

## **Refocusing our efforts** transmission and late diagnosis among adults aged 50 years and over

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HIV and AIDS New Diagnoses and Deaths  
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## **Aim of presentation**

- 1. Brief overview of the HIV epidemic in the UK**
- 2. Focus on a study looking at adults aged  $\geq 50$  years**

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## Update: HIV in the UK

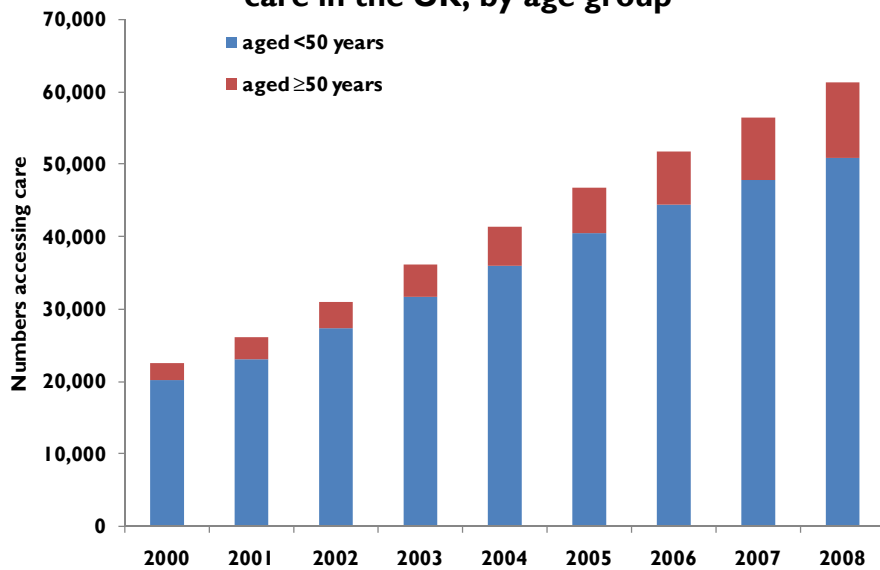
- 7,382 new diagnoses
- 83,000 people living with HIV in the UK
- 32% diagnosed late (CD4<200)
- 61,213 people accessing HIV care



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## Number of diagnosed HIV-infected individuals seen for care in the UK, by age group



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## Study

- **Aim:**

1. Describe the epidemiology and impact of late diagnosis among older adults living with HIV
2. Estimate age at infection

- **Key questions:**

1. How do older adults contribute to overall diagnoses?
2. Ageing Cohort or newly acquired infections?



## Study

- **Method:** Comparative analysis between individuals diagnosed aged  $\geq 50$  years and individuals diagnosed  $< 50$  years

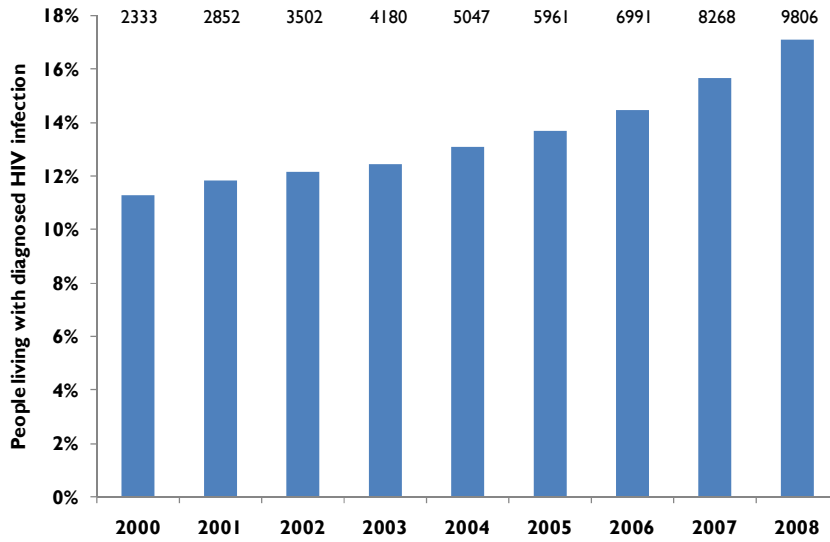
- **Data: National Surveillances**

- New diagnoses
- SOPHID (individuals accessing HIV-related care)
- CD4 Surveillance

- **Population:** Adults aged  $\geq 15$  years diagnosed or accessing HIV-related care, 2000-2007, E,W&NI



