



Improving Hygienic Environments for Infants & Young Children

Testing Playpens for Feasibility and Appeal in Rural Households of Amhara, Ethiopia

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May 2020

Agenda

1. Objective and Methods
2. Identifying Playpens
3. Results
4. Discussion/Interpretations

** Webinar participants please note that slides with a white background contain data that are not yet available for public circulation. Photos now fill the frame. Feel free to take any notes on the verbal presentation. ***

General Objective

To determine the feasibility and acceptability of using an infant playpen to establish a hygienic 'safe zone' for infants in rural Ethiopia.



Methods – 3 visits over 4 weeks

- Household testing of playpens over time
 - called Trials of Improved Practice or TIPS
- semi-structured interviews
- direct observation
- 24-hour recall of use
- valuation exercise
- microbial analysis of playpens and floors for *E. coli*
- Group discussions

Underlying theory of change

- Use and maintenance of the playpen most influenced by increasing:
 - ✓ perception of risk
 - ✓ self-efficacy and skills to create a **safe zone** for IYC
 - ✓ access to an ‘enabling product’ (the playpen) and
 - ✓ supportive social environment
- Developed an interactive, pictorial module



Research Design

Visit 1

- WASH and demographic information
- Inventory of animals and husbandry practices
- Perception of risk of infant-animal interaction
- Playpen delivery and placement
- Safety and behavioral motivation “light”
- Initial impressions

Visit 2

- Extensive feedback on playpen- likes/dislikes, facilitators/ barriers, social approval, neighbour and family reactions, caretaking
- 24-hr recall of playpen use
- Self-reported cleaning, maintenance and playpen modifications
- 90-min observation of mouthing and other behaviors

Visit 3

- Same as visit 2, but no observation
- Valuation exercise
- *E. coli* swabs of common room floor, playmat and rim of playpen frame

Partnership with Plan International/Ethiopia, PSI through USAID/Transform WASH

Engaging Consumers to Develop Playpen Designs

User-centered Design

- Participants finalized 3 designs, two selected
- Designs then refined and assembly drawings developed
- Experts hired to build and inspect



Model A
imported



Model B
canopy



Model C
bottles



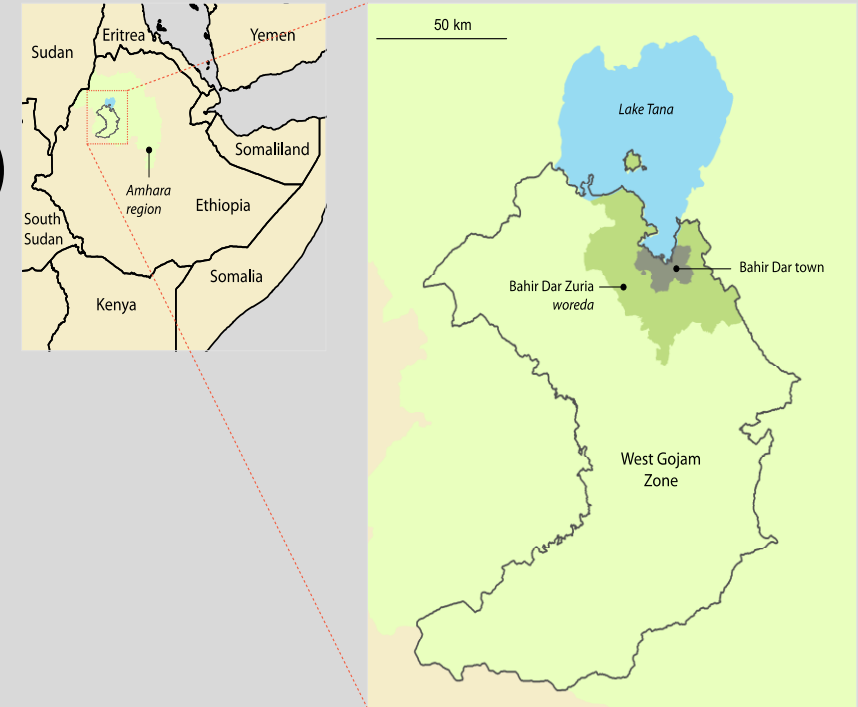
Sampling Design / Selection Criteria

10 *gotts* (villages) identified within **2 *kebeles*** (wards)

- Purposively selected
- High to medium access to water
- Within 30 min walk or drive from passable road
- ODF status within the past 3 years

30 households across the villages

- Households randomly selected
- Infant between 7-12 months
- Caretaker over 18
- Partakes in subsistence agriculture
- Owns at least three chicken/poultry and a cow, sheep or goat



* Kebele = ward or neighborhood, consisting of at least five hundred families, or the equivalent of 3,500 to 4,000 persons.

* Gott = village cluster, usually 60-90 households

High stated and demonstrated enthusiasm upon initial receipt



...and lasted throughout the study.

Children spend about 2 hrs a day in the playpen on average



Children only use the playpen 2-3 times per day on average

Average number of reported discrete occasions of infant playpen use



Caregivers used playpen as a safe zone during chores

Sometimes they watched from afar, other times IYC in care of other children



Caretakers saw benefits for infants' hygiene, health and safety



Caregivers saw benefits for themselves

Caretaker Experience Using the Playpen – Focus on the Caretaker



Caregivers highly valued the playpens



*Was use conducive
to reduced pathogen exposure?*



Many playpens contaminated after 4 weeks
Floor more highly contaminated



Was use conducive to reduced pathogen exposure?

