

The silent threat: Karachi's overlooked high-risk populations in the current H1N1 surge

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The Editor, The influenza virus, particularly H1N1, peaks annually during January and February, yet remains an underestimated public health concern.¹ Karachi, Pakistan's largest city with over 17 million residents, is currently experiencing a surge in H1N1 cases, worsened by weak immunity and low vaccination rates. As of February 15th, 119 out of 248 reported respiratory disease cases in Karachi were attributed to H1N1.²

This year's outbreak exhibits greater transmissibility and severity due to ongoing antigenic variations. Entire families are falling ill, and hospitalisations have increased. Dr. Faisal Mahmood, Head of Infectious Diseases at Aga Khan University Hospital, reports that 20 to 40 patients at a time are admitted with severe disease or complications.³ Studies confirm that H1N1 follows a more severe course than other respiratory viruses, leading to higher complication and mortality rates.⁴

More than 50% of Karachi's population lives in informal settlements, where poverty, overcrowding, and inadequate access to healthcare delay diagnosis and treatment.³ The lack of routine influenza testing and limited availability of empiric oseltamivir led to frequent misdiagnosis and antibiotic overuse, contributing to antimicrobial resistance. These challenges disproportionately impact high-risk groups—including pregnant women, children, the elderly, transplant recipients, and immunocompromised patients—who face severe complications.⁵ Pregnant women with H1N1 are at increased risk of preterm labour, spontaneous abortion, and maternal morbidity, while immunocompromised patients experience prolonged viral shedding and higher mortality. Children, even previously healthy ones, are prone to pneumonia, bronchiolitis, myocarditis, and ARDS (4). Limited public awareness about influenza severity leads many to seek care only after complications arise. This high disease burden strains

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Karachi's fragile healthcare system, causing overcrowded hospitals, resource depleted resources, and economic disruptions. To mitigate the crisis, Pakistan must implement preventive measures, prioritising high-risk populations. The government should ensure timely vaccine procurement, mandating flu shots for healthcare workers, immunocompromised individuals, and pregnant women. Strengthening surveillance and reporting systems can enable timely interventions, such as social distancing and targeted antiviral distribution.

Public awareness campaigns featuring healthcare professionals and influenza survivors should emphasise vaccination benefits and early medical intervention. Partnering with social media influencers and television channels can enhance outreach, particularly in rural areas where misinformation is prevalent. Schools and workplaces must introduce mandatory flu awareness sessions. Despite the vaccine's recommended availability before peak season in October, Pakistan faces importation challenges, limiting access.¹ Addressing supply-chain barriers is critical for effective immunisation and long-term disease control. A proactive, multi-sectoral approach—combining policy reforms, public education, and strengthened healthcare infrastructure—is essential to curb the spread of H1N1 and safeguard vulnerable populations against future outbreaks.

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