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# HIV, HBV and HCV testing policy – experiences and lessons learned.

Professor Kevin A. Fenton  
National Director, Health and Wellbeing

Email: [Kevin.Fenton@phe.gov.uk](mailto:Kevin.Fenton@phe.gov.uk)

Twitter: [@ProfKevinFenton](https://twitter.com/ProfKevinFenton)



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## Contents

- **HIV and viral hepatitis:** distinct epidemics at different stages of evolution
- **Epidemiology:** transmission, prevalence, incidence
- **Testing policies and practices:** challenges, opportunities and innovations
- **Lessons learned from the HIV epidemic:** relevance to HCV and HBV epidemics



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# HIV and Viral Hepatitis

## A tale of distinct epidemics

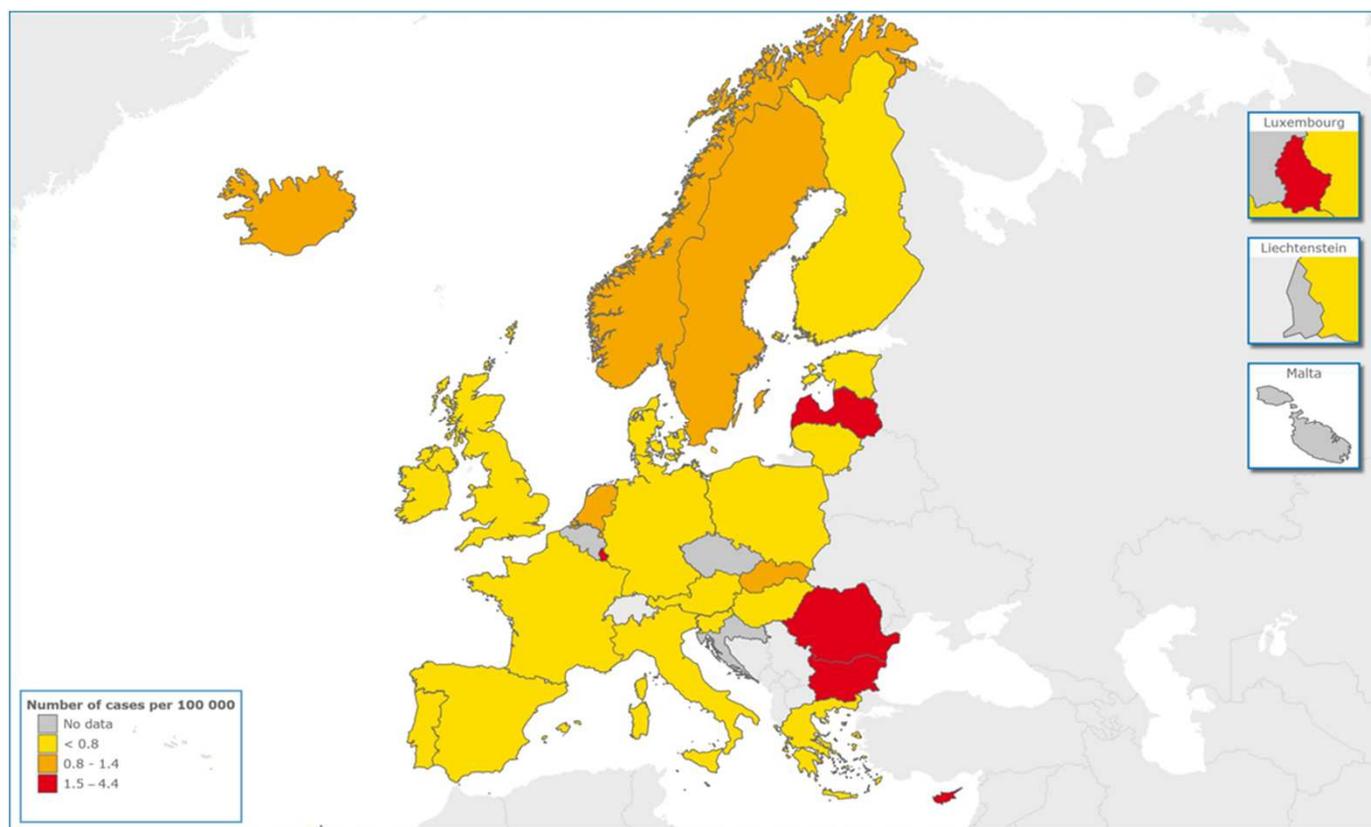
- Epidemics have some features in common:
  - Disproportionate effect on marginalised groups
  - Large numbers remain undiagnosed
  - Need to promote public awareness, address stigma
  - Availability of effective treatments
- But also differ in important ways:
  - HIV in its fourth decade: surveillance, testing guidelines, linkage into care
  - HCV and HBV still 'silent epidemic' (though there is momentum for scaling up of public health response)



