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Perspective

Trends in Multidrug-Resistant Tuberculosis Among Migrant Populations: A Global Health Perspective

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DESCRIPTION

Tuberculosis (TB) remains one of the world's deadliest infectious diseases and its drug-resistant forms particularly Multidrug-Resistant Tuberculosis (MDR-TB) pose an escalating threat to global health. Defined by resistance to at least isoniazid and revamping, the two most powerful anti-TB drugs, MDR-TB complicates treatment efforts and undermines decades of progress in TB control. Among the most vulnerable groups affected are migrant populations, who often face unique challenges that increase their susceptibility to infection, late diagnosis, and poor treatment outcomes.

Migration is a global phenomenon shaped by conflict, climate change, economic inequality and political instability. As of 2024, over 280 million people live as international migrants and tens of millions more are internally displaced. Many originate from or transit through TB-endemic regions and may lack consistent access to healthcare during movement. These conditions contribute to both the spread and poor management of TB, particularly its resistant forms.

Recent global data suggests an alarming increase in MDR-TB cases among migrant communities. In Europe, for example, surveillance by the European Centre for Disease Prevention and Control (ECDC) indicates that non-native populations account for a disproportionately high number of MDR-TB cases. Similar patterns are evident in North America and parts of the Middle East. However, these figures likely underrepresent the true burden due to fragmented data collection, fear of deportation and limited healthcare access in transit or host countries.

A critical factor driving these trends is treatment interruption during migration. TB treatment is long typically lasting 6-24 months for MDR-TB and requires consistent drug regimens, follow-up and monitoring. Migrants often move across borders before completing treatment, leading to discontinuation or inconsistent therapy. This not only worsens individual outcomes but also encourages the evolution and transmission of more resistant strains.

Moreover, many host countries lack standardized protocols to continue TB care for migrants who begin treatment elsewhere. Health systems may not have interoperable medical records or agreements for cross-border case management. Language barriers, stigma and legal uncertainties further discourage migrants from seeking or continuing care. In some countries, undocumented migrants fear that seeking treatment may expose them to immigration enforcement, prompting them to avoid healthcare systems altogether.

Another concern is the quality of TB treatment available in some settings where migrants originate or reside temporarily. Inadequate drug supplies, improper prescriptions and unregulated private providers can all contribute to incomplete or ineffective treatment regimens. In such environments, MDR-TB can develop rapidly and spread silently within overcrowded shelters, detention centres, or informal settlements settings that are common in displacement contexts.

Despite these challenges, targeted interventions have shown promise. Mobile TB screening units at migrant entry points, community-based outreach programs and multilingual education campaigns have been effective in increasing diagnosis rates. Some countries have adopted more inclusive policies, offering free or subsidized TB care regardless of legal status. The implementation of shorter, standardized MDR-TB treatment regimens endorsed by the World Health Organization (WHO) also offers a pathway to better adherence and outcomes in mobile populations.

However, these efforts remain fragmented and underfunded. There is an urgent need for coordinated global action to integrate migrant health into national and international TB strategies. Strengthening surveillance systems, harmonizing treatment protocols across borders and ensuring political commitment to migrant-inclusive healthcare are essential steps forward.

High-income countries, many of which are common destinations for migrants, have a critical role to play. This includes investing in public health infrastructure, supporting cross-border treatment

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continuity and removing legal barriers that prevent migrants from accessing care. It also means participating in global funding mechanisms that support TB control in low-resource settings addressing the problem at its source.

CONCLUSION

The rise of multidrug-resistant tuberculosis among migrant populations reflects a dangerous intersection of biological, social and political vulnerabilities. Migration itself is not the cause of MDR-TB, but the conditions surrounding it treatment disruption, poor access to care, stigma, and exclusion create an environment where resistance flourishes. Addressing these trends requires more than clinical solutions; it demands a commitment to equity, human rights and international collaboration.

Migrant health must be viewed not as a peripheral issue, but as central to the global fight against TB and antimicrobial resistance. Until we build systems that ensure continuous, accessible and quality TB care for all regardless of borders we risk allowing MDR-TB to spread unchecked, reversing decades of progress in tuberculosis control. The challenge is urgent, but not insurmountable. By prioritizing inclusive health policies, harmonizing global efforts and investing in sustainable, migrant-sensitive interventions, we can protect vulnerable populations and strengthen our collective defense against one of the world's most persistent infectious threats.