HIV in Europe

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HIV indicator diseases across Europe study

Auditing HIV Testing Rates across Europe: Results from the HIDES 2 Study

The 14th European AIDS Conference, 18 Oct 2013

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on behalf of the HIDES 2 audit study group

Background

- 50% of the estimated 2,4 million people living with HIV in Europe (1,5 million Eastern Europe and Central Asia and 860,000 in Western and Central Europe) are unaware of their HIV status
- Approximately 50% are diagnosed late (CD4 < 350)*
- Studies suggest HIV testing remains cost-effective when the undiagnosed HIV prevalence is > 0.1%
- The concept of indicator condition (ID) guided HIV testing is an approach by which health care practitioners can be encouraged to offer more tests based on condition/disease.
- HIV Indicator Diseases across Europe (HIDES) is a project under the HIV in Europe initiative

*Mocroft A et al. Risk Factors and Outcomes for Late Presentation for HIV-Positive Persons in Europe: Results from the Collaboration of Observational HIV Epidemiological Research Europe Study (COHERE). PLoS Med, 2013

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Feasibility and Effectiveness of Indicator Condition-Guided Testing for HIV: Results from HIDES I (HIV Indicator Diseases across Europe Study)

	Individuals having HIV test (number)	HIV positive (number)	Prevalence (95% CI)	Number of surveys
Total	3588	66	1.84 (1.42–2.34)	39
Indicator condition				
Sexually transmitted infection (STI)	764	31	4.06 (2.78–5.71)	4
Malignant lymphoma (LYM)	344	1	0.29 (0.006–1.61)	5
Cervical or anal dysplasia or cancer (CAN)	542	2	0.37 (0.04–1.32)	4
Herpes zoster (HZV)	207	6	2.89 (1.07–6.21)	5
Hepatitis B or C (HEP)	1099	4	0.36 (0.10–0.93)	6
Ongoing mononucleosis-like illness (MON)	441	17	3.85 (2.26–6.10)	7
Unexplained leukocytopenia/thrombocytopenia (CYT)	94	3	3.19 (0.66–9.04)	4
Seborrheic dermatitis/exanthema (SEB)	97	2	2.06 (0.25–7.24)	4

Ann K Sullivan et al. Feasibility and Effectiveness of Indicator Condition-Guided Testing for HIV: Results from HIDES I (HIV Indicator Diseases across Europe Study), PLoS ONE, January 2013, Volume 8, Issue 1, e52845

Objectives of HIDES 2
(HIV Indicator Diseases across Europe Study – phase 2)

The HIDES 2 study has 2 components:

1) Testing consecutive patients presenting with 11 potential indicator conditions to evaluate HIV prevalence (surveys) (2012-July 2014)

2) **Auditing HIV testing in already established indicator conditions**
   - Implement and evaluate an audit system of HIV testing of persons who presented with 6 IDs (tuberculosis, non-Hodgkin lymphoma, anal and cervical cancer, hepatitis B and C and Candida esophagitis) and whether they were tested for HIV

Methods

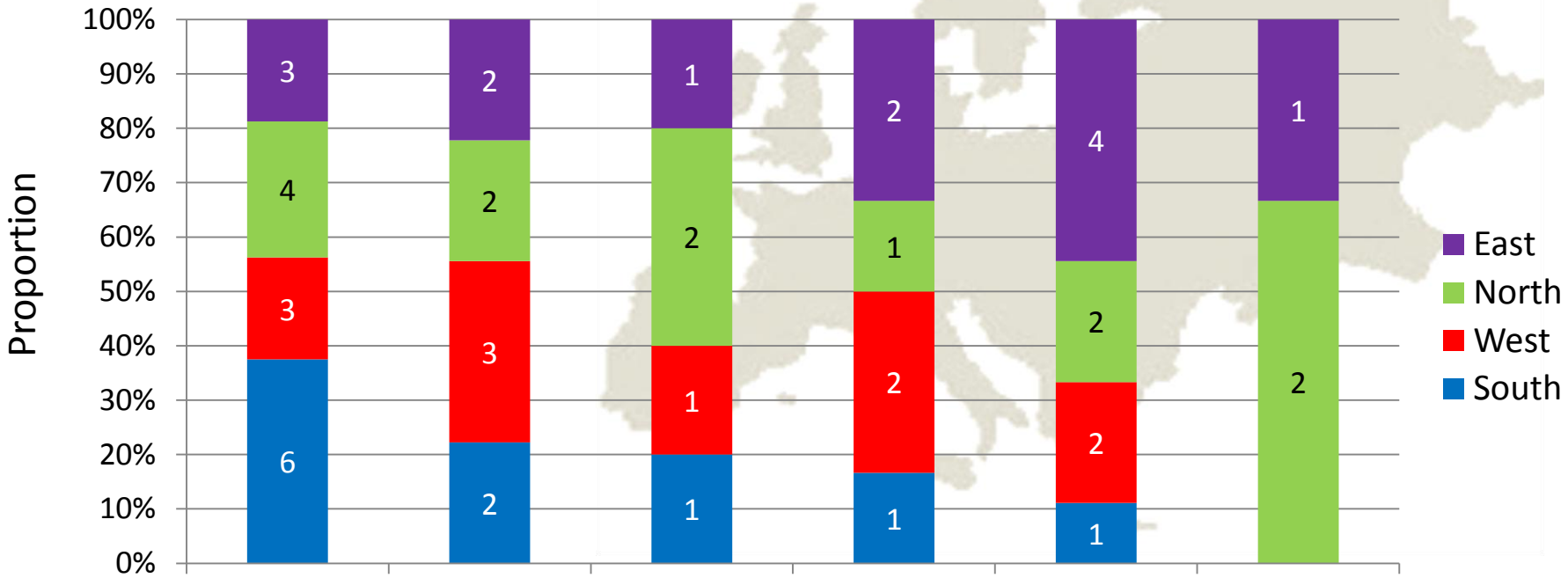
- Data was collected retrospectively and submitted electronically via an online CRF system (REDCap)
- 1 audit=
  - No of patients presenting at the clinic with one of the IDs, within a certain time period
  - No with ID offered an HIV test
  - No offered/accepting the HIV test
  - No with ID tested for HIV
  - No testing positive for HIV of those tested

- Observed HIV+ rates were applied for each region and ID to estimate the number of HIV diagnoses potentially missed.