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# Epidemiology – Hepatitis B

Number of reported acute hepatitis B cases per 100 000 population in EU/EEA countries, 2012\*



Source: ECDC Hepatitis B and C Surveillance in Europe 2012

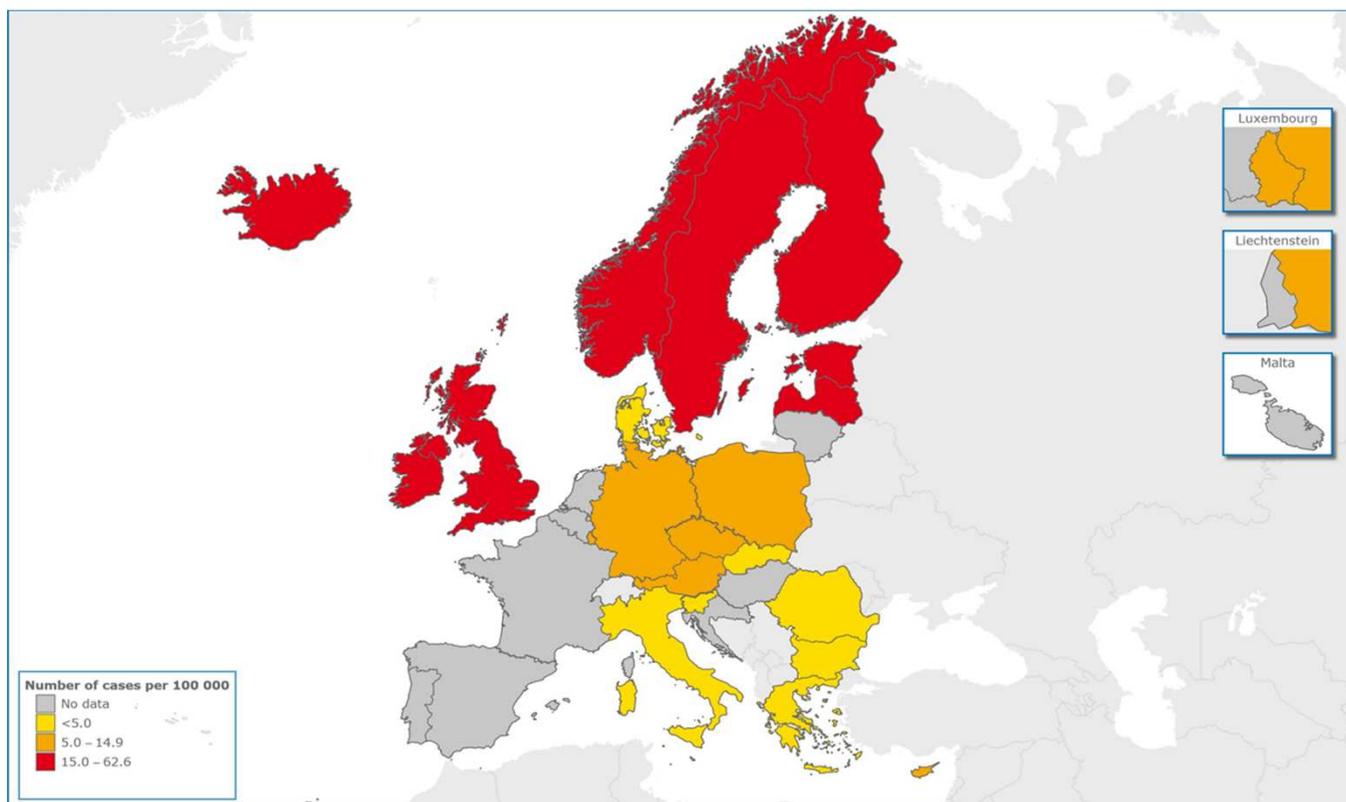
\*Countries were included if they were able to present data by disease status or used a case definition that included only acute cases (e.g. EU 2002/2008)



