

Risk Behavior and Disease Prevention: From HIV to Covid-19

Audio commences @ 2:00pm ET

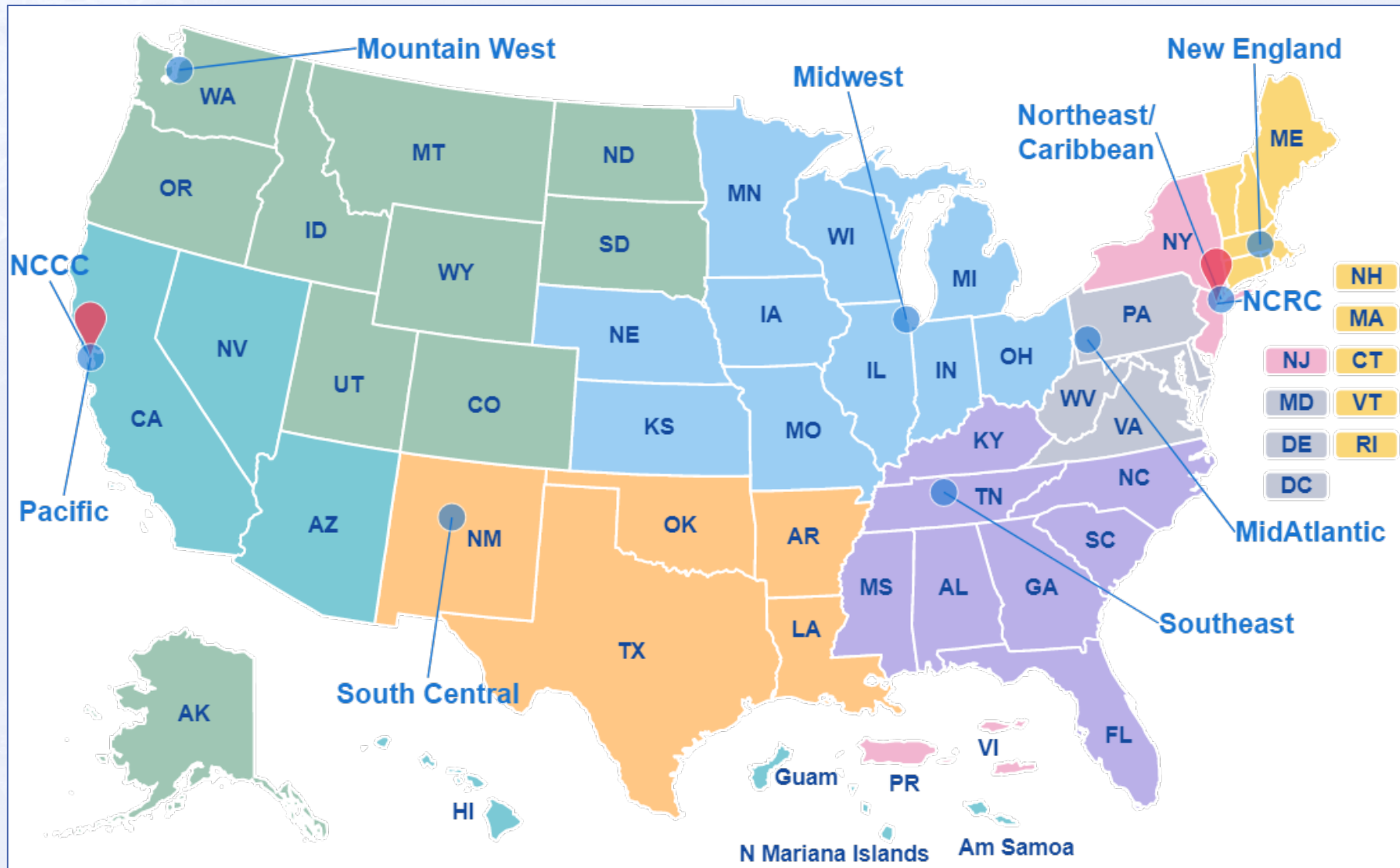
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- The MidAtlantic AETC offers a range of training and consultation services.
 - **Core Training:** Didactic and Interactive Training Programs
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 - **Clinical Preceptorships**
 - **Clinical Consultation:** National and Local Expert Resources
 - **Coaching for Organization Capacity Building:** Technical Assistance
- Practice Transformation Project
- Interprofessional Education Project
- Minority AIDS Initiative



Nationwide AETC Network





CLINICIAN CONSULTATION CENTER
Translating science into care

*The Clinician Consultation Center is a free telephone advice service for clinicians by clinicians.
Receive expert clinical advice on HIV, PrEP, PEP, hepatitis C, substance use and perinatal HIV.*

See nccc.ucsf.edu for more information.

HIV/AIDS Warmline

800-933-3413

HIV testing, ARV regimens, resistance, and co-morbidities

Perinatal HIV Hotline

888-448-8765

Pregnant women with HIV or at-risk for HIV & their infants

Hepatitis Warmline

844-HEP-INFO

HCV testing, monitoring, treatment

PrEPline

855-HIV-PrEP

Pre-exposure prophylaxis for persons at risk of contracting HIV

Substance Use Warmline

855-300-3595

Substance use evaluation and management

PEPline

888-448-4911

Occupational + non-occupational exposure management

Planning: Disclosure

The staff and faculty involved with the planning of today's event **do not** have any conflicts of interest to disclose.

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Risk Behavior and Disease Prevention: From HIV to Covid-19

Julia Marcus, PhD, MPH

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Department of Population Medicine

Harvard Medical School

DEPARTMENT OF POPULATION MEDICINE



HARVARD
MEDICAL SCHOOL



Harvard Pilgrim
Health Care Institute

Disclosures

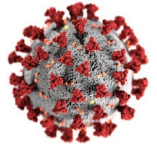
Previously consulted for Kaiser Permanente Northern California on a research grant from Gilead Sciences



Themes



Shame, blame, and punishment in HIV



Repeating these mistakes with Covid-19



Harm reduction can guide a more effective response

THE NEW YORK TIMES,

FRIDAY, JULY 3, 1981

A20

L

RARE CANCER SEEN IN 41 HOMOSEXUALS

Outbreak Occurs Among Men
in New York and California
—8 Died Inside 2 Years

By LAWRENCE K. ALTMAN

Doctors in New York and California have diagnosed among homosexual men 41 cases of a rare and often rapidly fatal form of cancer. Eight of the victims died less than 24 months after the diagnosis was made.