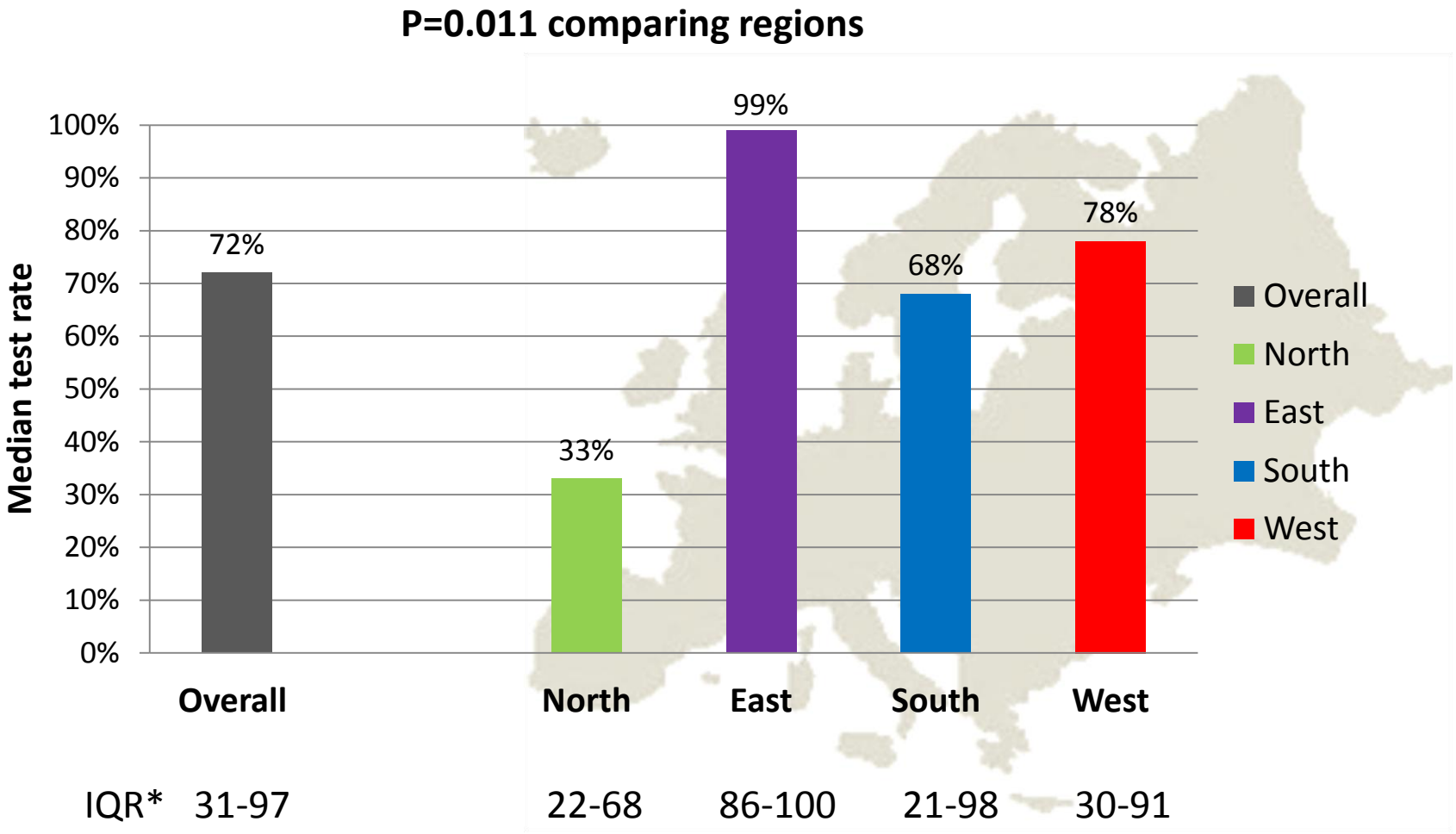
Results: characteristics

48 audits were completed in 14 countries across the 4 regions of Europe:

NORTH	EAST	SOUTH	WEST
United Kingdom	Belarus	Italy	Belgium
Sweden	Poland	Spain	Austria
Denmark	Croatia	Portugal	France
	Bosnia & Herzegovina	Israel	



