Household transmission of mpox in Africa: limited in adults but more prevalent in children

Bibliography

Mitjà O, Marks M. Household transmission of mpox in Africa: limited in adults but more prevalent in children. Lancet Infect Dis. 2026;26(2):117-118. doi:10.1016/S1473-3099(25)00503-1

Summary

This comment interprets a prospective household cohort study from Burundi that followed 88 PCR-confirmed clade Ib mpox index cases and >430 household contacts over 3 weeks during an active outbreak. Fewer than one in four households experienced any secondary cases, and most index cases generated only a single additional infection, indicating that, overall, households played a limited role in sustaining transmission among adults. The nuance for pediatrics is critical: children <15 years had a secondary attack rate (SAR) about three times higher than adults (≈9% vs 3%), and their household reproduction number was similarly higher, reflecting closer physical contact, shared sleeping spaces, and difficulty isolating.

A sensitivity analysis that reclassified all pediatric “index” cases as secondary cases more than doubled estimated SAR and R_0, suggesting that adults are often the true primary cases but present later because of stigma or delayed care-seeking, while children are detected earlier. Notably, there was no association between transmission and household crowding, water access, or rural vs urban residence, supporting the view that most adult infections occur outside the home (often via sexual or intimate contact), with children infected secondarily. Methodological strengths include PCR-confirmed index cases, clear case–contact linkages, high follow-up and rigorous fieldwork; limitations include the absence of serology (asymptomatic infection likely missed), restriction of testing to symptomatic contacts, and convenience sampling that may limit generalizability.

Why these articles matter for daily practice

Taking together, these two pieces sharpen the clinical lens through which pediatricians and general clinicians should view mpox. First, they argue against complacency about vaccine-induced protection: in smallpox-naïve adults and adolescents, a standard two-dose MVA-BN regimen may not generate long-lived neutralizing antibodies, implying that risk groups (including some health-care workers and high-exposure populations) may need booster strategies and that route and dose (full-dose subcutaneous rather than

fractional intradermal) are not trivial implementation details but immunologically meaningful choices. Second, the Burundi household data reframe children not as the primary engine of mpox epidemics but as vulnerable "downstream" victims of adult infections acquired in extra-household settings, which has direct implications for case-finding, counselling and safeguarding: when a child presents with suspected mpox, the clinician should actively look for undiagnosed adult cases in the network, address stigma, and ensure that household infection-control advice is realistically tailored to close contact between children and caregivers. For routine practice, this translates into more precise risk communication, careful vaccination counselling for at-risk families and staff, and a low threshold to consider mpox in children with compatible rash illness in African and travel-exposed settings, even when the presumed "index" is an adult with a non-sexual exposure story.

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