PARTNER NOTIFICATION:
INCREASING EFFECTIVENESS WITH MODERN COMMUNICATION TECHNOLOGY

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Background

• Prevalence of sexually transmitted infections (STI) in STI contacts is high

• UK standards recommend a partner notification (PN) ratio of 0.6 partners tested per index case within 1 month (0.4 in large conurbations) \(^1\)

• Traditional modes of PN:
  • The index patient, the provider or both

• Online platforms may reduce costs, expand coverage and increase efficiency

• SXT \(^2\) → Online PN tool using interactive digital contact slips

Online PN: How it works

1. Find a clinic
2. Show code

For clinic use
- This person is an official contact at risk of a treatable transmissible infection. Please ensure they are seen today.
- Go to sxt.org.uk/pn
- Enter patient’s partner code
- Patient’s partner code
- Already been notified
- If you’ve already been notified
- SXT will provide:
  - Name of the STI(s) diagnosed by the referring clinic
  - Date of referral
  - Confirmation to the referring clinic that this partner has been seen
Aims

• To assess effectiveness of an online partner notification tool
  • Number of contacts tested per index case Vs. national data

• To examine factors associated with successful partner notification
Method

• PN initiated in the UK Dec 2017 – July 2018

• Anonymised data on index case:
  • Demographics
  • STIs
  • PN

• Number of contacts screened per index case compared to national PHE data

• Factors associated with testing at least one partner examined using multivariable logistic regression

• Analyses were performed using STATA 12
Results

• 6414 index cases initiated PN via online PN tool
  • Median age 25 years (IQR 21-32)
  • 66% white ethnicity
  • 58% male
  • 26% men who have sex with men (MSM)

• 6779 STIs
  • Range 1-4 STIs per index case
  • Chlamydia (CT) 65%, gonorrhoea (GC) 21%, syphilis (STS) 5% and trichomonas vaginalis (TV) 4%

• 1,589 (24.8%) via online sexual health services
• 4282 (66.7%) within large urban clinics
• 23-34% of PN was self-verified online by the partners
Results

PARTNER NOTIFICATION RATIOS IN UK NATIONAL DATA VS. ONLINE PN TOOL (SXT)

<table>
<thead>
<tr>
<th>Condition</th>
<th>PHE</th>
<th>SXT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlamydia (CT)</td>
<td>0.52</td>
<td>0.57</td>
</tr>
<tr>
<td>Gonorrhoea (GC)</td>
<td>0.41</td>
<td>0.72</td>
</tr>
<tr>
<td>Syphilis (STS)</td>
<td>0.59</td>
<td>0.9</td>
</tr>
<tr>
<td>Trichomoniasis (TV)</td>
<td>0.24</td>
<td>0.41</td>
</tr>
</tbody>
</table>