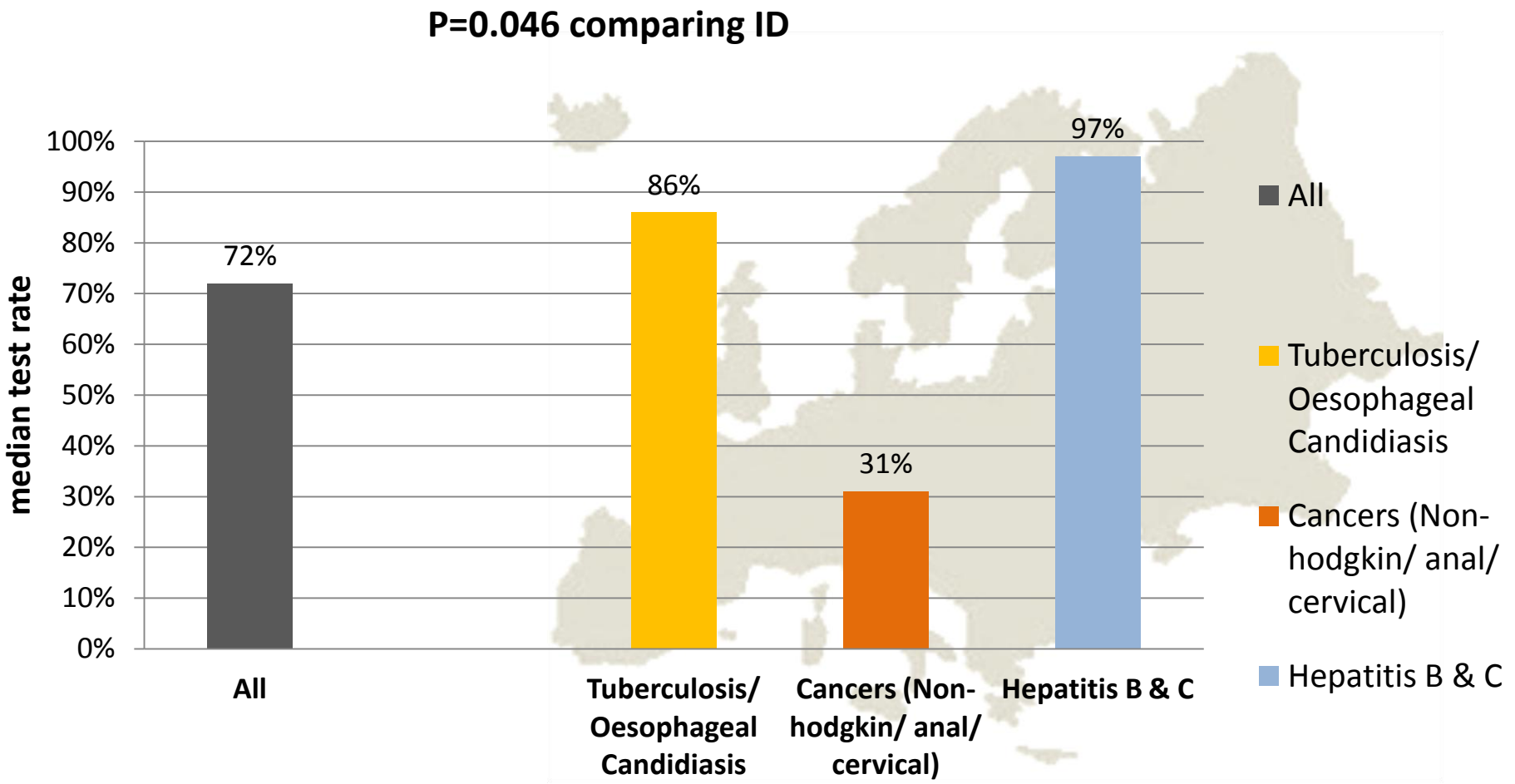
Median test rate per audit per region



*IQR; interquartile range

Test rate was defined as the number of