

Hantavirus in the South Atlantic: A One Health and Microbiome Wake-Up Call

GA, UNITED STATES, July 2, 2026 /EINPresswire.com/ -- On 1 April 2026, the polar expedition cruise ship MV Hondius sailed from Argentina on a transatlantic voyage. By the middle of the month, passengers developed fever and breathing difficulties. The World Health Organization confirmed 11 [hantavirus](#) pulmonary syndrome (HPS) cases, including three deaths (27% fatality). Genomic sequencing identified Andes virus — the only hantavirus known to spread via limited human-to-human transmission.

No rodents were found aboard. The confined vessel, carrying 147 people from 23 countries, became an unexpected amplifier of person-to-person transmission. The ship had stopped at remote ecological hotspots including the Antarctic Peninsula and Tristan da Cunha. This is not an isolated incident — it is a clear ecological alert: global travel and environmental change are reshaping how zoonotic viruses emerge.

Microbiome and biodiversity matter

A recent study([doi:https://doi.org/10.1016/j.micoh.2026.100002](https://doi.org/10.1016/j.micoh.2026.100002)) shows that hantavirus infection alters the lung microbiome of rodent reservoirs (Xiong et al., Microorganisms, 2026). Such changes could serve as early-warning indicators of spillover risk. Meanwhile, long-term evidence from Shaanxi, China, reveals that land consolidation reduced rodent diversity by 53%, creating a “one-species monopoly” of the dominant hantavirus host. This dramatically accelerated viral transmission to humans — a powerful illustration of how land-use change drives disease risk.

Four urgent actions

Professor Lu proposes four initiatives aligned with Microbiome and One Health:

1. Multi-sectoral One Health coordination — integrating human, animal, environmental and climate expertise.
2. Microbiome surveillance — using reservoir host microbiota as early warning indicators.
3. Multi-factor early warning systems — combining biodiversity, climate and travel data.
4. Ecologically informed travel health regulations — targeting cruise ships and ecotourism.

Concluding remarks

As this commentary went to press, WHO declared a new Ebola PHEIC (Public Health Emergency of International Concern). Ebola and hantavirus share strikingly similar ecological drivers: deforestation, climate anomalies and global travel networks. The 2026 Ebola PHEIC and the hantavirus cruise cluster are two fractures on the same One Health crisis map. The boundaries between human, animal and ecosystem health have effectively vanished.

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