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# Epidemiology – Hepatitis C

Number of reported hepatitis C cases per 100 000 population, EU/EEA countries, 2012\*



Source: ECDC Hepatitis B and C Surveillance in Europe 2012

\*Countries were included if their surveillance system was known to capture data on both acute and chronic cases, even if a sizeable proportion of cases were classified as 'unknown'



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# Epidemiology: Hepatitis B and C in Europe

## Hepatitis B

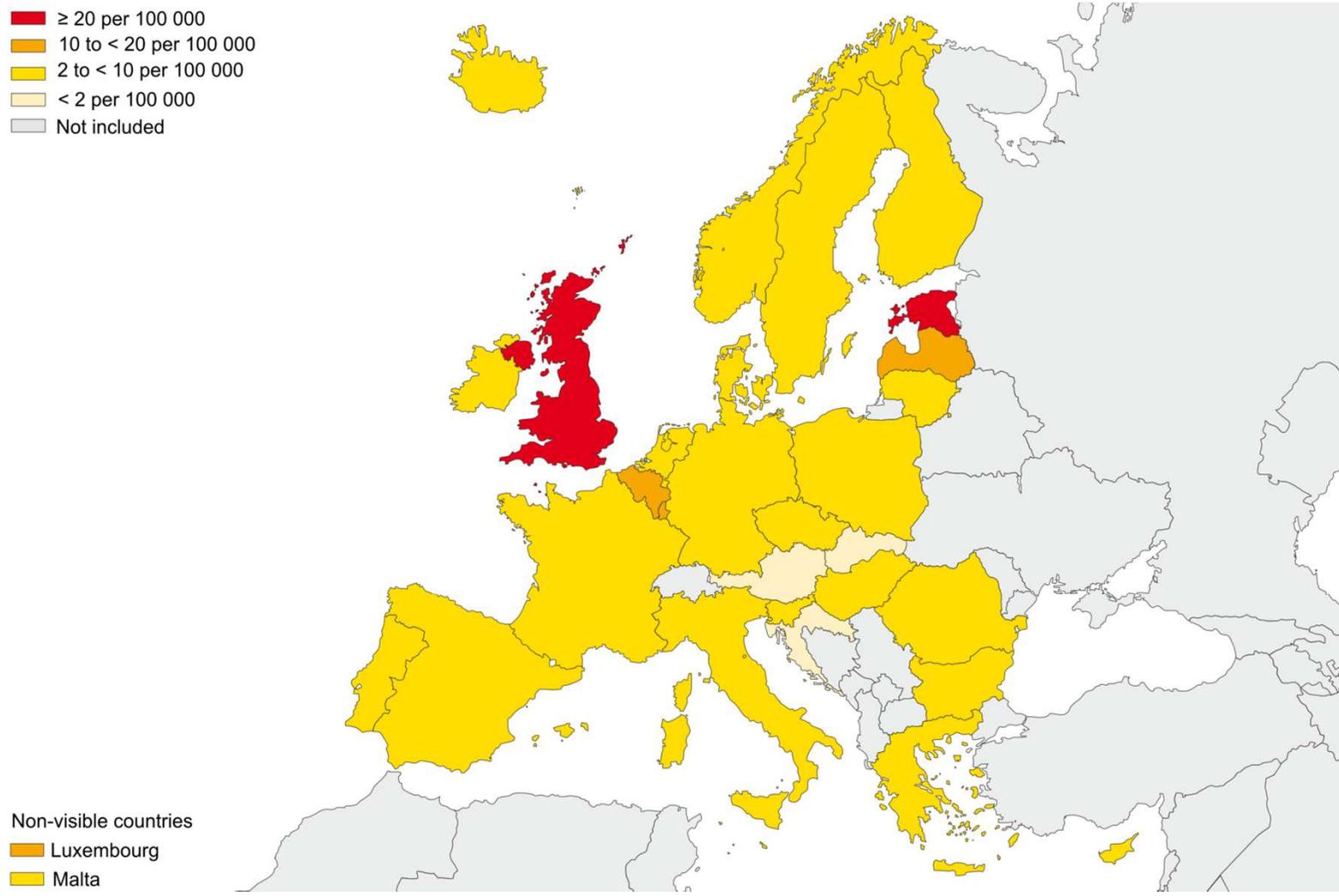
- 17,329 cases in 2012 (3.5 per 100,000 pop.). Fall in acute cases (vaccination?), increase in chronic cases (increase in testing?).
- More commonly reported among men than women
- Variation among countries: differences in levels of testing, and in migration patterns

