

Antiretroviral therapy (ART), immune response and clinical outcomes among children and young people seen for paediatric HIV care in England in 2022-2023

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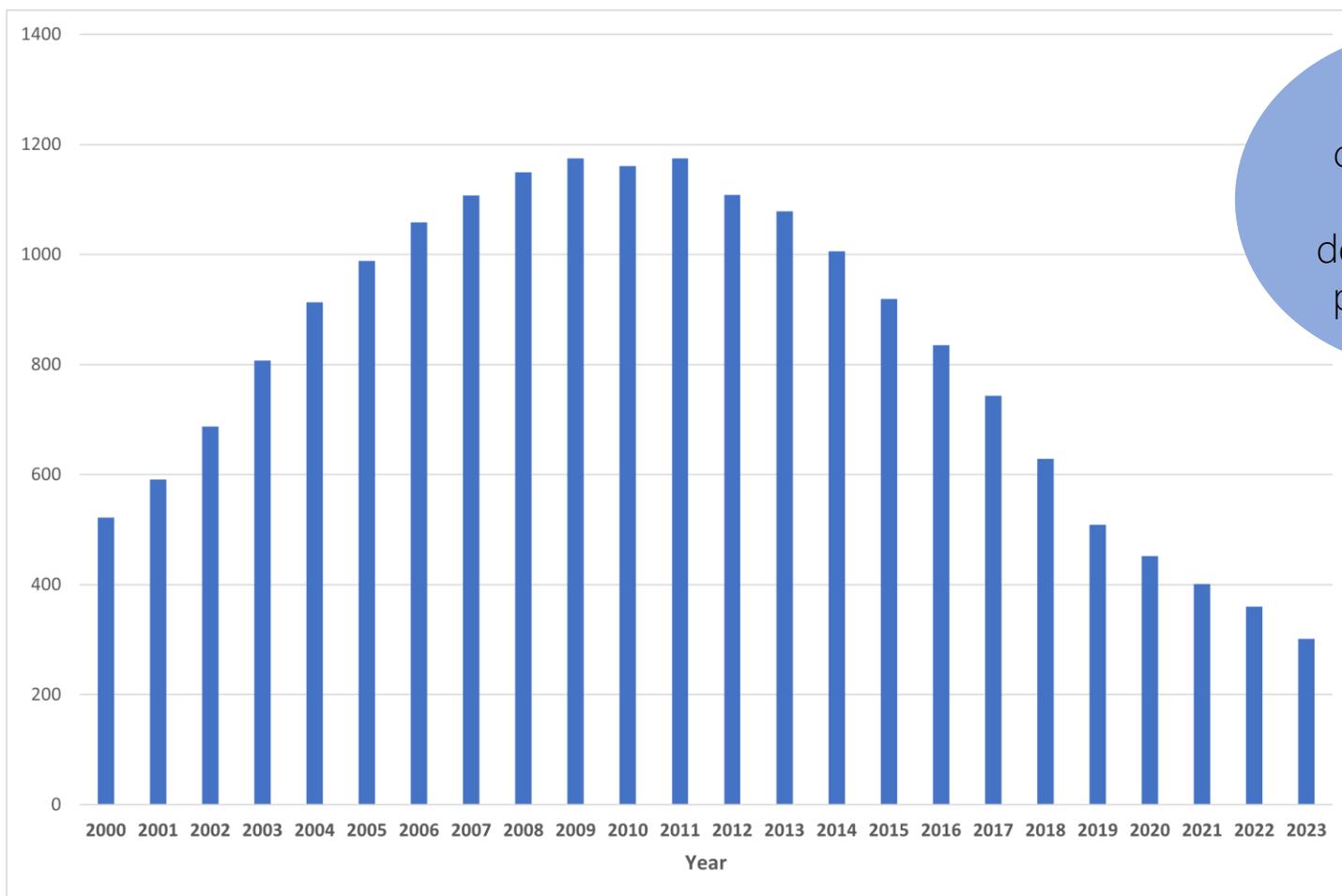
Background

- Globally, there are an estimated **5 million children and young people living with HIV** (CYPLHIV) aged 0-24 years
- Numbers of CYPLHIV in England have **declined substantially** since early 2000s, with fewer paediatric diagnoses and children ageing up into adult care
- HIV care in children is **different to adult care**: different antiretroviral drugs and dosing, paediatric infectious disease clinicians operate in a network separate to adult networks
- **Children's HIV and AIDS Reporting System (CHARS)** conducts comprehensive surveillance and long-term follow up of children and young people* living with HIV in England until transition to adult care, in place since January 2022

Children's HIV and AIDS Reporting System

- CHARS is commissioned by **NHS England** and is designed to **complement the national adult HIV surveillance** (HARS) carried out by the UK Health Security Agency. Between 2000-2020, children and young people seen for HIV care were monitored by the Collaborative HIV Paediatric Study (CHIPS).
- CHARS reporting runs alongside Integrated Screening Outcomes Surveillance Service (ISOSS), which collects data on HIV, hepatitis B, and syphilis in pregnancy and children, using a **secure online portal** accessed by clinical staff
- Data collected supports **quality of care indicators** and **NHS commissioning of services**
- Data presented here include all **children and young people in active paediatric HIV care** at last report to CHARS with a report received between **January 2022 to June 2023**

