

Dr Alastair Miller

Royal Liverpool University Hospital

Dr Keith Radcliffe

Whittall Street Clinic, Birmingham

Dr Michael Rayment

Chelsea and Westminster NHS Foundation
Trust, London

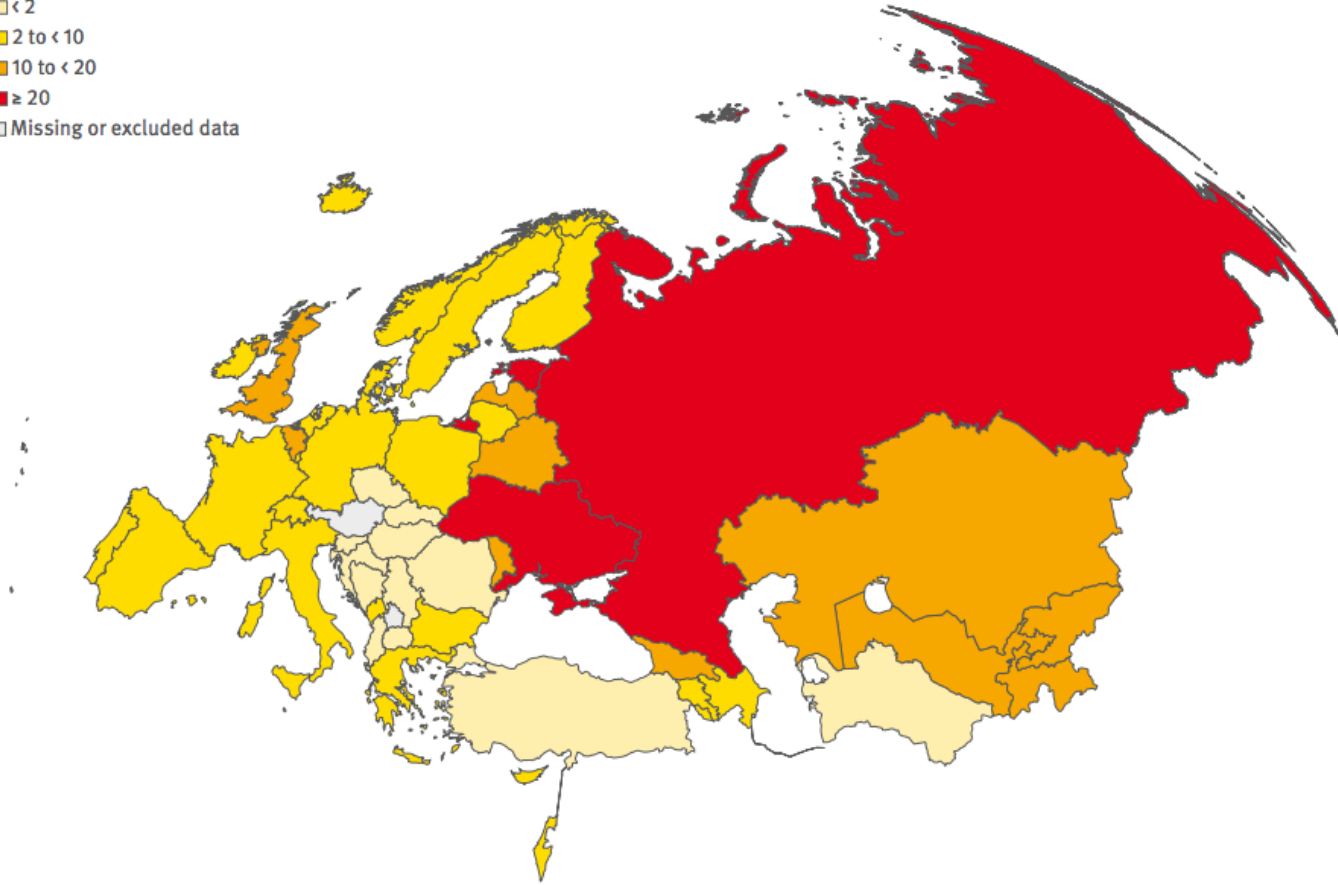
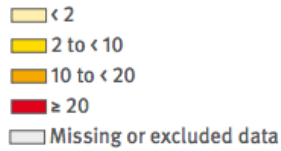


HIV Indicator Diseases across Europe Study - HIDES I: results of the pilot phase

*Michael Rayment, Chelsea and Westminster NHS Foundation Trust
on behalf of the HIV Indicator Diseases Across Europe Study Group
18th Annual BHIVA Conference, Birmingham, April 2012*