The cause of the outbreak is unknown.

A BAD REPUTATION ISN'T ALL YOU CAN GET FROM SLEEPING AROUND.



Think about it. When you sleep with someone, you're sleeping with everyone he or she has slept with for the past eight years. And if someone along the line had the AIDS virus, you would have been exposed.

Unfortunately, there is no known cure for AIDS. Everyone who gets it dies. But AIDS can be prevented. By saying

no to sex. And by saying no to needle drugs.

Don't let it embarrass you to death. Get all the facts about AIDS, and talk about them with your girlfriend or boyfriend. Then if you choose to have sex, stick to one partner. And use a condom, properly, every time. It's one of the best defenses against AIDS. The point is, if you're going to have sex,

you should do it responsibly.

Don't fool around with your life. Find out more about how AIDS is transmitted, and how you can protect yourself. Call the Dallas County Health Department, (214) 251-4333. All calls are strictly confidential.

AIDS CLUSTER OF OPPORTUNITIES INFECTIONS



Thomas, shown here with an older Nygil, is now serving a 30-year-sentence for failing to disclose his HIV status. The earliest he might be released is 2029.

Laws that criminalize HIV exposure in 37 states:

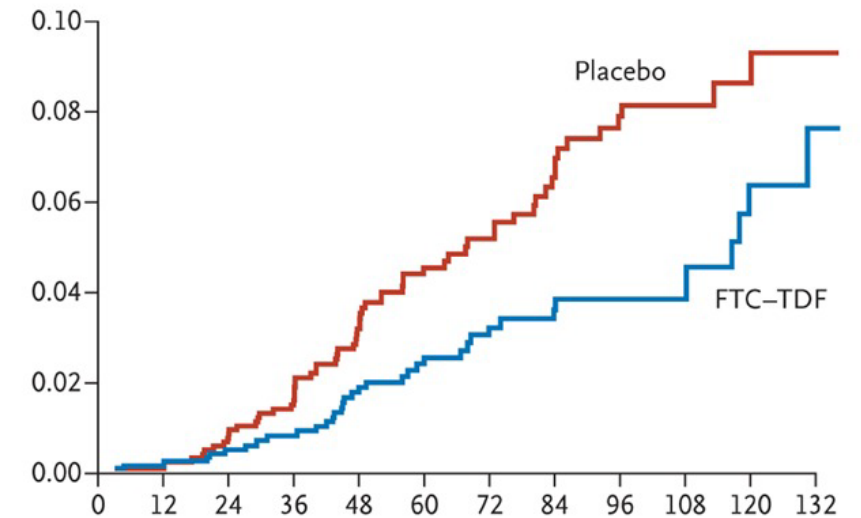
- Do not consider intent
- Include behaviors that cannot transmit HIV
- Not associated with reduced risk behavior
- Deter HIV testing
- Increase HIV stigma
- Enforced inequitably

A revolution in HIV prevention



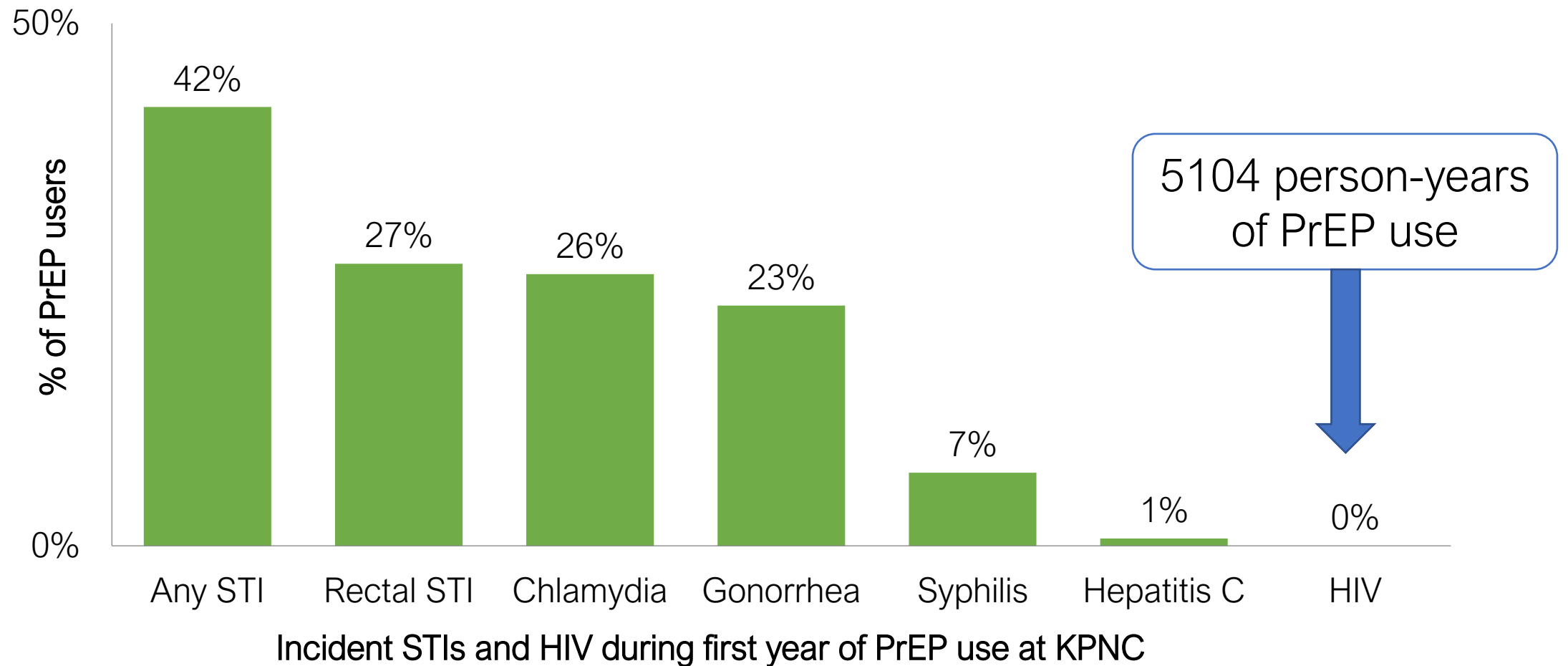
Preexposure Chemoprophylaxis for HIV Prevention in Men Who Have Sex with Men

