

DEPRESSION & ANXIETY

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Conflicts of Interest

Speaker and Research Grants:

- ViiV Healthcare
- Merck, Sharp & Dohme
- Gilead Sciences



Let's talk about...

1. Depression and Anxiety in our world...in PLWHIV (aging)
2. Main factors associated
3. How we can contribute to be, to alleviate, to help



Depression & Anxiety in our world

Mental illnesses prevalence, World, 2019

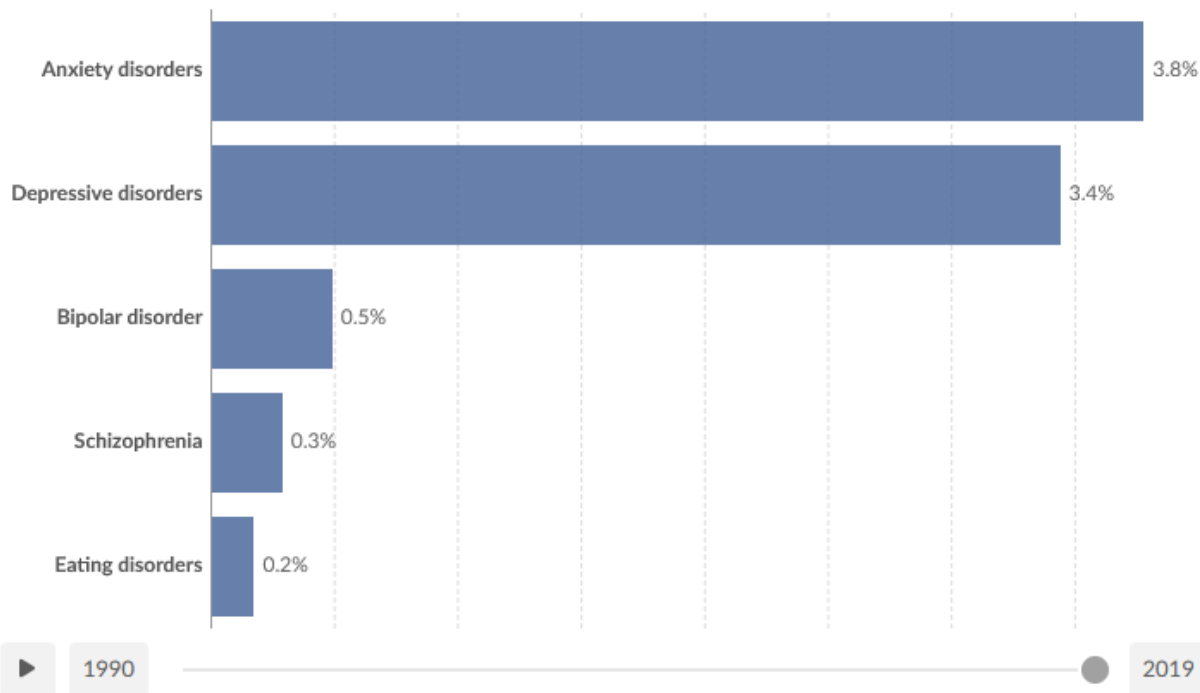
The estimated share of people with each mental illness in a given year, whether or not they were diagnosed, based on representative surveys, medical data and statistical modeling.

Our World
in Data



Table Chart

Change country or region



Data source: IHME, Global Burden of Disease (2019)
OurWorldInData.org/mental-health | CC BY



