



Public Health
England

Impact of HIV co-morbidities on attendance frequency

England & Wales, 2017

P Kirwan, M Kall, C Chau, S Croxford, V Delpech

National Infection Service, Public Health England



Public Health
England

Disclosure

This work received funding from a Gilead project grant

PHE has received project grants from Gilead and ViiV Healthcare



Overview

- Background & aims
- Positive Voices
- Participant characteristics
- Co-morbidities
- Attendance frequency and impact of co-morbidities
- Strengths and limitations
- Conclusions



Background

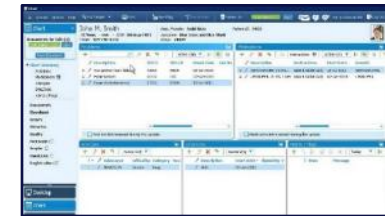
- HARS: national system for monitoring HIV outpatient care
- Collects complexity information which will inform the national tariff: **Stable / New / Complex**

Conditions for Complex

- AIDS illness
 - TB treatment
 - Malignancy
 - Psychiatric care
 - Persistent viraemia
 - Chronic viral liver disease
 - End organ disease
 - Pregnancy
- Diversity across stable? Poly-pharmacy/other psychosocial issues. Trounce et al. – poster 92.

HARS

HIV & AIDS Reporting System





Public Health
England

Positive✓**voices**
the national survey of people living with HIV

Time period:

February – September 2017

Nationally representative:

Random sample from HARS

Clinic-based recruitment:

Face to face, post or email

Self-completion:

Paper (87%) or online (13%)

Incentive:

£5 high street voucher

Total of 4,424 responses:

**1 in 20 people living
with HIV in E&W**





Background

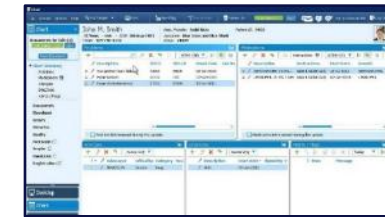
- HARS: national system for monitoring HIV outpatient care
 - Collects complexity information which will inform the national tariff
- Stable / New / Complex**
- Diversity across stable? Poly-pharmacy/other psychosocial issues.

Aim: Investigate the relationship between self-reported co-morbidities on frequency of attendance at the HIV clinic

Dataset:

HARS

HIV & AIDS Reporting System



PositiveVoices
the national survey of people living with HIV

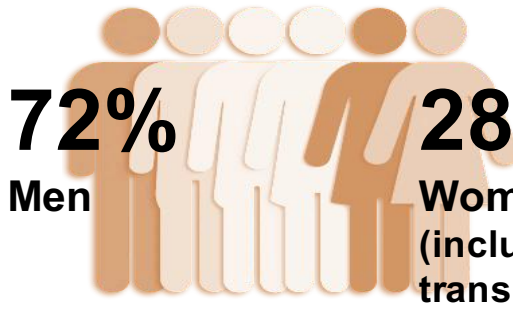
Exclusions: People newly diagnosed or newly starting treatment



Participant characteristics

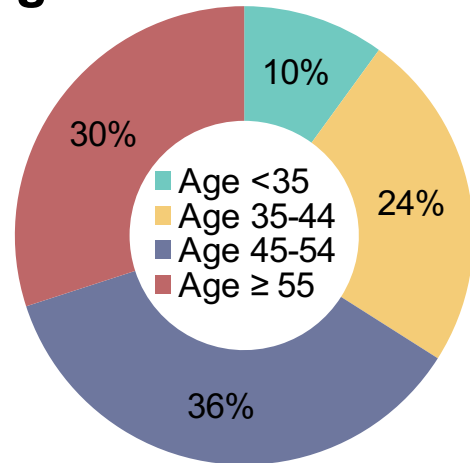


3,861 participants had clinical data available for 4 quarters (87%)

