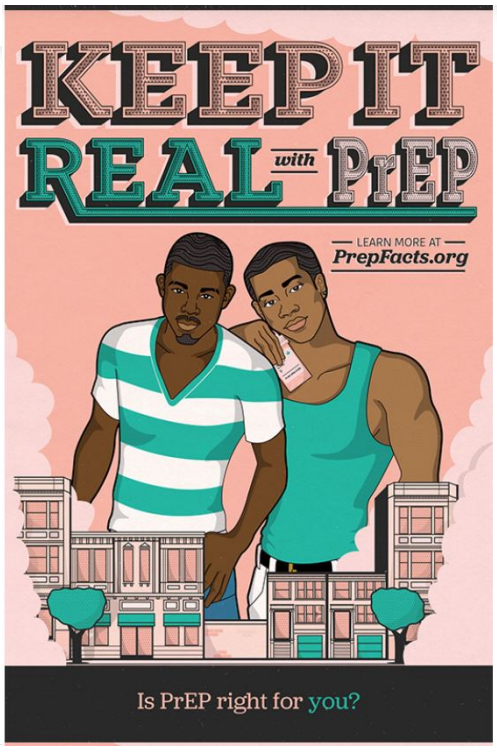

PrEP is for:
singles & couples
It's not about who you are or how much sex you have.
PrEP protects you from HIV. Take it and stay negative.
Get Liberated
PrEPIsLiberating.org
GETTING TO ZERO


PrEP is for:
socialists & capitalists
It's not about who you are or how much sex you have.
PrEP protects you from HIV. Take it and stay negative.
Get Liberated
PrEPIsLiberating.org
GETTING TO ZERO

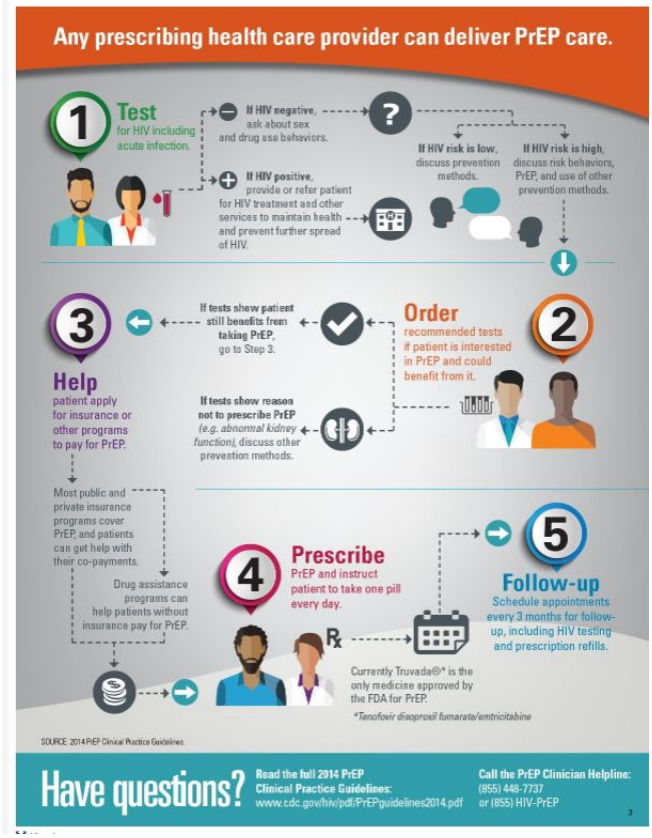

WE'RE PRESCRIBING THE END OF HIV
PrEP prevents HIV
Any patient can use it.
Any prescriber can provide it.
PrEPProvider.org
PUBLIC HEALTH

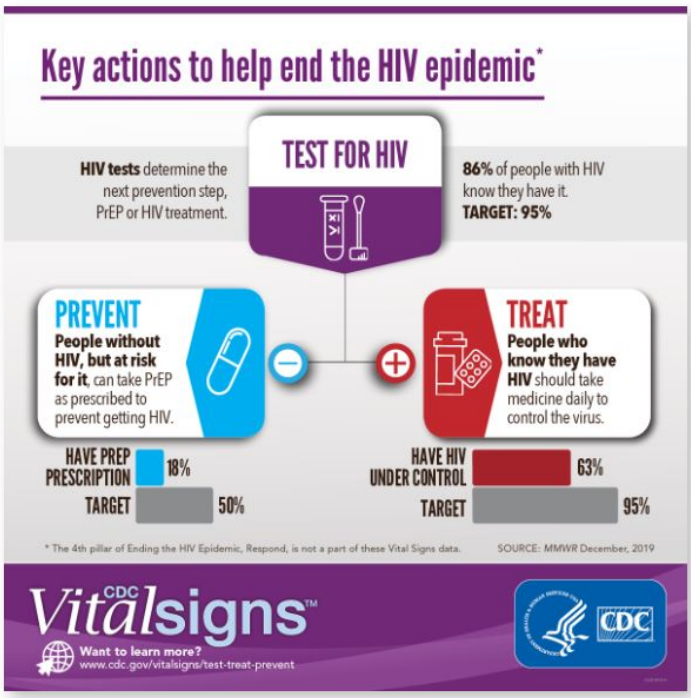
Appendix C. Maine Campaign Poster Materials Collected





Appendix D. National Campaign Poster Materials Collected




Key actions to help end the HIV epidemic*
TEST FOR HIV
HIV tests determine the next prevention step, PrEP or HIV treatment.
86% of people with HIV know they have it.
TARGET: 95%
PREVENT
People without HIV, but at risk for it, can take PrEP as prescribed to prevent getting HIV.
TREAT
People who know they have HIV should take medicine daily to control the virus.
HAVE PREP PRESCRIPTION 18%
TARGET 50%
HAVE HIV UNDER CONTROL 63%
TARGET 95%
* The 4th pillar of Ending the HIV Epidemic, Respond, is not a part of these Vital Signs data.
SOURCE: MMWR December, 2019
CDC Vitalsigns
Want to learn more?
www.cdc.gov/vitalsigns/test-treat-prevent
CDC


MSM Couple
HIV treatment = HIV prevention.
KNOW HOW IT WORKS


MSM Group
KNOW YOUR OPTIONS
Preventing HIV is easier than ever.


Quanesha
Taking care of everyone starts with taking care of you.
LEARN ABOUT PrEP


Hispanic Family
LEARN MORE
Taking PrEP is for my family and me.


Mixed Audience #1
KNOW YOUR OPTIONS
PrEP=Peace of Mind

Now's The Time To Find Out About PrEP

PrEP can help you stay HIV-negative, even if your partner might be HIV-positive.

INCLUDES USEFUL TIPS ON WHAT TO ASK YOUR DOCTOR

PN300522

PrEP: Prevent HIV before exposure

- ***Pre-exposure prophylaxis**** (*PrEP*) is an HIV prevention option that works by taking one pill every day. When taken daily it can greatly reduce your risk of getting HIV. You can protect yourself even more if you use condoms and other prevention tools.
- People at ***very high risk*** for HIV take HIV medicines daily as *PrEP* to lower their chances of getting infected. *PrEP* can stop HIV from taking hold and spreading throughout your body.
- It is highly effective for preventing HIV if used as prescribed, but it is much less effective when not taken consistently. And remember, *PrEP* protects you against HIV but not against other sexually transmitted diseases (STDs).
- Daily *PrEP* reduces the risk of getting HIV from sex by more than 90%. Among people who inject drugs, it reduces the risk by more than 70%. Your risk of getting HIV from sex can be even lower if you combine *PrEP* with condoms, limiting sexual partners, and other prevention methods.

*Prophylaxis = Prevention

With PrEP, you protect yourself from HIV every day

Because *PrEP* is for protecting people who are HIV-negative, you'll have to take an HIV test before starting *PrEP* – and you may have to take other tests to make sure it's safe for you to use *PrEP*. While you are on *PrEP*, you will need to see a health care provider for regular checkups and HIV tests every three months.

If you regularly worry about HIV, ask your doctor if PrEP may be right for you.

