



**SSSTDI Spring Conference**  
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# **New Adventures in Surveillance, Electronic Health Record –Sexually Transmitted Diseases (EHR-STI)**



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# Introduction

Surveillance is **information** for **action**

Timely high quality electronic surveillance data is essential to inform

- Health service planning
- National public health policy
- Public awareness
- European and Global Public Health Policy – TESSy reporting/WHO reporting



**EHR-STI Proof of concept project** – inform design and development of national Outbreak Case and Incident Management and Surveillance system, (**OCIMS**) which is being implemented in 2025-2026.

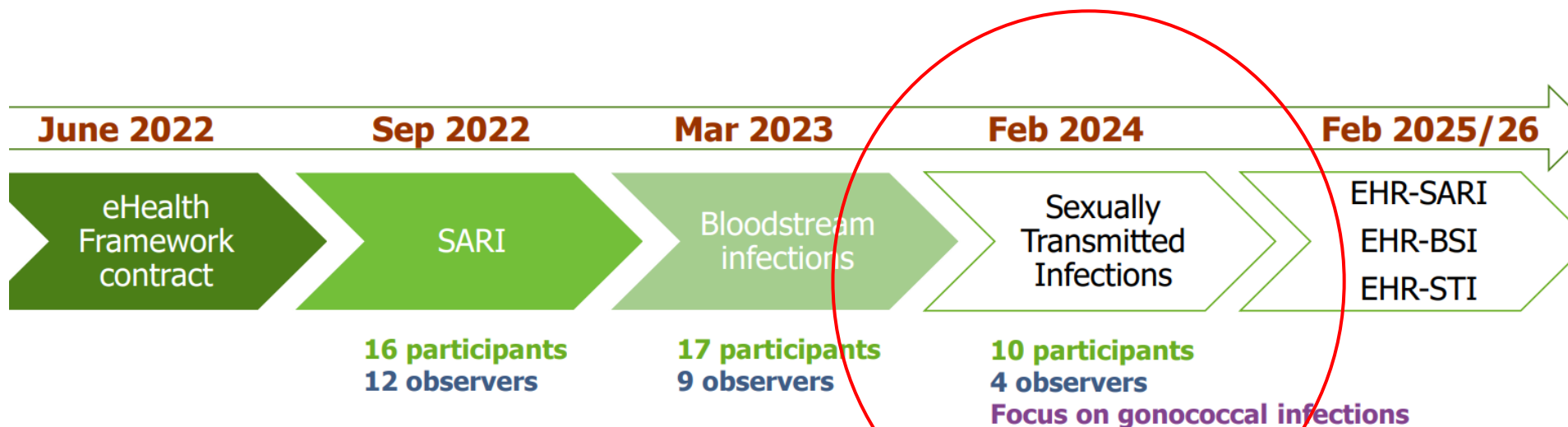




# Electronic Health Record – Sexually Transmitted Infections (EHR-STI)

## ECDC eHealth programme – SUREHD project

Design and implementation of multinational surveillance systems using routinely collected electronic health records in EU/EEA



External contractor:

**E-SURE consortium** (Epiconcept, SSI-DK, INSA-PT, NIVEL-NL)



ECDC is assisting countries to develop and/or expand electronic surveillance systems.



# Gonorrhoea Surveillance in Ireland – Current process

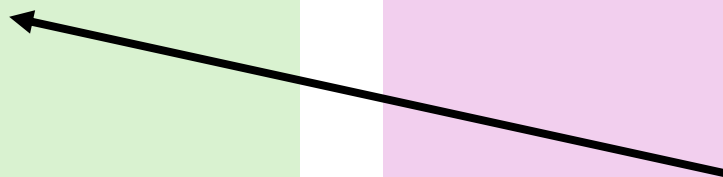
## Timely Comprehensive Electronic Core Data

- Identifier - name
- Location
- Age
- Sex at Birth

Clinic



Lab



National  
Surveillance

Public  
Health



## Manual Data in clinic notes

### Enhanced

- Gender identity
- Mode of transmission
- Country of origin
- HIV Status

**Gonorrhoea Enhanced Surveillance Form**  
version 2.0  
CONFIDENTIAL

**A. Case Details**

Patient Clinic ID:  Clinic/Practice Name:   
Lab specimen ID:  Laboratory name:   
Forename:  Surname:   
Date of birth:          
Sex (at birth) ☐ Male ☐ Female ☐ Unknown ☐ Trans male ☐ Trans female  
Gender identity ☐ Male ☐ Female ☐ Trans male ☐ Trans female ☐ Other   
Note: gender identity refers to the gender a person identifies as, regardless of their sex assigned at birth. A trans male refers to a person who identifies as male and was assigned female at birth. A trans female refers to a person who identifies as female and was assigned male at birth. Not every person who identifies as trans identifies as being transcribing female or male.

