

EXPLORING THE TIES BETWEEN SCIENTIFIC PROGRESS, TECHNOLOGICAL ADVANCEMENT, AND PUBLIC HEALTH OUTCOMES: A DECADAL REVIEW

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ABSTRACT

This decadal review examines the intricate relationship between scientific progress, technological advancements, and public health outcomes. Synthesizing existing literature, the authors investigate whether scientific and technological progress causally influences public health improvements. The review explores how advancements in various fields, from vaccines to diagnostic imaging and telehealth, have improved health metrics. However, the study highlights the complexities of this relationship, acknowledging disparities in access to resources and the influence of socioeconomic and cultural factors. Public attitudes toward science and technology also play a crucial role. The paper concludes by emphasizing the need for equitable access to advancements and advocating for interdisciplinary collaboration to optimize the translation of scientific progress into tangible improvements in public health, particularly for vulnerable populations. Future research should focus on longitudinal studies and the integration of innovative methodologies such as citizen science.

Keywords: Public Health Outcomes, Technological Advancements, Scientific Progress, Health Equity, Health Expenditures

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