

INTERNATIONAL SYMPOSIUM ON
**Understanding the Double Burden of
Malnutrition for Effective Interventions**

Intervention strategy: preconception

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CHALLENGE

- **Every year 50 million children** are put at risk because they are dangerously thin from acute undernutrition
- **Long-term health** of more than 40 million children is threatened because they are overweight.
- **Two billion people** suffer from vitamin and mineral deficiencies,
- **Overweight and obesity** are key contributors to the non-communicable diseases that account for almost two thirds (63%) of adult deaths globally.
- **These different forms of malnutrition:** undernutrition, overweight and obesity, and micronutrient deficiencies affect people across the same communities and harm people of all ages

Francesco Branca (WHO)

LOW- MIDDLE-INCOME COUNTRIES

PREGNANCY



In urban Soweto, South Africa

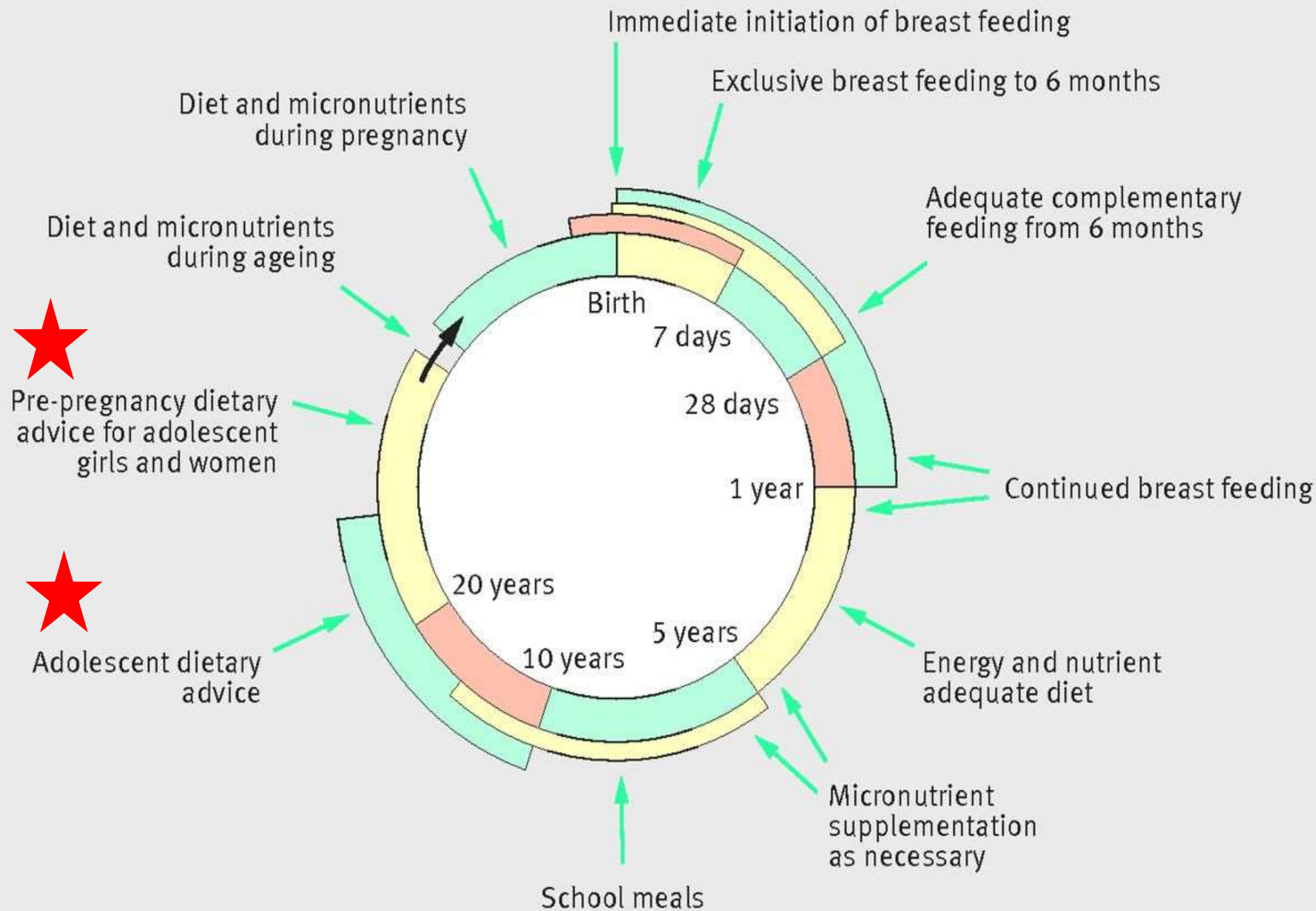
- Overweight: 34%
- Obesity: 33%
- Anaemia: 31%
- Obesity + anaemia: 12%
- Gestational diabetes: 10%

