

Integrating Nutrition and Stimulation in Early Childhood Development Interventions: A Scoping Review

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Why this review? Why now?

- Integrated ECD interventions are recommended by WHO (2018), but **implementation evidence is limited.**
- **Gaps** remain in understanding which delivery and implementation features are associated with success.
- Recent evidence is needed so we built on Yousafzai & Aboud (2014) and Dulal et al. (2021) by further examining **implementation processes and effectiveness** of integrated ECD interventions.
- **Goal: Translate evidence into practical guidance for integrated ECD interventions in LMICs**

“WE CANNOT LET CHILDREN DIE ON OUR WATCH” – STATEMENT FROM SAVE THE CHILDREN CEO INGER ASHING ON AID CUTS

PRESS RELEASE | OCTOBER 29, 2021

World Bank: Pandemic Threatens to Drive Unprecedented Number of Children into Learning Poverty

Post-COVID, rising poverty, malnutrition, and learning losses - potentially worsened by recent funding cuts - make effective ECD interventions more urgent than ever.

INSIDE DEVELOPMENT | DEVEX DISH

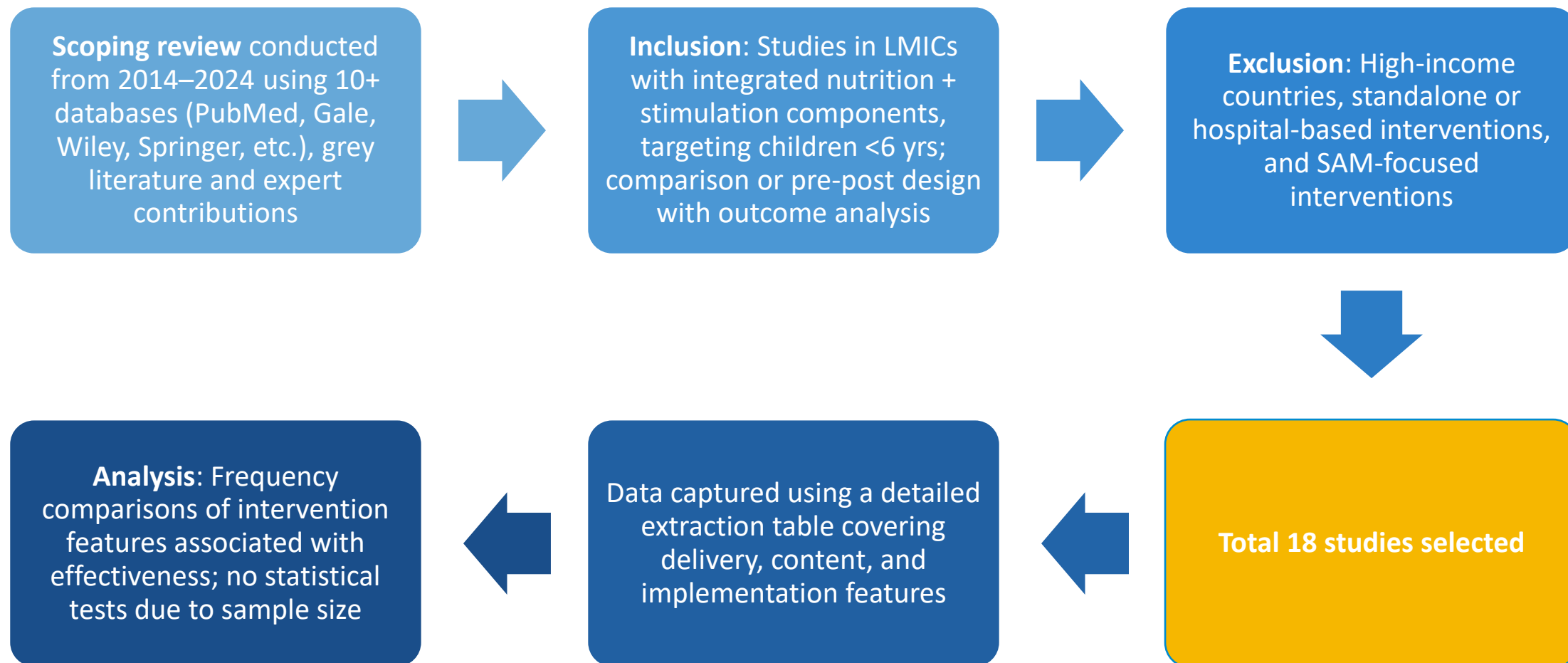
Devex Dish: US aid cuts create perfect storm for child malnutrition crisis

