Screening for frailty in Older PLHIV

UZ GENT

UNIVERSITEIT GENT

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DISCLOSURES

- Invited speaker for Viiv, Gilead, Abbvie, GSK, Pfizer, MSD
- Grants from MSD, Viiv, Gilead
- Sponsoring from Pfizer, Viiv, Gilead

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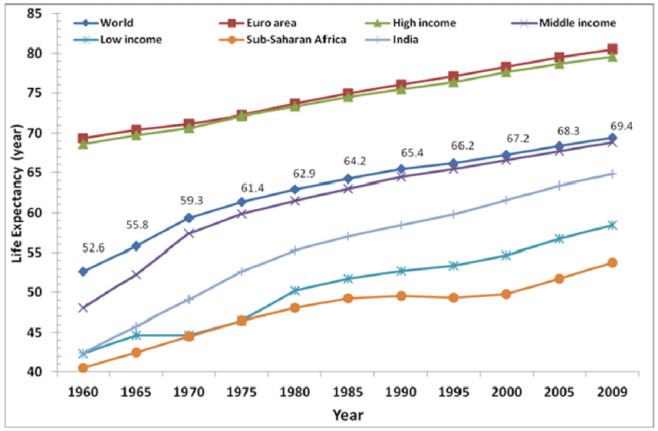
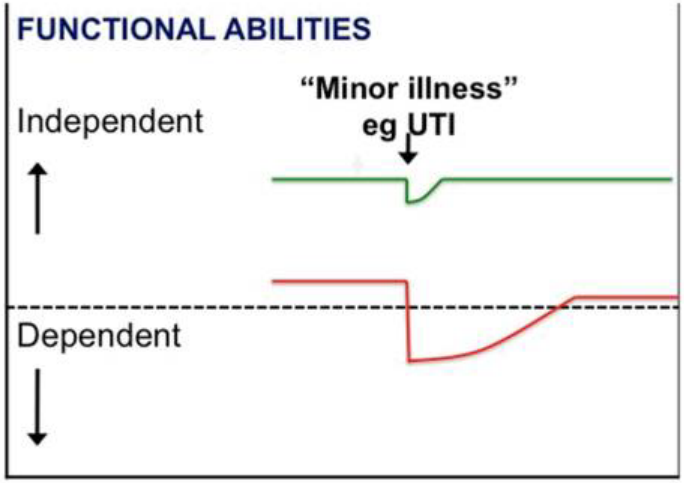
Frailty

- People have a higher life expectancy.
- Heterogenicity!



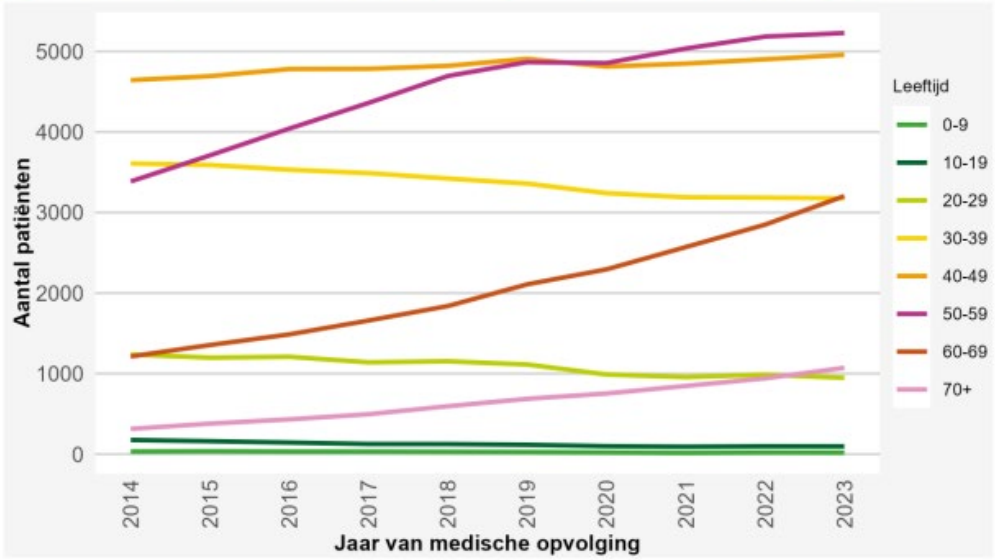
- Frailty is defined as a general decline in physical health and a loss of reserves
- This leads to a person being less robust and less able to bounce back after an adverse event with a vulnerability to adverse health outcomes



Clegg, Andrew et al. "Frailty in elderly people." *Lancet (London, England)* vol. 381,9868 (2013): 752-62. doi:10.1016/S0140-6736(12)62167-9

