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P 159 A pilot study to investigate respiratory ill-health in people living with HIV

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Background
 Helping people living with HIV (PLWH) to maintain long-term health as they age is central to HIV care.
 • Chronic lung disease (CLD) is recognised to be more common in PLWH^{1,2}. UK data on CLD prevalence and phenotype in PLWH are limited, particularly in female, non-white, never smoking groups.
 • Longitudinal studies of progression are lacking.

Aims
 This is a pilot study to
 • obtain preliminary data on CLD in key PLWH subgroups
 • establish a simple scheme for monitoring lung health among PLWH for a future longitudinal study.

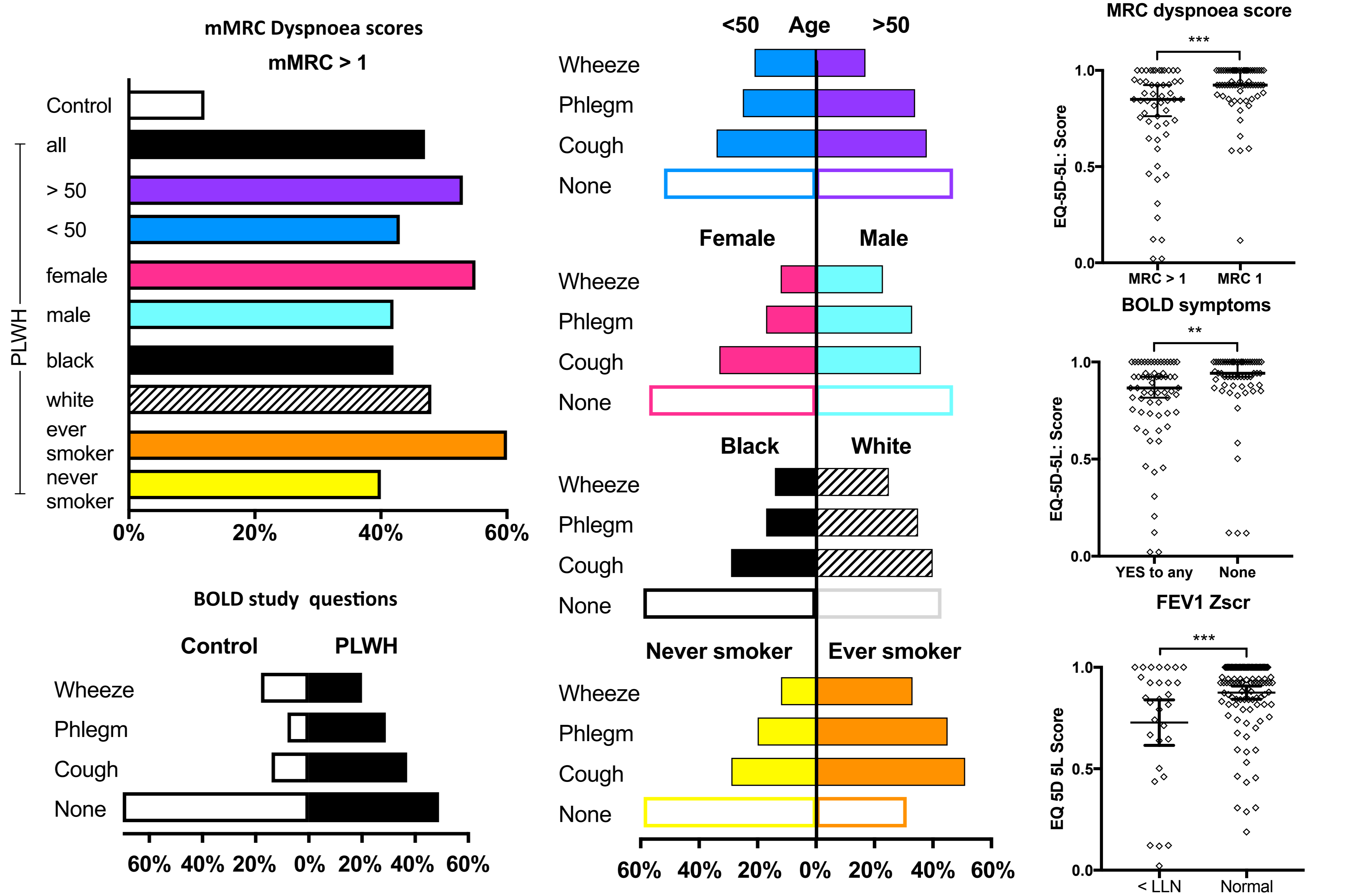
Methods
 Cross-sectional convenience sampling of PLWH in routine clinics.
 • Web-based questionnaire for self-reported
 • ‘Usually having’ cough, wheeze or phlegm (BOLD study³)
 • Medical Research Council (mMRC) Dyspnoea scale⁴;
 • St Georges Respiratory Questionnaire (SGRQ)⁵;
 • health related quality of life (EQ-5D-5L)⁶;
 • Smoking, inhaler use and past medical history.
 • Spirometry
 • FEV₁ (Forced Expiratory Volume in 1 second) & FEV₁/FVC (Forced Vital Capacity) z-scores derived from GLL equations.
 • HIV data were collected from clinical records
 • 50 HIV negative controls matched for smoking status
 • Evaluation of suitability and acceptability of the measurements.

