



Pathways from women's group-based programs to nutrition change in South Asia: a conceptual framework and literature review

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Photo credit: Samuel Scott

Key take-aways...

1. **Women's group programs have the potential to improve nutrition but the pathways to nutrition are long and complex**
2. **Depending on the type of program, our conceptual framework postulates that there are 4 potential pathways and 3 cross-cutting pathways that lead to impact on nutrition**
 - **four potential pathways:** income, food production, nutrition awareness and rights-based engagement
 - **three cross-cutting pathways:** social capital, acting collectively and women's empowerment
3. **Our evidence review shows the existing evidence base is limited and that most studies do not provide insights on the pathways**
4. **The WINGS program of work aims to strengthen the evidence base and improve measurement!**



About WINGS

About WINGS

► Two components:

1. Evaluate a Self-Help Group (SHG) led agriculture-nutrition intervention implemented by PRADAN to strengthen the conceptual and empirical understanding of the pathways through which SHGs can improve nutrition
2. Engage with diverse audiences to strengthen dialogue and uptake of research findings on agriculture-nutrition-gender linkages

❑ Duration: 2015-2020

❑ 5 states in India

❑ Key partners: PRADAN, Public Health Resource Network (PHRN), IFPRI, Oxford Policy Management

❑ Supported by BMGF and A4NH

The PRADAN Evaluation



- **Intervention:** Layering nutrition-intensive activities on PRADAN's agriculture platform. Nutrition BCC integrates all 4 of PRADAN's areas of focus - livelihoods, health, entitlements and gender - into the nutrition messaging.
- **Evaluation approach:** Mixed-methods approach that integrates the impact evaluation with the process evaluation.
 - **Impact evaluation approach:** Quasi-experimental based on matching methods using three rounds of panel data
 - **Process evaluation approach:** Theory driven and based on careful analysis of project impact pathways (Rawat et al 2013)



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Pathways from women's group-based programs to nutrition change in South Asia: A conceptual framework and literature review

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ABSTRACT

Improving the nutritional status of women and children in South Asia remains a high public health and development priority. Women's groups are emerging as platforms for delivering health- and nutrition-oriented programs and addressing gender and livelihoods challenges. We propose a framework outlining pathways through which women's group participation may facilitate improvements in nutrition. Evidence is summarized from 36 studies reporting on 24 nutritional indicators across infant and young child feeding (IYCF) practices, intake/diet, and anthropometry. Our findings suggest that women's group-based programs explicitly triggering behavior change pathways are most successful in improving nutrition outcomes, with strongest evidence for IYCF practices. Future investigators should link process and impact evaluations to better understand the pathways from women's group participation to nutritional impact.

Approach to developing the conceptual framework

1. **Framework on determinants of nutrition outcomes** to help identify factors (immediate, underlying, basic) for nutrition and how these could be linked to women's groups (Black et al, 2013)