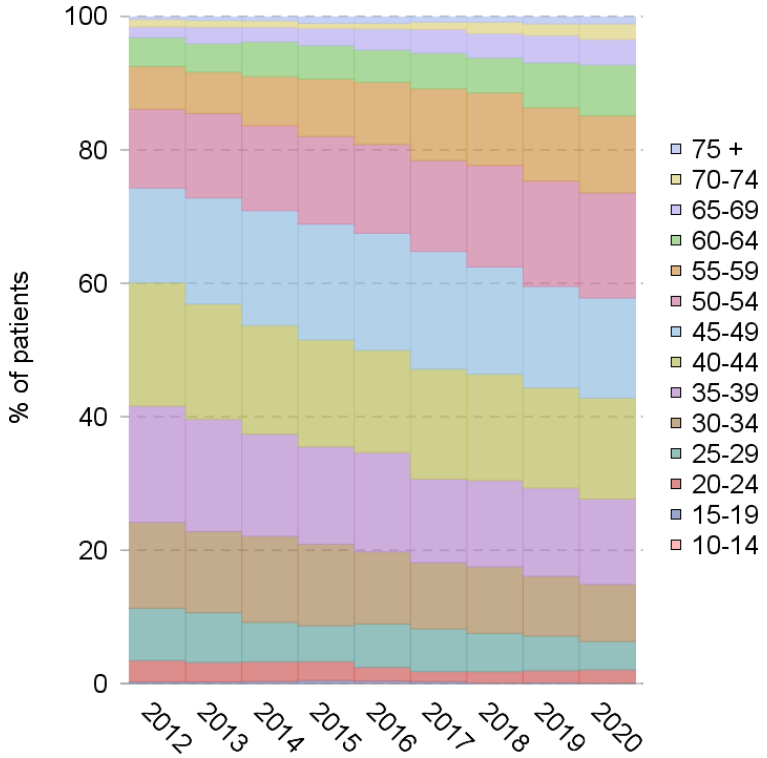
Aging

Figuur 37: Aantal personen met hiv per leeftijdscategorie en jaar van medische opvolging, 2014-2023