For more information call CDC-INFO toll free:
800-CDC-INFO (800-232-4636) | TTY: (888) 232-6348
Or visit: www.cdc.gov/hiv/basics/prep.html

Talk to your doctor about
PrEP or PEP

PrEP (pre-exposure prophylaxis) is recommended for people who are at ongoing very high risk of HIV infection. But *PEP* (post-exposure prophylaxis) is an option for someone who thinks they've recently been exposed to HIV during sex or through sharing needles and works to prepare drugs.

Many insurance plans (including Medicaid) cover PrEP and PEP. Assistance may be available if you are uninsured.

During Your Visit:

— Be clear. Tell your doctor that you are interested in *PrEP* (or *PEP*) right away.

— Give your doctor all the details about your life that could be important to your health. If your sex life is a hard topic to talk about, say that to your doctor. It will help to start the conversation.

— Tell your doctor about your routine, especially things that might make it easy or hard to take a daily medication.

— Include your health history. That includes any past illnesses or concerns you have, as well as a list of your current medications (including supplements, herbs, etc.).

— Ask questions. You want to be sure that you understand what your doctor is telling you.

— Take notes during your visit so that you can remember what your doctor said.

After Your Visit

– Review your notes or any information provided by your doctor.

– Call your doctor if you have more questions. Ask to speak to a nurse if your doctor is unavailable.

– Schedule tests or follow-up appointments your doctor requested.

– Get your results if you had tests done at your appointment.

– Get treated if you have a sexually transmitted infection.

– Be sure to keep your prescription filled and take your medicine as prescribed.

For more information call CDC-INFO toll free:
800-CDC-INFO (800-232-4636) | TTY: (888) 232-6348
Or visit: www.cdc.gov/hiv and search "***HIV PrEP and PEP***

June 2021

PrEP 101

Are you HIV-negative but at risk for HIV? PrEP can help keep you free from HIV.

WHAT IS PREP?

- PrEP, or pre-exposure prophylaxis, is medicine that can reduce your chance of getting HIV.
- PrEP can stop HIV from taking hold and spreading throughout your body.
- PrEP is highly effective when taken as prescribed. PrEP is much less effective if not taken as prescribed.
- Only condoms protect against other STDs like syphilis and gonorrhea.

IS PREP RIGHT FOR YOU?

PrEP may benefit you if you are HIV-negative and ANY of the following apply to you.

You have had anal or vaginal sex in the past 6 months and
- have a sexual partner with HIV (especially if the partner has an unknown or detectable viral load),
- have not consistently used a condom, or
- have been diagnosed with an STD in the past 6 months.

You inject drugs and
- have an injection partner with HIV, or
- share needles, syringes, or other equipment to inject drugs (for example, cookers).

You have been prescribed PEP (post-exposure prophylaxis) and
- report continued risk behavior, or
- have used multiple courses of PEP.

If you have a partner with HIV and are considering getting pregnant, talk to your health care provider about PrEP if you're not already taking it.

VISIT YOUR HEALTH CARE PROVIDER

- To find out if PrEP is right for you.
- Every 3 months, if you take PrEP, for repeat HIV tests, prescription refills, and follow-up.
- If you have any symptoms while taking PrEP that become severe or don't go away.
- If you don't have a provider, visit **www.preplocator.org** to locate one.

HOW CAN YOU GET HELP TO PAY FOR PREP?

- Most insurance programs and state Medicaid plans cover PrEP. You may also receive co-pay assistance to help lower the cost of PrEP.
- The *Ready, Set, PrEP* program makes PrEP available at no cost to those who qualify. Learn more at **www.getyourPrEP.com.**
- If you don't have insurance, consider enrolling in an insurance marketplace. PrEP assistance program, or your state's Medicaid plan, if you are eligible for it.
- Learn more about paying for PrEP at **www.PrEPcost.org.**

For more information, please visit **www.cdc.gov/hiv.**

Take care of your body, mind, and sexual health.

LET'S STOP HIV TOGETHER

Ending the HIV Epidemic

Prioritize yourself. You take care of everyone else. Take care of yourself too.

Decide when.
Not having sex is a 100% effective way to prevent getting HIV from sex. But if you are sexually active, there are more prevention options than ever.

Use condoms.
Condoms are still the only way to prevent both HIV and other STIs. When used properly, male and female condoms are highly effective.

Find a health care provider you feel comfortable talking to.
You should be able to talk about your sexual health without shame or judgment.

Learn more about pre-exposure prophylaxis (PrEP).
Ask your doctor about this daily pill that can help prevent HIV.

PREVENT HIV YOUR WAY.

cdc.gov/StopHIVTogether/Prevention

Own your HIV prevention.

LET'S STOP HIV TOGETHER

Ending the HIV Epidemic

There are more HIV prevention options than ever before.

Decide when. Not having sex is a 100% effective way to prevent getting HIV from sex. But if you are sexually active, there are more prevention choices than ever.

Use condoms. Condoms are still the only way to prevent both HIV and other STIs. When used properly, male and female condoms are highly effective.

Find out if pre-exposure prophylaxis (PrEP) is right for you. PrEP is a daily pill that is highly effective at preventing HIV from sex and injection drug use. Talk with your health care provider about PrEP.

Be undetectable. If you're living with HIV, getting and keeping an undetectable viral load is the best thing you can do to stay healthy and prevent transmitting HIV to sexual partners.

TAKE CONTROL OF YOUR HEALTH AND PREVENT HIV.

cdc.gov/StopHIVTogether/Prevention

Daily PrEP is highly effective for preventing HIV from sex or injection drug use. To find out if PrEP is right for you, talk with your healthcare provider.

Condoms are very effective in preventing HIV when they are used correctly every time you have sex. They also protect against other STIs like syphilis and gonorrhea.

Knowing your HIV status empowers you to make the best decisions for your sexual health. Everyone ages 13-64 should get tested at least once. Sexually active gay and bisexual men may benefit from more frequent testing—every three to six months.

When living with HIV, getting and keeping an undetectable viral load through HIV treatment helps you stay healthy and prevents transmission to your HIV-negative sex partners.

KEEP TALKING ABOUT HOW TO PREVENT HIV YOUR WAY. cdc.gov/StopHIVTogether/Prevention

The trans community has more HIV prevention options than ever before.

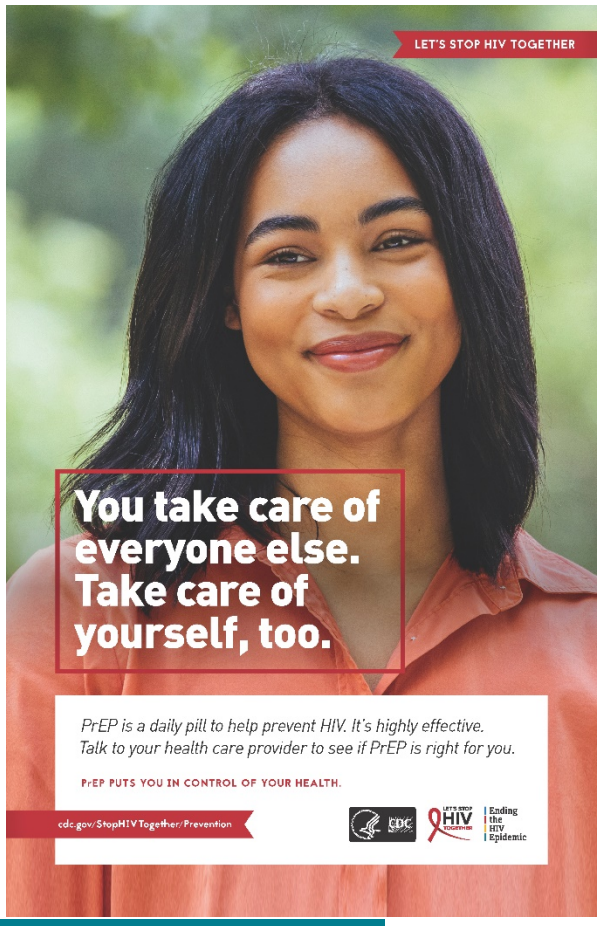
Decide when.
Not having sex is a 100% effective way to prevent getting HIV from sex. But if you are sexually active, there are more prevention options than ever.

