5.A. Oral presentations: Evidence for sustainable health systems

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Policy to cover perinatal care costs: a quasi-experimental study on adverse newborn health outcomes
Cristian Carmeli

AM Epure1,2, E Courtin2, P Wanner2, A Chiolero1,6, S Cullati1,6
1Population Health Laboratory, University of Fribourg, Fribourg, Switzerland
2Department of Public Health, Environments and Society, LSHTM, London, UK
3Institute of Demography and Socioeconomics, University of Geneva, Geneva, Switzerland
4Department of Primary Care and Population Health, University of Nicosia, Nicosia, Cyprus
5School of Population and Global Health, McGill University, Montreal, Canada
6Department of Readaptation and Geriatrics, University of Geneva, Geneva, Switzerland
Contact: cristian.carmeli@unifr.ch

Background:
Low birth weight (LBW) and preterm birth are associated with an increased risk of neonatal death and chronic conditions across the life course. Reducing LBW is a global public health priority and requires strategies to improve healthcare during pregnancy. We aimed to assess the effect of a health policy providing full coverage of illness-related costs from 13 weeks of gestation through 8 weeks postpartum on birth outcomes and neonatal mortality in Switzerland.

Methods:
We applied a regression discontinuity design to administrative data gathered as part of a Swiss research program (NCCR on the Move). We included all children (N = 166,709) born between March 1, 2014 and February 28, 2015. The outcomes were birth weight (BW), gestational age (GA), LBW (<2,500 g) and very low birth weight (VLBW; <1,500 g), preterm (<37 weeks of gestation), and extremely preterm (<28 weeks), and neonatal (≤28 days) death. Children were exposed to the policy if they were born from March 1, 2014 onwards. We estimated the intention-to-treat effect of the policy using parametric regression models.

Results:
Children had a mean BW of 3,291 g and mean GA of 275 days. The prevalence of LBW was 6.4%, VLBW 1%, preterm 7.2%, and extremely preterm 0.4%, respectively. Some 0.3% newborn died within one month. The policy increased BW (mean difference = 13 g [95% confidence interval (CI): 1, 25]) and decreased the risk of LBW (odds ratio [OR] = 0.89; 95% CI: 0.82, 0.98) and VLBW (OR = 0.81; 95% CI: 0.64, 1.01). Additionally, the policy slightly decreased the risk of preterm birth (OR = 0.94; 95% CI: 0.87, 1.03), while it did not affect GA. Effect estimates for extremely preterm and neonatal mortality were imprecise and inconclusive.

Conclusions:
This quasi-experimental and population based-study of 166,709 live births between 2013 and 2015 in Switzerland provides evidence of a reduction in the risk of LBW, VLBW and preterm birth thanks to a health policy that fully covered healthcare services during maternity.

Key messages:
• Free access to healthcare during pregnancy may mitigate adverse newborn health outcomes.
• A Swiss health policy that fully covered healthcare services during pregnancy reduced the risk of low birth weight and preterm births.