51% >50j

Age distribution of patients in care over the years, HRC UZ Gent, 2012-2020



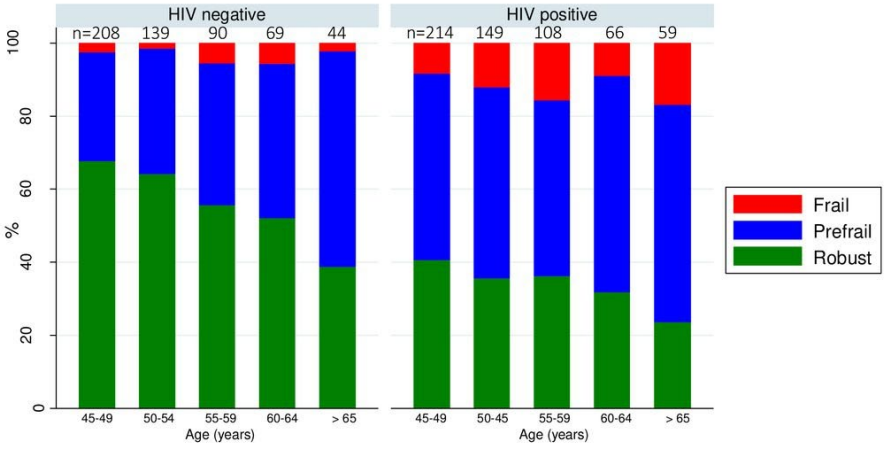
Sciensano

=>60 (345/1625)= 21.2%

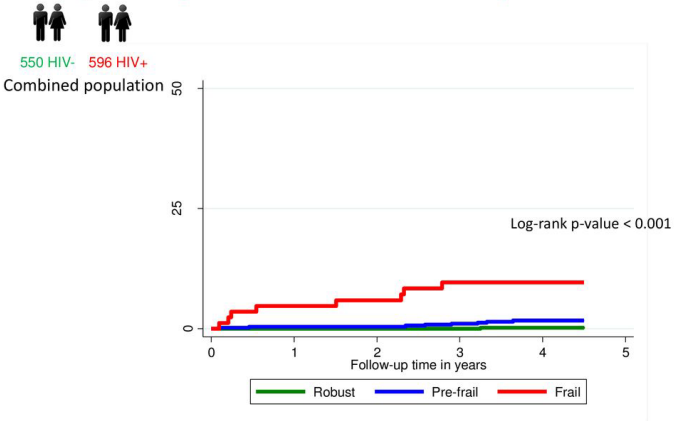
Aging AND frailty

Results

Frailty prevalence at Visit 1

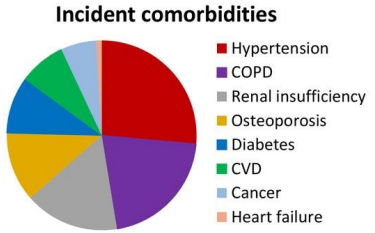


(1) Frailty and risk for mortality

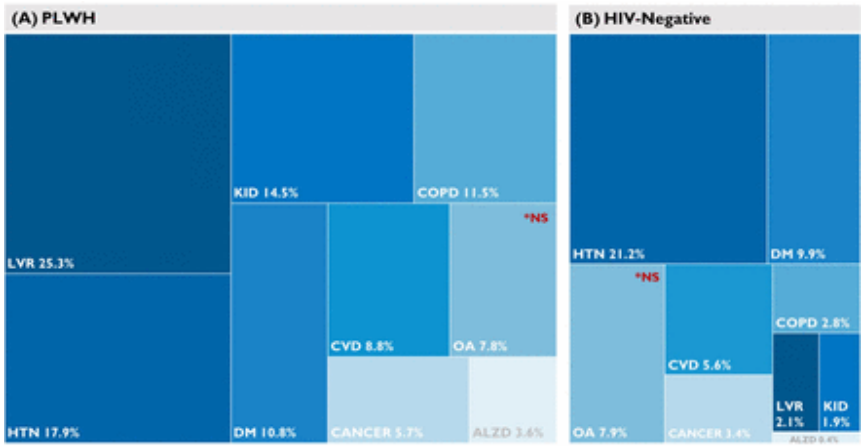


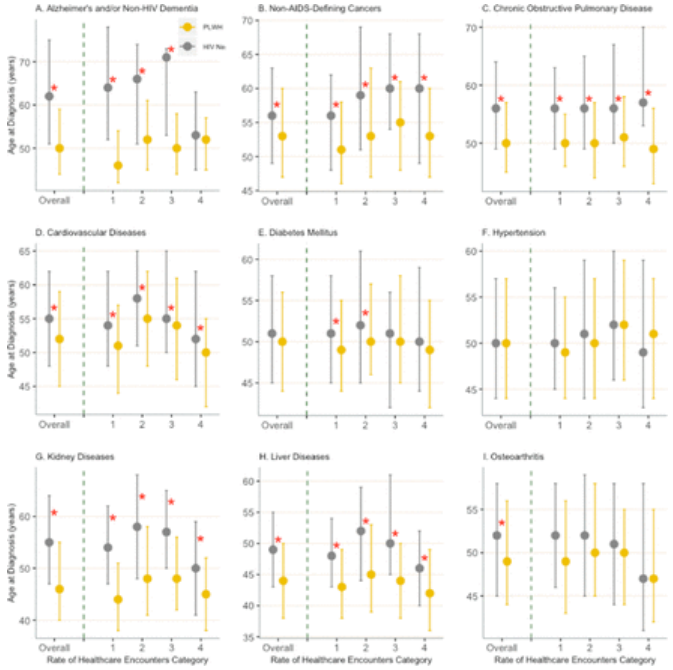
(2) Association between frailty and incident comorbidity

During 3727 person years of follow-up, 276 participants developed in total 329 comorbidities



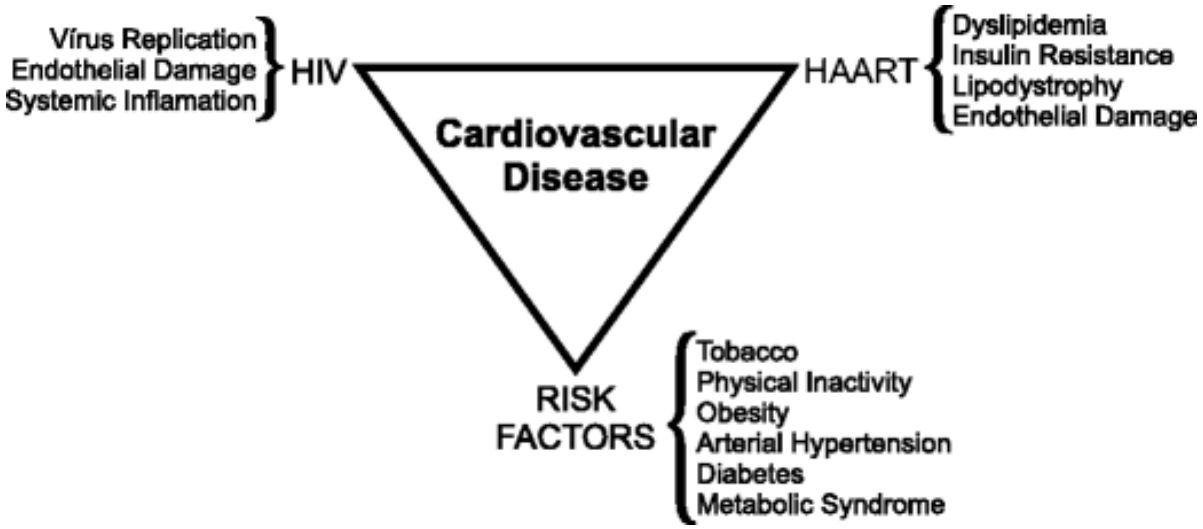
PLHIV experience MORE comorbidities and at a younger age





