INTRODUCTION

In the United Kingdom (UK), 81,510 people received HIV care in 2013, a 5% increase on the previous year (77,590). Treatment uptake among persons accessing care is high (87%).

Given ongoing transmissions and effective treatment, the number of people living with HIV continues to grow. One in four people living with a diagnosed HIV infection was aged 50 years and over in 2013 compared with one in eight in 2004.

To better plan future delivery of HIV care, we developed a cohort-component population projection approach to create age-and-sex-specific projections of people in HIV care in the UK.

METHODS

We used the national cohort of people accessing HIV care collected at Public Health England linked to the Office of National Statistics (ONS) to identify deaths.

Estimated age-and-sex-specific population sizes in 2028 were extrapolated from the UK national cohort of people in HIV care between 2004-2013 and adjusted for expected lost to follow up (LTFU), entry to care (e) and death rates (d), using: (UK). The expected number of new HIV diagnoses by 5-year-age band (N) were based on the previous 10-year-trends and added to the projected population (see Notes below for details).

RESULTS

The national cohort (observed) data between 2004 – 2013 show high rates of 5-year-retention and a slow decline in death rates across all groups (on average 4% among men, 2% among women).

Applying age-and-sex specific death, LTFU and entry to care rates as well as estimated new HIV diagnoses, we projected the HIV in care population in 2018 based on reported 2013 data. Table 1 demonstrates this approach using the male HIV population. The procedure was repeated to obtain 2028 estimates.

An estimated 84,500 persons will be diagnosed with HIV between 2014 – 2028 (67,300 men, 17,200 women).

In 2028 an estimated of 112,700 persons will be in HIV care of whom 54% (60,500) will be aged ≥50 (29% aged 50-59; 18% aged 60-69 and 6.2% aged ≥70) (Figure 1).

The overall number of men in HIV care is expected to increase by 53% from 55,200 in 2013 to 84,700 in 2028, with the proportion aged ≥50 increasing from 31% to 56%.

Numbers of women are expected to remain relatively stable (26,300 in 2013, 28,000 in 2028), but the number and proportion aged ≥50 will increase from 9% (2,400) to 47% (13,100).

DISCUSSION

Over half of people in HIV care in the United Kingdom by 2028 will be aged 50 years or above.

The delivery of health care for people living with HIV must be responsive to demographic shifts. Management of co-morbidities will require effective liaison between HIV, primary care and other healthcare services.

ACKNOWLEDGEMENTS

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REFERENCES


Notes

In each age-and-sex specific group

1. The LTFU, entry into care and death rates will remain constant throughout the projection period.

2. Migrants acquired infection abroad and seen for care in the UK will only accounted for a small proportion of the whole HIV population.

3. Given the slight increase in CD4 at diagnosis and ART coverage, where the new HIV diagnoses increased between 2004 and 2013, we assume the growth will continue at the current speed and apply linear functions to project numbers of new HIV diagnoses.

4. Where the new HIV diagnoses decreased between 2004 – 2013, we assume the decline will slowdown to avoid negative values and the number of diagnosis will be plateauing at 5 cases. Thus, we apply exponential functions to project.