HIV NURSING 2019

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MSM Case Study

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Learning Objectives

- Discuss the impact of stigma on HIV screening and prevention among MSM
- Describe disparities of HIV-associated co-morbidities among MSM living with HIV
- List at least 2 clinical considerations in caring for MSM living with or at-risk of HIV

Case 1: RC

34 y.o. male who presents to for an initial exam. He tells you he is here to "***make sure everything is okay***."

- **Past Medical History:**
  - Depression.
- **Medications**:
  - sertraline 100mg daily
- **Allergies**: NKDA
- **Family history**:
  - Type II Diabetes Mellitus and Hypertension
- **Personal/Social History**:
  - former smoker (1 ppd x 10 years quit 5 years ago);
  - works in retail sales

Case 1: Continued

- What additional information would you like to know now?

Sexual History: Do Ask, Do Tell

- Various ways to approach sexual history taking
- The most important thing is to ask

The 5 P's

- Partners
- Practices
- Prevention of STIs
- Past history of STIs
- Pregnancy

Case 1: Continued

- He informs you that he has sex with men only.
- His last HIV test was about 6 months ago.
- He has a past history of syphilis about 6 months ago.
- He uses condoms “most of the time”
- Denies any dysuria, discharge, sores, LAD, rash

What are your main concerns now?

Globally, **gay men** and other men who have sex with men are **27 times** more at risk of HIV than the general population

Source: UNAIDS 2018

Avert www.avert.org

Estimated HIV Incidence among Persons Aged ≥13 Years, by Transmission Category 2010–2016—United States

Estimated HIV Incidence, No. (in thousands)

28
26
24
22
20
18
16
14
12
10
8
6
4
2
0

Male-to-male sexual contact

Heterosexual contact *

Injection drug use (IDU) *

Male-to-male sexual contact and IDU

2010 2011 2012 2013 2014 2015 2016

Year of infection

HIV

Note. Estimates were derived from a CD4 depletion model using HIV surveillance data. Data have been statistically adjusted to account for missing transmission category. Heterosexual contact is with a person known to have, or to be at high risk for, HIV infection.

* Difference from the 2010 estimate was deemed statistically significant ($P < .05$).

, Italy

New HIV diagnoses attributed to sex between men, 2017, EU/EEA

ecdc EUROPEAN CENTRE FOR DISEASE PREVENTION AND CONTROL

World Health Organization REGIONAL OFFICE FOR Europe

Rate per 100 000 male population
- < 1
- 1 to < 3
- 3 to 5
- > 5
- Not included or not reporting

Non-visible countries
- Luxembourg
- Malta
- Liechtenstein

Source: ECDC/WHO (2018). HIV/AIDS Surveillance in Europe 2018 – 2017 data

New HIV diagnoses in the EU/EEA 2017

Reporting countries/number of countries*	30/31
Number of HIV diagnoses	25 353
Rate per 100 000 population (adjusted for reporting delay)	6.2
Male-to-female ratio	3.1
Percentage of new diagnoses CD4<350 cells/mm^3	49%
Transmission mode (%)	
Sex between men	38
Heterosexual transmission (men)	17
Heterosexual transmission (women)	16
Injecting drug use	4
Vertical transmission	<1
Unknown	24

* Due to technical issues no 2017 data were received from Germany

Source: ECDC/WHO (2018). HIV/AIDS Surveillance in Europe 2018 – 2017 data

Countries showing declines in the rates of new HIV diagnosis reported in MSM, 2008-2017

Rate of new diagnoses in MSM per 100 000 male population

Source: ECDC/WHO (2018). HIV/AIDS Surveillance in Europe 2018– 2017 data

MSM are disproportionately at risk for and affected by HIV, STI and viral hepatitis

Proportion of new diagnoses attributed to sex between men, EU/EEA, 2016

Source: ECDC, Sexually transmitted infections in Europe, 2016; Hepatitis B and C in Europe, 2016; ECDC/WHO HIV Surveillance in Europe 2016 data, 2017

Why the difference?

Why do MSM experience more health disparities?

Stigma

Discrimination

Violence

Lack of/No Legal Protection

Lack of Culturally Competent Providers

Lack of Safe Spaces

Invisibility and Erasure

Minority Stress

Homophobia

https://www.avert.org/professionals/hiv-social-issues/key-affected-populations/men-sex-men

67 countries criminalise same-sex activity

In at least 8 countries, the death penalty is implemented for same-sex sexual relations