Nanditha NGA, Paiero A, Tafessu HM, et alExcess burden of age-associated comorbidities among people living with HIV in British Columbia, Canada: a population-based cohort studyBMJ Open 2021;11:e041734. doi: 10.1136/bmjopen-2020-041734

Multifactorial risk



Rodés et al., Aging with HIV: challenges and biomarkers, E Biomed, 2022

- Time of diagnosis
- Start ART (delay)
- Which type of ART
- CD4 nadir, CD4/CD8ratio, immune activation and exhaustion
- Lifestyle
- Levensstijl
- Psychosocial
- context

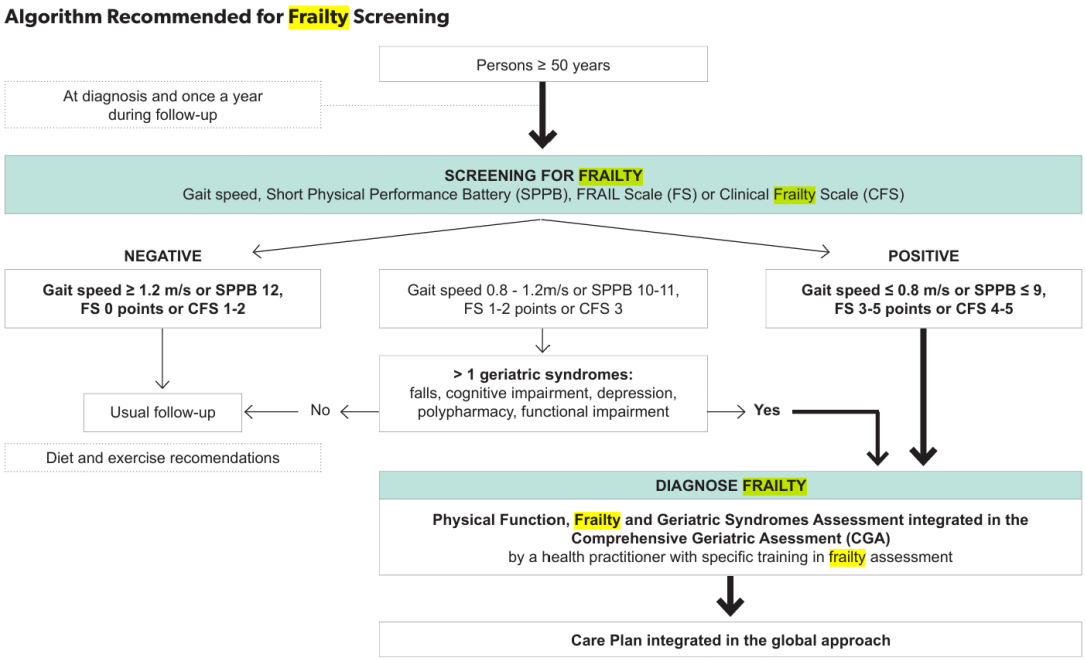
Heterogeneous patient group

What can we do?

- **Early and modern ART**: smaller reservoir, less immune-activation/exhaustion, less diversity
  - Avoid ART that has known C-V/metabolic side effects eg ABC
- **Tackle traditional risk factors**: smoking cessation, sedentarity...
- Consider **chronic inflammation** as the residual CV risk not taken into account in score systems:
  - REPRIEVE -> Prescribe statins >40y
- Screen for comorbidities, check polypharmacy: STOP criteria, propose vaccines AND **screen for frailty…**