1. Framework on determinants of nutritional outcomes and where women's group programs fit in

Benefits during the life course

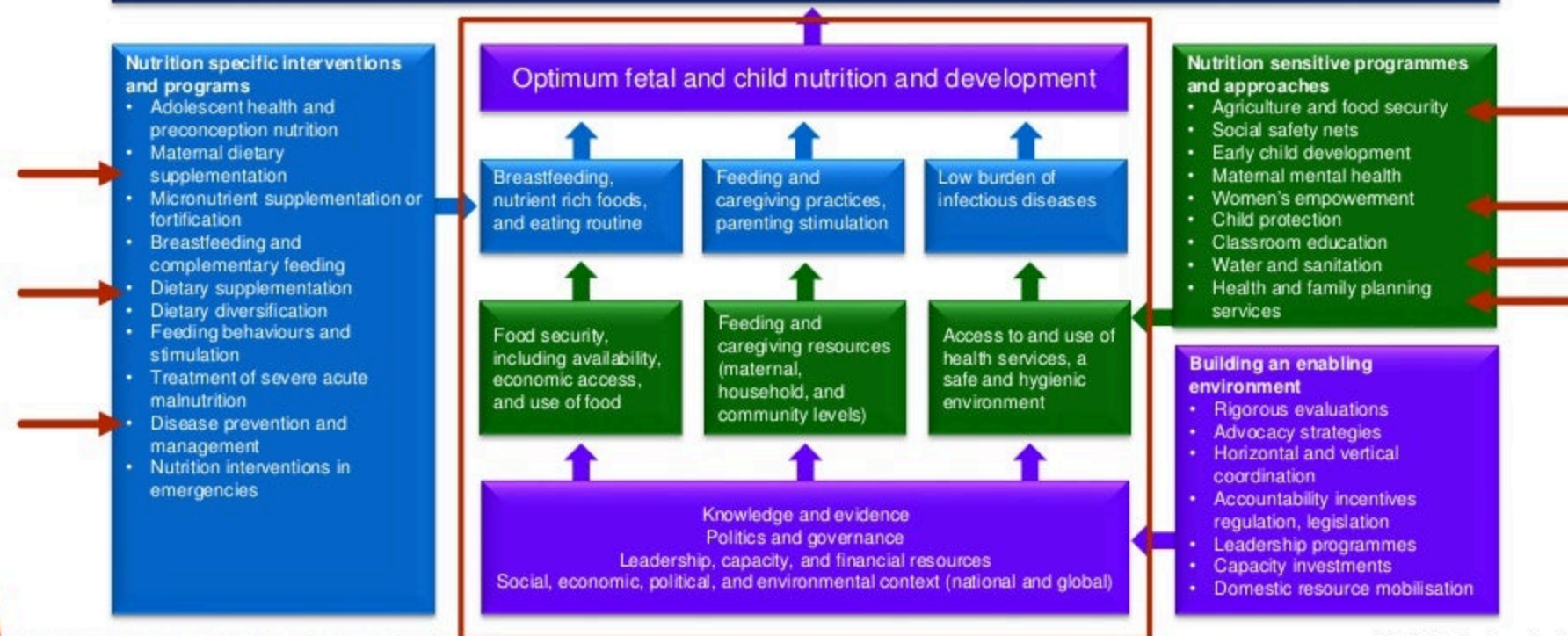
↓ Morbidity and Mortality in childhood

↑ Cognitive, motor Socioemotional development

↑ School performance and learning capacity

↑ Adult stature
↓ Obesity and NCDs

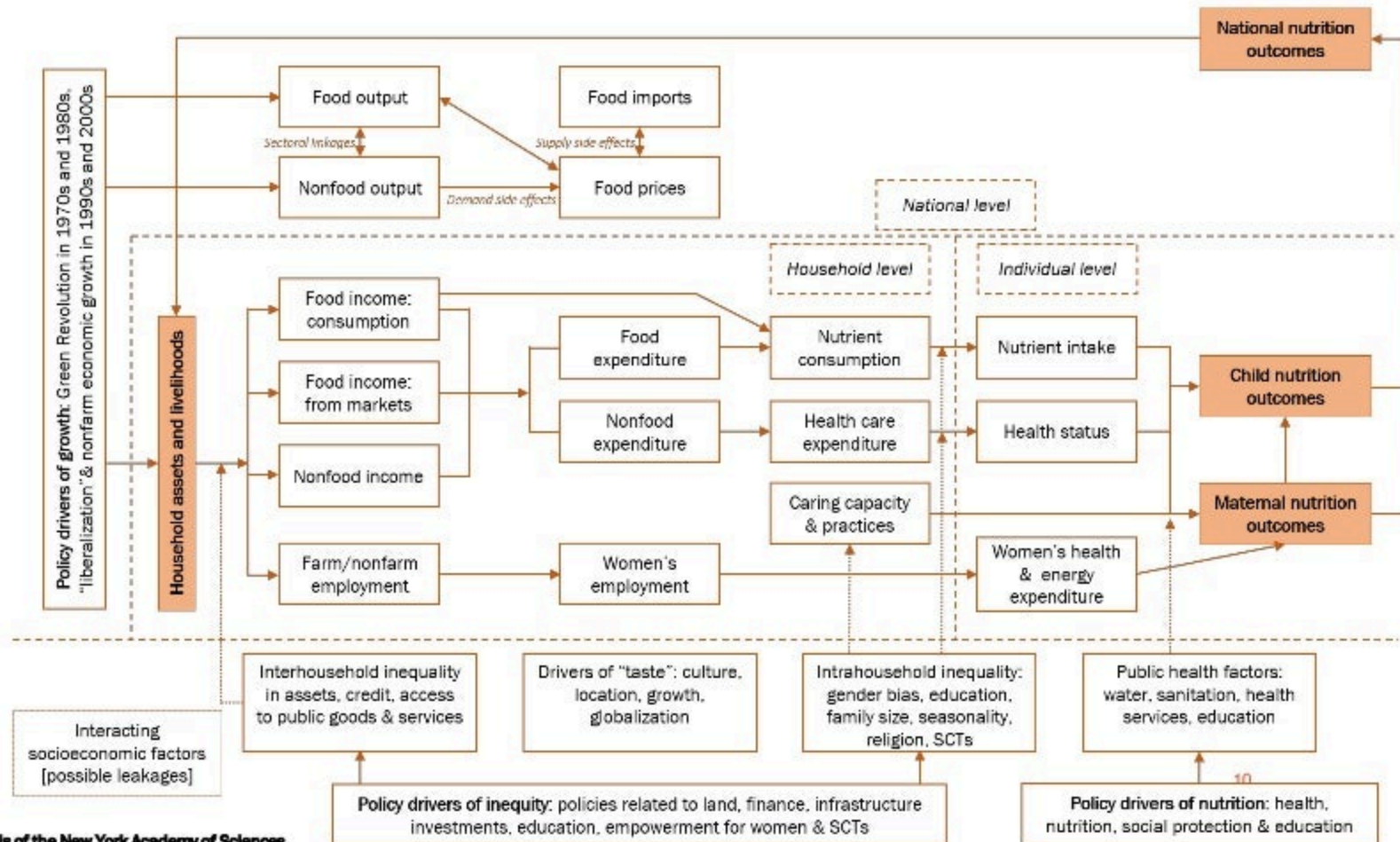
↑ Work capacity And productivity



Approach to developing the conceptual framework

1. **Framework on determinants of nutrition outcomes** to help identify factors (immediate, underlying, basic) for nutrition and how these could be linked to women's groups (Black et al, 2013)
2. **Framework for linkages between agriculture/livelihoods programs and nutrition outcomes** (e.g., Kadiyala et al., 2014)
 - Helped identify entry points for women's groups in the agriculture-nutrition space

2. TANDI framework of pathways between agriculture and nutrition, and the role of gender (Kadiyala et al., 2014)



Approach to developing the conceptual framework

1. **Frameworks on determinants of nutrition outcomes** to help identify factors (immediate, underlying, basic) for nutrition and how these could be linked to women's groups (Black et al, 2013)
2. **Frameworks for linkages between agriculture/livelihoods programs and nutrition outcomes** (e.g., Kadiyala et al., 2014)
 - Helped identify entry points for women's groups in the agriculture-nutrition space
3. **Knowledge of how different types of women's group programs affect outcomes that can trigger nutritional gains**
 - Helped identify types of women's groups, inputs provided, processes triggered, outputs and outcomes attained that could link to nutrition

3. Knowledge of different types of women's groups programs aiming to improve livelihoods, health and nutrition outcomes and potential inputs/activities included in these programs

Types of programs

- ▶ Self-help groups focused on saving, credit, microfinance, livelihoods (incl. agriculture)
- ▶ Women's groups (e.g., health groups) engaged in participatory learning and action
- ▶ Other groups (e.g., mothers group, peer support groups)

Potential inputs

- ▶ Savings and credit
- ▶ Income generation
- ▶ Agriculture
- ▶ Health and nutrition information/BCC
- ▶ Social accountability and demand for services
- ▶ Collective action for all of above areas [including social norming, demand for rights, collective planning, etc.]

