

# HEALTHY BIRTH, GROWTH & DEVELOPMENT

*knowledge integration*

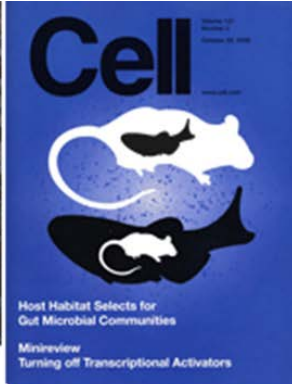
NL 'Shasha' Jumbe, PhD

Biometrics | Quantitative Sciences | Integrated Development | Global Health

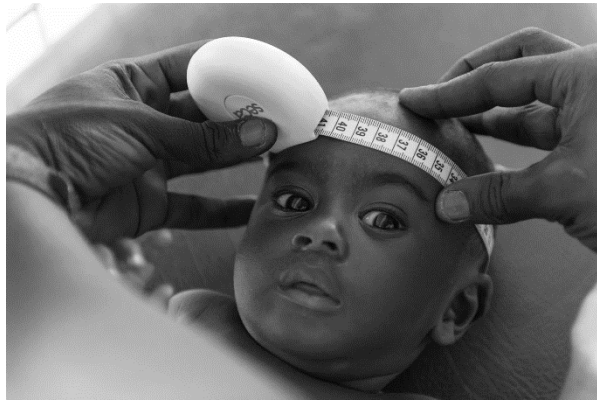
TRUTH



# CONFLUENCE OF INFLUENCE: TRANSLATING SCIENCE FROM DESCRIPTION TO PREDICTION AND SOLUTIONS



# DATA GRAVEYARD FATE OF DESCRIPTIVE DEDUCTIVE SCIENCE







**STUNTING:**  
**A key indicator  
of  
failure to thrive**  
**predicts immediate  
and  
lifelong disadvantages**

These boys share their birthday  
and live 200m apart ....

