

Intersecting Pandemics and a Tale of Two Vaccines: From Technocratic Reductionism to a Biosocial Approach

29 April 2022

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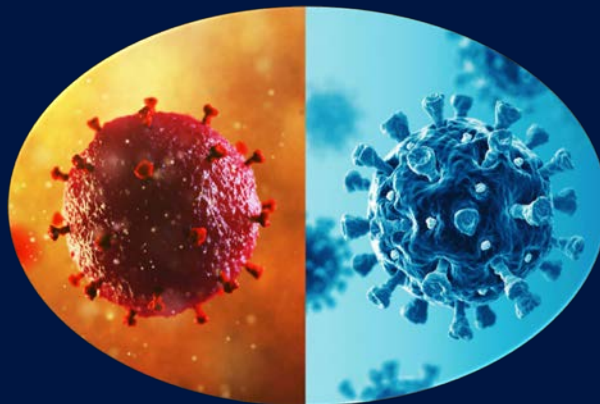
THE HUMSAFAR
SINCE TRUST 1994
EQUALITY - INCLUSIVITY - DIVERSITY

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Multiple commentaries & analyses address

- Lessons learned from the HIV response

→ Approaches to COVID-19



Decades of biomedical research on HIV vaccines →

- Basis for rapid development of safe & efficacious vaccines against SARS-CoV-2
- But the most trenchant *social* lessons of the HIV response have largely not been applied in global responses to Covid-19

- Broader governmental and public health approaches to Covid-19 pandemic reveal insufficient attention to social-structural conditions that produce disease
- Adverse SDOH owing to marginalization create systemic barriers to the effectiveness of HIV and Covid-19 prevention technologies





[Home](#) » [American Journal of Public Health \(AJPH\)](#) » [July 2020](#)

We're Not All in This Together: On COVID-19, Intersectionality, and Structural Inequality

Lisa Bowleg PhD, MA

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Outline

1. Biosocial approach
2. *#SafeHandsSafeHearts* Intervention: Biosocial approach to Covid-19 & HIV among marginalized communities
3. Project VOICES: Covid-19 “vaccine hesitancy” & broader under-vaccination
4. Implications for Covid-19 and HIV Pandemics

Learning Objectives

1. Describe a biosocial approach to global health
2. Assess linkages between the use of technologies, such as vaccines and PrEP, and contexts for their demand, acceptance, and uptake
3. Adapt lessons learned from COVID-19 to advance strategic approaches for optimizing the effectiveness of HIV prevention technologies