	Major depressive disorder, per 100 000 population				Anxiety disorders, per 100 000 population			
	Baseline (95% UI)	Additional (95% UI)	Final (95% UI)	Percentage change (95% UI)	Baseline (95% UI)	Additional (95% UI)	Final (95% UI)	Percentage change (95% UI)
Global	2470.5 (2143.5–2870.7)	682.4 (574.1–807.2)	3152.9 (2722.5–3654.5)	27.6 (25.1–30.3)	3824.9 (3283.3–4468.1)	977.5 (824.8–1161.6)	4802.4 (4108.2–5588.6)	25.6 (23.2–28.0)
Central Europe, eastern Europe, and central Asia	2519.7 (2185.0–2911.5)	741.6 (579.1–941.3)	3261.3 (2798.6–3804.8)	29.4 (23.9–35.8)	3274.3 (2801.2–3821.9)	981.0 (774.1–1214.4)	4255.3 (3593.1–4970.8)	30.0 (24.9–35.0)
High-income	3103.3 (2735.6–3526.4)	840.1 (671.7–1030.4)	3943.3 (3466.9–4516.1)	27.1 (22.6–31.5)	5356.8 (4609.1–6233.3)	1349.0 (1044.1–1678.8)	6705.7 (5773.4–7829.4)	25.2 (20.3–30.7)
Latin America and Caribbean	2626.8 (2291.4–3034.4)	914.2 (737.4–1127.5)	3541.0 (3063.3–4097.7)	34.8 (29.5–40.7)	5705.9 (4865.4–6732.9)	1804.1 (1425.8–2225.1)	7510.0 (6397.9–8786.6)	31.7 (25.8–37.7)
North Africa and Middle East	3321.4 (2752.3–4013.2)	1235.2 (896.1–1642.5)	4556.6 (3729.1–5578.3)	37.2 (29.5–46.0)	5148.9 (4210.4–6289.4)	1664.8 (1178.0–2251.6)	6813.6 (5557.9–8391.8)	32.4 (24.9–41.1)
South Asia	2664.2 (2313.9–3099.5)	962.6 (761.6–1187.1)	3626.8 (3122.5–4232.7)	36.1 (29.7–42.8)	3019.7 (2590.4–3531.6)	1058.3 (813.0–1318.7)	4077.9 (3459.3–4786.7)	35.1 (28.2–42.0)
Southeast Asia, east Asia, and Oceania	1707.8 (1492.4–1958.7)	195.8 (121.8–281.4)	1903.6 (1656.1–2194.3)	11.5 (7.2–16.0)	3367.2 (2903.3–3891.5)	466.0 (307.2–632.0)	3833.2 (3281.8–4478.2)	13.8 (9.3–18.3)
Sub-Saharan Africa	2429.0 (2048.0–2910.2)	559.0 (423.3–722.8)	2988.0 (2513.5–3583.4)	23.0 (18.3–27.9)	3001.9 (2465.1–3671.3)	644.0 (479.0–829.9)	3645.9 (2985.7–4475.5)	21.5 (17.1–25.7)

UI—uncertainty interval.

Table 3: Prevalence of major depressive disorder and anxiety disorders, by super-region, 2020

Global prevalence and burden of depressive and anxiety disorders in 204 countries and territories in 2020 due to the COVID-19 pandemic

Lancet 2021; 398: 1700-12

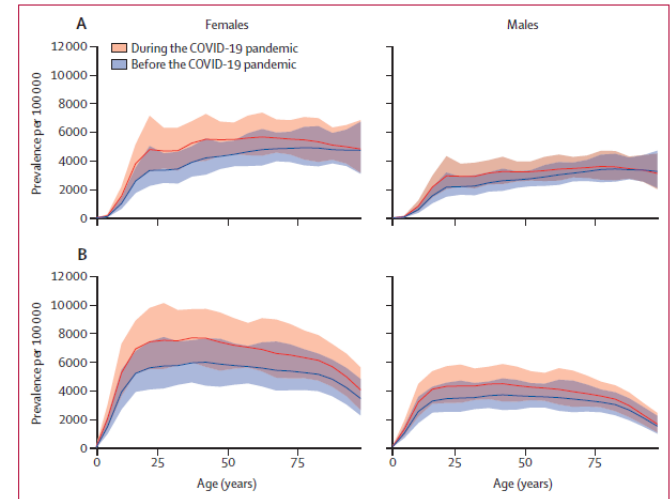


Figure 1: Global prevalence of major depressive disorder (A) and anxiety disorders (B) before and after adjustment for (ie, during) the COVID-19 pandemic, 2020, by age and sex