.... there the similarity ends

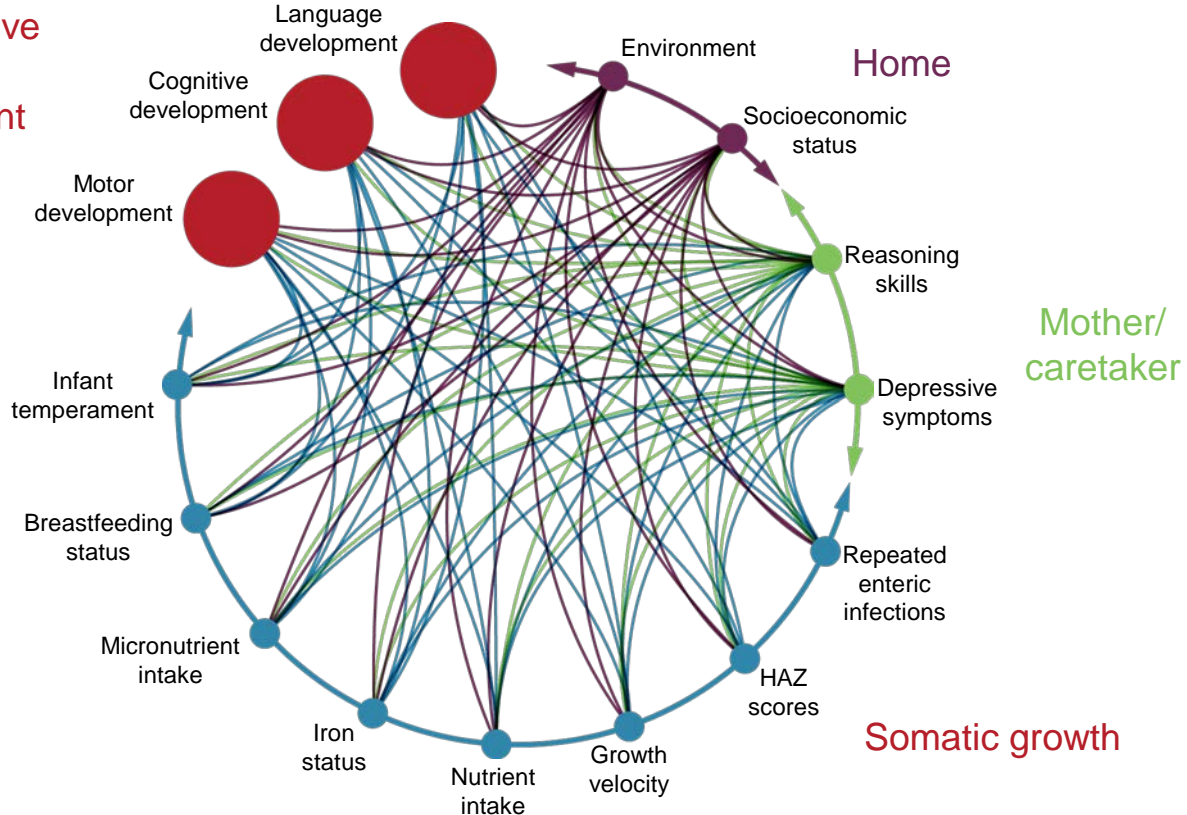
**32%**  
<5 stunted

**275M**  
affected

**35M**  
deaths

# DESCRIPTIVE SCIENCE: GROWTH & DEVELOPMENT NETWORK WEB

Neurocognitive  
Growth &  
Development



Child's early  
experience at age  
0-24 months

Somatic growth





**What does this mean for the hopes, aspirations of the most vulnerable**





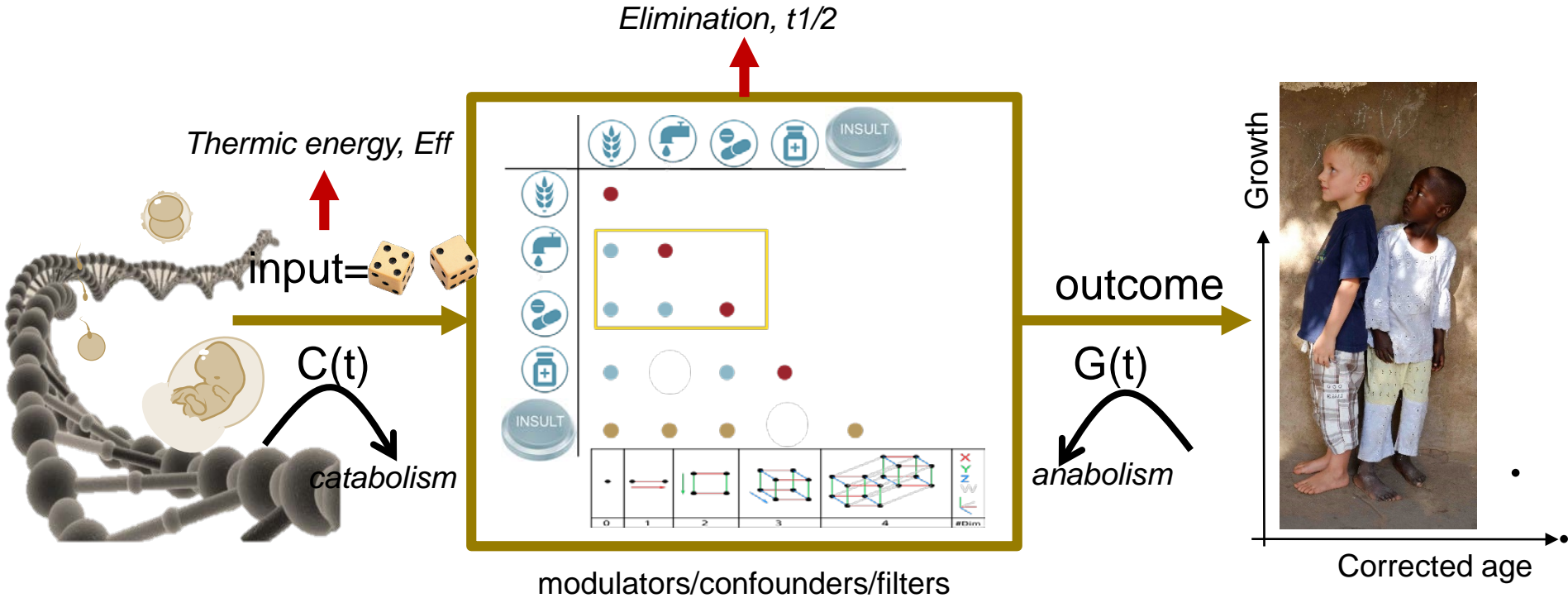
**De-identified, invisible, unaccounted, unrepresented**