Find a health care provider you feel comfortable talking to.
Your doctor should be willing to discuss all available options. If not, find a new provider who respects and understands you.

Make prevention and testing part of your journey.
Pre-exposure prophylaxis (PrEP) is a daily pill that is highly effective at preventing HIV from sex. It can be taken at the same time as hormone therapy.

Use condoms.
Receptive and insertive condoms are still the only ways to prevent both HIV and other STIs, and when used properly, are highly effective.

PREVENT HIV YOUR WAY. cdc.gov/StopHIVTogether/Prevention



How Can I Start PrEP?

3

Talk with your health care provider to determine if PrEP is right for you.

If you and your health care provider agree that PrEP might reduce your risk of getting HIV, he or she will test you for HIV and other STDs. Your health care provider will also test to see if your kidneys are working well.

If PrEP is a good option for you, your health care provider will give you a prescription.

You need to visit your provider again:

- Every 3 months, if you take PrEP, for repeat HIV tests, prescription refills, and follow-up.
- If you have any side-effects while taking PrEP that become severe or don't go away.
- If you don't have a provider, visit **www.preplocator.org** to locate one.

Tell your health care provider if you have trouble remembering to take your pill or want to stop PrEP.

How do I pay for PrEP?

4

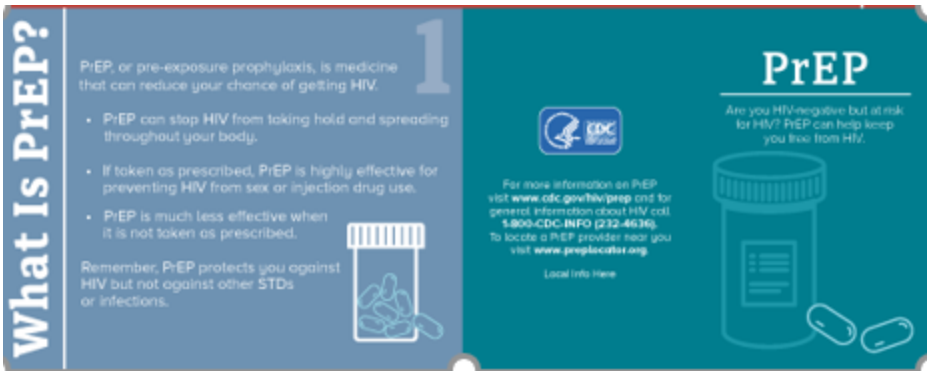
PrEP is covered by most insurance programs and state Medicaid plans. You may also receive co-pay assistance from drug manufacturers or patient advocacy foundations.

The *Ready, Set, PrEP* program makes PrEP available at no cost to those who qualify. Learn more at **www.getyourPrEP.com**.

If you do not have insurance, your health care provider can direct you to medication assistance programs that may help pay for PrEP.

You can also contact your local health department and HIV/AIDS service organizations for more information.

Visit **www.PrEPcost.org** for more information on PrEP assistance programs.



How do I Pay for Pre-Exposure Prophylaxis (PrEP)?

Do you have health insurance?

Yes

Medication	Lab Test	Clinic Visits
· Use Your Insurance	· Use Your Insurance	· Use Your Insurance

If you still have a copay, apply for copay assistance from the manufacturer or Patient Advocate Foundation.

No

Apply

www.healthcare.gov

Are you eligible for Medicaid or ACA plans?

Yes

Medication	Lab Test	Clinic Visits
· Use Your Insurance	· Use Your Insurance	· Use Your Insurance

If you still have a copay, apply for copay assistance from the manufacturer or Patient Advocate Foundation.

No

Household Income Below 500% of Federal Poverty Level: Apply for manufacturer's Medication Assistance Program.

Medication	Lab Test	Clinic Visits
· Medication cost covered	· Care at Community Health Center with sliding scale fee*	· Care at Community Health Center with sliding scale fee*

Any Income Level: Apply for Ready, Set, PrEP.

Medication	Lab Test	Clinic Visits
· Medication cost covered	· Care at Community Health Center with sliding scale fee*	· Care at Community Health Center with sliding scale fee*

Check to see if your state provides PrEP assistance. Costs for lab tests and clinic visits may be reduced or eliminated. Check your state PrEP Assistance Program at: www.nastad.org/prepcost-resources/prep-assistance-programs

* To find a Community Health Center: findahealthcenter.hrsa.gov

LET'S STOP HIV TOGETHER

Ending the HIV Epidemic

DEPARTMENT OF HEALTH & HUMAN SERVICES READY, SET, PrEP PROGRAM:

The Ready, Set, PrEP program makes PrEP medication available at no cost for qualifying recipients. ***To receive PrEP medication through this program, an individual must:***

- Lack prescription drug coverage
- Be tested for HIV with a negative result
- Have a prescription for PrEP

Individuals or healthcare providers can apply at https://getyourPrEP.com.

KEY TERMS:

ACA - Affordable Care Act
RSP - Ready, Set, PrEP
FPL - Federal Poverty Level
CHC - Community Health Center
PAF - Patient Advocate Foundation

DEFINITIONS:

PrEP: Medication to prevent HIV infection (pre-exposure prophylaxis)

Co-pay: Fixed amount to be paid by insured person per prescription

Co-insurance: Fixed percentage of prescription cost to be paid by insured person

Deductible: Amount of health care cost (including prescriptions) that must be paid by the insured person before insurance begins to cover costs

THE MANUFACTURER'S MEDICATION ASSISTANCE PROGRAM:

People eligible for this program must:

- Be without insurance or have payment declined by their insurance carrier
- Be resident in the US (social security number not required)
- Have family income ≤ 500% of the federal poverty level

PERSONS IN HOUSEHOLD	500% of FEDERAL POVERTY 2020
1	$63,800
2	$86,200
3	$108,600
4	$131,000
5	$153,400
6	$175,800
7	$198,200
8	$220,600

Once enrolled in this program:

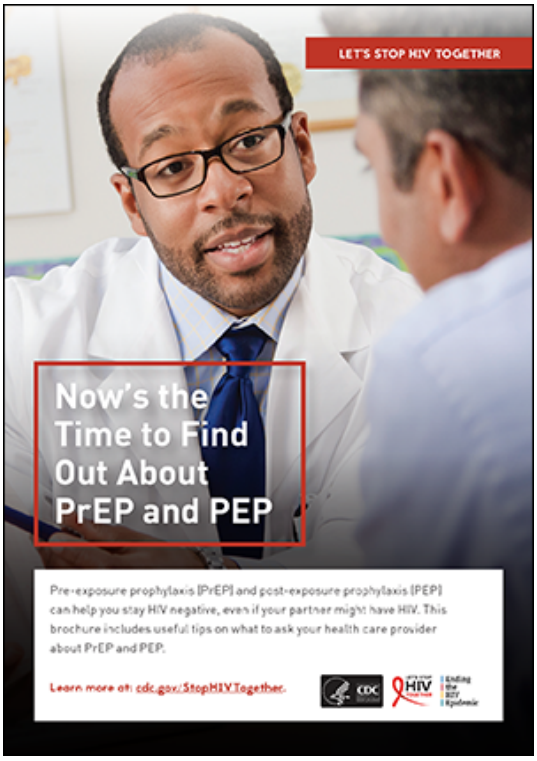
- Medication will be sent to the provider, a pharmacy, or the patient's home
- Patients can get their medication at no charge from their provider or pharmacy for as long as they are eligible
- Eligibility must be confirmed every 6 months by the provider

RESOURCES:

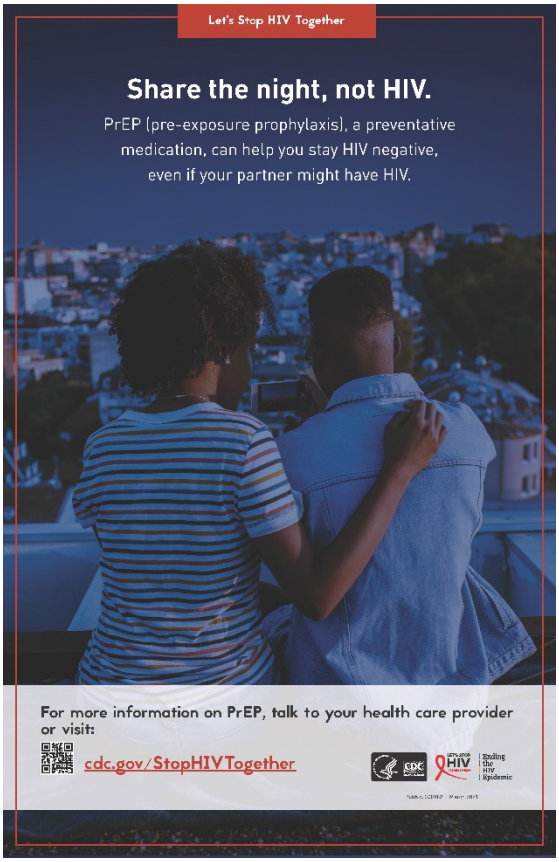
PrEP Locator: preplocator.org
Ready, Set, PrEP (RSP): www.getyourprep.com
Affordable Care Act (Obamacare): www.healthcare.gov
Community Health Center Locator: findahealthcenter.hrsa.gov
NASTAD: www.nastad.org/prepcost-resources/prep-assistance-programs
Gilead Advancing Access Program (for co-pay and medication assistance): www.gileadadvancingaccess.com/Patient Advocate
(PAF) Foundation: www.copays.org/diseases/hiv-aids-and-prevention

Linking to a non-federal website does not constitute an endorsement by CDC or any of its employees of the sponsors or the information and products presented on the website.

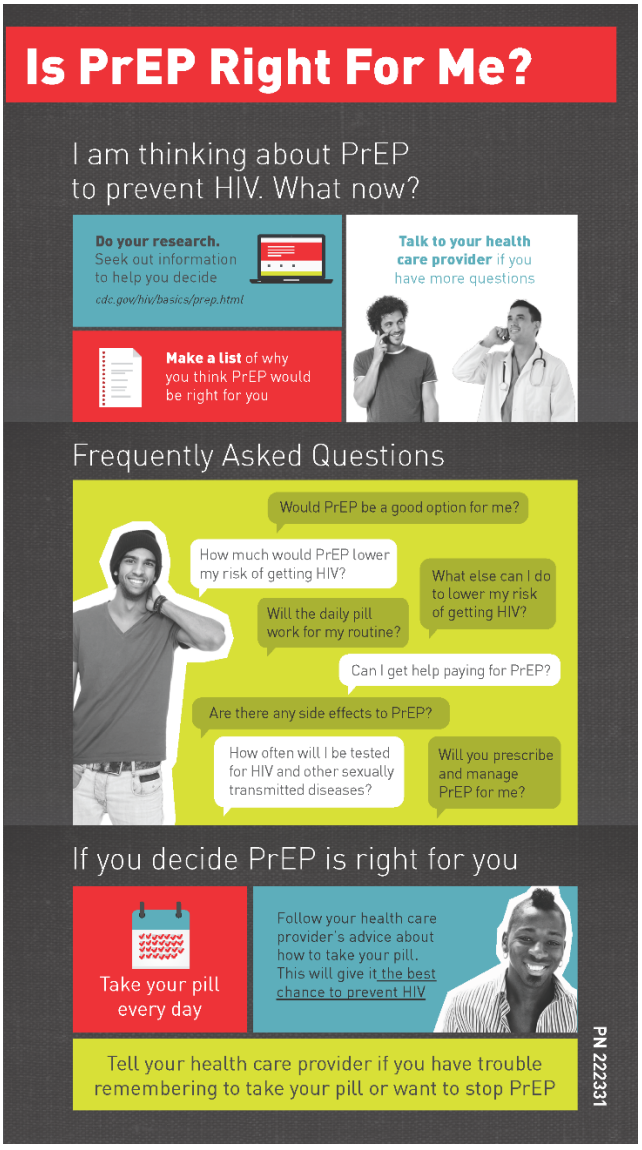
LET'S STOP HIV TOGETHER | Ending the HIV Epidemic

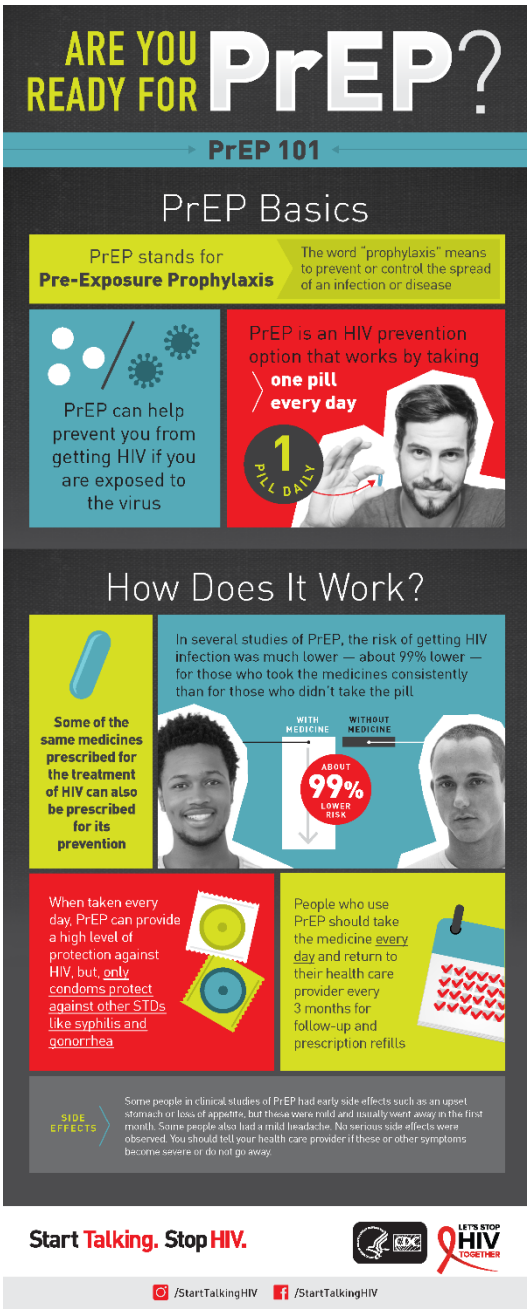


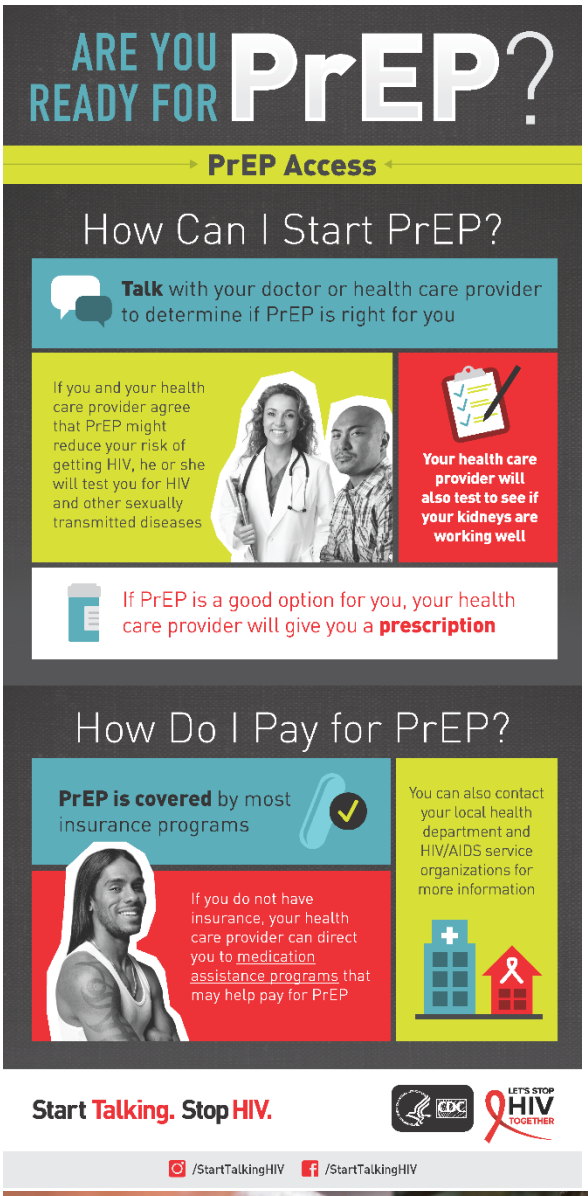

Let's Stop HIV Together
PrEP is changing the HIV conversation.
PrEP (pre-exposure prophylaxis) is an HIV prevention pill. When taken as prescribed, it can greatly reduce your risk of getting HIV. There are more HIV prevention options than ever before.
Talk to your health care provider about which ones are right for you.
For more information on PrEP, talk to your health care provider or visit:
cdc.gov/StopHIVTogether


