SEXUAL HEALTH AS A HOLISTIC APPROACH TO STI/HIV PREVENTION AND CARE—WHY DOES THIS MAKE A DIFFERENCE?

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CDC/HRSA Advisory Committee on HIV, Viral Hepatitis and STD Prevention and Treatment (CHAC)
April 18, 2023
The Journey
Early de-sexualized STI/HIV Prevention
Recognizing Sexual Health as Critical to Overall Health and Well-Being

Sexual health an essential component of overall individual health; major impact on overall health of communities.

David Satcher, MD, MPH
BUT WHAT IS SEXUAL HEALTH?
What is Sexual Health?
WHO Definition (2002; 2006)

- state of physical, emotional, mental, and social well-being related to sexuality
- not merely absence of disease, dysfunction, or infirmity.
- requires a positive and respectful approach to sexual relationships, as well as possibility of having pleasurable & safe sexual experiences, free of coercion, discrimination, and violence.
- For sexual health to be attained and maintained, the sexual rights of all persons must be respected, protected, and fulfilled.
CDC Efforts to Address Sexual Health

Conclusion: SH framework is broad, positive, inclusive, empowering

Recommendations:
- Engage new and diverse partners
- Normalize conversations
- Reduce stigma, fear, and discrimination
- Enhance the efficiency and effectiveness of prevention messaging and services
Addressing the “Syndemic”
Responding with a Systematic Sexual health Approach
Guest Editorial

Understanding Sexual Health and its Role in More Effective Prevention Programs

John M. Douglas, Jr. MD, Kevin A. Fenton MD, PhD, FFPH
Sexual Health in America
Improving Patient Care and Public Health

JAMA Published online June 18, 2015

Figure 1. The Health Impact Pyramid and Examples of Public Health Approaches to Address Sexual Health. (Adapted from Frieden, AJPH)
A Call for a Paradigm Shift

Morbidity and a stigmatizing, fear based-approach

Integrated sexual health promotion approach

The Need to Promote Sexual Health in America: A New Vision for Public Health Action

Jessie V. Ford, MS, * Megan B. Ivankovich, MPH, † John M. Douglas, Jr, MD, ‡
Edward W. Hook, III, MD, § Lynn Barclay, BA, ‡ Joycelyn Elders, MD, ||
David Satcher, MD, PhD, ** and Eli Coleman, PhD††

Sexually Transmitted Diseases, 44(10), 579-585.
doi:10.1097/OLQ.0000000000000660
How to better address STI/HIV Prevention and Care?

Sexual health an essential component of the strategy

- educate, reduce stigma, fear, and discrimination
- help change the sexual and gender climate
- normalize sexual conversations
- promote research and provide an integrated and sexual health approach.
The framework incorporated:

- the concept of intersectionality
- that sexual health is inextricably linked to overall health and well-being across the life span,
- that human sexuality is a vital element of mutually consensual love and pleasure, as well as the fundamental prerequisite for procreation.
Recommendations

- A holistic approach that focuses on sexual health in the context of broader health and well-being
- Eradicate stigma
- Educate the U.S. population on what it means to be sexually healthy and where and how individuals can access comprehensive sexual health services.
- While this paradigm shift is needed, it should not be viewed as a political issue nor one that needs to be in conflict with religious beliefs or ethical standards.
- To support this goal at the federal level, the committee recommends that the Department of Health and Human Services (HHS) develop a vision and blueprint for sexual health and well-being that can guide the inclusion of a sexual health paradigm across all HHS programs, including the major public insurance programs as well as the public health programs administered throughout the department.

Sexually Transmitted Infections: Adopting a Sexual Health Paradigm
A Sexual Health Framework

- Acknowledgement of sexual health as an element in overall health
- Emphasis on wellness
- An integrated approach to prevention
- Converse explicitly about sexuality – improve sexual communication
- Recognizes that pleasure is the fundamental reason people have sex and people place a premium on their sexual pleasure
- Focus on positive and respectful and consensual relationships
- Intersectionality - address stigma, discrimination, prejudice, health disparities and equity
Promising Evidence

- Reduction of risk behaviors
- Increased use of prevention services
- Decreased adverse health outcomes


What is the added value of incorporating pleasure in sexual health interventions? A systematic review and meta-analysis

Mirela Zaneva, Anne Philpott, Arushi Singh, Gerda Larsson, Lianne Gonsalves

Published: February 11, 2022 • https://doi.org/10.1371/journal.pone.0261034
Incorporating sexual pleasure within SRHR interventions can improve sexual health outcomes.

Pleasure-incorporating interventions on condom use which has direct implications for reductions in HIV and STIs.

