Part 5: Conclusions

Preterm/LBW/SGA/IUGR births constitute a major health problem to the individual infant, his/her family and to the society at large. The associated costs are enormous and related not only to the initial hospital costs for mother and infant but also to the long-term costs associated with neuro-developmental impairments and learning disabilities seen in a large number of survivors.

The objectives of this review were to critically appraise the available evidence from published systematic reviews, meta-analyses, narrative reviews and in the absence of reviews original studies to identify determinants of preterm/LBW/SGA/IUGR births and ascertain the effectiveness/efficacy of interventions/strategies to prevent/reduce preterm/LBW/SGA/IUGR births.

Perinatal statistics is a part of the vital statistics, by which the health of a nation is measured. UNICEF clearly states that a child has the right to be registered at birth and thus is entitled to civil rights. In some municipalities in Ontario the parental part of the birth registration is associated with a fee, which may lead to underreporting of perinatal outcomes. There is an urgent need to waive those fees and to establish a perinatal surveillance system in Ontario that will collect and analyze data and respond to any negative deviations from preset norms for important indicators of perinatal health. Without an ongoing surveillance system with accurate data collection on the incidence of preterm/LBW/SGA/IUGR births and associated morbidities, it will not be possible to assess the impact of future public health interventions related to preterm/LBW/SGA/IUGR births in Toronto.

The aetiology of preterm/LBW/SGA/IUGR births is multifactorial and although many individual determinants were identified, it is likely that several factors interact. The determinants were categorized as either those with proven, possible or no association with preterm/LBW/SGA/IUGR births.

Recommendations regarding interventions/strategies were categorized as having strong evidence of effectiveness, probable evidence of effectiveness, evidence that they may be effective or evidence that they are ineffective. For certain interventions this categorization was not easy to undertake as reviews gave contradictory results.

Based on the principles of evidence based medicine, in this review we have provided information on determinants with a proven association for preterm/LBW/SGA/IUGR births and interventions with proven effectiveness to reduce adverse perinatal outcomes. A number of the determinants need further research to prove or disprove an association. In addition, there are certain interventions for which the effectiveness has not been proven, but causal associations are of sufficient strength to recommend intervention based on the precautionary principle. Based on the information provided, Public Health Initiatives or Programs should be designed to include interventions/strategies, which are effective, feasible and cost effective.