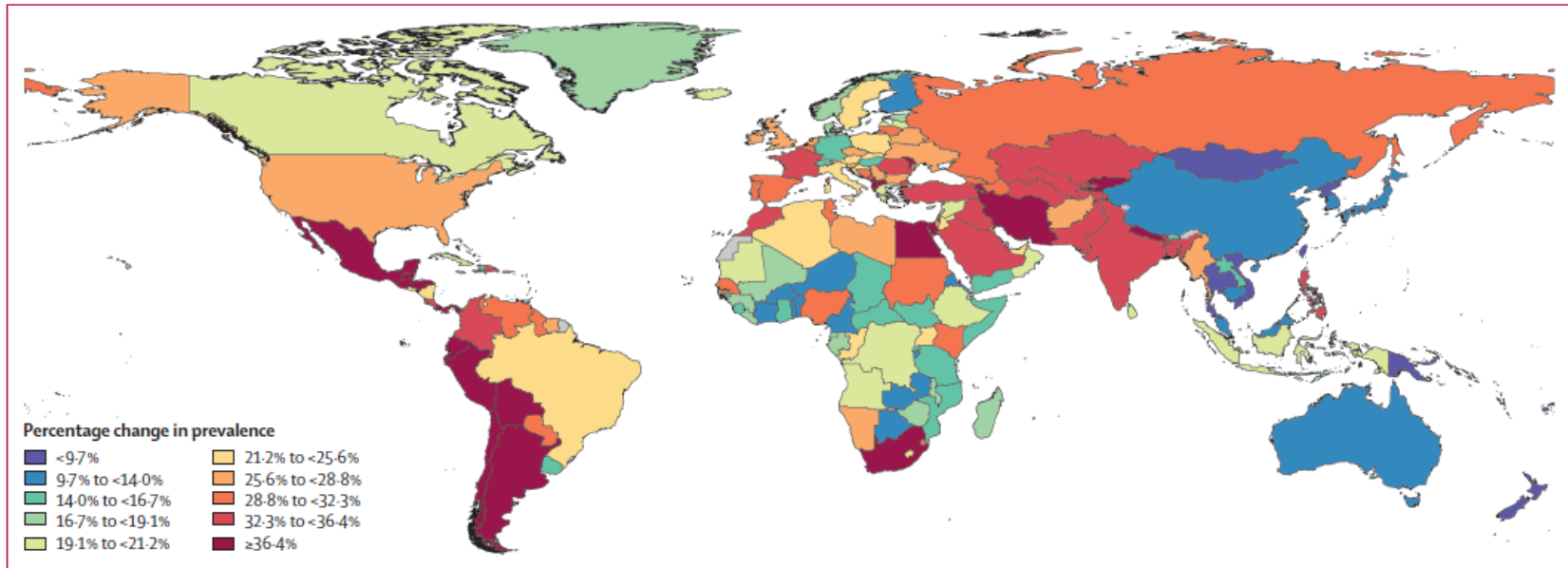


Figure 3: Change in the prevalence of anxiety disorders after adjustment for (ie, during) the COVID-19 pandemic, 2020

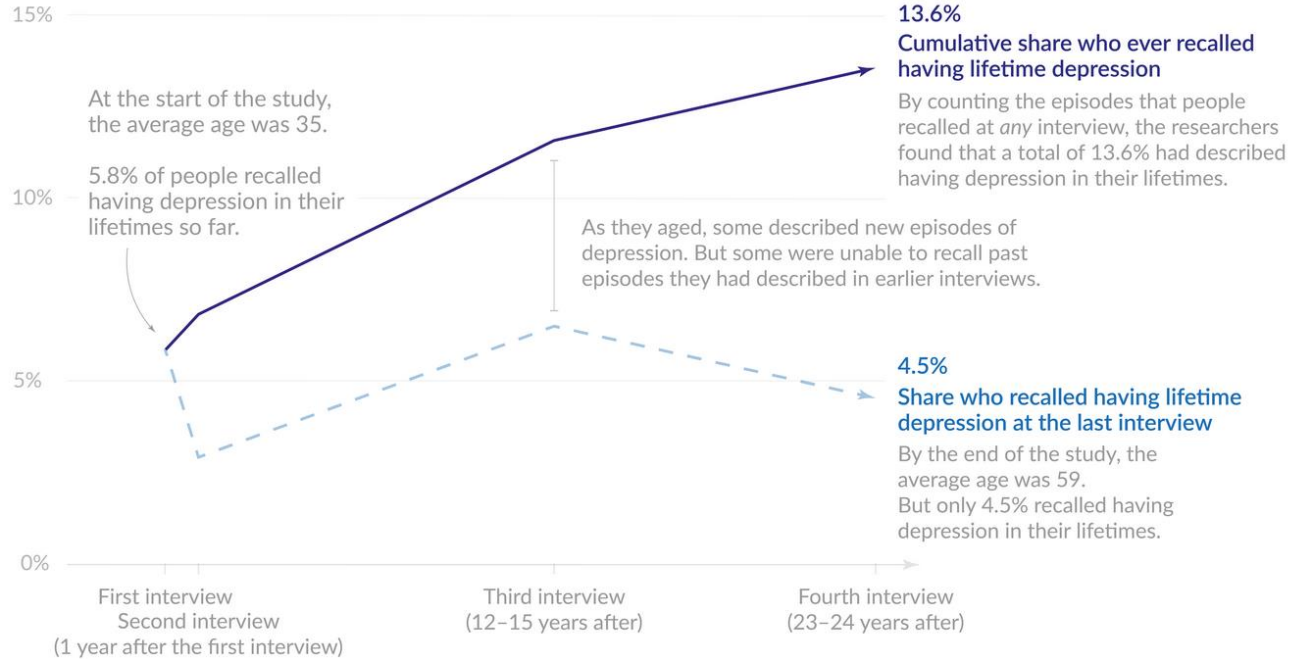
Global prevalence and burden of depressive and anxiety disorders in 204 countries and territories in 2020 due to the COVID-19 pandemic