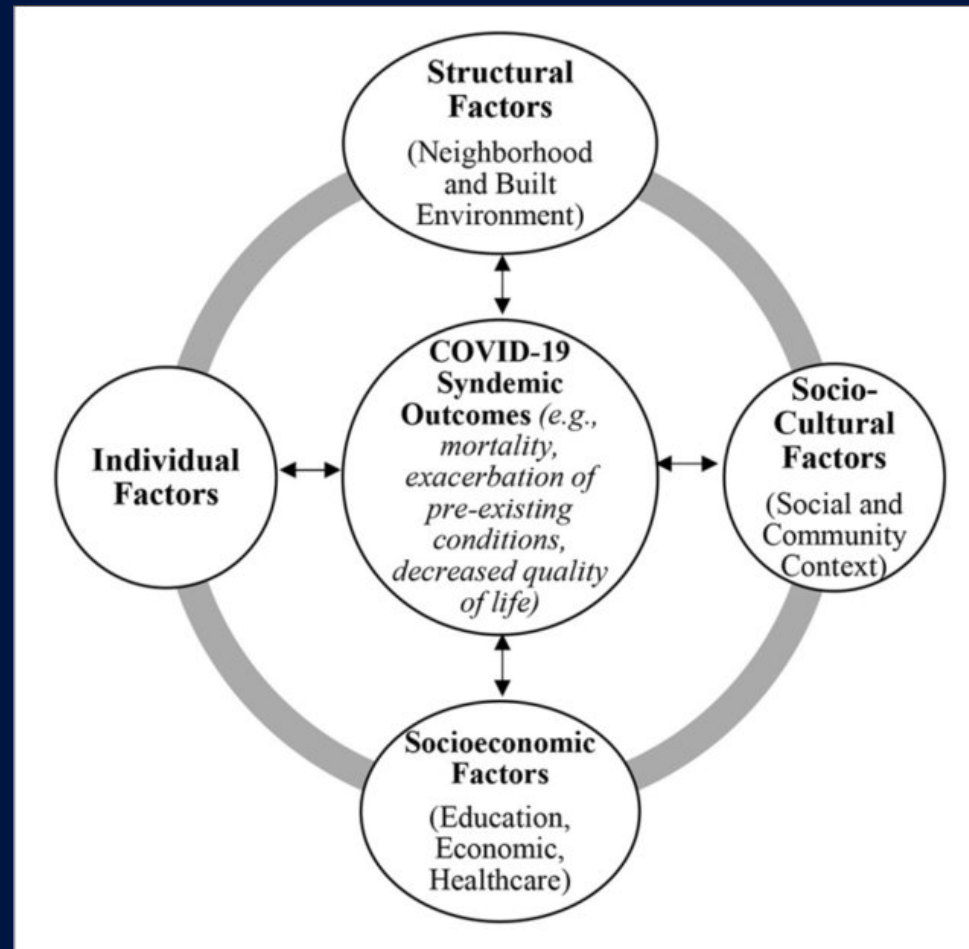
Biosocial Approach

Biological & social as mutually constituting

- Dynamic, bidirectional interactions between biological phenomena & social relationships and contexts
- Encourages *epistemological shift* that foregrounds social/contextual factors as determinants of human biology and health



Interactions among the SDoH and Bi-directional Relationship with COVID-19



Transdisciplinary

- Approach to understanding human development, behavior, and health
- Anthropology, psychology, social work, epidemiology, sociology, economics, public health, genomics, medicine, demography

“Inside the Body”

- Research in biological sciences privileges explanations “inside the body”
- Clinical medicine aims for reduction
 - Isolate single, proximate factors as causes of disease & targets for tx.
- Clinical trials often adopt a laser focus on efficacy
 - Culture, marginalization, SDOH, bioethics & community engagement, relegated to external considerations or solely subservient to biomedical outcomes

Biosocial Approaches to Biomedical Prevention Trials

THE LANCET

CORRESPONDENCE | VOLUME 367, ISSUE 9507, P302, JANUARY 28, 2006

Towards a science of community engagement

Peter A Newman 

Published: January 28, 2006 • DOI: [https://doi.org/10.1016/S0140-6736\(06\)68067-7](https://doi.org/10.1016/S0140-6736(06)68067-7)

 PLOS ONE

RESEARCH ARTICLE

Towards a Science of Community Stakeholder Engagement in Biomedical HIV Prevention Trials: An Embedded Four-Country Case Study

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'IT LOOKS LIKE YOU JUST WANT THEM WHEN THINGS GET ROUGH': CIVIL SOCIETY PERSPECTIVES ON NEGATIVE TRIAL RESULTS AND STAKEHOLDER ENGAGEMENT IN HIV PREVENTION TRIALS

JENNIFER KOEN, ZAYNAB ESSACK, CATHERINE SLACK, GRAHAM LINDEGGER AND
PETER A. NEWMAN

Keywords

HIV/AIDS,
clinical trials,
developing world bioethics,
NGO,
South Africa,
community network

ABSTRACT

Civil society organizations (CSOs) have significantly impacted on the politics of health research and the field of bioethics. In the global HIV epidemic, CSOs have served a pivotal stakeholder role. The dire need for development of new prevention technologies has raised critical challenges for the ethical engagement of community stakeholders in HIV research. This study explored the perspectives of CSO representatives involved in HIV prevention trials (HPTs) on the impact of premature trial closures on stakeholder engagement. Fourteen respondents from South African and international CSOs representing activist and advocacy groups, community mobilisation initiatives, and human and legal rights groups were purposively sampled based on involvement in HPTs. Interviews were conducted from February-May 2010. Descriptive analysis was undertaken across interviews and key themes were developed inductively. CSO representatives largely described positive outcomes of recent microbicide and HIV vaccine trial terminations, particularly in South Africa, which they attributed to improvements in stakeholder engagement. Ongoing challenges to community engagement included the need for principled justifications for selective stakeholder engagement at strategic time-points, as well as the need for legitimate alternatives to CABs as mechanisms for engagement. Key issues for CSOs in relation to research were also raised.