Source: UNAIDS Data 2019

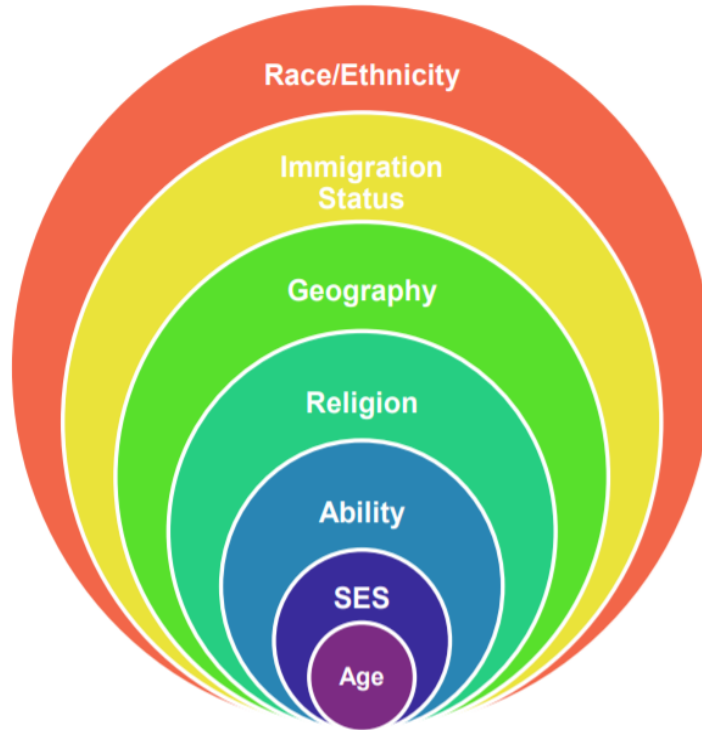
Avert www.avert.org

Homophobia impedes addressing HIV/STI

- Prejudice, threats, and violence against MSM
- Criminalization of same sex behavior
- Lack of training for health care workers
- **All lead to avoidance of care**

(Gonser, J Cult Divers, 2000; Meyer, AJPH, 2001; Mayer, AJPH, 2008; Bettancourt, Cultural Competence in Health Care, 2002)

Intersectionality and health disparities



A gay man has to deal with homophobia. A black man has to deal with racism. But a black gay man will have to deal with homophobia and racism (often at the same time). It is often the case that he will face racism inside the LGBT community and homophobia in the black community.

Having an intersectional identity often generates a feeling that someone does not completely belong in one group or another, and can lead to isolation.

Source: Fenway Institute

Biopsychosocial Drivers of the Syndemic in Gay, Bisexual and Other Men Who Have Sex With Men

Biological Influences
Prevalence of Infectious Disease
Infectiousness
Suceptibility
Efficacy of Treatment
Efficacy of Risk Reduction Strategies

Behavioral Influences
Partner Selection
Number of Partners
Sexual Behavior
Retention in Medical Care
Treatment Initiation and Adherence
Choice of Risk Reduction Strategy
Adherence to Risk Reduction Strategy

Psychosocial and Structural Influences
Knowledge, Attitudes and Beliefs
Minority Stress, Homophobia and Racism
Social Capital and Social Support
Safe Schools and Legal Protections
Allocation of Public Resources
Access to Information and Tools

Syndemic Health Problems
Mental Health
Substance Abuse
Violence and Sexual Abuse
HIV
STIs

NOTE: STIs = Sexually Transmitted Infections

SOURCE: Halkitis PN, Wolitski RJ, Millett GA. A holistic approach to addressing HIV infection disparities in gay, bisexual, and other men who have sex with men. American Psychologist, 2013;68/4:261-73.

