

Additional Fig.S1:

Questions and how they were combined for definition of primary outcomes (and for country level screening variable)

Q149 Have you ever had a test for sexually transmitted infections (STIs) other than HIV?

- 1 No
- 2 Yes
- 3 I don't know

Q150 When did you last have a test for STIs other than HIV?

- 1 Within the last 24 hours
 - 2 Within the last 7 days
 - 3 Within the last 4 weeks
 - 4 Within the last 6 months
 - 5 Within the last 12 months
 - 6 Within the last 5 years
 - 7 More than 5 years ago
 - 8 Never
- [recency scale]

Q151 Did you have any symptoms on that occasion?

- 1 No
- 2 Yes
- 3 I don't remember

Q154 Have you provided a blood sample as part of any STI test in the last 12 months?

- 1 No
- 2 Yes
- 3 I don't remember

Q155 Have you provided a urine sample as part of any STI test in the last 12 months?

- 1 No
- 2 Yes
- 3 I don't remember

Q156 Was something inserted into the opening of your penis (urethral swab) as part of any STI test in the last 12 months?

- 1 No
- 2 Yes
- 3 I don't remember

Q160 Was something inserted into your anus (anal swab) as part of any STI test in the last 12 months?

- 1 No
- 2 Yes
- 3 I don't remember

Q162 Have you ever been diagnosed with syphilis?

- 1 No
 - 2 Yes
 - 3 I don't know
- [If =yes]

Q163 When were you last diagnosed with syphilis?
[recency scale without never]

Q165 Have you ever been diagnosed with gonorrhoea?

- 1 No
 - 2 Yes
 - 3 I don't know
- [If =yes]

Q166 When were you last diagnosed with gonorrhoea?
[recency scale without never]

Q168 Have you ever been diagnosed with Chlamydia or LGV?

- 1 No
 - 2 Yes
 - 3 I don't know
- [If =yes]

Q169 When were you last diagnosed with Chlamydia or LGV?
[recency scale without never]

Definition of **symptomatic diagnoses**:
Q149 = 2; Q150 < 6; Q151 = 2 **and**
Syphilis: Q162 = 2; Q163 = Q150 if both < 6
Gonorrhoea: Q165 = 2; Q166 = Q150 if both < 6
Chlamydia: Q168 = 2; Q169 = Q150 if both < 6

Definition of **asymptomatic diagnoses**:
Q149 = 2; Q150 < 6; Q151 = 1 **and**
Syphilis: Q162 = 2; Q163 = Q150 if both < 6
Gonorrhoea: Q165 = 2; Q166 = Q150 if both < 6
Chlamydia: Q168 = 2; Q169 = Q150 if both < 6

Definition of **unclassifiable diagnoses**:
Q149 = 2; Q150 < 6 **and**
Syphilis: Q162 = 2; Q163 ≠ Q150
Gonorrhoea: Q165 = 2; Q166 ≠ Q150
Chlamydia: Q168 = 2; Q169 ≠ Q150

Or

Symptomatic diagnosis with matching recency for both, syphilis + gonorrhoea/chlamydia

Definition of **screening (country-level screening rate variable)**:
Q149 = 2; Q150 < 6; Q151 = 1 **and**
Syphilis screening: Q154 = 2
Gonorrhoea/chlamydia screening: Q155 or Q156 = 2
and Q160 = 2

EMIS-2017 & LAMIS Variable Manual
<https://www.emis-project.eu/emis-2017/>