Setting the scene



- High proportions of undiagnosed HIV infection
 - 15-50% across Europe
- Overall new HIV diagnosis rate across Europe is rising
 - 26 000 new diagnoses in 2009 across 28 European countries (2009)
 - <2 to >20/100 000 per annum (5.7/100 000 overall)

HIV Indicator Diseases across Europe Study (HIDES)

- HIV in Europe Conference, 2007
 - Indicator condition based testing
 - Currently there is minimal data on HIV prevalence in patients presenting with such conditions or whether they are offered testing, and similarly for those presenting with AIDS defining illnesses
 - Likely cost-effective if prevalence of undiagnosed HIV >0.1%



HIV in Europe

Aims of HIDES

Overall

- to determine the prevalence of previously undiagnosed HIV in different Indicator Conditions across Europe, and identify those meeting the proposed 0.1% prevalence for cost effectiveness

Phase One

- Feasibility and acceptability of IC driven testing
- Develop and evaluate testing models
- Identify challenges and barriers

Indicator Conditions (IC)

- Phase One selected 8 IC:
 - Sexually Transmitted Infections (STI)
 - Hepatitis B + C
 - Malignant lymphoma (LYM)
 - AIN or CIN II or above
 - Unexplained thrombocytopaenia or neutropaenia >4 weeks
 - Herpes zoster <65 years
 - Seborrhoeic dermatitis
 - Mononucleosis-like illness (MON)

Methods

- HIV tests were routinely offered to consecutive patients presenting to the health care setting with an IC and not known to be HIV positive. The test offer was by clinic or seconded staff
- Data collected:
 - Demographic data and testing behaviour
 - Detailed information regarding risk and previous HIV testing and health seeking behaviour
- 1 condition at 1 clinic/centre = 1 survey (100-400 HIV tests)

Results: Surveys

- Study period: 1st September 2009 – 28th February 2011
- 39 surveys across 17 centres in 14 countries
- 1-5 surveys per centre, 3-6 surveys per IC
- 4 European regions:

North

Denmark
Netherlands
Sweden
United Kingdom

West Central

Austria
Belgium
Germany (2)

East Central

Belarus
Bosnia
Croatia
Poland
Ukraine

South

Italy (2)
Spain

Results: recruitment

Number of patients enrolled	3588
Mean age (y)	36
Sex	55% male
Previous HIV test	36%

