Medical Xpress

Waste surveillance can help combat climate-aggravated diseases

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Credit: Ivan Bandura/Unsplash

Traditional disease-monitoring systems are ill-equipped to handle the recent unprecedented outbreaks of climate-aggravated diseases. In a viewpoint article published in *Science Translational Medicine*, SFI's Samuel Scarpino and colleagues describe how comprehensive wastewater surveillance could pair with existing disease-surveillance systems to produce cost-effective, high-resolution health data and guide

stronger public health interventions.

Wastewater testing, where sewage is strategically sampled and analyzed for health threats, can be used to detect and monitor established, emerging, and neglected pathogens in human waste. A single sample provides a comprehensive, high-fidelity snapshot of the health status of a large population.

Scarpino calls for the global community to establish an ongoing multi-pathogen, climate-resilient surveillance system paired with traditional disease monitoring. Such a global initiative would leapfrog decades-old public health challenges in reducing preventable morbidity and mortality driven by climate change.

More information: Megan B. Diamond et al, Wastewater surveillance facilitates climate change–resilient pathogen monitoring, *Science Translational Medicine* (2023). DOI: 10.1126/scitranslmed.adi7831

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