

Oral Session 2

O6 Mortality among people with HIV in the UK in 2020: findings from the National HIV Mortality Review

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Mortality among people with HIV in the UK in 2020: findings from the National HIV Mortality Review

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Background

National HIV Mortality Review (NHMR)

- Launched early 2020 by BHIVA and UKHSA (previously Public Health England)
- Based on a working model that has been running in London since 2013
- Participation as a way for services to meet the BHIVA Standards 4A/8B - review of all deaths among people known to have HIV
- *Objective:* to understand mortality among people with HIV in the context of HIV elimination.
- Here, we reflect on the success of the 2nd year of the NHMR, in the context of the COVID-19 pandemic, describing deaths occurring among people with HIV in 2020.

Methodology

- All HIV clinical services were invited to report data on all HIV inpatients and outpatients who died in 2020 (aged ≥ 15 years).
- Submission using a modified Causes of Death in HIV reporting form¹ (Snap):
 - Co-morbidities and risk factors
 - Antiretroviral therapy (ART) and clinical markers
 - Cause of death
 - Missed opportunities for HIV testing
 - End of life care
- Clinicians were asked to make a decision as to whether each death was expected or unexpected.
- Cause of death was categorised by an epidemiologist and two clinicians.



Version 1.1

Mortality and causes of death among HIV patients in the UK

This online tool should be used to report information on all deaths among patients attending for HIV care at your clinic. Any questions left incomplete at the time of submission will be defaulted to "unknown".

This form can save partial responses, to be completed at a later date. Click "Save" and bookmark the unique link that is generated. Return to this link to resume inputting information.

If you have any queries, please contact Sara Croxford (PHE): sara.croxford@phe.gov.uk or 020 8327 7406.

¹ Kowalska JD, et al. The Coding Causes of Death in HIV (CoDe) Project: initial results and evaluation of methodology. *Epidemiology* 2011; 22(4):516-23.

Results

Participation

- **115** services participated in the NHMR
 - Coverage: two-thirds of all HIV clinical services (n=~195)
 - Increase from 2019: 73 services

621

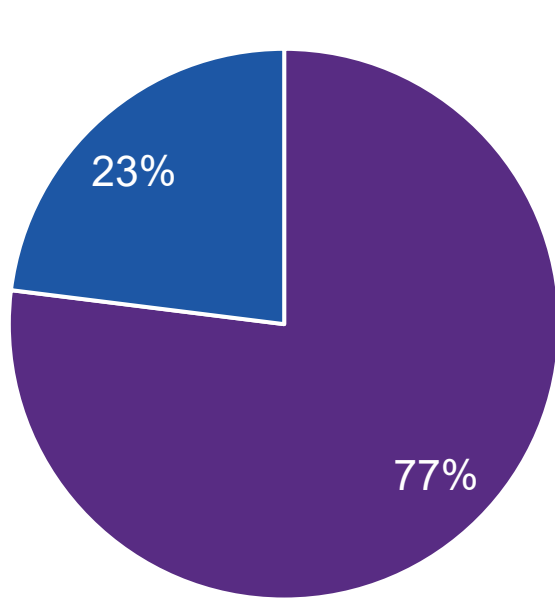
deaths reported



Results

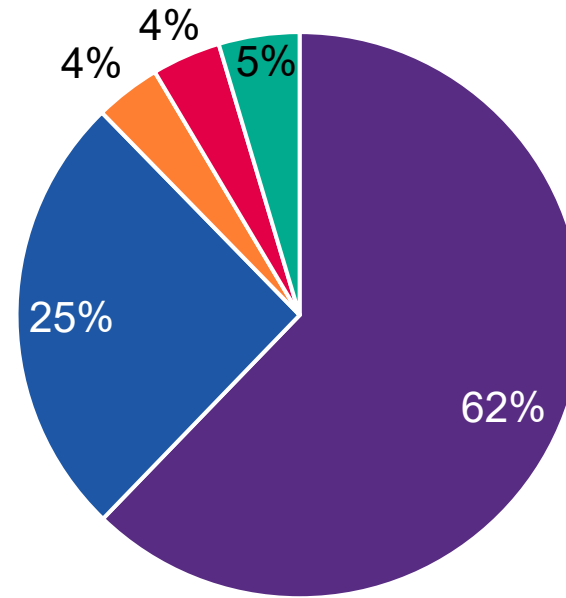
Demographics

- Median age at death: 56 years [interquartile range (IQR): 47-65]



