

## **A hygiene intervention to improve mothers' weaning food handling practices in rural Gambia**

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**Citation:** Semira Manaseki-Holland et al. A hygiene intervention to improve mothers' weaning food handling practices in rural Gambia. *Journal of Interventional Epidemiology and Public Health*. 2025;8(Conf Proc 5):00295.

**DOI:** <https://doi.org/10.37432/JIEPH-CONFPRO5-00295>

**LINK:** <https://afenet-journal.org/a-hygiene-intervention-to-improve-mothers-weaning-food-handling-practices-in-rural-gambia/>

**Received:** 24/03/2025 **Accepted:** 09/07/2025 **Published:** 12/08/2025

**Keywords:** cluster randomised controlled trial, diarrhoea, pneumonia, behaviour change, weaning-food, hygiene, community intervention, dramatic arts, motivational drives

This is part of the **Proceedings of the ECOWAS 2nd Lassa fever International Conference in Abidjan, September 8 – 11, 2025**

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### **Introduction**

The Gambia has high rates of under-5 mortality from diarrhoea and pneumonia, peaking during complementary-feeding age. Community-based interventions may reduce complementary-food contamination and disease rates.

### **Methods**

The intervention included a community-wide campaign on days 1, 2, 17, and 25, a reminder visits at 5 months, plus informal community-volunteer home visits. It promoted 5 key complementary foods and 1 key drinking-water safety and hygiene behaviours through performing arts, public meetings, and certifications delivered by a team from local health and village structures to all villagers who attended the activities, to which mothers of 6- to 24-month-old children were specifically invited. Control villages received a 1-day campaign on domestic-garden water use. Outcomes were measured at 6 and 32 months in a random sample of 21–26 mothers per cluster. The primary outcome was a composite outcome of the number of times key

complementary-food behaviours were observed as a proportion of the number of opportunities to perform the behaviours during the observation period at 6 months. (Registration: PACTR201410000859336).

### **Results**

The composite behaviour score on the primary outcome was 65% versus 15% for intervention against control ( $p < 0.001$ ). At 6 months, the adjusted incidence rate ratio [aIRR] = 4.44, (95% CI 3.62–5.44,  $p < 0.001$ ), and at 32 months the aIRR was 1.17 (95% CI 1.07–1.29,  $p = 0.001$ ). Secondary health outcomes also improved with the intervention: mother-reported diarrhoea hospitalization at 6 months, with aRR = 0.35 (95% CI 0.19–0.66,  $p = 0.001$ ), and at 32 months, with aRR = 0.38 (95% CI 0.18–0.80,  $p = 0.011$ ).

### **Conclusion**

We found that low-cost and culturally embedded behavior change interventions were acceptable to communities and led to short- and long-term improvements in complementary-food safety and hygiene practices, and reported diarrhea and acute respiratory tract infections.