



THE EFFECT OF SYNDEMICS ON PUBLIC HOUSING RESIDENTS AND OTHER MEDICALLY UNDERSERVED POPULATIONS

THE INTERCONNECTEDNESS OF DISEASE



May 14, 2026

HOUSEKEEPING ITEMS

- All participants muted upon entry
- Engage in chat
- Raise hand if you would like to unmute
- Meeting is being recorded
- Slides and recording link will be sent via email
- Let us know about you!
 - State
 - Organization name
 - Title
 - What brings you here today



SPEAKER



Jose Leon, MD
Chief Medical Officer

- Chief Community Health Officer at La Maestra Community Health Centers, leading community health strategy and implementing the Circle of Care model to address medical, behavioral, and social needs in San Diego communities.
- Chief Medical Officer at the National Center for Health in Public Housing, with over 12 years developing training and technical assistance programs for community health centers serving public housing populations.
- National leader in population health and chronic disease prevention, contributing to major initiatives such as the American Diabetes Association's Practice Committee and the development of the Standards of Care in Diabetes.

MODERATORS



**Fide Pineda Sandoval, MPH,
CHES**
Training & Technical
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Olajumoke Oladipo, MPH
Health Communications and
Research Analyst

LEARNING OBJECTIVES



Define and explain the concept of syndemics



Identify key co-occurring conditions and upstream drivers of health



Apply syndemic-informed strategies to care planning

SYNDEMIC



Short for synergistic epidemic (the synergistic interaction of two or more epidemics)

One condition exacerbates the other

Interplay between medical, behavioral health and **non-clinical related** conditions

Concurrent medical conditions are more numerous and more severe in patients with HIV

RELEVANCE

Non-clinical factors magnify the negative health outcomes of Human Immunodeficiency Virus (HIV)

Infectious diseases and sexually-transmitted diseases (STDs) occur more frequently in patients with HIV

SEXUALLY-TRANSMITTED INFECTIONS (STI) AMONG PEOPLE WITH HIV (PWH)

Syphilis
prevalence in
PWH: 10% - 40%

Chlamydia and
gonorrhea: 10%
- 20%

Human
Papillomavirus
(HIV): 60% -
90%

MALIGNANCIES AND PWH

AIDS-related
malignancies

Non-AIDS
defining
cancers

CHRONIC
DISEASES
AMONG
PWH

Cardiovascular diseases

Chronic kidney diseases

Hypertension

Chronic Obstructive
Pulmonary Disorder (COPD)