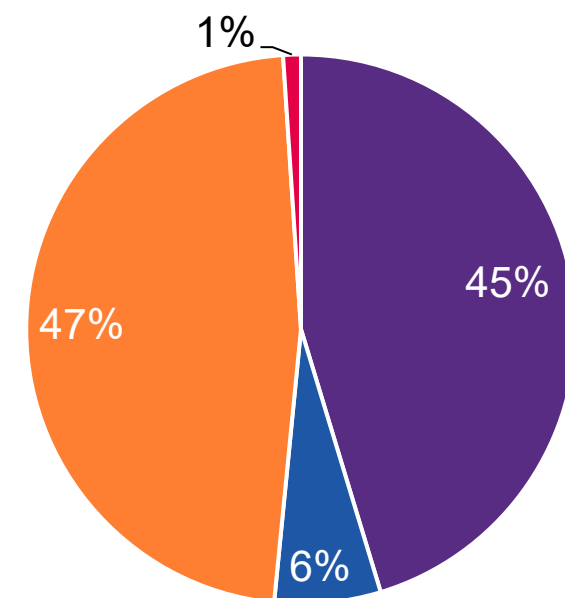
Gender (N=621)

■ Men ■ Women



Ethnicity (N=585)

■ White ■ Black African ■ Black Caribbean
■ Asian ■ Other/mixed

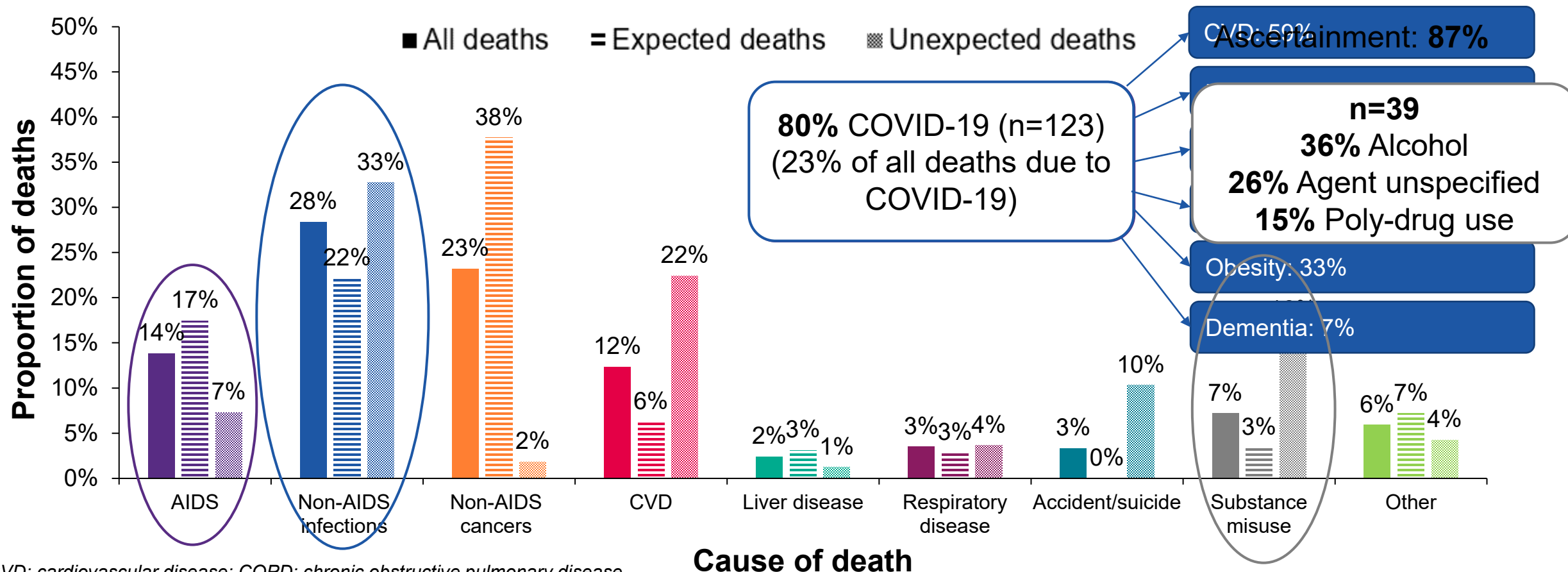


HIV acquisition (N=570)

