



Joint STI-FWC DNCC MEETING 2024

Meeting report

7 June 2024
Online meeting, 12:30-14:00

Opening and meeting objectives

A joint meeting of the ECDC Disease Network Coordinating Committees for sexually transmitted infections (STI) and food- and waterborne diseases (FWD) was held on 7 June 2024, 12:30-14:00.

Otilia Mardh and Therese Westrell (ECDC) welcomed the participants and outlined the agenda (Annex 1). Participants from the two networks introduced themselves (Annex 2).

The overall aim of the meeting was to obtain guidance on what the networks expect from ECDC in the area of sexually transmitted enteric pathogens, in particular MDR/XDR *Shigella* and where collaboration across countries and networks would be of EU-added value.

The specific objective was to discuss and collect opinions of the following topics:

- How concerned are we about the MDR/XDR aspect and risk for spread into the general community? The severity of these infections? The sexual health aspects of these diseases?
- How do we want to react/communicate across the networks about these MDR/XDR *Shigella* clusters/cases? Is the information provided in EpiPulse adequate for you to take action?
- Any additional actions from ECDC to facilitate collaboration across networks/countries on the MDR/XDR *Shigella* issue and other “enteric” STIs?

Background

Over the course of 2022, 2023 and 2024, cases have been reported in EpiPulse of *Shigella* infection with MDR/XDR strains that predominantly affect gay, bisexual and other men who have sex with men (MSM) in several Member States. The events were periodically reflected in ECDC’s weekly Communicable Disease Threats Reports (CDTR) and epidemiological updates that we hope were useful for guiding national responses.

The FWD Network had a pivotal role in contributing to the reporting of these cases in EpiPulse by providing epidemiological and microbiology updates, and outbreak strain sequencing details that helped defining the multi-country geographical spread, the role of mass gathering events attended by MSM as transmission hot-spots, and the MDR/XDR characteristics of the strains. There have also been cases alerted and reported by STI, Antimicrobial resistance, and Epidemic Intelligence networks.

Considering the relevance for the STI Network of being aware of the ongoing transmission clusters, access has been given by ECDC to the STI Network to the EpiPulse items reporting on *Shigella* cases among MSM. This is especially important in relation to the Pride season and other festivals attended by MSM, and the involvement of the STI Network experts in tailoring national public health measures.

More details on the events can be found in the ECDC presentation shared together with this report.

Discussion

How concerned are we about the MDR/XDR and sexual health aspects of these diseases?

Germany mentioned that it may be worth noting notification aspects - it is not clear how many countries are collecting and reporting information on transmission category or sexual orientation of the individual.

It was noted that, in Belgium, *Shigella* is notifiable only in part of the country. In 2022, the risk assessment and risk management groups from STI and FWD, including the regional health authorities, did a [joint risk assessment on this topic](#), including actions for response.

Denmark has noted a large increase in gonorrhoea in MSM as well as in young heterosexuals, but sequencing of these clusters indicated insignificant overlap in the two populations ([Pedersen et al. 2024](#)). There is a higher resistance pattern in gonorrhoea cases in the MSM population than among the young heterosexuals.

In the Netherlands, about 60% of the *Shigella* patients are men, but 40% are women. The strains corresponding to these cases are mixed and not completely distinct. In 2023, the Netherlands had the highest incidence of shigellosis in 10 years' time. There is an increasing trend towards only doing molecular diagnostics and only culturing the most severe hospitalised cases. The lack of *Shigella* isolates for characterisation puts a threat on the possibility to receive and analyse trends for surveillance.

Regarding the latter: it is the same in Germany, i.e. surveillance concerns following the introduction and application of PCR panel diagnostics.

In France, shigellosis is not a reportable disease and the reported data come from laboratories. In the *Shigella* isolates received, 94% are from men, mostly young men. France attempted an *ad hoc* study on previous sexual exposure, but it was complicated due to cross-disciplinary nature of the work. This trend has been observed for some time but spillover to other populations has not yet been observed. Most physicians see *Shigella* as a travel-associated infection. There may be a need to educate physicians that *Shigella* in men that do not have a recent travel history should be an indication for screened for other STI and counselling on sexual transmission.

It may be relevant to consider how treatment guidelines for other STIs (e.g. gonorrhoea) may be impacting the MDR/XDR *Shigella* situation.

In France, the ANRS Doxyvac open-label trial was conducted in MSM on PrEP to receive either doxycycline or non-doxycycline (2:1) post-exposure prophylaxis (PEP); all patients were screened for ESBL-producing *E. coli* on selective agar and, in some cases, ESBL-producing *Shigella* were detected. Which arm of the study the patients

were in has not yet been looked at. Many of the *Shigella* infections detected were not accompanied by symptoms, but shigellosis with or without ESBL production has been described in some participants.

