

# Knowledge of AMR amongst food handlers: Background and methodology

## Background and objectives

Tackling antimicrobial resistance (AMR) is a national strategic priority for the UK Government which has led to the development of a [20-year Vision for AMR](#) and the [5-year \(2019-2024\) AMR National Action Plan \(NAP\)](#). The NAP lays out how the UK will address the AMR challenge and includes a specific section on the importance of better food safety to limit contamination of food and spread of AMR. This section emphasises the need to strengthen the evidence base for AMR and food safety through research, surveillance and promoting good practice across the food chain. The FSA is playing its part by continuing to fill evidence gaps on the role that food plays in AMR through the commissioning of research and surveillance.

The food safety section of the NAP (specifically 2.5.2) makes references to the UK promoting good hygienic practices across the food chain including a commitment to "assess and track the perceptions and understanding of food handlers and consumers about AMR bacteria in food and what can be done to protect people through food hygiene at home".

As consumer views have been addressed in previous [FSA research](#), FSA commissioned a bespoke survey to explore food handlers awareness, perception and understanding of AMR.

## Methodology

In Spring 2022, the FSA commissioned [Opinium](#) (who specialise in food industry insights and market research) to conduct quantitative research to understand UK food handlers' awareness and knowledge of AMR. A series of questions, broadly matching consumer surveys run in 2016, 2019 and 2021, were included in a 5 min online survey.

Utilising Opinium's panel of food service operators, a sample of 500 UK workers, who, as part of their job, handle food or touch surfaces likely to be in contact with food, took part in the survey between 28th June and 8th July 2022. The sample was made up of:

- 56% (282) males and 44% (218) females.
- 41% (205) aged 18-34, 44% (220) aged 35-54 and 15% (75) aged 55+.
- 92% (461) working in food businesses in England, (40% or 198 in London), 6% (30) in Scotland, and around 1% (3) in both Wales and Northern Ireland.

Respondents were grouped according to their primary job role as 'managerial' (36% - owner/proprietors, managers, catering managers, and kitchen managers) and 'kitchen staff' (chef, kitchen manager, kitchen assistant, kitchen porter, kitchen staff). Over a third (36%, 180) of the sample work in managerial food service positions and over a quarter (27%, 135) as kitchen staff. Sub-group analysis is reported where notable.

The most common types of establishments worked in included restaurant / casual dining / pub (15%, 75), high street / food to go / quick service restaurants (14%, 70), education (14%, 70) and healthcare (12%, 60).

Full demographic breakdowns for the region, job role and establishment type can be found in annex B.

## Limitations and reporting notes

It was not possible to reach a representative sample, given the lack of an adequate sampling frame. As such, those working in the hospitality and leisure industries were specifically targeted.

Due to low base sizes, some demographic sub-group analysis were not possible, notably comparisons between those working in FBOs in England, Scotland, Wales and Northern Ireland.

It should be noted that levels of awareness and knowledge are self-reported and therefore subject to social desirability bias. Where appropriate, this report compares results to the most recent [FSA AMR Consumer Research](#), conducted a year prior to the food handlers survey. It is likely that the food handlers cohort may be subject to stronger social desirability bias due to their occupation. This should be borne in mind when considering differences between the 2 groups.

The survey data is not weighted and unless stated otherwise, all reported differences are significant to the 95% level (meaning there is a less than 5% likelihood that the difference occurred by chance). Independent samples test of proportions was used to test differences within the food handlers sample, amongst independent groups (for example, male vs female), and between the food handlers sample and the 2021 consumers sample.