Let's Stop HIV Together
Share the night, not HIV.
PrEP (pre-exposure prophylaxis), a preventative medication, can help you stay HIV negative, even if your partner might have HIV.
For more information on PrEP, talk to your health care provider or visit:
cdc.gov/StopHIVTogether

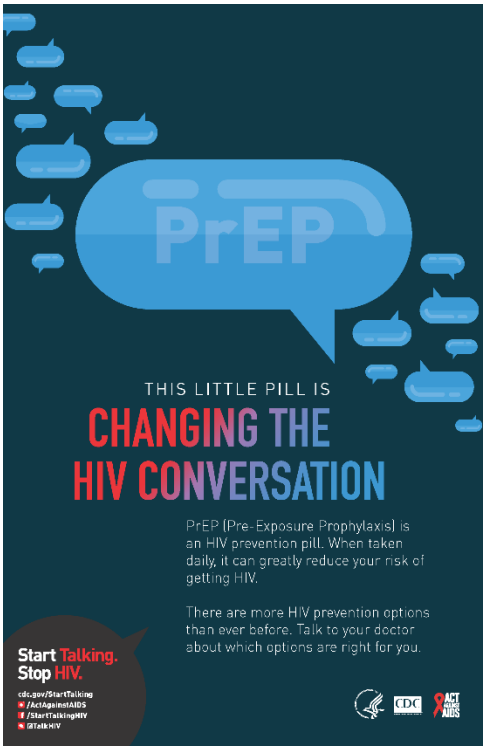

GET INFORMED.
MAKE THE RIGHT CHOICE FOR YOU.
YOU ARE IN CONTROL
ARE YOU READY FOR PrEP?
Start Talking. Stop HIV.
/StartTalkingHIV
/StartTalkingHIV
LET'S STOP HIV TOGETHER
Learn more by visiting cdc.gov/StartTalkingHIV


Is PrEP Right For Me?
I am thinking about PrEP to prevent HIV. What now?
Do your research. Seek out information to help you decide
cdc.gov/hiv/basics/prep.html
Talk to your health care provider if you have more questions
Make a list of why you think PrEP would be right for you
Frequently Asked Questions
Would PrEP be a good option for me?
How much would PrEP lower my risk of getting HIV?
What else can I do to lower my risk of getting HIV?
Will the daily pill work for my routine?
Can I get help paying for PrEP?
Are there any side effects to PrEP?
How often will I be tested for HIV and other sexually transmitted diseases?
Will you prescribe and manage PrEP for me?
If you decide PrEP is right for you
Take your pill every day
Follow your health care provider's advice about how to take your pill. This will give it the best chance to prevent HIV
Tell your health care provider if you have trouble remembering to take your pill or want to stop PrEP
PN 222331

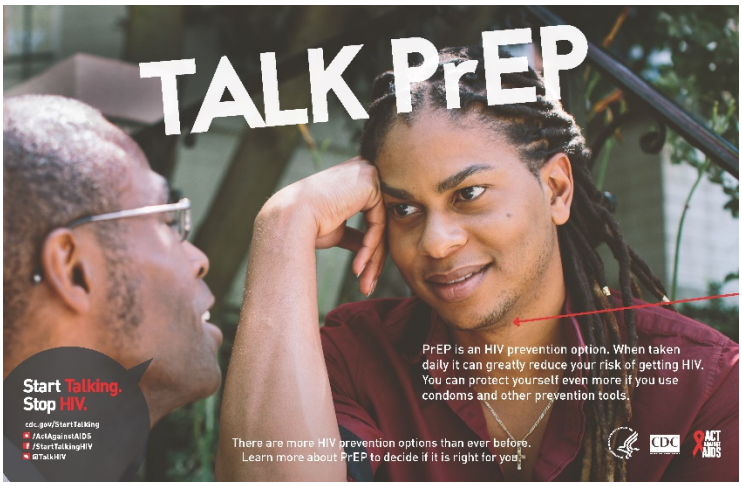

ARE YOU READY FOR PrEP?
PrEP 101
PrEP Basics
PrEP stands for Pre-Exposure Prophylaxis
The word "prophylaxis" means to prevent or control the spread of an infection or disease
PrEP can help prevent you from getting HIV if you are exposed to the virus
PrEP is an HIV prevention option that works by taking one pill every day
1 PILL DAILY
How Does It Work?
Some of the same medicines prescribed for the treatment of HIV can also be prescribed for its prevention
In several studies of PrEP, the risk of getting HIV infection was much lower — about 99% lower — for those who took the medicines consistently than for those who didn't take the pill
WITH MEDICINE
WITHOUT MEDICINE
ABOUT 99% LOWER RISK
When taken every day, PrEP can provide a high level of protection against HIV, but, only condoms protect against other STDs like syphilis and gonorrhea
People who use PrEP should take the medicine every day and return to their health care provider every 3 months for follow-up and prescription refills
SIDE EFFECTS
Some people in clinical studies of PrEP had early side effects such as an upset stomach or loss of appetite, but these were mild and usually went away in the first month. Some people also had a mild headache. No serious side effects were observed. You should tell your health care provider if these or other symptoms become severe or do not go away.
Start Talking. Stop HIV.
LET'S STOP HIV TOGETHER
/StartTalkingHIV
/StartTalkingHIV


ARE YOU READY FOR PrEP?
PrEP Access
How Can I Start PrEP?
Talk with your doctor or health care provider to determine if PrEP is right for you
If you and your health care provider agree that PrEP might reduce your risk of getting HIV, he or she will test you for HIV and other sexually transmitted diseases
Your health care provider will also test to see if your kidneys are working well
If PrEP is a good option for you, your health care provider will give you a prescription
How Do I Pay for PrEP?
PrEP is covered by most insurance programs
If you do not have insurance, your health care provider can direct you to medication assistance programs that may help pay for PrEP
You can also contact your local health department and HIV/AIDS service organizations for more information
Start Talking. Stop HIV.
LET'S STOP HIV TOGETHER
/StartTalkingHIV
/StartTalkingHIV


TALK PrEP
Join the conversation about HIV prevention at cdc.gov/StartTalking
Start Talking. Stop HIV.
/StartTalkingHIV
/StartTalkingHIV
PN 300241