Agencies responsible for sexual and reproductive health consider incorporating sexual pleasure considerations within their programming.
Importance of Sexual Health Indicators

- The development of a comprehensive scorecard with key sexual health indicators has been proposed by some entities e.g., (e.g. Public Health England, United Nations Population Fund (UNFPA), WHO)
- A growing number of countries have conducted national sexual health surveys (e.g., Australia, Canada, Flanders, France, Germany, Ireland, Latvia, Malta, The Netherlands, Portugal, Spain, United Kingdom)
- But such an attempt has not been made in the U.S.
Conclusions

- Our findings provide broad evidence of sub-optimal sexual health in all domains measured, indicating the need for new approaches to meet goals of national initiatives.

- Available indicators contain crucial gaps.

- Considerations for addressing these gaps include adding new measures (although we recognize the difficulty of doing this), creating research partnerships across disciplines, and developing a new comprehensive survey of sexual health as other countries have done.
No thanks!

We are too busy
NEW TOOLS FOR STI PREVENTION

CDC/HRSA Advisory Committee
April 18th, 2023
Stephanie Cohen, MD, MPH
Director, HIV/STI Prevention
Disease Prevention and Control Branch
San Francisco Dept of Public Health
Disclosures

Financial Disclosures:

- Doxycycline provided by Mayne Pharmaceuticals
- Laboratory support from Cepheid & Hologic

Professionals Affiliations:

- San Francisco Department of Public Health
- University of California, San Francisco, Division of Infectious Diseases

The views expressed herein do not necessarily reflect the official policies of the City and County of San Francisco; nor does mention of the San Francisco Department of Public Health imply its endorsement.
The US is Experiencing Steep, Sustained Increases in Sexually Transmitted Infections

**THE STATE OF STDs IN THE UNITED STATES, 2021**

STDs continue to forge ahead, compromising the nation’s health.

- **1.6 million** cases of Chlamydia (3.8% decrease since 2017)
- **710,151** cases of Gonorrhea (28% increase since 2017)
- **176,713** cases of Syphilis (74% increase since 2017)
- **2,855** cases of Syphilis among newborns (203% increase since 2017)

Note: These data reflect the effect of COVID-19 on STD surveillance trends.

**ANYONE WHO HAS SEX COULD GET AN STD, BUT SOME GROUPS ARE MORE AFFECTED**

- Young people aged 15-24
- Gay & bisexual men
- Pregnant people
- Racial & ethnic minority groups

**LEFT UNTREATED, STDs CAN CAUSE:**

- Increased risk of giving or getting HIV
- Long-term pelvic/abdominal pain
- Inability to get pregnant or pregnancy complications

**PREVENT THE SPREAD OF STDs WITH THREE SIMPLE STEPS:**

- Talk
- Test
- Treat
The global epidemic of STIs disproportionately impacts men who have sex with men (MSM).

San Francisco DPH
STI surveillance data 2018

CDC 2020 STI surveillance
Doxycycline Post-Exposure Prophylaxis (doxy-PEP)

• Why Doxycycline?
  • Safe, well tolerated, and inexpensive
  • Active against chlamydia (CT) & syphilis
  • Some resistance in gonorrhea (GC), but not used as 1st line treatment for GC

• Three RCTs (Ipergay, DoxyPEP, DOXYAC) have demonstrated efficacy of doxy-PEP in preventing bacterial STIs in men who have sex with men (MSM)

• Concerns
  • Lack of efficacy in cis women (DPEP study, Kenya)
  • Impact of intermittent doxy use on drug resistance (in STIs and other bacteria)
  • Impact on microbiome
# Recent RCTs of doxy-PEP

<table>
<thead>
<tr>
<th></th>
<th>DoxyPEP</th>
<th>DOXYVAC</th>
<th>DPEP</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Location</strong></td>
<td>US (San Francisco and Seattle)</td>
<td>France</td>
<td>Kenya</td>
</tr>
<tr>
<td><strong>Eligibility</strong></td>
<td>Male sex at birth</td>
<td>MSM</td>
<td>Cis women</td>
</tr>
<tr>
<td></td>
<td>Living with HIV or on PrEP</td>
<td>On PrEP &gt; 6 months</td>
<td>On PrEP</td>
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<tr>
<td></td>
<td>≥ 1 STI in past 12 months</td>
<td>Enrolled in ANRS Prevenir</td>
<td>≥ 18 and ≤ 30 years old</td>
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<tr>
<td></td>
<td>Condomless sex with ≥ 1 male partner in past 12 months</td>
<td>Bacterial STI in prior 12 months</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>No STI symptoms</td>
<td></td>
</tr>
<tr>
<td><strong>Design</strong></td>
<td>Randomized 2:1</td>
<td>2x2 factorial design</td>
<td>Randomized 1:1</td>
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<tr>
<td></td>
<td>Open label</td>
<td>Randomized 2:1 to doxy-PEP and 1:1 to 4CMenB vaccine</td>
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<tr>
<td><strong>STI testing</strong></td>
<td>Quarterly 3-site GC/CT testing and syphilis testing</td>
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<td>Quarterly genital GC/CT and syphilis testing</td>
</tr>
<tr>
<td><strong>Endpoint</strong></td>
<td>% of quarterly visits with an STI</td>
<td>DoxyPEP: Time to a first episode of syphilis or CT; Time to first GC</td>
<td>Time to first STI</td>
</tr>
<tr>
<td></td>
<td>Time to first STI (2°)</td>
<td>(2°)</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>4CMenB vaccine: Time to a first GC infection</td>
<td></td>
</tr>
<tr>
<td><strong>Total “N”</strong></td>
<td>501</td>
<td>502</td>
<td>449</td>
</tr>
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</table>
Doxy-PEP significantly reduces STI incidence in cis men who have sex with men and trans women who have sex with men.

