Delivering parenting interventions through health centres in the Caribbean:

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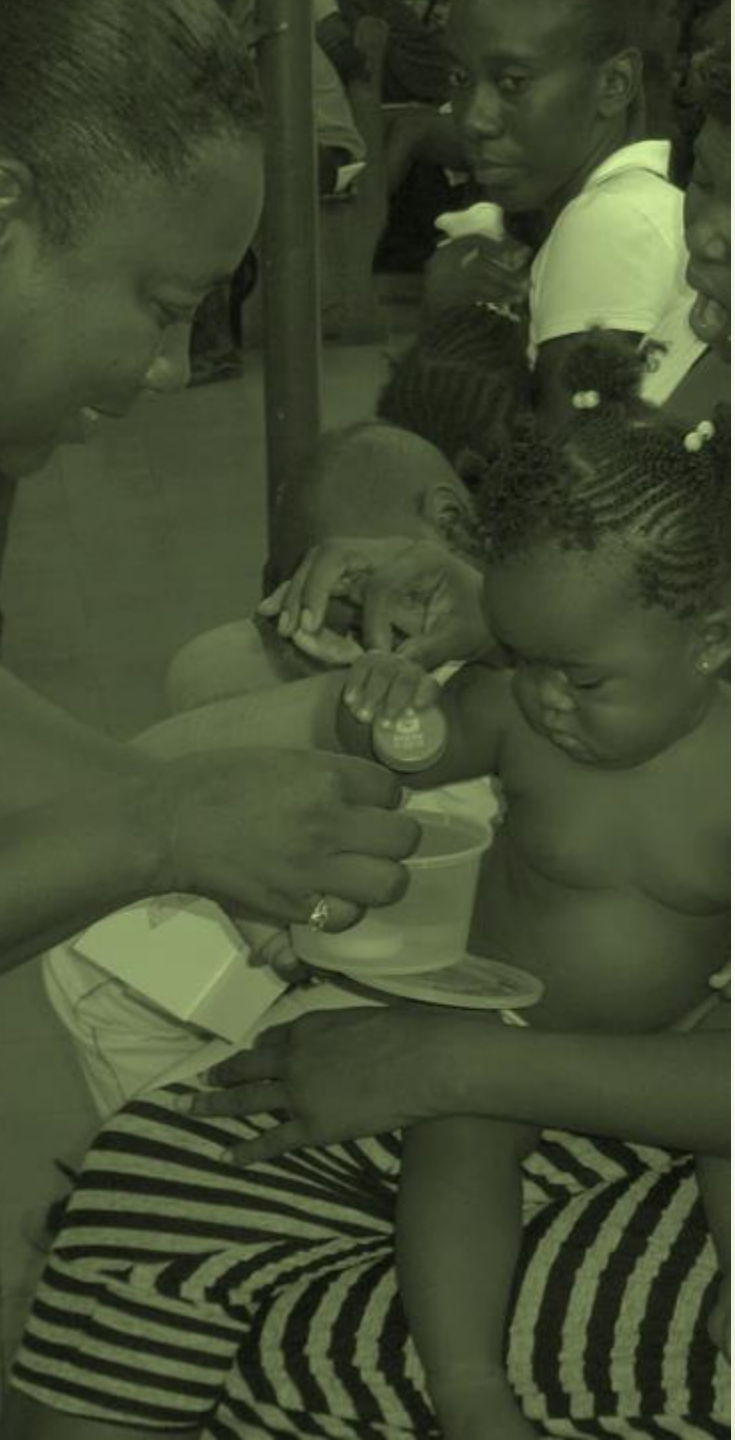


Taking Early Childhood Development (ECD) programs to scale

- Gains in ECD requires responsive parenting/caregiving and home stimulation, with opportunities to learn through activities and materials.
- Need for scalable evidence based parenting interventions for children younger than 3.

Jamaica Home Visit Program

Strong Evidence Base

- Benefits to development shown in many efficacy trials in Jamaica
- Replicated with benefits in Bangladesh, Colombia and Peru

Long term benefits at 22 years

- Higher IQ and educational attainment
- Improved mental health (reduced depression and social inhibition)
- Reduced violent behavior
- Increased income: 25% higher average monthly earning

Jamaica Home Visit Program: Approach

- Weekly 1hr home visits by community health workers (CHW). Play session with mother and child.
- Main goal: showing mother how to promote development through play.
- Interactive approach: demonstration by CHW, practice by mother, review of activities to continue during the week and encouragement.

