

Modelling Health Trajectories and Impact on Prevention Programs

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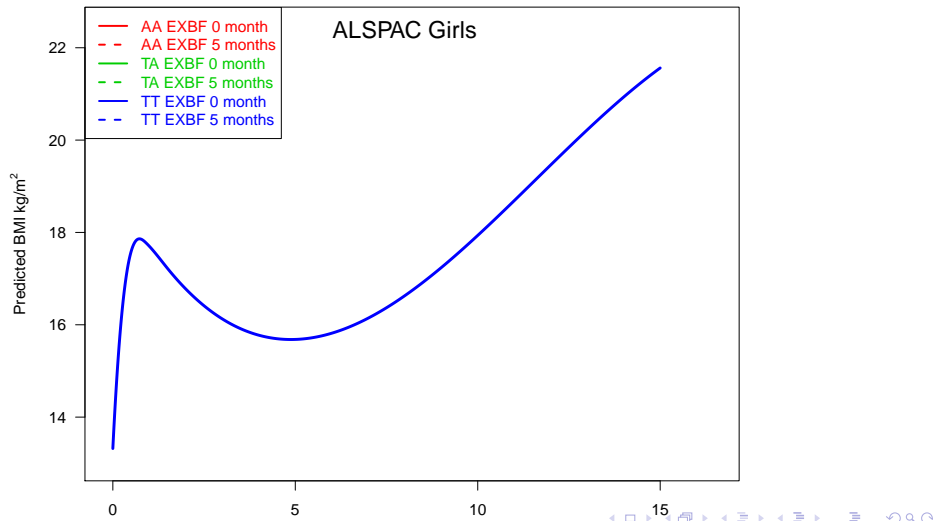
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DALLA LANA SCHOOL OF PUBLIC HEALTH (BIOSTATISTICS)

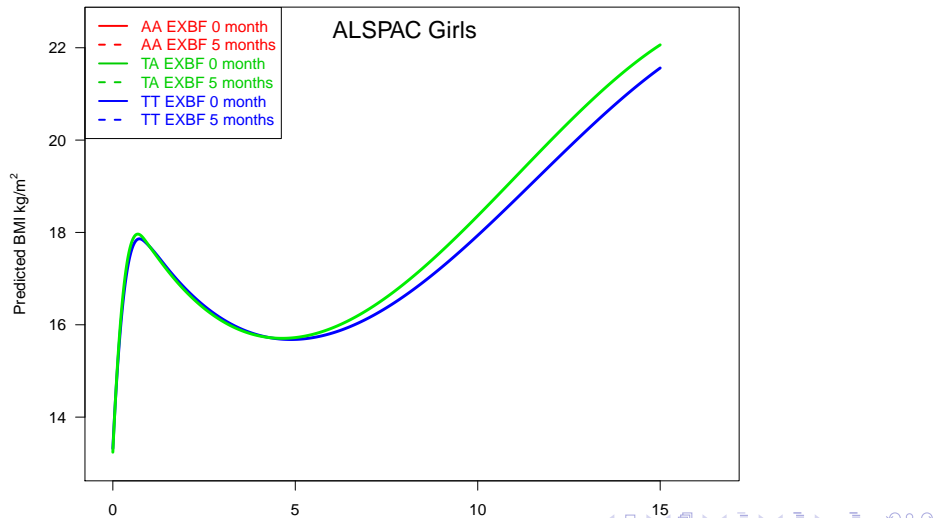
Modelling Health Trajectories: Example BMI

- Determine what is a "normal growth" and give a range of variation
- Identify individuals who "deviate" from a normal range, e.g. obese children
- Associate risk factors (genetic, environmental) to abnormal growth
- Propose interventions that will put individuals at risk in the normal range