Expert Review of Vaccines

ISSN: 1476-0584 (Print) 1744-8395 (Online) Journal homepage: <http://www.tandfonline.com/loi/ievrv20>

Taking culture seriously in biomedical HIV prevention trials: a meta-synthesis of qualitative studies

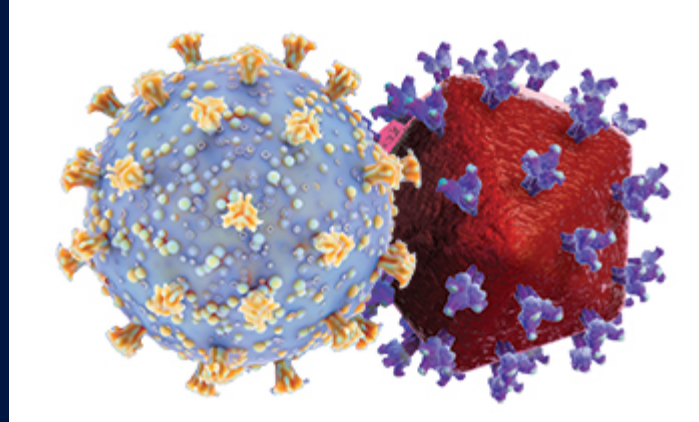
Clara Rubincam, Ashley Lacombe-Duncan & Peter A. Newman

To cite this article: Clara Rubincam, Ashley Lacombe-Duncan & Peter A. Newman (2015):
Taking culture seriously in biomedical HIV prevention trials: a meta-synthesis of qualitative
studies, Expert Review of Vaccines, DOI: [10.1586/14760584.2016.1118349](https://doi.org/10.1586/14760584.2016.1118349)

To link to this article: <http://dx.doi.org/10.1586/14760584.2016.1118349>

In Search of a “Magic Bullet”

- “Biomedical technologies appear to have a fetish status through their novelty and promise to exact (or interrupt) HIV [and Covid-19] control”



Davis, M. D. (2011). Advancing biosocial pedagogy for HIV education. *Health Education Research*, 26(3), 556–562.

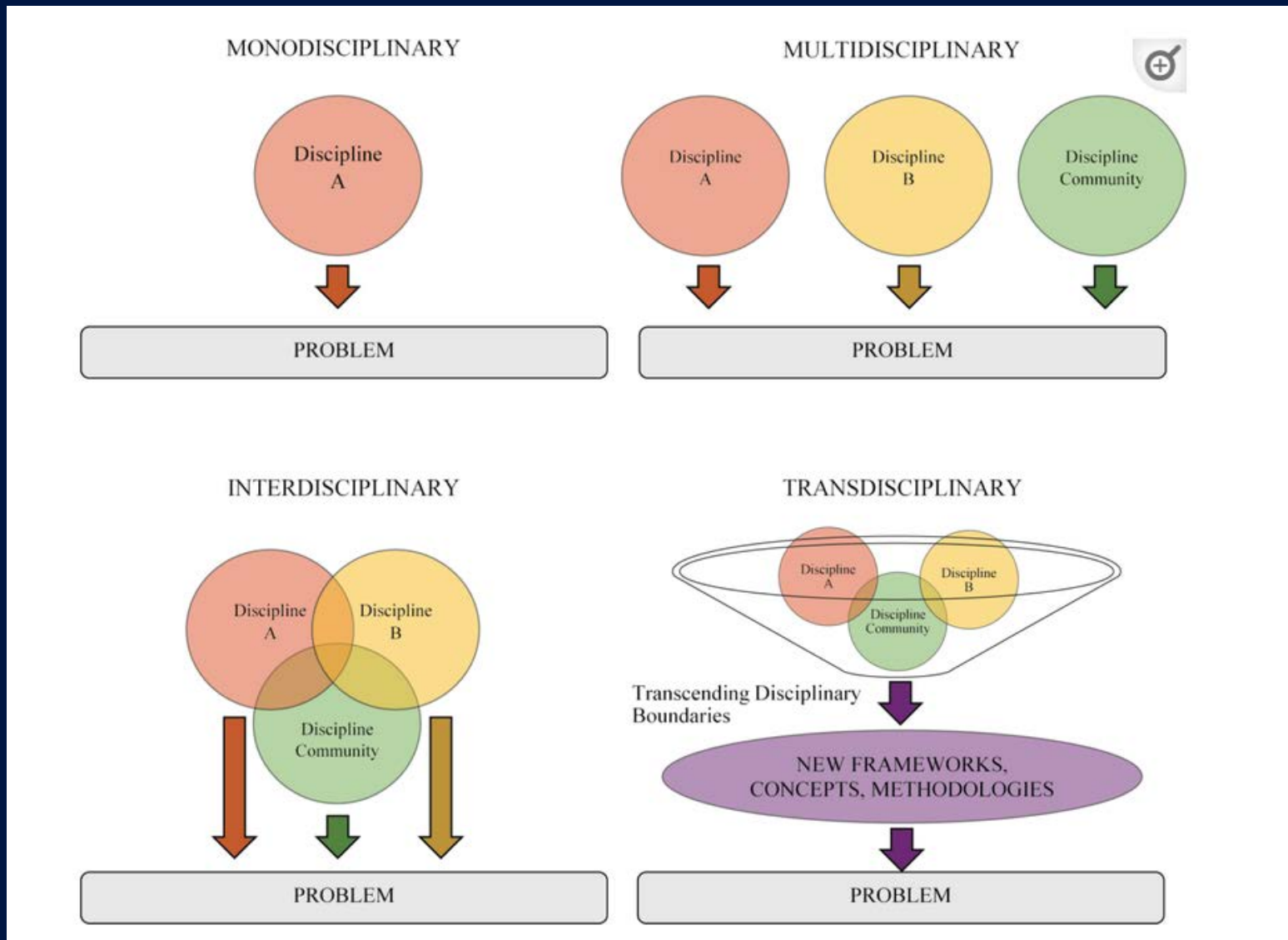
AIDS and Social Scientists: Critical Reflections (Paul Farmer)