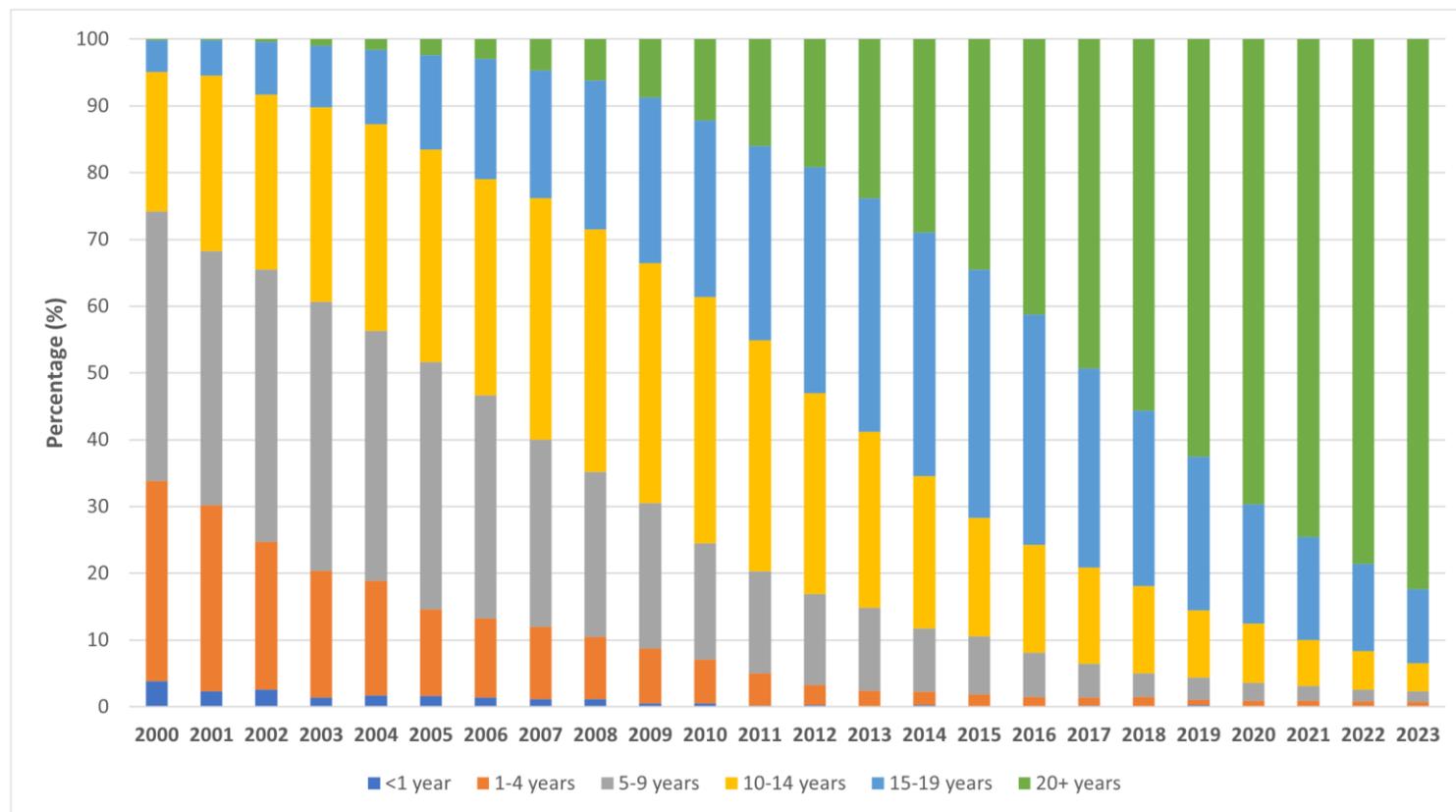
Numbers of children and young people in England with HIV diagnosed in childhood in active paediatric care by year, 2000-2023