Article | Published: 19 July 2021

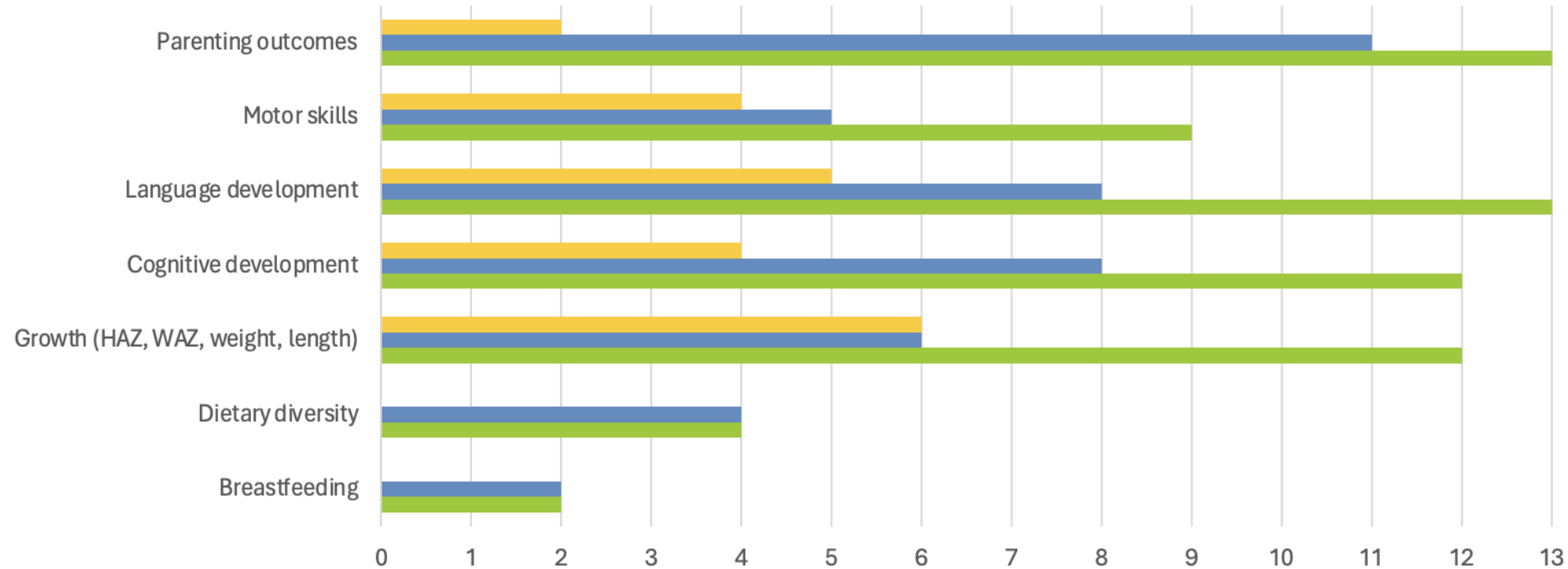
The COVID-19 crisis will exacerbate maternal and child undernutrition and child mortality in low- and middle-income countries

[Saskia Osendarp](#) , [Jonathan Kweku Akuoku](#), [Robert E. Black](#), [Derek Headey](#), [Marie Ruel](#), [Nick Scott](#), [Meera Shekar](#), [Neff Walker](#), [Augustin Flory](#), [Lawrence Haddad](#), [David Laborde](#), [Angela Stegmuller](#), [Milan Thomas](#) & [Rebecca Heidkamp](#)

Methodology



Effects of measured outcomes



	Breastfeeding	Dietary diversity	Growth (HAZ, WAZ, weight, length)	Cognitive development	Language development	Motor skills	Parenting outcomes
No effect	0	0	6	4	5	4	2
Significant effect	2	4	6	8	8	5	11
# Studies measuring the effects	2	4	12	12	13	9	13

What was extracted?