SYNDEMICS AND NON-CLINICAL RELATED NEEDS

SYNDEMIC THINKING IN HEALTH CENTERS

Substance
misuse

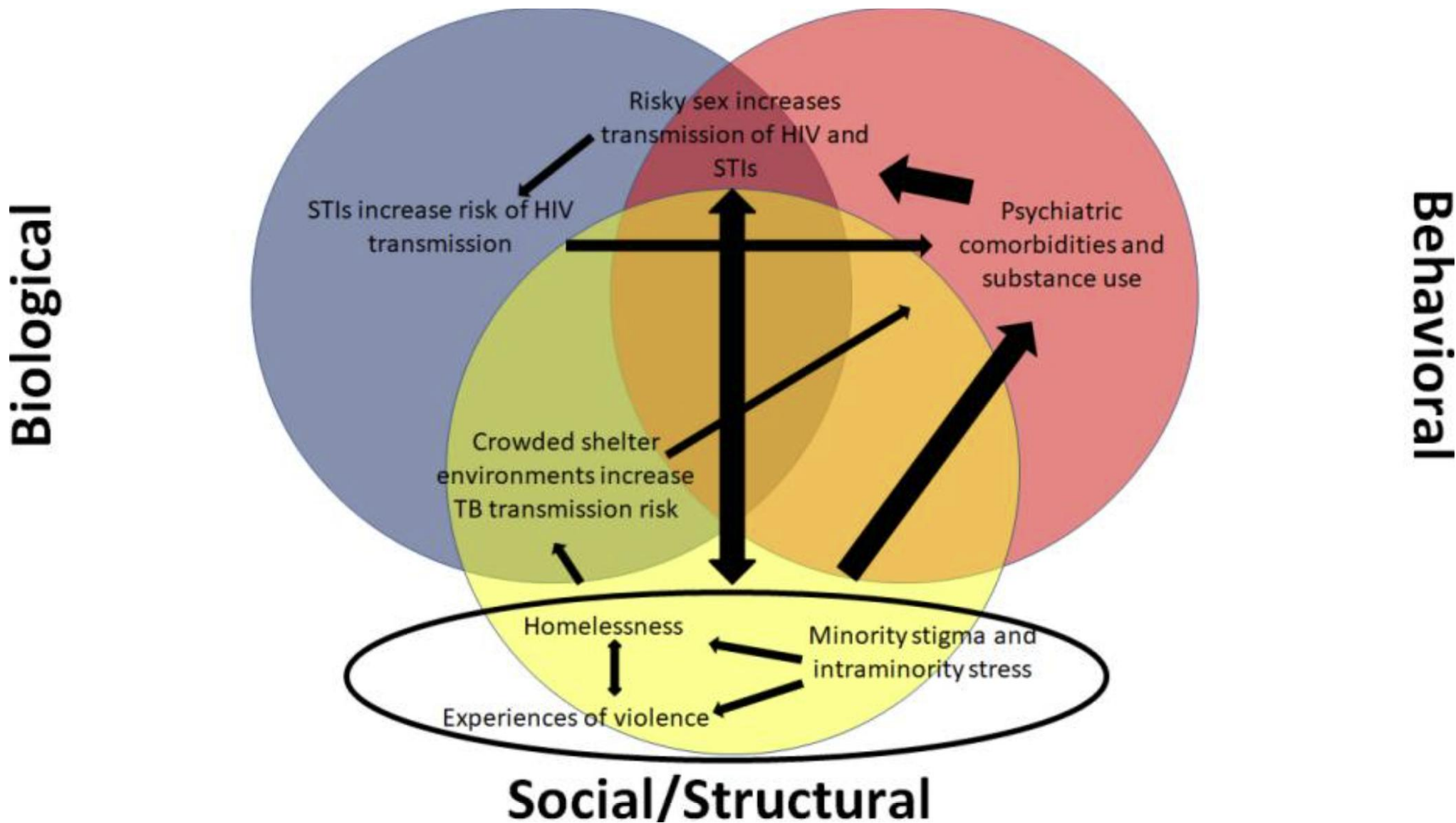
Depression

Risky
behaviors

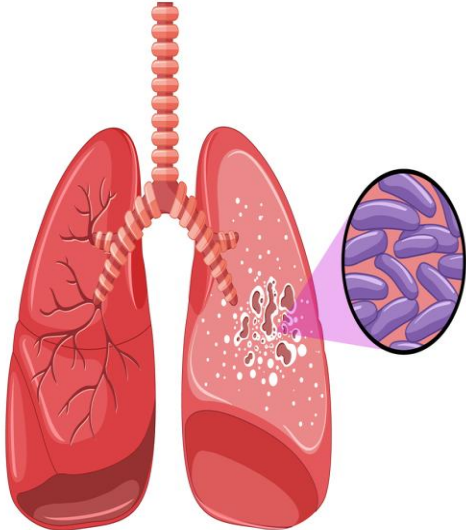
Intimate
partner
violence (IPV)