Robert M. Grant, M.D., M.P.H., Javier R. Lama, M.D., M.P.H., Peter L. Anderson, Pharm.D., Vanessa McMahan, B.S., Albert Y. Liu, M.D., M.P.H., Lorena Vargas, Pedro Goicochea, M.Sc., Martín Casapía, M.D., M.P.H., Juan Vicente Guanira-Carranza, M.D., M.P.H., Maria E. Ramirez-Cardich, M.D., Orlando Montoya-Herrera, M.Sc., Telmo Fernández, M.D., Valdilea G. Veloso, M.D., Ph.D., Susan P. Buchbinder, M.D., Suwat Chariyalertsak, M.D., Dr.P.H., Mauro Schechter, M.D., Ph.D., Linda-Gail Bekker, M.B., Ch.B., Ph.D., Kenneth H. Mayer, M.D., Esper Georges Kallás, M.D., Ph.D., K. Rivet Amico, Ph.D., Kathleen Mulligan, Ph.D., Lane R. Bushman, B.Chem., Robert J. Hance, A.A., Carmela Ganoza, M.D., Patricia Defechereux, Ph.D., Brian Postle, B.S., Furong Wang, M.D., J. Jeff McConnell, M.A., Jia-Hua Zheng, Ph.D., Jeanny Lee, B.S., James F. Rooney, M.D., Howard S. Jaffe, M.D., Ana I. Martinez, R.Ph., David N. Burns, M.D., M.P.H., and David V. Glidden, Ph.D., for the iPrEx Study Team*



44% risk reduction for
TDF/FTC PrEP vs.
placebo

Even more effective in clinical practice



PrEP effectiveness with optimal use

Population	Effectiveness	Source
Men who have sex with men	~99%	Grant, 2014 Liu, 2015 McCormack, 2015 Volk, 2015 Marcus, 2017
Heterosexual men and women	~99%	Baeten, 2012
People who inject drugs	74-84%	Choopanya, 2013 Martin, 2015

THE NEW YORKER

NEWS

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SEPTEMBER 30, 2013

WHY IS NO ONE ON THE FIRST TREATMENT TO PREVENT H.I.V.?

BY CHRISTOPHER GLAZEK



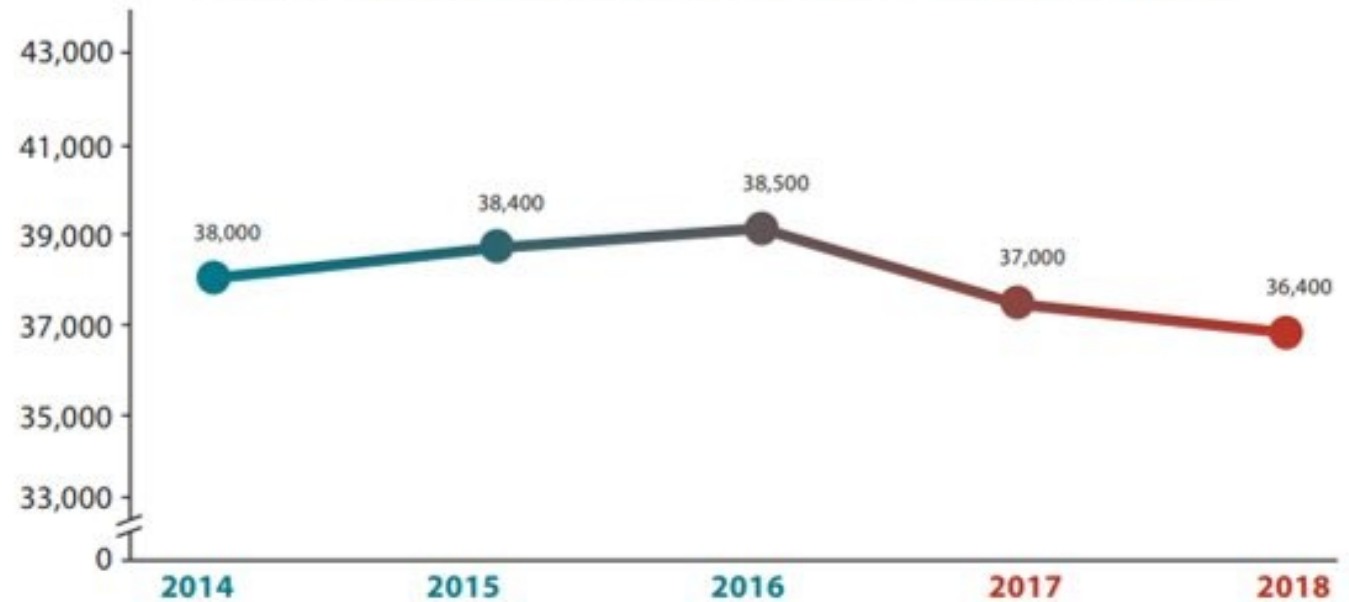
Of the estimated 1.2 million Americans with indications for PrEP, only **18%** used it in 2018

Progress in HIV Prevention Has Stalled

Annual HIV infections (“HIV incidence”) in the United States have been reduced by more than two-thirds since the height of the epidemic in the mid-1980s*.

However, CDC data indicate that progress has stalled in recent years, at about 38,000 new HIV infections each year between 2014 and 2018.