Results
 • >50% of PLWH approached were enrolled, ≤ 1 hour each
 • Lack of time commonest reason for non participation

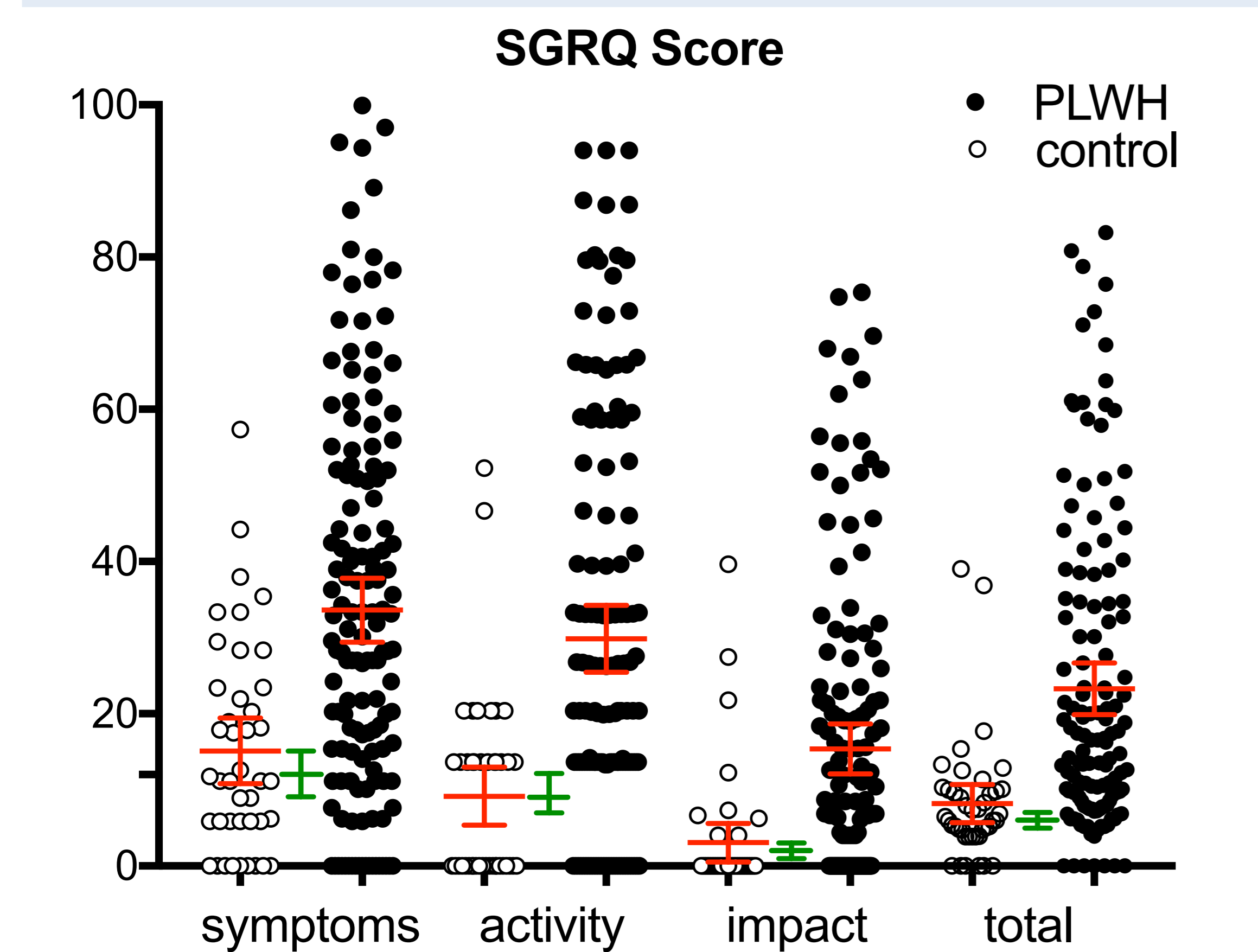
Symptoms: mMRC, BOLD & EQ-5D-5L Health related Quality of Life
 • Breathlessness (mMRC 2-5) & usual wheeze, phlegm or cough more common in all PLWH groups.
 • EQ-5D-5L scores and SGRQ ratings in PLWH correlated with mMRC, BOLD & FEV₁