persons tested for HIV/ number of patients with ID.

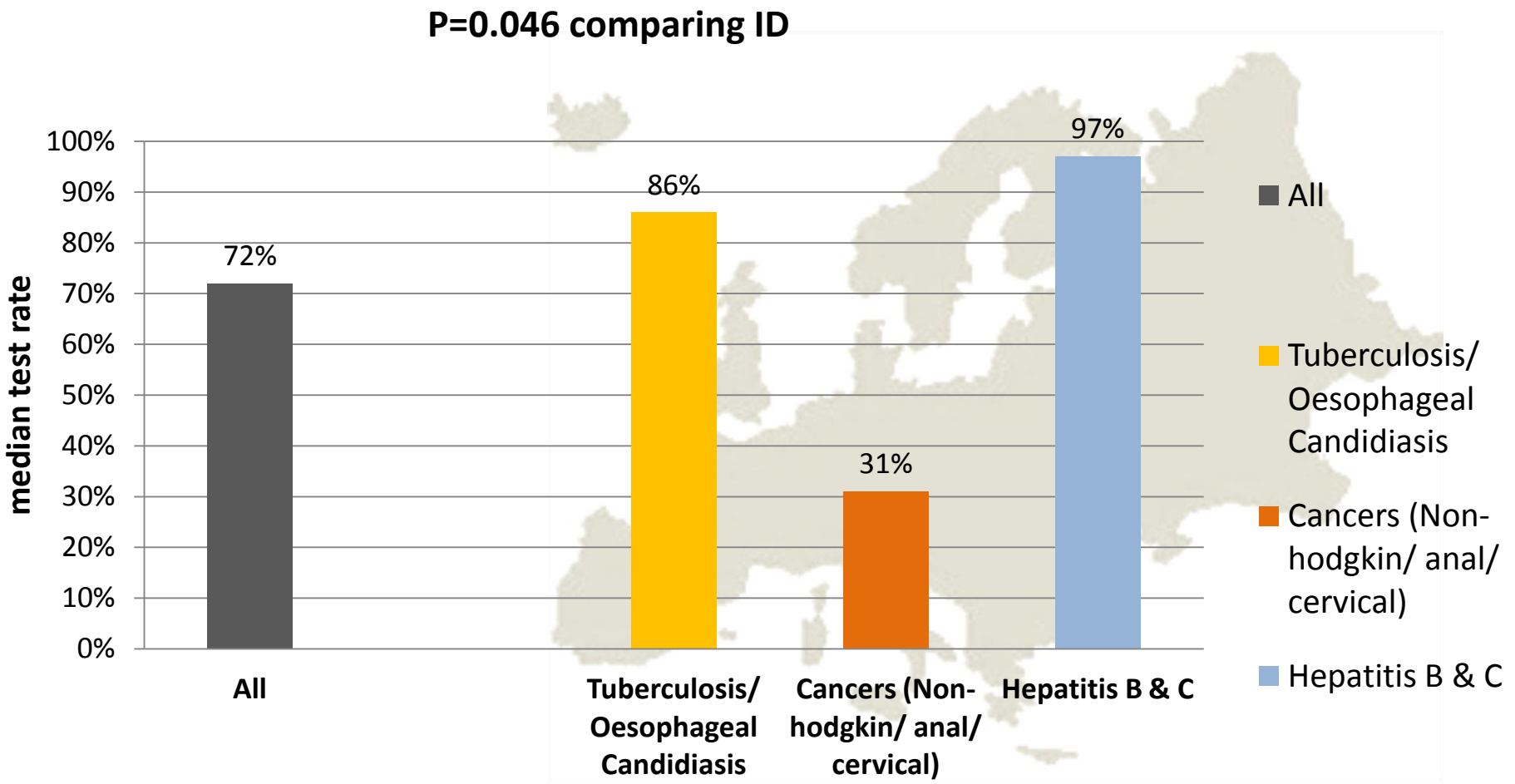
Median test rate per audit per indicator disease



