



UK Health
Security
Agency

Shigella spp. trends in England

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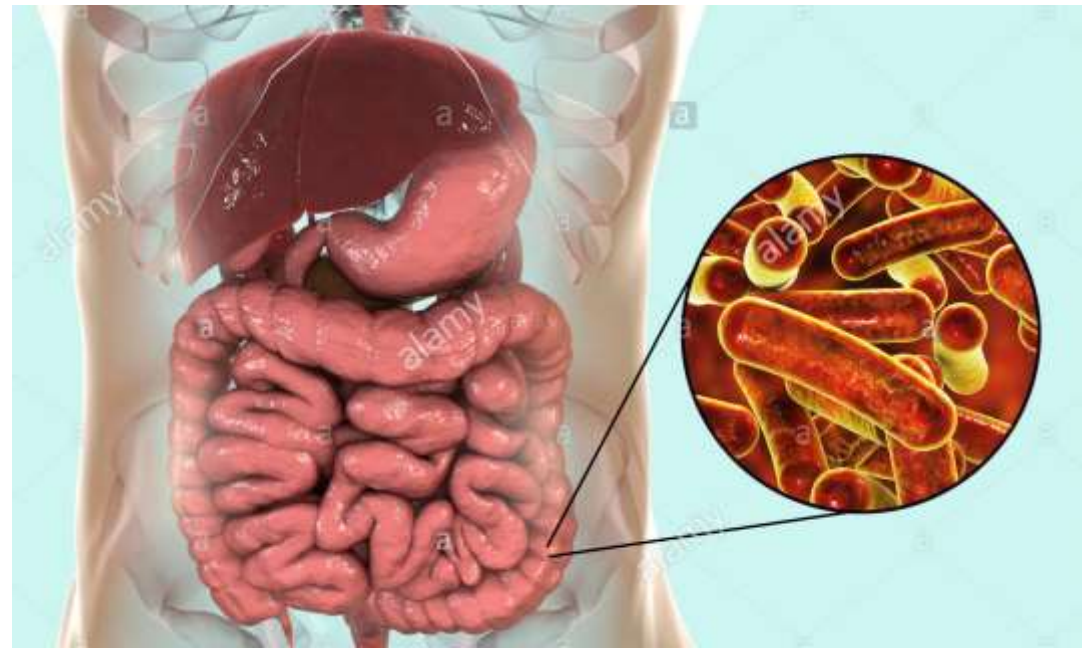
Contents

- Brief introduction to *Shigella*
- Update on epidemiology of sexually transmitted *Shigella* in England
- Update on outbreak of extensively-drug resistant *Shigella sonnei*

What is *Shigella*?

- **Shigella bacteria cause dysentery**
 - Symptoms = diarrhoea, stomach cramps and bloody stools
 - Ranging from self-limiting to severe
 - Symptoms start 12-96 hours after exposure
 - Symptoms typically last 4-7 days

- **Four species – focus on *Shigella flexneri* & *Shigella sonnei***
 - *S. flexneri* is a notifiable disease in UK



How is *Shigella* transmitted?

- **Faecal-oral transmission**
 - foreign travel to endemic countries
 - rarely domestically acquired through food-borne exposure in UK
 - increasingly sexually transmitted
- **Predominately affects MSM in UK**
 - Focal geography – London and Manchester
 - In 2019, more than half of all cases of shigellosis among adults in England were attributed to sexual transmission among MSM
- **Highly infectious and spread easily**