Key Features of Program

- Structured curriculum. Each play session includes concepts taught using homemade toys, songs and games, language activities

Focus on:

- enhancing maternal-child interactions
- emphasis on language
- praise
- experiencing success
- discouraged physical punishment

Parenting Programs that are Sustainable: Rationale for Integration

- Health services provide most comprehensive contact with children under 3
- Potential logistical advantages of shared delivery mechanisms
- Financial advantages of shared physical and human infrastructure
- Have to ensure benefits of individual service components are maintained

Parenting Interventions in Health Centers in the Caribbean

Group based parenting intervention integrated with routine health visits

Pilot population: children between 3-18 months of age in Jamaica, St Lucia & Antigua

- **In the waiting room**: While mothers waited to be seen, **videos** were shown with messages about child development and showing mother s practicing behaviours we want to encourage. A well-trained **community health worker (CHW) discussed** the films' messages with the mothers and **demonstrated concrete activities** (how to make homemade toys, how to play, care & talk to children, etc.)
- **In the clinics**: Trained **nurses** handed out cards with messages that reinforced the videos, as well as some play materials (puzzles, picture books, etc.)

DVD Modules

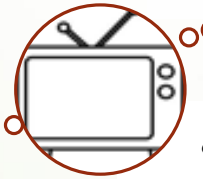
- DVD filmed in Jamaica with 5 mother-child pairs.
- 9 modules cover topics such as talking with baby, praise, looking at books.
- 3 modules shown at each of 5 health visits from 3-18 months.

PROTOCOL

Nurse
Delivers message cards and materials

CHW encourages mothers to practice at home

Discussion & demonstration of activities (**CHW**)

