

## CONTINUUM OF CARE

Recent articles in the Lancet Child and Adolescent Health discuss nutrition related issues affecting the health status of Under-5s in India and targets set under National Nutrition Mission (NNM) 2022 to address the problem. It is important to target India as it holds almost one sixth of the world's population and lags behind most of its neighbors in reproductive and child health indicators. Despite India's 50% increase in GDP since 1991, more than one third of the world's malnourished live in India.<sup>[1]</sup> In South Asia, the absolute disparities between the richest and poorest children in regard to stunting are greater than in any other region.<sup>[2]</sup>

To add to undernutrition, overweight and obesity among under-5s is an emerging problem in the world. Eastern Europe and Central Asia had the highest overweight prevalence in 2018 with 14.9 per cent affected, followed by Middle East and North Africa at 11.2 per cent and North America at 8.8 per cent. The lowest overweight prevalence in 2018 was seen in West and Central Africa at 2.8 per cent followed by South Asia at 3.1 per cent. East Asia and the Pacific had the highest number of overweight children in 2018 with 9.7 million affected, followed by Middle East and North Africa with an estimated 5.4 million overweight. Overall the two Asian regions (East Asia and the Pacific and South Asia) account for more than one out of every three overweight children in the world. Eastern Europe and Central Asia, as well as North America, are the only regions that have seen a statistically significant increase in the number of overweight children between 2000 and 2018.<sup>[2]</sup>

Malnutrition continues to be the leading risk factor for disease burden in India.<sup>[3]</sup> Of the 1.04 million under-5 deaths in India in 2017, (68.2%) could be attributed to malnutrition. Undernutrition categorised in two major ways, either as wasted (i.e. low weight for height, or small mid-upper arm circumference) or stunted (i.e. low height for age). Research has shown that individual children are at risk of both conditions, might be born with both, pass from one state to the other over time, and accumulate risks to their health and life through their combined effects.<sup>[4]</sup> (see illustrations below)

NNM 2022 targets for India are daunting. For low birthweight: 2% point reduction in prevalence annually from 2017 to 2022 (21.4% in 2017 to ~11% in 2022). Child stunting: 50% reduction in number of children younger than 5 years of age who are stunted from 2012 to 2030 (39.3% in India in 2017). Child underweight: 2% point reduction in prevalence annually from 2017 to 2022 (32.7% in India in 2017). Anaemia: 3% point reduction in prevalence annually in children younger than 5 years (child anaemia was 59.7% in India in 2017), and in women 15–49 years of age from 2017 to 2022 (anaemia in women 15–49 years of age was 54.4% in India in 2017). Breastfeeding: prevalence of exclusive breastfeeding in the first 6 months of at least 70% by 2030 (exclusive breastfeeding was 53.3% in India in 2017). Child overweight: prevalence of less than 3% by 2030 (overweight in children aged 2–4 years was 11.5% in India in 2017).<sup>[1]</sup>

India will be a different country if all these targets are achieved in the next five years and I sincerely hope that these targets are achievable. To achieve these targets some essential changes are required. Firstly, universal health coverage (UHC) for all children under-5 is vital.

UHC is not meant to have only illness care for all children, although it is essential, but maternal care for all women, before, during pregnancy and after childbirth; and growth monitoring of every child is fundamental to achieve the targets set under NNM.

Growth monitoring of all under-5s is the only window through which comprehensive maternal and child health and the UHC of women in reproductive age and children can be achieved. Whilst primary health care is trying to address these objectives in most MLICs, the focus is largely on illness care rather than UHC of women and children. Although care during pregnancy and childbirth are priorities, growth monitoring for *all under-5s* is rarely addressed.

Growth monitoring is the most important component of MCH and its systematic application can improve health from birth to death. It is imperative that every child should receive this service in the same manner as immunisations. Health of the mother and the child is so intricately linked with each other that separating service components make no sense. Mothers bring the under-5s for growth monitoring and are the recipients of nutritional and other child care advice. A window of opportunity also opens for immunisations, family planning, antenatal, natal and postnatal care advice.

Growth Monitoring Program is an essential part of PHC activity and it can only succeed if community participation is encouraged in administering it. Dependence on the health teams is the root cause of its failure as invariably they do not turn up into the villages, even if it is a scheduled visit. If community and its leaders are made aware of its importance and helped in organising the growth monitoring programme themselves, it has a better chance of sustainability. Village health workers (VHWs) and a couple of health volunteers is all that is required to weigh and measure height of children, record it on growth charts and provide health education on essential aspects of child care and growth monitoring to mothers. At the same time mother's needs for nutritional advice, family planning, pregnancy care if she is pregnant can be added to this service. This service should be supported and supervised by primary health care workers for technical inputs like antenatal care, immunizations, care of minor illnesses and follow up of chronic diseases and appropriate referral where indicated. Each village in the catchment area of a primary health center under local management of the health committee, conducted by the VHW monthly to provide these services; the health workers making themselves available for technical assistance at each clinic.

