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Summer 2026

Wastewater WATCH 2026

A global initiative to capture the first simultaneous snapshot of public health through wastewater, to take place Summer 2026.

Global Sample Collection
From wastewater treatment plants

On-site Preparation
Samples processed and preserved

Co-ordinated Analysis
Via global partner laboratories

Global Data Integration
Shared data, collaborative outputs, and training

A Planetary Health Observatory

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Wastewater WATCH 2026

A global initiative to capture the first simultaneous snapshot of public health through wastewater.

On one coordinated day, countries worldwide will collect wastewater samples, providing unprecedented insight into global health, antimicrobial resistance, and environmental trends.

Held annually, Wastewater Watch will build a long-term international observatory to track human and environmental health, provide training, strengthen collaboration, and advance wastewater-based epidemiology (WBE).

Scientific Rationale

Wastewater-based epidemiology (WBE) is a powerful tool for monitoring community and environmental health, yet a coordinated global survey has never been conducted on a single day. Wastewater Watch aims to change this by bringing together communities, local partners and researchers to collect wastewater samples worldwide to create the first unified snapshot of global public health. Using advanced techniques, like metagenomics, qPCR, mass spectrometry and other established methods, the initiative will detect indicators of AMR, pathogen prevalence, pharmaceuticals, and human health indicators, to generate insights that benefit both national and global health efforts.

Tangible Outcomes

Public Health Portal: Development of an open access, interactive global health platform that visualises global wastewater data to support policymakers researchers and communities.

High-Impact Publications: Collaborative scientific papers in leading journals, translating biological and chemical signals into global public health insights, with a dedicated annual session at the World Water Congress meetings, strengthening global engagement and inclusion.

WHO Technical Report: A formal report to the World Health Organization (WHO) outlining international standards, governance, and recommendations for future World Wastewater Day activities.

Early Warning System: Foundational data to support a global early warning system for emerging health threats and antimicrobial resistance trends, pathogen prevalence, as well as non-communicable disease risk factors.

Key Scientific Aims

Collaborative Infrastructure: Prioritise equity and inclusivity by supporting low- and middle-income countries to develop wastewater monitoring and analytical capacity, ensuring all communities can participate in and benefit from this global effort.

Establish Baseline Metrics: Create a global dataset of health indicators by sampling diverse geographical, climatic, and socioeconomic contexts.

Build Methodological Capacity: Shared training and use of cutting-edge technologies and standardised protocols to compare analytical platforms, validate emerging techniques and upskill the community.

Steering Committee: Professor Davey Jones, Dr Bernd Gawlik & Professor Barbara Kasprzyk-Hordern

For more information, connect with us at: wastewater@bangor.ac.uk