Annual HIV Infections in the U.S., 2014-2018



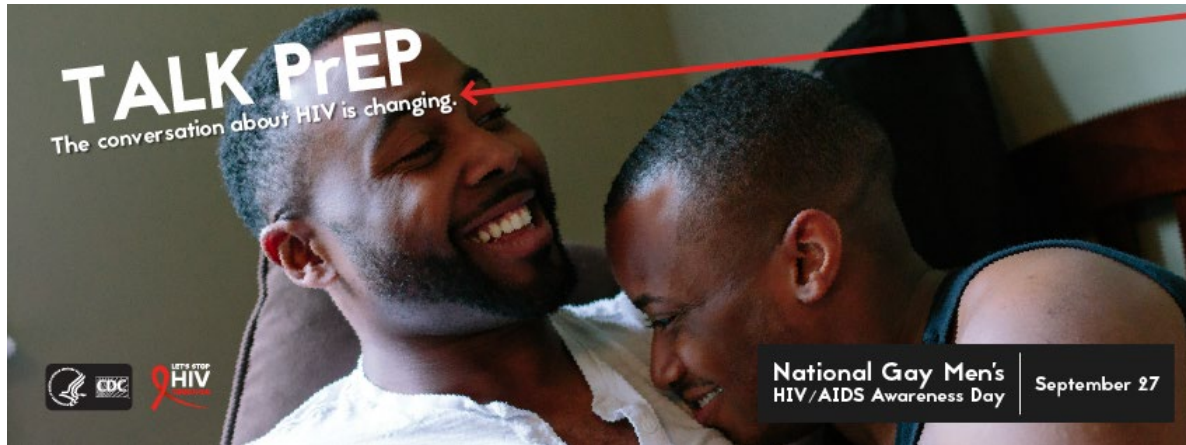
Has Pre-exposure Prophylaxis Made a Difference at a Population Level? Jury Is Still Out

Julia L. Marcus,^{1,✉} A. David Paltiel,² and Rochelle P. Walensky³

- Declining HIV incidence in white MSM but not others
- Modest evidence that states with more PrEP use have less HIV
- Highly effective intervention → limited population impact

PrEP used least by people who need it most

Lifetime Risk of HIV Diagnosis among MSM by Race/Ethnicity



PrEP coverage

Black: 6%

Hispanic: 11%

White: 42%



FDA Panel Recommends Anti-HIV Drug for Prevention

SILVER SPRING, MARYLAND—On 10 May, the Antiviral Drugs Advisory Committee of the U.S. Food and Drug Administration (FDA) held a marathon debate about whether an anti-HIV drug on the market as a treatment should receive approval as a preventive for uninfected people. For more than 12 hours, the committee heard scientific evidence and impassioned arguments for and against, ultimately recommending that FDA approve the use of the drug Truvada for what's called pre-exposure prophylaxis (PrEP). The decision was not unanimous, and there was a protracted back and forth about how to reduce the possibility that PrEP might cause more harm than good. By the time the committee chair asked whether the 22 members were ready to vote—which took place after the scheduled 6:30 p.m. adjournment—one person in the audience said, “Amen!”

There's little question that Truvada, made by Gilead Sciences Inc. in Foster City, California, can prevent sexual transmission of HIV: Large, controlled studies in both uninfected men who have sex with men (MSM) and uninfected heterosexuals who have long-term partners known to be infected have proved that the drug reduces risk by more than 90% when taken daily. But adherence is the rub. Many of the participants in clinical tri-

A central concern about PrEP, shared by advocates and opponents alike, is that it will lead to “risk compensation”—in other words, people will assume the pill protects them and abandon other proven prevention strategies like condom use. A small PrEP study Buchbinder participated in extensively evaluated risk compensation and found that none occurred. Similarly, none of the large-scale

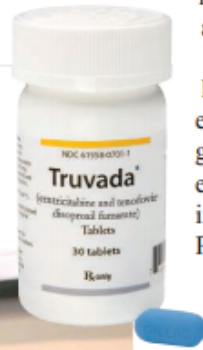
by itself to prevent an HIV infection, as a treatment, it must be used with other drugs to avoid the emergence of resistant strains. The challenge with PrEP, then, is making sure that people use Truvada as a solo drug only if they are not infected—otherwise, resistant strains could run rampant and render the drug useless as both a treatment and a preventive.

If FDA approves the label change, Gilead explained in a “risk mitigation” plan how it would educate providers about the importance of prescribing PrEP only to patients who test HIV negative. But making sure only uninfected people use PrEP is easier said than done.

In clinical trials of PrEP, few cases of drug resistance were seen in the thousands of study participants. But researchers checked for infection each month and also ran sensitive PCR assays that can detect HIV in the first few weeks after

infection, which is missed on standard antibody tests. In the real world, who would oversee repeated tests of people prescribed PrEP? Would retesting be required for refills? It is possible to restrict access to drugs—women receiving the acne medication Accutane must receive pregnancy tests before each prescription is filled—but as several committee mem-

Minor discord. Michael Weinstein of the AIDS Healthcare Foundation led a small but vocal campaign against the approval of Truvada as a preventive.

