Frailty and Health-Related Quality of Life in an Aging Cohort of People with HIV 2012-2022

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KEY FINDINGS

- Overall, quality of life (QoL) increased over time among people with HIV (PWH) in care in the USA
- PWH who were frail had a 24% lower QoL than those who were robust and prefrail had a 10% lower QoL
- Minimizing and preventing frailty among PWH are realistic targets that could increase QoL among PWH

BACKGROUND

- People with HIV (PWH) are now living near normal lifespans, due to advancements in antiretroviral therapy.
- However, PWH experience accelerated aging and frailty at earlier ages than the general population.
- We examined the impact of frailty on quality of life (QoL) over time among PWH.

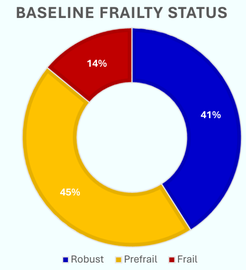
METHODS

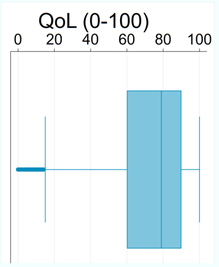
- Participants included PWH from 6 CFAR Network of Integrated Clinical Systems (CNICS) sites between 2012-2022.
- QoL was measured using EQ-5D visual analog scale (0-100).
- Frailty was assessed using a validated, modified frailty phenotype based on 4/5 Fried frailty components.
- Measures were collected by computer-based patient report outcomes, collected on a tablet in clinic every 4-6 months.
- Linear mixed models were used to assess individual level associations between frailty and QoL over time adjusting for age, sex, race/ethnicity, year, and post-March 2020 vs before.
- Linear regression of mean QoL by frailty category adjusted by year and March 2020 was used to assess population changes.

CONCLUSIONS

- QoL among PWH in care appears to be slowly increasing over time, however frailty can have a significant impact on QoL.
- PWH who were frail reported 24% lower QoL and those that were prefrail reported 10% lower QoL than robust PWH.
- Minimizing and preventing frailty among PWH, including addressing comorbidities that contribute to frailty, could increase QoL significantly among PWH in care.

RESULTS





- 23,397 PWH with 38,830 frailty assessments were included:
  - Mean age was 44.7 years (±11.4).
  - 13% were female at birth.
  - 48% reported White, 27% Black/African American, 18% Latine/Hispanic, and 7% other race/ethnicity.
- Left Figures: At baseline: 41% were robust, 45% prefrail,14% frail; mean QoL: 73 (± 21.5)
- Table: QoL increased annually, by 0.4%, but decreased by 2% following March 2020. QoL was 24% lower among frail and 10% lower among prefrail PWH than robust PWH.
- Right Figure: Population-level trends in QoL with respect to frailty were similar to individual-level results, including a 13% lower in prefrail and 31% lower in frail QoL compared to robust PWH.

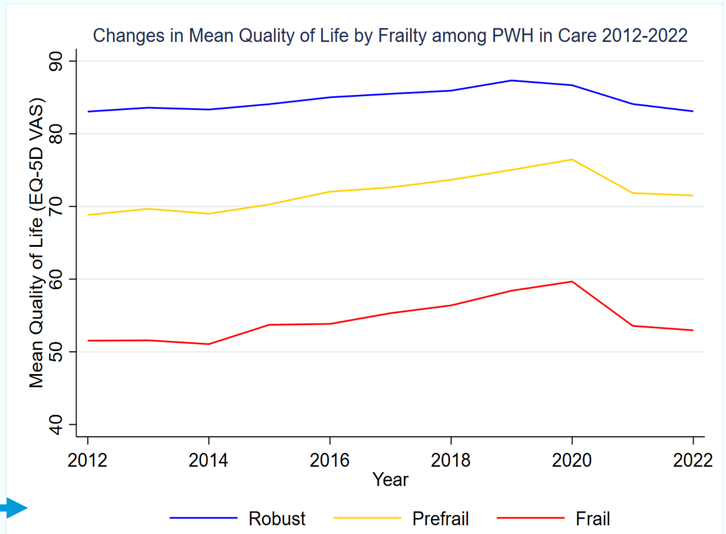


Table 1: Adjusted Associations between Frailty Status and QoL among PWH in Care 2012-2022 (N=12,397)

		Coefficient	95% CI	p-value
Frailty Status:	**Robust**	REF		
	Prefrail	-10.03	-10.42, -9.64	<0.001
	Frail	-23.76	-24.35, -23.17	<0.001
Age (per year)		-0.01	-0.04, 0.01	0.271
Male vs Female Sex		-0.34	-1.15, 0.48	0.413
Race/ Ethnicity:	**White**	REF		
	Black/ African American	4.66	3.99, 5.32	<0.001
	Latine/ Hispanic	3.48	2.74, 4.21	<0.001
	Other	2.52	1.39, 3.65	<0.001
March 2020 or later (vs before)		-2.06	-2.66, -1.46	<0.001
Year (per year)		0.37	0.31, 0.43	<0.001

ADDITION INFORMATION

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