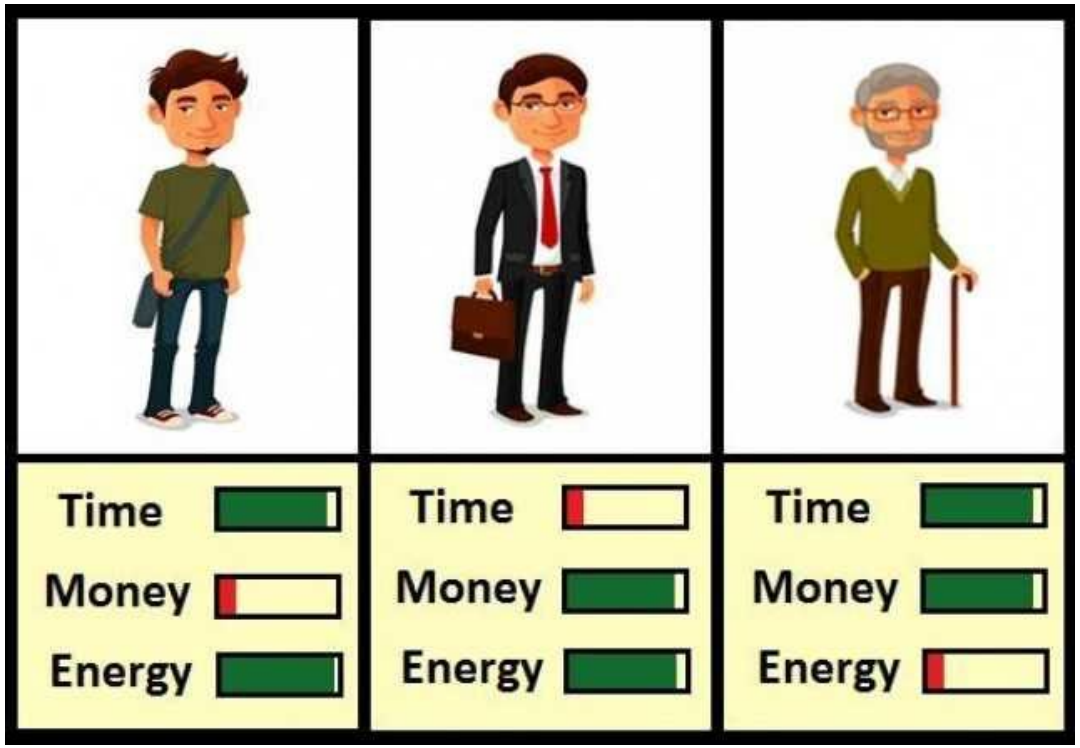
EACS guidelines

- FRAILTY: **49 hits**
- **AVOID polypharmacy**
- Screening for frailty in persons with HIV **above 50 years** of age should be considered. The age cut-off was chosen as the incidence of frailty in persons with HIV has been shown to increase above this age. **Evidence of benefit is still unknown**. It is advocated by some experts.