Results: Differences in participants by European Region

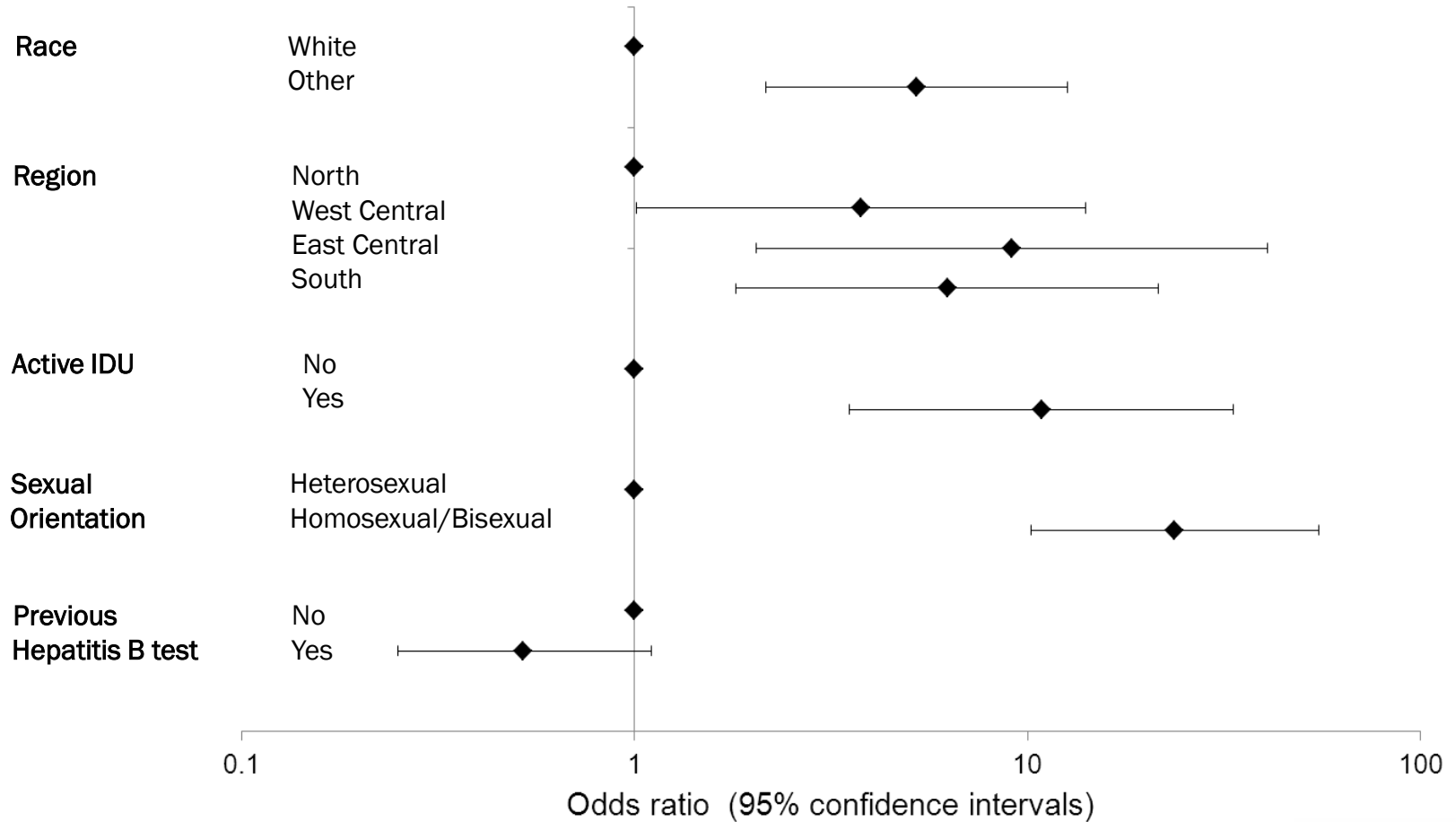
	North Denmark, Sweden, Netherland, UK	West Central Austria, Belgium, Germany	East Central Belarus, Bosnia, Croatia, Poland, Ukraine	South Italy, Spain	p-value
Total (n)	1288	459	1412	429	
%	35.9	12.8	39.4	12.0	
Sex: Male (n)	567	302	817	292	<.0001
%	44.0	65.8	57.9	68.1	
Median age (yrs)	33	37	37	43	<.0001
IQR	28-46	28-47	26-51	32-59	
Sexuality: Het (n)	717	274	1365	263	<.0001
%	55.7	59.7	96.7	61.3	
Previous test (n)	743	209	185	153	<.0001
%	57.7	45.5	13.1	35.6	

Results: prevalence of previously undiagnosed HIV infection

- HIV tests 3588 patients
- 66 new HIV diagnoses
- HIV prevalence: 1.8%
[95% CI 1.4 - 2.3]
- HIV positive individuals:
 - Male 83%
 - MSM 58%
 - IDU 9%

	North	West Central	East Central	South	p-value
Total (n)	1288	459	1412	429	
%	35.9	12.8	39.4	12.0	
HIV positive (n)	8	7	23	28	<.0001
%	0.6	1.5	1.6	6.5	

Adjusted odds ratio for testing HIV positive after presenting for care with an indicator disease*



*Also adjusted for indicator disease

Results: HIV diagnoses per Indicator Condition

	HIV test	HIV +	Prevalence (95%CI)	
Total	3588	66	1.84	(1.42-2.34)
STI	764	31	4.06	(2.78-5.71)
On-going mononucleosis-like illness	441	17	3.85	(2.26-6.10)
Leuko/thrombocytopaenia	94	3	3.19	(0.66-9.04)
Herpes Zoster <65yo	207	6	2.89	(1.07-6.21)
Seborrheic dermatitis	97	2	2.06	(0.25-7.24)
Cervical or anal dysplasia	542	2	0.37	(0.04-1.32)
Hepatitis B/C	1099	4	0.36	(0.10-0.93)
Malignant lymphoma	344	1	0.29	(0.01-1.61)

Results: Previous HIV testing behaviour in individuals newly diagnosed with HIV infection

- Previously tested negative: 52%
- Median time to last test: 1.58 years (0.1 - 12.7)
- Median CD4 (n=35/66): 400 cells/ μ L (range 11 - 675)*

*UK median CD4 at diagnosis: 340 cells/ μ L (HPA 2012)

