Webcast 1.1

PrEP for HIV Prevention: An Introduction

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Overview

• What is PrEP?
• HIV Epidemiology: Who might benefit from PrEP?
• The Science Behind PrEP
• Local Health Departments and PrEP
PrEP: What are we talking about?

• A new HIV prevention option that utilizes antiretroviral HIV medications to prevent HIV infection before exposure to HIV

• Involves taking daily oral tenofovir disoproxil fumarate plus emtricitabine (TDF/FTC)
  o Combination pill (brand name Truvada)
  o Approved by the U.S. Food and Drug Administration for use as HIV treatment in 2004
  o Approved for use as PrEP in July 2012
PrEP: What are we talking about?

• Both a *biomedical* and a *behavioral* intervention:
  o Adherence is key to efficacy
  o Risk-reduction counseling is integral to PrEP

• When taken as directed, PrEP is greater than 90% effective at preventing HIV

• Protects against HIV, but not STIs or pregnancy
PEP: Isolated HIV Exposure

HIV Exposure → HIV Infection

0 hr  72 hr  1 mo  5 mo
PEP: Prevents Infection After Isolated Exposure

- HIV Exposure
- PEP (taken for 28 days after initiation)
- Timeline: 0 hr, 72 hr, 1 mo, 5 mo
PrEP: Multiple Exposures

HIV Exposure

HIV Exposure

HIV Infection

0 hr  72 hr  1 mo  6 mo
PrEP: Prevents Infection Before Exposure

HIV Exposure

HIV Exposure

PrEP

0 hr  72 hr  1 mo  6 mo
HIV Epidemiology

- Who is at risk for HIV in the United States?
- Who might benefit from PrEP?
Estimated Rate of New HIV Infections, 2010

Estimated New HIV Infections, 2010, by Transmission Category

- MSM: 63%
- Heterosexual: 25%
- IDU: 8%
- MSM-IDU: 3%

Estimated New HIV Infections, 2010, for the Most-affected Sub-populations

Rates of Diagnoses of HIV Infection among Adults and Adolescents, 2011—United States and 6 Dependent Areas

N = 50,007  Total Rate = 19.1

Note: Data include persons with a diagnosis of HIV infection regardless of stage of disease at diagnosis. All displayed data have been statistically adjusted to account for reporting delays, but not for incomplete reporting.
The Science Behind PrEP

Evolution of HIV Therapies Related to HIV Prevention

- Highly active antiretroviral therapy (HAART)
- Prevention of mother-to-child transmission (PMTCT)
- Post-exposure prophylaxis (PEP)
- Treatment as prevention (TasP)
- Pre-exposure prophylaxis (PrEP)
Prevention Science Overview: Biomedical Intervention Efficacy

Modified from Abdool Karim, Lancet, 2011
Increased Adherence Associated with Increased Efficacy

Grant, Lancet, 2014
Prevention Science Overview: Biomedical Intervention Efficacy

Modified from Abdool Karim, Lancet, 2011
Local Health Departments and PrEP

What can local health departments do?

- Develop community profiles for HIV prevention planning
- Create resource inventories
- Educate at-risk community members, healthcare providers, and other HIV prevention partners
- Conduct risk assessments and make referrals for PrEP
- Support PrEP delivery (e.g. HIV and STI screening, adherence and behavioral risk counseling support)
- Deliver PrEP via health department clinics
- Evaluate and monitor HIV incidence and key PrEP performance measures
NACCHO’s Educational Series on PrEP and Local Health Departments

Module 1
PrEP for HIV Prevention: An Introduction
Beyond the Basics: The Science of PrEP
US Public Health Service Clinical Practice Guidelines for PrEP

Module 2

Module 3
Increasing PrEP Awareness and Knowledge in Your Jurisdiction
Incorporating PrEP into Comprehensive HIV Prevention Programs

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