The growth monitoring process facilitates the seamless merging into the continuum of care as shown in figure below. It starts with adolescence and before pregnancy followed by care during pregnancy, child birth, postnatal care of mother and the newborn, infancy and childhood. To improve the health of a population and reproductive health indicators, it is crucial to provide adequate support to women and children in each one of these phases of continuum of care. [\[5\]](#)

This approach is yet again supported by recent Morbidity and Mortality Weekly Report which concludes that efforts that prevent adverse childhood experiences could also potentially prevent adult chronic conditions, depression, health risk behaviors, and negative socioeconomic outcomes. States can use comprehensive public health approaches derived from the best available evidence to prevent childhood adversity before it begins. By creating the conditions for

healthy communities and focusing on primary prevention, it is possible to reduce risk for adverse childhood experiences while also mitigating consequences for those already affected by these experiences.[\[6\]](#) (updated on 6 Nov 2019)

Focus on prescribing drugs for any ailment, both for children and adults, with little attention to the underlying causes is like trying to close the stable door after the horse has bolted. The Essential Medicines List for Children can be a powerful tool to improve health outcomes only if it is effectively integrated across this continuum of care.[\[7\]](#)

#### References:

[\[1\]](#) The Indian Exception. Economist. 31 March 2011.

[\[2\]](#) UNICEF, [Progress for Children Beyond Averages: Learning from the MDGs](#), New York, 2015