| | PLWH | | Control | |
|---------------------------------|------|---------|---------|-------|
| n | 150 | | 50 | |
| Age ¹ | 46 | 40-53 | 37 | 26-47 |
| Female | 46 | 31% | 25 | 50% |
| White | 70 | 47% | 38 | 75% |
| Black | 65 | 44% | 6 | 12% |
| Asian | 4 | 3% | 7 | 14% |
| Other* | 9 | 6% | | |
| Current smoker | 31 | 22% | 10 | 20% |
| Ex-smoker | 18 | 13% | 6 | 12% |
| Never Smoker | 93 | 65% | 34 | 68% |
| Passive smoker | 9 | 6% | 0 | 0% |
| Solid cooking fuel in childhood | 64 | 45% | 12 | 24% |
| VL undetectable | 141 | 96% | - | - |
| Nadir CD4* [§] ¶ | 186 | 35-336 | - | - |
| Current CD4* [§] ¶ | 620 | 448-801 | - | - |
| Past CAP/TB/CAP | 70 | 49% | 8 | 16% |
| Adult asthma | 22 | 15% | 5 | 10% |
| CLD Diagnosis | 20 | 14% | 2 | 4% |
| Inhaler use | 26 | 18% | 4 | 8% |

Data expressed n / % except ¶ = median / IQR * Data missing for <10%. § cells/mm³