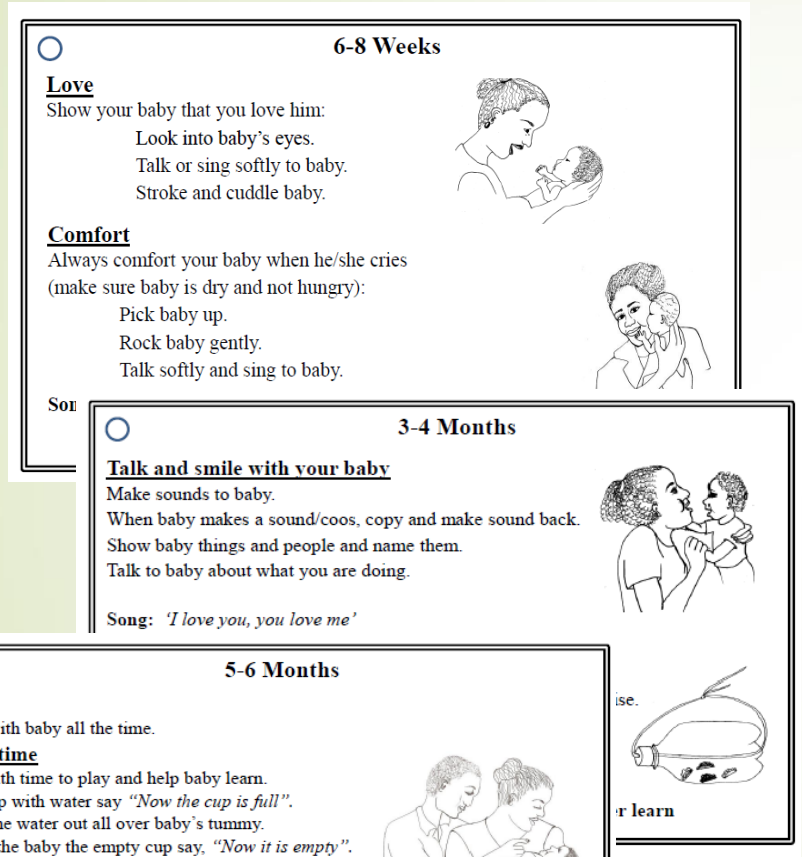


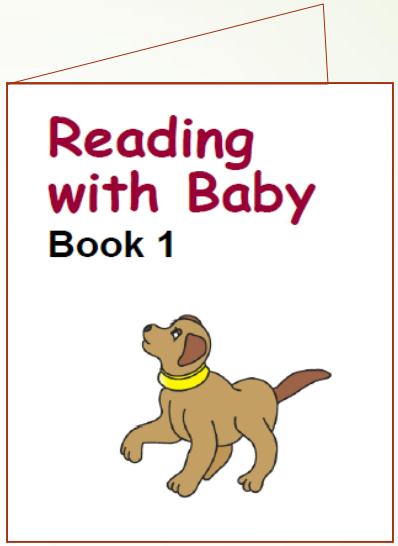
CHW presents & reproduces DVD

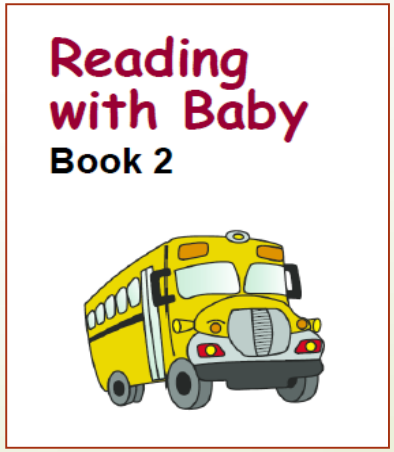
CHW gathers parents

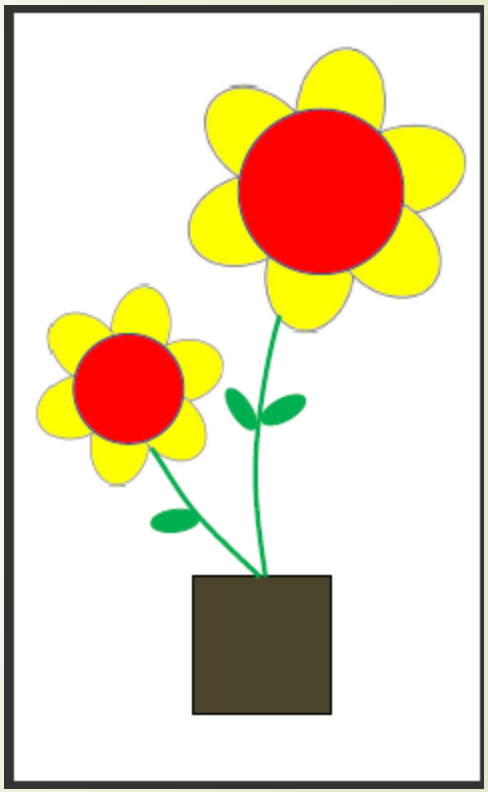
Health Centre: CHW Discussion and Demonstration