WINGS conceptual framework: Pathways from women's group programs to nutrition

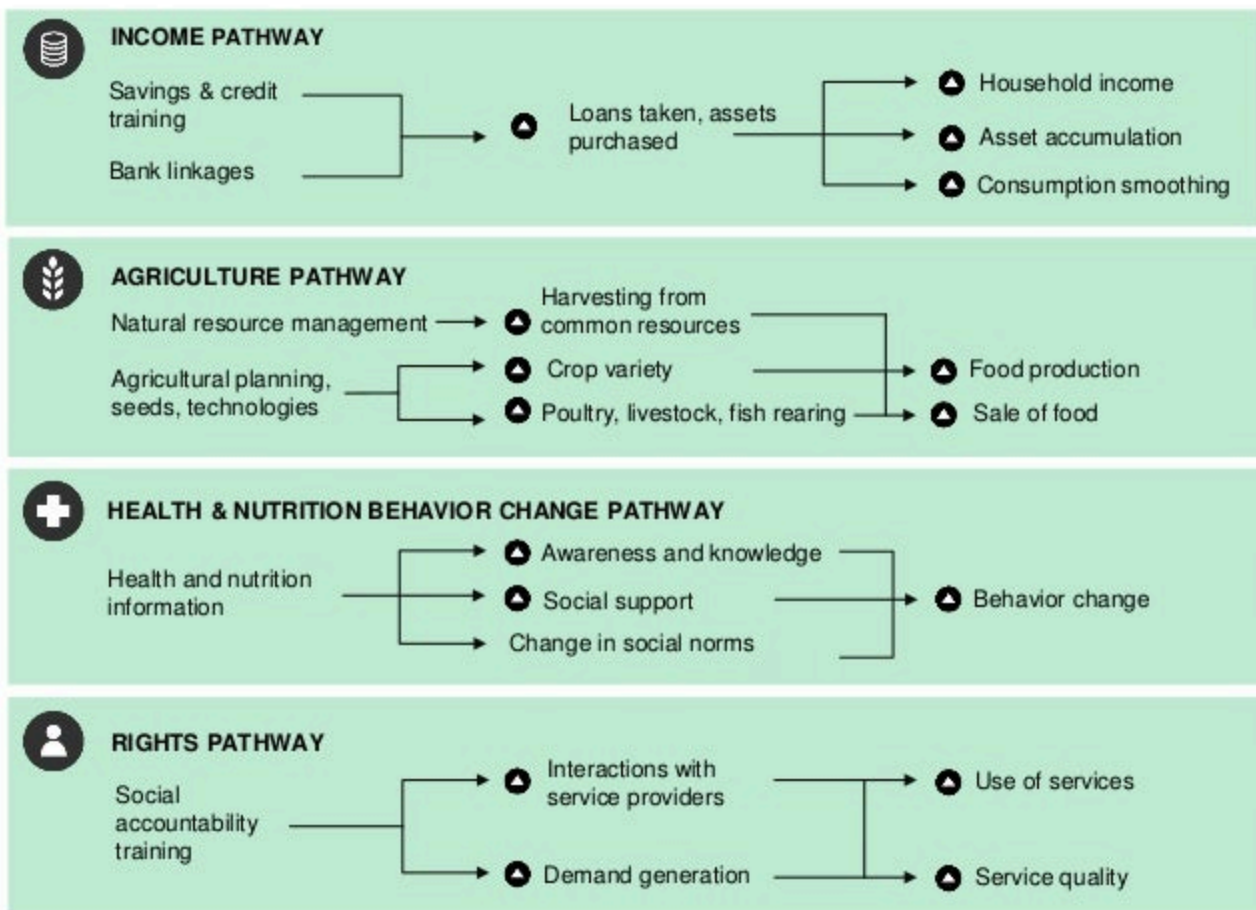
- ▶ 4 distinct pathways to impact for women's group programs
 1. Income pathway
 2. Agriculture pathway
 3. Health and nutrition behavior change pathway
 4. Rights pathway
- ▶ *Which pathways are triggered depends on the nature of the women's group program*
- ▶ 3 cross-cutting pathways are identified
 1. Building social capital
 2. Acting collectively
 3. Promoting women's empowerment
- ▶ *Cross-cutting pathways are always triggered irrespective of group type*
- ▶ Each pathway triggers a specific set of intermediate outcomes

