

Title: Population-level paediatric HIV surveillance in England: the current picture.

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Background: Numbers of children and young people living with HIV (CYPLHIV) in England have declined substantially, reflecting the success of prevention of HIV vertical transmission domestically and globally. Between 2000-2020 this population was monitored by the Collaborative HIV Paediatric Study (CHIPS). Here we present the first overview of paediatric HIV in England since CHIPS ended using data from the Children's HIV and AIDS Reporting System (CHARS) newly launched in January 2022.

Methods: CHARS collects data for NHS England on all CYPLHIV seen for paediatric HIV care in England. Descriptive statistics for all CYPLHIV were used to describe the current characteristics and follow-up status at their most recent appointment with a CHARS report submitted by December 2022 based on their care since 2020.

Results: 469 CYPLHIV were followed-up in CHARS, of whom 16 were newly reported in 2021-2022. Overall, 66.5% were in active follow-up in paediatric care (n=312), 31.8% transferred to adolescent (n=50) or adult care (n=99), and the remaining 8 were lost-to-follow-up (n=1) or left the country (n=7). 57.1% (268/469) were female and 46.7% (219/469) were born abroad, mostly in sub-Saharan Africa. Among all CYPLHIV, 92.5% were last seen for HIV care in 2021-2022 and the remainder in 2018-2020. Median age was 16 years [IQR: 14, 18] at most recent follow-up, and 30.3% (142/469) were aged ≥ 18 years. HIV viral load and/or CD4+ count were available for 86.4% (405/469) of CYPLHIV at most recent follow-up; 88.9% (354/398) were virologically suppressed (≤ 200 copies/ml) and 67.4% (262/389) had a CD4+ count > 500 cells/mm³. Regional distribution of CYPLHIV follow-up clinics was London (45.4%), Midlands (21.6%), North East and Yorkshire (12.2%), North West (10.0%), East of England (4.0%), South West (3.6%) South East (3.2%).

Conclusion: Clinical markers among CYPLHIV in England are reassuring with nearly 90% virologically suppressed. As most of this population will be transitioning to adult care in the coming years, ongoing work to understand the challenges this brings is warranted. For the increasingly small number of CYPLHIV, ongoing national surveillance remains vital to ensure the unique needs of this population are met.