Message Cards, Books and Puzzle







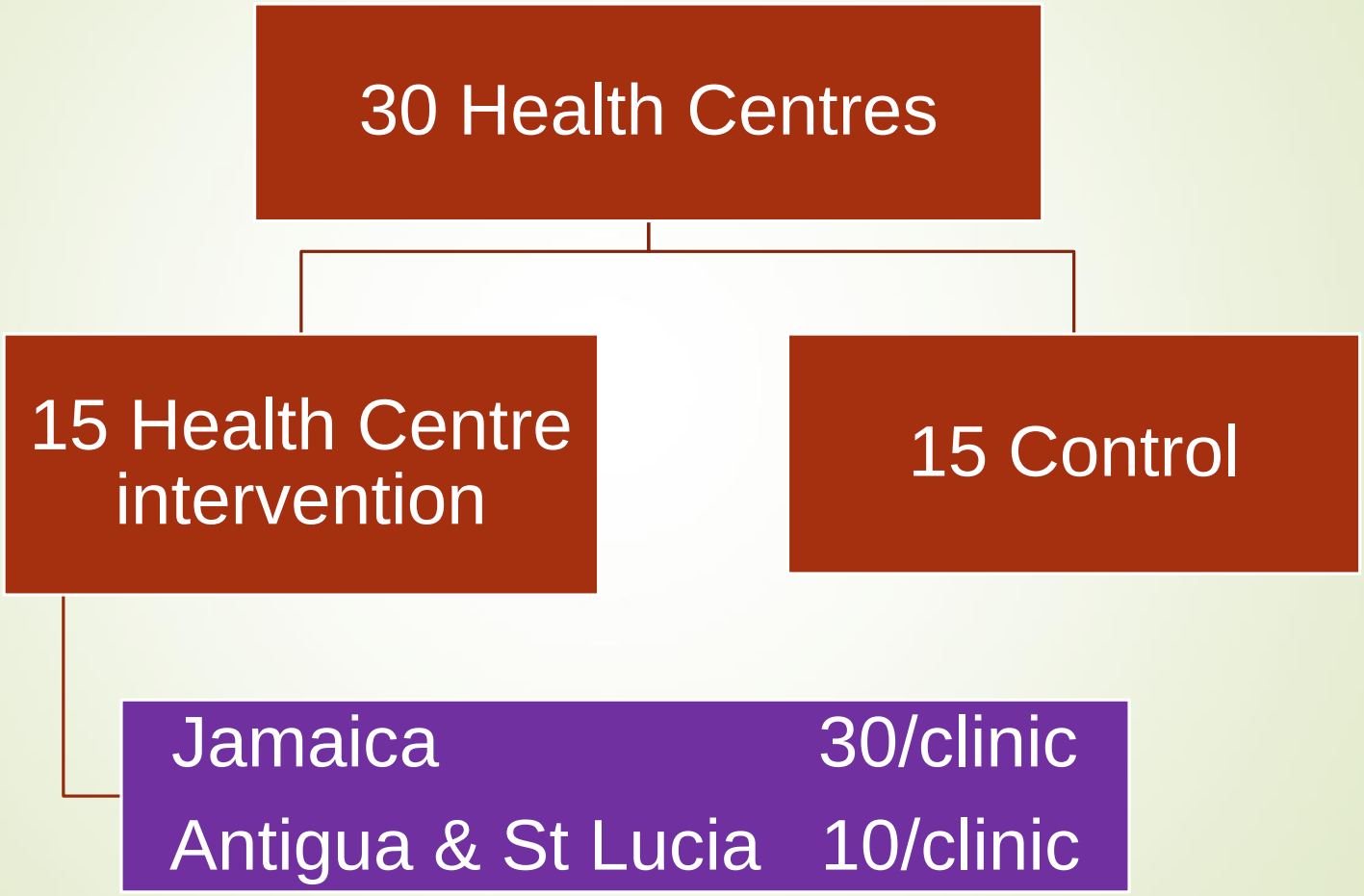


MODIFIED HOME VISITS

- Less frequent (2 times/month).
- Fewer materials provided.
- Shorter visit duration.
- CHW followed by supervised visits.

Impacts

Evaluation Design-
Health Centre Intervention



Effect of Health Centre intervention on Cognitive Development

	Cognition	
	B	95% CI
Health centre vs control	3.09	1.31 to 4.87

Adjusted for cluster, age, gender, country, tester, maternal and family characteristics