COLLABORATION  
COMPETITION



# SYSTEMS APPROACH: TO CHARACTERIZE HETEROGENEITY OF EFFECTS OF FACTORS DRIVING GROWTH/DEVELOPMENT OUTCOMES







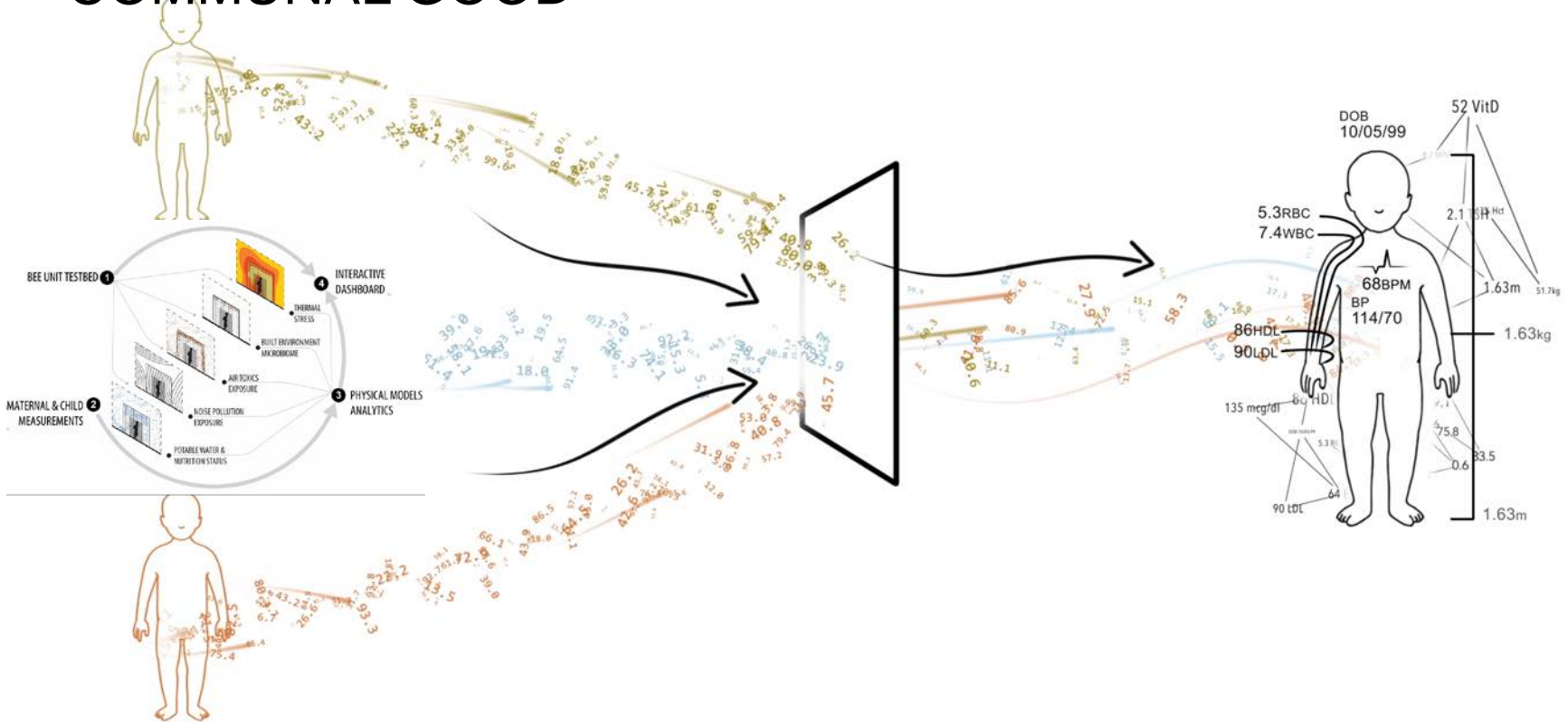
**Leveraging technology and data to quantify causal link between Nutrition and Cognition**

