

Evidence brief #2

Missed Opportunities for Co-administered vaccines (MoCVs): Impact on the progress of full immunization coverage



What is Missed Opportunities for Co-administered vaccines?

Missed opportunities for co-administered vaccines (MoCVs) is defined as the event when a child receives 'at least one antigen but not all' that they were expected to receive on the same day. One of the key concerns with the MoCVs is that the child can remain susceptible to the disease until the missed dose is administered. Additionally, MoCVs can result in children completely missing the dose, potentially compromising full immunization coverage.

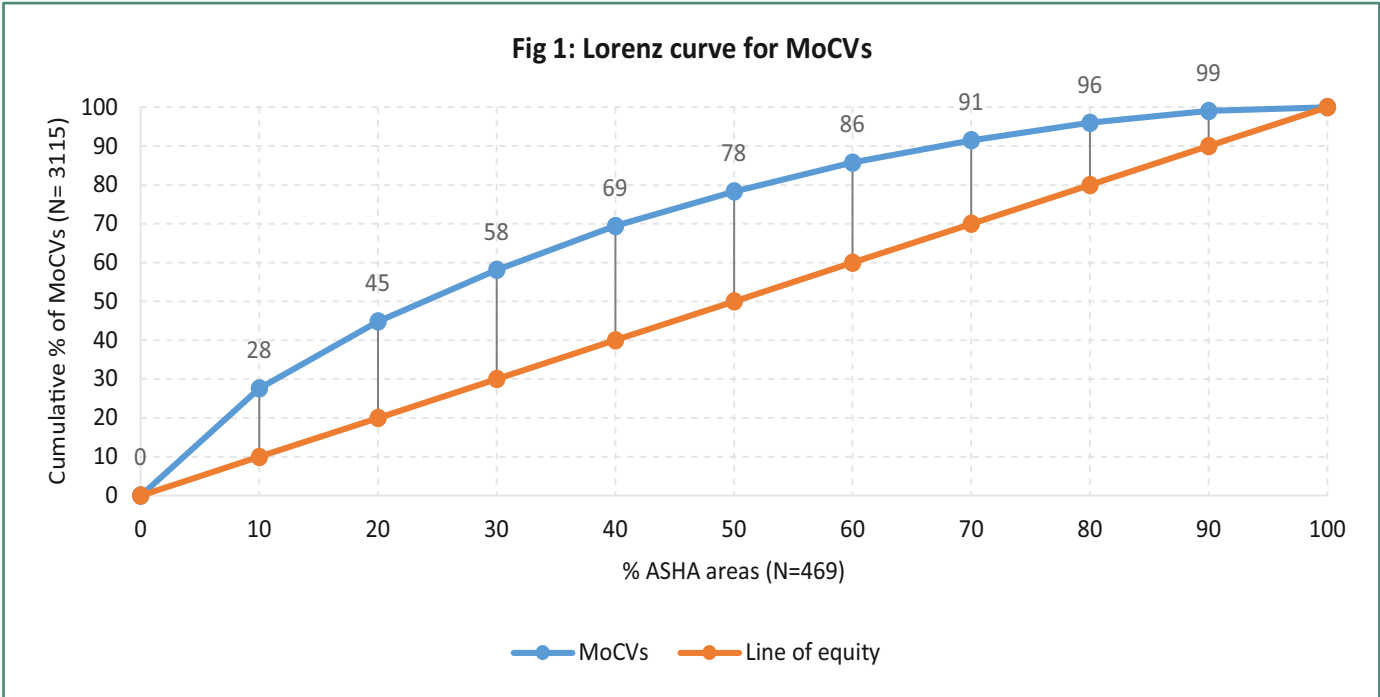
The MoCVs in the 100 focus blocks were estimated using the data from a community based comprehensive Rapid Assessment Survey (RAS). The RAS was conducted between July and November 2021 to provide Routine Immunization (RI) coverage estimates in the 100 aspirational blocks, which are under the purview of Uttar Pradesh Routine Immunization (UPRI) Strengthening Project. The MoCVs were analysed to gain the nuanced understanding of the RI situation in the project blocks. The analysis included children whose MCP card and date of vaccination were mentioned. MoCVs were estimated for vaccines that are usually administered at the age of six weeks (among children aged ≥ 42 days), ten weeks (among children aged ≥ 70 days), 14 weeks (among children aged ≥ 98) and 9-11 months (among children aged ≥ 270 days).

How does it concern?