Shigella spp. trends in England

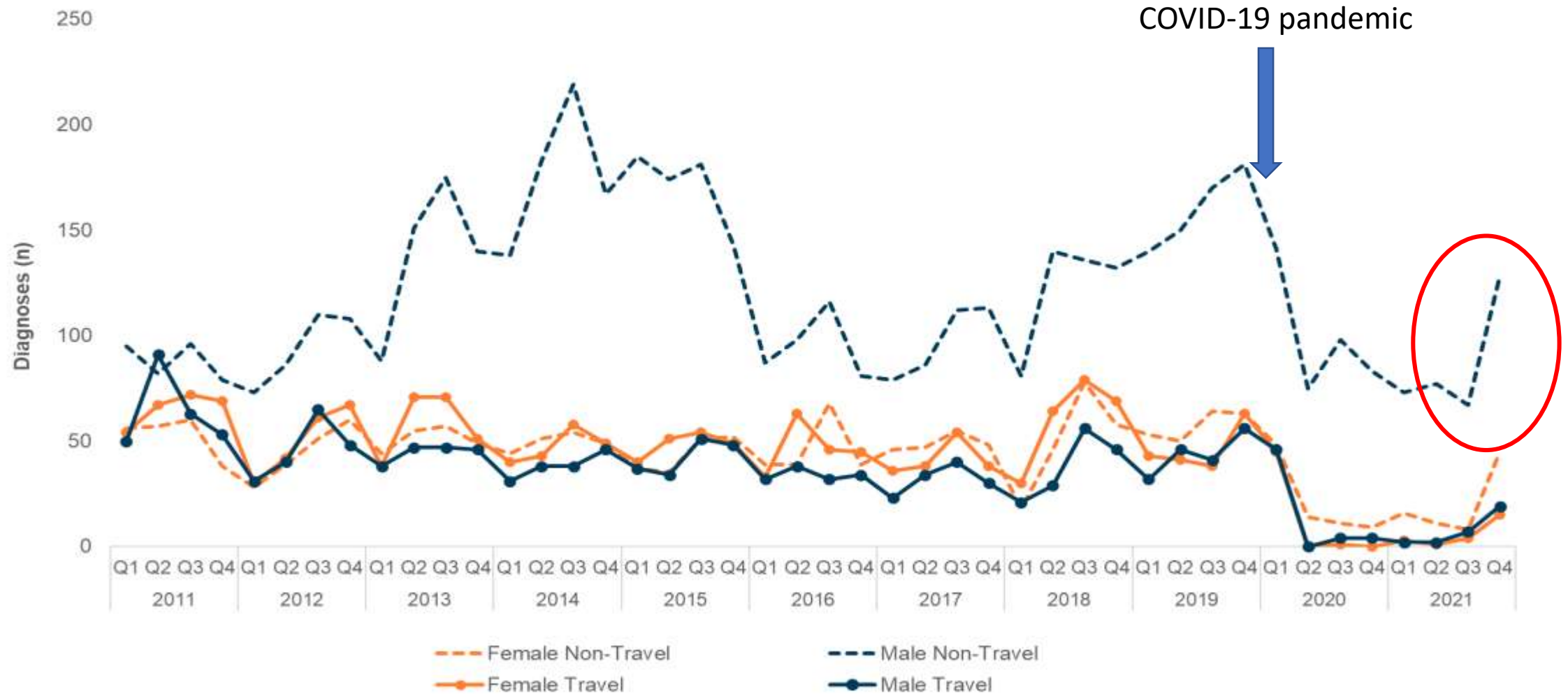


Figure 2. Number of *Shigella* spp. diagnoses among adults (≥ 16 years) by gender and travel history, England, 2011 to 2021. (Data source: GDW)