In Belgium there has been [increased azithromycin resistance in gonorrhoea](#), from 0 to 36%, starting with MSM and now spreading to other populations. Azithromycin has been removed as first-line treatment option for both chlamydia and gonorrhoea in Belgium in 2023 and in France in 2022.

In Germany, the current difference between travel-associated infections with *Shigella* and the sexually transmitted infections are the AMR profiles, so one important public health measure would be to sensitize treating physicians for a higher probability of AMR in STI-related *Shigella* cases and to inform about smart therapeutic approaches, as well as to initiate necessary partner notification and treatment to avoid further clinically serious infections.

In summary, there appears to be substantial antimicrobial resistance in gonorrhoea cases and substantial use of antimicrobials in some populations of MSM. The latter may increase the selection of multiresistant bacteria in this particular population, and thus have an influence on a potential resistance exchange and rise of MDR/XDR *Shigella* cases. Data on severity and treatment outcomes of MDR/XDR *Shigella* cases are not very complete. Several countries indicated that the threshold for diagnostics for diarrhoeal disease is quite high, so there is likely a large under-estimate of the number of shigellosis cases in general with diagnosis primarily of more severe cases. The same can be assumed for MDR/XDR *Shigella* cases. Studies in the US have shown that 30% of adult male shigellosis cases suffered from severe disease (hospitalisation, septicaemia or death) compared to 25% of adult female cases ([McKrickard et al, 2018](#)).

ECDC asked the DNCCs to provide input on how much to focus on this issue, given that source control does not seem to be possible such as in the classical approach to *Shigella* for FWD outbreaks.

With information provided via EpiPulse, Germany liaises with FWD counterparts, but also with specialised clinicians to sensitize on treatment options to allow quicker and more appropriate treatment. There is no possibility to do full source control for sexually acquired cases, but advice can be given if it is clear that sexual transmission is increasing. For example, patients and the MSM community could be sensitized and this could impact the most appropriate treatment.

Spain indicated that notifications were helpful, but that determining the nature of transmission is difficult (sexual *versus* food or other items). As many individuals are treated without confirmation of the bacteria, it is difficult to know the true burden of disease. Spain indicated that continued alerts are important as they increase awareness of the problem.

In Portugal, notification of shigellosis is mandatory. Clinical and laboratory notifications are collected in SINAVE (national portal for reporting), however the level of completeness of reporting is uncertain. Epidemiological criteria include “transmission between humans” without further information on sexual transmission being available. The DGS is however aware of the risk of sexually transmitted outbreaks. A study with a EUPHEM fellow involving the Portuguese National Institute for Health and a Spanish laboratory, found similarity between *Shigella* strains in both countries.

The Netherlands noted that most cases are responded to by municipal health services and they are responding locally. It is not possible to do source control, but the Netherlands does surveillance to understand whether international links are there but not otherwise.

Croatia also mentioned that reports are helpful in raising awareness, although there are mostly sporadic cases thus far, with some increases in recent years. In Croatia, shigellosis is a mandatory notifiable disease. According

to reports, there have been only few cases i.e. less than five (1-3), in 2020, 2021, 2022, but an increased number of reports in 2023 and 2024 compared to the previous few years, i.e. more than 50 cases with 10 so far in 2024, mostly men. The route of transmission is not collected routinely in the reports, but Croatia tries to find out the route of transmission through surveys administered to the cases (it is routine part of epidemiological investigation and contact tracing). Information from ECDC about the occurrence of cases is helpful; Croatia follows EWRS and EpiPulse data as well as reports from ECDC about events and, on this basis, strengthens the monitoring of shigellosis in the country and informs epidemiologists and clinicians to pay attention to the sexual route of transmission when surveying. Also, the NGOs that work with the MSM population are informed about the occurrence of shigellosis in the EU related to MSM and certain events.

Discussion on sexual health aspects concluded that screening for *Shigella* in high-risk groups of MSM may be beneficial.

Any additional actions from ECDC to facilitate collaboration across networks/countries on the MDR/XDR *Shigella* issue and other “enteric” STIs?

Information on *Shigella* clusters and outbreaks is relevant in conjunction with Pride events when the attendees and/or sexual health services should become aware of XDR *Shigella* strains circulation and sensitised about prevention measures. The importance of working with Civil Society representatives on XDR *Shigella* was noted. If the community does not consider MDR/XDR *Shigella* in MSM as a serious issue, then we cannot expect significant progress/impact on epidemiology. Mpox is a good example of a fruitful collaboration with Civil Society.