Condomless anal intercourse

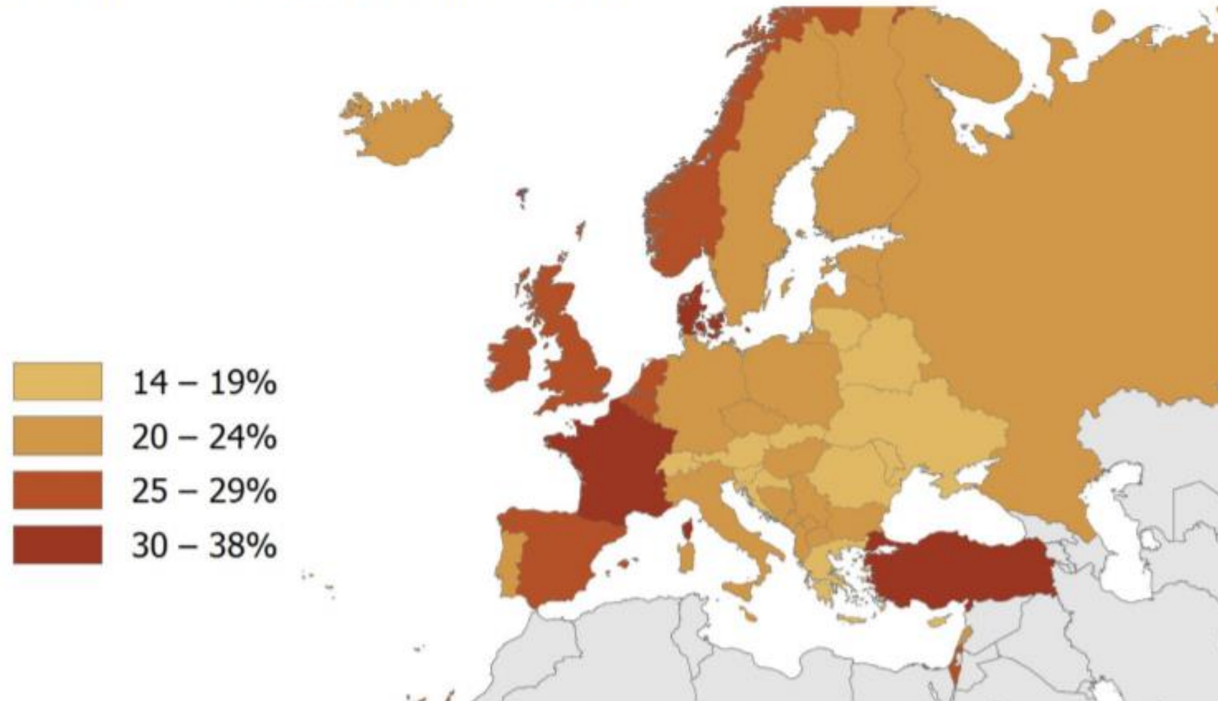


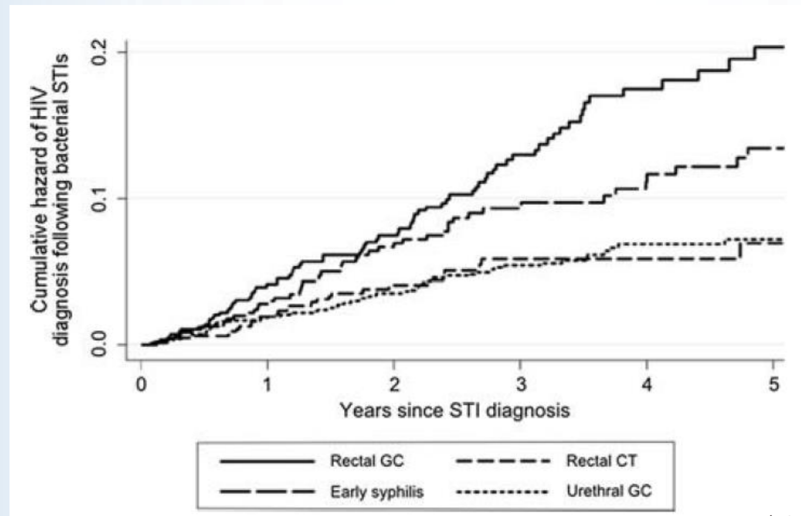
Figure 5.5 Percentage who had condomless anal intercourse with non-steady partners of unknown HIV status, last 12 months (DDM 3.27) (N=126 493)

Condomless anal sex can lead to mucosal changes that increase HIV risk without STI

- 41 HIV- MSM who reported condomless receptive anal sex (CRAS) with an HIV- partner were compared to 21 who never engaged in CRAS
- Rectal CD8+ T cells in CRAS+ MSM showed greater proliferation status (i.e. ↑ Ki-67, CD38, CCR5, α4β7)
- Rectal CD4+T cells showed ↑ IL-17, and CD8+T cells showed ↑ pro-inflammatory cytokines
- Rectal microbiota of CRAS+MSM was enriched for prevotellaceae, associated with mucosal injury and repair.

Kelley, Mucosal Immunol, 2017

Rectal gonorrhea and syphilis are predictive of future HIV infection



Katz *et al. Sex Trans Dis.* 43(4):249-254, 2016.
Also Bernstein et al from SF and Pathela et al from NYC

Extragenital STI Screening is Important

Sites of gonococcal infection

Site(s)	Number of cases
Anorectal	49
Oropharyngeal	9
Anorectal + Oropharyngeal	13
Anorectal + Urogenital	9
Oropharyngeal + Urogenital	5
Anorectal + Oropharyngeal + Urogenital	2

Number of cases (axis 0–60); n = 87

Figure 1 – Anatomical location of extragenital gonorrhoea. Distribution of gonococcal infections by site(s) (n = 87): exclusively extragenital infections accounted for the majority of cases (71), whereas the remainder 16 cases corresponded to mixed extragenital and urogenital infections.

Valejo Coelho MM, Matos-Pires E, Serrão V, Rodrigues A, Fernandes C.
Acta Med Port. 2018 May 30;31(5):247-253

Black and Latino MSM using mobile phones and internet for sex had ↑STI rates

(n=853 Black and Latino MSM)

- **23%** reported an STI in the prior year.
  - **29%** reported using a mobile phone app for sex.
  - **28%** reported using an internet site to meet sex partners
  - **22%** used both.

- MSM reporting using both mobile phone and computer-based sites were **more likely to report an STI** (AOR=2.59, 95% CI 1.75-3.83)

Allen, STD, 2017

Case Study 1: Continued

- Informs you that he has a primary male partner but they are not sexually exclusive.
- He was on PrEP but stopped because he was concerned about side effects and taking it daily.
- He tells you he and his partner started using meth when they have group sex.

What are his options and how would you handle this situation?

Is group sex a higher-risk setting for HIV/STI, compared to dyadic sex, for MSM?

- 35% of 465 MSM participating in Amsterdam cohort studies reported some group sex
- Condomless sex was more often reported during dyadic than group sex, OR=3.6 (95% CI 2.57-5.16)
- **Men who reported group sex were more likely to be diagnosed with gonorrhea compared to those who only reported dyadic sex**, OR= 1.71 (95% CI 1.08-2.97) but this did not persist in multivariable model
- Paradox: **more condom use in group sex, but greater STI risk, possibly because of more partners and inconsistent condom use**