Shigella spp. trends in England

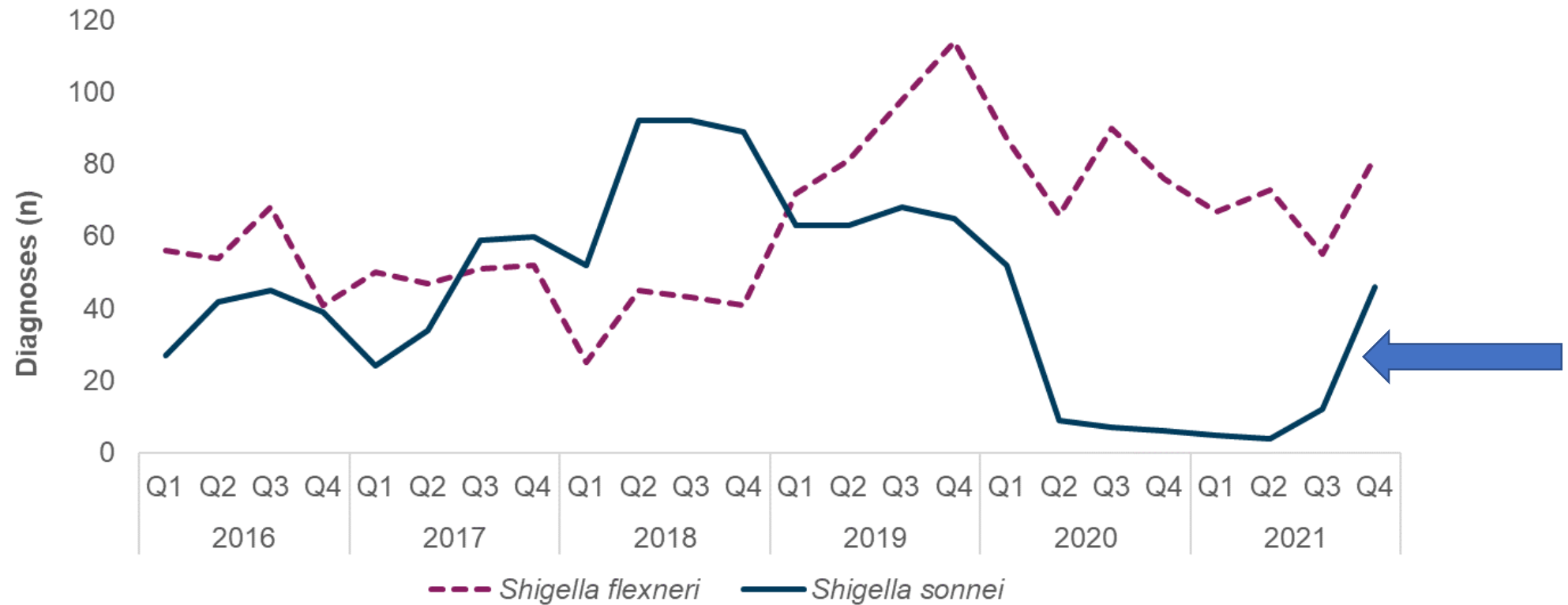


Figure 3: Number of *Shigella* spp. diagnoses among presumptive MSM (adult males, no travel history) by species, England, 2016 to 2021