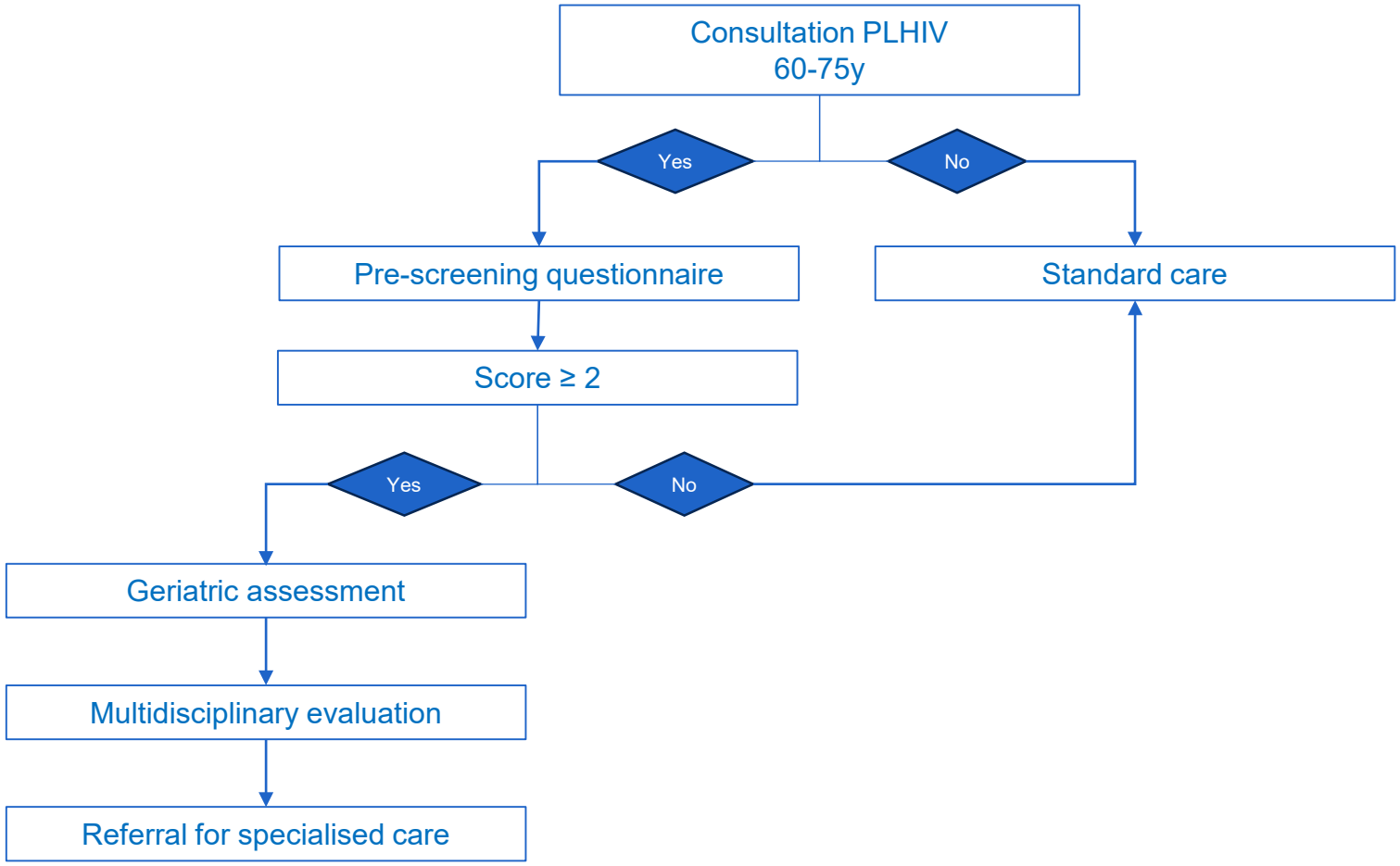
Problem

- >50y= **51%** of PLHIV in Belgium!
- Is there an added value? Are they really that frail?
- Ressource cuts: no time, no money, no team...



PILOT project: Geriatric care program UZ GHENT

Goal: is it feasible? Is it necessary?



Screening questionnaire

VRAGENLIJST

1. Bent u alleenwonend of is er geen hulp mogelijk van een inwonend familielid en/of partner?
O Ja (1)
O Nee (0)

2. Hebt u moeilijkheden om zich te verplaatsen of bent u gevallen in het voorbije jaar?
O Ja (1)
O Nee (0)

3. Bent u opgenomen geweest in het ziekenhuis in de laatste 3 maanden (ongeplande opname)?
O Ja (1)
O Nee (0)

4. Hoe frequent voelde je je vermoeid de laatste 4 weken?
O dagelijks (1)
O meerdere keren per week (1)
O minder dan 1 keer per week (0)
O Nooit (0)

5. Is 1 van volgende zaken van toepassing voor u?
5.1 Heb je frequent last van geheugenverlies (bv. vergeet je speciale gebeurtenissen, recente gebeurtenissen, afspraken,..?)
O Ja (2)
O Nee (0)

5.2 Heb je het gevoel dat je trager bent in het redeneren, activiteiten plannen of problemen oplossen?
O Ja (2)
O Nee (0)

5.3 Heb je problemen om je aandacht ergens bij te houden (bv. een gesprek, een boek, een film)?
O Ja (2)
O Nee (0)

5.4 Hebben kennissen of familieleden al aangegeven dat je problemen zou hebben met concentratie of geheugen?
O Ja (2)
O Nee (0)

6. Gebruikt u 5 of meer geneesmiddelen op voorschrift naast ART?
O Ja (1)
O Nee (0)

7. Welke aandoeningen uit onderstaande lijst hebt u of hebt u gehad?
O Hypertensie
O Diabetes
O Kanker
O Chronische longproblemen
O Hartinfarct
O Hartfalen
O Astma
O Arthritis
O CVA
O Nierproblemen

5 of meer aandoeningen?
O Ja (1)
O Nee (0)

8. Gewicht
8.1 Hoeveel weeg je nu? … kg
8.2 Hoeveel woog je een jaar geleden: … kg

Meer dan 5% gewichtsverlies?
O Ja (1)
O Nee (0)

