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Background

- There is a national ambition towards achieving zero new HIV infections, AIDS and HIV-related deaths in England by 2030.¹
- Due to ongoing increased transmission in the borough, Walsall Council Public Health identified a need to improve data-driven strategic and operational planning to ensure more precise targeting of HIV outreach and testing initiatives.
- Late diagnosis is a key factor associated with increased morbidity and early mortality amongst individuals with HIV infection, and it also increases the likelihood of onward transmission. Nationally, people who were diagnosed late in 2022 were 10 times more likely to die within a year compared to those who are not.² Therefore, it is crucial to reduce late and undiagnosed HIV to improve patient prognosis as well as to reduce onward transmission.
- Data on HIV prevalence, testing uptake, and late diagnosis has historically been fragmented across multiple sources and formats, including Fingertips, UKHSA Local Authority HIV surveillance data, SPLASH reports, GUMCAD and local sexual health service systems.
- This fragmentation has presented challenges to data-informed decision making, including the identification of gaps in service provision and access, and responding to changes in local patterns of diagnosis, transmission, and characteristics of at-risk groups.

Objective

To utilise Power BI to integrate multiple and complex datasets into a single interactive HIV dashboard to improve the visibility and accessibility of various HIV data to support evidence-based decision making.

Methodology

The dashboard incorporates surveillance data on HIV testing, coverage, trends in diagnosis and late diagnosis rates, treatment, and the analysis of geographical and demographic patterns. Strict adherence to data governance and confidentiality standards was maintained throughout (UKHSA approved data for publication).

The key stages of this approach included:

- Engaging with clinical, commissioning, and patient engagement professionals to identify information/data needs
- Mapping and consolidating all relevant data sources into a secure dedicated database
- Developing dashboard interface with layered data visualisations
- Piloting the dashboard and conducting user-acceptance testing with senior public health professionals and iterating based on their feedback
- Presentation of the integrated dashboard at partnerships and utilisation of the platform to:
 - inform Health Protection activities,
 - develop local HIV action plan, and
 - underpin Walsall's 2025-2030 Sexual and Reproductive Health Strategy.

Outcomes

- The dashboard has improved data accessibility and actionable insights by having clear "key takeaway" points. The dashboard ensures that both decision makers and front-line clinical workers can readily access and interpret quantitative statistics, supporting targeted interventions and operational planning.
- Public Health commissioners now have increased confidence in the accuracy, timeliness and relevance of data provided by the HIV dashboard, enabling them to make more timely, informed, and evidence-based decisions regarding resource allocation and service provision.
- Insights from the dashboard have informed the strategic updating and targeting of outreach work, as well as the planning of focused HIV testing and awareness campaigns, maximising impact within key populations and supporting overall public health objectives.

Recommendations

- Given the importance of measuring HIV late diagnosis to achieve the zero-transmission ambition, it is essential to utilise this platform to continue to closely surveillance local diagnoses, HIV service delivery, population demographics, and sustain system leadership.
- Future plans for the dashboard include the adoption of automated data processes (e.g. exploration of APIs) for sustainable maintenance, regular updates and continued horizon scanning for other relevant datasets for incorporation.

References

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- UK Health Security Agency West Midlands HIV Surveillance Data Tables (2025)

Findings

New HIV Diagnoses

- Walsall has a lower HIV testing rate (Fig. 1)³, lower new diagnosis rate (Fig. 2)⁴, and higher proportion of late diagnosis (Fig. 3)² compared to the national average.
- In 2022, due to increased local testing efforts, the absolute number of people newly diagnosed with HIV increased to 17 compared to 7 in 2021.⁴
- The proportion of these new diagnoses classed as late rose significantly by almost 250%; from 2021 (20%) to 2022 (69%) (Fig. 4).⁵**
- However, between 2022 and 2024, the proportion of late diagnoses has decreased from 69% to 44% despite increased testing, indicating that testing efforts was adequately targeted.