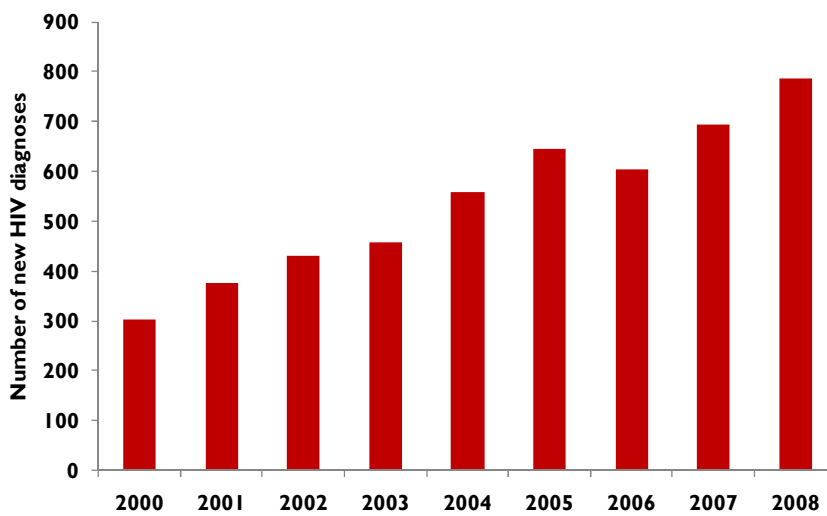
### Older adults living with HIV in England, Wales and Northern Ireland, by age at diagnosis (SOPHID)



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### New HIV diagnoses among adults aged 50 years and over: England, Wales and Northern Ireland, 2000-2007



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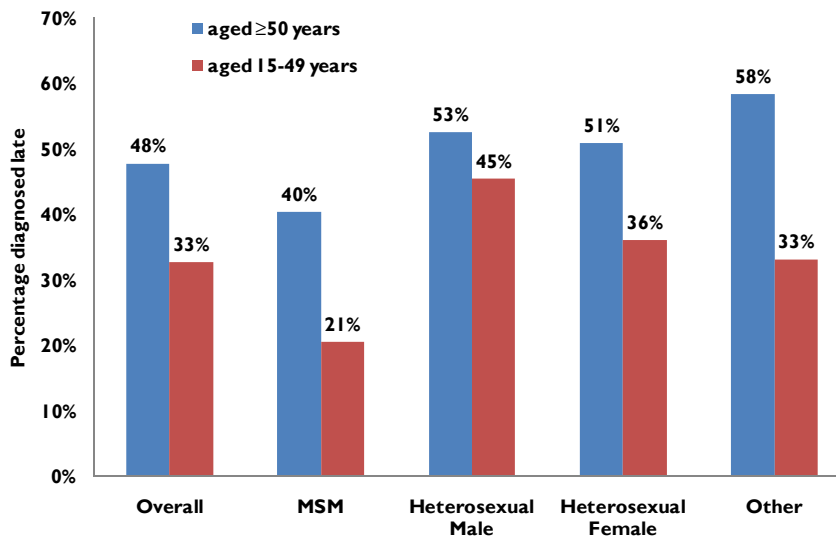
### Characteristics of adults first diagnosed in E,W&NI between 2000-2007, by age at diagnosis

Category	Variable	50 years and over %	15-49 years %	P value
Sex	Male	74%	58%	<0.001
	Female	26%	42%	<0.001
Probable route of infection	Men who have sex with men	40%	34%	<0.001
	Heterosexual men	33%	22%	<0.001
	Heterosexual women	25%	41%	<0.001
	Other	2.6%	2.9%	0.23
Ethnicity	White	60%	38%	<0.001
	Black African	31%	50%	<0.001
	Other	9.1%	7.9%	0.009