Numbers of children with HIV have declined in the past 15 years

301 in active paediatric care in 2022-2023

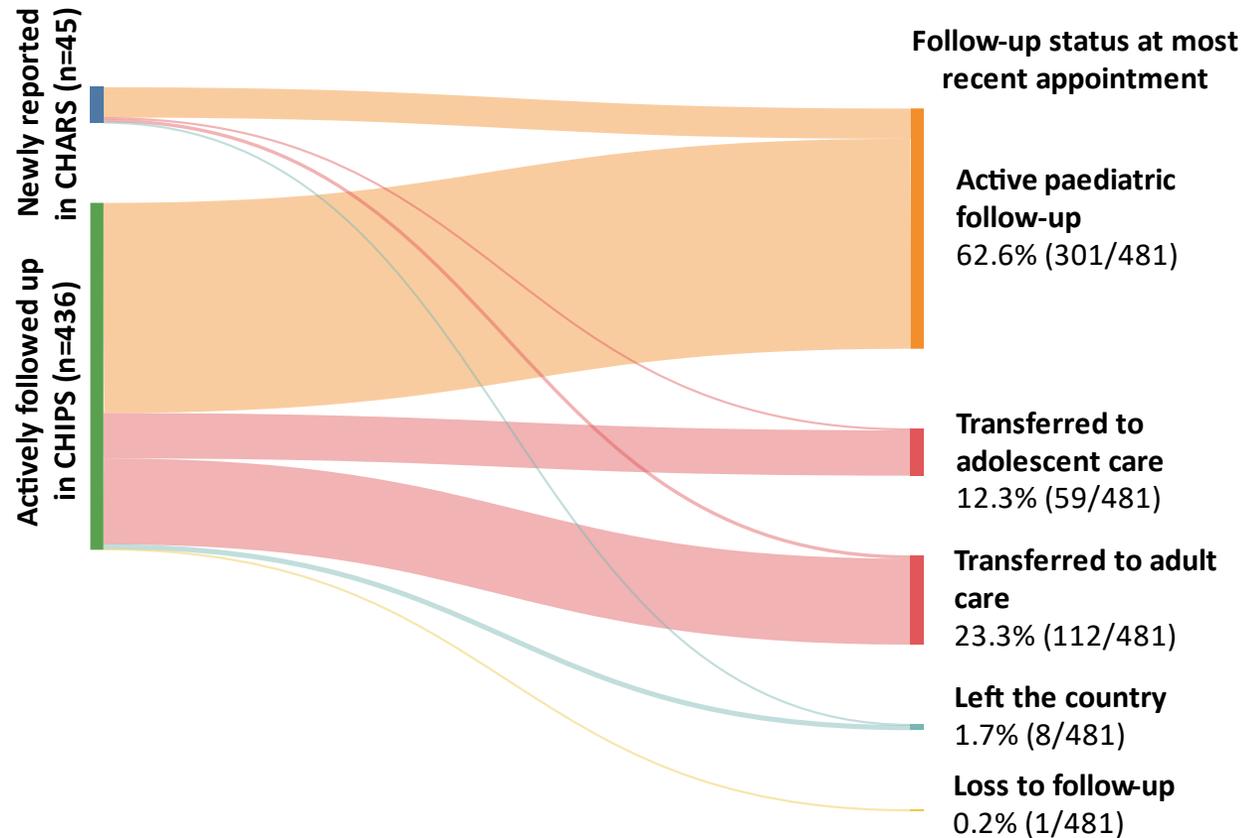
Age distribution of people in England with HIV diagnosed in childhood (n=1,532), 2000-2023



Over **80%** of all children and young people with HIV in England are now over 20 years old

Data are for all children and young people who ever presented to medical services in the England, including children who have since transferred to adult care. CHARS does not collect outcome data (e.g. deaths or lost to follow-up) for those who have transferred to adult care. All paediatric patients are included, from date of first presentation to paediatric HIV services in the UK, regardless of mode of HIV acquisition. Those who died or moved abroad while in paediatric care are included up until the year of death or year they left the country. Data for 2022/23 are incomplete as subject to reporting delay.

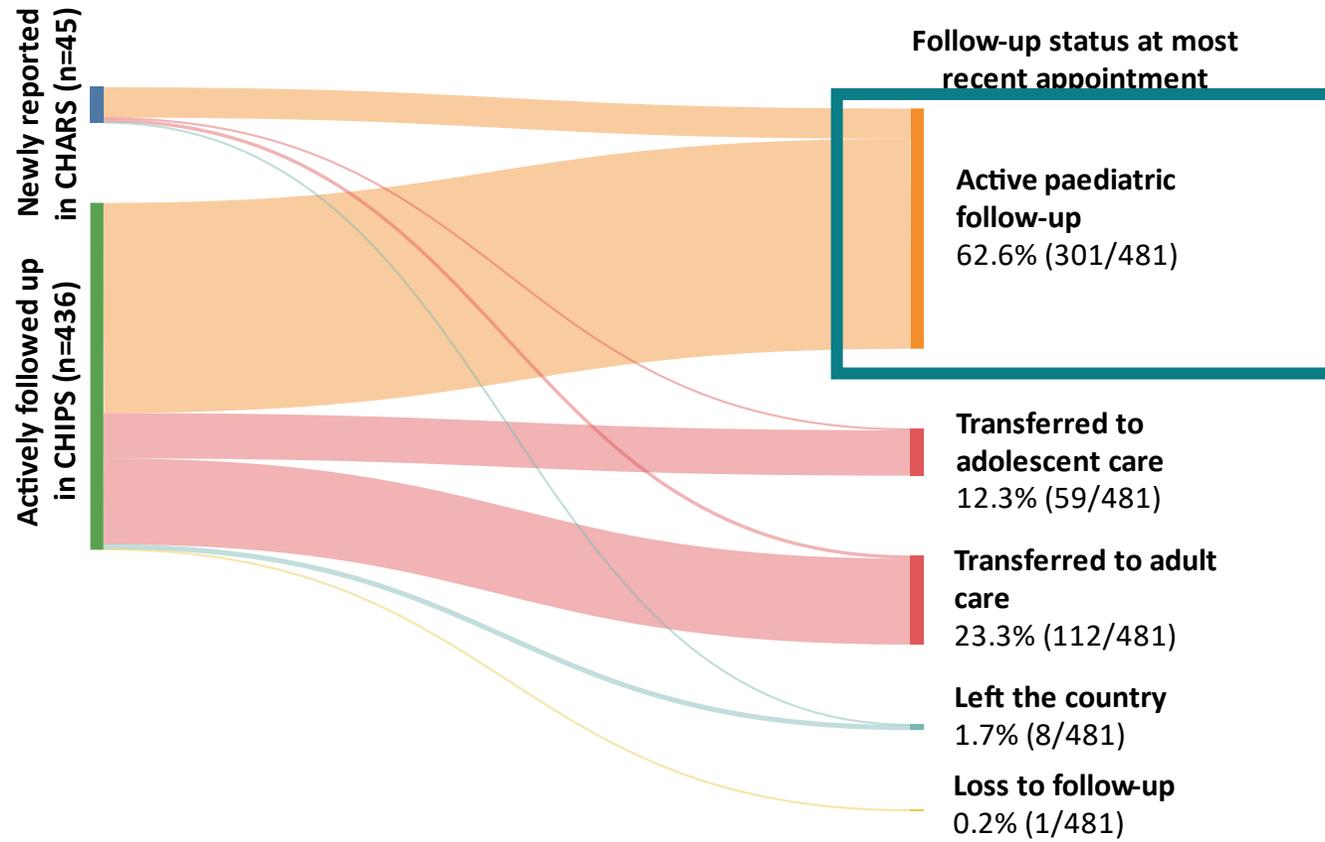
Most recent follow up status of all children and young people ever reported* to CHARS as of 2023 (n=481)