IQR	31-97	68 – 100	17 – 85	68 – 100

A high test rate was defined as >72% as this was the median across all audits.

Median test rate per audit per indicator disease



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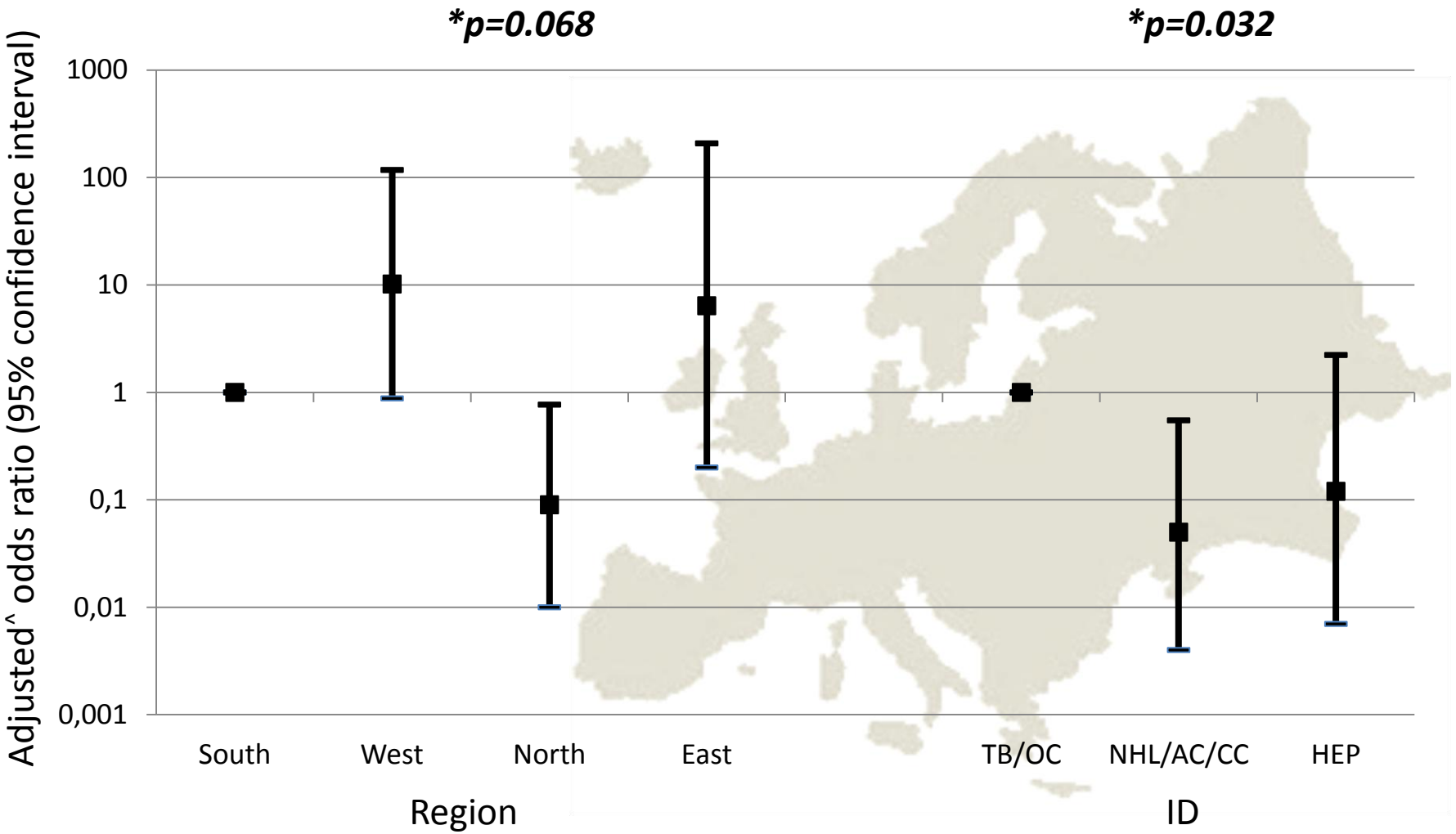
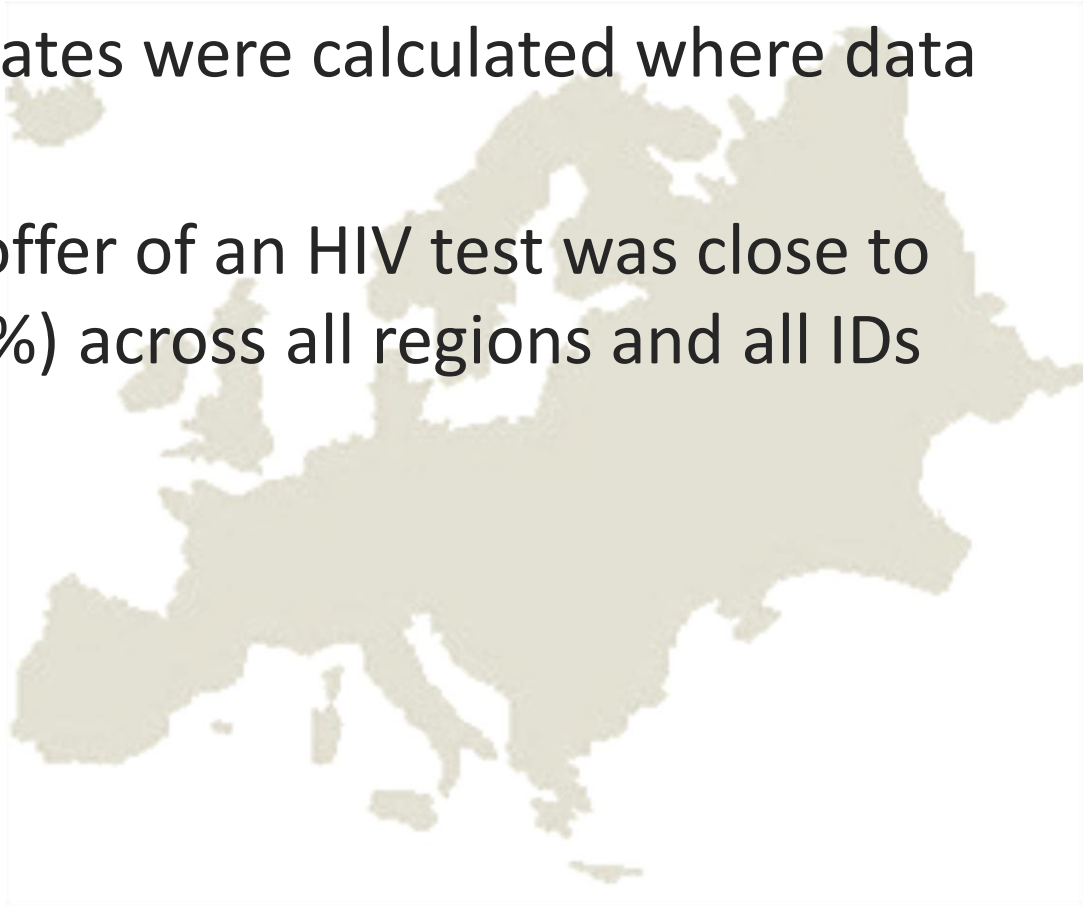
Adjusted^ odds ratio of high test rate (>72%)