>50% European cases diagnosed CD4<350 (ECDC 2010)

Results: Missed opportunities for earlier diagnosis

- *Potential missed opportunities in preceding 5 years*
- Previous potentially HIV-related presentations in 20%
 - cytopaenia
 - dermatitis
 - herpes zoster
 - Mononucleosis-like illness
 - oral candidiasis
- Hospitalised: 11% (AIDS or infection:71%)

Barriers to testing

- Post-survey questionnaire disseminated to survey coordinators (n=32; 77% response rate) and other, non-specialist clinical staff (n=60)
- Clinical and operational factors, and deficiencies of specialist skills, identified as barriers

Attitudinal area	Response	Proportion
“What are your colleagues attitudes to the study?” (Co-ordinators)	Positive**	10%
	Neutral	43%
	Sceptical	37%
“What are your perceived barriers to offering an HIV test?” (Colleagues)	Pressures of time**	47%
	Concerns re: patient attitudes and questions	13%
	“I feel deskilled and require additional training”	7%
“Why did you not offer an HIV test on occasion?” (Colleagues)	Lack of time	32%
	Perception that patient was not at risk of infection**	32%
	“I forgot”	25%
	The patient reported a recent test	16%

Conclusions

- IC targeted HIV testing is feasible
- Effective in diagnosing HIV cases and new diagnoses were made for all IC. Overall exceeded 0.1%
- Challenges exist, particularly engaging with clinicians from other specialties
- Roll out and guidelines will need to address variation seen across Europe
- HIDES 2 commences Spring 2012

HIDES - Study Group

Advisory Group: Nathan Clumeck, CHU Saint-Pierre, Brussels, Belgium, Jose Gatell, Hospital Clínic de Barcelona, Barcelona, Spain, Brian Gazzard, Chelsea and Westminster Hospital, London, England, Jens Lundgren, University of Copenhagen and Rigshospitalet, Copenhagen, Denmark, Antonella d'Arminio Monforte, Clinica delle Malattie Infettive, Milan, Italy, Jürgen Rockstroh, Department of Medicine, University of Bonn, Germany, Amanda Mocroft, University College London Medical School, UK. **Centres:** **Austria:** R Zangerle, University Hospital Innsbruck, Department of Dermatology and Venereology, Innsbruck. **Belarus:** A Vassilenko, Minsk Municipal Infectious Diseases Hospital, Minsk. **Belgium:** A Libois, S Clinic, J André, Department of Dermatology, P Kirkove, Saint-Pierre University Hospital, Brussels. **Bosnia:** V Hadziosmanovic, Clinical Center, University of Sarajevo, Infectious Diseases Clinic, Sarajevo. **Croatia:** J Bergovac, University Hospital of Infectious Diseases, Zagreb. **Denmark:** H Sørensen, Bispebjerg Hospital, København. S Fangel, Infektionsmedicinsk Afdeling, CESOIRS/Skejby Sygehus; Århus. **Germany:** U Spengler, Outpatient Clinic for Hepatology, Department of Medicine, University of Bonn. I Schmidt-Wolf, Outpatient Clinic for Hepatology Department of Medicine, University of Bonn. S Esser, Uniklinikum Essen, Hautklinik, Essen. **Italy:** M Zuin, Liver Unit, Dept. of Medicine, San Paolo Hospital, Milan. G Podda, Hermathology Unit, Dept. of Medicine, San Paolo Hospital, Milan. M Cusini, STD Centre, Dermatology department, Milan. **Netherlands:** K Brinkman, Onze Lieve Vrouwe Gasthuis, Internal Medicine, Amsterdam. **Poland:** A Grzeszczuk, Medical University of Bialystok, Department of Infectious Diseases and Hepatology, Bialystok. **Spain:** F Garcia, A Leon, Hospital Clinic Barcelona, Infectious Diseases Unit, Barcelona. I Menacho, Primary Center of les Corts, M Muns, Primary Center of Raval Sur, Barcelona Spain. **Sweden:** A Sönnernborg, Department of Infectious Diseases, Karolinska University Hospital, Stockholm. **United Kingdom:** A Sullivan, M Rayment, Chelsea and Westminster Hospital, London. **Ukraine:** M Krasnov, Kharkov Regional Clinic of Infectious Diseases, Kharkov. **Coordinating Centre Staff:** D Raben, M Ellefson, R S Brandt. **Statistical Analysis:** J Reekie, University College London, UK