

# P068: No Bones about it: high rates of osteopenia and osteoporosis in women with HIV in the UK



Yvonne Gilleece<sup>1,2</sup>, Gladys Mundowa<sup>2</sup>, Jonathan Roberts<sup>2</sup>

<sup>1</sup>Brighton and Sussex Medical School, Brighton, UK

<sup>2</sup>Lawson Unit, Brighton and Sussex University Hospital NHS Trust, Brighton, UK

## Background

Low bone mineral density (BMD) is more common in people living with HIV (PLHIV), but particularly in women and with an even higher prevalence post menopause. There is no published UK data.

We have identified osteopenia in 46% and osteoporosis in 8.5% in our male HIV population, median age 47 years.

Current BHIVA guidelines recommend BMD risk factor assessment

- at first HIV diagnosis and
- prior to ART commencement
- every 3 years in individuals on ART who are  $\geq 50$  years of age

BMD assessment is advised initially using FRAX and also with DXA scanning in all women aged  $\geq 65$  years and women  $>50$  years old if they have an intermediate to high FRAX score and/or additional risk factors.

These guidelines may not identify all women at risk of low BMD.

## Aim

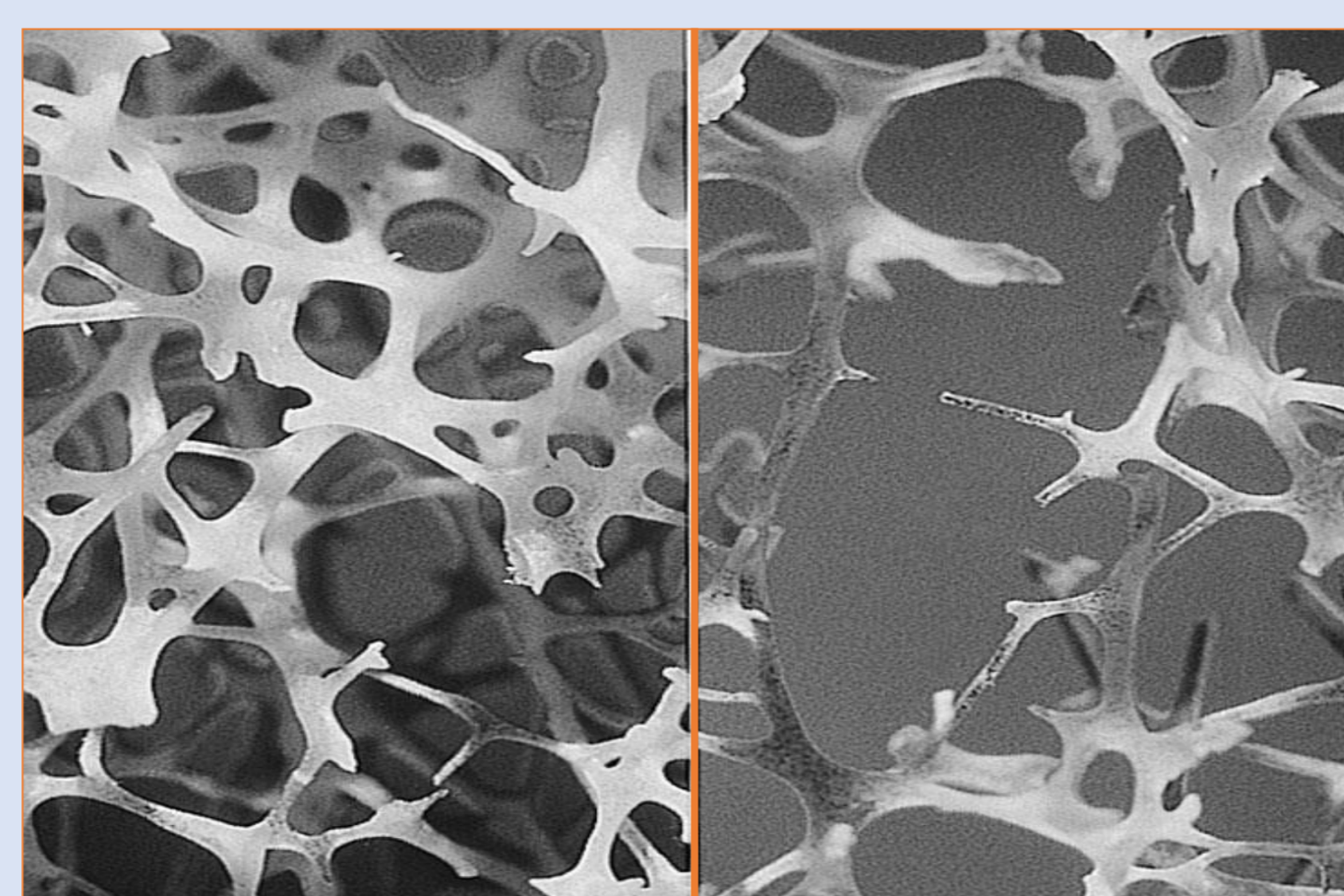
To assess bone mineral density in women living with HIV attending our specialist women's HIV clinic, Sunflower.

## Methods

Data was collated on women who underwent DXA (Dual-energy X-ray absorptiometry) scanning, on age, menstrual status and the presence of additional risk factors for low BMD.

