
Endemic Is Not Harmless!



Aris Katzourakis, PhD, professor of evolution and genomics at St. Hilda's College (Oxford, U.K.), warns that misuse of the word 'endemic' is encouraging complacency. In an epidemiological context, 'endemic' means that the infection rates are in equilibrium, neither rising nor falling. It does not describe the infection's severity or its health consequences.

Dr Katzourakis explains: 'Common colds are endemic. So are Lassa fever, malaria and polio. So was smallpox, until vaccines stamped it out. In other words, a disease can be endemic and both widespread and deadly... As an evolutionary virologist, it frustrates me when policymakers invoke the word endemic as an excuse to do little or nothing.' Calling an infection 'endemic' does not indicate its severity.

The Omicron variant, described in South Africa last November, leads the latest surge in COVID-19 infections, with the United States and Europe most affected. Given the lower hospitalisation rate associated with Omicron, infections are less severe. However, the virus's spread depends on an interplay of a population's behaviour, demographic structure, susceptibility and immunity, plus whether viral variants emerge. Different conditions worldwide can cause other more-successful variants to emerge, seeding new epidemics. On this last point, new variants can have characteristics that do not make it necessarily more benign. SARS-CoV-2 has no evolutionary imperative to become harmless because most of its transmission occurs before the virus sickens individuals.

Thus, policymakers must use productive strategies for building response capacity. Dr Katzourakis emphasises that policy shifts are needed. These should account for realistic projections about the probable levels of death, disability and sickness. Reduction targets should consider that the continued circulation of the virus chances new variants emerging. The probability of a problematic variant appearing increases where infections are more plentiful. Therefore, it is imperative to limit the opportunities for the virus to evolve.

Mitigation should include all available measures through vaccination, diagnostic test, social distancing, barriers (e.g. masks, filtration, etc.). Vaccines designed for a broader range of variants need to be developed. Public health interventions should include vaccine equity.

Therefore, SARS-Cov-2, if endemic, is still not harmless. Dr Katzourakis warns that complacency by policymakers will prolong COVID-19 effects globally.

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