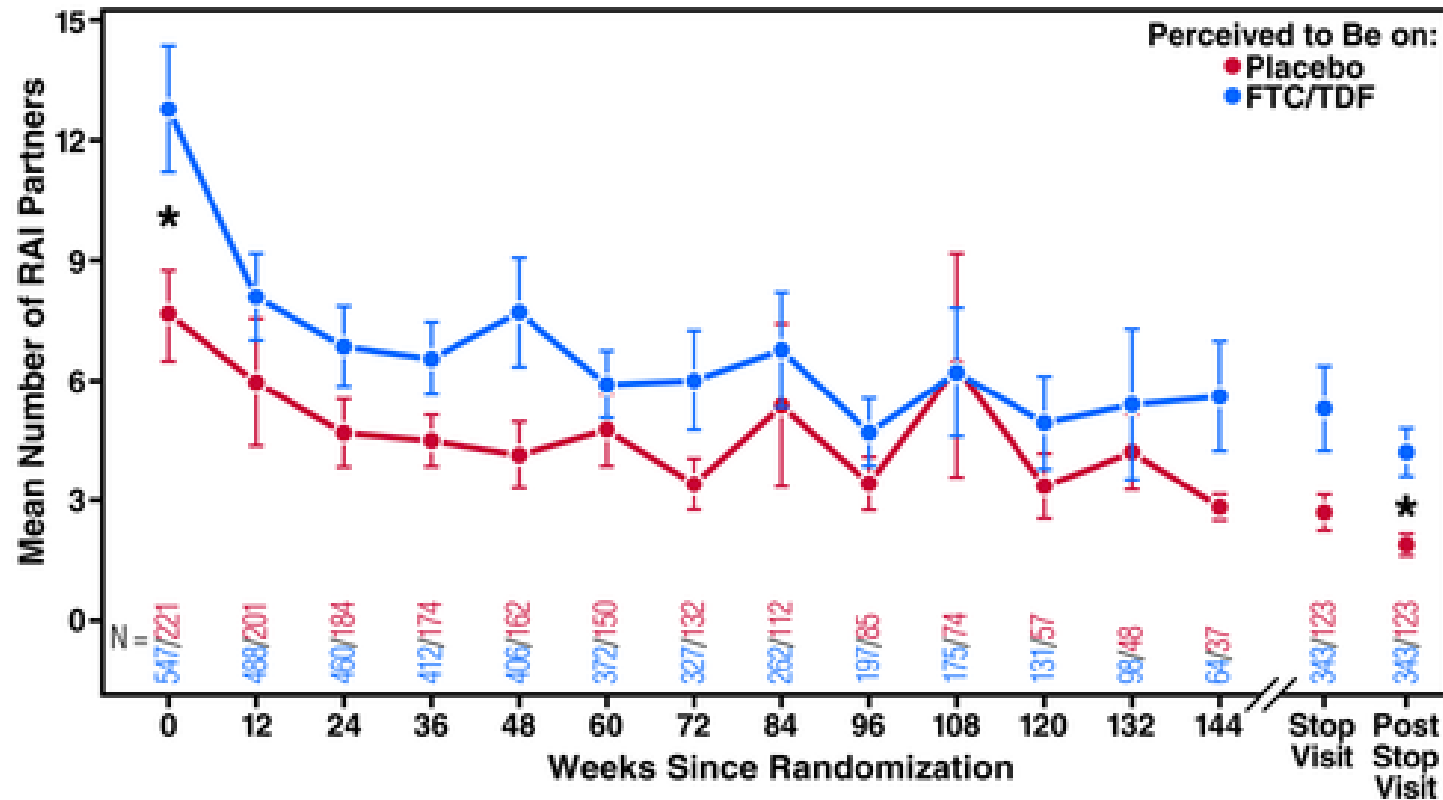


“If something comes along that’s better than condoms, I’m all for it, but Truvada is not that. Let’s be honest: It’s a party drug.”

– Michael Weinstein, AIDS Healthcare Foundation

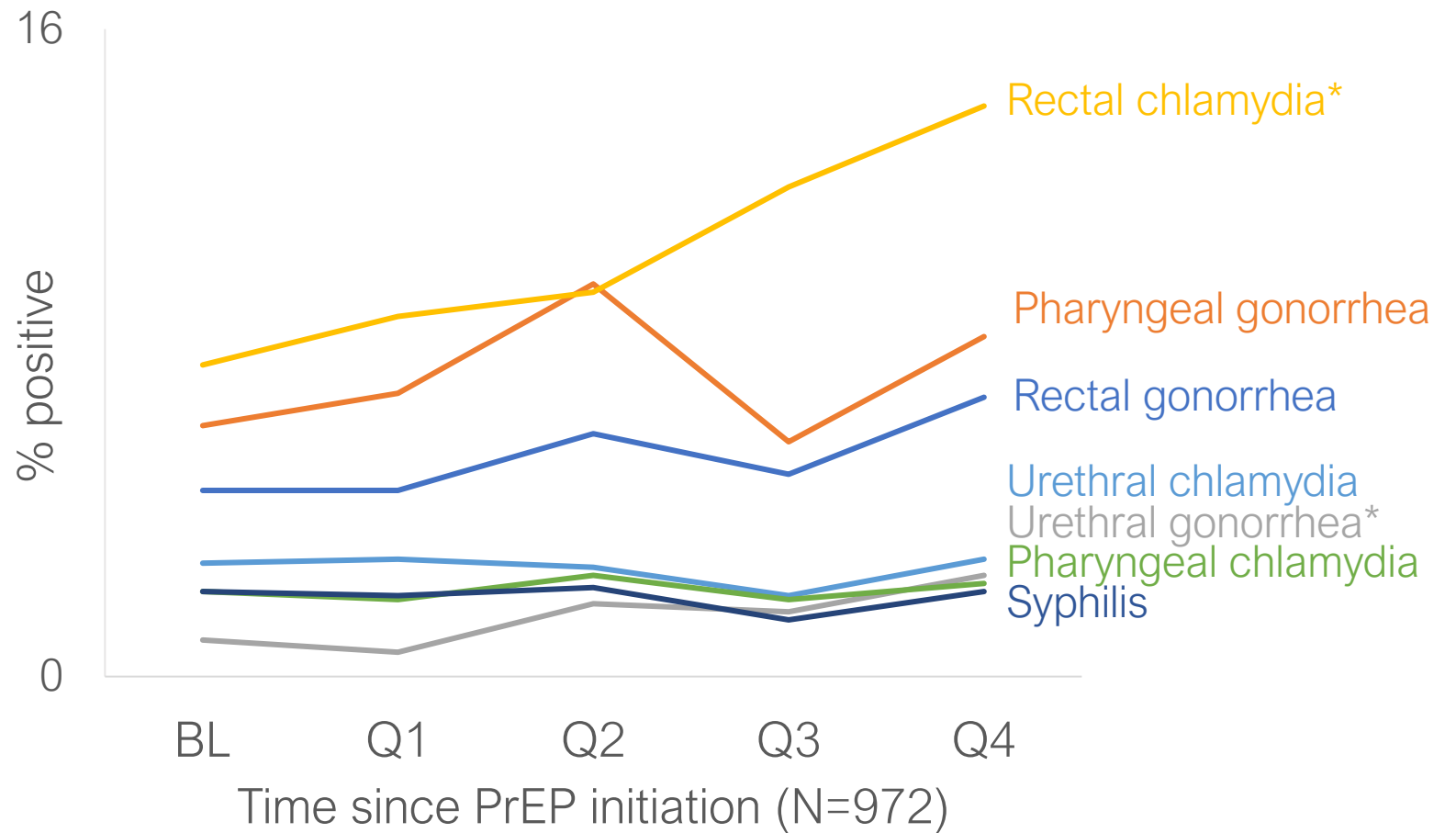
No Evidence of Sexual Risk Compensation in the iPrEx Trial of Daily Oral HIV Preexposure Prophylaxis

Julia L. Marcus^{1,2}, David V. Glidden³, Kenneth H. Mayer^{4,5}, Albert Y. Liu^{3,6}, Susan P. Buchbinder^{3,6}, K. Rivet Amico⁷, Vanessa McMahan¹, Esper Georges Kallas⁸, Orlando Montoya-Herrera⁹, Jose Pilotto¹⁰, Robert M. Grant^{1,3*}