van den Boom, STI, 2016

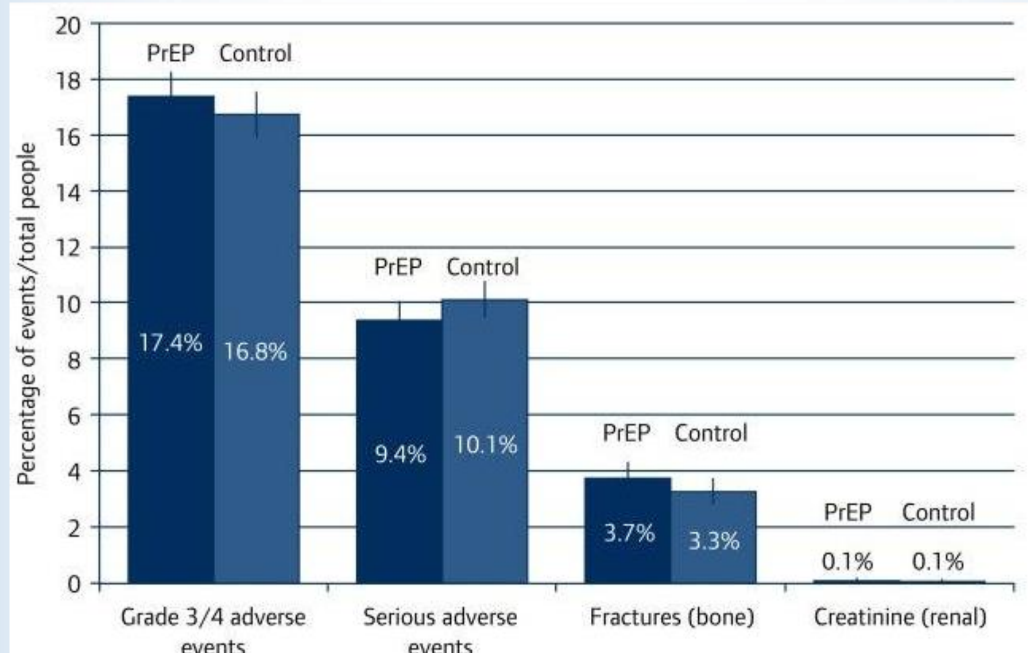
Pre-Exposure Prophylaxis

- Uptake has been slow in the U.S., but continues to increase
- Access
- Provider knowledge
- Stigma
- Cost

PrEP Use

Men were asked 'Have you heard of PrEP?'
63% indicated 'yes',
5% were 'Not sure'
32% had not heard of it

Safety of TDF/FTC



Pilkington V, Hill A, Hughes S, Nwokolo N, Pozniak A. How safe is TDF/FTC as PrEP? A systematic review and meta-analysis of the risk of adverse events in 13 randomised trials of PrEP. *J Virus Erad.* 2018;4(4):215–224. Published 2018 Oct 1.

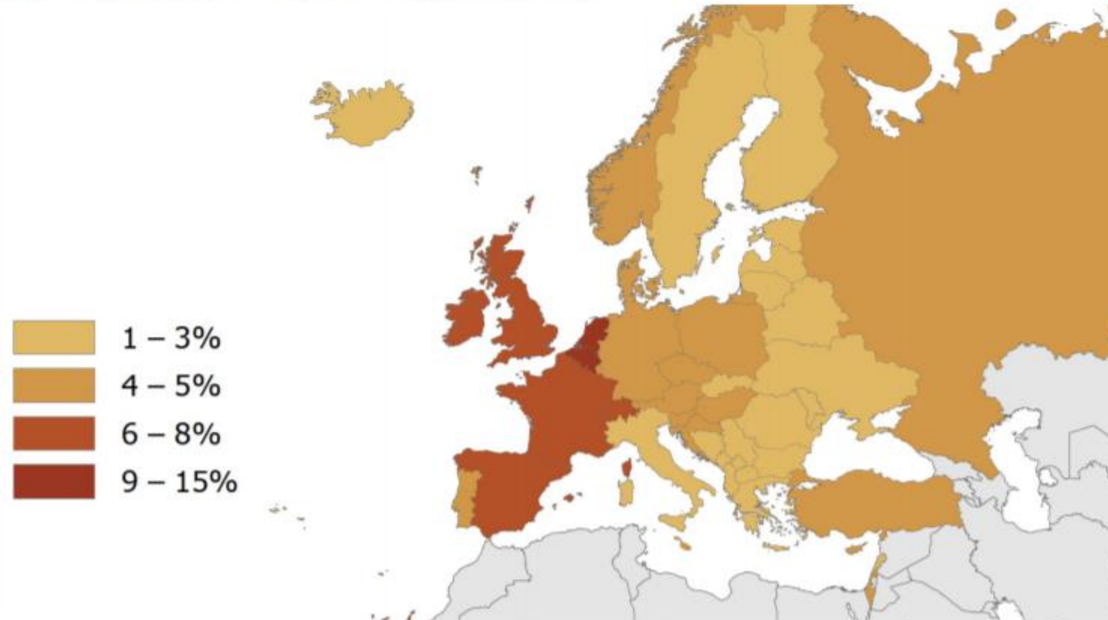
Event Driven vs Daily PrEP

Table 2. When ED-PrEP could be considered

For whom is ED-PrEP appropriate?	For whom is ED-PrEP NOT appropriate?
• a man who has sex with another man: – who would find ED-PrEP more effective and convenient – who has infrequent sex (for example, sex less than 2 times per week on average) – who is able to plan for sex at least 2 hours in advance, or who can delay sex for at least 2 hours	• cisgender women or transgender women • transgender men having vaginal/frontal sex • men having vaginal or anal sex with women • people with chronic hepatitis B infection.

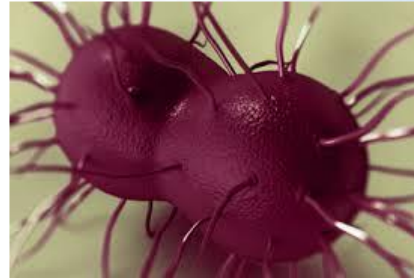
https://apps.who.int/iris/bitstream/handle/10665/325955/WHO-CDS-HIV-19.8-eng.pdf?ua=1

Stimulant drugs and Sex (Chemsex)