- Doxycycline 200 mg taken after condomless sex reduced the incidence of gonorrhea, chlamydia and syphilis by 65% per quarter among men who have sex with men and transgender women with history of a recent sexually transmitted infection.
DOXYVAC: Doxycycline PEP
Time to First CT or Syphilis Infection

No interaction between Doxy PEP and 4CMenB vaccine (p=0.99)

Median follow-up: 9 months
(IQR: 6 to 12)

49 subjects infected
36 in No PEP arm
(incidence: 35.4/100 PY),
13 in Doxy PEP arm
(incidence: 5.6/100 PY)

Adjusted Hazard Ratio:
0.16 (95% CI: 0.08-0.30, p<0.0001)
Time to First Gonorrhea (GC) and Mycoplasma Genitalium (MG) infection

Adjusted Hazard Ratio:

**GC**

- 84 subjects infected
- 40 in No PEP arm (incidence: 41.3/100 PY),
- 44 in Doxy PEP arm (incidence: 20.5/100 PY)

Adjusted Hazard Ratio: 0.49 (95% CI: 0.32-0.76, p=0.001)

**MG**

- 68 subjects infected
- 31 in No PEP arm (incidence: 29.4/100 PY),
- 37 in Doxy PEP arm (incidence: 16.8/100 PY)

Adjusted Hazard Ratio: 0.55 (95% CI: 0.34-0.89, p=0.015)

Jean-Michel Molina, CROI 2023
DOXYVAC: 4CMenB Vaccine
Cumulative Incidence of GC Infections

90 GC infections
54 in No Vaccine arm,
36 in 4CMenB vaccine arm

Incidence per 100 py

Adjusted Incidence Rate Ratio:
0.66 (95% CI: 0.43-1.00, p=0.052)

GC infections were considered from M3
visit (1 month after 2nd vaccine dose)

Jean-Michel Molina, CROI 2023
DPEP Kenya Trial

- 18% had an STI at enrollment
- Annual STI incidence of 27%
- 109 new STIs
  - 50 doxyPEP
  - 59 standard of care
- 78% of STIs were CT
  - 35 doxyPEP
  - 50 standard of care

NO difference between the two arms

Jenell Stewart, CROI 2023
Why was doxy-PEP not effective for STI prevention in cis-women in DPEP study?

• Anatomy: Endocervical tissue may differ from urethral, rectal, and pharyngeal tissue

• Exposures: Type and frequency of STI exposures may differ in high prevalence setting, and fewer average number of partners

• Resistance: To date, no known cases of resistant *C. trachomatis* globally; however, high rates of resistant *N. gonorrhea*

• Adherence: Trial was designed to maximize adherence, and self-reported adherence was high but imperfect
| **N. gonorrhoeae** | • DoxyPEP: TCN-R in 30% of isolates in doxy-PEP arm vs. 11% in SOC arm (no difference in high-level TCN-R (10% vs. 11%)
| | • DoxyVac: High-level TCN-R in 33% of isolates in doxy-PEP arm vs. 19% in SOC arm
| | • Suggests doxy-PEP may be less protective against TCN-R strains; however, limited by small numbers
| **S. aureus** | • Doxy-PEP associated with 14% absolute reduction in colonization and an 8% absolute increase in doxycycline resistance compared to baseline.
| | • MRSA prevalence was low (6%) & doxy-R MRSA was unchanged with doxy-PEP use.
| **Non-pathogenic Neisseria species** | • Nearly two thirds of isolates had pre-existing doxycycline resistance.
| | • No significant change associated with doxy-PEP use.
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<th>Bacteria</th>
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Health Update

Doxycycline Post-Exposure Prophylaxis Reduces Incidence of Sexually Transmitted Infections

October 21, 2022

Situational Update

Researchers at the San Francisco Department of Health (SFDPH), Zuckerberg San Francisco General, University of California, San Francisco, and the University of Washington recently collaborated on a randomized controlled clinical trial of post-exposure prophylaxis (PEP) of sexually transmitted infections (STIs) using a single dose of doxycycline 200 mg within 72 hours after oral, anal, or vaginal sex, in men who have sex with men (MSM) and transgender women (TGW) who were living with HIV (PLWH) or taking HIV pre-exposure prophylaxis (HIV PrEP). The study showed that this regimen significantly reduced acquisition of chlamydia, gonorrhea, and syphilis in these populations.