481 children followed since the launch of CHARS.
301 in active paediatric care

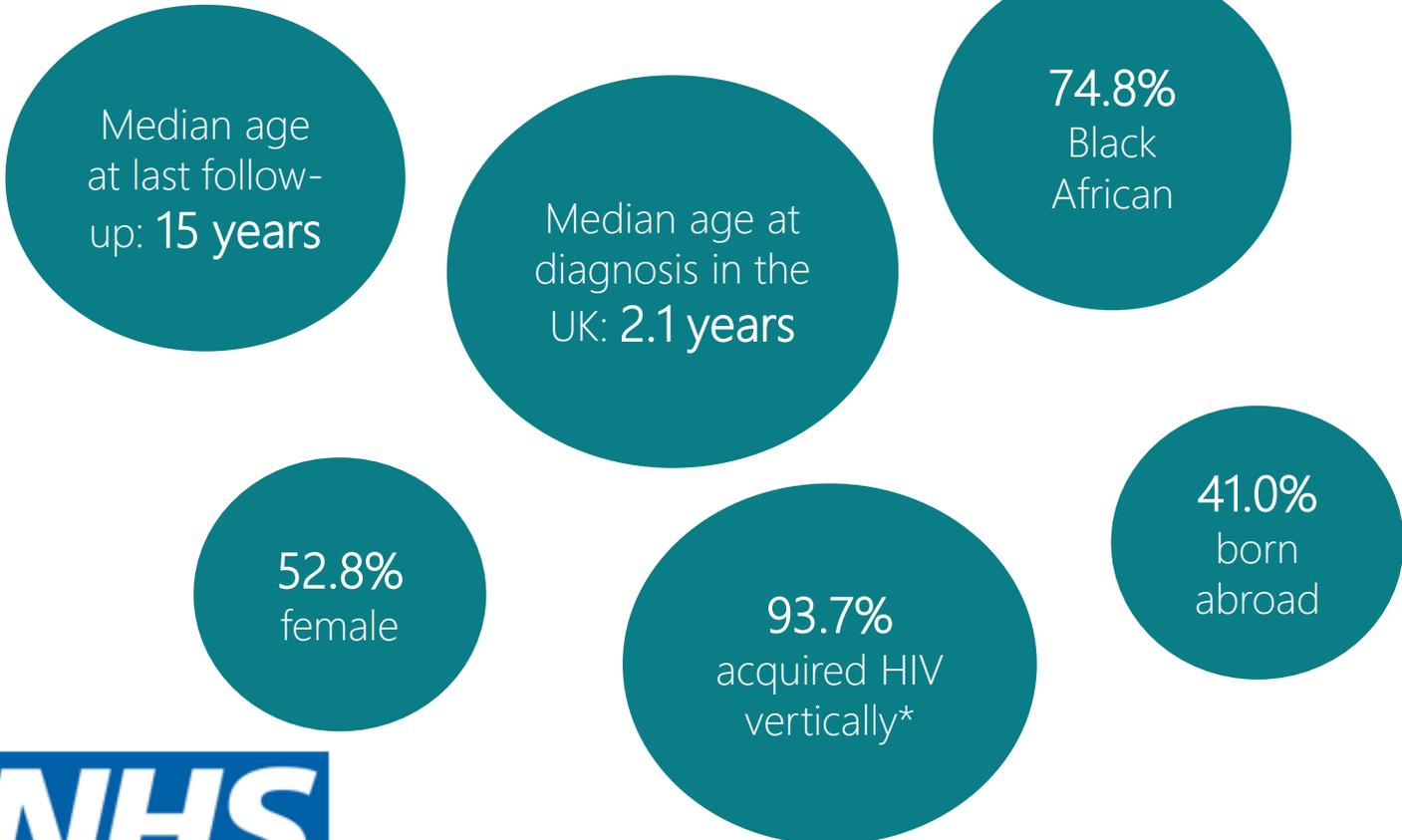
*Data based on most recent report received June 2023.