ECDC has produced several outputs which mention this issue including a [rapid risk assessment](#) (2022), [epidemiological update](#) (2023), and in communicable disease threat reports in [2023](#) and [2024](#), as well as in news items.

ECDC's FWD team also has a sequencing contract available and if needed, support is available from ECDC to assist countries with whole-genome sequencing. The outbreak strains sequencing data shared by countries are also analysed and the clusters are monitored in EpiPulse Molecular Typing Tool where the AMR determinants are also recorded.

ECDC's ARHAI team indicated that carbapenems are often the only option when treatment of infection by MDR/XDR *Shigella* is clearly indicated (e.g. in severely ill or immunocompromised patients). Use of carbapenems in cases without a clear indication for treatment should be weighed with the risk of selection of resistance against these last-resort antibiotics. It was also suggested that more information should be collected on severity. It should also be explored whether a prospective study for *Shigella* cases could be conducted, in liaison with Civil Society, where clinicians could take a history on antibiotic use (including, but not limited to, DoxyPEP) and sexual practices. This could help provide additional information on the cases and more information on how to address this issue.

Annex 1. Agenda

Time	Agenda item	Facilitator(s)
12:30 – 12:45	Welcome and introductions	Otilia Mardh Therese Westrell
12:45 – 13:00	Brief overview of the events (ECDC)	Cecilia Jernberg Lina Nerlander Therese Westrell
13:00 – 13:50	Discussion <ul style="list-style-type: none">○ How concerned are we about the MDR/XDR and sexual health aspects of these diseases?○ How do we want to react/communicate across the networks about these MDR/XDR <i>Shigella</i> clusters/cases?○ Any additional actions from ECDC to facilitate collaboration across networks/countries on the MDR/XDR <i>Shigella</i> issue and other “enteric” STIs?	All
13:50 – 14:00	Conclusions, further actions (ECDC)	Otilia Mardh Therese Westrell

Annex 2. List of participants

Name	Country or Affiliation	E-mail
FWD Coordination Committee Members		
Eelco Franz	Netherlands	eelco.franz@rivm.nl
Eva Grilc	Slovenia	eva.grilc@nijz.si
Silvia Herrera León	Spain	sherrera@isciii.es
Stefano Morabito (apologies)	Italy	stefano.morabito@iss.it
Maria Pavlova (apologies)	Bulgaria	mimipavlova@gmail.com
Ruska Rimhanen-Finne (apologies)	Finland	ruska.rimhanen-finne@thl.fi
Mathieu Tourdjman (apologies)	France	mathieu.tourdjman@santepubliquefrance.fr
Dieter van Cauteren	Belgium	dieter.vancauteren@sciensano.be
Oliver Vandenberg (apologies)	Belgium	Olivier.vandenberg@ulb.be
Hendrik Wilking	Germany	WilkingH@rki.de
STI Coordination Committee Members		
Béatrice Berçot	France	beatrice.bercot@aphp.fr
Irith De Baetselier	Belgium	idebaetselier@itg.be
Maria José Borrego	Portugal	m.jose.borrego@insa.min-saude.pt
Steen Hoffmann (apologies)	Denmark	HOF@ssi.dk
Javier Gómez Castellá (apologies)	Spain	jgomez@mscbs.es
Klaus Jansen	Germany	jansen@rki.de
Maartje Visser	Netherlands	maartje.visser@rivm.nl
Erna M Kojic	Iceland	ernamk@landspitali.is
Maria Wessman	Denmark	marw@ssi.dk
Tatjana Nemeth-Blažić	Croatia	tatjana.nemeth-blazic@hzjz.hr
ECDC Staff		
Therese Westrell	ECDC	therese.westrell@ecdc.europa.eu
Otilia Mardh	ECDC	otilia.mardh@ecdc.europa.eu
Cecilia Jernberg	ECDC	cecilia.jernberg@ecdc.europa.eu

Lina Nerlander	ECDC	lina.nerlander@ecdc.europa.eu
Celine Gossner	ECDC	celine.gossner@ecdc.europa.eu
Diamantis Plachouras	ECDC	diamantis.plachouras@ecdc.europa.eu
Dominique Monnet	ECDC	dominique.monnet@ecdc.europa.eu
Anastasia Pharris	ECDC	Anastasia.Pharris@ecdc.europa.eu
Taina Niskainen	ECDC	taina.niskanen@ecdc.europa.eu