■ Sex between men ■ Injecting drug use
■ Heterosexual contact ■ Other

Results

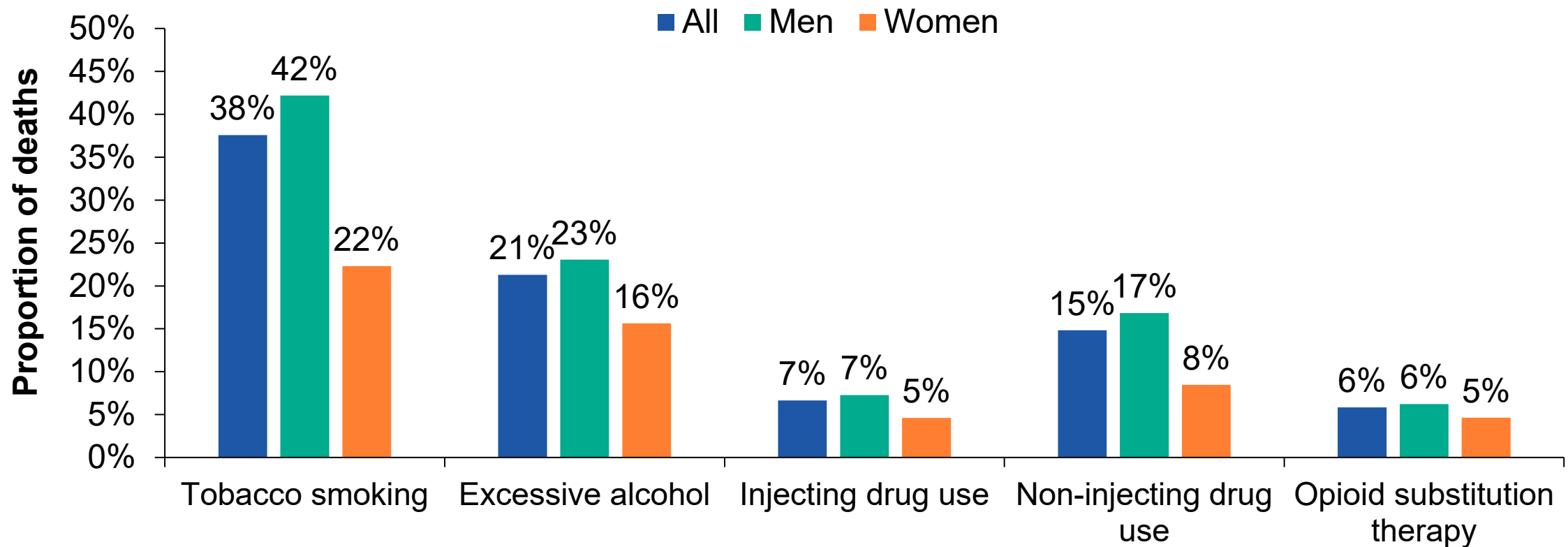
Cause of death



CVD: cardiovascular disease; COPD: chronic obstructive pulmonary disease

Results

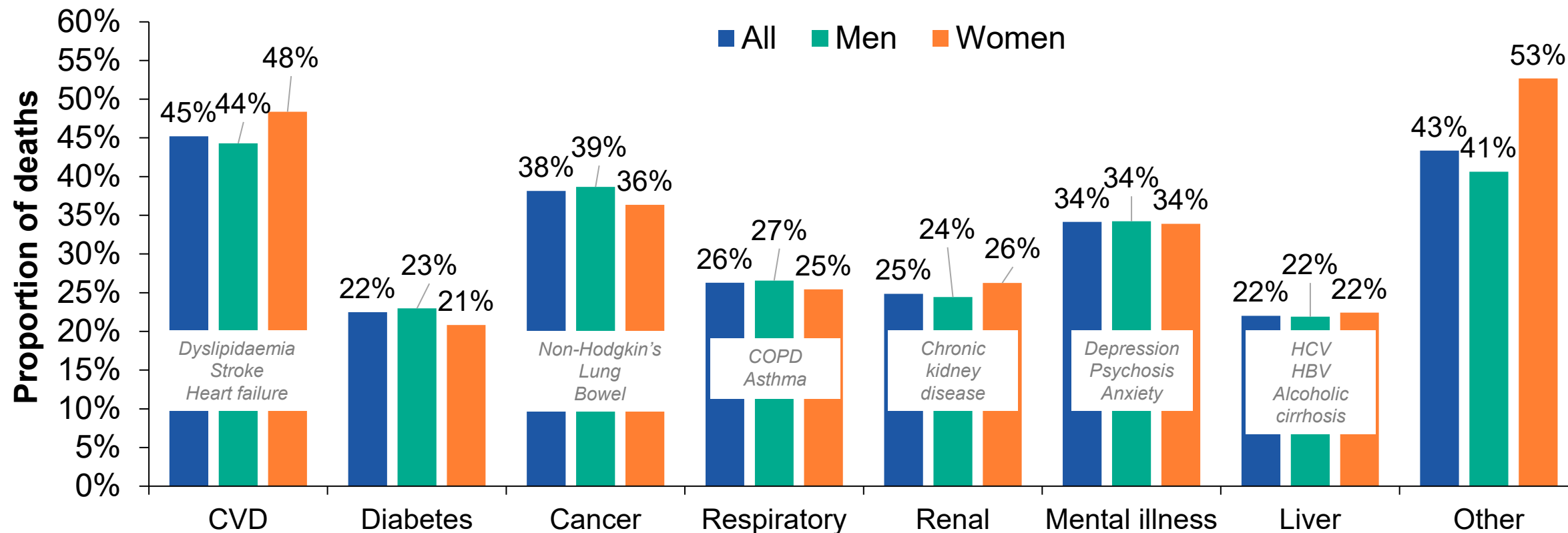
Risk factors in the year prior to death



Completeness: tobacco smoking 90%; excessive alcohol: 87%; injecting drug use: 87%; non-injecting drug use: 88%; opioid substitution therapy: 88%

Results




Co-morbidities



Completeness: cardiovascular disease (CVD): 89%; diabetes: 87%; cancer: 87%; respiratory disease: 84%; renal disease: 84%; mental illness: 85%; liver disease: 83%; other chronic conditions: 80%




Results

Clinical care

- **98%** (601/616) of people with HIV who died ever received ART
- Median time on HIV treatment before death: **12 years** [IQR: 6-19 years]
- At death (within one year):
 - Median CD4 count: **330 cells/mm³** [IQR: 153-510]
 -  **53%** (238/453) had a CD4 <350 cells/mm³
 -  **82%** (464/567) were virally suppressed (<200 copies/mL)
 -  **91%** (506/559) were on ART
- Documented end of life care among those whose deaths were expected was **93%** (238/255).

Results

HIV diagnosis

- Median time from diagnosis to death: **14 years** [IQR: 8-21]
- **55** (8.9%) people died within a year of HIV diagnosis:
 -  **70%** diagnosed very late (CD4 count <200 cells/mm³)
 -  **86%** diagnosed late (CD4 count <350 cells/mm³)
 -  **70%** diagnosed with AIDS-defining illnesses
- **63** (10%) people had a documented missed opportunity for earlier HIV testing
 - 4 in sexual health services, 32 in primary care, 14 in A&E, 21 in other services (gastroenterology, dermatology, haematology, rheumatology, OH, drug services)

