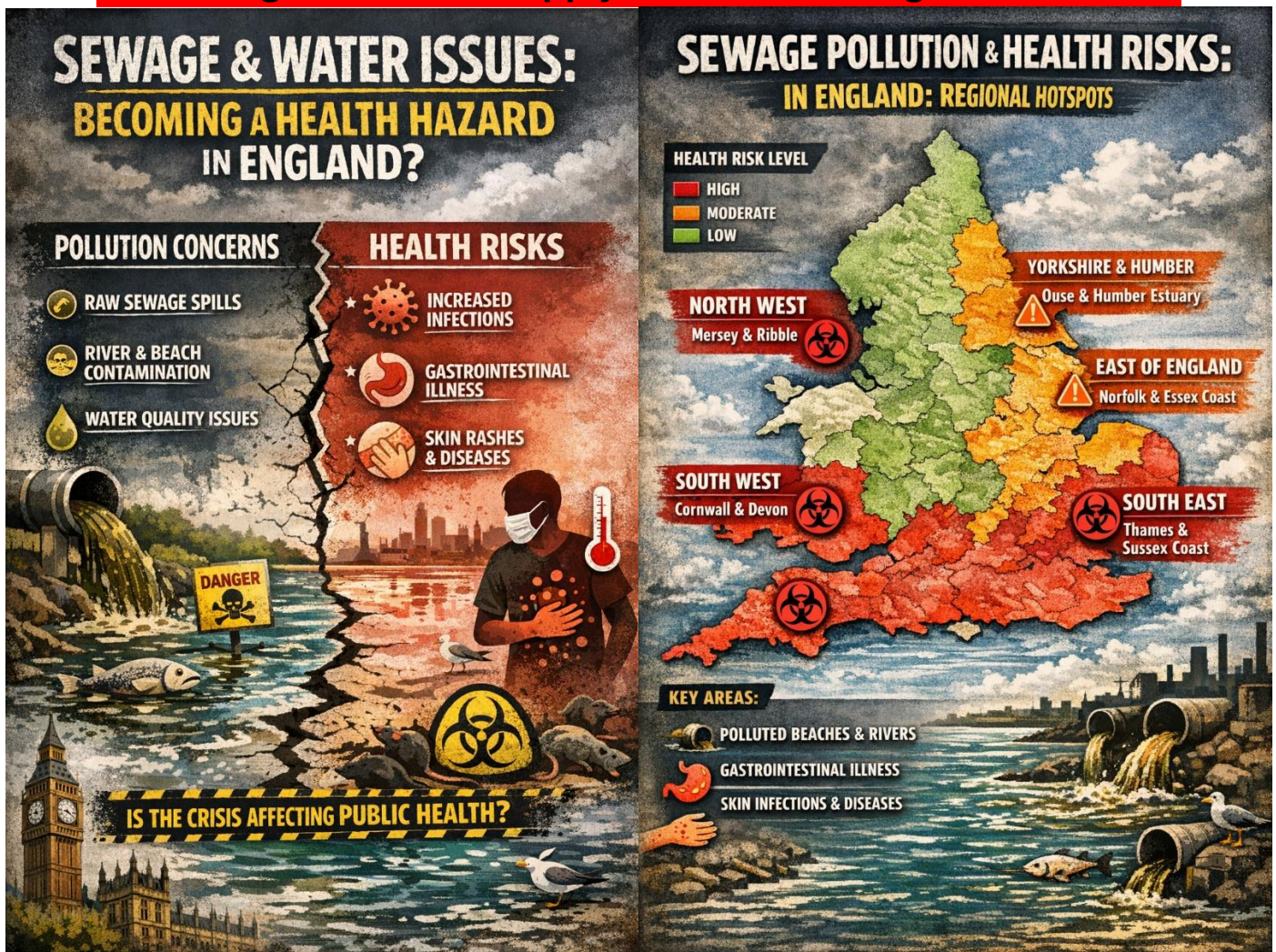


Are Sewage and Water Supply Issues becoming a Health issue



🚩 Key Scientific and Government Findings

- **Imperial College London (March 2026)** — A national study found that *combined sewer overflows (CSOs)* released **around 420,000 tonnes of organic pollution** and **360,000 tonnes of suspended solids** in 2023, often exceeding pollution from wastewater treatment plants. The research concluded that CSOs are a major, underestimated source of contamination in rivers and coastal waters, challenging long-held assumptions about their limited impact.
- **University of Oxford (2023)** — Field studies across English rivers showed that *treated sewage discharge* was the **primary driver of harmful nutrients, algae, and sewage fungus**, more damaging than agricultural runoff. These discharges altered river ecosystems and increased the abundance of toxic cyanobacteria, which can cause illness in swimmers and wildlife.
- **UK Chief Medical Officer (Chris Whitty, 2022)** — In a joint statement with Ofwat and the Environment Agency, Whitty warned that *raw sewage discharges and viable bacteria from treatment works* are now a **serious public-health issue**, exposing people to coliforms and antibiotic-resistant bacteria when swimming or playing in rivers.
- **Surfers Against Sewage (2024 Report)** — Recorded **1,853 sickness reports** from water users linked to sewage exposure, including gastrointestinal illness and skin infections. The group estimates nearly **one million sewage discharges** across the UK that year — roughly one every 30 seconds.
- **The Guardian (March 2026)** — Despite drought conditions, water companies discharged raw sewage **almost 300,000 times** in 2025, showing that overflows are now routine rather than exceptional.

🧬 Health Implications

Exposure to contaminated water increases risks of:

- **Gastrointestinal infections** (E. coli, enterococci, norovirus)

- **Skin and ear infections** from contact with polluted rivers and seas
- **Potential antibiotic resistance spread** through faecal bacteria in waterways

While tap water remains safe, **recreational and environmental exposure** is the growing concern — particularly for swimmers, anglers, and children near rivers.

Policy and Accountability

Government regulators and scientists agree that:

- Storm overflows should occur only in *exceptional* rainfall, yet many discharge hundreds of times per year.
- Infrastructure investment and ultraviolet treatment at sewage works could sharply reduce bacterial contamination.
- Public pressure and legal action are increasing against water companies for failing to meet environmental standards.