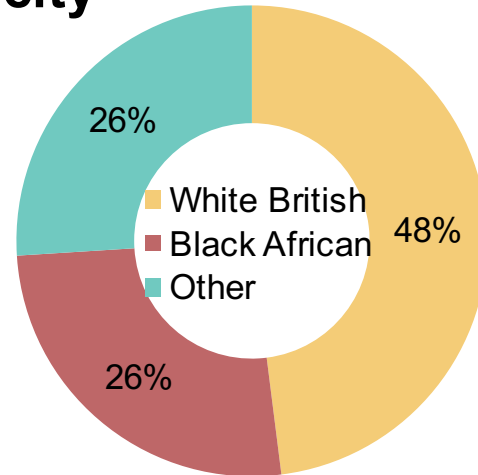


52% Live in London

Age



Ethnicity



Clinical factors



98% on ART

U=U

97% suppressed viral load (among those on ART)

11% Complex





Co-morbidities self-reported in Positive Voices

Participants self-reported from a list of 24 conditions (ever diagnosed):

Diabetes
 High cholesterol
 High blood pressure
 Erectile dysfunction
 Kidney disease
 Heart attack
 Stroke/mini stroke
 Rheumatoid arthritis

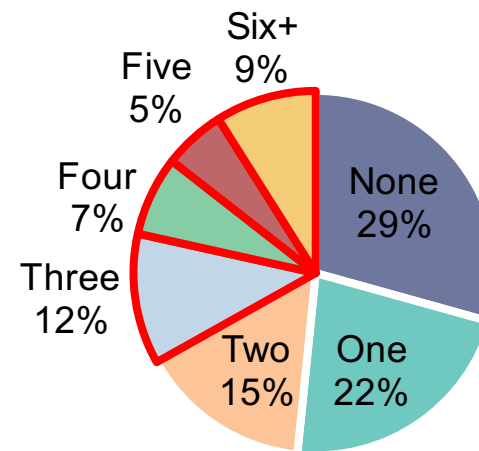
Osteopenia/Osteoporosis
 Arthritis
 Cancer
 Anxiety
 Depression
 Personality disorder
 Bipolar disorder
 Eating disorder

Sleep disorder/insomnia
 PTSD
 Psychosis/schizophrenia
 Asthma
 COPD
 Neuropathy**
 Dementia
 Epilepsy

