

TABLE IV IMMUNOGENICITY OF RUBELLA CONTAINING VACCINES IN CHILDREN AND ADOLESCENTS IN INDIA

S No.	Study Group; Setting; Duration	Place	Age-group (n)	Vaccine	Protective titer of Anti-Rubella IgG antibody	Duration of follow-up	Results
<i>Studies on Rubella Vaccine</i>							
1.	Sharma, <i>et al.</i> [37]; SB	Maharashtra: 12 districts	12-15y (n=1159)	R-vac vaccine (Serum Institute of India), 1000TCID ₅₀ of rubella virus (Wistar RA 27/3 strain)	≥11 EU/mL	6-8 weeks	Seroprevalence post-vaccination: Urban: 100% Rural: 99.5% Overall: 99.7%
2.	Sharma, <i>et al.</i> [38]; SB2000	Jammu	11-18y (n=275)	RA 27/3 rubella vaccine (Serum Institute of India)	≥25 IU/mL	8 weeks	Seroprevalence pre-vaccination: 67% (9.83 IU/mL) Seroprevalence post-vaccination: 100% (94.8 IU/mL)
3.	Yadav, <i>et al.</i> [41]; HB2001*	Delhi	9-12y (n=140); 14 seronegative girls administered vaccine	RA 27/3 rubella vaccine (Serum Institute of Pune), 1000 TCID ₅₀ of RA 27/3 strain	>10 EU/mL	6-8 weeks	Seroconversion: 100%Pre-vaccination titres: 306.1 EU/mL Post-vaccination titres: 569.1 EU/mL (<i>P</i> <0.001)
4.	Rajasundari, <i>et al.</i> [63]; HP2004-2005	Madurai	15-40y; 60 seronegative health personnel (55 females)	RA 27/3 rubella vaccine (Serum Institute of India)	>20 IU/mL	4 weeks	Seroprevalence post-vaccination at 4 weeks: 100% Levels of highly avid antibodies increased progressively after immunization. Avidity index At 4 weeks: 9.2 ± 15.23 At 6 months: 58.2 ± 9.25
<i>Studies on MMR Vaccine</i>							
5.	Gomber, <i>et al.</i> [64]; HB2007-2008	Delhi	4-6y old children who had received one dose of MMR vaccine between 12-24 months (n=84)	MMR Vaccine, Tisevac (Serum Institute of India), 1000 TCID ₅₀ of Rubella (RA 27/3 strain)	>12U/mL	1 st follow-up: 4-5y after first dose of MMR 2 nd follow-up: 4-6 weeks after the second dose of MMR	Seroprevalence pre-vaccination: 81% Seroprevalence post-vaccination: 100%
6.	Raut, <i>et al.</i> [65]; CB1999 and 2005	Pune	1-10y (n=99)	MMR vaccine (Serum Institute of India) containing RA 27/3 rubella virus	Immune ratio ≥ 1.1	6y	Seroprevalence post-vaccination: 100% (n=41)

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INDIAN PEDIATRICS	<i>S</i>	<i>Study Group; No. Setting; Duration</i>	<i>Place</i>	<i>Age-group (n)</i>	<i>Vaccine</i>	<i>Protective titer of Anti- Rubella IgG antibody</i>	<i>Duration of follow-up</i>	<i>Results</i>
	7.	Yadav, <i>et al.</i> [66]; SB1997-1998	Delhi	9-18 (n=240)	MMR vaccine (Serum Institute of India) containing RA 27/3 strain	>10 EU/mL	6-8 weeks	Seroprevalence pre-vaccination (n=240): 24% Seroprevalence post-vaccination (n=202): 96%
	8.	Bhargava, <i>et al.</i> [67]; HB1994*	Indore, Bombay, Pune	15-24 months (n=89)	MMR vaccine containing RA 27/3 strain	NA	1 and 4 weeks	Seroprevalence pre-vaccination: 13% Seroprevalence post- vaccination at 1 week: 15% Seroprevalence post- vaccination at 4 weeks: 99%
	9.	Singh, <i>et al.</i> [68] HB, 1990-91	Vellore	9-15 months (n=111, HI test; n=121, ELISA)	MMR vaccine (Pluserix, Smith-Kline, and French, Rixensart, Belgium)	>15 EU/mL	4 weeks	HI test: Seroprevalence pre- vaccination: 35.1% Seroconversion rate after vaccination in seronegative children: 97% ELISA test: Seroprevalence pre-vaccination: 13.2% Seroconversion rate after vaccination in seronegative children: 95.2%

CB: Community-based, HB: Hospital-based, HP: Health-personnel based; NA: Not available; SB: School-based; * Year of Publication, where the study duration was not specified.