## Hepatitis C

- 30,607 cases reported in 2012 (7.8 per 100,000 pop.). More commonly reported among men than women
- Over half of all hepatitis C cases: among people aged 25-44 years
- Injecting drug use: accounted for 76.5% of cases (with complete data)
- Significant disease burden of cirrhosis and hepatocellular carcinoma

# HIV infections diagnosed, 2012

## All cases, EU/EEA



Source: ECDC/WHO. HIV/AIDS Surveillance in Europe, 2012



# Epidemiology: HIV in Europe

- Rate of HIV diagnoses (6.2 per 100,000 pop.) **stable** from 2006
- But **increase** in HIV diagnoses among MSM (+11% from 2006)
- **Decrease** in number of cases among PWID and diagnoses due to heterosexual transmission
- Highest proportion of HIV diagnoses: **in MSM** (40%). Heterosexual transmission (34%).
- Migrant populations: disproportionately affected by HIV
- Half of all diagnoses where CD4 cell count available: **late presenters**
- **Around 30%** of people living with HIV in EU estimated to be undiagnosed (2008)



## Testing: policies and practice

- Why the focus on testing for HIV, HBV and HCV
  - **Prevention:** most infections (in HIV) acquired from individuals with undiagnosed infection
  - **Late diagnoses:** impact on individual prognosis
  - **Missed opportunities:** 25% of new HIV diagnoses had missed opportunity to be diagnosed earlier
  - **Reduced transmission** (TasP in HIV, new area of study for hepatitis C)



# Europe: policy on HIV and HCV testing

- **ECDC Guidance 2010:** to inform development, monitoring and evaluation of national HIV testing strategies/programmes
  - Easy access to voluntary testing for everyone; special efforts to ensure this for groups most at risk for HIV
  - Universal access to treatment and care, prevention and support services, with clear referral pathways
  - Reduce stigma as barrier to testing ('normalising' testing)
- **WHO Europe 2010: Policy framework. Scaling up HIV testing**
  - Involve community organisations/civil society in testing/counselling
  - Expanded testing: tailored to different settings/populations needs
  - Provider-initiated testing in health facilities when appropriate
- **WHO 2014 HCV screening:**
  - HCV serology testing offered to individuals who are part of population with high HCV prevalence or history of HCV risk exposure



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# Challenges in increasing testing uptake for hepatitis B and C and HIV in Europe