**including peripheral neuropathy

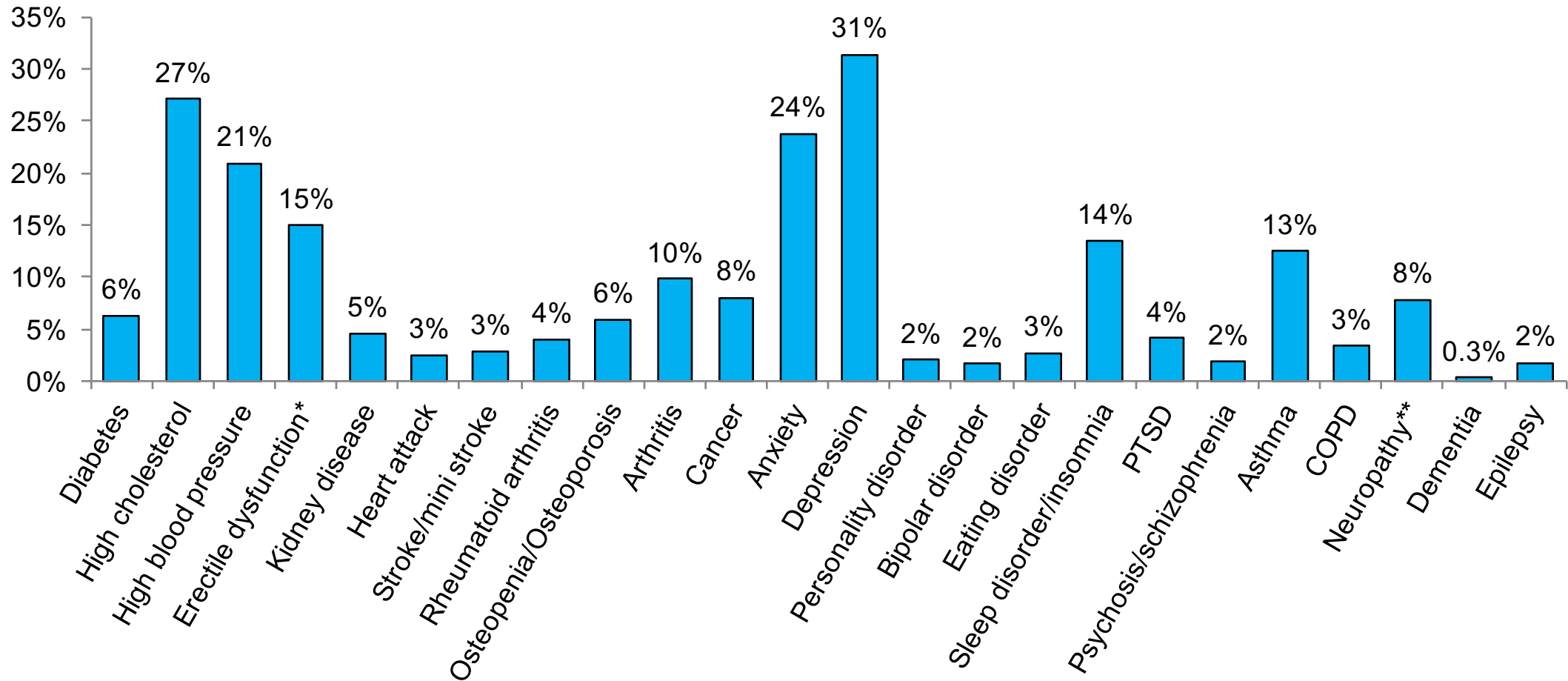
Burden of self-reported co-morbidity

- **71%** of people reported ≥ 1 co-morbidity
- **33%** reported ≥ 3 co-morbidities





Prevalence of each condition



*prevalence of erectile dysfunction among men **including peripheral neuropathy



Relationship between co-morbidities and complexity

	Stable	Complex
All participants (n=3,861)	89%	11%
No self-reported co-morbidities (n=1,132)	93%	7%
1-3 self-reported co-morbidities (n=1,898)	90%	10%
4-6 self-reported co-morbidities (n=613)	82%	18%
7+ self-reported co-morbidities (n=218)	71%	29%

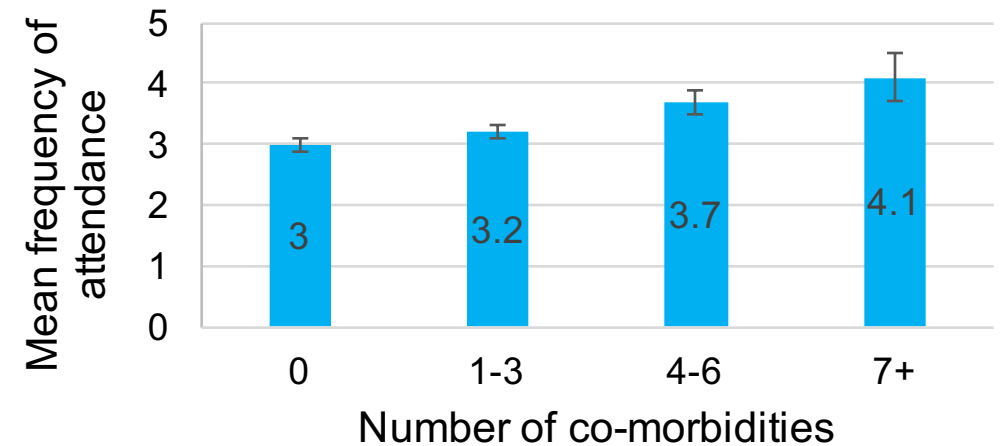
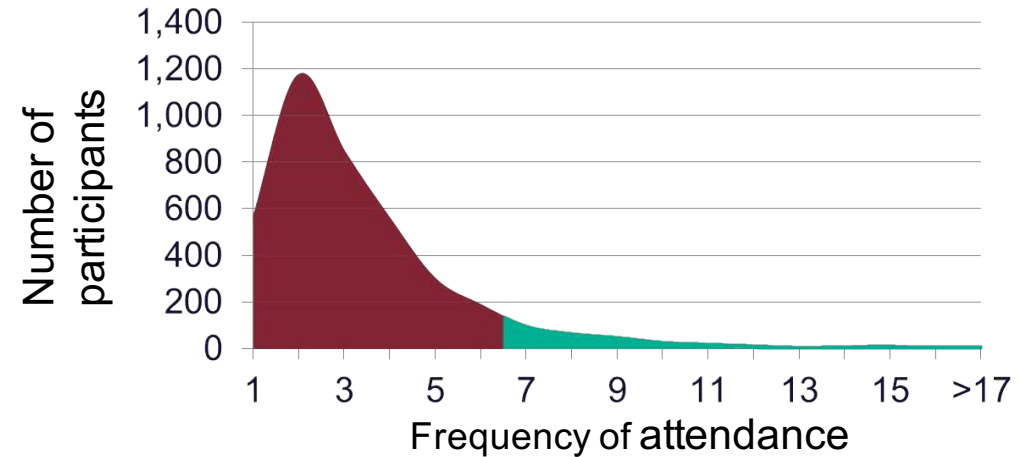


