Beyond the Clinic: Voices for Strengthening Public Health Expertise in Oman

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Introduction

In 1920, Winslow defined public health as "the science and art of preventing disease, prolonging life, and promoting physical health and efficiency through organised community efforts".[1] A century later, the World Health Organization (WHO) frames public health as the foundation of equitable, resilient and sustainable health systems.[2] Yet in many high-performing middle- and high-income countries, public health practice remains under-resourced and institutionally peripheral. Clinicians follow structured pathways for specialisation and academic promotion; public health professionals often do not. The COVID-19 pandemic, mpox, rising non-communicable diseases (NCDs), and climate-sensitive health risks have made the case plain: strong health systems require embedded, recognised public health expertise.

What Public Health Expertise Means

Public health rests on six interconnected competencies: epidemiology and surveillance; biostatistics and health data analytics; health policy analysis; health promotion and behaviour change; environmental and occupational health; and health-systems leadership.[3] Each reinforces the others. An epidemiologist who cannot translate risk for policymakers, or a surveillance officer who cannot interpret biostatistical signals, is only partially equipped. The 2010 Lancet Commission on the Education of Health Professionals (chaired by Frenk) argued that twenty-first-century health professionals must reason across systems, not only across individual patients. This requires deliberate, structured public health training embedded in workforce development.[4] Public health also adds the population lens that individual clinical care cannot provide: it anticipates outbreaks, targets prevention to high-burden populations, and measures disease averted rather than treated.

Global and Regional Evidence

WHO's Global Strategy on Human Resources for Health originally projected a 2030 shortage of 18 million health workers.[5] Subsequent analyses revised this to about 10-11 million, with shortages now concentrated in the WHO African and Eastern Mediterranean Regions.[6] Epidemiology and public health competencies remain among the most underrepresented. In the Eastern Mediterranean Region (EMR), Field Epidemiology Training Programmes (FETPs), coordinated regionally through the Eastern Mediterranean Public Health Network (EMPHNET), now operate in most Member States, but tier-depth and institutionalisation are uneven.[7] The Institute of Medicine's The Future of Public Health (1988) described the United States public health system as "in disarray",[8] a diagnosis the COVID-19 pandemic generalised worldwide: countries with established public health infrastructure showed better preparedness and response.[9] The implication is consistent across reviews: public health capacity must be built within health systems, not alongside them.

Models, Barriers and Pathways

Several countries offer instructive models. The United Kingdom's Faculty of Public Health provides an independent professional body that sets training standards and advocates for the specialty.[10] Within the EMR, the Saudi and Egyptian FETPs have shown that regionally anchored training produces sustained applied-epidemiology capacity. Common barriers persist: curative care dominates health budgets; public health roles lack standardised career ladders and salary parity; and academic promotion criteria rarely reward policy briefs, surveillance reports, or community programmes. Facilitators are equally identifiable: accredited specialisation pathways, competency-based training, integration of public health officers into primary care teams, and political leadership that visibly values population health.[7]

Oman: From Rapid Transition to Unfinished Agenda

The history of epidemiological transition in Oman is well documented. At the start of the Omani Renaissance in 1970, life expectancy was 49.3 years and infant mortality was about 118 per 1,000 live births; within four decades, life expectancy rose above 71 years and under-five mortality fell by about 94%.[11,12] In the World Health Report 2000, Oman ranked eighth for overall health-system performance and first on the "performance on level of health" index.[11] Today, the Ministry of Health (MoH) oversees a tiered system with 243 primary-care facilities and over 59,000 health workers; the Directorate General of Health Services and Programmes coordinate communicable-disease control, NCD prevention, maternal and child health, and environmental health.[13] Sultan Qaboos University offers an MSc in Epidemiology and Biostatistics and a PhD in Epidemiology and Public Health, and a national FETP-Frontline programme (a three months field training) was launched in August 2022 with the first cohorts graduated in December 2022. The pandemic stress-test exposed both latent capacity and structural gaps: reliance on internationally trained specialists, a limited scale of domestic MPH/FETP training, and the absence of an Oman Medical Specialty Board (OMSB)-accredited residency in Community/Preventive Medicine or Public Health equivalent to clinical specialties. Vision 2040, which positions health as a cornerstone of national development, provides the strategic mandate to close these gaps.[14,15]

Five Priorities for Oman

- Establish an OMSB-accredited specialty in Community Medicine / Public Health, equivalent in rigour to clinical residencies.
- Publish a national public health workforce plan aligned with Vision 2040, with defined professional-per-100,000 ratios.
- Scale up domestic postgraduate training at Sultan Qaboos University (MPH and advanced FETP tiers) to reduce reliance on overseas training.
- Integrate public health units with clinical services at regional directorates, replacing parallel administrative silos.
- Invest in interoperable electronic health records, a national health observatory and a robust vital-statistics system.

Call to Action

NCDs, antimicrobial resistance, climate-sensitive diseases and emerging pathogens are population-level problems; they will not be solved in consulting rooms alone. A formal OMSB specialty, an expanded MPH/FETP pipeline, and a published national public health workforce target would translate Vision 2040 ambition into measurable capacity. Oman's health transformation was built on the principle that health is a public good. That principle should now be institutionalised in the workforce that sustains it.

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The authors declare no conflicts of interest.

Author Contributions

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The authors used no generative-AI tools to draft this manuscript; AI-assisted editing was limited to proofreading for grammar and style, and the content, arguments and references were verified and finalised by the authors who are senior public health practitioners in Oman.

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