Most recent follow up status of all children and young people reported to CHARs as of 2023 (n=481)

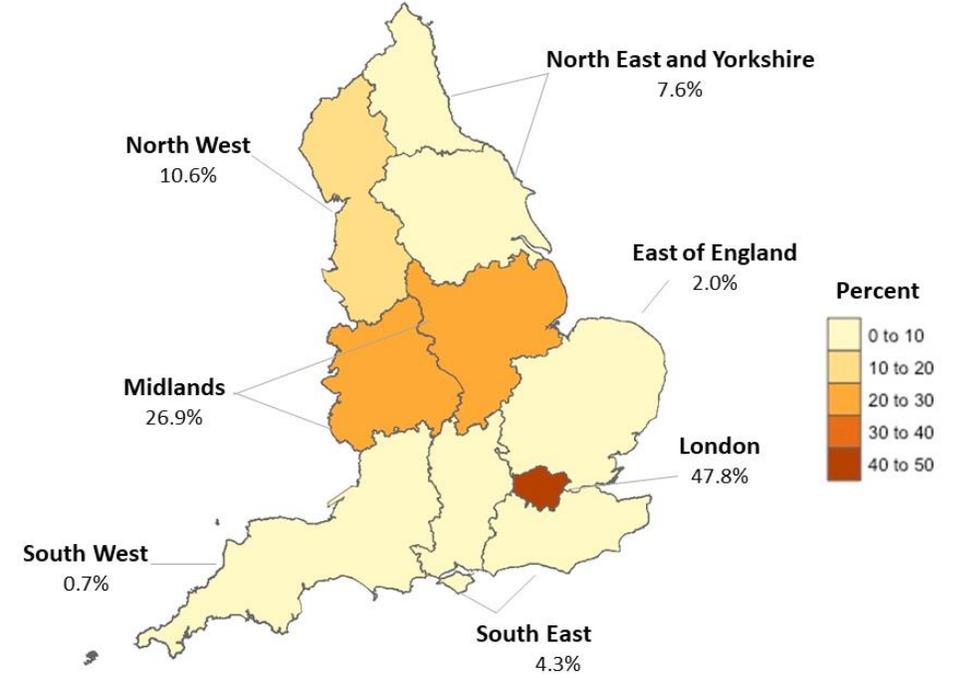


481 children followed since the launch of CHARs. 301 still in active paediatric care

Demographic characteristics of 301 children and young people in active paediatric care 2022-23



