A MESSAGE FROM THE COORDINATION

Welcome to the first newsletter for the AWARE study!

Our project was funded by the JPI AMR initiative as part of the 3rd call on Transmission Dynamics. I am Prof. Dr. Ana Maria de Roda Husman leading the AWARE consortium. What we aim to find out with our research is to tell you if being near wastewater makes you resistant to antibiotics. To answer our research question, we work together with a group of scientists around Europe specifically in Germany, Sweden, Romania and the Netherlands. In a large number of treatment plants around Europe that clean up our wastewater we look in the water and in the air for bacteria that carry resistance to antibiotics, their genes and the antibiotics. Additionally, we investigate how waste water is treated in wastewater treatment plants. We interview wastewater workers and nearby residents. We develop methods and models for data analysis. If you want to find out more about our study, go to our website www.aware-study.eu.

Enjoy your read!

Prof. Dr. Ana Maria de Roda Husman
Study Coordination

AWARE (Antibiotic Resistance in Wastewater: Transmission Risks for Employees and Residents around Wastewater Treatment Plants) is supported by the European Commission (JPI-EC-AMR ERA-Net Cofund grant no 681055).

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This year’s annual progress meeting for AWARE took place at the National Institute for Public Health and the Environment (RIVM) from the Netherlands. Nine of our team members from all four participating countries met in Bilthoven to exchange information about our progress and to explore ideas for our next steps into the project.

Epidemiology and Sampling

Epidemiology studies and sampling campaign

A crucial component of our project is to conduct an epidemiological study investigating carriage of resistant bacteria and resistance genes in workers working at wastewater treatment plants and in residents living in different distances to these wastewater treatment plants. Planning this study requires careful alignment of sample selection and sampling procedures. Our sampling campaign focuses on setting up sampling plans and protocols for three countries with low and high antimicrobial resistance, including human and environmental sampling. The three countries chosen for our data collection are Germany, Romania and the Netherlands.

The AWARE Project is divided into six work packages that harmoniously integrate to answer our research questions. Work packages 1 and 2 refer to epidemiological studies and sampling campaign.

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Exposure modelling and characterization of resistant bacteria and resistance genes

Part of our aim is to describe the resistance carriage profile of workers and residents around wastewater treatment plants in relation to the profile of their environment in and around these plants. In depth characterization of resistant bacteria and resistance genes allows us to describe these profiles.

In addition, the AWARE team will generate exposure models and perform geospatial analysis to determine the degree of exposure to antimicrobial resistance at different distances from wastewater treatment plants.

Dissemination of results and project management & coordination

A complex project of this magnitude needs to take into account project management and coordination techniques in order to be successful.

Also, our project takes into account methods and media for communicating methods and results to interested stakeholders and the general public. Check out our webpage www.aware-study.eu and social media accounts on Twitter and Facebook if you’re interested in staying up-to-date with our announcements.
PARTICIPATING INSTITUTIONS

- National Institute for Public Health and the Environment
- Ministry of Health, Welfare and Sport
- UNIVERSITY OF GOTHENBURG
- UNIVERSITY OF BUCHAREST
- ICUB
- LMU
- KLINIKUM DER UNIVERSITÄT MÜNCHEN

SUPPORTING INSTITUTIONS

- VETENSKAPSRÅDET
- THE SWEDISH RESEARCH COUNCIL
- DLR
- Deutsches Zentrum für Luft- und Raumfahrt
- German Aerospace Center
- European Commission
- Bundesministerium für Bildung und Forschung
- FISCDI
- EXECUTIVE AGENCY FOR HIGHER EDUCATION, RESEARCH, DEVELOPMENT AND INNOVATION FUNDING

NEXT STEPS IN THE AWARE STUDY

- Finalizing guidelines and templates for sample collection
- Inviting wastewater treatment plants to participate in the AWARE study
- Starting the first sampling campaign

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