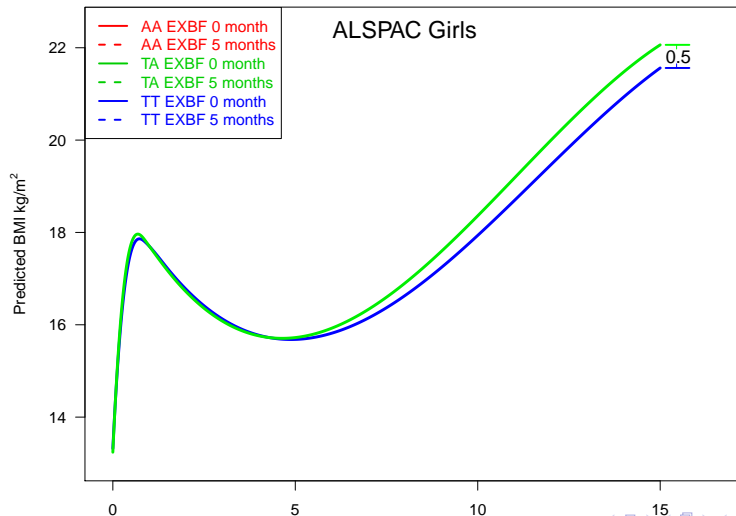
Investigate the role of breastfeeding among FTO locus carrier



