## Research Priorities in Newborn Health

National Weighted Priority Ranks	Research Options
1	Designing and evaluating curriculums for skill building and their retention for health personnel involved in newborn care in the community and at various levels of health care system(e.g., training in identification of warning signs, safe injection practices, administration of oxygen therapy, etc)
2	Engaging and empowering family members and community in the care of newborn (including family centred care): barriers, strategies to overcome, impact, cost-effectiveness
3	Identifying appropriate and effective strategies (messages and channels of communication) to promote community awareness on newborn care practices and social mobilization for early healthcare seeking (including utilization of existing nutrition and health services) to prevent adverse outcomes
4	Low cost, feasible, portable technological innovations in equipments to improve capacity (diagnosis, identification, management) and outreach for fetal & neonatal care (especially, LBW, preterm: CPAP, surfactant therapy, etc) at various levels of the health system, and their impact evaluation
5	Improving the implementation (service availability, quality, program management and referral chain robustness) of neonate centric programs and services (RMNCH+A, JSSK, NSSK, IMNCI & F-IMNCI, SNCUs, etc)
6	Implementation of an integrated and comprehensive maternal and newborn health care package for delivering continuum of care: barriers, strategies to overcome, need for governance modification, maternal and newborn outcomes
7	Strategies to scale up Home Based Newborn Care: Role assignment and rationalization for frontline workers, barrier identification and mitigation, cost-effectiveness, impact

## **Priority Research Options in Newborn Health**

National Weighted Priority Ranks	Research Options
8	Strategies for social, economic, skill and knowledge empowerment of women and its impact on newborn, child and women's health
9	Establishing an innovative framework of monitoring and supervision with in-built mechanism of accountability to improve performance of frontline workers and health personnel involved in neonatal care (e.g., physical supervision; engaging PRIs and clients; use of ICT, telemedicine, mHealth)
10	Development and validation of protocols for the management of pregnant women at risk of preterm delivery, in the healthcare system{E.g. nutritional, pharmaceutical (steroids, betamimetics, progesterone, nitroglycerine patches, prophylactic antibiotics, etc), surgical, exercise and lifestyle counselling}
11	Process, impact and economic evaluation of neonate centric programs and services (RMNCH+A, JSSK, NSSK, IMNCI & F-IMNCI, SNCUs, etc)
12	To establish nation-wide multicentric antimicrobial surveillance and antibiotic stewardship program for infectious morbidities during neonatal period; encouraging rational use of antibiotics
13	Developing context-specific triage protocols for pregnant women (coming for their antenatal and emergency room visits) and newborns to improve quality of care and neonatal outcomes
14	Developing and validating point-of-care diagnostics, biomarkers <sup>^</sup> and a scoring system based on these for identification and prognostication of neonatal sepsis in the community and at primary care level <sup>^</sup> neonatal, maternal, amniotic fluid; core-to-periphery temperature gradient
15	Use of ICT and mHealth to improve access to neonatal health services and associated entitlements(increase service quality, outreach and awareness; improve monitoring and screening for early identification of morbidities; strengthen client referral, tracking and treatment compliance)

Priority Research Options in Newborn Health				
National Weighted Priority Ranks	Research Options	5		
17	Development, implementation and assessment of quality benchmarks for neonatal care at different levels of health care			
18	Designing and evaluating undergraduate medical curricula for skill building in newborn care among students			
23	Epidemiology, risk and prognostic factors^ in low birth weight babies^biological, genetic, maternal, familial, social-cultural, economic, gender, demography, health system related	-		
24	Development of evidence-based, feasible, affordable, care protocols for prophylactic/ standard/ rescue management of preterm neonates at different levels of the health system(E.g., rescue surfactant therapy)	-		
25	Immersion of validated protocols of aseptic newborn care practices at different levels of health care; fixing accountability			
29	Identifying optimal feeding regimens for preterm and LBW babies and their short-term (growth trajectory) and long-term (chronic disease, obesity) outcomes			
36	Assess impact of common practices during delivery and postnatally (e.g., delayed cord clamping, milking of cord, resuscitation, use of oxygen, management of hyperbilirubinemia, etc.) on neonatal outcomes			