9. Andere reden waarom je geriatrische uitwerking nodig acht:
.....
.....
.....

Score ≥ 2
Further screening advised

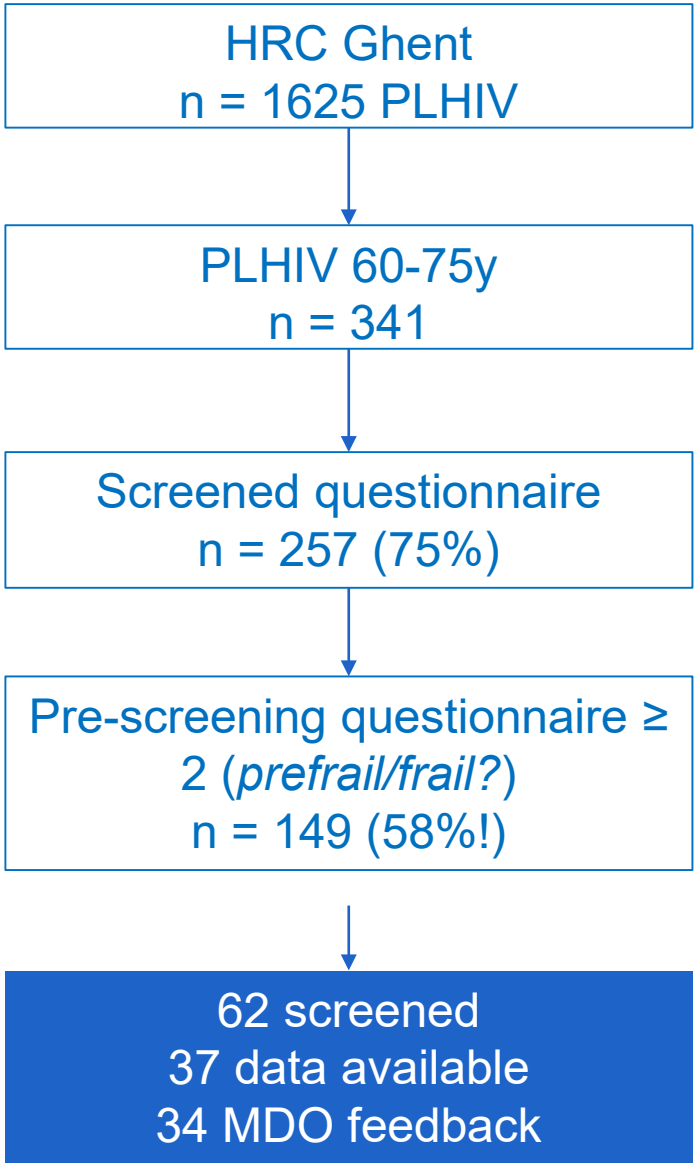
Geriatric assessment

Assessment	Physical evaluation	Scores

• Demographics
• Medical history
• Self-reliance
• Senses
• Mobility
• Fall risk
• Incontinence
• Pain
• Social
• Sexuality
• Menopause
• Cognition
• Substance use
• Medication
• Sleep
• Advanced care planning
	• Short Performance Battery
	• Grip strength
	• Clinical examination
	• Blood analysis
	
	Additional available results
	• Dexascan
	• iFOBT
	• PAP
	• Mammography
	• Anal screening
		• Daily activities: Katz - IADL
		• Mood: Mini GDS
		• Anxiety: HADS-A
		• Cognition:
		  • MoCA
		  • IHDS
		• Nutrition: MNA
		• Liver: FIB4
		• Kidney: eGFR
		• Fracture risk: FRAX®

IADL: Instrumental Activities of Daily Living, **GDS**: Geriatric Depression Scale, **HADS-A**: Hospital Anxiety and Depression scale – anxiety, **MoCA**: Montreal Cognitive Assessment, **IHDS**: International HIV Dementia Scale, **MNA**: Mini Nutritional Assessment, **FIB4**: Fibrosis-4 Index for Liver Fibrosis, **eGFR**: estimated Glomerular Filtration Rate

PILOT project: preliminary results



Demographics (1)

- N = 37
- Age: Mean: 65,7 ± 3,7; 60 - 75y
- 35/37 (94,6%) male
- Years HIV+: Mean: 22,0 ±9,9; 5 – 41
- CD4 nadir: Mean: 364,7 ±198,5; 23 – 699
- ART: n=37 (100%)

Demographics (2)

- Eduction level:
  - Low (≤12y): 17 (45,9%)
  - High (>12y): 20 (54,1%)
- Retirement: 25 (67,6%)
- Living alone: 23 (62,2%)

Substance use

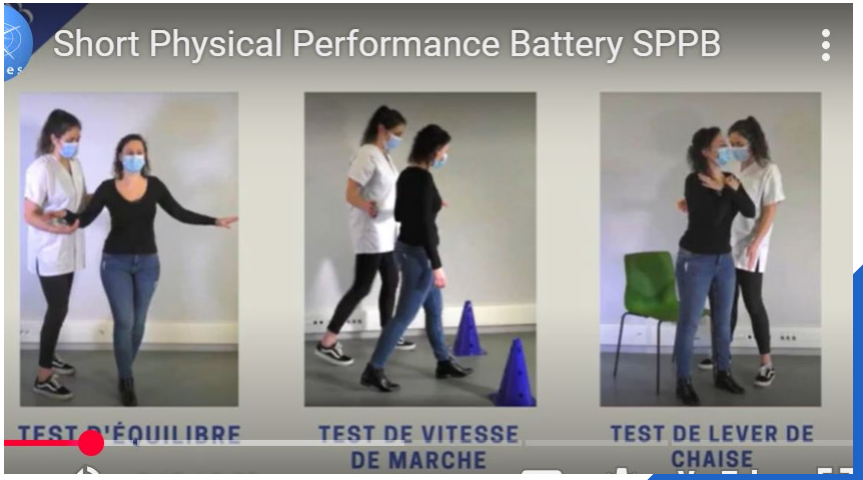
- Smoking
  - No: 28 (75,7%)
  - Yes: 7 (18,9%)
  - Quit smoking: 1 (2,7%)
- Alcohol
  - Daily alcohol use: 12 (32,4%)
  - Problematic alcohol use (AUDIT-C): 9 (24,3%)
- Chemsex: 10 (27,0%)