STIs

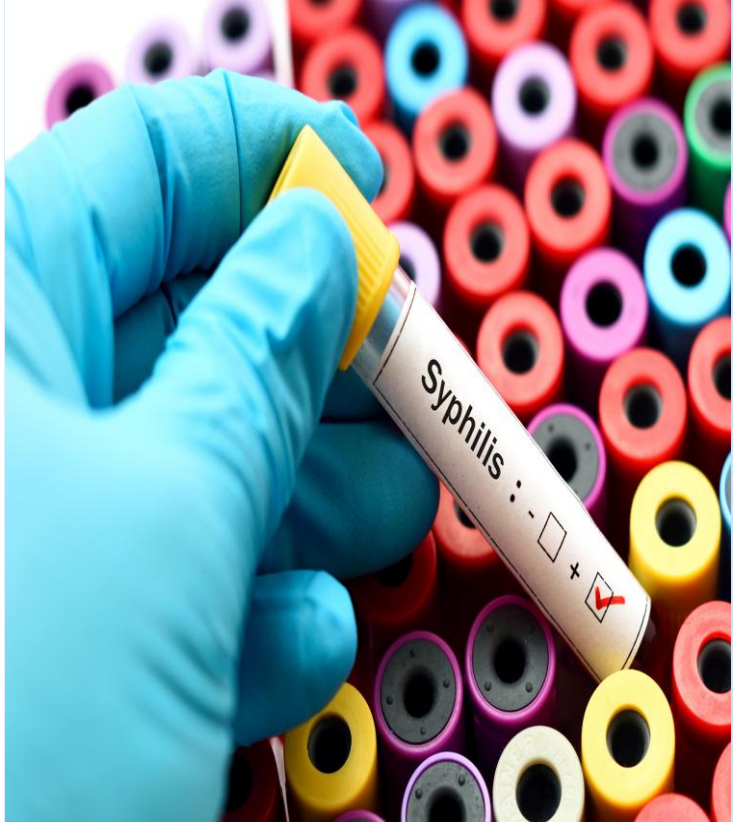
Non-clinical
related
needs




TUBERCULOSIS (TB) INTERVENTIONS

Infectious Disease	Impact/Synergism	Intervention
<p>Tuberculosis</p> <p>TUBERCULOSIS (TB)</p> 	<p>Increased likelihood of reactivation of latent TB infection.</p> <p>Decreasing CD4 in HIV patients linked to increased risk of TB acquisition in non-infected persons.</p> <p>Decreasing CD4 in HIV patients is associated with more atypical disease presentation, including extrapulmonary TB.</p> <p>HIV does not impact TB treatment.</p>	<p>Integrated care services for HIV and TB</p> <p>Treatment of latent TB infection</p> <p>HIV test and treat strategies that focus on same-day Anti Retroviral Therapy (ART) treatment strategies.</p>


SYPHYLIS INTERVENTIONS

Infectious disease	Impact/synergy	Intervention
<p data-bbox="188 401 351 448">Syphilis</p> 	<p data-bbox="919 401 1505 505">Syphilis increases risk of HIV acquisition.</p> <p data-bbox="919 572 1556 733">Syphilis may increase the progression of HIV disease, although data are inconclusive.</p> <p data-bbox="919 801 1607 1019">Decreasing CD4 in HIV patients is linked to accelerated progression to neurosyphilis and atypical presentations (123, 124).</p> <p data-bbox="919 1086 1607 1348">High rates of syphilis acquisition in a subset of men who have sex with men (MSM) with viral suppression with increased levels of condomless sex.</p>	<p data-bbox="1651 401 2303 505">Routine screening for syphilis in PWH</p> <p data-bbox="1651 572 2354 619">Integration of STI and HIV services</p>


OTHER STIs INTERVENTIONS

Infectious disease	Impact/synergy	Interventions
<p data-bbox="188 425 402 465">Other STIs</p> 	<p data-bbox="922 425 1592 525">Ulcerative and inflammatory STIs increase risk of HIV acquisition.</p> <p data-bbox="922 596 1592 753">STI can increase HIV replication through cytokine activation and upregulate genital tract HIV RNA.</p> <p data-bbox="922 825 1592 982">HIV increases infection risk for men and women and accelerates STI disease progression.</p> <p data-bbox="922 1053 1592 1210">STI increases HIV infectiousness in treatment naïve or non-adherent patients.</p>	<p data-bbox="1658 425 2351 465">Integrated services for HIV and STI</p> <p data-bbox="1658 539 2160 579">Syndromic STI treatment</p>


HEPATITIS C (HCV) INTERVENTIONS

Infectious disease	Impact/synergy	interventions
<p data-bbox="191 475 537 522">Hepatitis C (HCV)</p> 	<p data-bbox="922 475 1582 572">HIV changes rate of fibrosis from HCV</p>	<p data-bbox="1656 475 2232 522">Integrated HIV/HCV services</p> <p data-bbox="1656 589 2318 808">HCV treatment with direct-acting antiviral replication treatment as prevention micro-elimination strategies</p> <p data-bbox="1656 875 2318 979">Harm reduction services in PWID to prevent re-infection</p>

SUBSTANCE USE INTERVENTIONS

Behavioral factor	Impact/synergy	Intervention
<p data-bbox="191 361 496 404">Substance Use</p>  A photograph of a man sitting on the floor in a desolate, dilapidated room. He is hunched over with his head buried in his arms, appearing distressed or in pain. On the floor next to him are various items, including a syringe, a small container, and scattered pills, suggesting substance use.	<p data-bbox="922 361 1600 404">Increases psychiatric comorbidity</p> <p data-bbox="922 475 1447 575">Associated with increased experiences of violence</p>	<p data-bbox="1656 361 2280 461">Community needle and syringe programs</p> <p data-bbox="1656 532 2204 632">Medications for Opioid Use Disorder (MOUD)</p> <p data-bbox="1656 704 2331 861">Screening, Brief Intervention, and Referral to Treatment (SBIRT) screening</p> <p data-bbox="1656 932 2186 975">Contingency management</p> <p data-bbox="1656 1046 2046 1089">Relapse prevention</p> <p data-bbox="1656 1160 2191 1203">Cognitive behavior therapy</p>

