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Sanitation and Hygiene Applied Research for Equity

Safe Start: Formative Research

BRIEFING NOTE

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Assessing food hygiene behaviours of caregivers of children 6-9 months of age living in urban informal settlements in Kisumu, Kenya.

Background

Diarrheal disease is the leading cause of child mortality and morbidity in Sub-Saharan Africa (Liu *et al.*, 2012). Research has shown that improvements in water, sanitation and hygiene (WASH) could prevent up to 60 percent of diarrhea disease mortality globally (Prüss-Ustün *et al.*, 2014). There is evidence that young children's food is highly contaminated with fecal material (Islam *et al.*, 2013), which leads to enteric infections. This is worse in urban informal settlements due to poor living conditions such as high population, inadequate access to safe water and sanitation, and poor quality of housing and infrastructure (Osrin *et al.*, 2011), which may exacerbate infections among young children. Caregivers play an important role in ensuring that a child's food is kept free of pathogens that cause diarrhea.

This formative research study had the following objectives:

- Identify current food hygiene practices and knowledge of causes of diarrhea.
- Identify what type of behaviour change intervention would be acceptable and what to include in that intervention package.
- Ascertain the feasibility of delivering a household food hygiene intervention using Community Health Volunteers (CHVs)
- Design and test an intervention for household food hygiene practices of caregivers of children 6-9 months of age who live in the urban informal settlements of Kisumu, Kenya

Methods

To assess food hygiene behaviors, the formative research was conducted in Obunga, an informal settlement in Kisumu, Kenya. Obunga has a population of 28,000, consisting of 17,500 households. The sanitation status is very poor, with a high water table that hinders development of sanitation infrastructure.

The formative research included two phases; an **exploratory phase** between June-December 2016 (consisting of an Exposure and

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Caregiver track and a Community Health Volunteer track) and the **Trial for Improved Practices** (TIPs) phase from January - September 2017.

The exploratory phase was conducted to identify food hygiene practices and to provide insight into potential intervention components that would later be tested. Semi-structured observations were used to assess child exposures to fecal pathogens, child caregiving practices, and Community Health Volunteers schedules, routines and capacity. In-depth interviews with primary and secondary caregivers were conducted to provide insight into hygiene knowledge and understand the differences between knowledge and practices.

Behaviours that were identified in the exploratory phase were modified and tested in the TIPs phase. Environmental modification items were also trialled with input from caregivers.

Results

Exploratory phase findings

Exposure and caregiver track

- Caregivers had different levels of knowledge on the causes diarrhoea. Some thought diarrhoea was normal or was due to teething. Other caregivers thought it was caused by dirt or other milk, while a few said it was because the babies were starting to sit by themselves.
- Observations revealed caregivers had poor handwashing practices. Caregivers used utensils for feeding infants as well as hand feeding. Unhygienic food storage and storage of food for long periods of time was also observed.
- Many children under 6 months of age were exclusively breastfed. The most common foods given to infants after 6 months were milk, porridge, tea, water, bananas, potatoes and fruits.
- Four key behaviours were identified for improvement from the IDIs: food storage, hygienic feeding, handwashing with soap and reheating of food.

Community Health Volunteer track.

Observations and IDIs with CHVs revealed that physical and social working environments are complex. CHVs were overburdened, receive inconsistent and inadequate trainings, spent limited time at households during visits, and had competing tasks and little motivation.

TIPS findings from the first learning visit

Motivational Messaging.

Motivational messages were tested through focus group discussions, which led to the development of the Happy Baby and Successful Baby campaigns. The key messages for these campaigns focused

on the four behaviours and were displayed using calenders and stickers. Findings from the first learning visit revealed that most caregivers hung calendars on the wall, although some used them as table mats. The majority of caregivers reported that calendars were a reminder of practices related to food hygiene. Stickers were stuck on the walls, doors and on handwashing buckets. Caregivers noted that messages on calendars and stickers were similar.

Environmental Modification Items

In developing the environmental modification package, it was noted that feeding and storage items were used in most households. Handwashing buckets were stationed in few households, although some caregivers reported leaks.

Initially some caregivers lacked knowledge about how to correctly use storage containers and handwashing buckets, as some used the storage containers for food portioning or storing drinking water.

TIPs final findings

After receiving motivational messaging and the environmental modification package, caregivers reported that feeding items were easy to use and were only used for the baby. Caregivers mentioned that they had improved their handwashing behaviour, and also reported 'their children's health had improved and experienced less cases of diarrhoea'. Mothers reported positive behaviours such as improved food storage and use of baby's feeding items. Several mentioned that at the end of the intervention they separated the children's feeding items from the rest of the items. However, reheating of food after storage was a difficult task for most caregivers and few reported practising this behaviour.

Next steps

Through the exploratory and TIPS phases, four key food hygiene behaviours were developed and trialled, which will form the basis for the main Safe Start intervention. The behaviours will be delivered through two campaigns, Happy Baby and Successful Baby, and reinforced through motivational messages on calendars and stickers. Text messages will also be sent to caregivers to emphasise key behaviours. Due to the constraints faced by CHVs identified in the exploratory phase, the intervention campaigns will be co-delivered by a CHV and Masters student from the project.

Formative research findings revealed that participants preferred using more colourful containers as handwashing receptacles, and these will be adopted in the main intervention.

The intervention will be divided into two phases. Phase 1 will form the intervention group that will receive the items and the two campaigns. Phase 2 will be the control group that will not receive the intervention. They will continue to receive four CHV visits (one per month), and will receive normal calendars to mark diarrhea incidences of the children.

Table 1: Intervention and control group for main intervention

Phase 1 (intervention)	Phase 2 (control)
Sensitisation	CHV visit
Happy baby campaign	CHV visit
Refresher	CHV visit
Successful baby campaign	CHV visit

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Contributors

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