

Call: 7th Call - 2018 Network Call on Surveillance

Title: Towards Developing an International Environmental AMR Surveillance Strategy

Acronym: -

Network composition

Туре	Name	Institute	Country
Coordinator	William Gaze	University of Exeter	UK
Partner	Carmen Torres	University of La Rioja	Spain
Partner	Hanan Balkhy	King Saud bin Abdulaziz University	Saudi Arabia
Partner	Martin Antonio	MRC Fajara Campus	The Gambia
Partner	Sabiha Yusuf Essack	Antimicrobial Research Unit	South Africa
Partner	Rebecaa Irwin	Public Health Agency of Canada	Canada
Partner	Ed Topp	Agriculture and Agri-Food Canada	Canada
Partner	Tom Wiklund	Åbo Akademi University	Finland
Partner	Joakim Larsson	University of Gothenburg	Sweden
Partner	Anne Ingeborg Myhr	GenØk-Centre for Biosafety	Norway
Partner	Gargi Singh	IIT Roorkee	India
Partner	Ngo Thi Hoa	Oxford University Clinical Research Unit	Vietnam
Partner	Pascal Simonet	Ecole Centrale de Lyon	France
Partner	Celia Manaia	Catholic University of Portugal	Portugal
Partner	Dearbháile Morris	National University of Ireland Galway	Ireland
Partner	Alwyn Hart	Air, Land and Water Research for the Environment Agency	UK
Partner	Geoffrey Foster	Microbiology and One Health Manager across 8 veterinary laboratories in Scotland	UK
Partner	Berit Muller-Pebody	Public Health England	UK
Partner	Ana Vidal	Veterinary Medicines Directorate	UK
Partner	Muna Anjum	Animal and Plant Health Agency	UK
Partner	Elizabeth Wellington	University of Warwick	UK
Partner	Andrew Singer	Centre for Ecology and Hydrology	UK
Partner	David Verner Jeffreys	Centre for Environment Fisheries and Aquaculture Sciences	UK



Abstract

There is an urgent and increasing need to fully understand the development and transmission of AMR both into and within the wider environment. However, at present, research into environmental aspects of AMR has been largely confined to individual institutions or academic laboratories. National governments and international bodies (EU, UN, WHO) have recognised that we must establish effective environmental surveillance systems to identify and monitor AMR in our waters, soils, air and wildlife in order to increase understanding of the natural environment's role in emergence and spread of AMR and how the introduction of antimicrobials/resistant microorganisms from human/animal sources into the environment contribute to AMR. A One Health approach promotes harmonised surveillance across human, veterinary and food sectors and the use of common outcome indicators to monitor AMR and antimicrobial use: several joint national reports publish AMR trends for key indicator bacteria and key antibiotics (for example UK One Health report, DANMAP and Scottish One Health Antimicrobial Usage and Antimicrobial Resistance Report (SONAAR). However, there is no clear consensus so far regarding which indicators to measure for the environmental sector. Therefore, this network aims to identify robust, measurable surveillance indicators and methodologies for environmental AMR by:

- Building on and transferring existing knowledge from clinical and animal AMR indicators and methodologies in the context of a multi-sectorial, One Health approach.
- Bringing together key researchers with policy makers and regulators across the environmental, human health and veterinary sector and from countries with a wide range of economic settings.
- Arrive at a standardised set of targets and reproducible, accessible methodologies allowing comparative data to be generated in a coordinated manner.

Setting out our findings in advice and briefings to governments and international bodies.