Lancet 2021; 398: 1700-12

People tend to forget past episodes of depression

The same group of people were interviewed several times, years apart, about lifetime depression. This shows the share who recalled having an episode of depression.

Our World
in Data



Yoichiro Takayanagi et al. (2014). Accuracy of reports of lifetime mental and physical disorders. *JAMA Psychiatry*.



Depression & Anxiety in PLWHIV (aging)

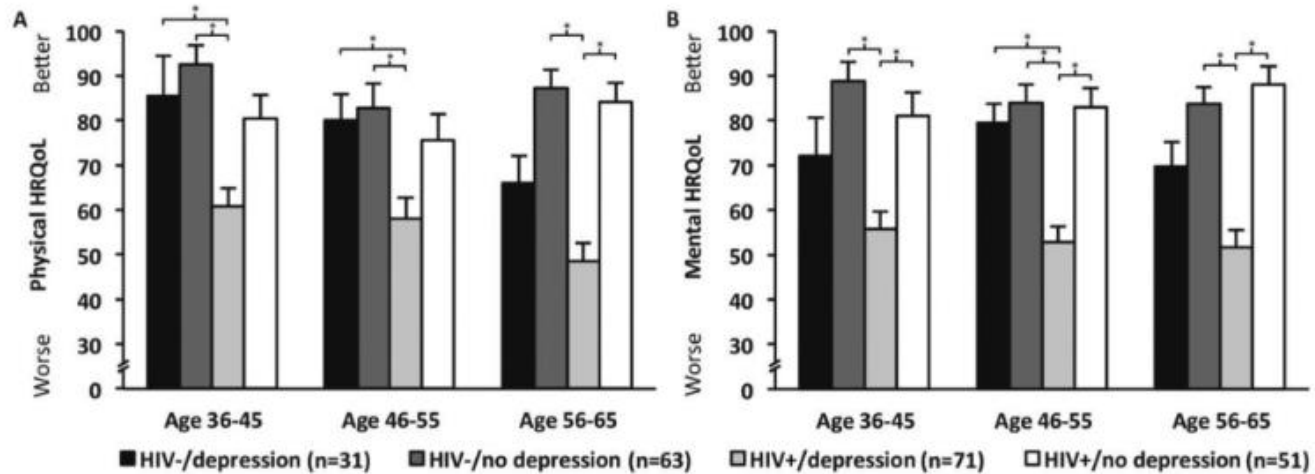


- ❑ A multi-site cohort study of over 1,500 PLWHIV found lifetime depressive symptom rates of 63%.
- ❑ Across multiple studies diagnosis of lifetime **Major Depressive Disorders** ranges from **22-54% in PLWHIV**, compared to **4.9-17.1%** lifetime Major Depressive Disorders diagnosis in the **general U.S. population**.
- ❑ These medical and psychological factors may be exacerbated in older PLWHIV who are often burdened to a higher degree with HIV-related medical and psychological factors, in conjunction with aging related problems.