Benoist and Desclaux 1995:363 (*translation*):

- “The conditions limiting or promoting (HIV) transmission, illness representations, therapeutic itineraries, and health care practices— none of these subjects are captured by disciplinary approaches”
- “They evade even the distinction between biology and social sciences, so tightly are biological realities tied to behaviors and representations, revealing links that have not yet been fully explored”

* Benoist J. & Desclaux A. (eds). (1995). *Sida et anthropologie*. Bilan et perspectives, Paris: Karthala.

* Farmer P. (1998). [https://codesria.org/IMG/pdf/01LFARMER .pdf](https://codesria.org/IMG/pdf/01LFARMER.pdf)



Conceptualizing differences among monodisciplinary, multidisciplinary, interdisciplinary, and trans-disciplinary research approaches

Heinzmann, J., Simonson, A., & Kenyon, D. B. (2019). A Transdisciplinary Approach is Essential to Community-based Research with American Indian Populations. *American Indian and Alaska native mental health research (Online)*, 26(2), 15–41.

Disciplinary Knowledge

- Biomedical reductionism
 - has led many physicians and biomedical researchers to regard social considerations as merely epiphenomenal
- But other parochialisms lead psychologists to reify individual psychology, anthropologists to reify culture, economists to reify economics, etc.

Biosocial Analysis

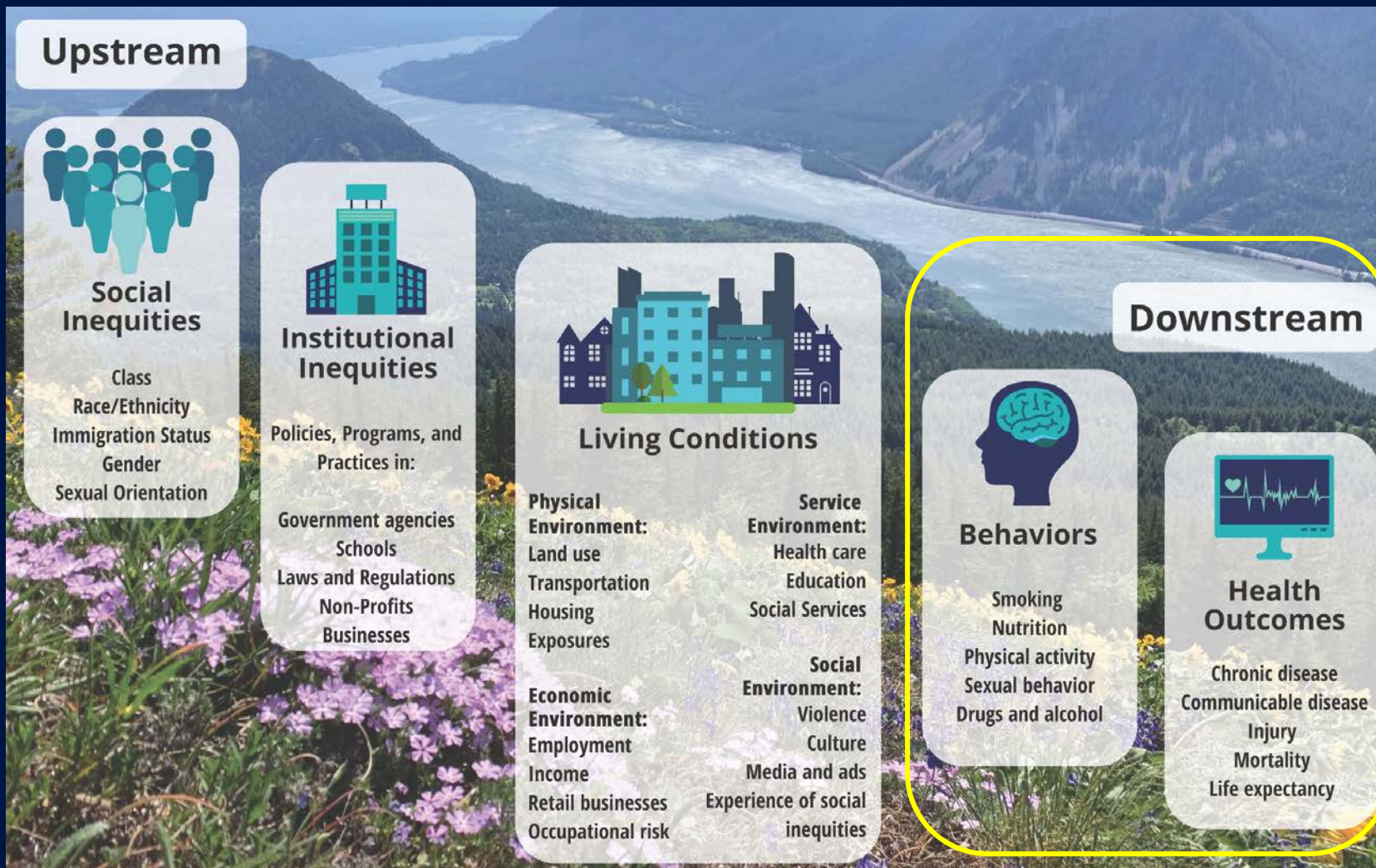
“...the burgeoning literature on AIDS reveals ...a failure to embed data, often phenomenologically sound, into the social context that gives it meaning”

HIV cares little for our theoretical stances or our disciplinary training

Neoliberalism

- The reifying of downstream or proximal risk factors
 - Human beings are rational actors