$p < 0.01$; Effect size **0.30 SD score**

No effect on language or fine motor development

Effect of Health Centre intervention on Parenting Knowledge

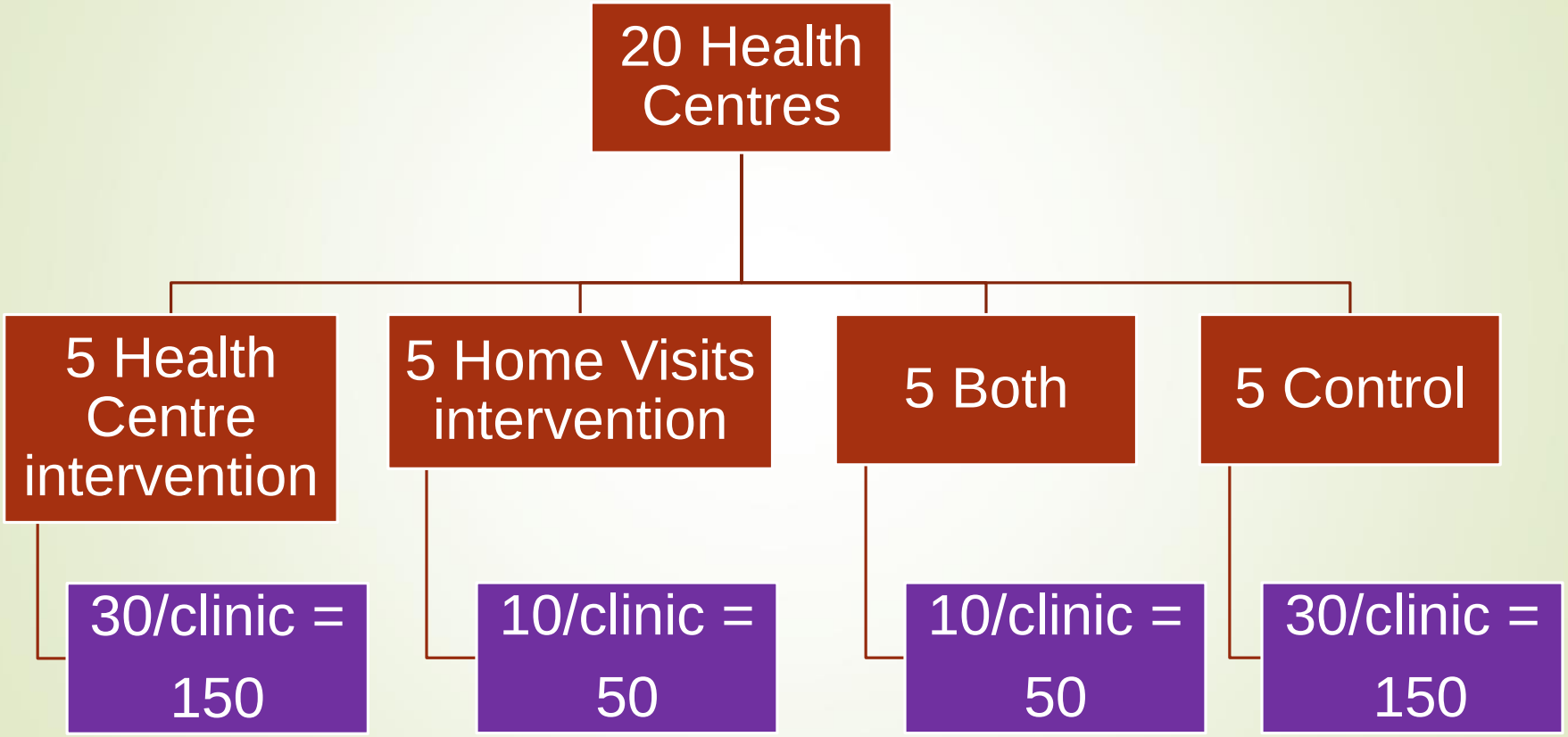
	Parenting score	
	B	95% CI
Health centre vs. control	1.59	1.01 to 2.17

Adjusted for cluster, age, gender, country, maternal and family characteristics, enrolment parenting score