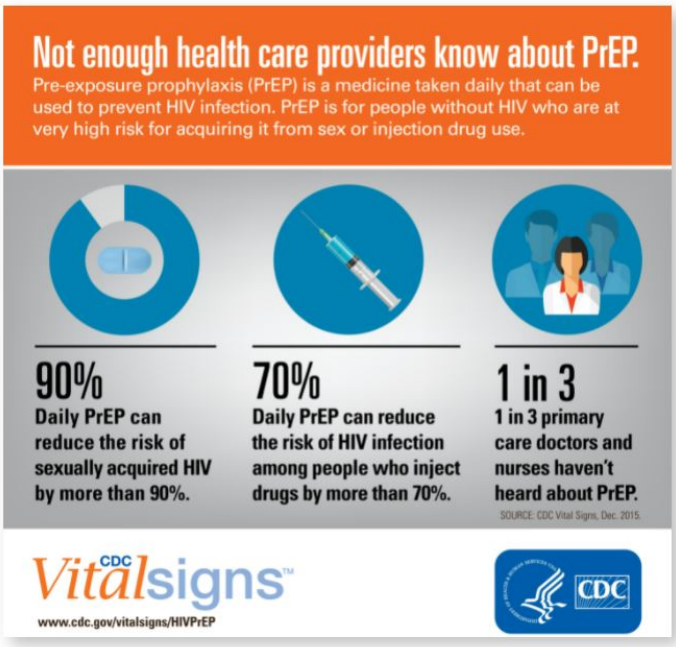

PrEP
THIS LITTLE PILL IS
CHANGING THE HIV CONVERSATION
PrEP (Pre-Exposure Prophylaxis) is an HIV prevention pill. When taken daily, it can greatly reduce your risk of getting HIV.
There are more HIV prevention options than ever before. Talk to your doctor about which options are right for you.
Start Talking. Stop HIV.
cdc.gov/StartTalking
/ActAgainstAIDS
/StartTalkingHIV
@TalkHIV
CDC
ACT AGAINST AIDS


LET'S STOP HIV TOGETHER
Communication is sexy.
There are many HIV prevention options. Get the information you need and talk to your sexual partners about the options that are right for you.
BE READY FOR THE CONVERSATION ABOUT HIV PREVENTION.
cdc.gov/StopHIVTogether/Prevention
CDC
HIV
Ending the HIV Epidemic


TALK PrEP
PrEP is an HIV prevention option. When taken daily it can greatly reduce your risk of getting HIV. You can protect yourself even more if you use condoms and other prevention tools.
There are more HIV prevention options than ever before. Learn more about PrEP to decide if it is right for you.
Start Talking. Stop HIV.
cdc.gov/StartTalking
/ActAgainstAIDS
/StartTalkingHIV
@TalkHIV
CDC
ACT AGAINST AIDS


TALK PrEP
PrEP is an HIV prevention option. When taken daily it can greatly reduce your risk of getting HIV. You can protect yourself even more if you use condoms and other prevention tools.
There are more HIV prevention options than ever before. Learn more about PrEP to decide if it is right for you.
Start Talking. Stop HIV.
cdc.gov/StartTalking
/ActAgainstAIDS
/StartTalkingHIV
@TalkHIV

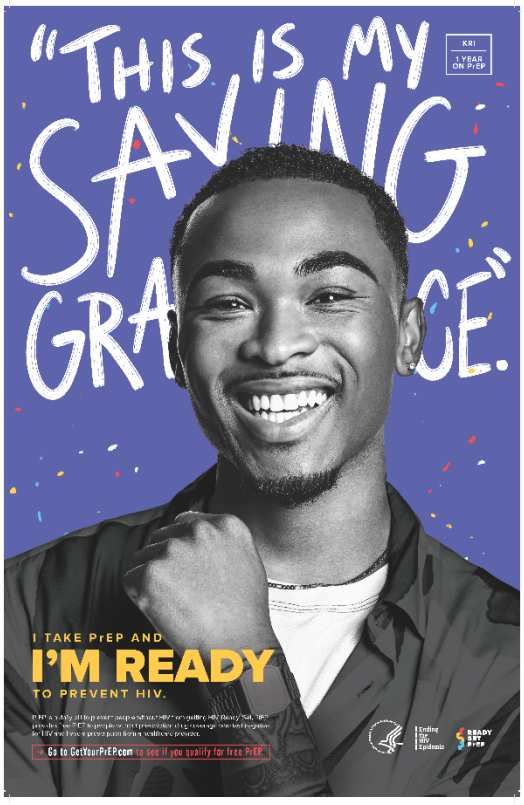

TALK PrEP
PrEP is an HIV prevention option. When taken daily it can greatly reduce your risk of getting HIV. You can protect yourself even more if you use condoms and other prevention tools.
There are more HIV prevention options than ever before. Learn more about PrEP to decide if it is right for you.
Start Talking. Stop HIV.

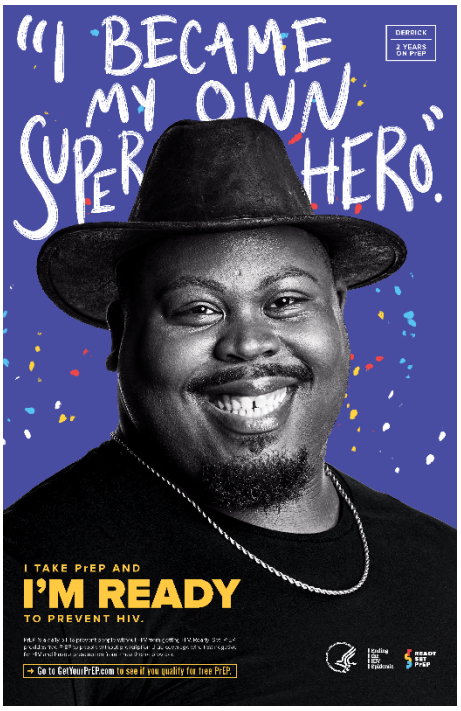

Not enough health care providers know about PrEP.
Pre-exposure prophylaxis (PrEP) is a medicine taken daily that can be used to prevent HIV infection. PrEP is for people without HIV who are at very high risk for acquiring it from sex or injection drug use.
90%
Daily PrEP can reduce the risk of sexually acquired HIV by more than 90%.
70%
Daily PrEP can reduce the risk of HIV infection among people who inject drugs by more than 70%.
1 in 3
1 in 3 primary care doctors and nurses haven't heard about PrEP.
SOURCE: CDC Vital Signs, Dec. 2015.
CDC Vitalsigns
www.cdc.gov/vitalsigns/HIVPrEP
CDC

Tye [PrEP]

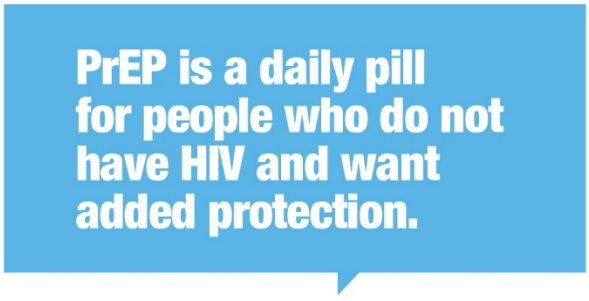
Copy code to embed

Violet [Sexual Health]



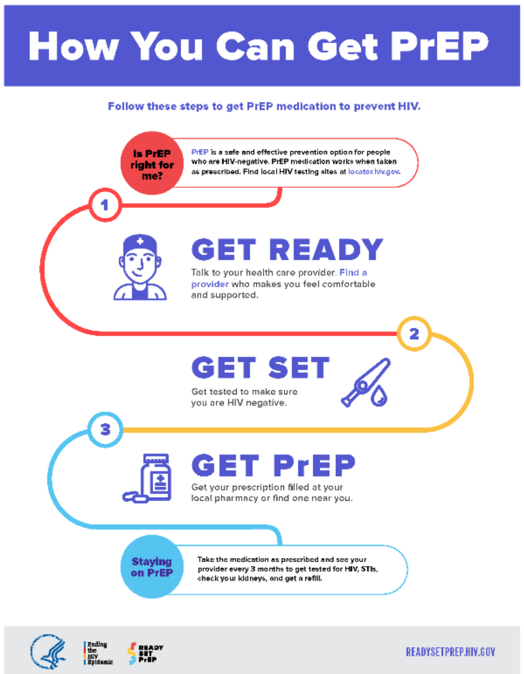

"I BECAME MY OWN SUPER HERO."
DERRICK
2 YEARS ON PrEP
I TAKE PrEP AND
I'M READY
TO PREVENT HIV.
→ Go to GetYourPrEP.com to see if you qualify for free PrEP.