The regions most affected by sewage pollution and related health risks in England are concentrated around **southern and coastal areas**, with notable hotspots along major river systems and densely populated catchments.

Regional Hotspots

- **South East (Kent, Sussex, Thames Basin)** — Imperial College London’s 2026 national mapping of combined sewer overflows (CSOs) shows **high biochemical oxygen demand (BOD) loads** and frequent discharges along the **River Thames, Medway, and Sussex coastal rivers**. The Thames catchment, including Berkshire and Surrey, recorded some of the **highest overflow volumes** due to ageing Victorian infrastructure and urban density.
- **South West (Cornwall, Devon, Dorset)** — Surfers Against Sewage reports persistent contamination at **beach and estuary sites**, with hundreds of sickness reports from recreational water users. The region’s tourism and coastal recreation amplify exposure risks, especially around **Falmouth, Bude, and Lyme Bay**.
- **North West (Lancashire, Merseyside)** — The **River Mersey and Ribble estuary** remain chronic pollution zones, with frequent storm overflow events and high suspended solids. These areas are flagged as “**very high environmental risk**” in Imperial’s 2026 risk framework.
- **Yorkshire and Humber** — The **Ouse and Humber estuary** systems experience heavy loads from combined sewer systems serving older industrial towns. Overflow frequency here is among the top quartile nationally.
- **East of England (Norfolk, Essex)** — Coastal monitoring shows elevated bacterial counts near **Great Yarmouth and Southend**, linked to storm overflow discharges during dry periods, indicating infrastructure stress even without rainfall.

Health and Environmental Risk Distribution

Imperial’s 2026 analysis found that **44.7 % of wastewater systems in England** fall into *high or very high environmental risk categories*, with the worst-performing systems concentrated in **southern and northwestern catchments**.

These areas correspond closely to regions reporting **gastrointestinal and skin infections** among swimmers and surfers, confirming a direct link between overflow intensity and public-health exposure.

Why These Regions Stand Out

- **Legacy infrastructure** — Victorian-era combined sewers dominate older urban areas (London, Manchester, Liverpool).
- **Population density** — High wastewater volumes overwhelm treatment capacity.
- **Coastal discharge points** — Outflows directly affect beaches and estuaries used for recreation.
- **Limited investment** — Decades of underfunding have delayed upgrades, leaving systems vulnerable even in dry years.