

Title: Understanding Older People's Perceptions of Preventative and Therapeutic Diet-Related Antimicrobial Resistance Management.

Introduction: Antimicrobial resistance (AMR) poses a significant threat to public health and equally requires public engagement in a multi-faceted approach. Where great strides have been made in AMR research, non-traditional therapeutic approaches to tackle the issue are still limited in evidence. Diet modification to potentially reduce the risk of antimicrobial resistant genes (ARGs) developing in the gut offers one approach to mitigating AMR. Herein is presented the findings of a completed qualitative study that aimed to explore older people's perceptions towards preventative and therapeutic diet-related AMR management.

Method: This study took a qualitative research approach using thematic analysis of semi-structured interviews. Purposive convenience sampling was used to recruit 17 members of the public who were aged 65 years and over and a questionnaire was used to glean demographic and health data. All interviews were recorded, transcribed and analysed for trends and meaning.

Results: Five key themes were identified: low AMR awareness, a low motivation to change long-term diet to reduce AMR, prioritising general diet behaviours in lieu of AMR management, self-perceived age-related vulnerabilities as a barrier to behavioural change and healthcare and public led diet-related AMR management. A low awareness of AMR generally appeared to solidify apathy towards the subject and a reluctance to consider any long-term dietary change for the purpose of AMR management. Comparatively, the cohort held strong opinions and an interest in diet as a means of maintaining health and preventing infection, demonstrating an active interest in considering diet in health decision-making.

Discussion: The older public's overall low awareness of AMR, antibiotics and the influence of diet demonstrates an urgent barrier to diet-driven preventative and therapeutic AMR approaches. The development of a dietary-related AMR management tool that offers tailored and strategic advice to a public population who already exhibit an existing interest in general dietary health is recommended. Additional metagenomic analysis is currently underway to further explore the relationship between lifestyle modification and ARGs in the human gut microbiome.