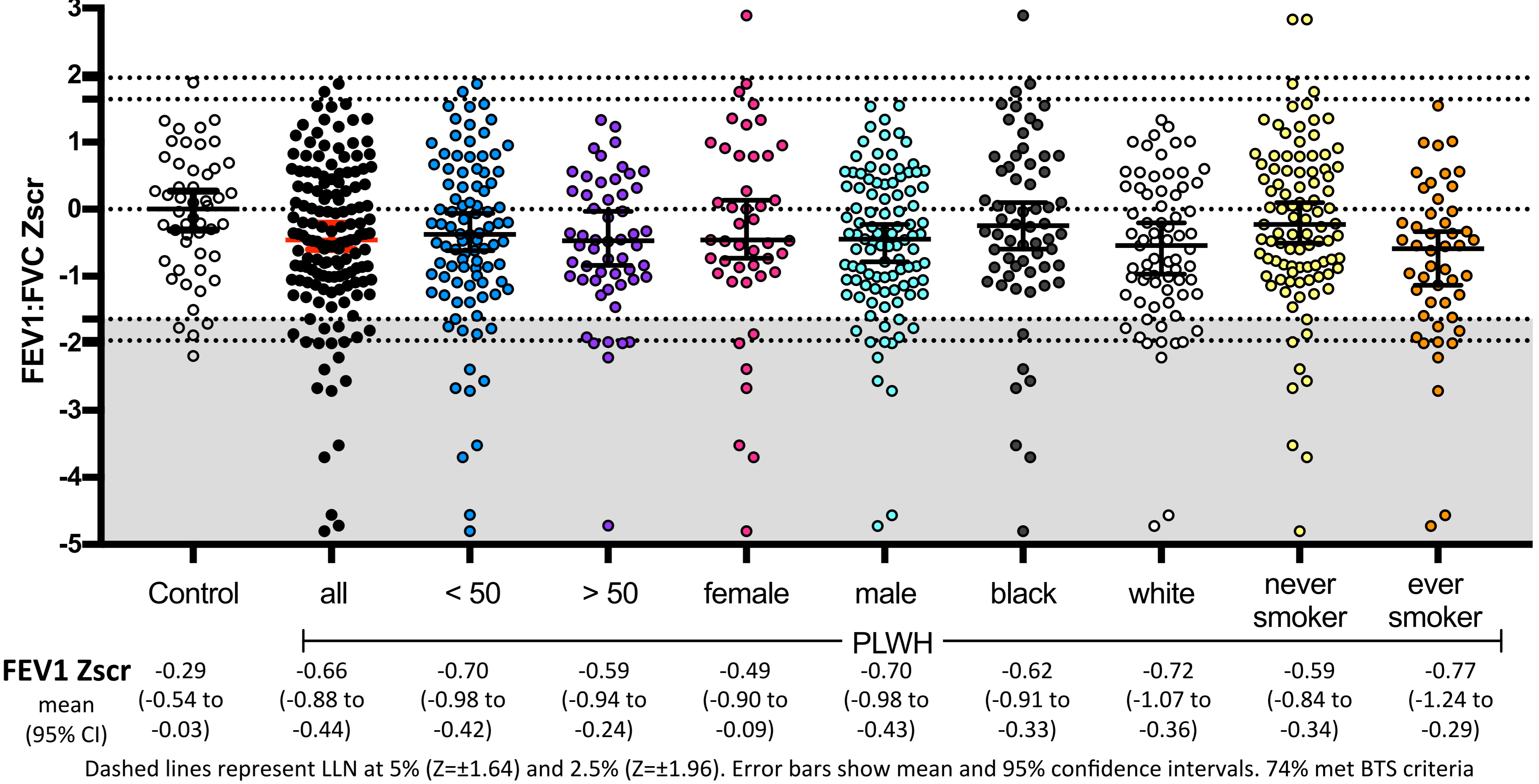


Symptoms: SGRQ
 • PLWH found online survey acceptable. SGRQ needed more time and supervision than mMRC/BOLD/PMHx.
 • SGRQ scores elevated in PLWH, as predicted in controls.



St George's Respiratory Questionnaire component scores. Error bars show mean and 95% confidence interval for study groups (red) and quoted population norms (green).

Spirometry.
 • 21 PLWH (14%) vs 2 control (4%) met GOLD criteria for COPD.



Dashed lines represent LLN at 5% (Z=±1.64) and 2.5% (Z=±1.96). Error bars show mean and 95% confidence intervals. 74% met BTS criteria