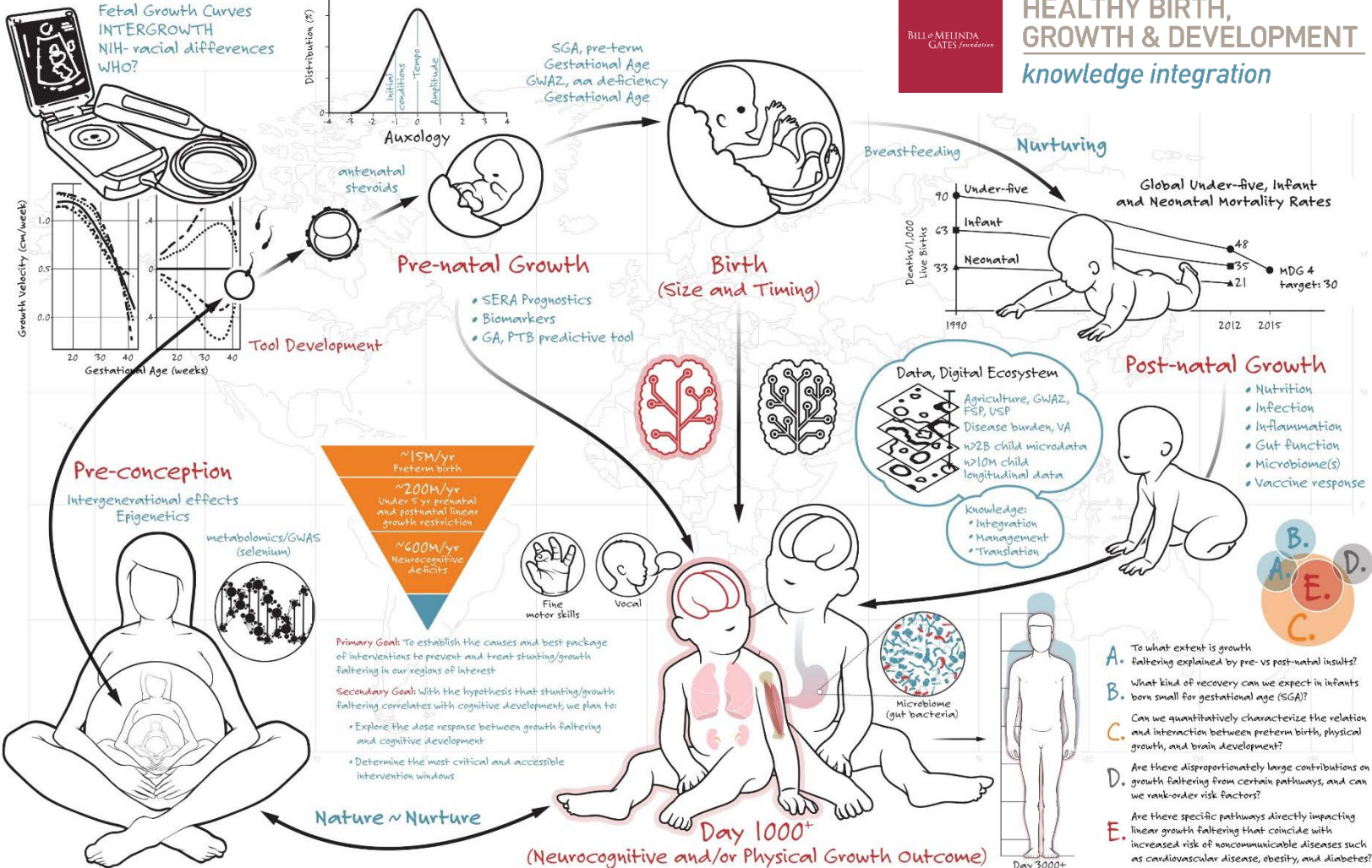






# A FUTURE STATE OF SHARED DATA FOR INDIVIDUAL AND COMMUNAL GOOD








Global Health  $\xrightarrow[\text{Tech}]{\text{Data}}$  Global Wealth





**JOIN US IN DRIVING  
FOR CATALYTIC  
CHANGE...**

- Build for impact
- Be fearless
- Blaze the trail
- Be one mind
- Big bets
- Be a world of good