Special Issue

Optimizing Resource Allocation for Population Health and Disease Prevention

Message from the Guest Editors

Efficient resource allocation is critical for strengthening public health systems, enhancing preventive strategies, and improving long-term population health. This Special Issue invites research that integrates quantitative modeling, health systems optimization, and economic evaluation to support evidence-based decision-making in public health. We aim to highlight strategies that enable health authorities and policymakers to allocate limited resources more effectively—whether in routine healthcare delivery, early intervention programs, epidemic preparedness, or emergency response. Topics of interest include dynamic transmission models that inform vaccination and screening programs; spatiotemporal forecasting methods for anticipating disease spread; and optimization approaches for distributing medical supplies, personnel, and infrastructure.

Guest Editors

Prof. Dr. Randolph Hall

Epstein Department of Industrial and Systems Engineering, University of Southern California, Los Angeles, CA 90089, USA

Dr. Mingdong Lyu

Worldwide Capacity Planning, Amazon, Seattle, WA 98109, USA

Deadline for manuscript submissions

31 August 2026



International Journal of Environmental Research and Public Health

an Open Access Journal by MDPI

CiteScore 8.5
Indexed in PubMed



mdpi.com/si/255653

International Journal of Environmental Research and Public Health Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 ijerph@mdpi.com

mdpi.com/journal/ ijerph





International Journal of Environmental Research and Public Health

an Open Access Journal by MDPI

CiteScore 8.5
Indexed in PubMed





About the Journal

Message from the Editor-in-Chief

Addressing the environmental and public health challenges requires engagement and collaboration among clinicians and public health researchers. Scientific discoveries and advances in this research field play a critical role in providing a rational basis for informed decision-making toward control and prevention of human diseases, especially the illnesses that are induced from environmental exposure to health hazards.

IJERPH provides a forum for discussion of discoveries and knowledge in these multidisciplinary fields. Please consider publishing your research in this high quality peer-reviewed journal.

Editor-in-Chief

Prof. Dr. Paul R. Ward

Centre for Public Health, Equity and Human Flourishing, Torrens University Australia, Adelaide 5000, Australia

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, PubMed, MEDLINE, PMC, Embase, GEOBASE, CAPlus / SciFinder, and other databases.

Journal Rank:

CiteScore - Q1 (Public Health, Environmental and Occupational Health)