Participants randomized to doxycycline PEP (doxy-PEP) had a 66% (HIV-negative and on PrEP) and 62% (PLWH) reduction in STIs per quarter of study follow-up, compared with participants randomized to standard of care (no doxy-PEP). Taking doxycycline also was safe and well-tolerated by participants, with no drug-related serious adverse events. These data were recently presented at the 2022 International AIDS Conference in Montreal, Canada. Data are still being collected and analyzed to assess the impact of doxy-PEP on risk for drug resistance in bacterial STIs, Staph aureus, and commensal Neisseria, and on the gut microbiome.

The CDC has released considerations for doxy-PEP as an STI prevention strategy, but there is not yet detailed guidance from CDC on doxy-PEP, for which its indication is currently off-label. STIs can cause significant morbidity and reducing STI rates in San Francisco is an urgent public health priority. Doxy-PEP is the first biomedical prevention tool that has been shown to be effective and well-tolerated, community awareness is growing, and many providers in SF are already prescribing doxy-PEP to their patients at risk for STIs. SFDPH is providing guidance to SF clinicians on the use of doxy-PEP to reduce STI incidence in MSM and TGW at risk of bacterial STIs.

Who Should be Offered doxy-PEP?

**Study eligibility**
Bacterial STI in past year

- Meet patient demand
- Anti-stigma
- Below-standard antimicrobial stewardship

**Broader use**

- Maximize benefit-risk ratio
- Minimize excess antibiotic use
- More complex to identify candidates

**More restrictive use**

*Slide courtesy J. Dombrowski*
1. **Recommend doxy-PEP** to cis men and trans women who: 1) have had a bacterial STI in the past year and 2) report condomless anal or oral sexual contact with ≥ 1 cis male or trans female partner in the past year. These were the eligibility criteria used for the DoxyPEP study. Patients with a history of syphilis should be prioritized for doxy-PEP.

2. **Offer doxy-PEP using shared decision making** to cis men, trans men and trans women who report having multiple cis male or trans female sex partners in the prior year, even if they have not previously been diagnosed with an STI.

3. **Doxy-PEP not recommended for cis women** based on currently available evidence from Kenya DPEP study.
Counseling patients about doxy-PEP

- Utilize shared-decision making to support patient’s choice
- Guide self-assessment of risk
- Review what we know about effectiveness of doxy-PEP
- Review how to use doxy-PEP
- Acknowledge unknowns
  - Impact on microbiome
  - Impact on antibiotic resistance in STIs and non-STI bacteria
- Offer comprehensive package of sexual health services
Doxy-PEP as part of a comprehensive package of sexual health services

Primary prevention
- Education
- Condoms
- Risk reduction counseling

Vaccines
- Hepatitis A & B
- HPV
- Mpox
- Meningococcal Vaccine (ACWY)

PEP, PrEP and TASP
- HIV PEP
- HIV PrEP (Daily, 2-1-1, LA-injectable)

Secondary prevention
- STI Screening & Treatment
- Partner Services

Address social determinants of health
- Mental health & Substance Use treatment
- Anti-Poverty
- Anti-Racism
- Access to care

Policy
- Reproductive rights
- LGBTQ rights
- Criminal justice reform
Next steps for doxy-PEP

• CDC guidelines will be critical for supporting safe and equitable access

• Implementation science:
  – Interest, uptake, community engagement, social marketing strategies, provider education
  – Long-term impact on individual health
  – Long-term impacts on antimicrobial resistance
  – Modelling studies to assess potential impact on STI incidence

• Sustained support for sexual health clinics in US

• Ongoing research into vaccines for STIs, including MenB for GC prevention
Thank you!

- DoxyPEP Participants
- DoxyPEP Study team
- SFCC team - Registration, Nursing, Clinician, PrEP, LINCS, Research, Social work and behavioral health
- Montica Levy, Christopher Ruiz, Alejandro Vigil
- Oliver Bacon
- Judith Sansone
- Alison Cohee, Dorien Cimmiyotti, Melody Nasser, Sally Grant, Yvonne Piper
Syndemic, Holistic Approaches to Disease Surveillance:

Measuring What Really Matters

_HIV, STI and Related Co-morbidities in Real World Settings to Inform Public Health Action_

Mark Stenger, Team Lead (Acting)
Enhanced Surveillance and Special Studies Team
Surveillance and Data Science Branch
Division of STD Prevention

2023 Meeting of the CDC/HRSA Advisory Committee on HIV, Viral Hepatitis and STD Prevention and Treatment (CHAC)
Disease surveillance has historically focused on aggregate case counts by single diseases

- **Number of cases reported:**
  - HIV
  - Gonorrhea
  - Syphilis
  - Hep C
  - TB

- **Data are often aggregated by**
  - Sex
  - Age Group
  - County/State
  - Race and Hispanic Ethnicity

- **Disease-specific data are presented as if they occur uniquely in a social vacuum**
What do we mean by a syndemic, holistic approach to disease surveillance?

