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# Yale school of medicine

#### Background

- In Ukraine, the COVID-19 pandemic and the Russian invasion have adversely affected people with HIV due to disruptions to the economy and health care services, and have dramatically impacted mental health.
- Resilience is defined as the capacity to recover from difficult life events that can improve health outcomes along the HIV continuum of care.
- Our <u>objective</u> was to assess mental and physical health and the dynamics of resiliency during the Ukrainian multicrisis.

#### Methods

### Study design and data collection

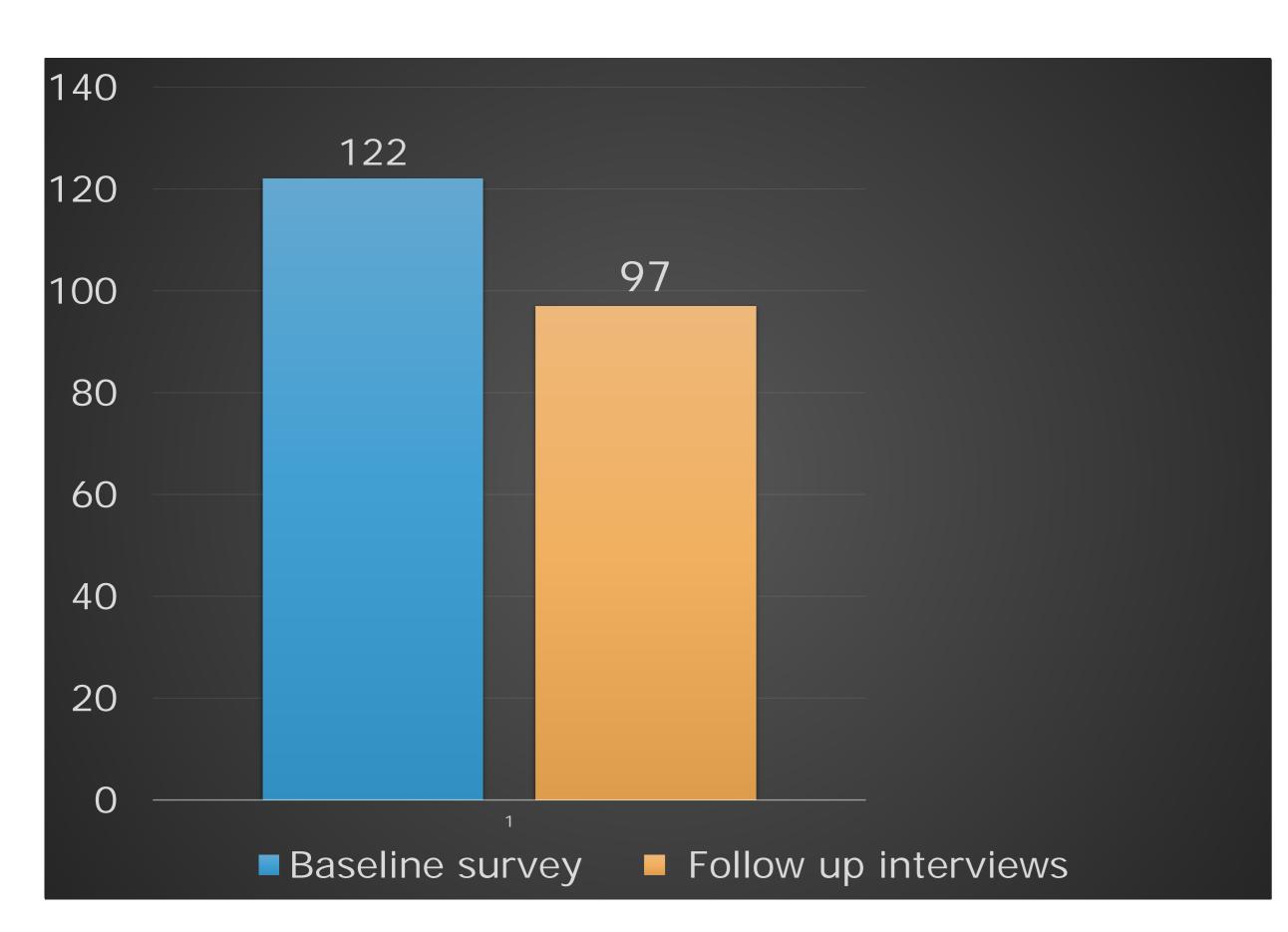
- A four wave survey from May 2020 through May 2022 among older (≥50 years) people with HIV (OPWH) in Kyiv, Ukraine
- Data on socio-demographics, mental health, resilience, COVID-19/war experiences and HIV care.
- The first 3 waves were during the initial stages of the COVID-19 pandemic.
- The 4th wave was conducted after the onset of the full-scale Russian invasion in February, 2022.

### **Data analysis**

- Resilience was assessed with the Brief Resilience Scale as a continuous score (1 to 5).
- Multivariable imputation by chained equations was used to impute missing data.
- A nested linear mixed-effect model was used to examine factors associated with mean resilience score, including time point.
- Backward selection was used to identify a parsimonious multivariable model.

# Results

122 OPWH who completed the baseline survey and 97 completed all follow up interviews, for a total of 431 observations across the 4 waves.



Variables associated with Resilience Score:			
Predictors	Estimat es	CI	p
(Intercept)	18.04	13.20 - 22.87	<0.001
Meaning in Life Scale, continuous	0.17	0.08 - 0.27	<0.001
Substance Use Disorder			
No	0.00		
Yes	1.58	0.65 - 2.51	0.001
Wave			
Wave 1	0.00		
Wave 2	0.50	-0.32 - 1.32	0.234
Wave 3	0.42	-0.44 - 1.27	0.338
Wave 4	1.33	0.43 - 2.22	0.004
Gender			
Men	0.00		
Women	1.41	0.56 - 2.25	0.001
Age, continuous	-0.08	-0.150.01	0.021
Depression			
None	0.00		
Mild to Severe	-1.67	-2.430.91	<0.001

## **Resilience** was found to be <u>positively</u> associated with:

- perceived meaning in life (0.17, 95%CI:0.08–0.27, p<0.001)</li>
- having at least one substance use disorder (1.58, 95%CI: 0.65–2.51, p<0.001),</li>
- being a woman (1.41, 95%CI:0.56–2.25, p<0.001)...
- and was significantly higher at the fourth wave, after the onset of war (1.33, 95%CI:0.43-2.22, p=0.004).

## Resilience was found to be <u>negatively</u> associated with:

- age (-0.08, 95%CI:-0.15- -0.01, p= 0.021)
- having mild to severe depression symptoms (-1.67, 95%CI:-2.43--0.91,p<0.001).</li>

### Conclusions

Counterintuitively, resilience among OPWH has significantly increased since the Russian invasion. Women and OPHW with better psychological health had higher resilience. OPWH with depression and of greater age demonstrated lower resilience. Timely support should be provided to OPWH to ensure continued resilience in multicrisis settings.

### Conflict of interest disclosure

I have no relevant financial relationships with ineligible to disclose