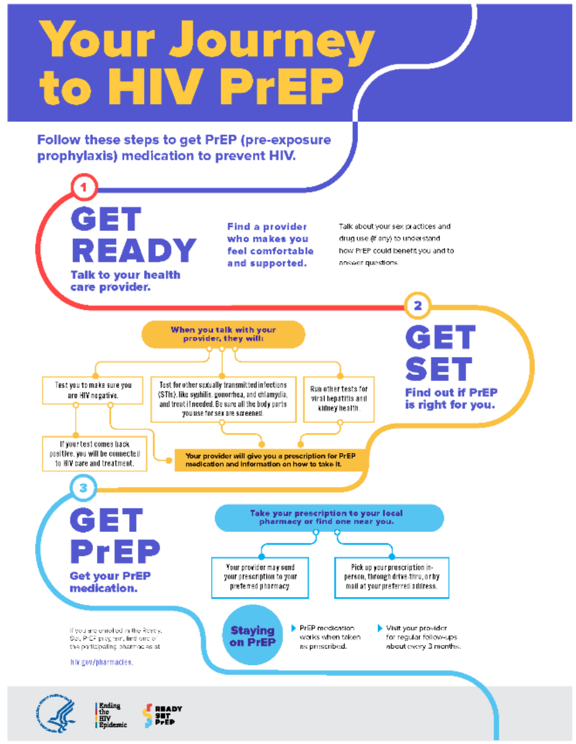

"WATCH ME BE ME."
TONI
3 YEARS ON PrEP
I TAKE PrEP AND
I'M READY
TO PREVENT HIV.
→ Go to GetYourPrEP.com to see if you qualify for free PrEP.

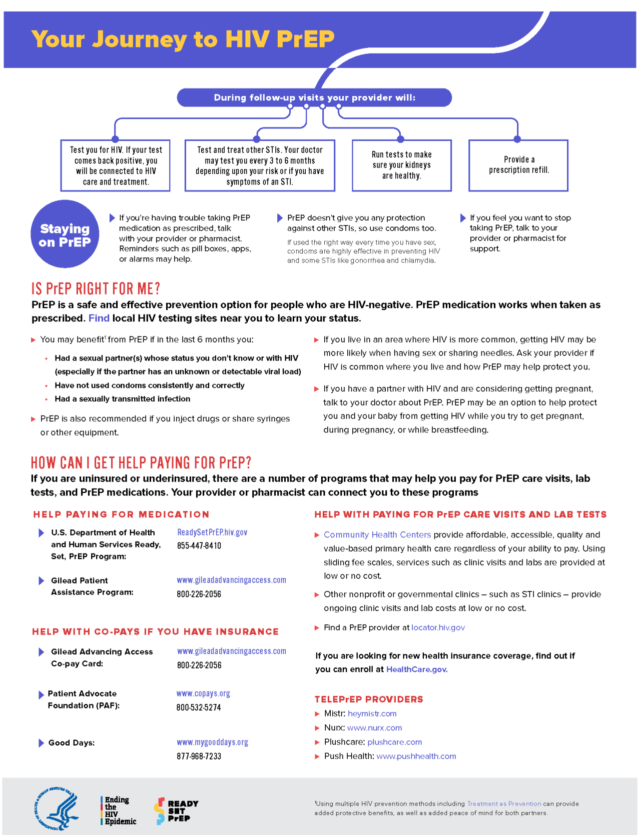

PrEP is a daily pill for people who do not have HIV and want added protection.

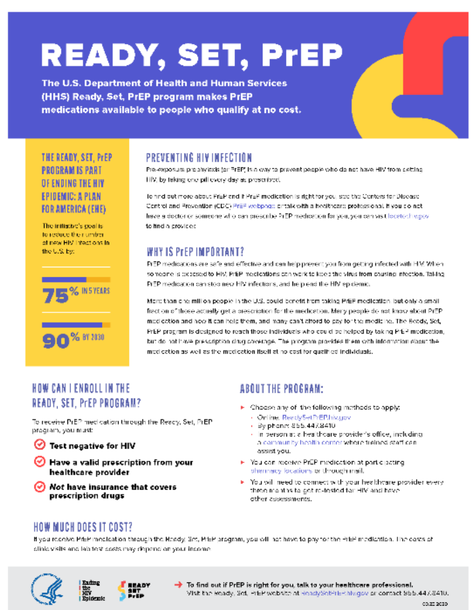

KNOWLEDGE IS POWER
TEST. PrEP. TREAT.
greaterthan.org


WE AIDS


How You Can Get PrEP
Follow these steps to get PrEP medication to prevent HIV.
Is PrEP right for me?
PrEP is a safe and effective prevention option for people who are HIV-negative. PrEP medication works when taken as prescribed. Find local HIV testing sites at locator.hiv.gov.
1
GET READY
Talk to your health care provider. Find a provider who makes you feel comfortable and supported.
2
GET SET
Get tested to make sure you are HIV negative.
3
GET PrEP
Get your prescription filled at your local pharmacy or find one near you.
Staying on PrEP
Take the medication as prescribed and see your provider every 3 months to get tested for HIV, STIs, check your kidneys, and get a refill.
Ending the HIV Epidemic
READY SET PrEP
READYSETPREP.HIV.GOV


Your Journey to HIV PrEP
Follow these steps to get PrEP (pre-exposure prophylaxis) medication to prevent HIV.
1
GET READY
Talk to your health care provider.
Find a provider who makes you feel comfortable and supported.
Talk about your sex practices and drug use (if any) to understand how PrEP could benefit you and to answer questions.
2
GET SET
Find out if PrEP is right for you.
When you talk with your provider, they will:
Test you to make sure you are HIV negative.
Test for other sexually transmitted infections (STIs), like syphilis, gonorrhea, and chlamydia, and treat if needed. Be sure all the body parts you use for sex are screened.
Run other tests for viral hepatitis and kidney health.
If your test comes back positive, you will be connected to HIV care and treatment.
Your provider will give you a prescription for PrEP medication and information on how to take it.
3
GET PrEP
Get your PrEP medication.
Take your prescription to your local pharmacy or find one near you.
Your provider may send your prescription to your preferred pharmacy.
Pick up your prescription in-person, through drive-thru, or by mail at your preferred address.
If you are enrolled in the Ready, Set, PrEP program, find one of the participating pharmacies at
hiv.gov/pharmacies.
Staying on PrEP
PrEP medication works when taken as prescribed.
Visit your provider for regular follow-ups about every 3 months.
Ending the HIV Epidemic
READY SET PrEP


Your Journey to HIV PrEP
During follow-up visits your provider will:
Test you for HIV. If your test comes back positive, you will be connected to HIV care and treatment.
Test and treat other STIs. Your doctor may test you every 3 to 6 months depending upon your risk or if you have symptoms of an STI.
Run tests to make sure your kidneys are healthy.
Provide a prescription refill.
Staying on PrEP
If you're having trouble taking PrEP medication as prescribed, talk with your provider or pharmacist. Reminders such as pill boxes, apps, or alarms may help.
PrEP doesn't give you any protection against other STIs, so use condoms too.
If used the right way every time you have sex, condoms are highly effective in preventing HIV and some STIs like gonorrhea and chlamydia.
If you feel you want to stop taking PrEP, talk to your provider or pharmacist for support.
IS PrEP RIGHT FOR ME?
PrEP is a safe and effective prevention option for people who are HIV-negative. PrEP medication works when taken as prescribed. Find local HIV testing sites near you to learn your status.
You may benefit[1] from PrEP if in the last 6 months you:
Had a sexual partner(s) whose status you don't know or with HIV (especially if the partner has an unknown or detectable viral load)
Have not used condoms consistently and correctly
Had a sexually transmitted infection
PrEP is also recommended if you inject drugs or share syringes or other equipment.
If you live in an area where HIV is more common, getting HIV may be more likely when having sex or sharing needles. Ask your provider if HIV is common where you live and how PrEP may help protect you.
If you have a partner with HIV and are considering getting pregnant, talk to your doctor about PrEP. PrEP may be an option to help protect you and your baby from getting HIV while you try to get pregnant, during pregnancy, or while breastfeeding.
HOW CAN I GET HELP PAYING FOR PrEP?
If you are uninsured or underinsured, there are a number of programs that may help you pay for PrEP care visits, lab tests, and PrEP medications. Your provider or pharmacist can connect you to these programs
HELP PAYING FOR MEDICATION
U.S. Department of Health and Human Services Ready, Set, PrEP Program: ReadySetPrEP.hiv.gov 855-447-8410
Gilead Patient Assistance Program: www.gileadadvancingaccess.com 800-226-2056
HELP WITH CO-PAYS IF YOU HAVE INSURANCE
Gilead Advancing Access Co-pay Card: www.gileadadvancingaccess.com 800-226-2056
Patient Advocate Foundation (PAF): www.copays.org 800-532-5274
Good Days: www.mygooddays.org 877-968-7233
HELP WITH PAYING FOR PrEP CARE VISITS AND LAB TESTS
Community Health Centers provide affordable, accessible, quality and value-based primary health care regardless of your ability to pay. Using sliding fee scales, services such as clinic visits and labs are provided at low or no cost.
Other nonprofit or governmental clinics – such as STI clinics – provide ongoing clinic visits and lab costs at low or no cost.
Find a PrEP provider at locator.hiv.gov
If you are looking for new health insurance coverage, find out if you can enroll at HealthCare.gov.
TELEPrEP PROVIDERS
Mistr: heymistr.com
Nurx: www.nurx.com
Plushcare: plushcare.com
Push Health: www.pushhealth.com
Ending the HIV Epidemic
READY SET PrEP
[1]Using multiple HIV prevention methods including Treatment as Prevention can provide added protective benefits, as well as added peace of mind for both partners.