Country of birth:  Country of residence:   
Ethnicity ☐ White - Irish ☐ Asian or Asian Irish - Chinese ☐ Indian/Pakistani/Bangladeshi  
☐ White - Irish Traveller ☐ Asian or Asian Irish - Indian/Pakistani/Bangladeshi  
☐ White - Any other white background ☐ Asian or Asian Irish - Any other Asian background  
☐ Black or Black Irish - African ☐ Arab ☐ Roma  
☐ Black or Black Irish - Any ☐ Other   
Note: ethnicity should be self-reported and refers to how the individual case identifies themselves.

**B. Clinical Details**

Mode of transmission ☐ Heterosexual ☐ MSM ☐ Vertical transmission (BSC) ☐ Unknown  
☐ Other (if other mode of transmission, please specify)   
Country of infection:

**C. Comments**

**D. Form Completed By**

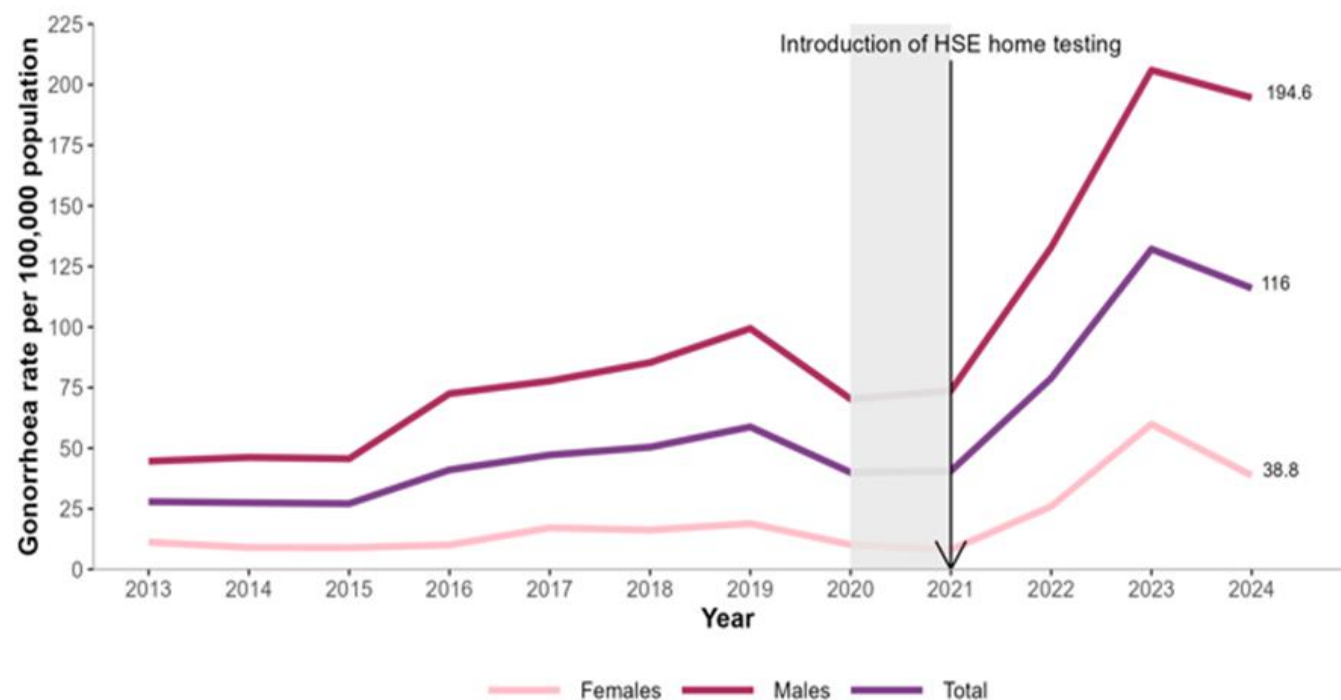
Completed by:  Date:

Please return the completed form to your local Department of Public Health.  
See <https://www.hpsc.ie/handbook/diseases/STIs/gonorrhoea/> for names and contact details. If sending by post, please place form in a sealed envelope marked "Private and Confidential".  
See <https://www.hpsc.ie/handbook/diseases/STIs/gonorrhoea/case-definition/> for gonorrhoea case definition.