Not as a stand alone intervention

- Poultry in and around playpen
- Target infant and other siblings brought dirt and pathogens on feet and clothing
- Animals and people cohabit and little boundary to separate
- Even the most enthusiastic household used for a small portion of the day
- Intensive pathogen exposure outside the playpen

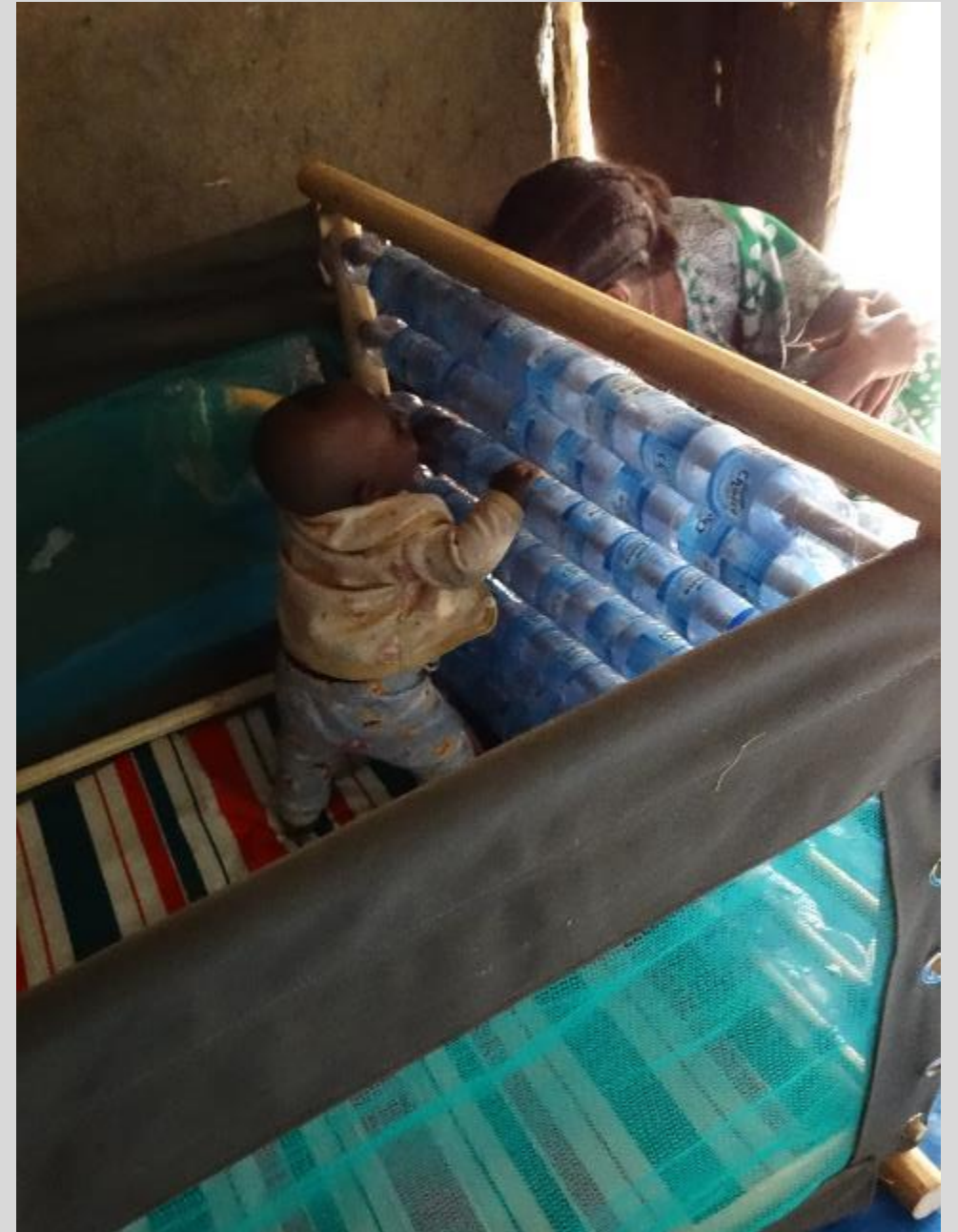
Was use conducive to reduced pathogen exposure?
Not as a stand alone intervention

- Little is known about thresholds and ‘dose-response’
- Playpens provide an alternative environment for about 2 hours a day.
- Where would they have been otherwise? On the mothers back? On the floors?
- Does this reduction matter for exposure and enteric infection?

More research needed

Highly valued - Numerous hygiene and non-hygiene benefits cited

- *Note these PERCEIVED benefits not MEASURED or validated*



In conclusion

- Very popular, numerous perceived health and non-health benefits
- Little to no resistance from family members and community
- Valued, selected over cash
- Unlikely limited use significantly reduces fecal exposure
- *May be part of a comprehensive approach to IYC development and women's empowerment*



Acknowledgements

Contact: Julia Rosenbaum = jrosenbaum@fhi360.org

- USAID/W – Elizabeth Jordan, Jesse Shapiro and USAID/Ethiopia- Kathrin Tegenfeldt
- Amhara Public Health Institute
- Plan International/ Ethiopia
- USAID Transform WASH (PSI)
- FHI360 Ethiopia Field Office Staff /FHI360 Office of Int’l Research Ethics and BECS Division
- Emory University Center for Global Safe Water
- Field interviewers and supervisors
- Families and leaders of Debranta and Fareswoga *kebeles*
- WASHPaLS Research Advisor Joe Brown
- Informal Hygienic Environments Community of Practice- Laura Kwong, Sophia Bunge (and all Cranfield and PIN counterparts), Francis Ngure, Brie Reid
- WASHPaLS Colleagues- Jeff Albert, Ron Clemmer, Morris Israel, Aditi Krishna