BMD was defined using WHO classification T scores as

- Normal  $> -1.0$ ,
- Osteopenia  $-1.0$  to  $-2.5$
- Osteoporosis  $< -2.5$



Normal

Osteoporosis

## Results

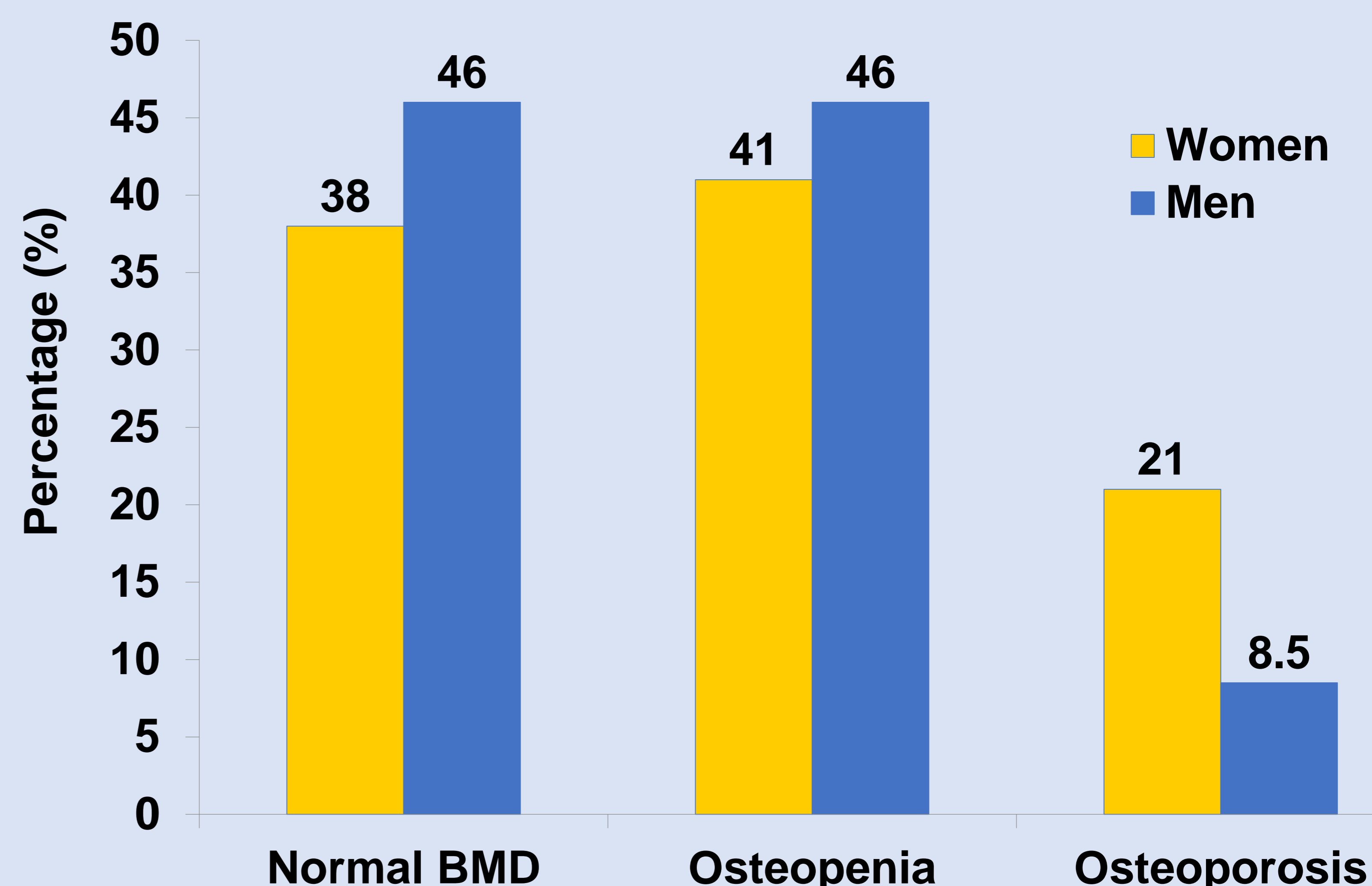
Results were available for 37 women with a mean age of 51 years (range 36-84). 14/37 (38%) of women had normal BMD, 15/37 (41%) were osteopenic and 8/37 (21%) of women had osteoporosis, showing much higher rates of low BMD in our female vs male population.

The median age was 51 years (42-58) for women with normal BMD, 48 years (36-60) for women with osteopenia and 53 years (46-84) for women with osteoporosis.

Women with osteoporosis were mostly postmenopausal (7/8, 88%) but one was not.

Women with osteopenia were also predominantly postmenopausal (8/15, 53%) but 6/15 (40%) were still menstruating regularly.

Women who identified as Black African were more likely to have osteopenia (9/15, 60% vs 5/15, 33% White UK, 1/15 Thai, 17%) but otherwise there was no ethnic difference in women with normal BMD or osteoporosis



## Conclusions

Although our study is small we found more than double the rate of osteoporosis in women vs men in our population with a median age of only 53 years. This data shows WLHIV are at high risk of low BMD at a young age than women, even when menstruating regularly.

## Recommendations

One-third of the UK HIV population are women who may be at high risk of low BMD which may be missed according to current BHIVA guidelines.

Each standard deviation loss in BMD and age increase of 5-7 years has been shown to double fragility fracture rates also putting women at high risk of fracture and frailty as they age.

Larger studies are needed to explore this further as current BHIVA monitoring guidelines may be failing women.