INPUTS

PROCESSES

OUTPUTS

OUTCOMES



- ▲ Resilience to shock
- ▲ Food access
- ▲ Food security
- ▲ Intake of diverse, nutrient-rich foods
- ▲ Nutrient absorption
- ▲ Seeking healthy, diverse foods
- ▲ Hygiene
- ▼ Disease burden (due to ▲ hygiene)
- ▲ IYCF practices

IMPACTS

- Healthy maternal BMI
- ▲ Micronutrient status
- ▼ Anemia
- ▼ Child stunting
- ▼ Child underweight
- ▼ Child wasting
- ▲ Newborn health

Key take-away on pathways

1. **Women's group programs have potential to improve nutrition but the pathways to nutrition are long and complex - triggering multiple intermediate outcomes**
2. **Depending on type of program, four potential pathways - income, food production, nutrition awareness and rights-based engagement and three cross-cutting pathways - building social capital, acting collectively and women's empowerment**

Rationale for a literature review

▶ What we know

- Links with health outcomes, i.e. mortality (Prost et al. 2013)
- Links with women's empowerment (Brody et al 2015)
- Possible applicability in South Asia and Africa (Biscaye et al. 2014)
 - Yet, few rigorous designs yield robust empirical evidence

▶ What is needed

- Clarify role of SHGs in improving nutrition
- Identify most important factors along the SHG to nutrition impact pathways
- Better understanding of optimal combination of interventions to improve nutrition

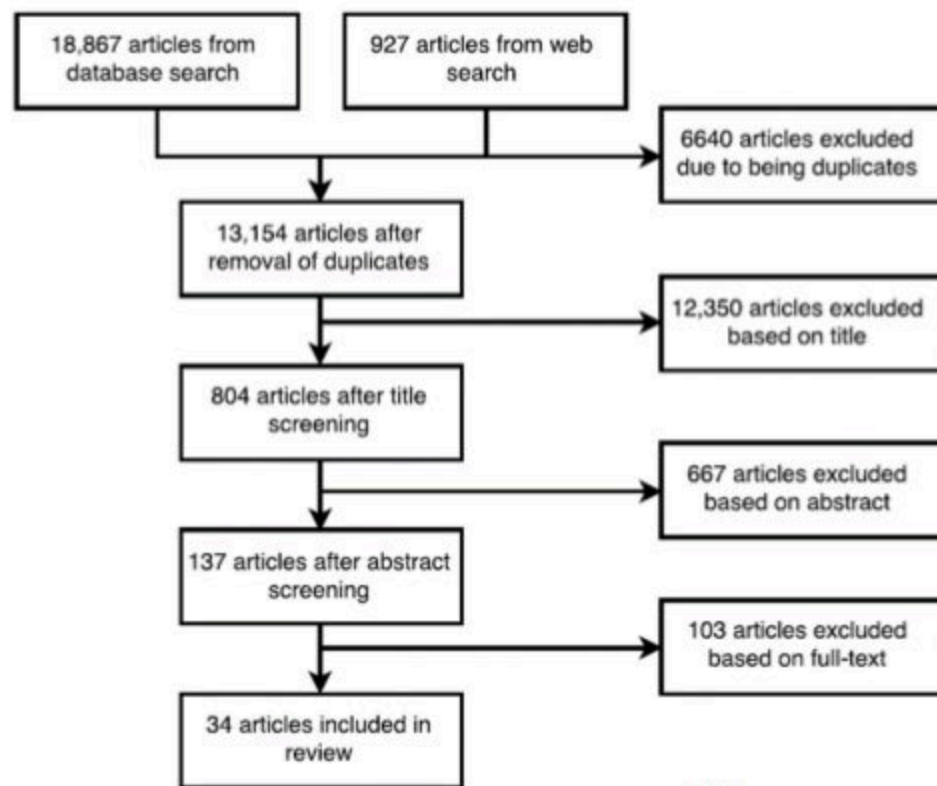
Objectives of literature review

Review and synthesize evidence on impacts of women's group interventions on maternal and child nutrition outcomes in South Asia

