NIHR | Health Protection Research Unit in Gastrointestinal Infections at University of Liverpool

Challenges recruiting to a study to understand inequalities in the impact of exclusion due to Shiga-toxin producing *E.coli* (STEC) infection for families with young children in England

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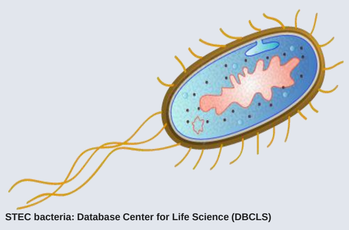
Background

- Shiga toxin-producing *Escherichia coli* (STEC) bacteria are a public health priority in the UK because they can cause large outbreaks, serious illness, high healthcare costs and death.



STEC bacteria: Database Center for Life Science (DBCLS)

- Young children (aged 1-4 years) in England have the highest incidence (5.33/100 000 population) (1).
- Children under the age of 6 have the worst consequences including renal failure and long-term exclusion from childcare (1,2).

Methodology

- No UK qualitative research examines the impact of STEC exclusions on children and their families (4).
- This study is using a qualitative methodology to privilege the lived experience of families (5) with respect to STEC exclusions.

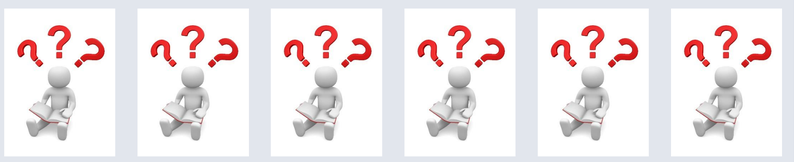
https://commons.wikimedia.org/wiki/File:Family_Portrait.jpg

Research Aim:

To examine how the management and consequences of exclusions due to STEC for families with young children are shaped by contrasting social and economic circumstances.

Recruitment Issues

- Recruitment has been very slow – only 4 interviews in first 6 months.



- Our use of the STEC questionnaire as a recruitment tool has revealed some systemic issues:
  - a. Not all health protection teams use the UKHSA questionnaire to collect STEC data.
  - b. Old versions of the form are routinely being used.
  - c. The recruitment criteria are sometimes not being applied
    - a) Cases > 6 years consenting to be contacted.
    - b) Cases whose children have not been excluded consenting to be contacted.

Exclusion policies for STEC infections

- As STEC infections are a public health priority the UK Health Security Agency (UKHSA) has detailed algorithms for managing suspected and confirmed infection (3).
- Children under the age of 6 have *additional* guidelines (see blue boxes Fig. 1.) and are asked to stay away from childcare settings, until they have 2 stool samples clear of STEC bacteria (3).