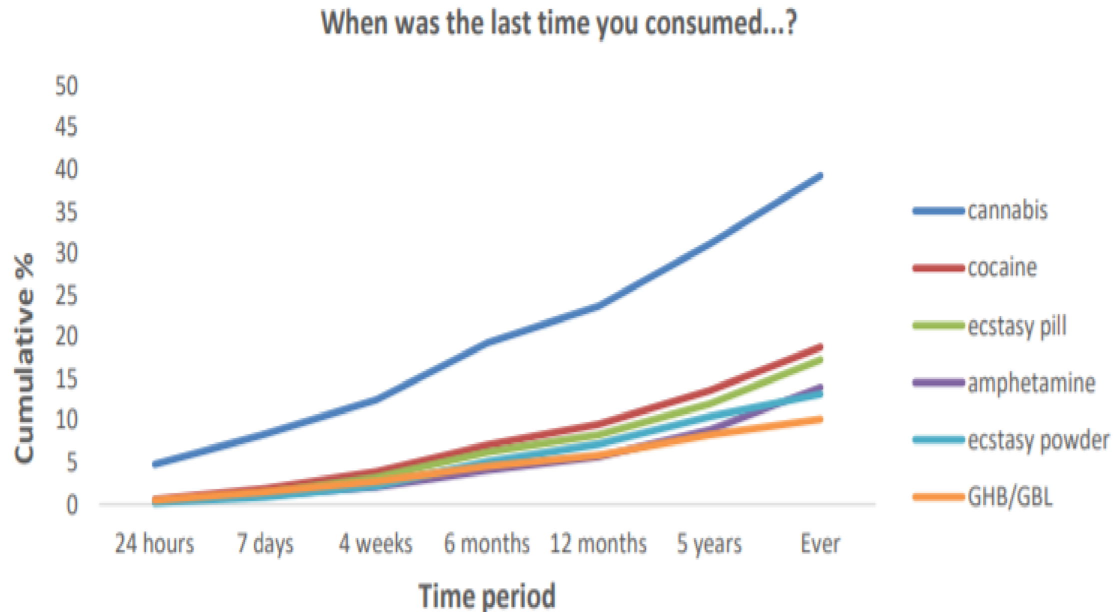
Chemsex associated with higher rates of GC

- MSM who used crystal methamphetamine and GHB/GBL in previous year had **1.92- and 2.23-fold** higher odds of GC
-
- MSM reporting the use of all three chemsex drugs had the highest increased odds (aOR **3.58**; $P < 0.0001$; n = 15 174).

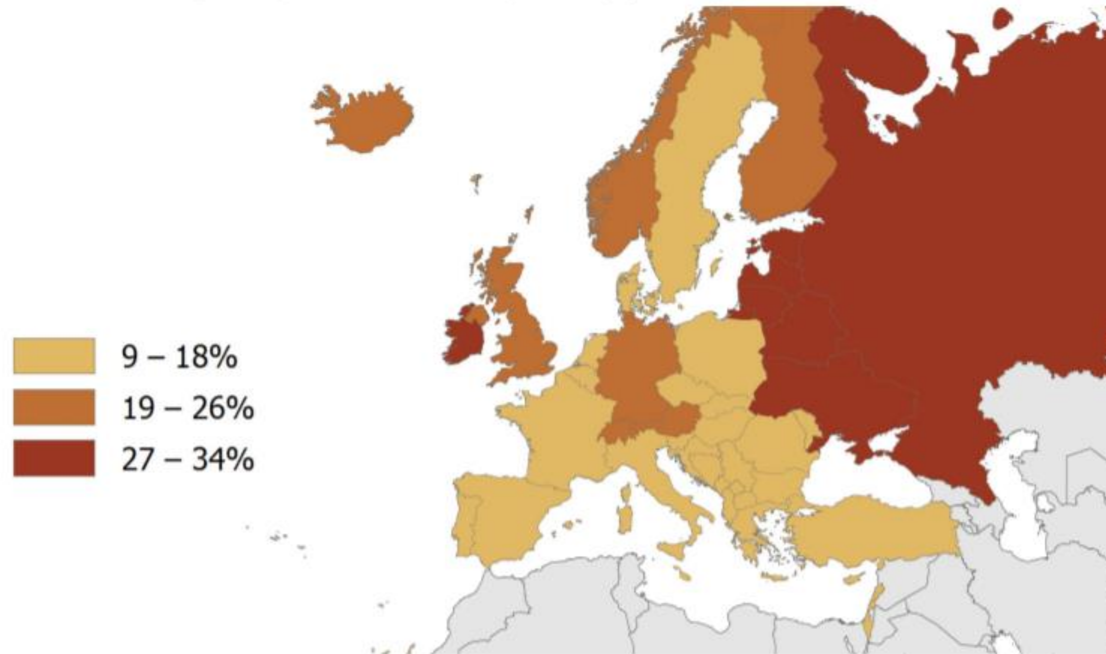


Kohli, Manik; Hickson, Ford; Free, Caroline; Reid, David; Weatherburn, Peter; (2019) *Cross-sectional analysis of chemsex drug use and gonorrhoea diagnosis among men who have sex with men in the UK.* Sexual Health. DOI: https://doi.org/10.1071/SH18159

Substance Use



Alcohol Dependency



Tobacco Use

Fig. 3.1. **Overall age-standardized estimated current and daily tobacco smoking prevalence in European countries, ages 15 years and over, 2016**