Fig. 1 HIV testing rate per 100,000 population in Walsall compared to national and regional average

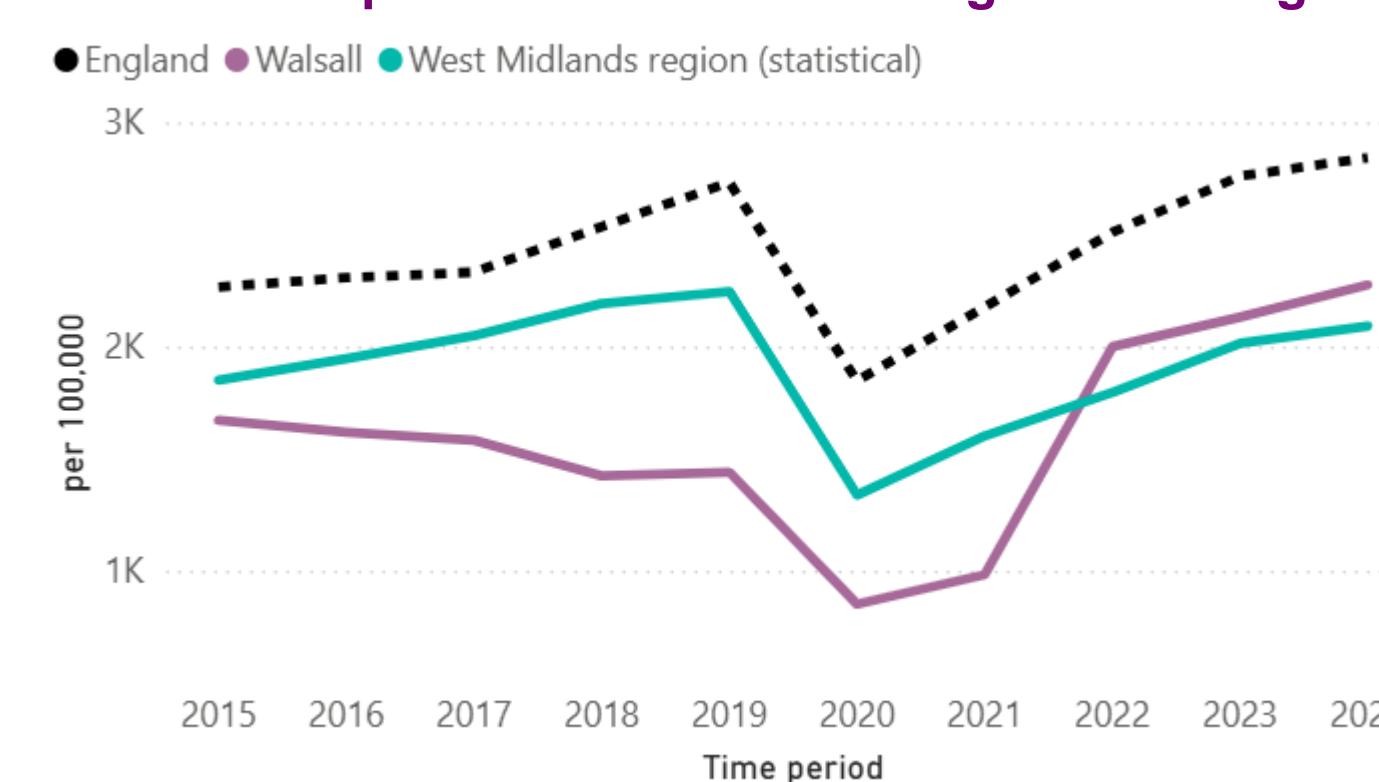


Fig. 2 New HIV diagnoses rate per 100,000 population in Walsall compared to national and regional average