Distribution of main follow-up clinic by NHS region



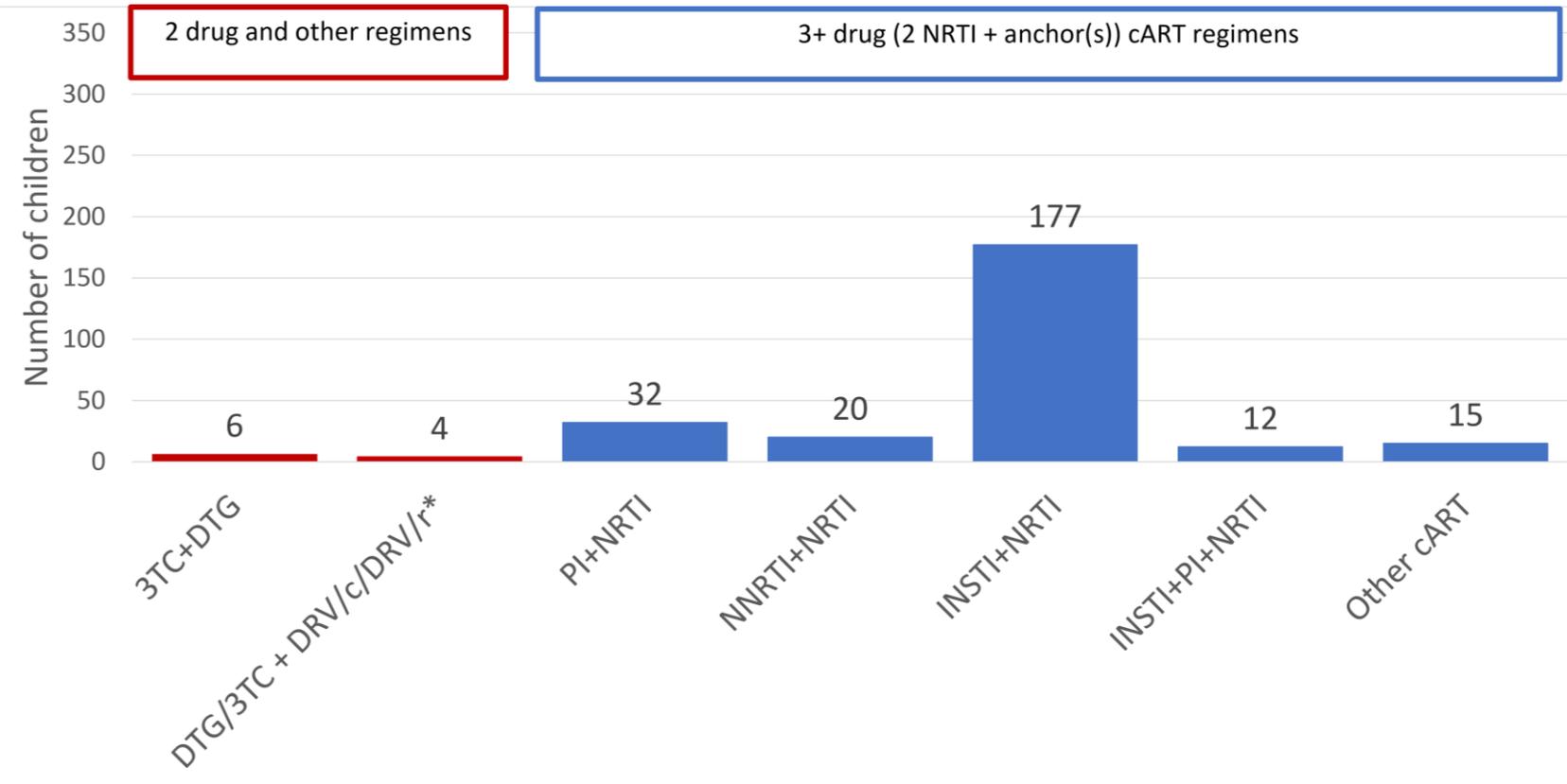
*5.7% had an unknown mode of transmission

Antiretroviral treatment (ART) among 270 children and young people in active paediatric care followed up 2022-23

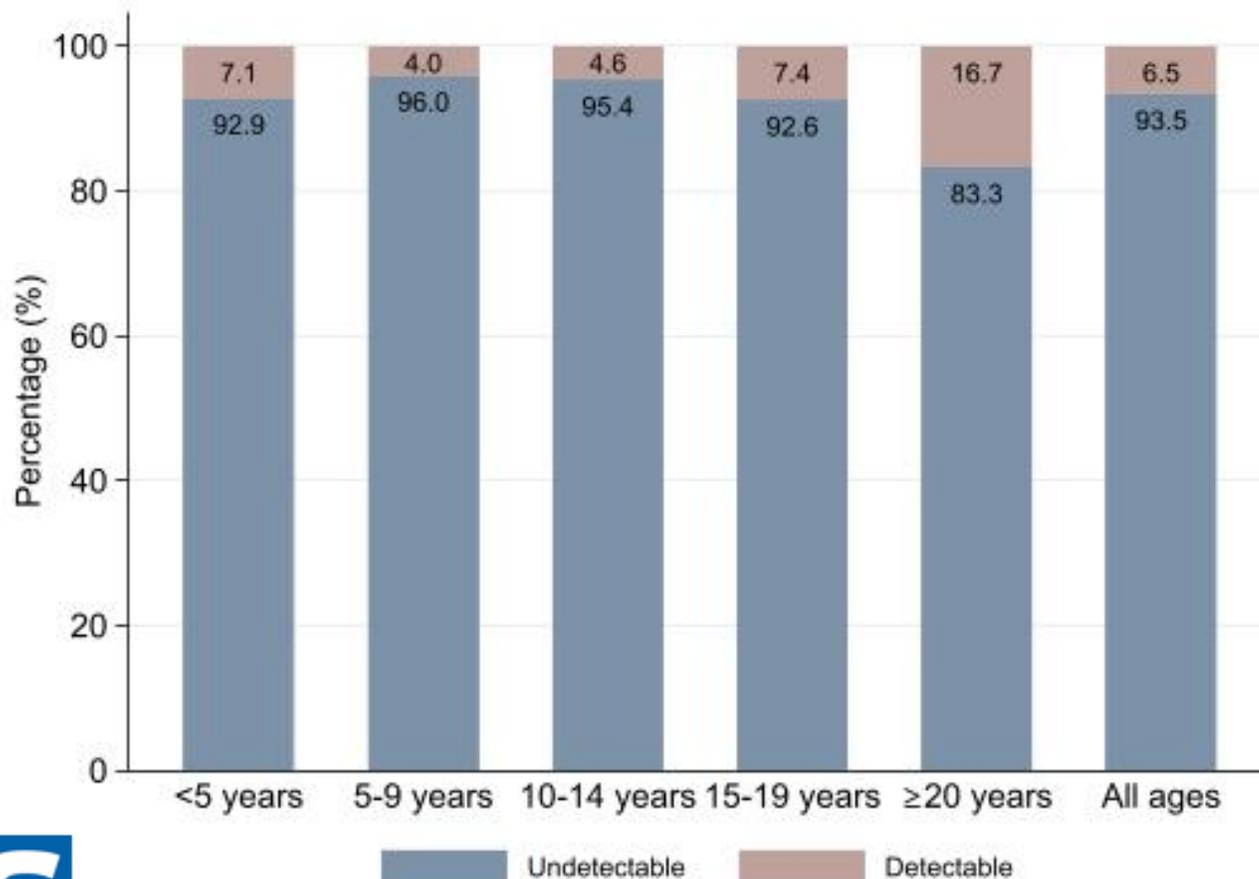
- Of 301 children and young people in active paediatric care, **270** had a report submitted since January 2022*
- **98.5%** (266/270) of children and young people were on ART at last appointment
- Of the 4 children not on ART...
 - 2 were ART-naïve (viral load >400 copies/mL and <1000 copies/mL)
 - 2 interrupted their treatment (both had undetectable viral loads)