Functional status

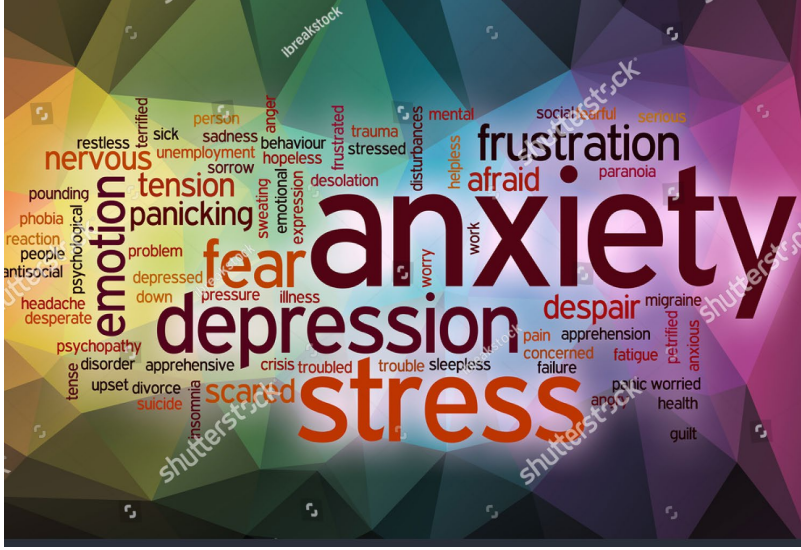
- Instrument
  - Instrumental Activities of Daily Living
  - 9 - 27, lower score = better functional status
- Mean 9,27 ± 1,5

Short Physical Performance Battery (SPPB)

- Instrument
  - SPPB: functional mobility
    - Walking speed
    - Balance
    - Leg strength
  - 0 – 12; ≤9: increased risk of new disabilities
- Mean 9,84 ± 2,18
- ≤9: 12/37 (32,4%)



Anxiety and depression



- Hospital Anxiety and Depression Scale
  - 7 items anxiety, 7 items depression
  - Subscale score >7/21: considerable symptoms anxiety/depression
- Anxiety
  - Mean 5,53 ± 5,00; 0 - 15
  - >7: 9 (24,3%)
- Depression
  - HADS (n=26): Mean 4,35 ± 4,00; 0 – 17
  - GDS (n=11): Mean 1,45 ± 2,34; 0 - 6
  - Indication depression: 7 (18,9%)

Neurocognitive function

- Montreal Cognitive Assessment (MOCA)
  - Cognitive impairment
  - Normal: ≥26/30
- MOCA
  - Mean 25,03 ± 2,64; 18 - 28
  - <26: 16 (43,2%)
- MOCA vs CD4 nadir: p = 0,08

- International HIV Dementia Scale (IHDS)
  - Dementia
  - Further evaluation: ≤10/12
- IHDS
  - Mean 9,30 ± 1,40; 6,0 – 12,0
  - ≤10: 27 (73,0%)
- IHDS vs CD4 nadir: p = 0,007

Nutritional status

- BMI: mean 27,48 ± 5,23; 14,6 – 42,9
- Mini Nutritional Assessment (MNA)
  - Risk of malnutrition
  - <24: risk of malnutrition
  - Mean 24,05 ± 4,20; 13,5 – 30,0
  - <24: 17 (45,9%)

- Remarkable: 12 PLHIV (44%) with BMI ≤ 25 have a risk of malnutrition according to the MNA
- BMI↑⇒ ↓functional mobility (p=0,037)

Management of comorbidities

- ART:
  - No ABC, 1PI based
  - Majority B/F/TAF-DTG/3TC (2x DTG/pifeltro, 2x Juluca)
- Use of statins:
  - N = 31/37 (84%)
- Vaccination status
  - Pneumococcal vaccination (at least one): 36/37 (97%)
  - Shingrix (at least one): 19/37 (51%) (despite reimbursement)

Acknowledgments

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- The research team:
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