# Trend in gonorrhoea notification rates by gender- in Ireland

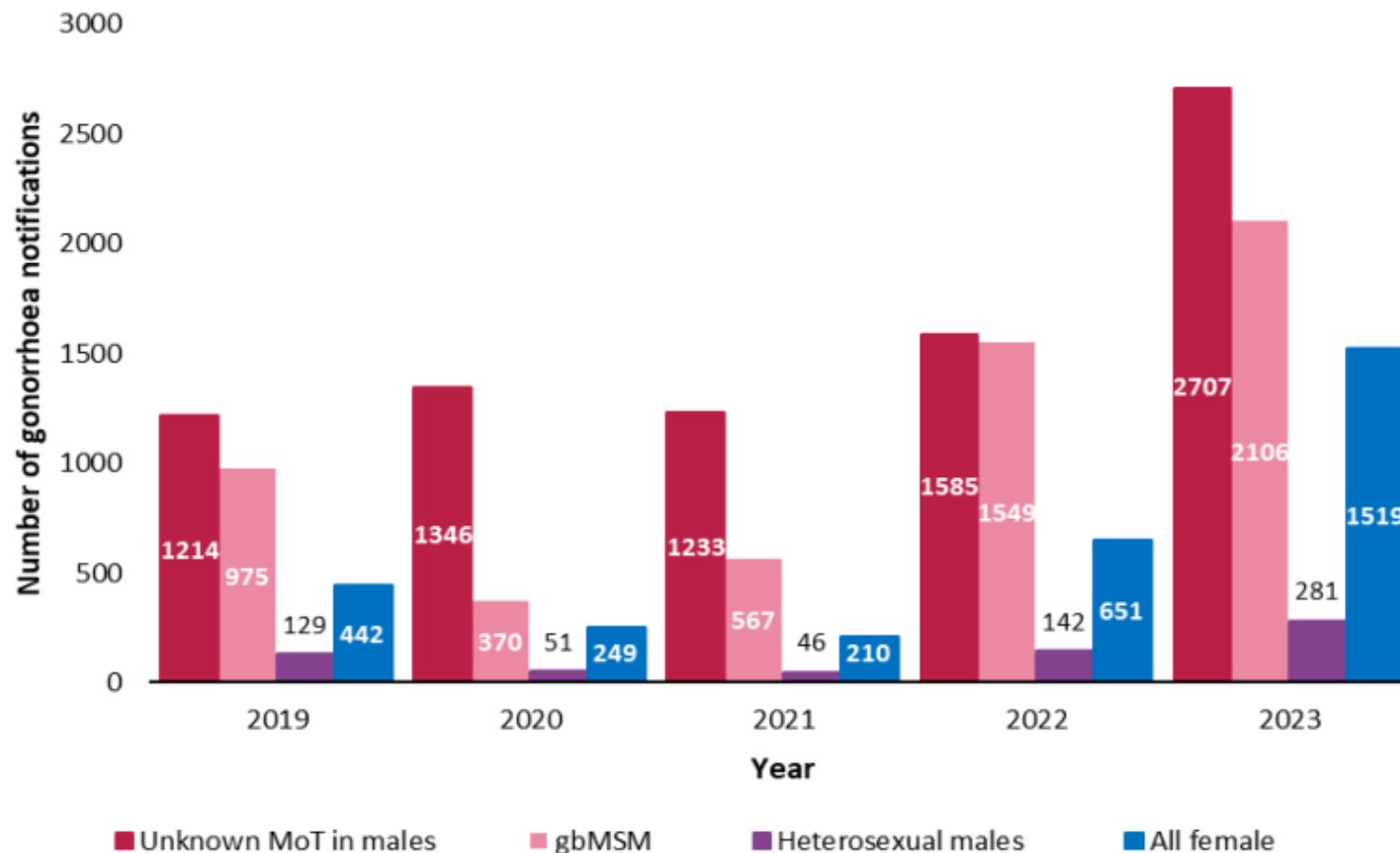


**Figure 1:** Gonorrhoea notification rates by gender, 2013 – 2024 in Ireland



# Trend in gonorrhoea notification rates by risk group

- Mode of transmission (MoT) is known for 48% of male cases in 2023
- Where MoT is known, gbMSM account for 84% of male cases in 2023
- Without behavioural data it is difficult to interpret and respond to trends