ART regimen at last reported follow-up (Jan 2022 - June 2023) among 266 children and young people on ART

96.3%
on a ≥3 drug regimen - Triumeq (ABC+3TC+DTG) accounts for 31.6% of these



Most recent viral load among 260 children and young people on ART 2022-2023, by age group



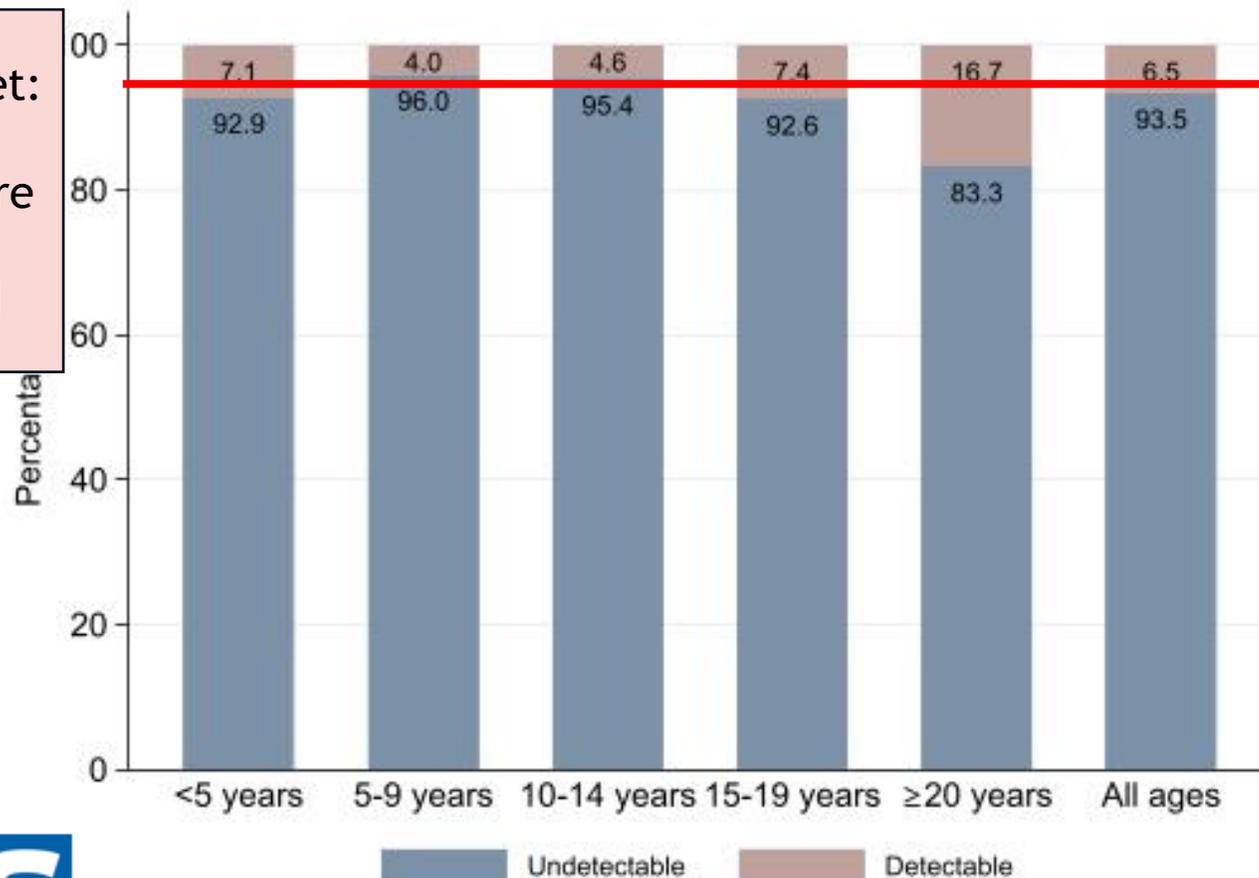
93.5% had an undetectable viral load ≤ 200 copies/mL

86.5% had viral loads less than 50 copies/mL

4.2% had viral loads greater than 1000 copies/mL

Most recent viral load among 260 children and young people on ART 2022-2023, by age group