^Adjusted additionally for number of persons/year per ID audit. TB; tuberculosis. OC; candida oesophagitis. NHL; non-Hodgkin's lymphoma. AC; anal cancer. CC; cervical cancer. HEP; hepatitis B or C. *global p-values. +compared to test-rate <72%.

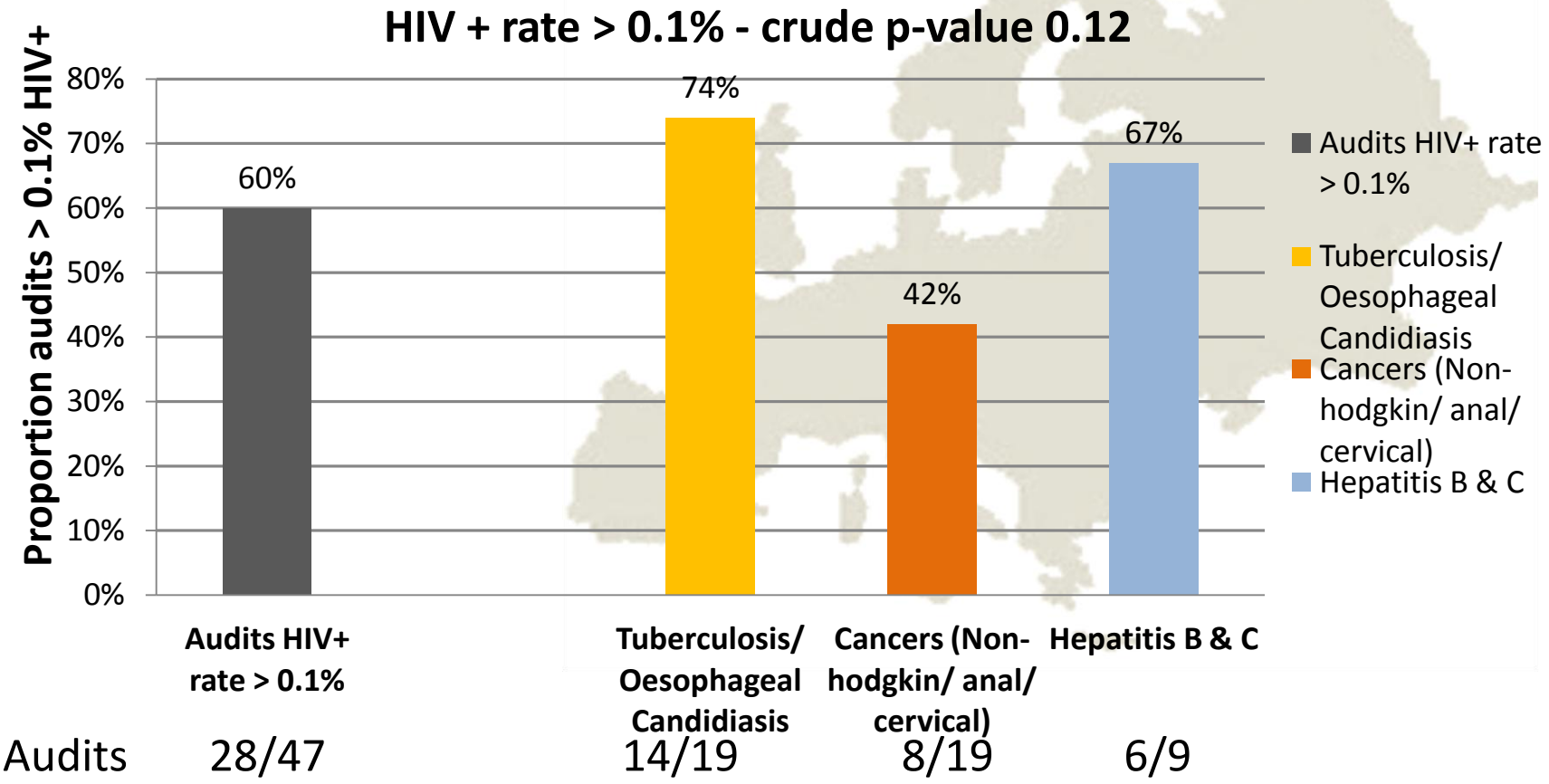
Offer and uptake rates

- Offer and uptake rates were calculated where data was available
- The uptake of an offer of an HIV test was close to complete (95-100%) across all regions and all IDs



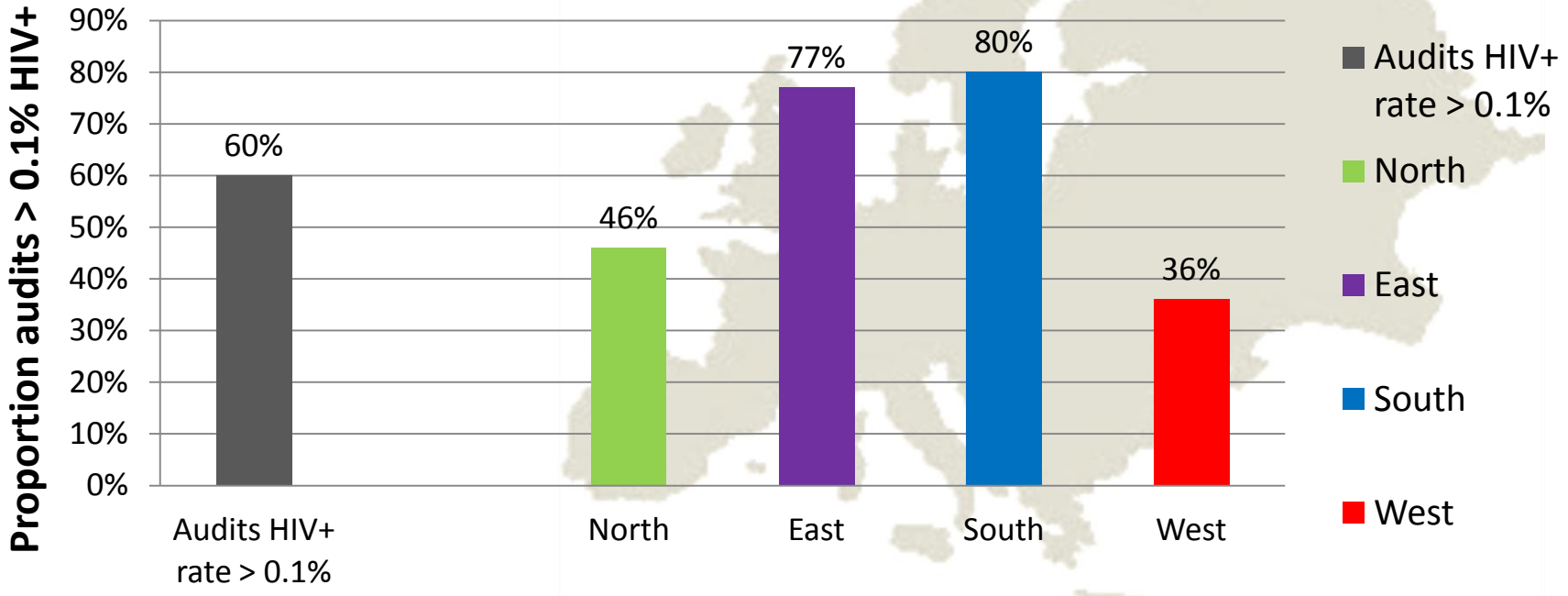
Median HIV positivity rate per Indicator disease

- The median HIV+ rate was 0.9% (IQR 0.0-5.0), with 28 audits (59.6%) having a HIV+ rate >0.1%