STIs during PrEP use in clinical practice

- Increasing STIs may reflect:
 - Decreasing condom use in PrEP users
 - Decreasing condom use in the community
 - Appropriate PrEP prescribing





* Indicates $P < 0.05$

Concerns are not just about STIs

RESEARCH ARTICLE

Prevention paradox: Medical students are less inclined to prescribe HIV pre-exposure prophylaxis for patients in highest need

Sarah K Calabrese^{1,2§} , Valerie A Earnshaw³, Kristen Underhill^{4,5}, Douglas S Krakower^{6,7,8}, Manya Magnus⁹, Nathan B Hansen¹⁰, Kenneth H Mayer^{6,7,11} , Joseph R Betancourt¹², Trace S Kershaw² and John F Dovidio^{2,13}

Reason for discontinuing condoms	Acceptability
Conception	68.5%
Intimacy	23.4%
Pleasure	14.4%
Sexual functioning	12.6%

What actually matters to PrEP users?

Table 3 Hierarchical logistic regression predicting PrEP adoption intentions ($N=164$)

	Step 1		Step 2	
	aOR	95 % CI	aOR	95 % CI
Age	1.03*	1.00, 1.07	1.04*	1.00, 1.07
Less than bachelors'	0.49*	0.25, 0.96	0.46*	0.23, 0.92
Condomless anal sex with OP, past 30 days ^a	1.71	0.85, 3.44	1.52	0.75, 3.11
Lifetime HIV risk perception	1.01*	1.00, 1.07	1.01	0.99, 1.03
Intimacy interference condom motivations	–	–	1.55*	1.02, 2.34

Primary PrEP motivator is intimacy through condomless sex



The NEW ENGLAND
JOURNAL of MEDICINE

Risk Compensation and Clinical Decision Making — The Case of HIV Preexposure Prophylaxis

Julia L. Marcus, Ph.D., M.P.H., Kenneth A. Katz, M.D., M.S.C.E., Douglas S. Krakower, M.D.,
and Sarah K. Calabrese, Ph.D.

“Patient-centered care requires recognizing that disease prevention may not be the most important health outcome to patients.”

Sexual health is more than absence of disease



“Sexual health is a state of physical, mental and social well-being in relation to sexuality. It requires a **positive and respectful** approach to sexuality and sexual relationships, as well as the possibility of having **pleasurable and safe** sexual experiences, free of coercion, discrimination and violence.”

Reducing stigma through language

COMMENTARY

Words Matter: Putting an End to “Unsafe” and “Risky” Sex

Julia L. Marcus, PhD, MPH and Jonathan M. Snowden, PhD†*

EDITORIAL

Making our Words Matter: Reflections on Terminology to Describe Behavioral Risk Factors in STD and HIV Prevention

Editors, Sexually Transmitted Diseases

Ambiguous or stigmatizing

Unsafe sex
Risky sexual behavior
Risky sex
Sexual risk behavior
High-risk sexual behavior
Unprotected sex

Precise and neutral

Condomless receptive vaginal sex
Multiple anal sex partners
Sex with a partner with unknown HIV serostatus
Condomless receptive anal sex with PrEP
Condomless receptive anal sex without PrEP
Condomless insertive anal sex with a PWH with unsuppressed viral load

Center what matters to people



People who had seen the campaign were more likely to:

- have taken PrEP
- believe their friends and the general public approved of and used PrEP

WHO declares the coronavirus outbreak a pandemic

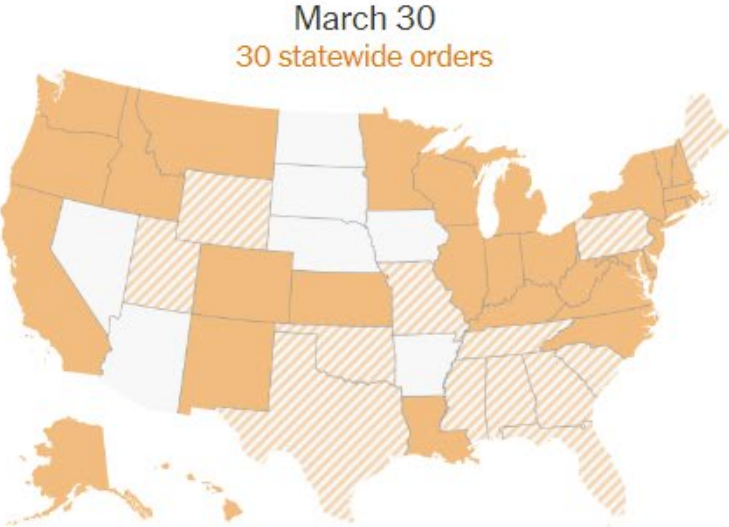
By HELEN BRANSWELL @HelenBranswell and ANDREW JOSEPH @DrewQJoseph / MARCH 11, 2020

[Reprints](#)



The New York Times

See Which States and Cities Have Told Residents to Stay at Home



The Boston Globe

Quarantine fatigue has set in – and some of us seem to be social distancing scofflaws

‘Traffic jams of people’ headed to beaches and otherwise flouting city guidance prompt a string of complaints.

By [Steve Annear](#) and [Dugan Arnett](#) Globe Staff,
Updated May 4, 2020, 12:18 p.m.

“For evidence of the frayed nerves, look no further than the case of the 43-year-old father from Cambridge, who, while out for a walk with his young children last month, allegedly **pulled a pocket knife on a jogger** and ordered him to cross the street, in an apparent effort to enforce social distancing recommendations.”