**Figure 2:** Number of gonorrhoea notifications in gbMSM, heterosexual males, unknown MoT in males and all females aged 18 years and over



## EHR-STI Project – Proof of Concept

Obtain electronic extracts of behavioural and clinical data from electronic system in one STI clinic

**Merge STI clinic data with laboratory data** (within clinic system or externally)

Agree core STI clinic surveillance dataset - to inform OCIMS design for electronic STI surveillance

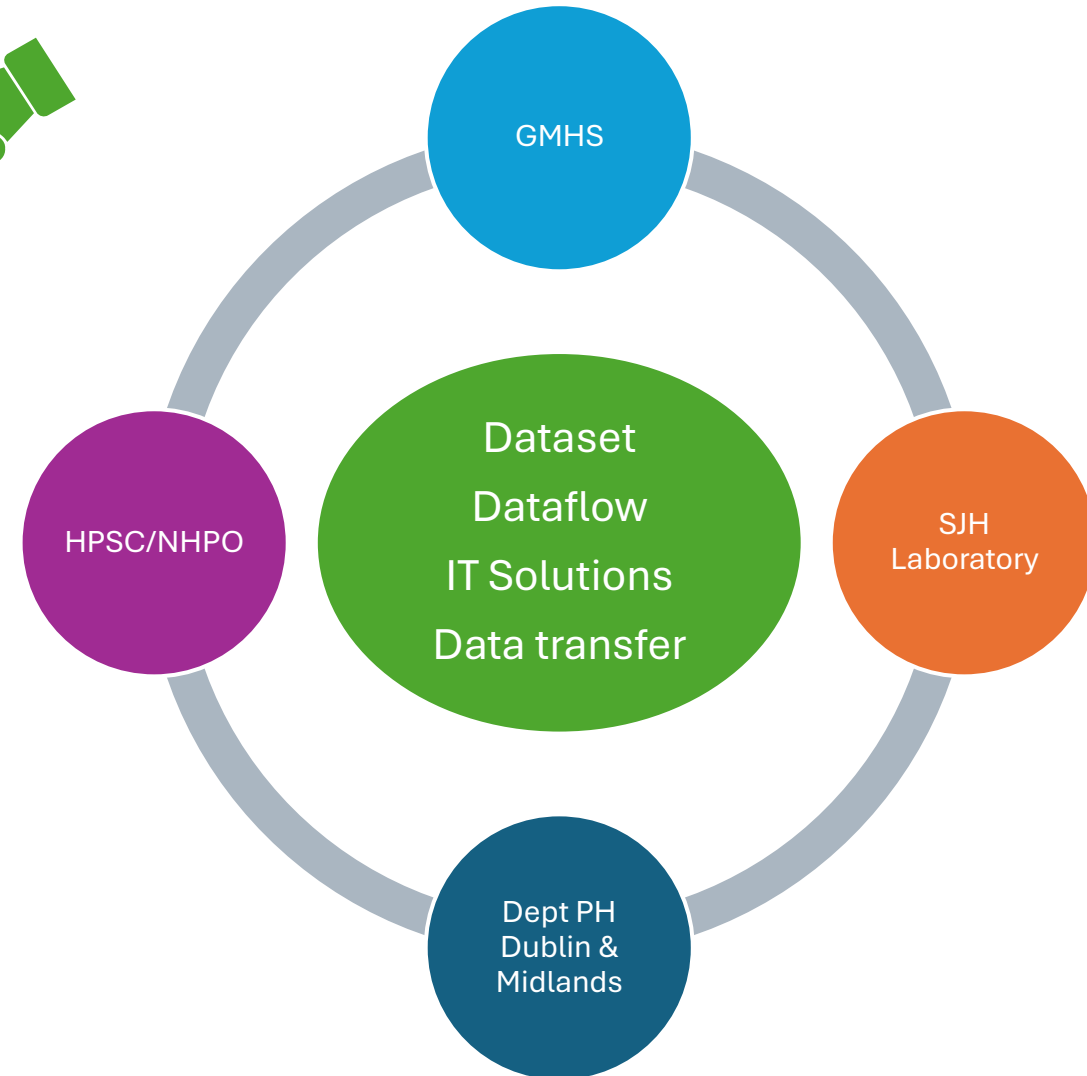






# EHR-STI Project Ireland –Progress to date

- ❖ **Identified STI Clinic – GMHS**
- ❖ **Set-up multidisciplinary steering group**
- ❖ **Identified the dataset for collection**
- ❖ **Described the dataflow**
- ❖ **Developed IT solutions to extract clinical data, and combine with laboratory data**
- ❖ **Identified secure system for data transfer**
- ❖ **Deploy IT Solutions – ongoing**
- ❖ **Data Collection – Quarter 2 2025**







# Agreed gonorrhoea electronic dataset for EHR-STI

## Demographic

Sex assigned at birth  
Gender identity  
Country of birth  
Ethnicity  
County of residence

## Behavioural

Mode of transmission  
Type of partner (same, opposite sex etc)  
In last 3 months