Conclusions

Strengths

- High level of engagement with HIV clinical services
- Increase of coverage in 2nd year
- Data can be linked to national HIV surveillance systems
- Creation of NHMR Steering Group in 2021 with regional representation should increase participation in future

Limitations

- No information on:
 - Extent to which co-morbidities were controlled
 - Whether people had the ability to change their life-style risk factors
 - Socio-economic factors
- May have missed deaths in the community among people not in HIV care
- Limited generalisability to the underlying population of people with HIV

Conclusions

- Participation in the National HIV Mortality Review increased compared to the previous year, despite competing priorities due to COVID-19.
- These important data highlight that in 2020, almost a quarter of deaths among people with HIV occurred in individuals diagnosed with COVID-19.
 - People with HIV at higher risk of dying of/with COVID-19 compared to general population^{2,3,4}
- Although most died from non-AIDS-related causes, **1 in 5** people with HIV in the UK died from AIDS and at least **10%** had a missed opportunity for earlier HIV diagnosis.
- To meet the Fast Track Cities target of zero HIV-related preventable deaths we need:
 - Rapid scale-up of HIV testing
 - Promotion of the benefits of early ART
 - Interventions to improve retention
 - Delivery of the BHIVA standards of care
- The BHIVA standard on palliative care is met for 93% of those with expected death.

² Brown AE-Croxford S, et al. COVID-19 mortality among people with diagnosed HIV compared to those without during the first wave of the COVID-19 pandemic in England. *HIV Med.* 2022;23(1):90-102.