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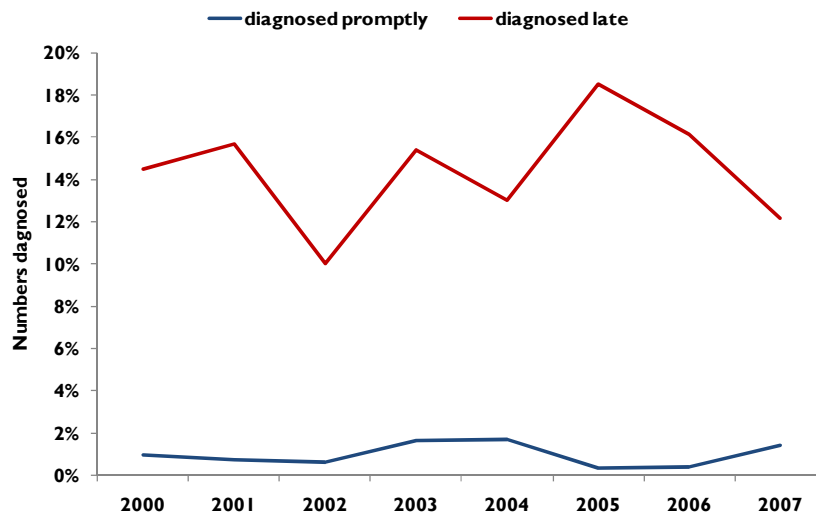
### Late diagnosis of HIV (CD4 cell count <200) infection by prevention group and age group, 2000-2007



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## Short-term mortality among adults aged $\geq 50$ years diagnosed promptly compared with diagnosed late



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## Estimated age at infection

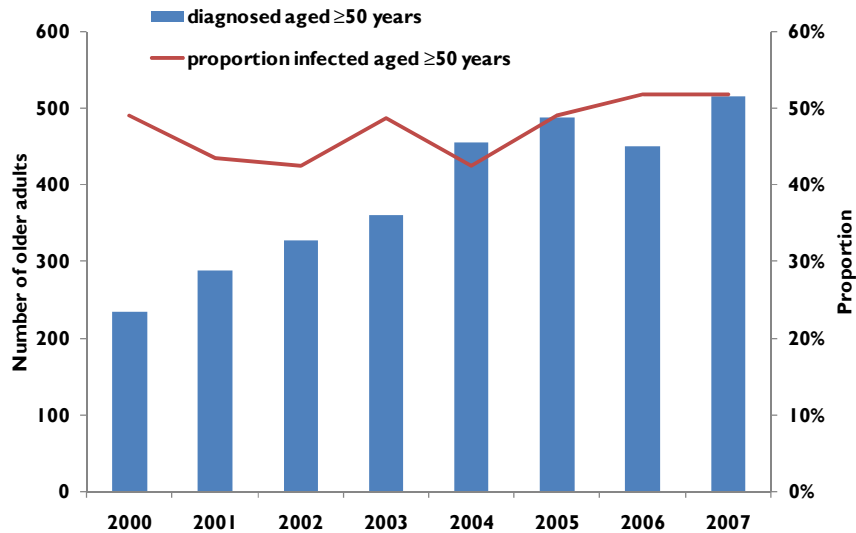
- **Aim #2:** Estimate age at infection
- Estimated applying a Markov Chain model<sup>1</sup> of HIV progression based on CD4 cell count at diagnosis.
  - CD4 cell count less than 200 = **Eight years**
  - CD4 cell count between 200-349 = **Six years**
  - CD4 cell count between 350 -449 = **Four years**
  - CD4 cell count of 450 and above = **Two years**
- We estimate that **48% (1486)** were aged  $\geq 50$  years at infection.

<sup>1</sup> Satten GA, Longini IM. Markov chains with measurement error: estimating the 'true' course of a marker of the progression of human immunodeficiency virus disease. Appl,statist. 1996;45:275-309

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### New HIV diagnoses among adults aged $\geq 50$ years and estimated proportion who acquired their infection aged $\geq 50$ years



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## Summary

- Adults aged  $\geq 50$  years accounted for 8% of all new diagnoses
- Half of older adults were infected when aged  $\geq 50$  years.
- One in six adults seen for HIV care are now aged  $\geq 50$  years
- Compared to younger adults:
  - Male
  - Men who have sex with men
  - White ethnicity
  - Evidence of travel amongst heterosexual men
- Half present late (CD4 <200)
- Those diagnosed late are 14 times more likely to die within a year of diagnosis (14% vs. 1%).
- Late presenters aged  $\geq 50$  years contribute to an estimated 30% of AIDS deaths in all individuals diagnosed in 2007

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## Recommendations

- **Increased targeted prevention efforts for older adults**
- **Increased HIV testing strategies for older adults**
- **Global and national surveillance outputs should include older age groups**



## Acknowledgements

**The continuing collaboration of those who contribute to HIV surveillance in the UK is gratefully acknowledged. Without their generosity, time and effort the current level of understanding of the epidemic could not have been obtained.**