 - Can choose their paths
 - Can mitigate risk factors
 - Can choose not to drink, not to smoke
 - Can choose to use condoms, to take PrEP
 - Can choose to become vaccinated for Covid-19

Social Determinants of Health Framework



Social Determinants of Health

- Biological reductionism has no capacity for examining upstream, distal determinants
- How socio-historical forces become embodied as pathology
- No means for critiquing reductionism or acting on such critiques, or developing structural interventions
- “Under the guise of global health science or economics, these normative theories are really not sciences, they’re ways of maintaining the status quo of global apartheid disguised as scientific inquiry”

Biosocial Approaches for Global Health Interventions: A Discussion with Dr. Eugene Richardson.
(2019, Aug.) [Harvard Health Policy Review](#)

Published on 10.12.2021 in Vol 10, No 12 (2021): December

📌 Preprints (earlier versions) of this paper are available at <https://preprints.jmir.org/preprint/34381>, first published October 20, 2021.



An eHealth Intervention for Promoting COVID-19 Knowledge and Protective Behaviors and Reducing Pandemic Distress Among Sexual and Gender Minorities: Protocol for a Randomized Controlled Trial (#SafeHandsSafeHearts)

Peter A Newman ¹ ; Venkatesan Chakrapani ² ; Charmaine Williams ¹ ;
Notisha Massaquoi ³ ; Suchon Tepjan ⁴ ; Surachet Rongprakhon ⁵ ;
Pakorn Akkakanjanasupar ⁴ ; Carmen Logie ¹ ; Shruta Rawat ⁶ 



**Les minorités sexuelles face à la
tempête de la COVID-19**

**Sexual minorities in the face of the
COVID-19 storm**

Transgender Health, Ahead of Print |

The Impact of COVID-19 on Economic Well-Being and Health Outcomes Among Transgender Women in India

