Food hygiene for child health: an overlooked opportunity?

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Effect of complementary food hygiene interventions: an overview of the evidence

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What is it?

Complementary feeding: solid food introduced at 6 months of age (addition to breastmilk)

Complementary food hygiene: hygienic prep., storage, and feeding of complementary foods
Global loss of 33 million DALYs due to food borne disease in 2010 (FERG, 2015)

70% of all global cases of FBD occur in sub-Saharan Africa and South/South East Asia

40% of the burden falls on children under 5 years of age
Why is it important?

Diarrhoeal disease agents were the main cause

Contamination in some contexts higher in comp. foods than in drinking water.
(Barrell and Rowland, 1980; Imong et al., 1989; Henry et al., 1990; Motarjemi et al., 1993; Lanata, 2003; Kung’u et al., 2009, Sheth et al., 2000)
What are we doing about it?

**Guidelines**

WHO Food Safety Department global guidelines

**Five Keys to Safer Food:**

- Keep clean
- Separate raw & cooked food
- Cook thoroughly
- Keep food at safe temperatures
- Use safe water & raw materials
What are we doing about it?

Nutrition sector?

• Complementary feeding counselling programmes

Multi sectoral approach encouraged

• Include ‘good hygiene and proper food handling’ component

• Most countries do have a programme, including hygiene component (WHO-led nutrition policy review)

• Unclear what this specifically entails, and how successful it is.
Effect of CFH interventions
Reducing food contamination

- **Hazard Analysis and Critical Control Point (HACCP) approach**

- **Mali study**: Small-scale hygiene intervention in peri-urban Bamako (Touré et al 2013)

- **Bangladesh study**: Replicated in different setting (rural Matlab) (Islam et al 2013)

- **Outcome of interest**: food contamination levels

- **Results**: Both studies effectively reduced contamination of complementary foods
Improving food hygiene behaviours

Nepal study

Food hygiene behavior intervention in rural area

Gautam, 2017
Results

• After the intervention, 43% of mothers practiced the 5 key behaviours (2% at baseline)

• Intervention significantly improved microbiological indicators in complementary foods

Credit: Om Prasad Gautam
Measuring health outcomes

- **Gambia trial**: adapting Nepal intervention to different context using a low-intensive approach

- **Malawi trial (ongoing)**: Hygienic family intervention in rural southern Malawi

- **Kenya trial (ongoing)**: Safe Start – targeting caregivers in peri-urban Kisumu