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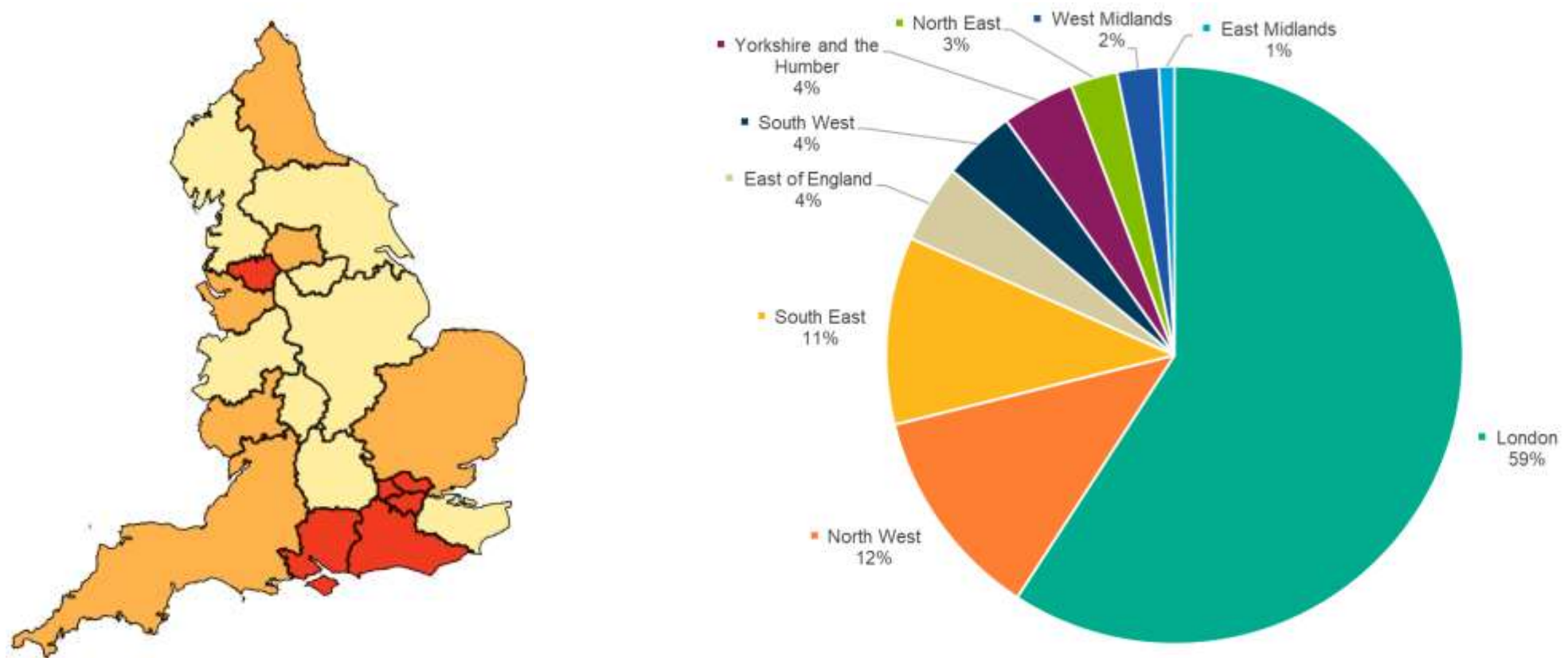
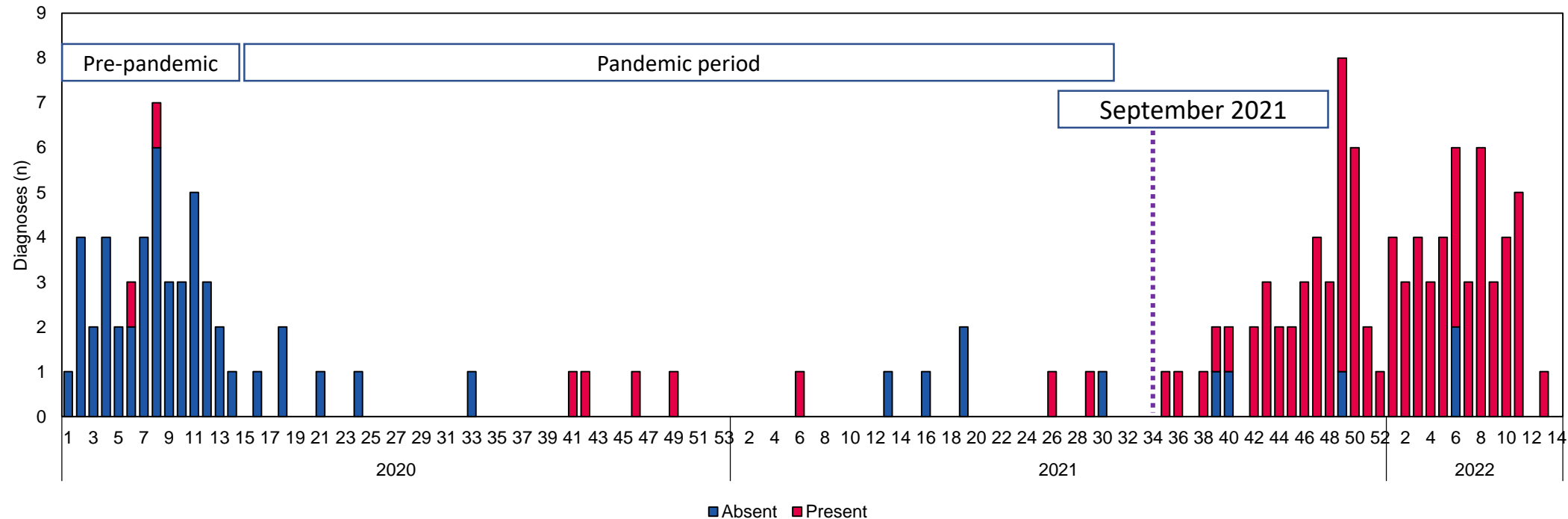