PSYCHIATRIC INTERVENTIONS


Behavioral factor	Impact/synergy	Interventions
<p>Psychiatric comorbidity</p> 	<p>Increases substance use</p>	<p>Depression screening among MSM.</p> <p>Tailored cognitive behavioral therapy like Effective Skills to Empower Effective Men (ESTEEM) for MSM.</p>

VIOLENCE INTERVENTIONS


Behavioral factor	Impact/synergy	Interventions
Violence	<p data-bbox="922 476 1600 575">Increases psychiatric comorbidity and substance use</p> <p data-bbox="922 646 1335 745">IPV increases risk of homelessness.</p>	<p data-bbox="1658 476 2321 575">CBT-based interventions that are tailored to survivors of violence.</p> <p data-bbox="1658 646 2321 745">Web-based and remote interventions for survivors of IPV.</p> <p data-bbox="1658 816 2193 915">Economic strengthening interventions for survivors.</p> <p data-bbox="1658 986 2321 1085">Housing interventions for victims of IPV.</p>



INCARCERATION INTERVENTIONS

Structural factor	Impact/synergy	Interventions
<p data-bbox="191 475 461 515">Incarceration</p> 	<p data-bbox="924 475 1612 572">Increases crowding leading to risk of TB transmission</p> <p data-bbox="924 646 1528 743">Increases HIV, STI, hepatitis B (HBV), and HCV risk behavior</p> <p data-bbox="924 818 1493 858">Increases injection drug use</p> <p data-bbox="924 932 1352 972">Increases depression</p>	<p data-bbox="1658 475 2333 572">In-prison MOUD with post-release continuity</p>

HOUSING INSTABILITY INTERVENTIONS

Structural factor	Impact/synergy	Interventions
<p data-bbox="188 475 563 522">Housing Instability</p> 	<p data-bbox="922 475 1541 575">Crowding in shelters increases risk of TB transmission.</p> <p data-bbox="922 646 1595 803">Increases psychiatric comorbidities and substance use disorders.</p>	<p data-bbox="1653 475 2020 522">Housing vouchers</p> <p data-bbox="1653 589 2300 689">Reducing incarceration will increase residential stability</p>

KEY POINTS

HIV interacts with other infectious diseases often in bi-direction, synergistic ways.

Clustering of behavioral precursors to infectious disease explain why we observe high rates of infectious co-occurrence in certain populations.

Structural factors like minority stress, homelessness, and incarceration heavily exacerbate behavioral precursors to infectious disease.



CASE STUDY 1

Antonio is a 32-year-old Latino who has been living with HIV for the past 6 years. Antonio has lived in the United States for 17 years, although all of his family still lives in Guatemala. When he shows up for treatment, his health care provider realizes that Antonio has not been adhering to his HIV treatment regimen and that his viral load is increasing. Antonio tells the health care provider that he has had severe diarrhea ever since he returned from visiting his family in Guatemala and his condition prompted him to seek treatment. He informs the health care provider that he has been praying several times a day and receiving “limpias” (spiritual cleansings) from a “curandero” (folk healer) who lives nearby; however, he does not seem to be feeling any better. When the health provider asks why Antonio has not been adhering to his treatment regimen, he responds that he is afraid of the harmful side effects that the drugs may have on his body.

CASE STUDY QUESTIONS

1. What interacting conditions are affecting Antonio?
2. What common syndemic contributors do you see?
3. Is Antonio at increased risk for an opportunistic infection? If so, why?
4. What additional screening is needed?
5. How could Antonio be affected by living in isolation from his family members?
6. Could this have a negative impact on his adherence to the treatment regimen?

CASE STUDY 2

Michael is a 42-year-old Hispanic man who was diagnosed with HIV three years ago and now presents to the clinic for evaluation of persistent fatigue, unintentional weight loss, and recurrent upper respiratory infections. His medical history is significant for major depressive disorder and alcohol misuse, which he reports using as a coping mechanism for stress and depression. Michael is currently unemployed, experiencing housing instability, and does not have health insurance.

CASE STUDY QUESTION

1. What would be your integrated plan to help Michael?
2. What interacting conditions are affecting Michael?
3. What common syndemic contributors do you see?

Q & A SESSION



A person's hands are shown typing on a silver laptop. The laptop screen displays a checklist with several items, some of which are marked with checkmarks. To the left of the laptop, a white cup of coffee sits on a saucer on a wooden table. The background is a bright, out-of-focus window with white curtains. The overall scene is brightly lit, suggesting a daytime setting.

COMPLETE OUR POST EVALUATION

CONTACT INFORMATION

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NATIONAL CENTER FOR HEALTH IN PUBLIC HOUSING

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THANK YOU!