- Hard to reach and marginalised population
- Stigma
- Lack of awareness of infection
- Lack of professional engagement and understanding – “the healthy carrier” mindset (for hepatitis)
- Variability/heterogeneity in data reporting (eg: CD4 cell count at time of diagnosis for HIV, surveillance data for hepatitis B and C)



## UK's targeted testing policy: hepatitis B and C

### At risk groups e.g.

- Post vaccination testing at 12 months old for infants born to hepatitis B infected mothers (HBV only)
- Close household and sexual contacts of infected individuals
- People who inject drugs
- Ethnic minorities (close links to endemic countries)
- Prisoners
- Individuals who change partners frequently (or partner in another risk group)

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**SM1**

**editd last bullet**

Sema Mandal; 03-10-2014



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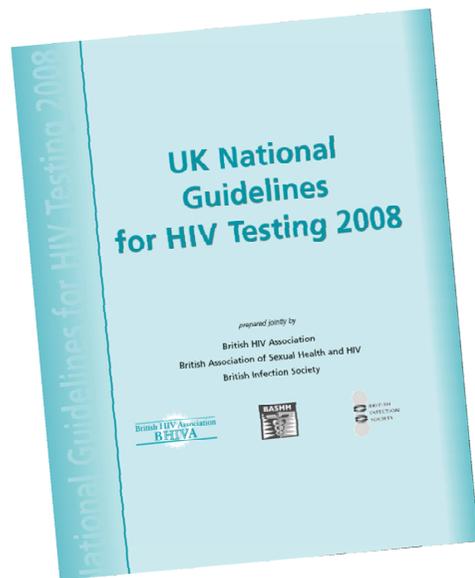
## Europe vs UK: hepatitis B vaccine policy

- Most European countries have introduced **universal programmes** (infant or adolescent)
- But UK expert vaccine committee can only recommend infant or adolescent immunisation programme if cost-effective
- Neither infant or adolescent programmes cost-effective with monovalent vaccine (most chronic HBV cases are in adults migrating to UK so not preventable by vaccine)
- **Selective immunisation policy in UK**
  - Infants born to hepatitis B infected mothers identified through universal antenatal screening for hepatitis B (and HIV)
  - Immunisation of other high risk groups e.g. PWID, MSM, close contacts of infected individuals



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# UK National Guidelines for HIV testing



**Routine offer and recommendation of HIV test to attendees of:**

**Services with high background prevalence**

- STI clinics, Antenatal, Termination of Pregnancy, Drug dependency services and Healthcare services for patients with tuberculosis, HBV, HCV and lymphoma

**Patients at higher risk:**

- from a high prevalence country, MSM, reporting history of IDU and diagnosed with an STI

**Patients with clinical indicator diseases**

**Expanded HIV testing in areas of high diagnosed HIV prevalence (>2/1,000)**



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## Innovation

Pilot projects of routine offer of HIV test in general medical services (high prevalence areas)

- Pilot projects to evaluate models of **expanded HIV testing in general medical services in high prevalence areas** (2010)
- 10,688 HIV tests performed with 41 new HIV diagnoses (3.8/1,000).
  - 4.8/1,000 in primary care
  - 3.1/1,000 in hospitals
- Pilot projects demonstrated:
  - high levels of acceptability among patients
  - feasibility of routine testing in different medical services
  - 6 of 8 projects exceeded cost-effective threshold (1/1,000)



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# Innovation

## HIV Self-Sampling Services



HIV postal test



If you are worried about going to a clinic for a test, or find it hard to get there, why not get a free postal HIV test sent out to you?

#### It's better to know.

Knowing you're HIV positive as soon as possible helps you to better manage your condition and reduces the risk of transmitting the virus to other people. Regular testing for HIV is essential to ensure you know your HIV status and you are able to stay HIV negative. We recommend you test for HIV at least every year or more often if you have taken a risk.