³ Bhaskaran K et al. HIV infection and COVID-19 death: population-based cohort analysis of UK primary care data and linked national death registrations within the OpenSAFELY platform. *Lancet HIV.* 2020;8:E24-E32.

⁴ Geretti AM, et al. Outcomes of COVID-19 related hospitalization among people with HIV in the ISARIC WHO clinical characterization protocol (UK): a prospective observational study. *Clin Infect Dis.* 2020:ciaa1605.

Acknowledgements

We gratefully acknowledge the time and effort taken by HIV care services to report to the NHMR and continuing collaboration of people with HIV, clinicians, microbiologists, and other colleagues who contribute to the surveillance of HIV.

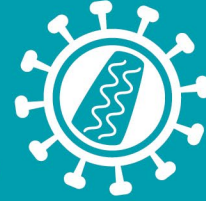
10 Hammersmith Broadway
56 Dean Street
North Middlesex University Hospital
University Hospital Lewisham
Arrowe Park Hospital
Ashwood Centre for Sexual Health
Axess Sexual Health Macclesfield
Barnsley Integrated Sexual Health
Beckenham Beacon Clinic
Birmingham Heartlands Hospital
Bishop Auckland Centre for Sexual health
Bishton Court, Telford
Blackpool Victoria Hospital
Borders Sexual Health
Brecon Unit, Southmead Hospital
iCaSH Great Yarmouth
Brookside Clinic
Leeds General Infirmary
Gartnavel General Hospital
Burton-on-Trent Sexual Health
Sexual Health Surrey
King's College Hospital
Cardiff Royal Infirmary
The James Cook University Hospital
Chalmers Sexual Health Centre
Chichester Sexual Health
City of Coventry Health Centre
Clinic 1A, Addenbrooke's Hospital
Cobridge, Stoke-On-Trent

Broomfield Hospital
Royal Gwent Hospital
St George's Hospital
Crewe HIV Service
Darlington Memorial Hospital
Royal Victoria Infirmary
John Radcliffe Hospital
Derwent Sexual Health Clinic
Devon Sexual Health
Dewi Sant Hospital
Embrace Sexual Health
Upton Hospital
Royal London Hospital
Newham Hospital
Essex Sexual Health Service
Guy's Hospital
Hastings Station Plaza Health Centre
Hathersage Sexual Health Centre
Croydon University Hospital
Hope House Sexual Health
Huddersfield and Broad Street Plaza
Hull City Health Care
Royal Free Hospital
iCaSH Bedfordshire
iCaSH King's Lynn
Leicester Royal Infirmary
St Mary's Hospital
Homerton University Hospital
iCaSH Peterborough

Chelsea and Westminster Hospital
Royal Sussex County Hospital
Lincolnshire Sexual Health
Milton Keynes University Hospital
Mortimer Market Centre
North Manchester General Hospital
Northwick Park Hospital
Norwich Contraception and Sexual Health Clinic
Nottingham City Hospital
One to One Centre
Ipswich iCASH
Barking Hospital
Churchill Hospital
Ealing Hospital
Central Middlesex Hospital
Queen Elizabeth Hospital
Western General Hospital, Edinburgh
Rotherham Hospital
Royal Bournemouth Hospital
Royal Derby Hospital
Royal Liverpool University Hospital
Royal Preston Hospital
Royal Shrewsbury Hospital
Royal South Hants Hospital
Royal Victoria Hospital
Sandwell General Hospital
Sexual Health Dorset, Bournemouth
Sexual Health Dorset, Weymouth
Sexual Health in Plymouth

Southend Hospital
Southport and Formby District General Hospital
St Helen's Hospital
St Helier Hospital
St Mary's Community Campus, Portsmouth
St Mary's Hospital, Isle of Wight
St Peter's Centre
Stafford Hospital
Royal Hallamshire Hospital
Sunderland Royal Hospital
The Florey and Contraceptive Service
The Hub, Royal Cornwall Hospital
Tameside Centre for Sexual Health
The Riverside Clinic
Torbay Hospital
Queen Elizabeth Hospital
Hillingdon Hospital
University Hospital Coventry
University Hospital of North Durham
Walsall Manor Hospital
West Middlesex University Hospital
Whipps Cross University Hospital
Wiltshire Sexual Health, Salisbury
Withington Community Hospital
Kingston Hospital
Worcester Royal Hospital
Worthing Sexual Health Clinic
Wycombe Hospital

BHIVA



British HIV Association

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