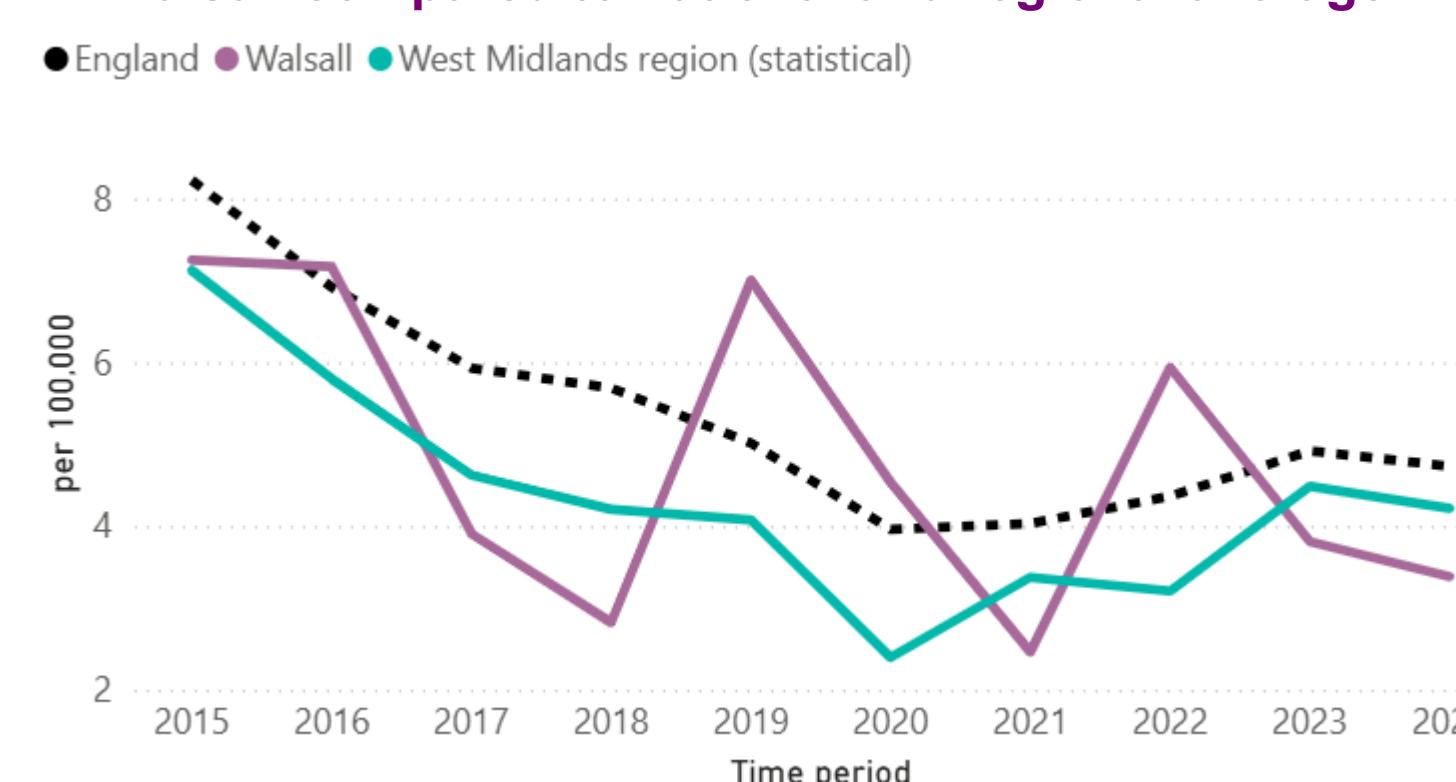


Fig. 3 HIV late diagnosis in Walsall compared to national and regional average (3-year average)