- Person-centric
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- Person-centric monitoring of multiple sequential/concurrent diagnoses
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- Information on STI screenings and preventive services (PEP, PrEP, EPT) at sexual health visits
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- Matching of patients/persons across multiple disease registries for prevalence of co-infections
- Monitoring recent/ongoing person-level risks and co-morbidities
- Information on community prevalence
- Understanding the social ecology of community settings and contexts
How is a syndemic, holistic surveillance approach useful?

- These data can help inform geographically tailored prevention and intervention planning.

- Identify potential ‘upstream’ factors unique to communities that contribute to disease incidence.

- Provide timely insight into changing trends in risk behaviors and health equity measures.

- Understand the uptake and co-factors of biomedical disease prevention interventions such as PrEP and dPEP.
Monitoring Syndemics in the STD Surveillance Network (SSuN)

SSuN Sites 2019 - 2024:

- Baltimore
- California
- Columbus (MSA)
- Florida
- Indiana
- Multnomah County
- New York City
- Philadelphia
- San Francisco
- Utah
- Washington State
An integrated approach to surveillance (SSuN)

Sentinel Surveillance in STD/Sexual Health Clinics:
- Full census of all patients presenting for care
- Locally-developed unique person ID
- Demographics, behavioral data
- All lab tests performed
- All diagnoses given
- All treatments/preventive services patients receive
- HIV registry match for all patients

Enhanced Case-based Surveillance in Communities:
- Full census of all diagnosed and reported GC & syphilis cases
- Random sample of STD cases reported in jurisdiction
  - Locally-developed unique person ID
  - Provider record review
  - Patient interviews with demographics and behavioral data
  - Preventive services (EPT, PrEP)
- Lab tests reported with case
- All treatments associated with the STD reported
- HIV registry match for all reported cases
Estimated Proportion of Gonorrhea Cases by Sex and Sex of Sex Partners and Jurisdiction, STD Surveillance Network (SSuN), 2021*

* Reported 2021 data are preliminary as of March 28, 2023

**NOTE:** Estimate based on weighted analysis of data on sex of sex partners obtained from interviews (n = 5,312) conducted among a random sample of gonorrhea cases reported January to December 2021. Includes ten SSuN sites reporting completed case investigations in 2021 for at least 2% of all reported gonorrhea cases.
Gonorrhea – Estimated Rates* of Reported Gonorrhea Cases by MSM, MSW and Women, STD Surveillance Network (SSuN), 2019

* Per 100,000 population

Note: Estimate based on weighted analysis of data obtained from interviews (n=28,979) conducted among a random sample of reported gonorrhea cases. Sites include Baltimore, Philadelphia, New York City, Washington State, San Francisco and California (excluding San Francisco)

Acronyms: MSM=Men who have sex with men, MSW=Men who have sex with women only

Modeled/Estimated* Rates of Reported Gonorrhea Cases Among MSM 15-69 in the US, 2016 - 2021

* Unpublished draft analysis 2023; MSM case estimates developed based on weighted proportion of men reporting male sex partners in the STD surveillance Network 2016-2021, adjusted by county urbanicity; MSM denominator data (Grey, et al) with projections through 2021.

2021 NNDS case data considered preliminary – Maryland counties not included in trend analysis due to data suppression.
Gonorrhea – Estimated Proportion of Cases Treated with Recommended Regimen by Jurisdiction, STD Surveillance Network (SSuN), 2021*

In 2021, the recommended treatment for uncomplicated gonorrhea was monotherapy with 500 mg ceftriaxone intramuscular. Data in this figure reflect patients treated in compliance with the current treatment recommendations. N = 3,462 completed investigations among randomly selected cases.

* Reported 2021 data are preliminary as of March 28, 2023

NOTE: Includes only SSuN jurisdictions with treatment and dosage data ascertained for at least 80% of sampled, investigated cases. In 2021, the recommended treatment for uncomplicated gonorrhea was monotherapy with 500 mg ceftriaxone intramuscular. Data in this figure reflect patients treated in compliance with the current treatment recommendations. N = 3,462 completed investigations among randomly selected cases.
Chlamydia — Proportion of STD Clinic Patients Testing Positive by Age Group, Sex, and Sex of Sex Partners, STD Surveillance Network (SSuN), 2021*

* Reported 2021 data are preliminary as of March 28, 2023

**NOTE:** Results are based on unique patients in participating jurisdiction with known sex of sex partners attending SSuN STD clinics who were tested ≥1 times for chlamydia in 2021 (n = 41,110).
Gonorrhea — Proportion of STD Clinic Patients Testing Positive by Age Group, Sex, and Sex of Sex Partners, STD Surveillance Network (SSuN), 2021*

* Reported 2021 data are preliminary as of March 28, 2023

**NOTE:** Results are based on data obtained from unique patients in participating sites with known sex of sex partners attending SSuN STD clinics who were tested ≥1 times for gonorrhea in 2021 (n = 41,017).

