Syria, slums, and health security

The Syrian conflict has been described as a new kind of world war: local conflicts with resounding global consequences. It has accelerated the rise of the terrorist group ISIS, destabilized Europe's open border agreement, and led to the single largest refugee crisis in decades. These factors contribute to an emerging fragility that compounds the humanitarian crisis in Syria but also threatens global health.

The risk of epidemics of deadly infectious disease is elevated by millions of vulnerable people converging on and taking refuge in urban areas. Large numbers of unvaccinated people living in close proximity and with limited access to clean water and sanitation represent a fertile breeding ground for infectious disease—traditional pathogens, and new and emerging ones—and the spread of antimicrobial resistance.

Urban slums are not new, but the scale and prevalence we are seeing is. We are ill-prepared for their rate of growth, and the associated increase in risk of infectious outbreaks. In 2008, roughly 60% of internally displaced people ended up in rural areas, the majority in humanitarian camps. By 2015, this situation had reversed. Roughly 60% are now in urban areas, just 1% of them in camps. Of the 40.8 million people displaced across the globe in 2015, most now appear to be hiding in cities rather than fleeing them. It's not just conflict that is driving this trend. Population increases, combined with land degradation, rising sea levels, poverty, and famine, mean that more and more people will be competing for less land, with one consequence: An increasing number will be drawn or driven into cities.

When people live in hiding, they effectively become invisible to governments and global health agencies that are trying to help them. This could lead to major outbreaks of infectious disease, quickly depleting emergency vaccine and drug stockpiles, which are not designed to cope with simultaneous outbreaks. A resurgence of urban epidemics could result, much like last year's yellow fever outbreak—the largest in 30 years—which spread rapidly through the Angolan capital city, Luanda.

Although much has been made of refugees fleeing Syria, 6.3 million people remain internally displaced, with a further 4.7 million believed to be trapped in besieged cities and hard-to-reach areas. Rather than escaping cities or seeking refuge in humanitarian camps or shelters, millions are simply taking shelter where they can in the cities, with little or no access to health care. These conditions have fostered outbreaks of polio, measles, meningitis, and drug-resistant tuberculosis. With immunization coverage rates in Syria almost halving since the conflict began—falling from 80% to just 41%, the fourth lowest in the world—the chance of epidemics of vaccine-preventable diseases increases daily. Getting vaccines and other humanitarian aid to those in need could substantially lower the risk. However, such efforts are severely hampered by the ever-increasing dangers that aid workers face in a country where health care has been described as "weaponized," and where access to health care is denied by the deliberate targeting of facilities and health workers.

A health worker gives polio vaccine drops to a Syrian child.

Although ceasefires could help in Syria, improving access to health care is not the only issue. New, rapid, and affordable simple diagnostics are needed, as are new vaccines, that can be produced quickly. Patient-controlled simple electronic medical records can be used to track vaccinations even for refugees on the move. Conflict or not, often the first step is recognizing that slum dwellers are there—they frequently get overlooked. Relatively high vaccine coverage rates across an entire urban area often mask pockets of extremely low coverage in slums. Governments urgently need to check these blind spots, and the global health community must develop new ways to identify and reach those affected. For too long, health authorities assumed that the hardest-to-reach communities lie in remote villages, when increasingly they are hiding in plain sight in cities.

–Seth Berkley

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