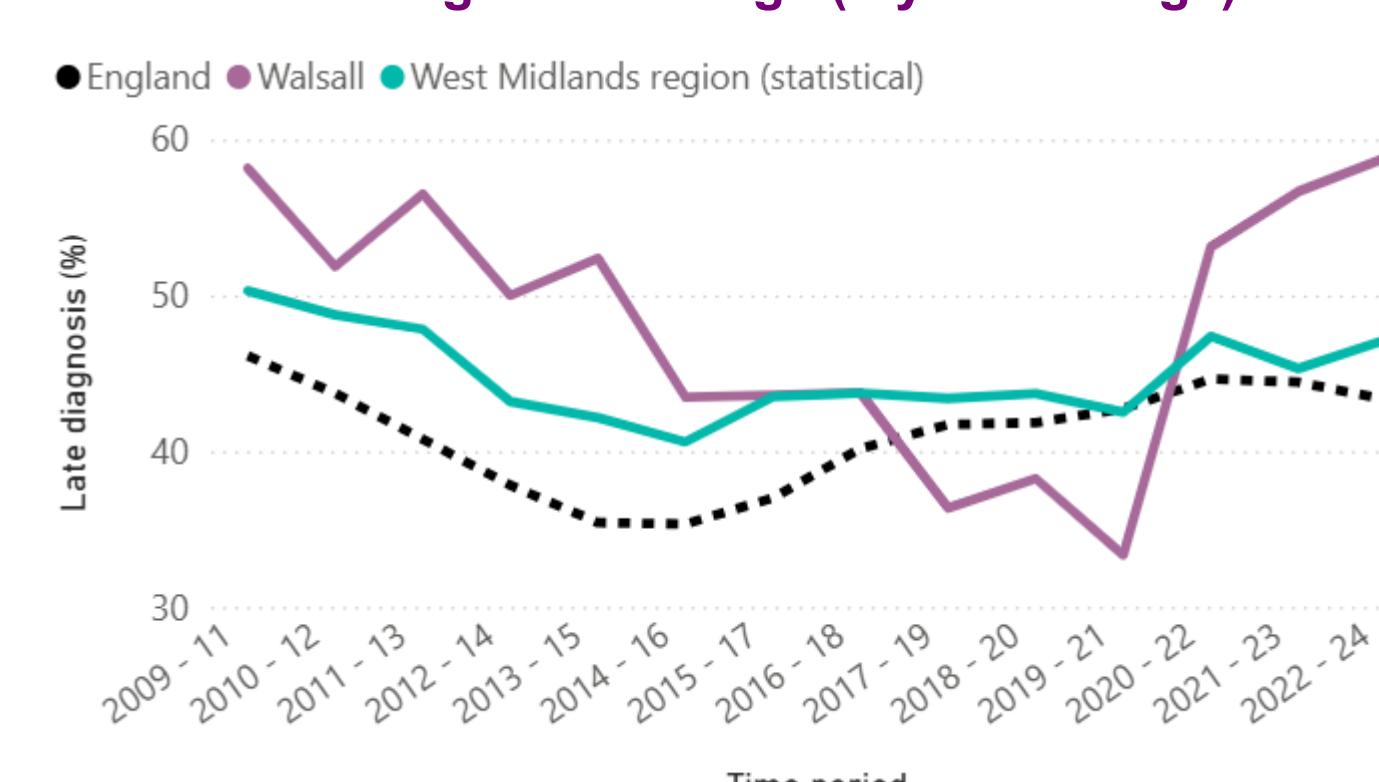
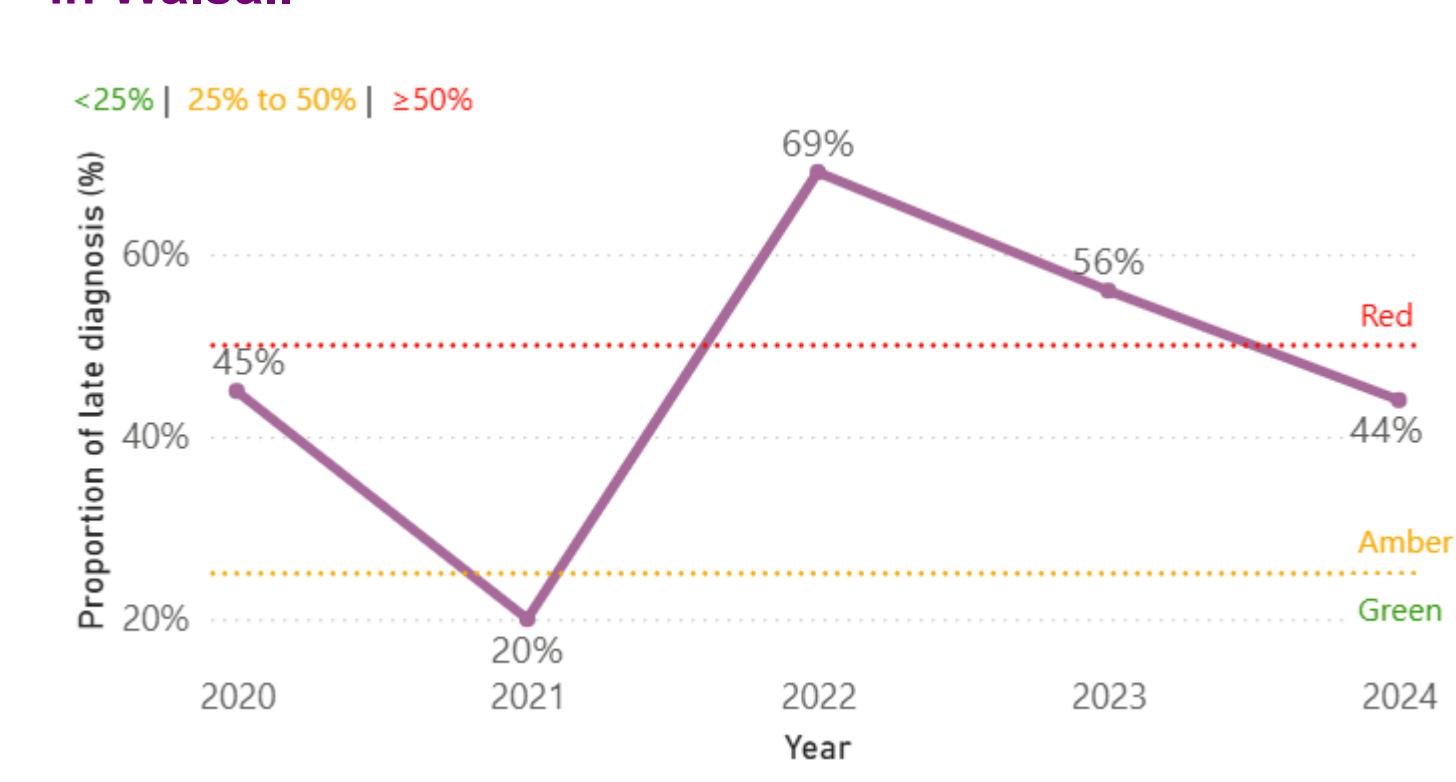