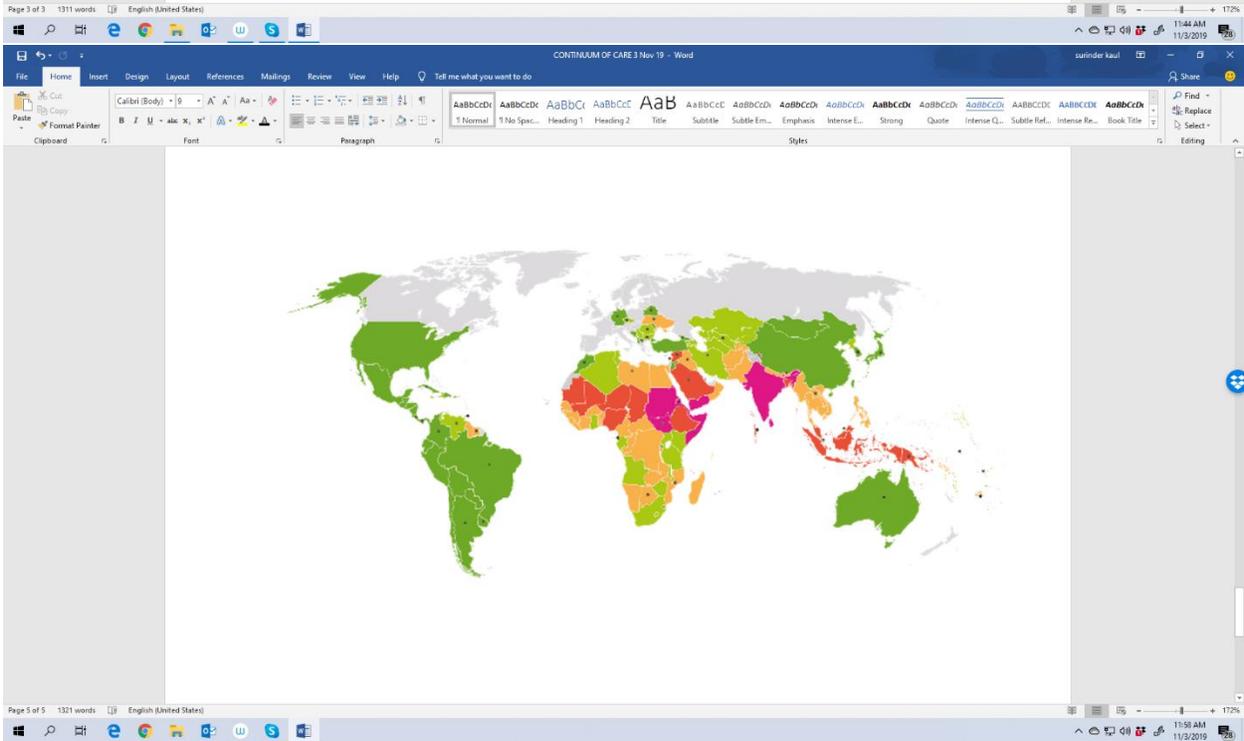
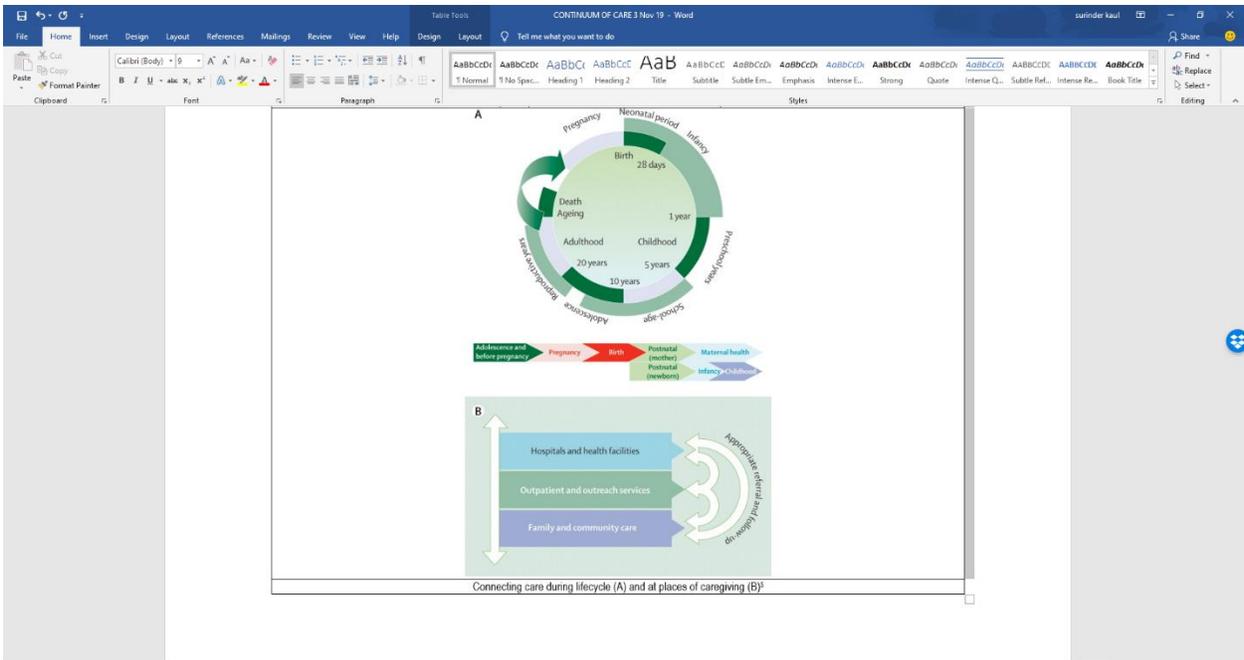
[\[3\]](#) The burden of child and maternal malnutrition and trends in its indicators in the states of India: The Global Burden of Disease Study 1990–2017. India State-Level Disease Burden Initiative Malnutrition Collaborators. Lancet Child Adolesc Health 2019. Published online September 18, 2019.

[\[4\]](#) Jonathan CKW et al. Beyond wasted and stunted—a major shift to fight child undernutrition. Lancet Child Adolesc Health 2019; 3: 831–34.

[\[5\]](#) Kerber, JK et al. [Continuum of care](#) for maternal, newborn, and child health: from slogan to service delivery. Lancet Vol 370. October 13, 2007.

[\[6\]](#) Merrick, MT et al. Estimated Proportion of Adult Health Problems Attributable to Adverse Childhood Experiences and Implications for Prevention – 25 States, 2015–2017. MMWR. Vol. 68. November 5, 2019.

[\[7\]](#) Nicola, JG et al. NCDs and the WHO Essential Medicines: children need universal health coverage too. Lancet Child Adolesc Health. Vol3:11. 1 Nov. 2019.



Microsoft Word window titled "CONTINUUM OF CARE 3 Nov 19 - Word" by user "suttinder kaul". The ribbon includes File, Home, Insert, Design, Layout, References, Mailings, Review, View, and Help. The Home ribbon is active, showing Font, Paragraph, and Styles groups. The Font group includes options for font face (Calibri), size (10), bold, italic, underline, and text color. The Paragraph group includes bullet points, numbering, and indentation. The Styles group shows "Normal" as the selected style. The main document area contains a world map with regions highlighted in green, blue, and pink. The status bar at the bottom indicates "Page 4 of 4", "1321 words", "English (United States)", and the system clock shows "11:57 AM 11/3/2019".