#### Easy and convenient.

HIV postal testing allows you to do a quick and easy HIV test without the need to go to a clinic. It's free and confidential and you will receive your result within a week.

HIV postal testing uses a finger prick of blood which is tested in a laboratory using a 4th generation HIV test. This is a test that will detect HIV infection after a 'window period' of 4 weeks.

Questions about the test?



#### Order your test

Just click here to order your HIV postal test now!



#### Order your test

Just click here to order your HIV postal test now!

- HIV tests ordered on-line
  - 4<sup>th</sup> generation dried blood spot
  - 3<sup>rd</sup> generation oral swab
- Samples posted to laboratory
- Individual informed of result
  - Negatives by text
  - Positives by phone and letter
- Referral to HIV service recommended



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# Innovation

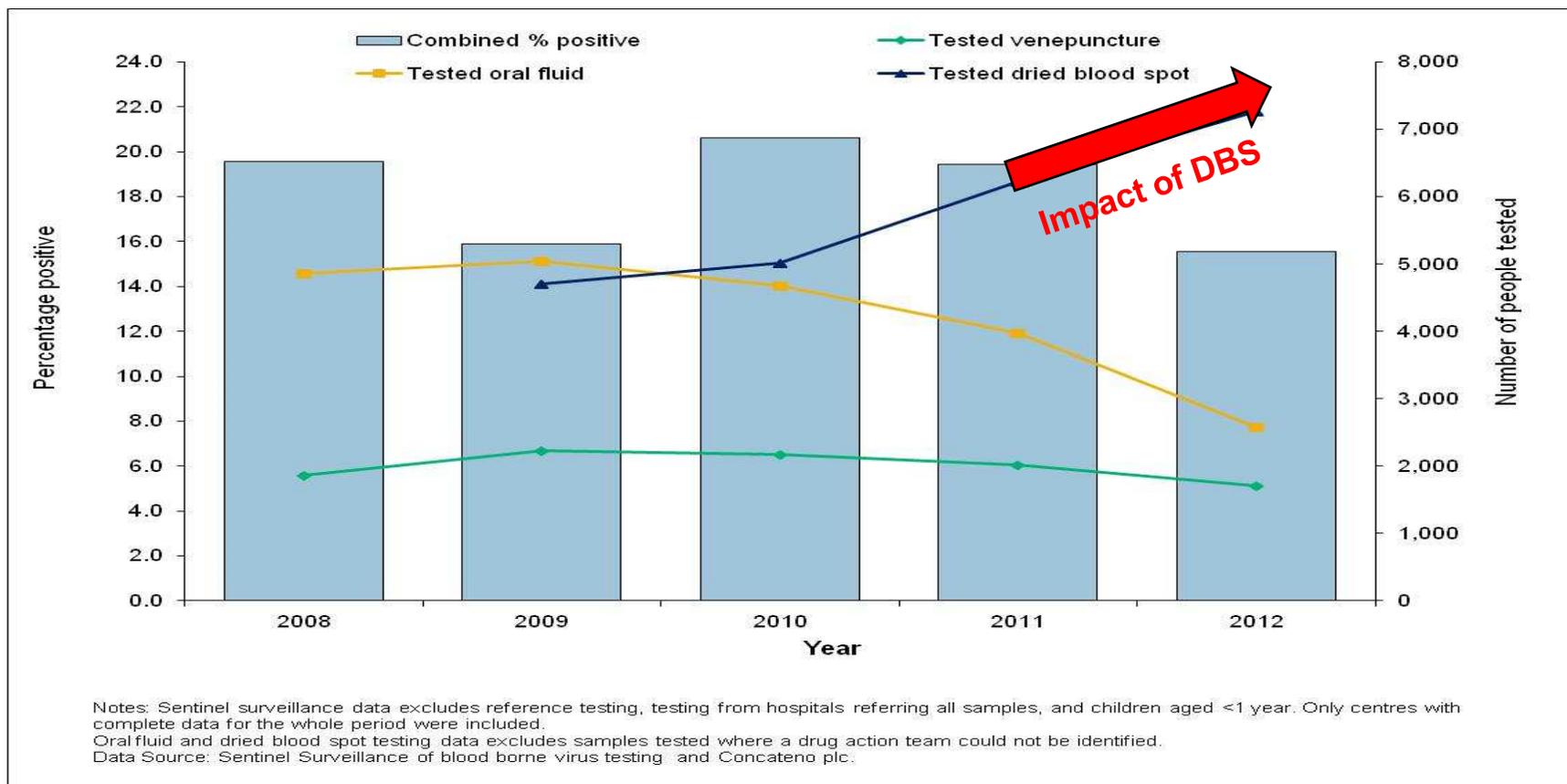
## Results HIV self-sampling service

- National and local HIV home sampling services have been established
  - PHE funded 2 national HIV home sampling pilots
- Results 5 month period November 2013-March 2014:
  - 12,485 kits delivered,
  - 6,593 (53%) returned with
  - 92 new HIV diagnoses (1.4%)
  - Of MSM, 41% tested >1 year ago, 33% never tested
  - Used by younger and more rural population
  - Self-report of high risk behaviour



# Innovation in testing technologies

Number of people who inject drugs tested for anti-HCV in specialist services for drug users, by year, from multiple data sources: 2008-2012





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# Increasing uptake of HBV/HCV testing in community

## Research projects and pilots

### Hepatitis B

- Nurse-led home-based DBS intervention to improve screening of household contacts of HBsAg positive pregnant women
- DH-funded study of self-administered oral fluid testing for HBV of close contacts of individuals with chronic hepatitis B (EMPACT-B) SM3

### Hepatitis C

- HCV case-finding in drug treatment centres through DBS, peer support and training of drug workers
- Large DH-funded study (HepCATT) to evaluate interventions in drug treatment centres and primary care (including: automated flagging of patients' electronic records if risk factors present) SM2