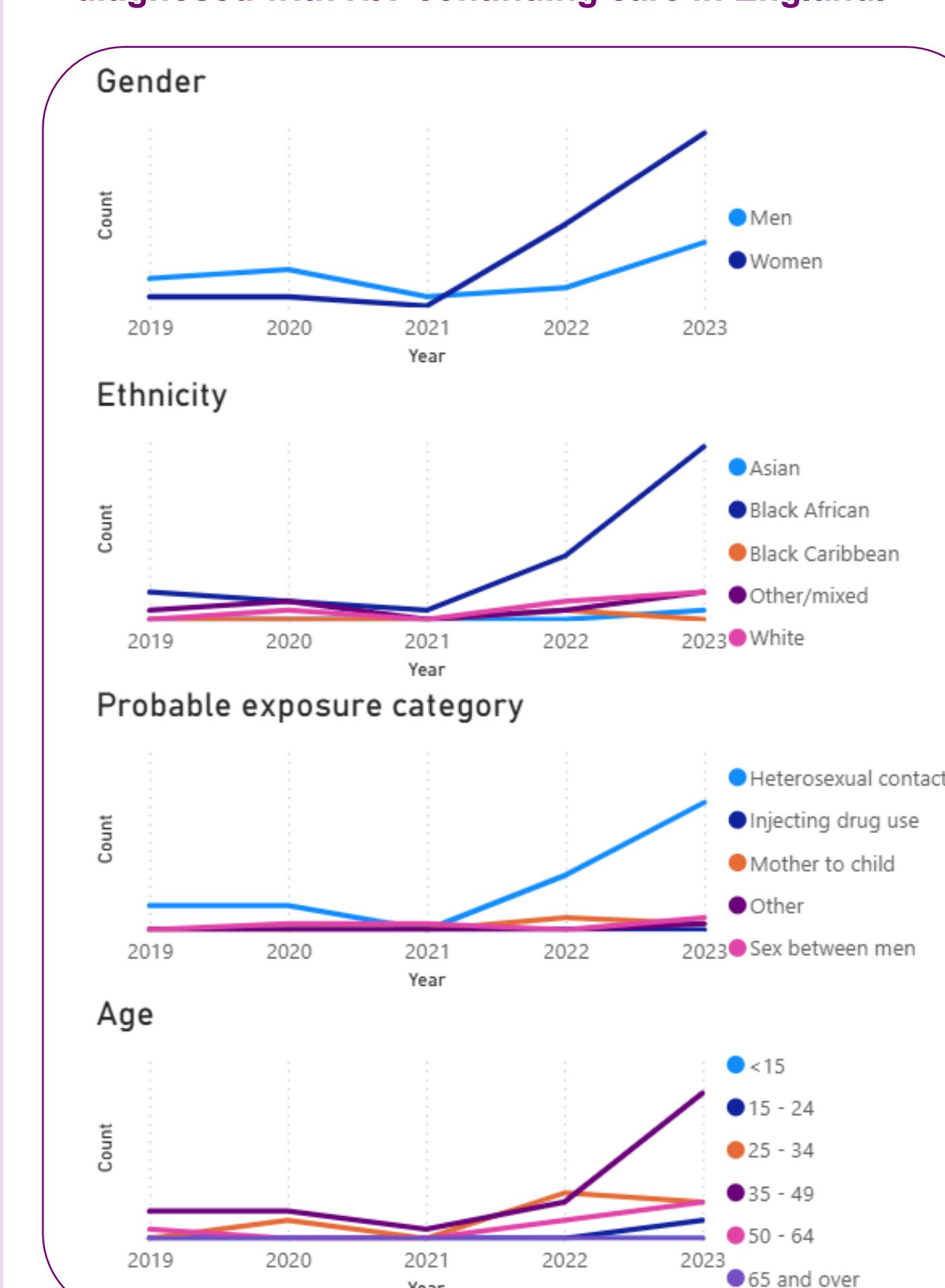


