INTERVENING ON HIGH-RISK OR VULNERABLE POPULATIONS?

We read with interest the article by Frohlich and Potvin, which argues very eloquently against populations-at-risk interventions and proposes that population approaches should be complemented with interventions in vulnerable groups.[1] These groups are characterized by shared social conditions, such as lack of resources, which are fundamental causes of disease that place them at increased risk of risks.[2] Although this notion is certainly valid as an overall public health framework, the limitations of such a strategy must also be recognized. Here we present 3 epidemiological scenarios to illustrate that the population-at-risk approach should not be neglected as a crucial intervention strategy to advance population health and reduce health disparities.

Communicable Disease Transmission. Elevated infectious disease incidence or prevalence in certain populations poses a threat, not only to individuals, but also to society at large. High tuberculosis (TB) rates in prisons in the former Soviet Union served as a reservoir that contributed to the overall resurgence of TB in the general population.[3] Thus, in the case of communicable diseases, interventions should target the population at risk.[4] In such cases, doing so prevents other individuals from being exposed to communicable diseases. Furthermore, focusing efforts on the entire population would not effectively interrupt transmission, particularly when the high-risk groups represent a small proportion of the population. High coverage achieved with a universal intervention would be inefficacious and mask possible low coverage in the hard-to-reach high-risk groups. As a result, active transmission foci would go unnoticed.[5]

Immediate Versus Long-Term Benefits. We agree that macrosocial interventions are essential long-term strategies to ameliorate living and working conditions of vulnerable groups, although they are slow acting at best.[6,7] Timely interventions targeting populations at risk could attenuate specific health threats in the short run and reduce mortality and morbidity. Although this approach does not directly address underlying social conditions of vulnerable populations, it nevertheless serves an important role in public health practice.

Exposure Prevalence. Exposure prevalence might differ between groups. High exposure levels might precipitate high disease levels and, therefore, justify interventions in populations at risk. For example, diarrheal disease transmission through contaminated water supplies can be interrupted by intervening with home chlorination devices to disinfect contaminated drinking water in populations at risk.[8] Similarly, the promotion of physical activity has been shown to reduce obesity in African American girls from low-income families.[9]

In summary, macrosocial interventions should include the population approach and focus on vulnerable populations. Simultaneously, however, more-immediate interventions should be implemented in populations at risk to advance both population health and health equity. ■

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