Distribution of attendance frequency

- Total of **12,602** attendances in 2017
- Median attendances: **3 [IQR: 2-4]**
- Attendance frequency was skewed
 - 10% of people accounted for 3,100 attendances (a quarter of all attendances)

Association with co-morbidity

- Increased burden of co-morbidity led to higher frequency of attendance

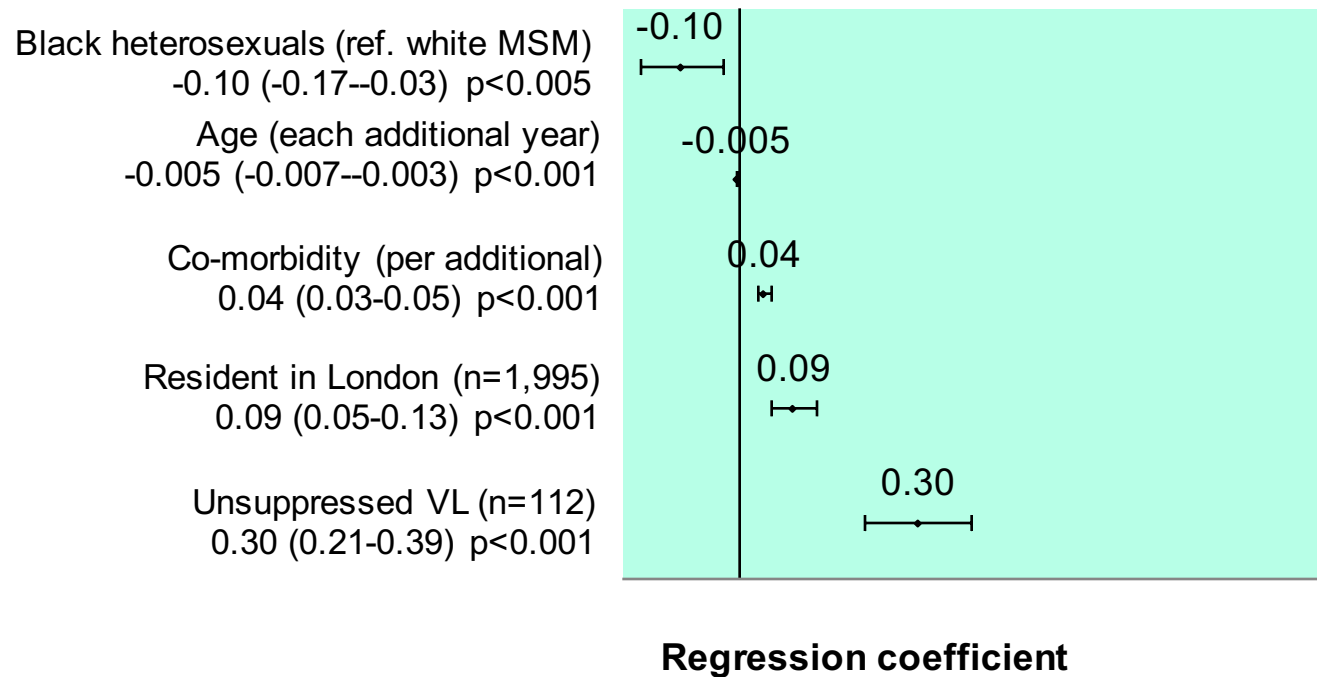




Multivariable regression

Multivariable Poisson regression model for consultation frequency adjusted for age, gender, ethnicity, unsuppressed VL, place of residence and HIV exposure