Venkatesan Chakrapani, Peter A. Newman, Aleena Sebastian, Shruta Rawat, Murali Shunmugam, and Priyababu Sellamuthu

Published Online: 15 Apr 2021 | <https://doi.org/10.1089/trgh.2020.0131>



SAFE
HANDS
SAFE
HEARTS

Background

- Marginalized ethnic/racial and sexual and gender minority populations experience adverse SDOH and health disparities → increase vulnerability amid COVID-19 pandemic
- Pandemic response preparedness and public health responses typically operate from Eurocentric, hetero- and cis-normative perspectives that fail to account for population-specific impacts of marginalization



Purpose

- We developed and tested a theory-informed, peer-delivered intervention to reduce depression and anxiety, and increase public health-recommended protective behaviors and COVID-19 knowledge among racialized LGBTQ+ populations in the Greater Toronto Area (GTA)

Evidence-based and Evidence-making Approaches

- Co-developed a manualized, 3-session, eHealth intervention
 - Motivational Interviewing
 - Psychoeducation
 - Based on effective peer-delivered, online HIV preventive interventions for marginalized sexual and gender minority populations
- Quasi-experimental one-group pre- and post-test research design
- Baseline, post-intervention (2-week), & follow-up (2-month) surveys
 - GEE w/robust standard errors to account for correlated nature of observations in the longitudinal data to estimate population-averaged outcomes & significant predictors over time



Community Empowerment

- Multidisciplinary, community-based (housed [virtually] at WHIWH CHC)
- Shared decision-making
- Hired & trained 16 community-based peer counselors and MSW interns, prioritized from the study populations
- Support CBOs working with racialized sexual & gender minority pops.
- Commitment to Open Access and collaboration: sharing findings and intervention
- **International sites: HST, Mumbai; IHRI and VOICES-Thailand, Bangkok**

Welcome to the #SafeHandsSafeHearts study!



#SafeHandsSafeHearts

Please click below to begin

PROCEED TO SCREENING

Participant Demographics (n = 202)

Age	\bar{x} : 29.7, SD = 10.3
Ethnicity	%
African/Caribbean/Black	29.2
South/East/Southeast Asian	27.7
Latinx/Hispanic	8.9
White	20.3
Other	13.9

Gender	%
Cisgender lesbian, bisexual, WSW (LBWSW)	54.4
Cisgender gay, bisexual, MSM (GBMSM)	26.2
Transgender/Gender non-binary (TGP/GNB)	19.3

Results – SDOH

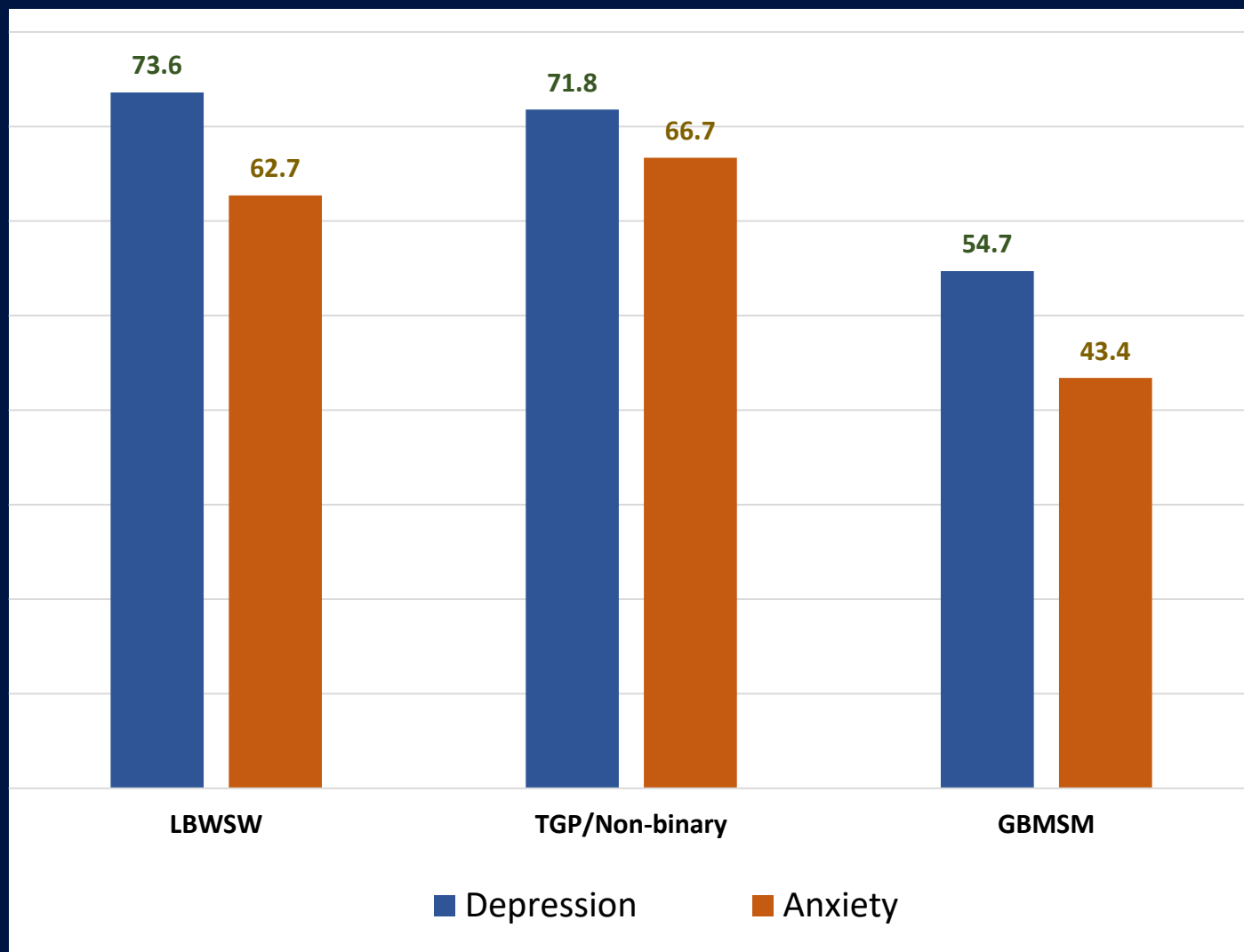
Participants reported the following “because of COVID-19”