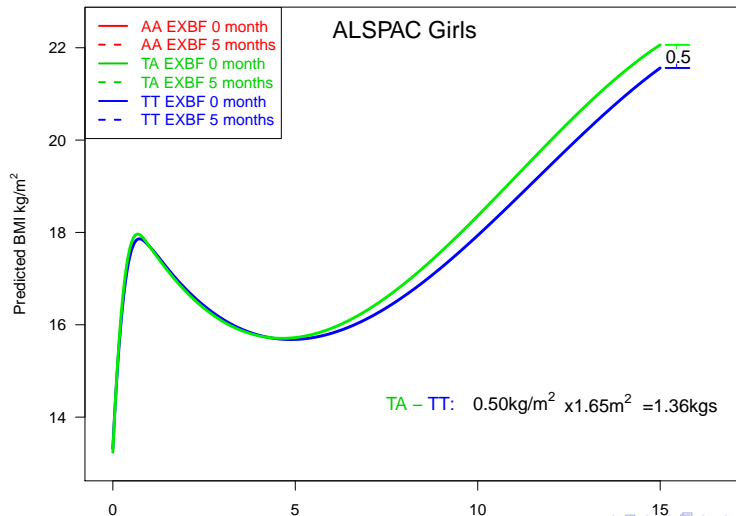
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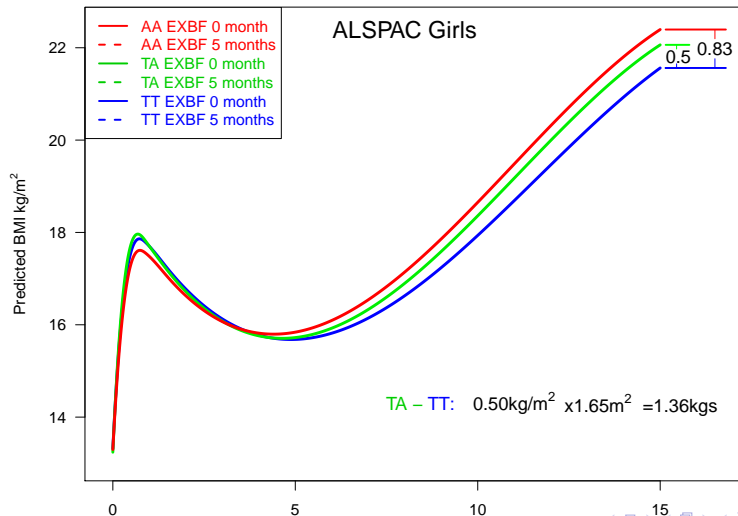
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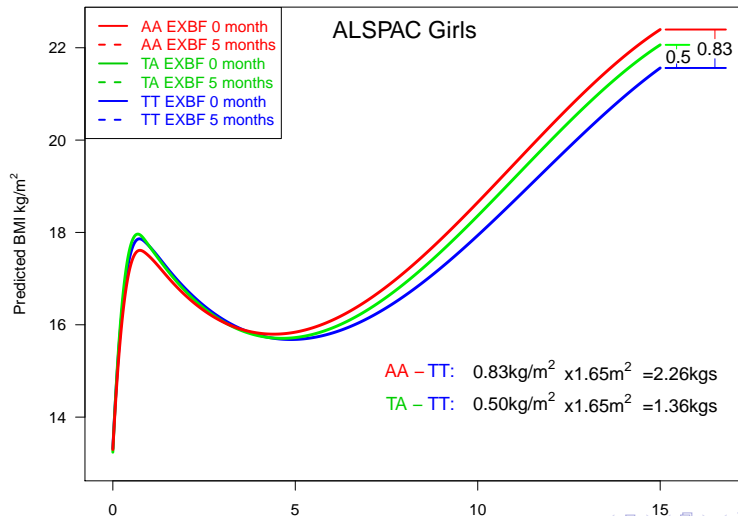
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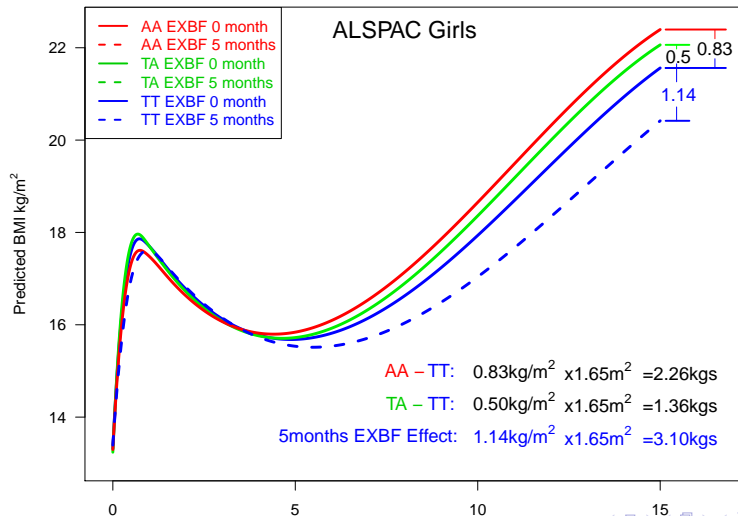
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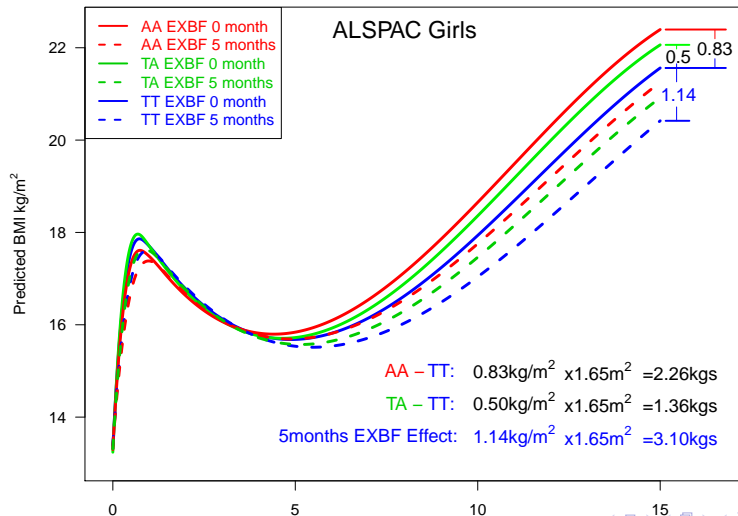
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Perspectives

- Better understand the relationship between **ante-natal and post-natal growth**
- Better understand the role of **early-life events** on adult health trajectories (Ontario Birth Study/Target Kids)
- Investigate **genetic, epigenetic, genomic, microbiota, environmental** risk factors on health trajectories = the BIG DATA problem
- Assess the role of **interventions** (physical activity / diet) through randomized trials