Model A: count of burden of comorbidities



➤ 8,870 comorbidities led to an additional **355** attendances

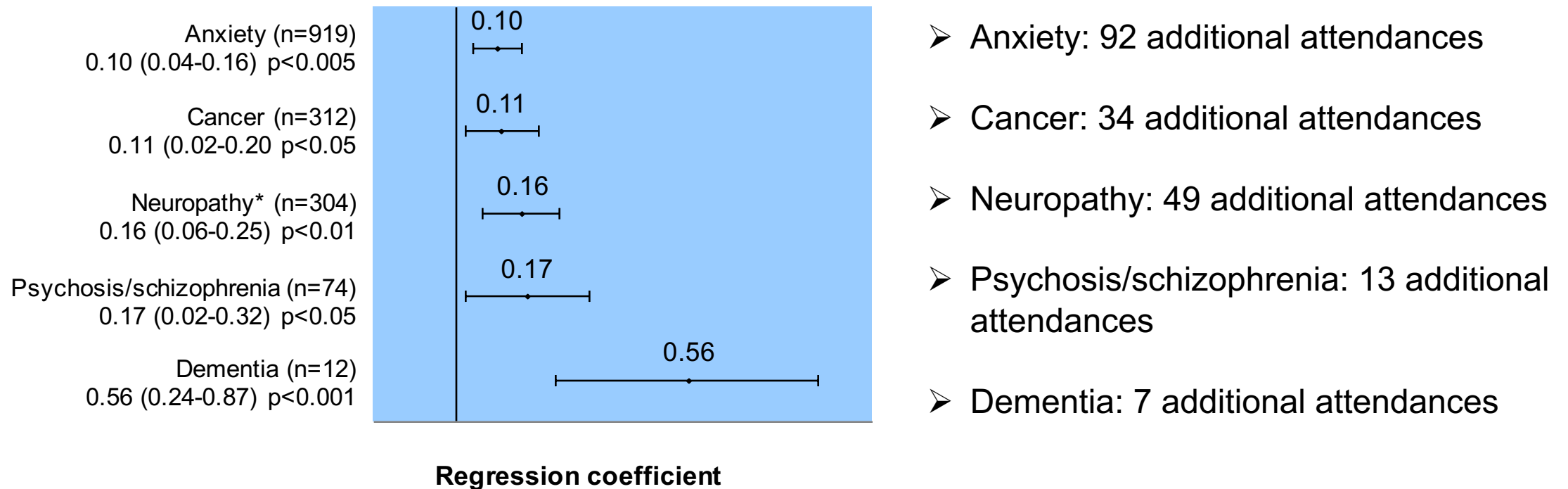
➤ Unsuppressed VL: 34 additional attendances



Multivariable regression

Multivariable Poisson regression model for consultation frequency adjusted for age, gender, ethnicity, unsuppressed VL, place of residence and HIV exposure

Model B: each comorbidity separately



- Anxiety: 92 additional attendances
- Cancer: 34 additional attendances
- Neuropathy: 49 additional attendances
- Psychosis/schizophrenia: 13 additional attendances
- Dementia: 7 additional attendances



Strengths and limitations



- Linkage of HIV survey data to routinely collected surveillance data
- Undiagnosed and rarer conditions will not have been captured
- Analyses were limited to Positive Voices participants and sites which had submitted a full year of HARS data
- Limited to HIV clinic attendances



Conclusions

- Almost three-quarters of people living with HIV reported one or more co-morbidity
- Self-reported co-morbidities impact upon frequency of attendance and are seen not only in “complex” patients
- From multivariable regression, co-morbidities accounted for ~350 additional attendances over 12 months
- Results have been shared with HIV clinical reference group to better inform patient care



Thank you

We gratefully acknowledge the continuing collaboration of people living with HIV, as well as clinicians, microbiologists, immunologists, public health practitioners, occupational health doctors, nurses and other colleagues who contribute to the surveillance of HIV and STIs in the UK.

Thank you to all Positive Voices survey participants & staff at 73 recruiting HIV clinics.

Questions?