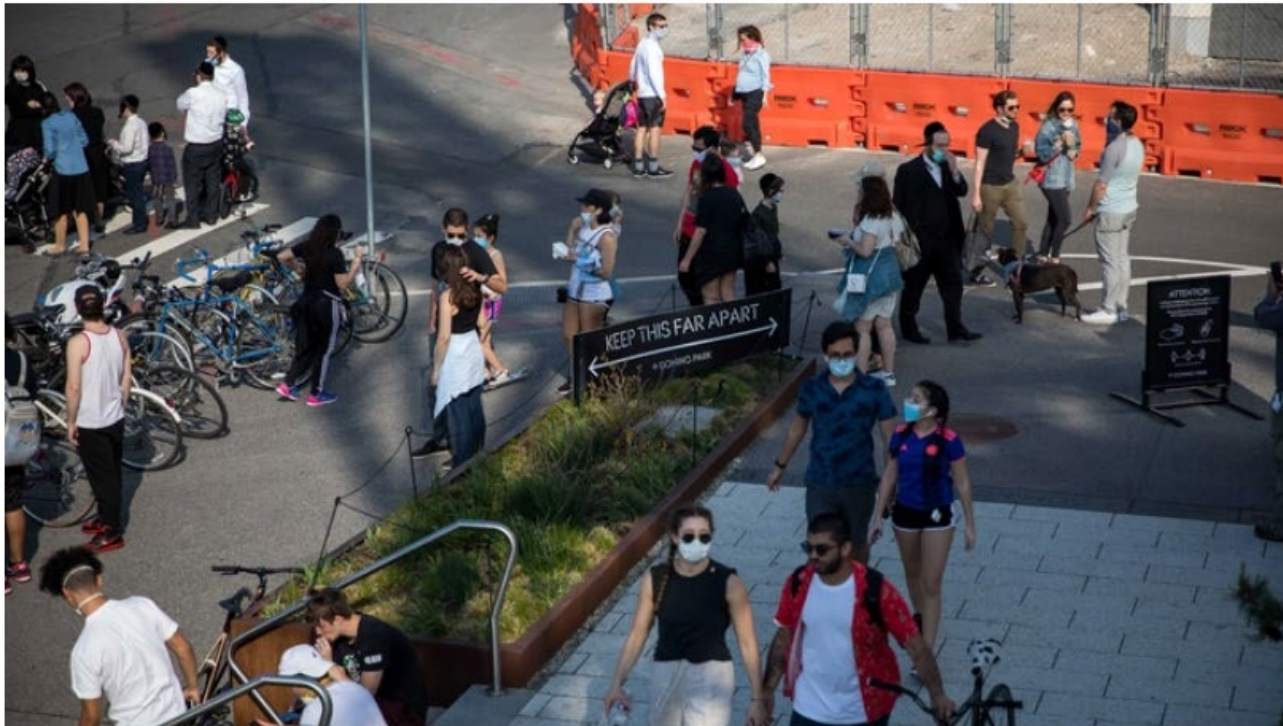
Quarantine Fatigue Is Real

Instead of an all-or-nothing approach to risk prevention, Americans need a manual on how to have a life in a pandemic.

MAY 11, 2020

Julia Marcus

Epidemiologist and professor at Harvard Medical School



“Public-health experts have known for decades that an **abstinence-only message** doesn’t work for sex. It doesn’t work for substance use, either. Likewise, asking Americans to abstain from nearly all in-person social contact will not hold the coronavirus at bay—at least not forever.”

What is harm reduction?

- Policies and practices that aim to minimize negative health, social, and legal impacts associated with drug use, drug policies, and drug laws
- Focuses on positive change and on working with people without judgment, coercion, or discrimination
- Abstinence not required as a precondition of support
- Grounded in justice and **human rights**

Abstinence-only vs. harm reduction

	Abstinence-only	Harm reduction
Risk	Binary	Spectrum

Abstinence-only vs. harm reduction

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Drivers of risk	Individual	Contextual

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High-risk behavior	Personal failure	Unmet need

Abstinence-only vs. harm reduction





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Drivers of risk	Individual	Contextual
High-risk behavior	Personal failure	Unmet need
Messaging	Moralistic	Compassionate

Abstinence-only vs. harm reduction

	Abstinence-only	Harm reduction
Risk	Binary	Spectrum
Drivers of risk	Individual	Contextual
High-risk behavior	Personal failure	Unmet need
Messaging	Moralistic	Compassionate
Response	Punitive	Supportive

Risk: binary vs. spectrum

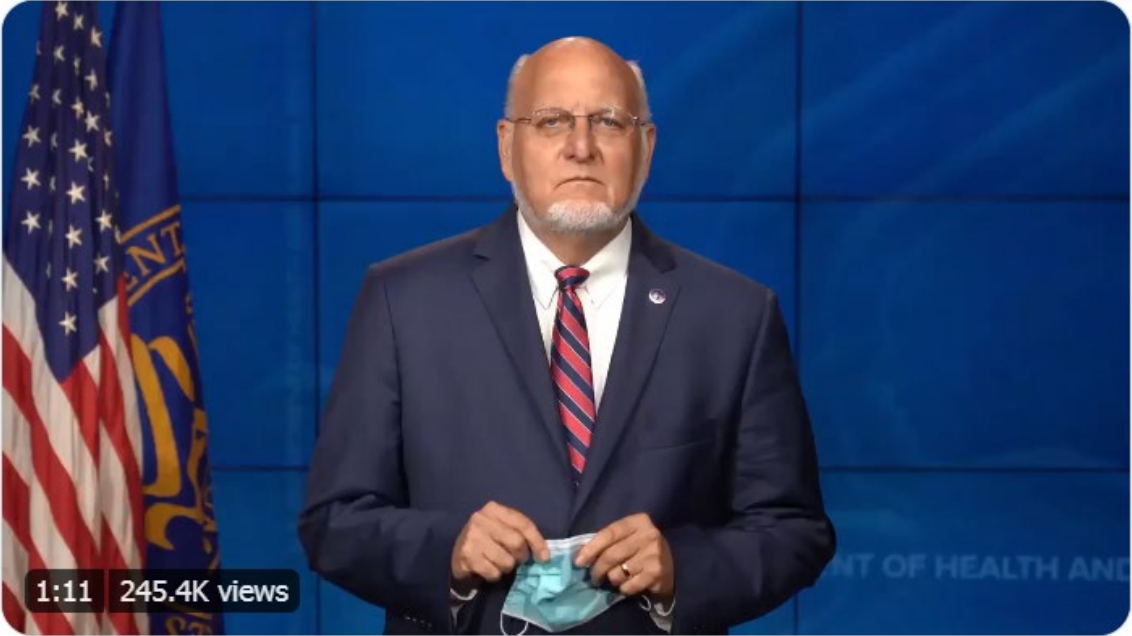
**STAY
HOME
SAVE
LIVES**

LOWEST RISK	MODERATE RISK	HIGHER RISK	HIGHEST RISK
			
HOME ALONE OR WITH HOUSEMATES	OUTDOOR ACTIVITIES	OUTDOOR GATHERINGS	INDOOR GATHERINGS
<ul style="list-style-type: none">• Stay home as much as possible.• Try to allow only people you live with into your home.• Wash your hands.• If you're sick, stay home and isolate from housemates.	<ul style="list-style-type: none">• Wash your hands and don't touch your face.• Stay at least 6 feet from people you don't live with.• Wear a mask.• Avoid shared surfaces, like swings or benches.	<ul style="list-style-type: none">• Wash your hands and don't touch your face.• Stay at least 6 feet from people you don't live with.• Wear a mask.• Don't share food, toys, and other items, and avoid shared surfaces.• Participate in events like these infrequently.	<ul style="list-style-type: none">• Wash your hands and don't touch your face.• Stay at least 6 feet from people you don't live with.• Wear a mask.• Don't share food, toys, and other items, and avoid shared surfaces.• Open windows for better ventilation.• Try to avoid gathering indoors as much as possible.