- PrEP users were generally older and more likely to be non-Hispanic White than those not reporting PrEP use.

- PrEP users also reported significantly more partners in the previous 3 months at their gonorrhea diagnosis (mean of 8.5 for PrEP users versus 3.8 among non-PrEP group).

* N=3,098 HIV-negative men diagnosed and reported with gonorrhea and interviewed in 10 SSuN sites Jan-June 2021
Proportion of MSM Attending STD Clinics with P & S Syphilis*, Urogenital Gonorrhea, or Urogenital Chlamydia by HIV Status. SSuN. 2018

* Includes SSuN Jurisdictions that reported data on at least 20 patients with a diagnosis of P & S syphilis in 2018

Estimated HIV Prevalence Among Reported Gonorrhea Cases* by MSM, MSW and Women, SSuN, 2020-2021

* Estimate based on HIV registry match and/or self report among 9,555 randomly sampled cases reported from all provider types in 10 SSuN sites 2020-2021

Estimated Proportion of HIV-Negative Gonorrhea Cases* on PrEP by MSM, MSW and Women, SSuN, 2020-2021

* Estimate based on HIV registry match and/or self report, and Self report of PrEP use among 8,688 randomly sampled HIV-negative cases reported from all provider types in 10 SSuN sites 2020-2021

Estimated Proportion of GC Cases* Reporting Not Knowing HIV-status of Their Most Recent Sex Partner by MSM, MSW and Women, SSuN, 2020-2021

* Estimate based on patient-reported knowledge of their most recent sex partner’s HIV status among randomly sampled gonorrhea cases reported from all provider types in 10 SSuN sites 2020-2021 (N=8,177 with complete responses)

Ecologic Analyses with Surveillance Data

Analytic methods included descriptive, correlation analysis & simple regression modeling for trajectories.
Ecologic Analyses with Surveillance Data

- STIs (gonorrhea and syphilis) continue to increase among MSM, though some moderation in trajectory may be emerging (which may be a COVID-19 artefact, may reflect network saturation, or reflect changes in behavior)

- Preliminary analysis indicates that there is no correlation between PrEP use and either decreasing or increasing trajectories of STIs among MSM in US counties
Limitations

- Enhanced, syndemic and holistic surveillance activities are not currently nationally representative – additional resources would permit expansion to more states in future cycles.

- Previous case-based enhanced surveillance efforts have only focused on diagnosed and reported gonorrhea cases from all providers, and to a census of patients receiving care in STD clinics.

- Expansion of these activities to include a sample of syphilis cases and data collection in other sexual and reproductive health provider settings is planned, as additional resources become available.
Thank You!

For more information, contact CDC
1-800-CDC-INFO (232-4636)
mstenger@cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.
It's about honesty. It's about knowledge. It's about time.

Leveraging the Power of Communications to Improve Sexual Health

Susan Gilbert, MPA
Co-Director, National Coalition for Sexual Health
Altarum
Reduce Stigma
Build Skills
Increase Knowledge
Create Positive Norms

It’s about honesty. It’s about knowledge. It’s about time.
Being sexually healthy means being able to enjoy a healthier body, a satisfying sexual life, positive relationships, and peace of mind.

Tested and embraced by public via focus groups and online survey

- Benefit-driven
- Holistic
- Digestible
There Is an Art and Science to Effective Health Communications

- The art (& messaging) must rest on a **solid foundation of research**
- Research guided by a **practical behavior change model** (NIMH conference)
- A recent **WHO statement** makes a compelling case for behavioral science & research

<table>
<thead>
<tr>
<th>Intention to perform the behavior</th>
<th>Skills to perform the behavior</th>
<th>Supportive Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shaped by factors such as:</td>
<td>Define the desired behaviors</td>
<td>Access to health services and products</td>
</tr>
<tr>
<td>Benefits outweigh costs</td>
<td>Define the specific skills required</td>
<td>Access to sex ed/information</td>
</tr>
<tr>
<td>Social norms support behavior</td>
<td>Assess which skills need to be improved/learned/practiced</td>
<td>Positive societal norms (free of stigma, discrimination)</td>
</tr>
<tr>
<td>Positive emotional reaction</td>
<td></td>
<td>Free of other constraints</td>
</tr>
<tr>
<td>Self-efficacy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consistent with self-image</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risk perception &amp; knowledge</td>
<td></td>
<td></td>
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</tbody>
</table>