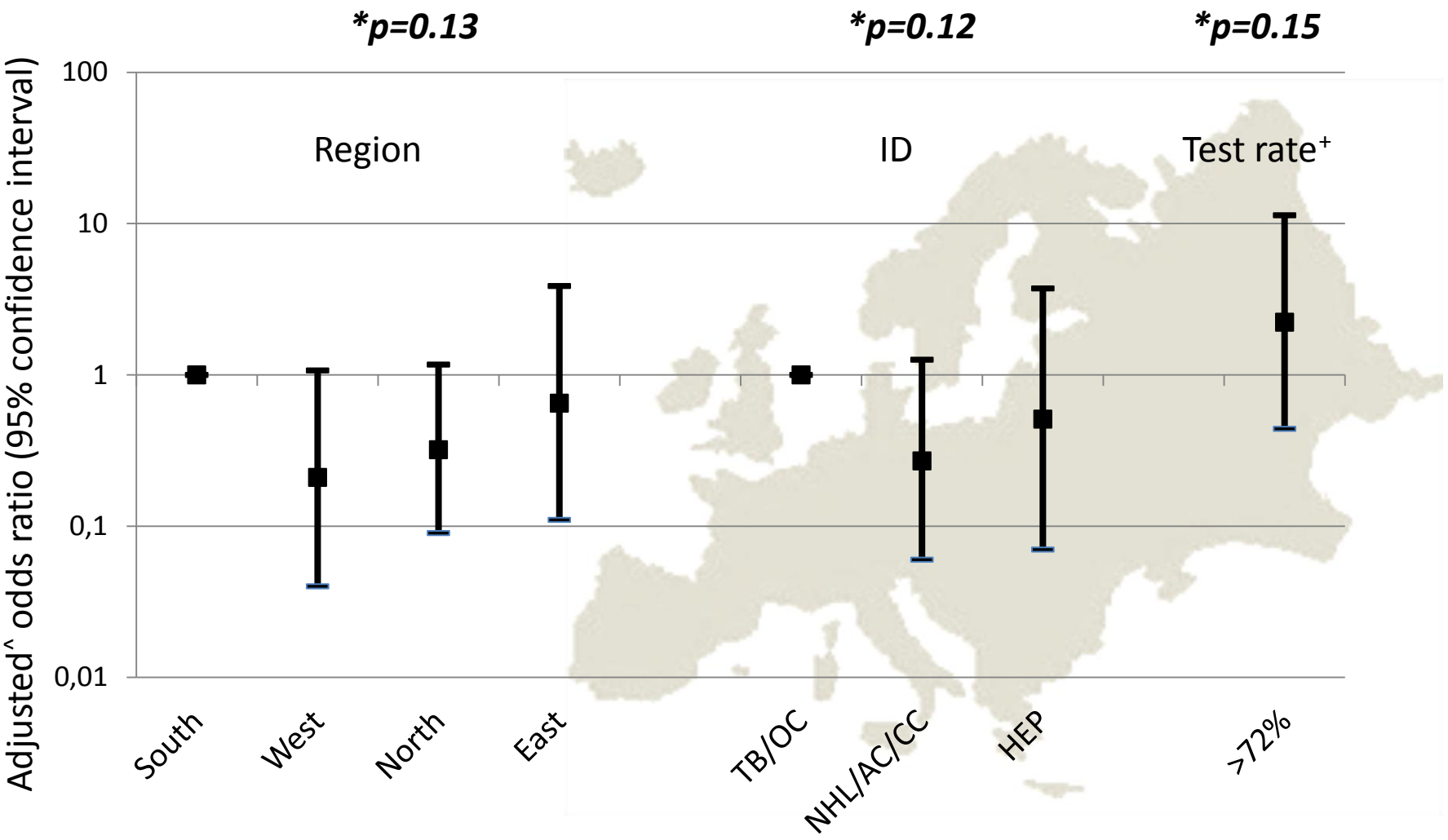
Median HIV positivity rate per region

- The median HIV+ rate was 0.9% (IQR 0.0-5.0), with 28 audits (59.6%) having a HIV+ rate > 0.1%



Audits	28/47	6/13	10/13	8/10	4/11

Adjusted^ odds ratio of HIV+ rate > 0.1%



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Potential missed HIV diagnosis

N (LL, UL)	Total	South	West	North	East
Tuberculosis	**8 (-32, 50)**	1 (-10, 15)	1 (-5 , 8)	1 (-8, 7)	5 (-9, 20)
Non-Hodgkin Lymphoma	**53 (21, 84)**	42 (28, 53)	0 (-3, 4)	10 (-2, 24)	1 (-2, 3)
Anal cancer	**0 (0, 0)**	0 (0, 0)	0 (0, 0)	0 (0, 0)	0 (0, 0)
Cervical cancer	**0 (-1, 2)**	0 (0, 0)	0 (0, 0)	0 (0, 0)	0 (-1, 2)
HBV/HCV	**2 (-17, 24)**	1 (-2, 5)	0 ((0, 0)	1 (-1, 3)	0 (-14, 16)
Oesophageal candidiasis	**41 (22, 59)**	0 ((0, 0)	0 (0, 0)	41 (28, 53)	0 (-6, 6)
Total	**104 (-7, 219)**	**44 (16, 73)**	**1 (-8, 12)**	**53 (17, 87)**	**6 (-32, 47)**

- ***104 HIV+ diagnoses potentially missed***

HIV+ rate (lower 95% CL, upper 95% CL) within each region and ID was applied to all persons included in audit (i.e. not just those tested) to estimate number HIV+ potentially missed and the range missed

Limitations and potential bias

- Individual patient data was not available, data is the summary data from audits
- Small numbers and wide confidence limits
- Uptake rates were not available for all audits

- Potential bias: the calculation of potential missed HIV diagnosis does not take into account, if a selection was made (e.g. risk group/ behaviour) in who was offered a test.

Conclusions

- Testing rates in well established HIV IDs remain surprisingly low across Europe, despite high prevalence rates, reflecting missed opportunities for earlier diagnosis and care
  - In particular for cancers, esophageal candidiasis and especially in Northern Europe
- Uptake of testing >95%,
- Offer/test rates 31%-99%
  - Suggesting barriers on provider level
- HIV testing should be part of routine in patients presenting with IDs