- map evidence to conceptual framework and identify gaps
- examine relative “success rate” of different group-based strategies in improving nutrition

Literature search process

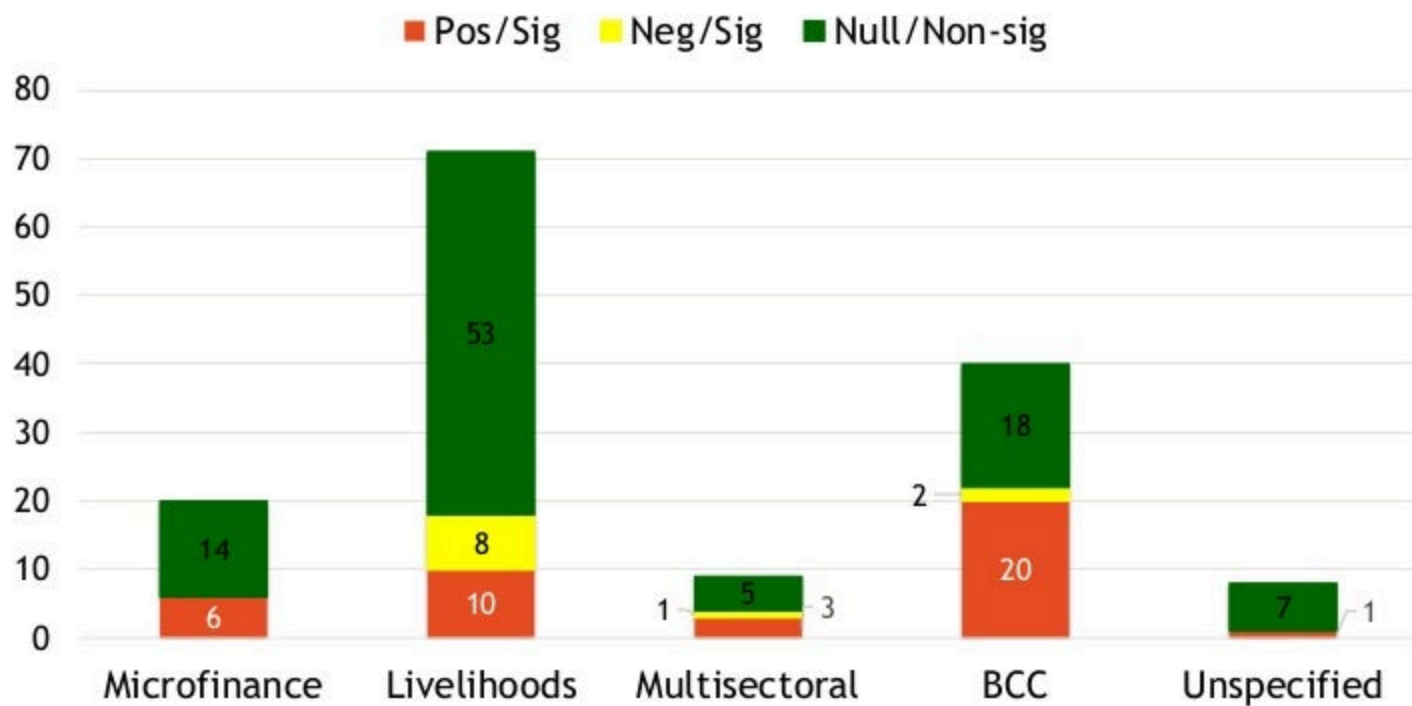
- Search of databases and gray literature
- Criteria: women's groups, nutrition outcomes, South Asia
- Two independent reviewers, with discrepancies resolved by third reviewer