In rural Mysore, India

- Underweight: 35%
- Anaemia: 58%

LIFECOURSE

- **First 1000 Days** (Pregnancy + Infancy)
- **8000 Days:** 1000 Days + 7000 Days (childhood + adolescence)
 - First 1000 Days alone may be insufficient to optimise nutrition, development & health
 - Next 7000 days augments interventions applied within the first 1000 days
- **Preconception**



The Lancet Preconception Health Series 2018

Mothers' obesity or under-nutrition and similar factors in fathers can adversely affect the eggs, sperm and embryos with enduring consequences, increasing long-term cardio-metabolic and non-communicable disease risk in offspring. Pre-conception care and preparation for pregnancy is the right strategy for health of the nation across generations.

Preconception Health

CHALLENGES AND OPPORTUNITIES

A new series of papers 'Preconception Health' published by our team in The Lancet on April 16 www.thelancet.com/series/preconception-health makes the case for both men and women to improve their diet and health **before** trying for a baby.



INTERVENTION STRATEGIES:

PRECONCEPTION

Strategy 1: Health system strengthening

- Primary health care to target and support people planning a pregnancy
- Staff should be trained in skills to motivate and engage adults intending to become pregnant to improve their nutrition and health
- Jom Mama RCT (Malaysia)
 - Recruitment of couples
 - Training of primary health care nurses
 - On average pregnancy within 8 months (max 6 intervention sessions) – behaviour change to improve nutrition

INTERVENTION STRATEGIES:

PRECONCEPTION

Strategy 1: Health system strengthening

- Preventing micronutrient deficiencies before pregnancy
- India success
 - Deworming
 - Folic acid supplementation to women preconception
 - Less success in combating anaemia

INTERVENTION STRATEGIES:

PRECONCEPTION

Strategy 2: Community outreach programmes

- Preventing micronutrient deficiencies before pregnancy
- India
 - Public distribution system provides food rations to households
 - Mumbai Maternal Nutrition Project: in the group of women who had 3+months of supplementation preconception with a food state supplement had improved birth weight

INTERVENTION STRATEGIES:

PRECONCEPTION

Strategy 3: School curricula

- Ministries of Education need to adapt school curricula to reflect the impact of nutrition for both boys and girls and behaviours in adolescence in preparing for later parenthood

INTERVENTION STRATEGIES: PRECONCEPTION



Healthy Life Trajectories Initiative



- Canada (urban), China (urban Shanghai), India (rural Mysore), South Africa (urban Soweto)
- 4x RCTs: approx 22000 young women enrolled
- Preconception-Pregnancy-Postpartum
- Primary outcome child at age 5years (adiposity)
- Optimise nutrition, physical & mental health, social support & early child development
- Canada & China – health system based
- India & South Africa – community based
- Intervention team trained in Healthy Conversations
- Supplementation & behavior change (max 18mo in SA; 2x contacts per month)

CONCLUSION

Preconception health may provide opportunities for double-duty strategies to tackle malnutrition that may have significant benefit to women and men and their children

We need more evidence of evaluation of these strategies in different settings

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THANK YOU!