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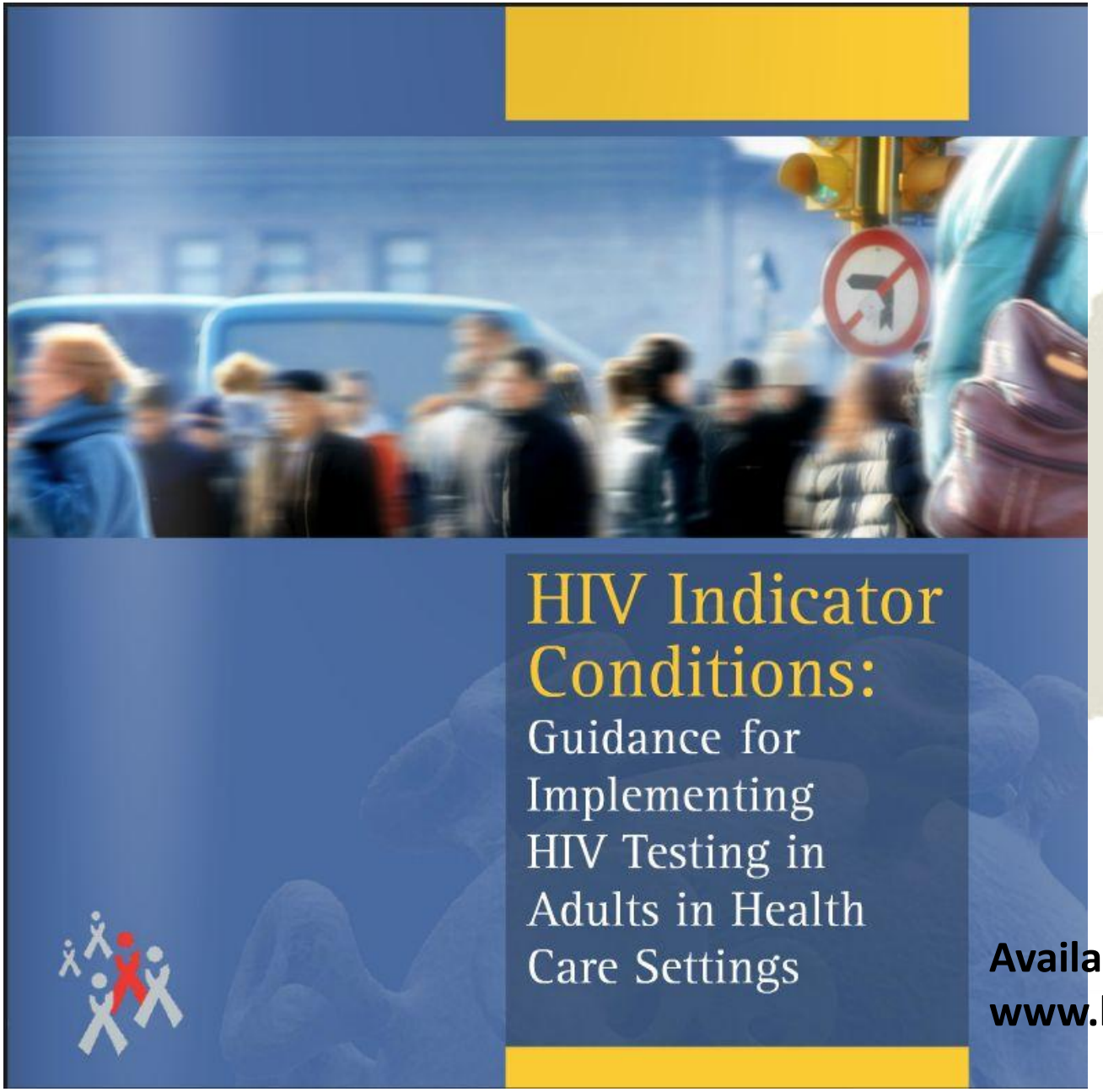

Available at www.hiveurope.eu

Next Steps

- Prospective surveys on 14000 patients with 11 potential IDs to be finalised for analysis by mid 2014

- For more information about HIDES and the HIV in Europe initiative, please contact Marie Louise Jakobsen mlj@cphiv.dk and Dorthe Raben dra@cphiv.dk, Copenhagen HIV Programme

- Sign up your department to the European HIV Testing Week and encourage other departments outside infectious diseases to do so!

HIDES Audit Study Group

HIDES (HIV Indicator Diseases across Europe Study) Audit Study Group: Centers: Austria: M Kitchen, University Hospital Innsbruck, Department of Dermatology and Venerology, Innsbruck. **Belarus:** A Vassilenko, Belarusian State Medical University, Minsk, Belarus, V M Mitsura, Gomel State Medical University Gomel. **Belgium:** C Necsoi, Saint-Pierre University Hospital, Brussels. **Bosnia:** V Hadziosmanovic, Clinical Center University of Sarajevo, Infectious Diseases Clinic, Sarajevo. **Croatia:** J Begovac, University Hospital of Infectious Diseases, Zagreb. **Denmark:** U B Dragsted, Roskilde Hospital, Roskilde. **France:** National Coordinator: Y Yazdanpanah, Hopital Bichat Claude Bernard, Paris, F Ajana, Centre Hospitalier de Tourcoing, Tourcoing, A Cabié, Centre Hospitalier Universitaire de Fort de France, Fort de France, Matinique. **Israel:** Z M Sthoeger, D Elbirt, Ben Ari Institute of Clinical Immunology, Rehovot. **Italy:** L Comi, Unit of Infectious Diseases, San Paolo Hospital, Milan, B M Celesia, Unit of Infectious Diseases University of Catania, ARNAS Garibaldi, Catania, Italy. **Poland:** A Grzeszczuk, Medical University of Bialystok, Department of Infectious Diseases and Hepatology, Bialystok. **Portugal:** F Maltez, MJ Manata, Hospital Curry Cabral, Lisbon. **Spain:** V P Estrada, Hospital Universitario San Carlos, Madrid. **Sweden:** V S Johansson, Department of Infectious Diseases, Karolinska University Hospital, Stockholm. **United Kingdom:** National Coordinator: A Sullivan, Chelsea and Westminster Hospital, London, M Rayment, Chelsea and Westminster Hospital, London, S Morris, Western General Hospital, Edinburgh, A Palfreeman, Leicester University Hospital Leicester, J Minton, St James's University Hospital, Leeds, E L C Ong, The Newcastle upon Tyne Hospital, Newcastle, J Anderson, Homerton University Hospital, London. **Ukraine**: G Kutsyna, Luhansk AIDS Center, Luhansk.

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