

# Growing Pains – a paediatrician's perspective

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# Weight ≠ growth

- Weight is a proxy for growth
  - Babies / children with poor weight gain generally will not grow well
  - Babies / children with excessive weight gain will often have accelerated growth (in the short-term)
- Growth relates primarily to measures of linear growth
  - Length / height / head circumference
















# Different types of 'growth charts' have different purposes

- Growth standards
  - WHO
  - INTERGROWTH
- Population charts
  - National
  - Ethnic
  - Other (e.g. Trisomy 21; preterm birth)
- Customised charts

# What is the purpose of customised growth charts?

## Rationale

- Most 'unexplained' stillbirths were growth restricted  
- Most stillbirths with IUGR are avoidable  
- A/N detection improves outcome and reduces SB  

- Customised charts and appropriate protocols should be used  
- Standardised FH measurement and referral improves detection   
- In high risk pregnancy, serial scans improve detection  

- A screening tool to detect FGR
- Not a diagnostic tool / test
- Not validated as a birthweight chart



# **Additional paediatric consequences we would like to know**

- False negatives
  - Normalisation of small babies in certain ethnicities
  - Risk of intrapartum compromise is only one factor
  - Need to know the impact on neonatal outcomes
- False positives
  - Impact on neonatal outcomes
  - Impact on longer-term outcomes



## **Additional paediatric consequences to be wary of**

- Consequences of 'creep' into areas GROW and customised centile charts were not designed for
  - Large babies
  - As birthweight centiles
- Risk of the loss of birthweight standards
  - 'moving feast' of what is small or large



## **If and when GROW is rolled out nationally, we should:**

- Audit outcomes of *all* babies
  - Not just those detected as SGA with GROW
  - Not just those SGA at birth
  - Also those *not* SGA with GROW
  - Those LGA and *not* LGA with GROW
  - Assess population, not just individual, outcomes
- If birthweight centiles are used:
  - Studies must investigate relevant outcomes
  - These are not the birth-related outcomes



## **If and when GROW is rolled out nationally, we should:**

- We still need a national standard for monitoring size at birth
  - This cannot be an individualised chart
- Needs to be a standard that allows:
  - National population comparisons over time
  - International population comparison for benchmarking
  - Individual longitudinal comparisons to facilitate detection of faltering infant growth