MoCVs at six, ten and fourteen weeks were 21.3%, 8.3% and 31.9%, respectively (Table 1). Among MoCVs children, 58.1% at six weeks, 35.6% at ten weeks and 64% at fourteen weeks remained unvaccinated until the date of survey. About 44% of children missed at least one antigen at the age of 9-11 months, and among them, 81.3% did not receive missed antigen further. MoCVs did not vary significantly by level of education, type of family, caste, religion and economic status of the mothers/caregivers. While analyzing the geographical spread of MoCVs, the data suggested that out of total 469 ASHA areas, 50% ASHA areas are home to 78% of children with any type of MoCVs (either at 6 weeks, 10 weeks, 14 weeks, and 9-12 months) (Fig 1).

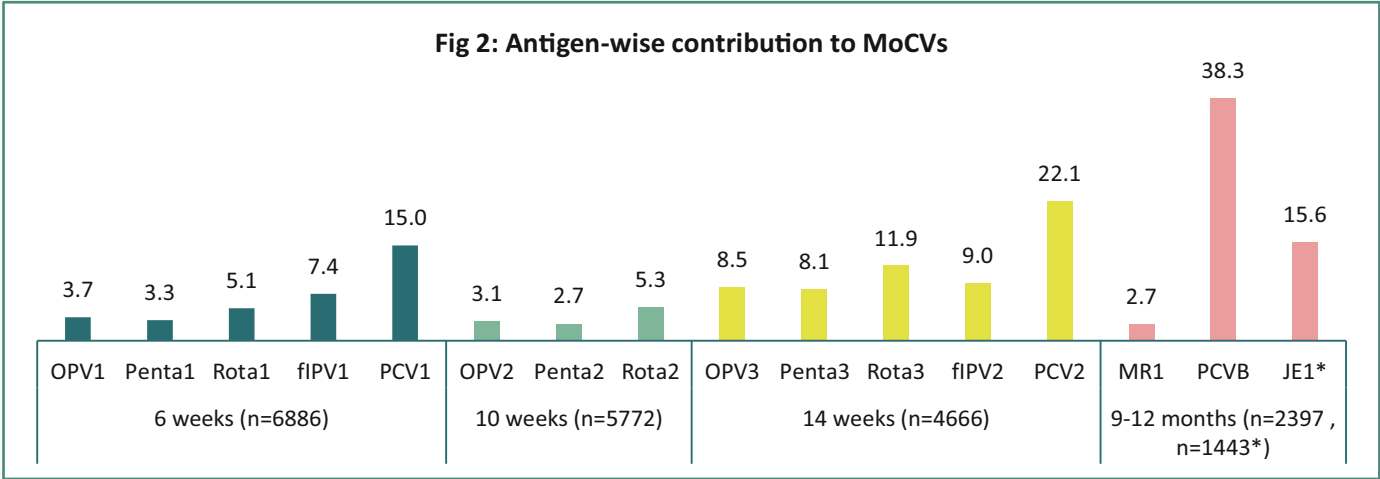
Table 1: Trends in MoCVs and remaining unvaccinated across the four dosage periods

Vaccine dose administration eligibility at	Expected number of doses	MoCVs		Remained unvaccinated after MoCVs	
		Number of children	%	Number of children with MoCV	%
6 Weeks (among child aged >42 days)	5	6886	21.3	1412	58.1
10 Weeks (among child aged >70 days)	3	5772	8.3	450	35.6
14 Weeks (among child aged >98 days)	5	4666	31.9	1394	64.0
9-12 Months (among child aged >270 days)	3 in JE endemic districts and 2 in other districts	2397	44.4	1025	81.3



Antigen-wise contribution to MoCVs

At six weeks, the proportion of missing antigens causing MoCVs ranged between 3% to 15%, at 14 weeks 8% to 22%, and 2% to 38% at 9–12 months for different antigens. Pneumococcal Conjugate Vaccine (PCV), fractional doses of Inactivated Poliovirus Vaccine (fIPV), and Rotavirus Vaccines (RVV) are among the co-administered antigens that are overlooked. PCV makes a significantly larger contribution—roughly 15%, 22%, and 38% at 6 weeks, 14 weeks, and 9–12 months, respectively. At 14 weeks, pentavalent and polio antigens also make up about 8% of MoCVs.



What did we learn?

The analysis showed that addressing the MoCVs could increase the coverage of all vaccinations by around 25%. The scale of improvement that can be attained through decreasing the MoCVs, pointed to the urgent need to direct more efforts in this regard. Ensuring the adequate availability of all the vaccines according to the due list requirements along with sensitizing front line workers can help in reducing MoCVs and attaining SDGs.

Varma R., Dehury B., Choudhary KK., Thacker D., Javalkar P., Anthony J. and Prakash R. (2023). Missed Opportunities for Co-administered vaccines (MoCVs): Impact on the progress of full immunization coverage in Uttar Pradesh. Evidence Brief #2. Lucknow: India Health Action Trust.