	%
Losing their job	44.1
Becoming homeless or moving in with friends	16.3
Being unable to buy food	30.2
Being unable to financially support their family	26.7
Decreased access to primary healthcare	21.3

Access to HIV Prevention & SRH

Participants reported decreased access to...	%
HIV testing	29.0
STI testing	37.6
PrEP	19.0
Condoms	25.0
Other reproductive health products (TGP/GBSMS)	29.4*
Other reproductive health products (LBWSW) (*p < .05)	40.7*
Gender-affirming hormones (TGP)	15.4

Psychological Distress (PHQ-2; GAD-2)



Intervention Effects

Baseline to Post-intervention

- The intervention significantly reduced:
- Depression
 - change in mean depression score = $-.33$, 95% CI, $-.65$ to $-.009$, $p=.04$
- Anxiety
 - change in mean anxiety score = $-.39$, 95% CI, $-.71$ to $-.08$, $p=.01$
- No significant increase in COVID-19 knowledge
- No significant increase in protective behaviors (increased at 2-mo. follow-up)

Depression

Positively associated with depression over time:

- COVID-19 stress (.06, 95% CI .04 to .08, $p < .001$)
- Loneliness & social isolation (.38, 95% CI .28 to .47, $p < .001$)

Negatively associated with depression over time

- Being employed (-.60, 95% CI -.96 to -.24, $p = .001$)

Anxiety

- Positively associated with anxiety over time:
 - COVID-19 stress (.10, 95% CI .08 to .13, $p < .001$)
- Negatively associated with anxiety over time:
 - Resilience (-.10, 95% CI -.16 to -.04, $p < .01$)

Vaccine Mistrust/Conspiracy Beliefs Items

- COVID-19 was created to force everyone to be vaccinated whether they want to or not
- People are deceived about COVID-19 vaccine effectiveness, that is, the extent to which the vaccine protects against COVID-19
- COVID-19 vaccine safety data is made up/fake
- I am afraid that approved vaccines for COVID-19 have unknown side effects

Range 4–20; $M = 8.86$ ($SD=3.83$)

COVID-19 Vaccine Uptake & Intentions

COVID-19 vaccine mistrust/conspiracy beliefs were significantly associated with uptake	n (%)	Mean (SD)
Received at least 1 dose	115 (56.9)	7.61 (3.25)
Received 0 doses	87 (43.1)	10.51 (3.94)

p<.001



COVID-19 vaccine mistrust/conspiracy beliefs were significantly associated with vaccination intention	n (%)	Mean (SD)
Likely/extremely likely to get vaccinated	70 (80.4)	8.93 (3.44)
Extremely unlikely/unlikely to get vaccinated	17 (19.6)	13.22 (3.22)

