

Public health measures to curtail infant mortality

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Sir,

Worldwide, among all maternal and child health indicators, infant mortality has been acknowledged as the one crucial indicator that reflects the quality of the health care delivery system and progress of the country on the health front. It has been 13 years since world leaders committed to Millennium Development Goal-4, which sets out to reduce the under-five mortality rate by two-thirds between 1990 and 2015.^[1] Findings of a report released by the United Nation has estimated global infant mortality to be 37/1000 live births in 2011, amidst all the universal efforts and strengthening of the health care infrastructure.^[1]

Death of an infant is an event that is essentially preventable in current global scenario and results mainly because of the socio-demographic profile of the community and deficiencies in the health policies/healthcare delivery system.^[2] A wide range of heterogeneous parameters such as male child,^[1,3] black race,^[3] young maternal age,^[3,4] low Apgar score,^[3] low birth weight,^[1,3,5] high parity,^[5] high birth order,^[3,4] short inter-pregnancy interval,^[4] home delivery,^[6] unskilled delivery,^[6,7] social inequalities and inequities,^[2] financial restraints,^[2] lack of quality antenatal care,^[1,2] access to healthcare services (diagnostic and therapeutic) or trained and skilled health professionals,^[2,3,7] exclusive breastfeeding,^[5] inadequate immunization,^[1,2] infections – diarrhea and acute respiratory tract infections,^[1,3] hand washing habits of mothers with soap before preparation of food and feeding,^[3] and poor maternal education status^[6] have been recognized as the potential risk determinants in the causation of infant mortality in different settings.

As already discussed, most of the potential determinants identified in the causation of infant mortality are preventable and modifiable; nevertheless the scenario remains grim in developing countries. This is because of the obstacles that are prevalent either at the infrastructure level or at the community level such as healthcare delivery system (*viz.* inequitable distribution of facilities, weak primary healthcare set-up, poor quality of offered services, non-existing referral services, logistics barriers, timings of the government health facilities, waiting time at the health center, and overburdened healthcare facilities),^[1,8] healthcare personnel's (*viz.* scarcity in the number of healthcare professionals, untrained or questionable training status of the staff, attitude of health workers towards community),^[7,8] and community members (*viz.* local beliefs-customs-practices, poor

knowledge, education status, not adopting any contraceptive measures, and lack of affordability)^[2,6] as a result of which the maternal and child health welfare services have not achieved the desired results.

To counter the public health problem of infant mortality, solution exists in the essence to formulate a comprehensive evidence-based policy based on the identified potential risk factors and/or barriers. Additional strategies like sustained political commitment,^[1] involvement of the community,^[1,8] supervision and monitoring of the health workers,^[8] strengthening of existing infrastructure,^[9] rapid expansion of healthcare facilities,^[1,9] partnerships with non-governmental organization and community-based organizations,^[8,9] collaboration with private sector physicians,^[1,8] quality-assured antenatal care,^[1,5] advocating institutional delivery,^[6] training of healthcare staff in different aspects of newborn care,^[6,7] ensuring universal immunization,^[1,5] increasing awareness among the outreach workers/mothers about myths and misconceptions associated with pregnancy and infant care/danger signals in newborn requiring immediate referral/importance of maintaining hand hygiene/exclusive breastfeeding,^[1,3,5,9] and establishment of functional referral system,^[8] if implemented, can reduce a major proportion of infant deaths.

To conclude, planned implementation supplemented with continuous monitoring and timely evaluation of the public health interventions at primary healthcare level can bridge the existing gap and thus the burden of infant mortality.

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