Figure 4: Distribution of *Shigella* spp. diagnoses among presumptive MSM (adult males, no travel history) by UKHSA Region, England, 2021. (Data source: GDW)

Context: Extensively-drug resistant *Shigella sonnei*

Figure 5: Cases of *S. sonnei* t10.377 by week and ceftriaxone resistance (GDW, England 2020-22)



- ***S. sonnei* t10.377 cluster:** large MDR cluster endemic in England among gay, bisexual and other men who have sex with men in since 2018, but very low activity between March 2020 and August 2021
- Since **September 2021**, increase in number of *S. sonnei* cases among presumptive MSM + change in AMR profile ($bla_{CTX-M-27}$)
- **Risks for health protection:** (i) increased severity due to reduced susceptibility to antimicrobials used to treat sepsis, (ii) transmission outside of sexual networks (spill over to other settings including vulnerable populations), (iii) transfer of AMR determinants to other pathogens

Actions

- National outbreak declared in December 2021
- UKHSA established Outbreak Management Team
- Range of activities to raise awareness among public and healthcare professionals
 - Clinical subgroup established and produced a slide set and information poster
 - Alerts via professional bodies and networks (BASHH, GP and pharmacy networks)
 - Press releases
 - Articles in gay press, social media alerts
 - Updating information on web (Sex Wise website)

Situational report

- **Case counts:**
 - Confirmed cases: 89 within this outbreak (in the context of ~600 cases among MSM in the same time period)
- **Demographics:** 98% male (n=87/89); median age 34
- **AMR profile: antimicrobial resistance is very high**
- 94% (n=84/89) of confirmed cases had a plasmid-mediated genomic marker of ceftriaxone resistance (*bla*_{CTX-M-27}).
- Where AMR information is available, all confirmed cases are multi-drug resistant or extensively-drug resistant.

Enhanced surveillance 1

- **44% (39/89)** of confirmed cases are enhanced, via outbreak questionnaires (**n=34**) and routine ESQs (**n=5**)
 - **Gender and sexual orientation:** gay or bisexual men (90%)
 - **Ethnicity:** Any White background (**85%**)
 - **Contexts of sexual transmission:** most acquired the infection during sex with one or more new partners (**n=22**) often met via geospatial applications (Grindr, Tinder), in private group sex events (n=4) or in public dark rooms or sex clubs (n=7). Chemsex reported by a minority of cases (n=5).
 - **Suspected route of acquisition:** sex between men (**74%**), household transmission (n=1), occupational exposure (n=1), unknown (n=8)
 - **Suspected country of acquisition:** England (**n=25/39, 64%**), Scotland (n=1), Spain (Canary Islands, n=2), France (n=1), Greece (n=1), unknown (n=9)

Enhanced surveillance 2

➤ **Clinical severity:**

- attended A&E (49%)
- antibiotic treatment (51%)
- hospitalised (23%)

- **Other sexual health:** HIV negative on PrEP (73%), living with HIV (n=5), history of another bacterial STI in 2021 (38%)

Key messages

- Recent trends suggest that sexually transmitted shigellosis among MSM is returning to pre-pandemic levels
- Ongoing outbreak of extensively-drug resistant *Shigella sonnei* among MSM indicating concerning clinical severity
- Likely that more work is needed to raise awareness of Shigella as an STI and to signpost cases to sexual health services

Thank you for listening

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Acknowledgements:

Colleagues from STI team and GBRU at UKHSA Colindale
Health Protection Teams

• Further information:

- Shigella report published recently by PHE can be found [here](#)
- <https://www.sexwise.org.uk/stis/shigella>
- <https://www.hperesources.org.uk>