

SEAR's antibiotic challenge

Risks of emergence and spread of antibiotic resistance in South East Asia

The WHO South East Asia Region (SEAR) has unique characteristics that contribute to the likelihood of increasing resistance to antibiotics developing in the region. In their 2017 model published in *The BMJ*, Chereau and colleagues use a risk assessment approach to characterise the likelihood of emergence and spread of antibiotic resistance in the region. They conclude that the overall risk for emergence and spread of antibiotic resistance among humans in South East Asia is high.

Level of risk

- ← (H) ← High
- ← (M) ← Medium
- ← (L) ← Low
- ← (N) ← Negligible

Arrows represent transfer of antibiotics, resistant genes, or bacteria

Access to water and soap in the household can be very limited. Combined with poor knowledge and education about hygiene, transmission of antibiotic resistant strains is a high risk

Stewardship is low across the region. Antibiotics are widely available without prescriptions or are inappropriately prescribed

Poor implementation of infection prevention programmes, limited resources, and poor awareness among healthcare professionals lead to a high burden of endemic healthcare associated infections

While some countries have food safety policies, these are often poorly enforced. Meat consumption remains limited across the region but is increasing

It is estimated that 35% of people in the region are exposed to faeces-contaminated drinking water, with higher contamination in rural areas