Current smokers
Daily smokers

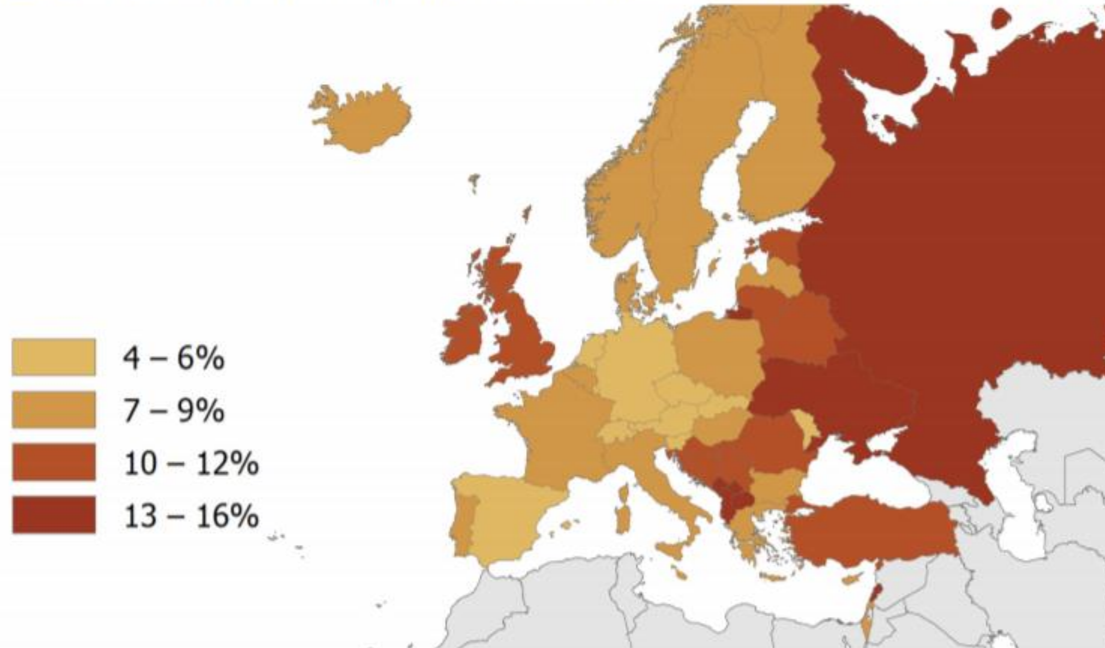
Age-standardized prevalence of smokers, by frequency, ages 15 years and over (%)

50
45
40
35
30
25
20
15
10
5
0

Uzbekistan
Iceland
Sweden
Denmark
Norway
Finland
Azerbaijan
United Kingdom
Slovenia
Portugal
Luxembourg
Italy
Ireland
Kazakhstan
Republic of Moldova
Israel
Malta
Switzerland
Netherlands
Armenia
Kyrgyzstan
Turkey
Poland
Belarus
Belgium
Albania
Spain
Austria
Lithuania
Romania
Georgia
Slovakia
Ukraine
Germany
Hungary
Estonia
France
Andorra
Czechia
Cyprus
Croatia
Bulgaria
Latvia
Bosnia and Herzegovina
Serbia
Russian Federation
Greece
Montenegro

Source: WHO (*1*).

Anxiety or Depression



https://www.ecdc.europa.eu/sites/portal/files/documents/European-MSM-internet-survey-2017-findings.pdf

Mental Health Issues

- 40% of **MSM become depressed**, 2X the lifetime rate of heterosexuals
- Predictors of major depression are:
  - not having a partner,
  - experiencing **anti-gay threats or violence**,
  - **non-identification** as gay
- Panic disorder, social phobia, generalized anxiety disorder are more common among MSM (**20% lifetime incidence**)
- **Culturally-tailored treatment** may involve groups that enhance community identification

(Sandfort, Arch Gen Psych, 2001; Gilman, AJPH, 2001; Lewis, Health Place, 2010; Safren, Health Psychology, 2012)

Social Support

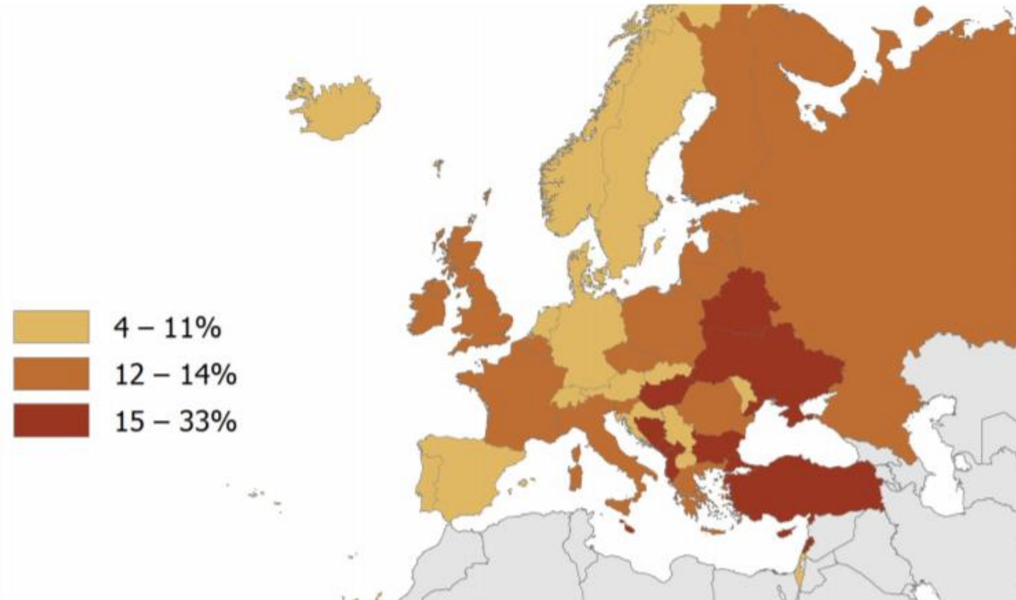


Figure 6.3 Percentage lacking social support (scoring <10 in either sub-scale SPS) (N=57 853)

http://sigmaresearch.org.uk/files/EMIS-2017_EuropeanMaps_DDM.pdf

Other Prevention Needs

- Vaccination for Hepatitis A and Hepatitis B
- Vaccination against HPV

41% of the respondents did not know that vaccination against hepatitis A and B is recommended for MSM.