PHE: Public Health England, UK

*Data is from 2017 national reported data based on coding of individuals who present as partners of infection.
<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Unadjusted OR</th>
<th>p-value</th>
<th>Adjusted OR</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Black African</td>
<td>0.79 (0.63, 1.00)</td>
<td>0.05</td>
<td>0.75 (0.58, 0.96)</td>
<td>0.02</td>
</tr>
<tr>
<td>Black Caribbean</td>
<td>0.75 (0.60, 0.93)</td>
<td>0.008</td>
<td>0.70 (0.56, 0.89)</td>
<td>0.003</td>
</tr>
<tr>
<td>Black other</td>
<td>0.96 (0.80, 1.21)</td>
<td>0.89</td>
<td>0.77 (0.61, 0.97)</td>
<td>0.028</td>
</tr>
<tr>
<td>Asian</td>
<td>1.46 (1.11, 1.90)</td>
<td>0.006</td>
<td>1.25 (0.94, 1.66)</td>
<td>0.13</td>
</tr>
<tr>
<td>Other</td>
<td>1.05 (0.83, 1.33)</td>
<td>0.65</td>
<td>0.91 (0.71, 1.17)</td>
<td>0.46</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th>Unadjusted OR</th>
<th>p-value</th>
<th>Adjusted OR</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>1.15 (1.03, 1.28)</td>
<td>0.01</td>
<td>0.74 (0.61, 0.90)</td>
<td>0.003</td>
</tr>
<tr>
<td>Transgender</td>
<td>0.72 (0.18, 2.78)</td>
<td>0.63</td>
<td>0.84 (0.57, 1.23)</td>
<td>0.37</td>
</tr>
<tr>
<td>Other</td>
<td>0.63 (0.17, 2.37)</td>
<td>0.49</td>
<td>0.56 (0.27, 1.18)</td>
<td>0.13</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Location</th>
<th>Unadjusted OR</th>
<th>p-value</th>
<th>Adjusted OR</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large conurbations</td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Elsewhere</td>
<td>0.57 (0.47, 0.69)</td>
<td>&lt;0.001</td>
<td>0.47 (0.37, 0.59)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Online</td>
<td>0.40 (0.35, 0.46)</td>
<td>&lt;0.001</td>
<td>0.30 (0.26, 0.35)</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>STI</th>
<th>Unadjusted OR</th>
<th>p-value</th>
<th>Adjusted OR</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlamydia</td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Gonorrhoea</td>
<td>1.24 (1.09, 1.41)</td>
<td>0.002</td>
<td>0.92 (0.77, 1.11)</td>
<td>0.40</td>
</tr>
<tr>
<td>Syphilis</td>
<td>1.35 (1.06, 1.71)</td>
<td>0.01</td>
<td>1.06 (0.78, 1.42)</td>
<td>0.72</td>
</tr>
<tr>
<td>Trichomonas</td>
<td>0.91 (0.69, 1.19)</td>
<td>0.49</td>
<td>0.57 (0.40, 0.81)</td>
<td>0.002</td>
</tr>
<tr>
<td>NGU</td>
<td>0.33 (0.19, 0.57)</td>
<td>&lt;0.001</td>
<td>0.16 (0.08, 0.31)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>PID/epididymitis</td>
<td>0.22 (0.08, 0.64)</td>
<td>0.002</td>
<td>0.13 (0.04, 0.43)</td>
<td>0.001</td>
</tr>
<tr>
<td>HIV</td>
<td>1.06 (0.60, 1.86)</td>
<td>0.84</td>
<td>0.89 (0.44, 1.81)</td>
<td>0.75</td>
</tr>
<tr>
<td>Other</td>
<td>1.17 (0.74, 1.85)</td>
<td>0.51</td>
<td>0.70 (0.41, 1.20)</td>
<td>0.20</td>
</tr>
</tbody>
</table>

Table 1. Associations with having ≥ 1 verified tested partner

OR: odds ratio
PID: pelvic inflammatory disease
NGU: Non-gonococcal urethritis
Conclusions

→ Online PN tool demonstrated increased PN compared to national data for CT, GC, STS and TV

→ Reduced workload and cost

→ Successful in large conurbations

→ Being male, of black ethnicity or having a diagnosis of TV was associated with fewer partners tested
Discussion

• Limitations
  • Individuals using the online tool may not be representative of the comparator group
  • Inability to link partners with subsequent STI results

• Strengths
  • Large sample size
  • Routine use of the online tool within the provider services

• Online PN provides a cost efficient strategy for effective PN

• Highlights groups to focus PN strategies in the future
Acknowledgements

Participating providers included:

- Brighton SHAC
- Brook
  - Brixton, Dudley, Euston, Milton Keynes, Sandwell
- Burrell St Sexual Health Clinic
- Harrison Wing
- Hathersage Sexual and Reproductive Health Clinic
- Jefferiss Wing
- Kent Online Testing
- North and North East Lincolnshire Sexual Health
- North Manchester Sexual Health Clinic
- Salisbury Department of Sexual Health
- SH24
- SHAC Central
- SHAC East
- Streatham Hill Clinic
- Walworth Clinic
- West Kent Integrated Sexual Health