Fig. 4 Proportion of new HIV diagnoses classed as late in Walsall



People Diagnosed with HIV Continuing Care in England

Fig. 5 Demographic trend of Walsall residents diagnosed with HIV continuing care in England.



- Since 2021, Walsall has experienced a significant rise in the number of individuals diagnosed with HIV who are continuing care after an initial diagnosis abroad, reflecting a trend similar to the rest of the West Midlands.
- In 2024 in Walsall, 25% of people diagnosed with HIV continuing care in England had a late diagnosis.⁵ This is higher than both the national and regional average of 16%.^{6,7}
- This cohort's proportion of late diagnoses is significantly lower than the proportion of diagnoses classed as late for those newly diagnosed first in the UK (25% vs 44%).⁵ This cohort is excluded from the national metric "HIV late diagnosis" as they are often already on treatment when they are subsequently diagnosed in England.
- In 2023, there was a significant rise in heterosexual Black African women age 35-49 (Fig. 5) in this group.⁵ 2024 figures are unavailable due to suppression.

Shifting cohort

- In Walsall, there was a sharp increase in the proportion of people diagnosed with HIV before continuing care in England from 12.5% to 70.3% between 2021 and 2023 (Fig. 6).⁵
- However, in 2024, this proportion dropped to 47.4%; over half (52.6%) of all HIV diagnoses were new diagnoses.

Fig. 6 Proportional distribution of all HIV diagnoses of Walsall residents