- The study period was from Jan 1st 2000, to Jan 1st 2020.
- Of 7167 people living **with HIV** without mental illness at baseline, 586 developed a mental illness (**incidence rate 19.6** per 1000 person-years) compared with 418 of 7167 people **without HIV (incidence rate 12.1** per 1000 person-years), resulting in an adjusted hazard ratio (HR) of 1.63 (95% CI 1.44–1.85).
- People living **with HIV** had **higher incidence rates for depression** (15.4 per 1000 person-years), **anxiety** (7.2 per 1000 person-years), and **severe mental illness** (1.6 per 1000 person-years) compared with people without HIV (7.9, 5.0, and 0.6 per 1000 person-years, respectively), with adjusted HRs of 1.94 (95% CI 1.68–2.24) for depression, 1.38 (1.15–1.66) for anxiety, and 2.18 (1.41–3.39) for severe mental illness.

Gooden et al. The risk of mental illness in people living with HIV in the UK: a propensity score-matched cohort study. The Lancet HIV 2022.

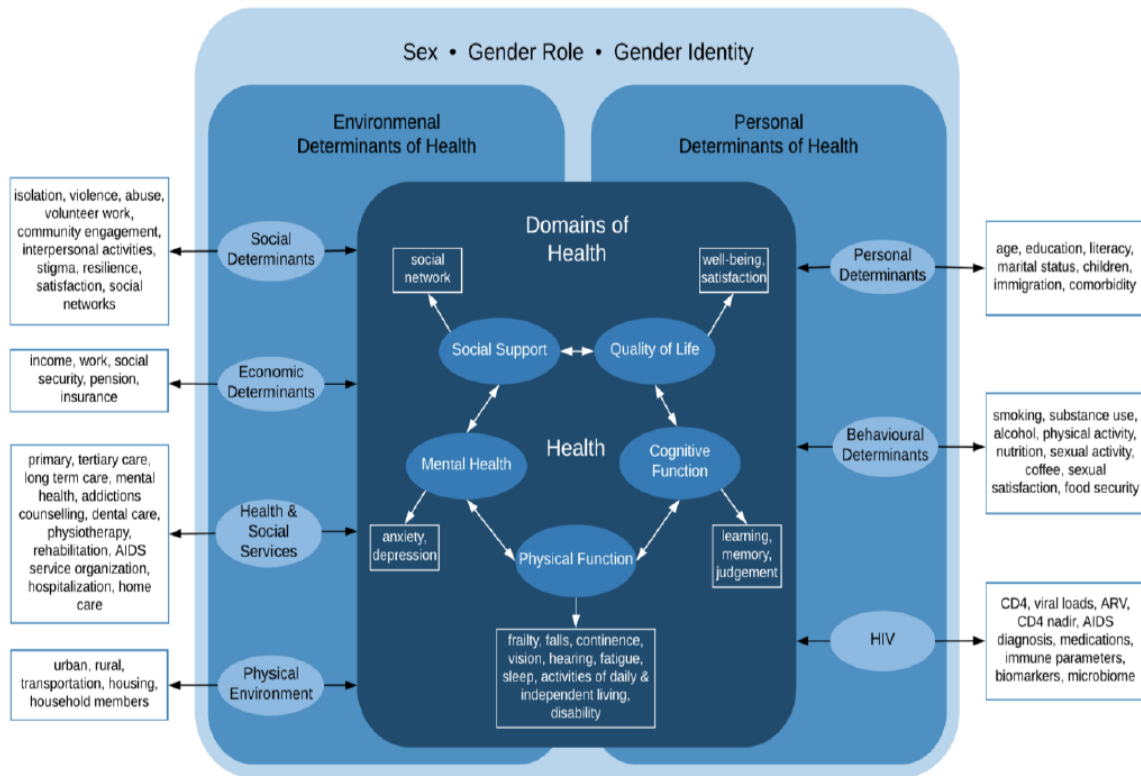


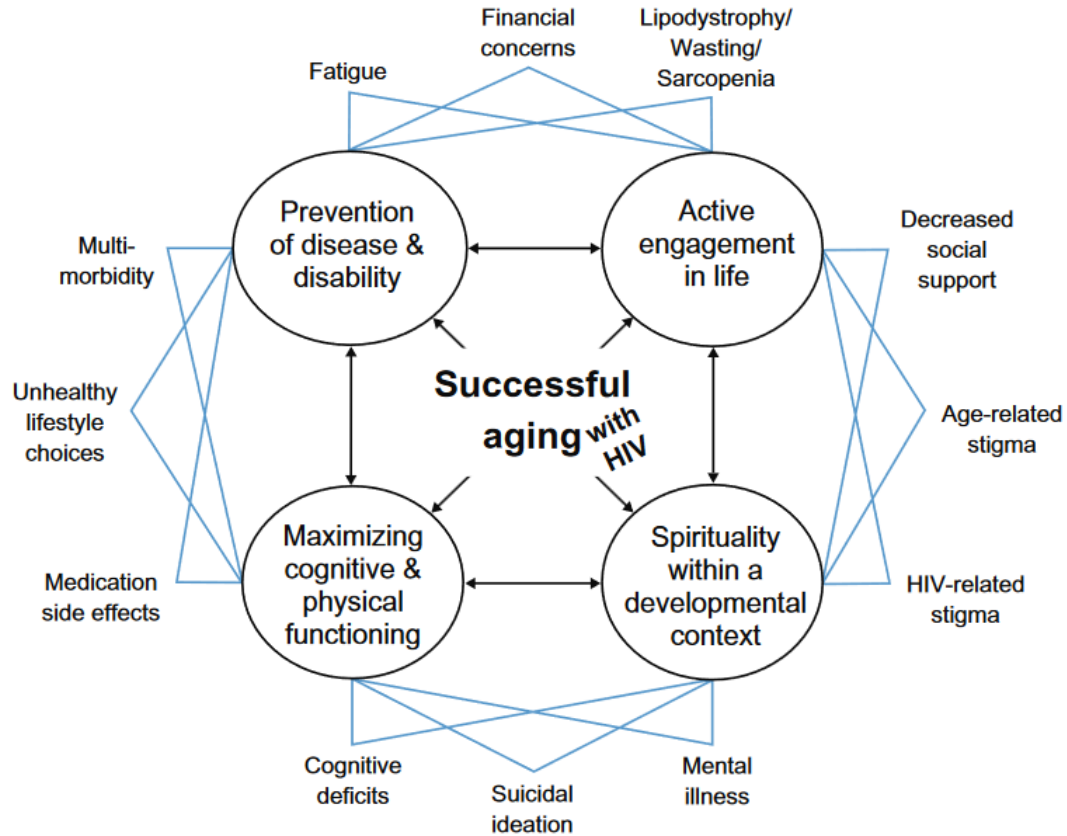
Rooney AS et al. Depression and aging with HIV: Associations with health-related quality of life and positive psychological factors. *Affect Disord* 2019.



Main factors associated

Conceptual model used in the CHANGE HIV study design







STIGMA

**SOCIAL
SUPPORT**

PAIN



STIGMA

AGEISM
+
HIV INFECTION

Current Epidemiology Reports (2021) 8:72–78
<https://doi.org/10.1007/s40471-021-00265-6>

EPIDEMIOLOGY OF AGING (K LAPANE, SECTION EDITOR)



HIV and Aging: Double Stigma

Monique J. Brown^{1,2,3,4}  · Oluwafemi Adeagbo^{2,5,6}



**SOCIAL
SUPPORT**

Loneliness, HRQOL and functional impairment



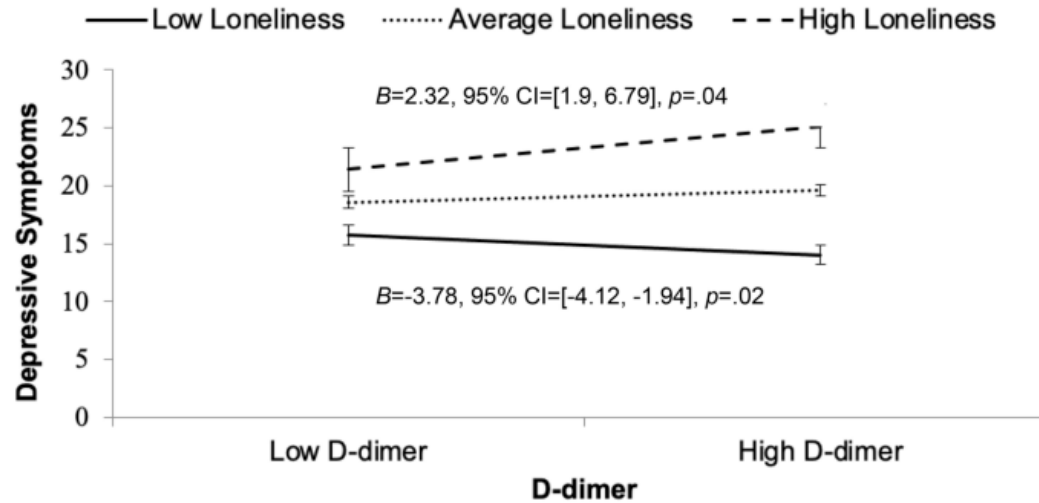
Association of loneliness symptoms and poor or fair Health Related Quality of Life (HRQoL)