Guidelines for implementing comprehensive HIV and STI programs with MSM

- Human Rights
- Access to quality health care
- Access to justice
- Acceptability of services is a key spect of effectivenesss
- Health literacy
- Integrated service provision
- Community empowerment
- Community participation and leadership

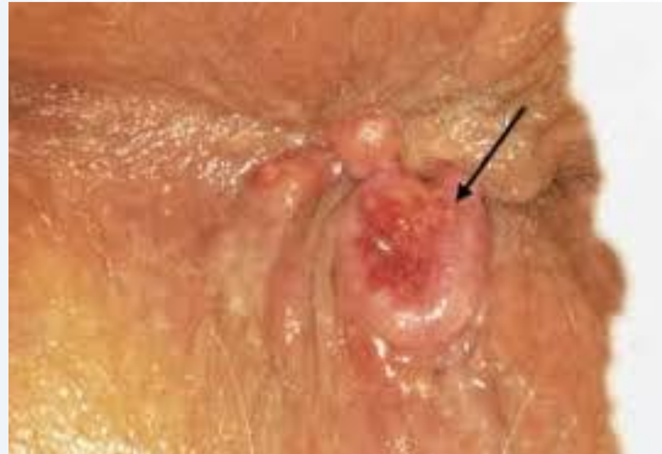
https://www.unfpa.org/sites/default/files/pub-pdf/MSMIT_for_Web.pdf

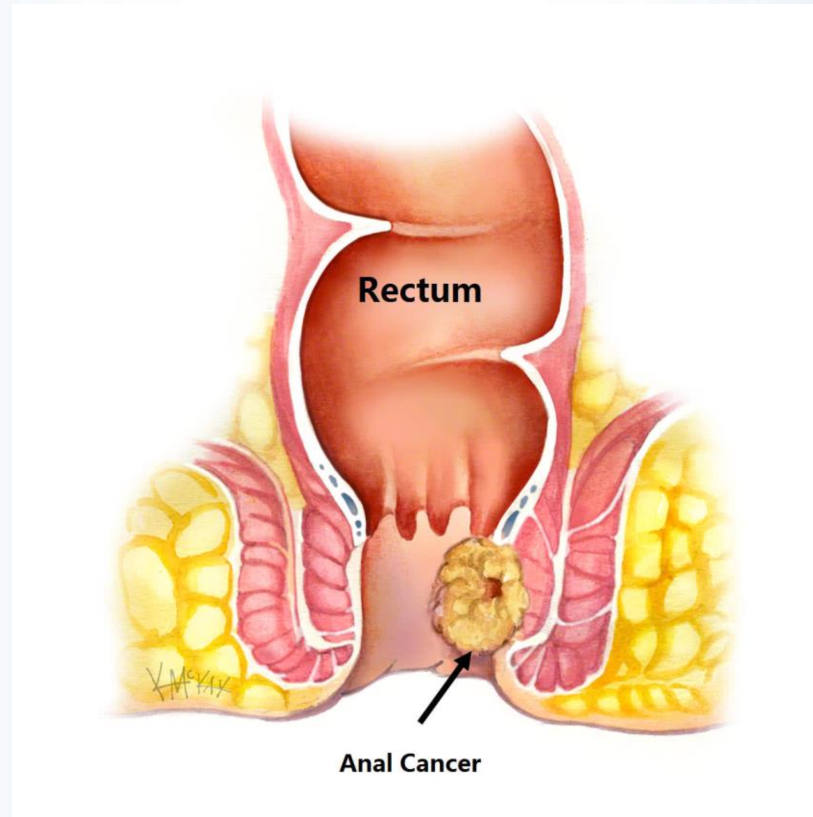
Case #2: KZ

- KZ is a 62 year old male living with HIV (dx in 2000)
- Presents with a complaint of rectal bleeding
- **Past Medical History**:
  - syphilis, GC proctitis, asthma, hypertension, hyper-lipidemia, depression
- **Medications**:
  - Tenofovir alafenamide/Emtricitabine/Bictegravir
  - Albuterol
  - Valsartan
  - Citalopram
  - Atorvostatin

