Supplementary Table III. Research options related to adolescent health		
National weighted priority ranks	Research theme	Research option
1	Child health	Establishing an effective and sustainable vaccine preventable disease surveillance programme (especially, measles and rubella, pneumonia and diarrhoea) in India [*e.g*., defining syndromes (fever and rash) and programme thresholds, forging PPPs, building upon polio infrastructure, using technology (maternal health, GIS, *etc*.)]
2	Maternal health	Process and impact evaluation of public health programmes targeted for adolescents (ARSH, AFHS, RMNCH + A, RTI/STI screening services) in urban and rural areas
3	Child health	Identify and evaluate behavioural and societal interventions to prevent child (physical and sexual) abuse
4	Maternal health	Improving the implementation of adolescent centric public health programmes (ARSH, RMNCH + A, RTI/STI services) and making them more adolescent friendly
5	Nutrition	Identify programme innovations to improve delivery and compliance to therapeutic and prophylactic supplementation of iron and folic acid in women of reproductive age group and adolescents

		(*e.g*. IEC; co-administration of parenteral iron with antenatal tetanus toxoid; simultaneous deworming, absorption enhancers such as vitamin C rich foods, directly observed administration; developing a mobile app, incentivization; co-packaging of IFA tablets with sanitary napkins)
6	Nutrition	Modifying existing IFA supplementation programme to include vitamin B12 and evaluating effectiveness, affordability and impact on prevalence of anaemia in different age groups
7	Child health	Generate evidence (*e.g*., reduction in burden and effectiveness of currently available and new vaccines) for introduction of new vaccines in the UIP (*e.g*., pneumococcal disease, human papilloma virus) including modelling for cost-effectiveness
8	Child health	Process and impact evaluation of currently deployed measles-rubella elimination strategies in India
9	Nutrition	Epidemiology, risk and prognostic factors (biological, genetic, maternal, familial, socio-cultural, economic, gender, demography, health system related, environment) of micronutriture in children (under-five, pre-adolescent and adolescent)
10	Maternal health	Effect of adolescent and pre-conceptional health and nutrition on foetal outcome, child health, growth and risk of chronic disease (genetics, foetal programming, epigenetics)

11	Maternal health	Validate the effectiveness of 5×5 matrix of RMNCH + A programme in real life situations and evolve into a 5×5×5 grid that engages five stakeholders (mother-child, family, community, frontline workers, health system personnel) for enhanced impact
12	Child health	Epidemiology, risk and prognostic factors (biological, genetic, maternal, familial, health, nutrition, socio-cultural, gender, demography, environment, economic, health system related) of child (physical and sexual) abuse
13	Maternal health	Novel strategies to improve ARSH (*e.g.*, ICT, social media, maternal health, innovations in delivery of ARSH packages through platforms such as schools, gyms and youth clubs)
14	Nutrition	Improving the uptake of ICDS food supplementation through community engagement, leveraging existing platforms within village/community environments (*e.g.*, VHND, PDS) and bundling the services with other attractive interventions (*e.g.*, vocational and life skill training)
15	Nutrition	Dynamics of iron absorption in individuals residing in diverse environmental and sanitary conditions, belonging to different socio-economic classes and nutritional status
16	Nutrition	Pharmacologic research for identifying/developing novel, safe,

		efficacious and affordable iron salt(s) for supplementation/therapy (individual and mass) of iron deficiency state in women and children (*e.g*., preparation, dosing schedule, route, combining with other micronutrient, minimization of side effects)
17	Nutrition	Process, impact and economic evaluation of ARSH initiatives in the context of gender equity and nutrition security
18	Nutrition	Development of individual, family and community directed interventions for prevention and management of overweight/obesity amongst women of reproductive age group and adolescents: Leverage the presence of ASHA, AWW and ANM in the community to augment the impact
19	Nutrition	Evaluation of nutrition interventions based on AYUSH to improve macro and micronutriture of women of reproductive age, adolescents and children
20	Child health	Epidemiology, risk and prognostic factors (biological, genetic, maternal, familial, health, nutrition, sociocultural, gender, demography, environment, economic, health system related) of rubella and its outcomes (*e.g*., congenital rubella syndrome, *etc*.)
21	Nutrition	Feasibility and effectiveness of growth monitoring for 6-14 yr old children in the ICDS

AFHS, Adolescent Friendly Health Services; ANM, Auxiliary nurse midwife; ARSH, Adolescent reproductive and sexual health; AWW, *Anganwadi* worker; AYUSH, Ayurveda

Yoga and Naturopathy, Unani, Siddha and Homeopathy; GIS, Geographic information systems; ICDS, Integrated Child Development Services; ICT, Information and communication technology; IEC, Information education & communication; IFA, Iron folic acid; PDS, Public Distribution System; PPPs, Public private partnerships; RMNCH + A, reproductive maternal neonatal child health + adolescent; RTI, Reproductive tract infection; STI, Sexually transmitted infection; UIP, Universal Immunisation Programme; VHND, Village health and nutrition day.