READY, SET, PrEP
The U.S. Department of Health and Human Services (HHS) Ready, Set, PrEP program makes PrEP medications available to people who qualify at no cost.
THE READY, SET, PrEP PROGRAM IS PART OF ENDING THE HIV EPIDEMIC: A PLAN FOR AMERICA (EHE)
The initiative's goal is to reduce the number of new HIV infections in the U.S. by:
75% IN 5 YEARS
90% BY 2030
PREVENTING HIV INFECTION
WHY IS PrEP IMPORTANT?
HOW CAN I ENROLL IN THE READY, SET, PrEP PROGRAM?
To receive PrEP medication through the Ready, Set, PrEP program, you must:
Test negative for HIV
Have a valid prescription from your healthcare provider
Not have insurance that covers prescription drugs
ABOUT THE PROGRAM:
HOW MUCH DOES IT COST?
Ending the HIV Epidemic
READY SET PrEP
To find out if PrEP is right for you, talk to your healthcare professional.

READY, SET, PrEP

The U.S. Department of Health and Human Services (HHS) Ready, Set, PrEP program makes PrEP medications available to people who qualify at no cost.

THE READY, SET, PrEP PROGRAM IS A PART OF ENDING THE HIV EPIDEMIC: A PLAN FOR AMERICA (EHE)

The initiative's goal is to reduce the number of new HIV infections in the U.S. by:

75% IN 5 YEARS

90% BY 2030

PREVENTING HIV INFECTION

Pre-exposure prophylaxis (or PrEP) is a way to prevent people who do not have HIV from getting HIV, by taking one pill every day as prescribed.

To find out more about PrEP and if PrEP medication is right for you, see the Centers for Disease Control and Prevention (CDC) PrEP webpage or talk with a healthcare professional. If you do not have a doctor or someone who can prescribe PrEP medication for you, you can visit an Indian Health Service (IHS), tribal, or urban Indian health program, or use locator.hiv.gov to find a provider.

WHY IS PrEP IMPORTANT?

PrEP medications are safe and effective and can help prevent you from getting HIV. When someone is exposed to HIV, PrEP medications can work to keep the virus from causing infection. Taking PrEP medication can stop new HIV infections, and help end the HIV epidemic.

More than one million people in the U.S. could benefit from taking PrEP medication, but only a small fraction of those actually get a prescription for the medication. Many people do not know about PrEP medication and how it can help them, and many can't afford to pay for the medicine. The Ready, Set, PrEP program is designed to reach those individuals who could be helped by taking PrEP medication, but do not have prescription drug coverage. The program provides them with information about the medication as well as the medication itself at no cost for qualified individuals.

HOW CAN I ENROLL IN THE READY, SET, PrEP PROGRAM?

To receive PrEP medication through the Ready, Set, PrEP program, you must:

- **Test negative for HIV**
- **Have a valid prescription from your healthcare provider**
- ***Not* have insurance that covers prescription drugs**

Eligibility for IHS pharmacy services does not disqualify you from participation.

ABOUT THE PROGRAM:

- Choose any of the following methods to apply:
  - Online: GetYourPrEP.com
  - By phone: 855.447.8410
  - In person at a healthcare provider's office, including a community health center where trained staff can assist you.
- You can receive PrEP medication at a pharmacy of your choice.
- You will need to connect with your healthcare provider every three months to get re-tested for HIV and have other assessments.

HOW MUCH DOES IT COST?

PrEP medications are available at no cost for patients at federally operated IHS clinics.

If you receive PrEP medication through the Ready, Set, PrEP program, you will not have to pay for the medication. The costs of clinic visits and lab test costs at non-IHS facilities may depend on your income.

The Ready, Set, PrEP program provides an additional resource for Indian Country, to expand on the work IHS is doing to make PrEP medications available to American Indians and Alaska Natives. Your participation in Ready, Set, PrEP can help bring additional resources to Native communities and allow IHS to reach more people.
If you are not eligible for this program, you can still receive PrEP medication free of charge at federally operated IHS clinics.

Ending the HIV Epidemic | READY SET PrEP

→ **To find out if PrEP medication is right for you, talk to your healthcare professional.** Visit the Ready, Set, PrEP website at GetYourPrEP.com or contact 855.447.8410.

Appendix E. List of YouTube Public Service Announcement Links

PSA Creator	Location	URL
PrEPIowa	Iowa	Iowa TelePrEP - YouTube
HIV Chill Pill	Washington	End AIDS - What's PrEP? - YouTube
HIV Chill Pill	Washington	HIV Chill Pill - YouTube
HIV Chill Pill	Washington	HIV Chill Pill - YouTube
HIV Chill Pill	Washington	HIV Chill Pill - YouTube
HIV.gov I'm Ready	National	I'm Ready | Sheldon - YouTube
HIV.gov I'm Ready	National	I'm Ready | Shareef - YouTube
HIV.gov I'm Ready	National	I'm Ready | Tonka - YouTube
HIV.gov I'm Ready	National	I'm Ready: Toni's Story | Ready, Set, PrEP - YouTube
HIV.gov I'm Ready	National	I'm Ready | Jon Jon - YouTube
HIV.gov I'm Ready	National	I'm Ready: Kri's Story - YouTube
HIV.gov I'm Ready	National	I'm Ready- Damián - YouTube
HIV.gov I'm Ready	National	I'm Ready- Trent - YouTube
HIV.gov I'm Ready	National	I'm Ready- Justus - YouTube
HIV.gov I'm Ready	National	I'm Ready: Christopher's Story | Ready, Set, PrEP - YouTube
CDC	National	Let's Stop HIV Together PrEP PSA - YouTube
CDC	National	Start Talking. Stop HIV.: Pre-exposure Prophylaxis (PrEP) - YouTube
CDC	National	PrEP - an HIV prevention option - YouTube
CDC	National	What is PrEP? A brief intro. - YouTube
CDC	National	Let's Stop HIV Together: Jennifer's Story - YouTube
CDC	National	Let's Stop HIV Together: Jontraye's Story - YouTube
CDC She is Well	National	#ShesWell: PrEP for Women | HIV Prevention | Let's Stop HIV Together | CDC
CDC She is Well	National	#ShesWell: PrEP for Women | HIV Prevention | Let's Stop HIV Together | CDC
CDC She is Well	National	#ShesWell: PrEP for Women | HIV Prevention | Let's Stop HIV Together | CDC
CDC She is Well	National	#ShesWell: PrEP for Women | HIV Prevention | Let's Stop HIV Together | CDC
CDC	National	PrEP (Pre-Exposure Prophylaxis) - YouTube
CDC	National	Let's Stop HIV Together English PSA - YouTube