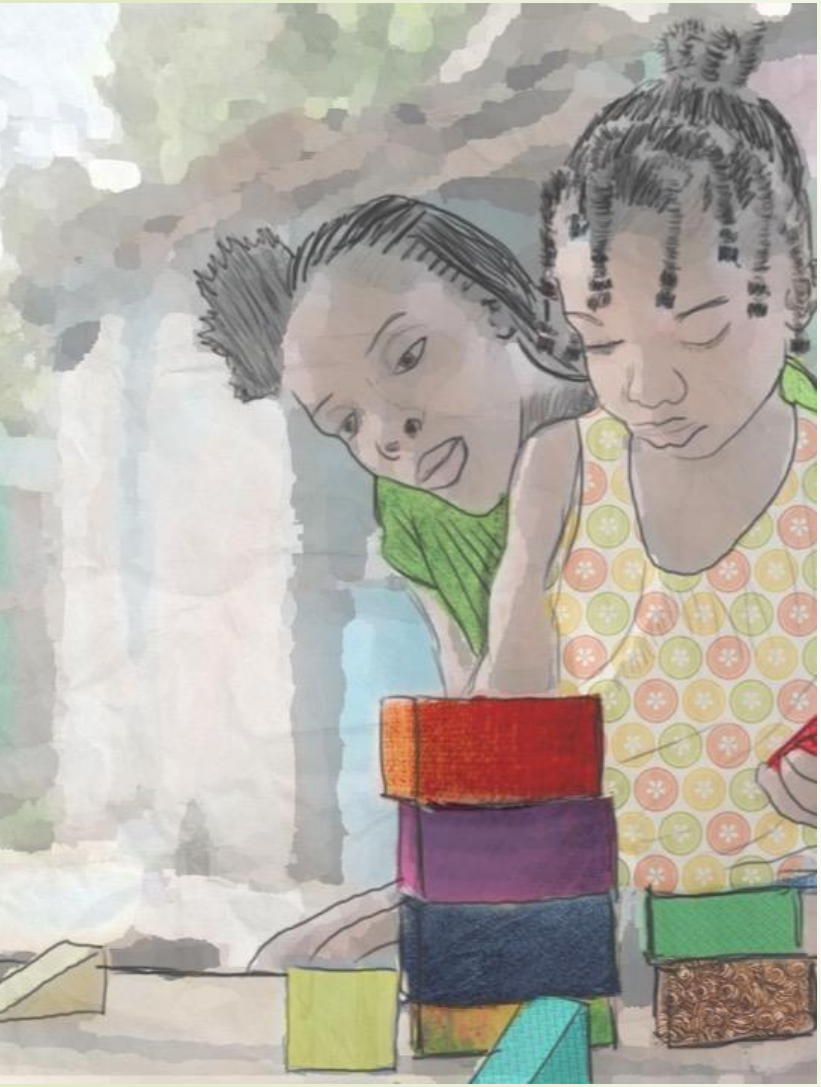
$p < .001$; Effect size **0.40 SD**

No effect on maternal depression or HOME score

Evaluation Design
Health centre & Home visits, Jamaica



SUMMARY of IMPACTS



- Benefits to child's cognition and parents' knowledge of child development from the Health Centre intervention (0.38SD).
- Benefits from Home Visit intervention to cognition of similar effect size (0.34SD)
- **Possible to improve young children's cognition by adding an intervention to the primary health care services <u>without adding staff, frequency and duration of visit</u>.**

Benefits of Program

- Benefits to Mothers: Increased knowledge of child rearing and appropriate activities to do with young babies (talking and playing more with baby and showing more love), and helped mothers bond with baby.
- Benefits to Children: Improved their development, school readiness, self-esteem.
- Benefits to Staff: Increased job satisfaction, knowledge, interpersonal skills and professional growth.

Acceptability

Health staff interviews

- At the end of the intervention, individual semi-structured interviews were conducted with 21 CHWs and 9 nurses from intervention clinics.
- Interviews were conducted by a researcher who had not been involved in the intervention.
- Transcripts analysed using thematic content analysis. Themes were identified from the data and content coded under relevant themes

Implementation challenges

- Key challenges mentioned by both CHWs and nurses were the **mothers' attitude or behaviour** and **staff workload.**
- CHWs reported that they enjoyed conducting the intervention with the majority of mothers, but some mothers were uninterested or would complain about the video and demonstration and they found this burdensome.
- Staff workload was a challenge especially where staff members were on leave or the clinic was already short staffed. A related issue was that not all staff wanted to conduct the clinic demonstration sessions and hence the work generally fell on one or two persons.
- Other challenges – clinic conditions, equipment
- Examples of challenges

Costs

Annual cost of the interventions

- HC intervention: US $100 per child/year (incl. cost of health staff time)
- HV: US$ 245.1 per child/year (Walker *et al*, 2015)
- The HV requires more of the CHW' time whereas the HC one required more equipment
- BC ratios are 5.3 for the HC intervention and 3.8 for HV.

Implications

- Feasible and effective to integrate programs to strengthen parenting skills within health services
- Despite challenges identified, interventions were valued by health staff who perceived benefits for mothers, children and themselves.

Follow-up in 2017

- Investigate channels
- Follow-up of the participants at age 6 years: evaluate sustainability of benefits to school readiness (WPPSI-IV and DABERON 2 screening for school readiness), behavior and home environment.

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EXTRA SLIDES

Benefits to mothers

- *“Say they take their baby to the scale to weigh them and the baby fussing, they now hug them and kiss them”*
- *“Some of them didn’t know what to do, especially some of the younger ones so when we come out and show the videos and demonstrate, they demonstrate back to us and they learn”*
- *“I would notice that the mother keeps talking to the baby and they want nurse to know that baby knows this and baby knows that so they say ‘show nurse your nose’ or ‘show nurse your eyes’. It’s really good to see them doing that."*

Benefits to CHWs

- *"I feel so proud of myself knowing that I can stand up and ask them and get persons to answer. It is so good when you can talk to persons. I feel wonderful doing it."*
- *"But showing these things to the babies, you realise you can start them off at a very small age. I never knew that."*
- *"I see with the growth of my staff, seeing my staff involved and taking an integral part. I can tell you that you can see it in their mannerism on a Monday morning when the clinic is happening and they are able to go out and do it"*

Examples of challenges

- *“It’s good if you’re doing the programme and mothers are enjoying it but some of the mothers, where you have to pulling the mother eventually it becomes over burdened.”*
- *“If we have a full clinic, worse if it’s me alone working that morning and I have to weigh the babies, see they watch the video and then go and give the talk and the nurses are waiting for the docket”*
- *“Where we don’t have enough staff, sometimes we have to pull from other areas to make sure the persons go and do the teaching”*