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**SM2** edited last bullet to "interventions in drug treatment centres and primary care"

deleted- underway (dont need it on slide?)

Sema Mandal; 03-10-2014

**SM3** if mentioning DH funding for hep C project, also mention it here for hepB? also underway.

Sema Mandal; 03-10-2014



## Lessons learned from HIV epidemic

- In HIV, key surveillance/epidemiological tools include data on **late presentation** and estimates of numbers of **undiagnosed** people
- In HIV, comprehensive testing approaches (including community-based) and mapping treatment cascade: to improve access to care for those who need it
- ART for HIV: intensified screening efforts. Data on importance of early initiation of treatment: a spur for early diagnosis strategies
- New hepatitis C treatments may be catalyst for improved epidemiological and diagnostic efforts for hepatitis



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## Lessons learned from HIV epidemic

- We have learned from HIV epidemic how to mount effective, cohesive public health response
  - Surveillance systems
  - Raising awareness among public and destigmatising testing
  - Effective treatments as catalysts for change
  - Innovations to make testing easier, quicker, more convenient, more reliable
  - Monitor and evaluate linkage into care



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## Priorities for hepatitis B and C and HIV

- Reducing the undiagnosed burden of disease; getting patients into treatment
- Core principles:
  - patient-focused
  - accessible
- Expanding testing:
  - increasing awareness among health professionals (provision and offer of test)
  - increasing awareness among public
  - use of new technologies
  - community settings
- Improving pathway from diagnosis into treatment and care



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Dr Sema Mandal

Consultant Epidemiologist

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Consultant Epidemiologist

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HIV/STI Department

Public Health England



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# Thank you

Professor Kevin A. Fenton MD PhD FFPH  
National director, Health and Wellbeing

Email: [Kevin.Fenton@phe.gov.uk](mailto:Kevin.Fenton@phe.gov.uk)  
Twitter: [@ProfKevinFenton](https://twitter.com/ProfKevinFenton)