AI Can Predict Health Crises Before They Spread

A new study shows how surveillance gaps enable outbreaks — and how AI can close them.

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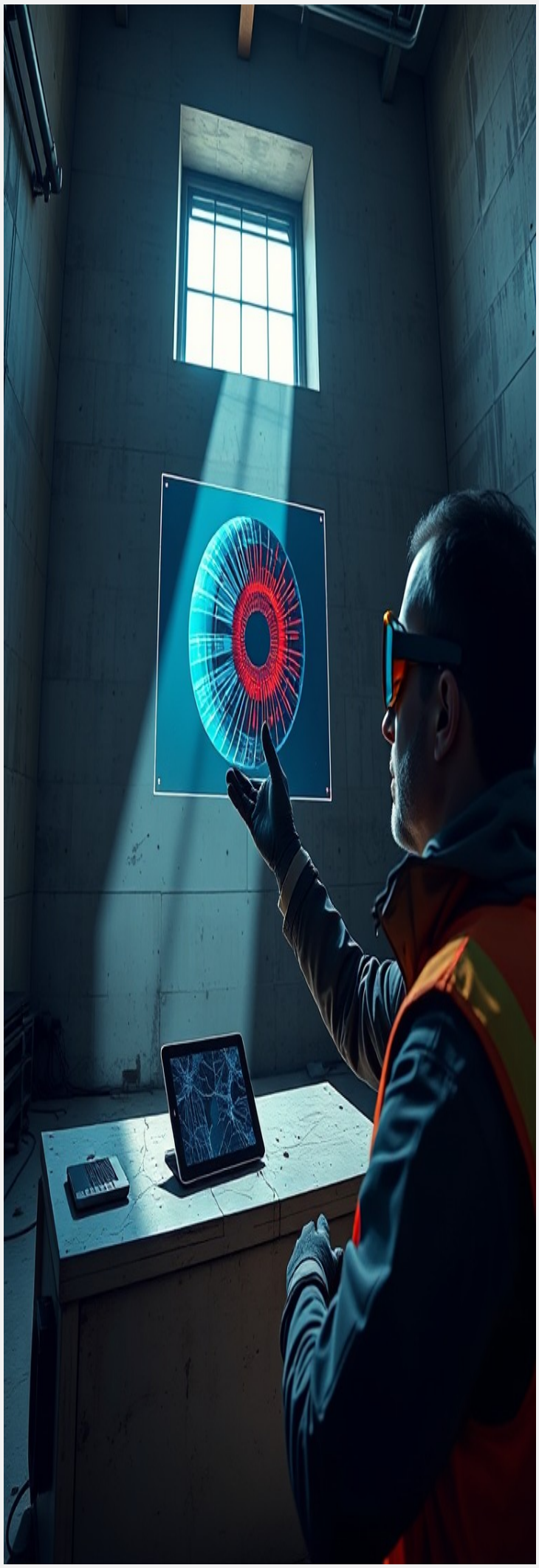
THE DATA

118,000

Measles Deaths (2023)

Global measles fatalities in children under five reached a 20-year high in 2023.

The 118,000 deaths reported in 2023 represent a sharp reversal from the declining trend seen in prior decades. This resurgence is directly linked to disruptions in vaccination programs during the pandemic, which eroded public health infrastructure. The study underscores how fragile global immunization systems are when not continuously monitored and maintained.

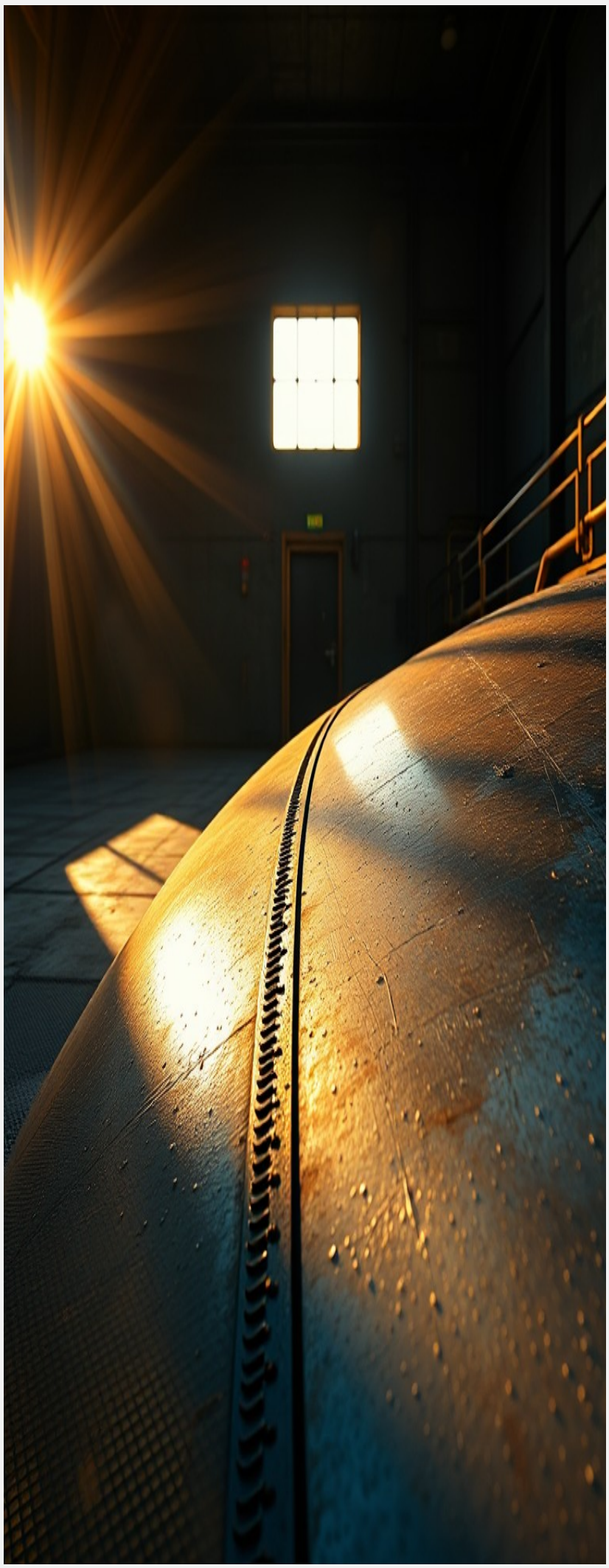


Source: Nature · Published November 02, 2026
https://www.nature.com/articles/d41586-026-03387-3

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AI Can Model Systemic Collapse

The failure to detect early warning signs in public health mirrors the potential for undetected degradation in reactor components. By treating nuclear systems as dynamic, interconnected networks, AI can identify subtle shifts in behavior — like declining vaccine coverage — that signal systemic vulnerability before they result in disaster.



02

Regulation Lags Behind Predictive Capability

The GBD 2023 Measles Collaborators study shows that early detection systems are viable — but only when integrated into operational workflows. For nuclear energy, this means regulators must develop formal pathways to accept AI-generated risk assessments as part of the safety case, not just supplementary analysis.

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