Case #2: KZ

- On physical exam




Rectum
Anal Cancer

Anal Cancer

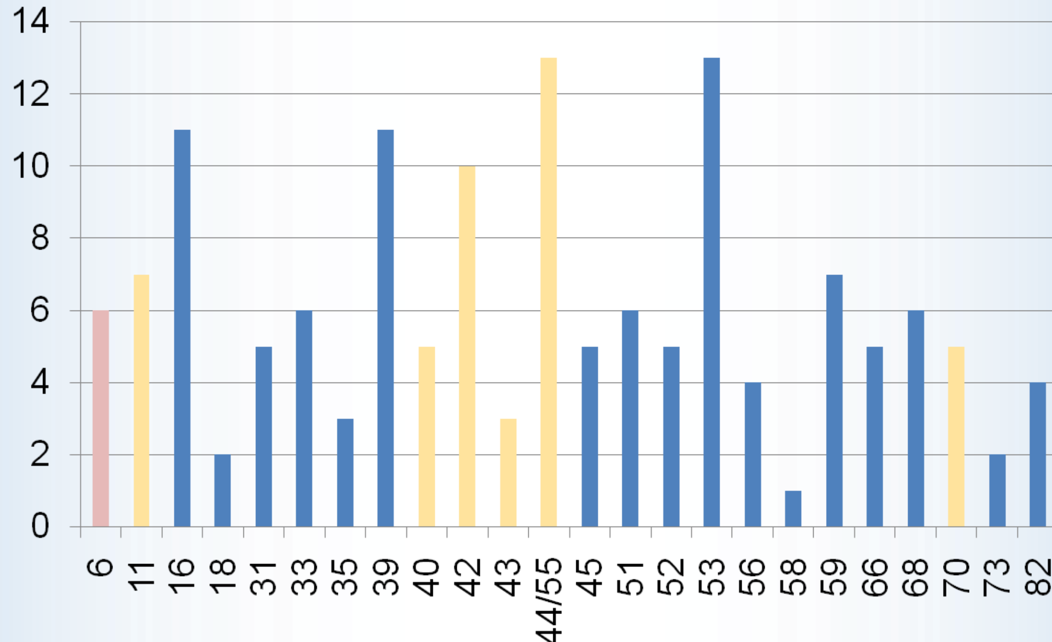
- HIV negative MSMs are **<u>20 times</u>** more likely to be diagnosed with anal cancer. Their rate is about 40 cases per 100,000.

- HIV-positive MSMs are up to **<u>40-80 times</u>** more likely to diagnosed with the disease, resulting in a rate of 80 anal cancer cases per 100,000 people.

https://cancer-network.org/cancer-information/gay-men-and-cancer/anal-cancer-hiv-and-gaybisexual-men/

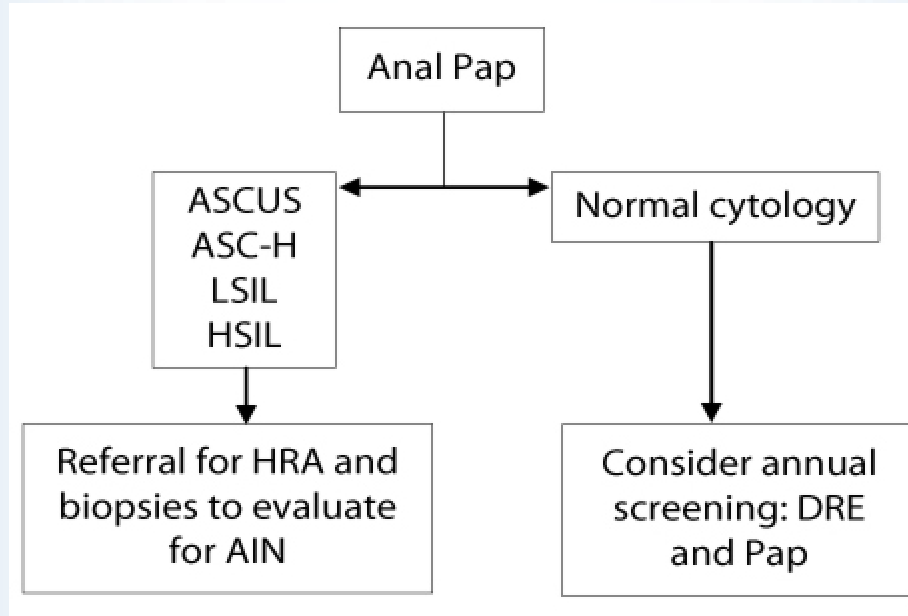
International_Anal_Neoplasia_Society_Guidelines.8.pdf

HPV Type in HIV+ MSM



Damay, et al. (2010). HPV prevalence and type distribution, and HPV-associated cytological abnormalities in anal specimens from men infected with HIV who have sex with men. *J Med Virol* 82:592-596

HPV screening algorithm



Digital Anal Rectal Exam

Group	Minimum[a] proposed DARE frequency
Those with symptoms suggesting anal cancer such as: bleeding, anal/perianal mass, tenesmus, pain, altered bowel habit (read, Read et al., 2013)[38]	Immediately, with referral for anoscopy, HRA, or to a colorectal specialist if the initial DARE is negative
HIV-positive MSM	At least annually in men ≥35 y
Those with demonstrated cytologic or histologic anal HSIL	At least annually
Those with a history of treated anal squamous cell carcinoma	Every 4 mo after completion of radiation for first 2 y, then every 6 mo for the next 3 y, then at least annually (Wright et al., 2010)[39]
Other immunosuppressed populations, such as other groups with HIV infection and recipients of solid organ transplants	At least annually in those ≥50 y
HIV-negative MSM	Every 2 to 5 y in those ≥50 y
Women with a history of cervical, vulvar or vaginal neoplasia or cancer	Every 2 to 5 y, depending on further risk assessment (Moscicki et al.,[15] 2015)

Colonoscopy may miss anal canal lesions and performing a DARE potentially provides an opportunity to assess the anal canal while the patient is sedated.

[a]Frequency may increase, depending on risk assessment, such as anal history, degree of immunosuppression, age, and smoking status.

https://journals.lww.com/jlgtd/Pages/articleviewer.aspx?year=2019&issue=04000&article=00008&type=Fulltext

Conclusions

- MSM are at **greater risk for health disparities** including HIV, other STIs, substance use, violence, and mental health issues.

- **MSM living with HIV** are also at **greater** risk for certain co-morbidities including HPV-associated **anal cancer**.

- **Nurses** play a critical role in recognizing, addressing disparities in care through the **provision of social, physical, and behavioral interventions that are re-affirming** and meet the **cultural needs of MSM**