	N with poor/fair health	Unadjusted PR (95% CI)	Adjusted ^a PR (95% CI)
Loneliness ^b (per 5 point increase)		1.36 (1.13–1.63)	1.06 (0.85–1.33)
Age ^c		0.98 (0.91–1.01)	
Male sex at birth ^c	91	0.95 (0.55–1.63)	
Non-white race ^c	52	1.34 (0.92–1.97)	
Latino ethnicity	17	1.67 (0.99–2.81)	
Annual income			
< \$10,000	41	2.58 (1.50–4.45)	1.85 (1.05–3.28)
\$10,000–20,000	39	1.98 (1.15–3.43)	1.60 (0.90–2.84)
≥ \$20,001 (reference)	19	1.0	1.0
VACS index ^d		1.07 (0.96–1.19)	1.03 (0.92–1.16)
Length of time with HIV (years) ^e		1.07 (0.94–1.23)	
Depressive symptoms by PHQ-9 ^f			
None (reference)	19	1.0	1.0
Mild	30	2.57 (1.45–4.56)	2.19 (1.17–1.12)
Mod	31	5.15 (2.91–9.12)	4.18 (2.14–8.16)
Severe	24	4.84 (2.65–8.84)	4.34 (2.13–8.85)
Education			
< High school	15	2.06 (0.97–4.41)	
High school	21	2.14 (1.05–4.35)	
Some college/college degree	58	1.87 (1.0–3.47)	
Some graduate/graduate degree	12	1.0	

Association of loneliness symptoms and functional impairment (dependent with ≥ 1 Instrumental Activities of Daily Living) Confidence intervals that do not include 1.0 are shown in bold

	N dependent with ≥ 1 IADL	Unadjusted PR (95% CI)	Adjusted ^a PR (95% CI)
Loneliness ^b (per 5 point increase)		1.19 (1.01–1.40)	1.02 (0.84–1.24)
Age ^c		0.98 (0.96–1.02)	
Male sex at birth ^c	106	0.56 (0.37–0.84)	
Non-white race ^c	71	1.48 (1.06–2.08)	
Latino ethnicity	19	1.33 (0.82–2.16)	
Annual income			
< \$10,000	52	2.68 (1.64–4.38)	2.03 (1.21–3.42)
\$10,000–20,000	53	2.30 (1.41–3.76)	1.90 (1.14–3.17)
≥ \$20,001 (reference)	23	1.0	1.0
VACS index ^d (per 10 point increase)		1.15 (1.05–1.26)	1.14 (1.03–1.25)
Length of time with HIV infection (years) ^e		1.11 (0.98–1.25)	
Depressive symptoms by PHQ-9 ^f			
None (reference)	34	1.0	1.0
Mild	49	2.31 (1.49–3.58)	2.08 (1.27–3.41)
Mod	29	2.58 (1.57–4.22)	2.26 (1.26–4.06)
Severe	22	2.48 (1.45–4.24)	2.36 (1.23–4.52)
Education			
< High school	22	1.94 (1.04–3.63)	
High school	33	2.25 (1.27–4.00)	
Some college/college degree	63	1.37 (0.81–2.31)	

Loneliness and inflammation



Higher loneliness scores (UCLA-3 Total scores), in conjunction with high D-dimer values, contributed to an additive effect on depressive symptoms (CES-D Total scores) in PWH

Hussain MA et al. Combined effects of loneliness and inflammation on depression in people with HIV. Neurovirol 2023.