It’s about honesty. It’s about knowledge. It’s about time.
Understanding and Engaging with Audience(s) Is Essential

Conduct audience research to:

**Understand**
- Attitudes
- Skills
- Knowledge
- Behaviors
- Environmental factors

*Use qualitative and quantitative research*

**Explore**
- Barriers to behavior
- Perceived benefits of behavior

*Key to messaging*

**Learn**
- Culture
- Values
- Aspirations

*What matters in their everyday lives?*
*Who do they admire?*
*What do they aspire to?*
The Key Steps in Communications Planning

- Pinpoint the primary factor(s) influencing behavior:
  - Knowledge?
  - Environment?
  - Combination?
  - Skills?
  - Attitudes/beliefs?

Then: create measurable communications objectives to drive the campaign.

Reminder: Knowledge/facts alone don’t always change behavior.
A Practical Example – Young Adults, Sexual Health Communications, and Relationships

NCSH conducted focus groups and a survey to explore:

<table>
<thead>
<tr>
<th>Experience</th>
<th>Young adults surveyed</th>
<th>Focus groups conducted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relationship and communication experiences</td>
<td>1,256</td>
<td>16</td>
</tr>
<tr>
<td>Perceived benefits of and barriers to open communication</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comfort level talking openly</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Topics they’d like to discuss more openly</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skills and information that would help them do so</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Best channels and messengers</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It’s about honesty. It’s about knowledge. It’s about time.
It’s about honesty. It’s about knowledge. It’s about time.

**Significant Anxiety and Fear Around Open Communication**

**Q:** If you want to start a conversation with a partner about sexual health or topics related to your relationship, **how much anxiety or nervousness** do you usually experience?

- **A great deal** 17%
- **A fair amount** 36%
- **A little bit** 33%
- **Not at all** 14%

“A fear of rejection. That something I say will somehow offend them, be too much, and they’ll leave.”

–Focus group participant
Top 5 Barriers to Open Communication

1. Don’t want to hurt a partner’s feelings - 54%
2. Don’t know when or how to bring up topics - 49%
3. Low self-esteem or lack of confidence - 48%
4. Worry partner(s) will get angry or upset - 47%
5. Feel embarrassed about certain topics - 46%
**What Would Help Young Adults Communicate Better?**

<table>
<thead>
<tr>
<th>Topic</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communicating my emotional needs</td>
<td>44%</td>
</tr>
<tr>
<td>How to have a healthy relationship</td>
<td>41%</td>
</tr>
<tr>
<td>Improving my self-esteem/self-confidence</td>
<td>41%</td>
</tr>
<tr>
<td>Setting, communicating, and asserting boundaries</td>
<td>39%</td>
</tr>
<tr>
<td>Skills for communicating with partners</td>
<td>38%</td>
</tr>
<tr>
<td>Communicating my sexual needs</td>
<td>37%</td>
</tr>
<tr>
<td>Resolving conflicts with partners</td>
<td>34%</td>
</tr>
<tr>
<td>Information about sexual health and safer sex</td>
<td>29%</td>
</tr>
<tr>
<td>How to discuss sexual trauma, mine or partner's</td>
<td>26%</td>
</tr>
<tr>
<td>Discussing abortion/pregnancy/raising children</td>
<td>22%</td>
</tr>
<tr>
<td>Handling my upbringing (family and/or religious)</td>
<td>19%</td>
</tr>
<tr>
<td>Talking with partners about STI testing and results</td>
<td>17%</td>
</tr>
<tr>
<td>Overcoming gender stereotypes</td>
<td>16%</td>
</tr>
</tbody>
</table>

It’s about honesty. It’s about knowledge. It’s about time.
Top Action Steps to Achieve Good Sexual Health

“You must feel good about yourself and have peace of mind in order to have good relationships.”

—Focus group participant

According to NCSH research with adults ages 18-70, the most important action steps are:

1. Valuing who you are and deciding what’s right for you: 54%
2. Building positive relationships: 49%
3. Choosing partners who treat you well: 34%
4. Getting smart about your body and protecting it: 32%

It’s about honesty. It’s about knowledge. It’s about time.
**What Are the Benefits of Open Communication?**

**Q:** What do you consider to be the top 3 benefits of talking openly with your partners about sexual health and/or your relationship? *(multiple responses)*