Nutrition Content

- **Education:** dietary diversity, breastfeeding, complementary feeding, hygiene
- **Supply:** fortified foods, agricultural inputs, micronutrient supplementation
- **Practice:** food demonstrations, hygiene training, agricultural practices

Psychosocial Stimulation Content

- **Education:** communication, play, responsive care
- **Supply:** toys, books, home-based play materials
- **Practice:** Parent-child interactive activities, caregiver training sessions

Behaviour Change Techniques

- **Media:** brochures, leave behinds, radio, social media
- **Social support**
- **Job aids:** counselling cards
- **Problem-solving** exercises and practice
- **Resources/** materials supplied

Implementation Details

- **Workforce training:** duration, frequency, supervision
- **Modes of delivery:** home visits, group sessions, mixed delivery models
- **Intervention providers:** volunteers, professionals, para-professionals

Nutrition outcomes

Outcomes improved:

Dietary diversity (4/4)

Child growth 6/12 studies

Common features:

Food/agriculture inputs,
food demonstrations, small
media, job aids

Delivery and support strategies: Behavior change techniques, mixed-delivery



Psychosocial stimulation outcomes

Outcomes improved:

Cognitive and language development improved in ~67% of studies

Common features: Use of toys/books, interactive activities, small media, problem-solving

Delivery and support strategies: home + group sessions, volunteers/para-professionals, supportive supervision, refresher training

3. Provide your child with a variety of stimulating play objects.



4. Parents talk and sing with children, watch and listen to their child's sounds.

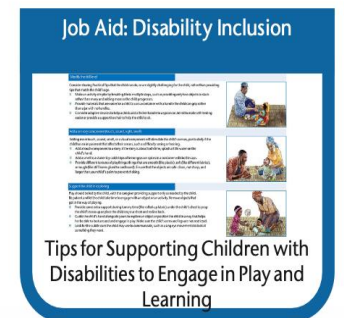
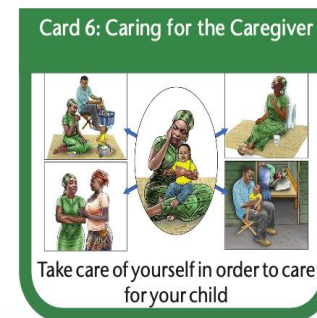
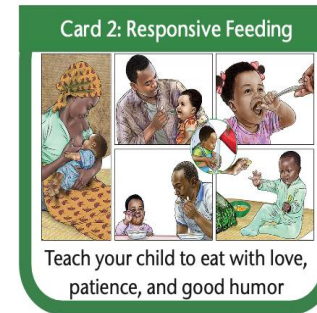
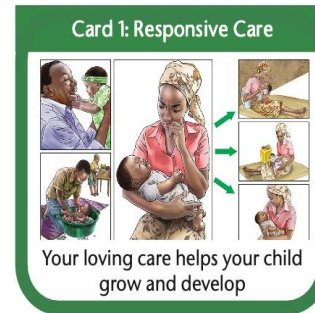


Parenting outcomes

Outcomes improved:
85% of studies improved knowledge or practices

Common features: Job aids, social support, problem-solving tools, performance-based learning

Delivery and support strategies: home + group sessions, volunteers with supervision, refresher sessions



Features associated with impact



**Nutritional supply
components**



**Play materials and
books**



**Practice-based
learning**



**Mixed delivery mode
(group + home)**



**Refresher training
and supportive
supervision**

Less effective strategies

- **Home visits (alone):** Widely used, but less effective than mixed mode (group + home).
- **Training duration:** Longer training wasn't clearly linked to better outcomes.

Limitations

Limitations of this study

- **Statistical analyses were not conducted** on the association of features with effective outcomes due to the small number of studies.

Limitations of ongoing research

- **Inconsistent reporting** across studies made direct comparisons difficult.
- **Lack of long-term follow-up data** made it difficult to assess the sustainability of outcomes, especially HAZ
- **Few studies assessed cost-effectiveness**, which is essential for scaling interventions.

Key recommendations

- Include **food provision strategies**.
- Include **psychosocial stimulation** materials and activities.
- Provide **multi-modality (group + home) delivery**.
- Encourage locally available or **low-cost play materials**.
- Incorporate **behavior change strategies** such as practice and coaching, job aids, leave-behind materials.
- Training models should include ongoing **refresher sessions and supervision**.

Policy & programmatic implementation



- Integrate **nutrition with stimulation** in all ECD programs.
- Scale only **evidence-based programs** to avoid ineffective interventions.
- Adopt **standardized reporting frameworks** (e.g., CARE*) to permit systematic reviews.
- Invest in **para-professionals and volunteers** to support human resources.

*Consolidated Advice for Reporting ECD Implementation Research, (Yousafzai et al., 2018)

Conclusion

- Stimulation alone improves minds. Food alone feeds bodies. But together, they can transform futures.
- Integrated ECD interventions need **effective design**.



Resources to access

- **Report:** Expanded findings and analysis.
- **Data extraction guide:** Can be used across various interventions for consistency and clarity of extraction.
- **Excel extraction table:** Additional detail on 18 interventions reviewed
- Opportunity for additional analysis, key informant interviews, and more rigorous evaluation.



ECDAN

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