Among 87 unvaccinated; p<.001



STUDY PROTOCOL

COVID-19 vaccine hesitancy among marginalized populations in the U.S. and Canada: Protocol for a scoping review


Peter A. Newman ^{1*}, **Luke Reid**¹, **Suchon Tepjan**², **Sophia Fantus**³, **Kate Allan**¹, **Thabani Nyoni**¹, **Adrian Guta**⁴, **Charmaine C. Williams** ¹

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COMMENT | [VOLUME 21, ISSUE 6, P759-761, JUNE 01, 2021](#)

Vaccine development lessons between HIV and COVID-19

[Sandhya Vasan](#) • [Punnee Pitisuttithum](#) 

Published: June, 2021 • DOI: [https://doi.org/10.1016/S1473-3099\(21\)00274-7](https://doi.org/10.1016/S1473-3099(21)00274-7)



AIDS

[Articles & Issues](#) ▾ [For Authors](#) ▾ [Journal Info](#) ▾

EPIDEMIOLOGY AND SOCIAL

HIV vaccine acceptability: a systematic review and meta-analysis

Newman, Peter A; Logie, Carmen

[Author Information](#) 

AIDS: July 17, 2010 - Volume 24 - Issue 11 - p 1749-1756

doi: [10.1097/QAD.0b013e32833adbe8](https://doi.org/10.1097/QAD.0b013e32833adbe8)

HIV Vaccines vs. Covid-19 Vaccines

- < 1 year after initial publication of genetic sequence of SARS-CoV-2 (inherent biological differences)
- Urgency to control the global pandemic
- Strong support from multiple private and public agencies
- > 30 years of research, only 6 efficacy trials of candidate HIV vaccines completed, 1 showed partial efficacy
- Skewed distribution of HIV epidemic in LMIC, securing similar support from industry partners more difficult

Challenges for HIV Vaccine Dissemination and Clinical Trial Recruitment: If We Build It, Will They Come?

PETER A. NEWMAN, Ph.D.,¹ NAIHUA DUAN, Ph.D.,² ELLEN T. RUDY, Ph.D.,³
and PETER A. ANTON, M.D.⁴

EPIDEMIOLOGY AND SOCIAL SCIENCE

(J Acquir Immune Defic Syndr 2006;41:210–217)

HIV Vaccine Trial Participation Among Ethnic Minority Communities

Barriers, Motivators, and Implications for Recruitment

Peter A. Newman, PhD, Naihua Duan, PhD,† Kathleen J. Roberts, PhD,‡ Danielle Seiden, MPP,†
Ellen T. Rudy, PhD,§ Dallas Swendeman, MPH,† and Svetlana Popova, MPH**

Key Words: HIV vaccine trial, research participation, barriers, African Americans, Latinos, qualitative research

HIV Vaccines vs. Covid-19 Vaccines

- Public vaccine acceptance: vaccine confidence
- “Vaccine hesitancy”
- Infodemics & conspiracy theories
- Historically justified mistrust

- Ensure inclusion of diverse pops. in clinical trials
- Provide respectful discussion of concerns with trusted sources
- Meaningful community engagement in trial design & implementation
- Ensure equitable access (“vaccine apartheid”)
- Consider locations, opening times, staffing of distribution venues

Conclusions

- *#SafeHandsSafeHearts* demonstrated effectiveness in reducing psychological distress among diverse racialized LGBTQ+ populations amid the COVID-19 pandemic
- Pandemic impacts on a host of SDOH that show pre-existing disparities among marginalized racialized sexual and gender minorities
 - employment is a protective factor & loneliness/social isolation a risk factor for depression
- This peer-delivered, community-based eHealth intervention appears to be culturally adaptable and cost-effective, and may be tailored for diverse sexual and gender minority communities



Intersecting Pandemics

- Far from being great “levelers,” intersecting Covid-19 & HIV pandemics reemphasize persistent domestic and global inequalities in health & well-being
- A biosocial approach is essential in foregrounding social-historical contexts of vulnerability and processes of marginalization that produce disease and health disparities
- Considering convergent challenges of Covid-19 and HIV can serve to identify opportunities to engage & mobilize communities to mitigate their impact, and to ensure inclusion in preparedness for future pandemics



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