UNAIDS Target:
95% on
treatment are
virally
suppressed



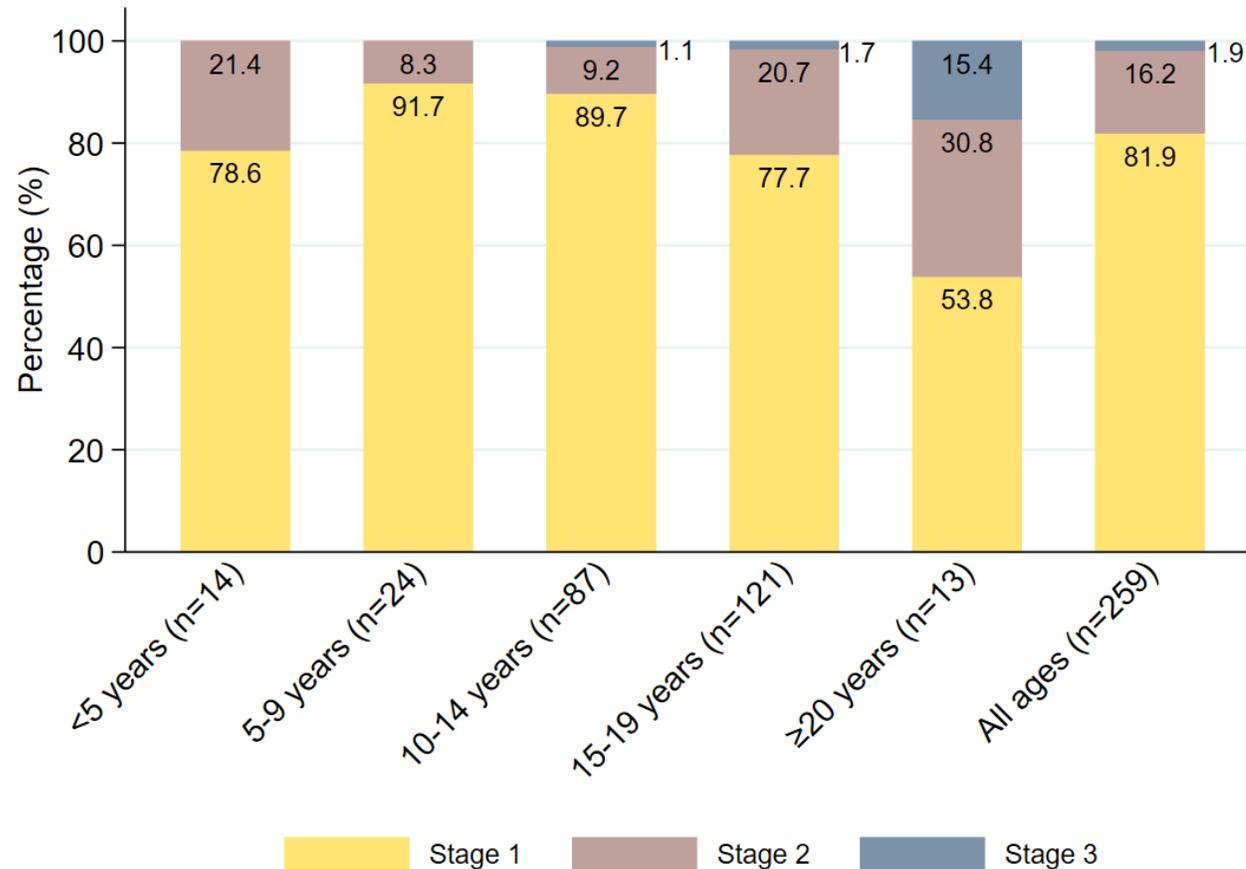
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Immune status among 259 children and young people in paediatric HIV care by age group 2022-2023, based on most recent age-specific CD4 cell count

81.9%
had Stage 1
infection



Summary

- **Clinical markers among CYPLHIV in England are generally reassuring** with more than 90% virologically suppressed (<200 copies/mL)
- For the small number of children and young people accessing HIV care, **ongoing national surveillance remains vital** to ensure the unique needs of this population are met
- **Predominantly teenage population, with many due to transition to adolescent or adult care.** Potential challenges relate to retention in care across the transition period and into adult care (working alongside the **UKHSA HARS team**). CHARS will continue to monitor key areas of interest, including inequalities and pharmacovigilance
- CHARS works closely with the **Children's HIV Association (Chiva)**, supporting Standards of Care and clinical guidelines, alongside strong links with the British HIV Association and paediatric ID clinical networks across England

Acknowledgments

A **big thank you** to all respondents to CHARs and ISOSS, the ISOSS/CHARs team, and our colleagues at MRC CTU. Also thank you to all members of the HIV CRG for your valued input

[First CHARs annual report](#) now available on our website!

CHARs carries out this work for NHS England and we are grateful for the support.

Please do get in touch if you have any questions: helen.peters@ucl.ac.uk

More information on CHARs: www.ucl.ac.uk/chars and ISOSS: www.ucl.ac.uk/isoss