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feelings of safety and trust</td>
<td>50%</td>
</tr>
<tr>
<td>Having a closer bond with your partner</td>
<td>42%</td>
</tr>
<tr>
<td>Being on the same page about your...</td>
<td>38%</td>
</tr>
<tr>
<td>Having a better sex life</td>
<td>37%</td>
</tr>
<tr>
<td>Peace of mind/less anxiety/less worry</td>
<td>37%</td>
</tr>
<tr>
<td>Living honestly and authentically</td>
<td>32%</td>
</tr>
<tr>
<td>Protecting your sexual health</td>
<td>23%</td>
</tr>
<tr>
<td>Protecting your partner(s)' sexual...</td>
<td>16%</td>
</tr>
<tr>
<td>Less worry about unplanned pregnancy</td>
<td>14%</td>
</tr>
<tr>
<td>Less worry about STIs</td>
<td>11%</td>
</tr>
</tbody>
</table>

*It’s about honesty. It’s about knowledge. It’s about time.*
We Need to Fill the Void for Youth, Young Adults, and Parents

“I grew up in the South, and it wasn’t an education. **It was a shame factor.** It was basically, you touch genitalia, you get disease, you die. I think there’s a lot of shame that needs to be deprogrammed out of being a sexual being. It’s harder to get the courage to talk about it with a partner, express what you want, or express what you need.”

—Focus group participant

- Most don’t have access to comprehensive, accurate sex ed and relationship education
- Most young adults lack positive role models
- Nearly all focus group participants said parents were negative role models (And they wanted to do/be the opposite of their parents)

**No surprise:** It’s the generational effects of a lack of relationship and sex education for most parents

It’s about honesty. It’s about knowledge. It’s about time.
Our Communications Objectives
(Phase 1 for Young Adults)

Build Skills
to
- Communicate effectively
- Build positive relationships
- Reduce anxiety/fear in having conversations
- Increase self-esteem

Influence Attitudes
to create beliefs that
- Open communication won’t always disrupt the relationship and can lead to benefits
- It’s “good/cool” to be the person who starts the convo/talks openly
- We can reduce fear/anxiety
- Communication matters—even in non-serious/short-term relationships

Increase Knowledge
about
- How to prepare in advance for conversations and raise topics
- What is a healthy relationship?
- How to discuss trauma
- Safer sex and sexual health

It’s about honesty. It’s about knowledge. It’s about time.
How Do We Move the Needle?  (Part One)

We need to be systematic and creative to hit the mark

- Establish measurable communications objectives
- Measure progress regularly and adjust as needed

Engage CREATIVE TALENT to PERSUADE audience(s) to act, change attitudes, and shift culture

- Can’t just tell people what to do, they need a compelling reason
- Health behavior is the product we’re trying to sell, but health benefits often don’t motivate
- Campaign identity/brand needed to drive a movement. e.g., “Designated Driver”

Culture shift mainly driven by cultural influencers (not institutions)

- Campaigns should engage and partner with influencers, e.g., social media influencers, entertainment media, others
- Why? Cultural influencers can meet audiences where they are, change attitudes, role-model behaviors, reduce stigma, and drive them to a campaign/resource
### How Do We Move the Needle? (Part Two)

<table>
<thead>
<tr>
<th><strong>Create tools &amp; activities based on communications objectives</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>- For young adults, interactive role-playing tools are key for skills-building</td>
</tr>
<tr>
<td>- Formats: role-playing scenarios, scripts, zines, quizzes, mini-comics, and short-form text</td>
</tr>
<tr>
<td>- In-person formats e.g., online support groups and “Master Classes”</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Tone matters in messaging</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>- Avoid top-down directives and commands —“Show Us, Don’t Tell Us”</td>
</tr>
<tr>
<td>- Feature peers, friends, and likeable health care providers/therapists</td>
</tr>
<tr>
<td>- Tie into benefits that matter and everyday realities &amp; challenges</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Develop and pretest all messages with audiences</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>- “Nothing About Us, Without Us.”</td>
</tr>
<tr>
<td>- To ensure they are appealing, clear, relevant, motivational</td>
</tr>
<tr>
<td>- Test when being developed and when they are nearly final</td>
</tr>
<tr>
<td>- Message development shouldn’t be an untested, solitary activity (at your desk)</td>
</tr>
</tbody>
</table>

It’s about honesty. It’s about knowledge. It’s about time.
“I would say not to command someone to do something or tell someone to do something directly, but be more about the softer side of things, like encouraging someone or being more positive about the tone.”

–Focus group participant
Go Big, Go Long, and Go Deep—Be Creative!

- Changing behavior is often a long-term process: most programs should be multi-year
- Messaging needs to be repeated often from multiple sources and over time
- “One dose” of information is unlikely to produce or sustain behavior change
  
  *Remember: Coke never stops advertising!*
- Well-designed communications work:

  **“Designated Driver” (DD)**
  72% of young adults served as a DD; 61% of young adults who drank rode with a DD.

  **Thailand Condom Campaign**
  Over 8 years, condom use rose from 12% to 95% among commercial sex workers.

  **Other Examples (if time allows)**
  WinBlack CDC Campaigns
It's about honesty. It's about knowledge. It's about time.

Questions?

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www.nationalcoalitionforsexualhealth.org