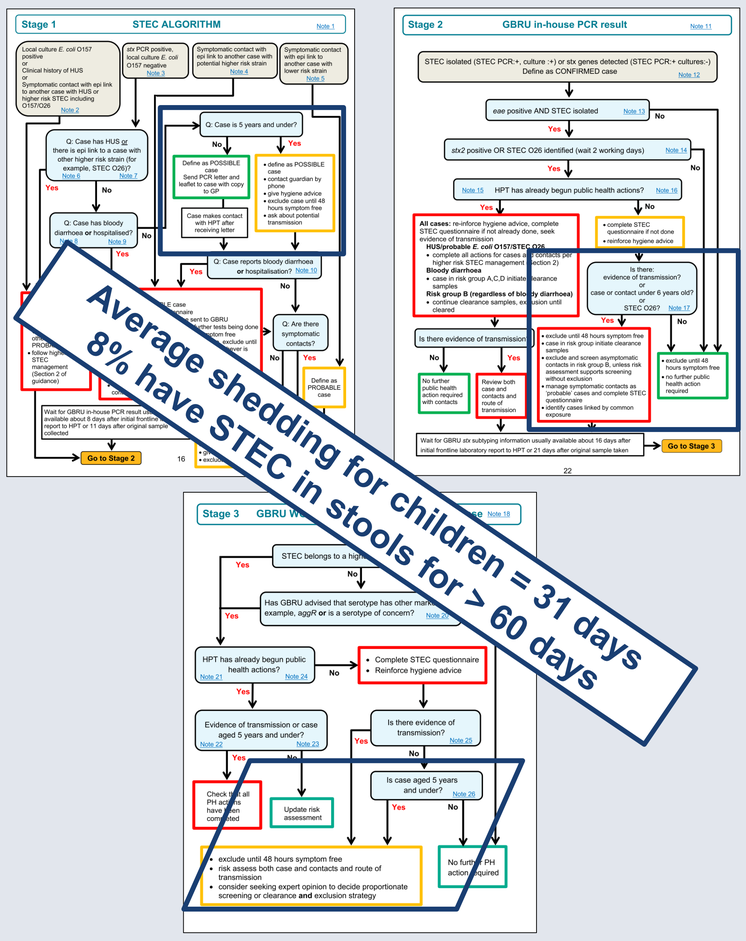


Figure 1. Images taken from (3)

- Eight percent of children under six with STEC are excluded from childcare for more than 60 days (2).
- **We do not know the impact of these exclusions on families or if there are inequalities in their impact for families living in different circumstances.**

Methods

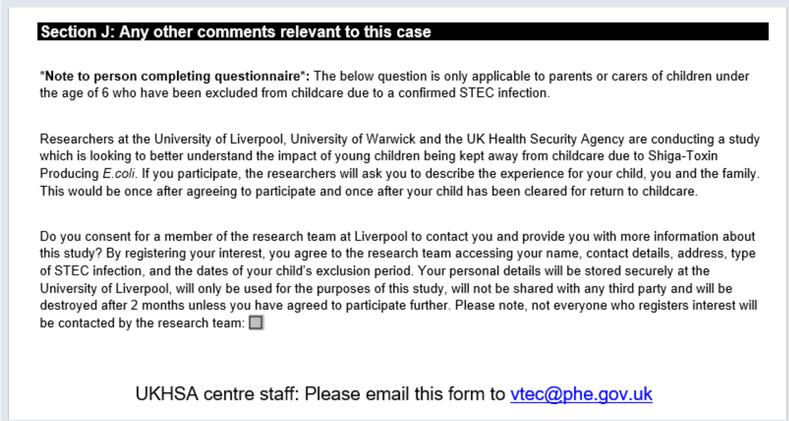
- Recruit 10-20 parents/carers of children excluded from childcare due to STEC infection from socio-economically contrasting contexts using area of residence IMD.
- 1-2 narrative interviews with each participant. 1 at the start and 1 at the end of their exclusion period.
- Recruitment April 2022 - June 2023.

Narrative interview question:

'I'd like you to tell me about your experience of [child] being asked to stay away from childcare with all the events and experiences that are/were important to you. I am not asking you to discuss the impact of the disease itself on your child. Start wherever you like, please take the time you need. I'll listen and won't interrupt.'

Recruitment

- Addition of question to STEC Questionnaire
- Contact parents/carers to get informed consent for participation in the study.



Section J: Any other comments relevant to this case

Note to person completing questionnaire: The below question is only applicable to parents or carers of children under the age of 6 who have been excluded from childcare due to a confirmed STEC infection.

Researchers at the University of Liverpool, University of Warwick and the UK Health Security Agency are conducting a study which is looking to better understand the impact of young children being kept away from childcare due to Shiga-Toxin Producing *E.coli*. If you participate, the researchers will ask you to describe the experience for your child, you and the family. This would be once after agreeing to participate and once after your child has been cleared for return to childcare.

Do you consent for a member of the research team at Liverpool to contact you and provide you with more information about this study? By registering your interest, you agree to the research team accessing your name, contact details, address, type of STEC infection, and the dates of your child's exclusion period. Your personal details will be stored securely at the University of Liverpool, will only be used for the purposes of this study, will not be shared with any third party and will be destroyed after 2 months unless you have agreed to participate further. Please note, not everyone who registers interest will be contacted by the research team: ☐

UKHSA centre staff: Please email this form to vtec@phe.gov.uk

Figure 2. Image taken from (6). Additional recruitment question added to STEC questionnaire.

Conclusion

- This study provides an example of how research activity can expose opportunities to improve health protection practices. E.g. it highlights that not every local authority is using the most up-to-date questionnaire and some local authorities do not use the national questionnaire at all.
- Understanding and addressing these issues is important for future research studies.
- Understanding and addressing these issues may also provide wider benefits within the health protection system.
- This is in addition to the substantive findings of the research and their impact.

Next Steps

- Recruitment will continue until June 2023
- Systemic recruitment issues will be shared with the UKHSA and local Health Protection Teams.

References

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