PAIN

Pain

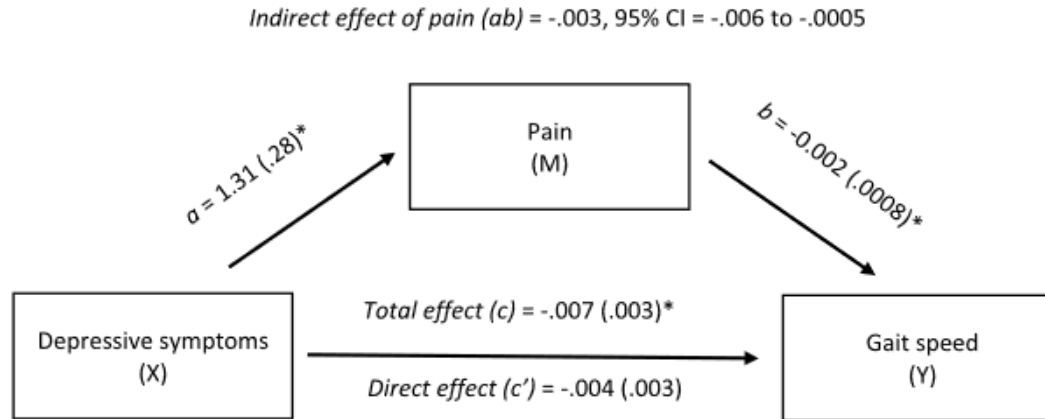


FIGURE 1. Exploratory mediation model suggesting that depressive symptoms are related to slower gait speed in part via worse pain. The figure notes the estimated effect for each path, with standard errors in parentheses. The * symbol indicates a statistically significant effect at an α level of .050. The model adjusted for age, sex, race, disease burden, body mass index, smoking status, selective serotonin reuptake inhibitor medications, analgesic opioid medications, and time since HIV diagnosis. CI = confidence interval.

Age 54 to 78



**How we can contribute to be,
to alleviate, to help**

1. Boost your empathy



□ Ways to **strengthen**

- Walk in others' shoes
- Examine your biases
- Detect your prejudices (about aging, about being ill...)
- Cultivate your sense of curiosity

2. Create a safe space



- ❑ Train yourself to **communicate better**
 - Be respectful
 - Be assertive, do not fear to ask
 - Use non verbal language, gestures
 - Work the therapeutic bond
 - Include always the patient in each decision
 - Stop looking at the computer...

Patient Health Questionnaire-2 (PHQ-2)

Share

The PHQ-2 inquires about the frequency of depressed mood and anhedonia over the past two weeks. The PHQ-2 includes the first two items of the PHQ-9.

- The purpose of the PHQ-2 is to screen for depression in a “first-step” approach.
- Patients who screen positive should be further evaluated with the PHQ-9 to determine whether they meet criteria for a depressive disorder.

Over the **last 2 weeks**, how often have you been bothered by the following problems?

Not at all

Several days

More than half the days

Nearly every day

1. Little interest or pleasure in doing things

<input type="radio"/> 0	<input type="radio"/> +1	<input type="radio"/> +2	<input type="radio"/> +3
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2. Feeling down, depressed or hopeless

<input type="radio"/> 0	<input type="radio"/> +1	<input type="radio"/> +2	<input type="radio"/> +3
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PHQ-2 score obtained by adding score for each question (total points)



Interpretation:

- A PHQ-2 score ranges from 0-6. The authors identified a score of 3 as the optimal cutpoint when using the PHQ-2 to screen for depression.
- If the score is 3 or greater, major depressive disorder is likely.
- Patients who screen positive should be further evaluated with the PHQ-9, other diagnostic instruments, or direct interview to determine whether they meet criteria for a depressive disorder.

3. Explore easily



Generalized Anxiety Disorder 2-item (GAD-2)

Share

The Generalized Anxiety Disorder 2-item (GAD-2) is a very brief and easy to perform initial screening tool for generalized anxiety disorder.¹

Over the **last 2 weeks**, how often have you been bothered by the following problems?

Not at all

Several days

More than half the days

Nearly every day

1. Feeling nervous, anxious or on edge

<input type="radio"/> 0	<input type="radio"/> +1	<input type="radio"/> +2	<input type="radio"/> +3
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2. Not being able to stop or control worrying

<input type="radio"/> 0	<input type="radio"/> +1	<input type="radio"/> +2	<input type="radio"/> +3
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GAD-2 score obtained by adding score for each question (total points)



Interpretation:

A score of 3 points is the preferred cut-off for identifying possible cases and in which further diagnostic evaluation for generalized anxiety disorder is warranted. Using a cut-off of 3 the GAD-2 has a sensitivity of 86% and specificity of 83% for diagnosis generalized anxiety disorder.

4. Identify available resources



- Emergency help
- Local services
- Community resources



Free Image Dan Meyers



Thanks

Any questions?

You can find me at cfumaz@luita.org