- Number partners
- Condom use
- Chemsex, recreational drugs

Sex work in the last 12 months

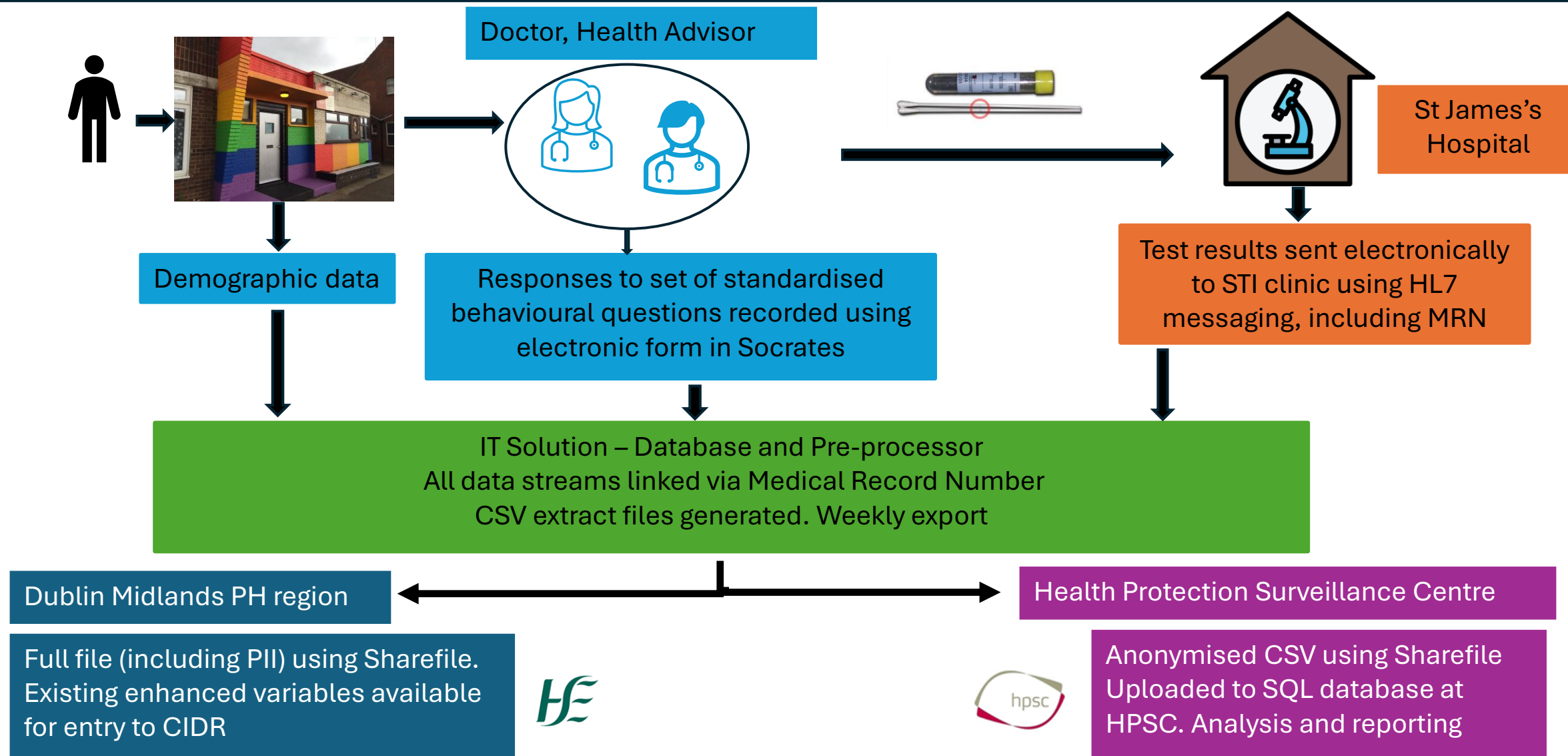
## Clinical

Co-infection  
Re-infection  
Symptomatic/asymptomatic  
Living with HIV  
On PrEP if HIV negative  
Using doxy PEP  
Antibiotic treatment  
ICD10 code

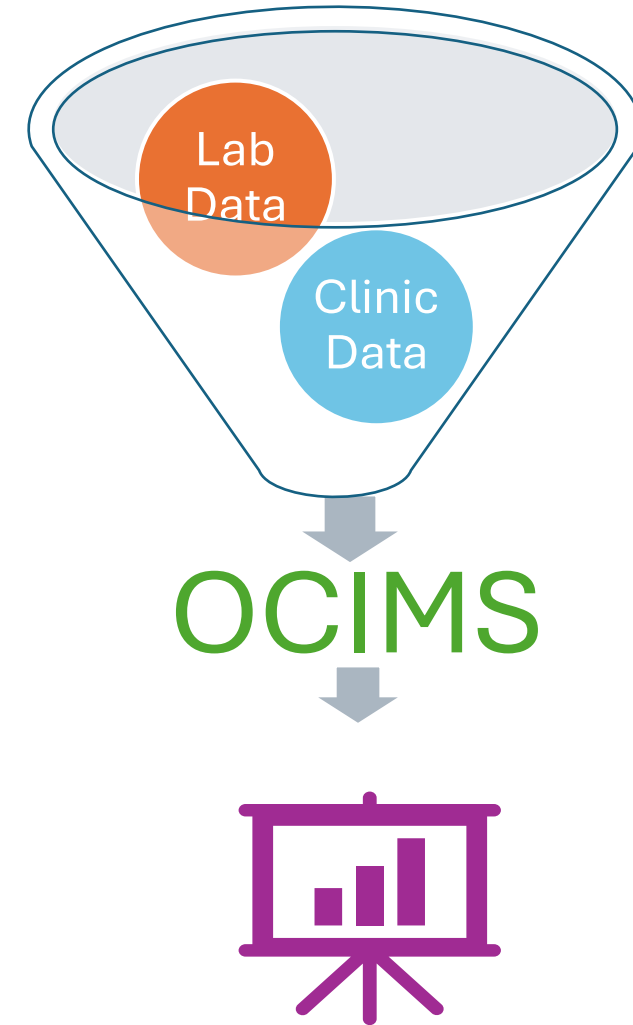


Questions on pregnancy and hormonal contraception will be added for clinics with cis-female patients.





- Collect behavioural data for other STI's including syphilis chlamydia and LGV from GMHS
- Use the agreed dataset for collection of behavioural data from other STI services and electronically up-load to OCIMS
- Behavioural data from STI's clinics would be linked to laboratory data in OCIMS
- Data to be analysed and incorporated into national surveillance



## ▪ Current Situation

- Gonorrhoea surveillance in Ireland is timely and comprehensive – limited enhanced data
- Without behavioural data it is difficult to interpret and respond to trends



## ▪ EHR-STI Project

- Working together a dataset was developed, dataflow was described, IT Solution created, and data transfer method identified
- Deploying IT solutions, data collection due to start in Q2 first reports in Q3 2025



## ▪ Future

- Additional work will be needed to upload behavioural data from STI clinics to OCIMS and link behavioural and laboratory data, and incorporate into national surveillance



# Acknowledgements

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# THANK YOU