

Severe mortality impact of the 1957 influenza pandemic in Chile

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Published 2016. This article is a U.S. Government work and is in the public domain in the USA. Introduction: Epidemiological studies of the 1957 influenza pandemic are scarce, particularly from lower-income settings. Methods: We analyzed the spatial-temporal mortality patterns of the 1957 influenza pandemic in Chile, including detailed age-specific mortality data from a large city, and investigated risk factors for severe mortality impact across regions. Results: Chile exhibited two waves of excess mortality in winter 1957 and 1959 with a cumulative excess mortality rate of 12 per 10 000, and a ~10-fold mortality difference across provinces. High excess mortality rates were associated with high baseline mortality ($R^2=41.8\%$; $P=.02$), but not with latitude ($P>.7$). Excess mortality rates increased sharply with age. Transmissibility declined from $R=1.4-2.1$ to $R=1.2-1.4$ between the two pandemic waves. Conclusions: The estimated A/H2N2 mortality burden in Chile is the highest on record for thi