

# GROWING UP IN SINGAPORE TOWARDS HEALTHIER OUTCOMES

## Exploring maternal mental wellness and the effects of pregnancy and early childhood factors on child development

### Challenge

Pregnancy is a delicate time for both mother and child. Factors like diet and mood during pregnancy can influence child growth and development from their early years to adulthood.

Without proper understanding of pregnancy's risk factors, children may develop physical and mental conditions in adulthood, from type 2 diabetes and

### Our Solution

In 2009, researchers from the National University Health System, KK Women's and Children's Hospital, and A\*STAR's Singapore Institute for Clinical Sciences (SICS) launched the Growing Up in Singapore Towards Healthy Outcomes (GUSTO) cohort study. Over a decade ago, GUSTO researchers began tracking over 1,200 Singaporean women through their pregnancies and after giving birth to their offspring, with the aim of finding connections between maternal health and lifestyle during pregnancy and child development.

Similarly, the Mapping Antenatal Maternal Stress (MAMS) study investigates the factors contributing to maternal stress before, during and after pregnancy. Research shows that foetuses receive signals from their mother's mental states—indicating that mothers with less stress are also less likely to have premature babies as well as more likely to see better social and cognitive development outcomes.

Insights drawn from the GUSTO study also link screen time and cognitive development in children. Researchers found that exposing infants to television is negatively associated with later cognition. These findings are especially relevant in today's digital age as children are exposed to screens at younger ages than before.



### Summary



Grows the body of knowledge on the effects of risk factors on child development



Informs expectant mothers and families about prenatal care

### Potential Applications



Findings can be used to design health interventions to promote healthier pregnancies



Findings can become a basis for creating new public health policies and clinical practices spanning one's life course.

