

## COMMENTARY

# Time to reconsider hepatitis A vaccination policy in Bangladesh

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Hepatitis A virus (HAV) remains a major cause of acute viral hepatitis in Bangladesh [1]. Traditionally, high endemicity ensured early childhood exposure, resulting in asymptomatic infection and lifelong immunity [2]. However, improvements in sanitation, hygiene, and socioeconomic conditions are altering this pattern [3]. Increasingly, exposure is delayed to adolescence and adulthood, where infection is more likely to be symptomatic and severe. This transition creates a “window of susceptibility,” where individuals are neither protected by natural immunity nor vaccinated, making them vulnerable to clinically significant disease. This phenomenon, often described as the “paradox of development,” has been observed across several low- and middle-income countries undergoing epidemiological transition.

Recent hospital-based surveillance in Bangladesh supports this epidemiological shift. A multicenter study found that nearly one-fifth of suspected acute hepatitis cases were anti-HAV IgM positive, confirming hepatitis A virus as a major contributor. Although most cases occurred in children, adolescents and adults were also affected, often with more severe disease and greater healthcare needs [1]. This study reported that HAV accounted for 76.6% of hospitalised paediatric acute viral hepatitis cases, with 41.1% developing complications such as prolonged cholestasis, ascites, acute liver failure, and encephalopathy, and a mortality of 6.3%. A large laboratory-based study from Dhaka reported anti-HAV IgM positivity in nearly 30% of suspected acute

viral hepatitis cases, indicating sustained transmission, particularly among children and adolescents [4]. Similar epidemiological changes have been reported globally, including in Asia and Africa, [5] where declining early-life exposure has led to increased susceptibility in older populations. These findings highlight that Bangladesh is part of a broader global transition, reinforcing the need for timely policy adaptation.

The burden of HAV extends beyond clinical outcomes. Indirect economic costs are substantial but often underrecognised. Caregiver burden is significant because parents often miss work to care for affected children. Additionally, infection in adults, particularly primary income earners can result in prolonged work absenteeism and financial hardship. A “double burden” may also emerge, where improved living conditions in urban or higher-income groups delay exposure, while continued transmission in lower-income settings sustains infection risk. This dynamic can exacerbate health inequities and complicate disease control efforts. Outbreaks among susceptible older populations may therefore become increasingly costly, both in terms of healthcare expenditure and productivity losses, underscoring the need for preventive strategies.

The World Health Organization recommends tailoring hepatitis A vaccination strategies according to endemicity and population susceptibility. In countries transitioning from high to intermediate endemicity, routine childhood immunization has

## Key messages

Bangladesh is experiencing a shift in hepatitis A epidemiology, with declining childhood exposure and increasing susceptibility among adolescents and adults, particularly in urban and higher socioeconomic groups. This transition raises the risk of outbreaks and more severe disease, underscoring the need to reassess hepatitis A vaccination policy and strengthen surveillance to inform timely, evidence-based immunization strategies.

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proven effective in reducing disease incidence and generating herd protection [6, 7]. In Bangladesh, the expanded programme on Immunization provides a robust delivery platform; however, the ongoing epidemiological shift necessitates a reassessment of hepatitis A vaccination policy. This should be guided by age-stratified seroprevalence data, comprehensive cost-effectiveness analyses incorporating both direct and indirect costs, and evaluation of optimal strategies (targeted versus universal). Prioritization of high-risk groups, such as individuals with chronic liver disease, immunocompromised populations, and susceptible adults should also be considered.

Hepatitis A thus represents a dynamic and increasingly consequential public health challenge in Bangladesh. The convergence of shifting epidemiology, sustained morbidity, and economic impact underscores the urgency of revisiting vaccination policy through a strategic, evidence-based lens to reduce preventable disease and improve population-level outcomes.

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#### Conflict of interest

We do not have any conflict of interest.

#### Data availability statement

Not applicable

#### AI disclosure

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#### Supplementary file

None

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