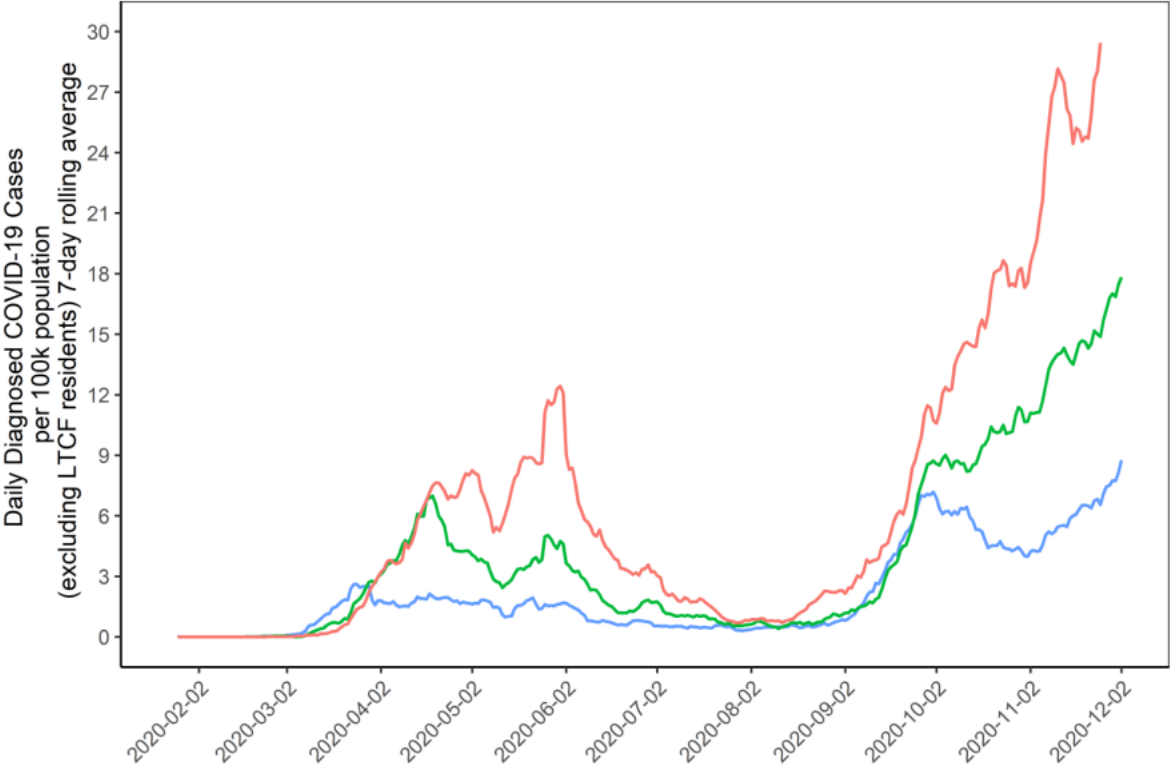
Drivers of risk: individual vs. contextual

Dr. Robert R. Redfield  @CDCDirector · Aug 5 

Take personal responsibility to help slow the spread of #COVID19 so that you can say #COVIDStopsWithMe - social distance, wear a face mask, avoid crowds, and wash your hands frequently. bit.ly/3bGvO6p



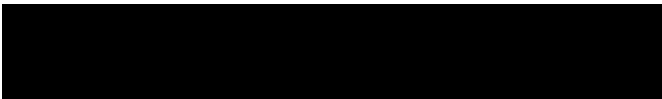
Covid-19 case rates by % non-healthcare essential work, Toronto



Messaging: moralistic vs. compassionate



I think mask wearing at this press conference is a reasonable litmus test for whether or not you're a callous moron.



Just ran 4 miles in a KN95 mask and I'm not hypoxic.

Ya know why?

Because I'm a g*ddamn American, and real Americans don't whine like a bunch of little snowflakes.



Can you imagine being so insecure that wearing a mask for a little while was a threat to your masculinity?



High-risk behavior: personal failure vs. unmet need

Campus & Community

Last Night's Selfish and Reckless Behavior

Thursday, August 20, 2020, By News Staff

Mayor Lori Lightfoot @chicagosmayor · Aug 8

It's called a pandemic, people. This reckless behavior on Montrose Beach is what will cause us to shut down the parks and lakefront. Don't make us take steps backwards.



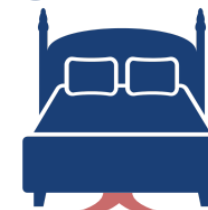
Response: punitive vs. supportive

Video shows NYPD officer punching man after alleged social distancing violation

The plainclothes officer, who was not wearing a mask, is also seen pointing a stun gun.



WHO CAN STAY AT A KING COUNTY ISOLATION & QUARANTINE CENTER?



Essential workers with a high-risk person at home



Travelers



People living in multigenerational households



People without permanent housing



People in group living settings like shelters, group homes, and dorms



Anyone who is unable to isolate or quarantine at home

Key points

- Abstinence-only approach to Covid-19 promotes shame, blame, and punishment, as it did for HIV
- Results in unscientific, moralistic, and counterproductive messaging and policies
- Harm reduction framework can guide a more compassionate, equitable, and humane response

Thank you!

Doug Krakower
Jonathan Volk
Mike Silverberg
Mike Klompas
Whitney Sewell
Jessica Young
Sarah Calabrese

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