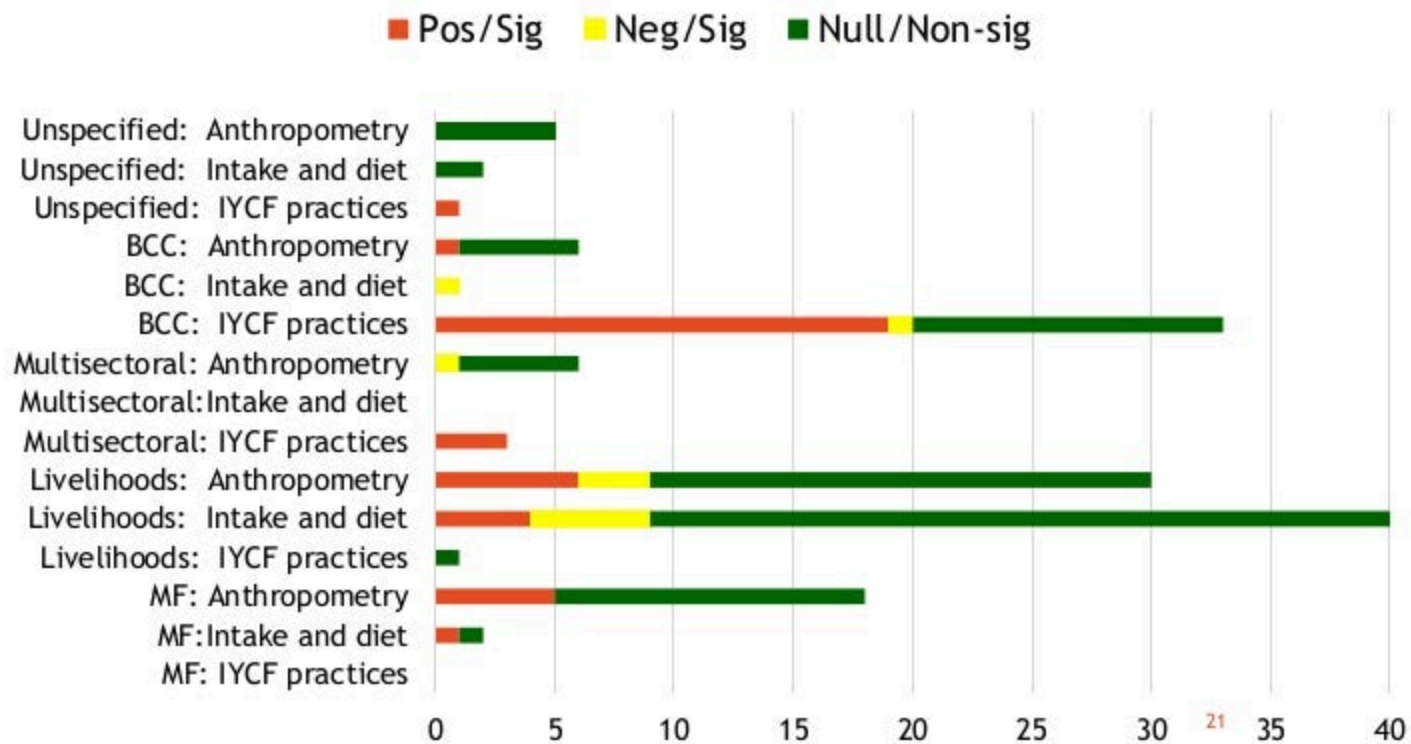
Women's group program types

Type of group	Key characteristics	Pathways triggered
Microfinance group	Joint-liability women's groups that receive loans, income-building assets or grants from financial intermediaries.	Income pathway, with indirect effects through agriculture and rights pathways
Livelihoods self-help group	Groups save and lend internally, engage in income-generating and development activities, are directly linked to formal banking system.	Income, agriculture, and rights pathways
Multi-sectoral group	Bundled programs to improve financial access, livelihoods, entitlements and health and nutrition in women. Savings and credit remain the core group activity.	All pathways
Behavior change communication group	Programs focus on delivering information or reshaping/reinforcing social norms; consist of awareness and behavior change promotion in groups facilitated by a trained community member, often using a participatory learning and action (PLA) methodology.	BCC+ pathway

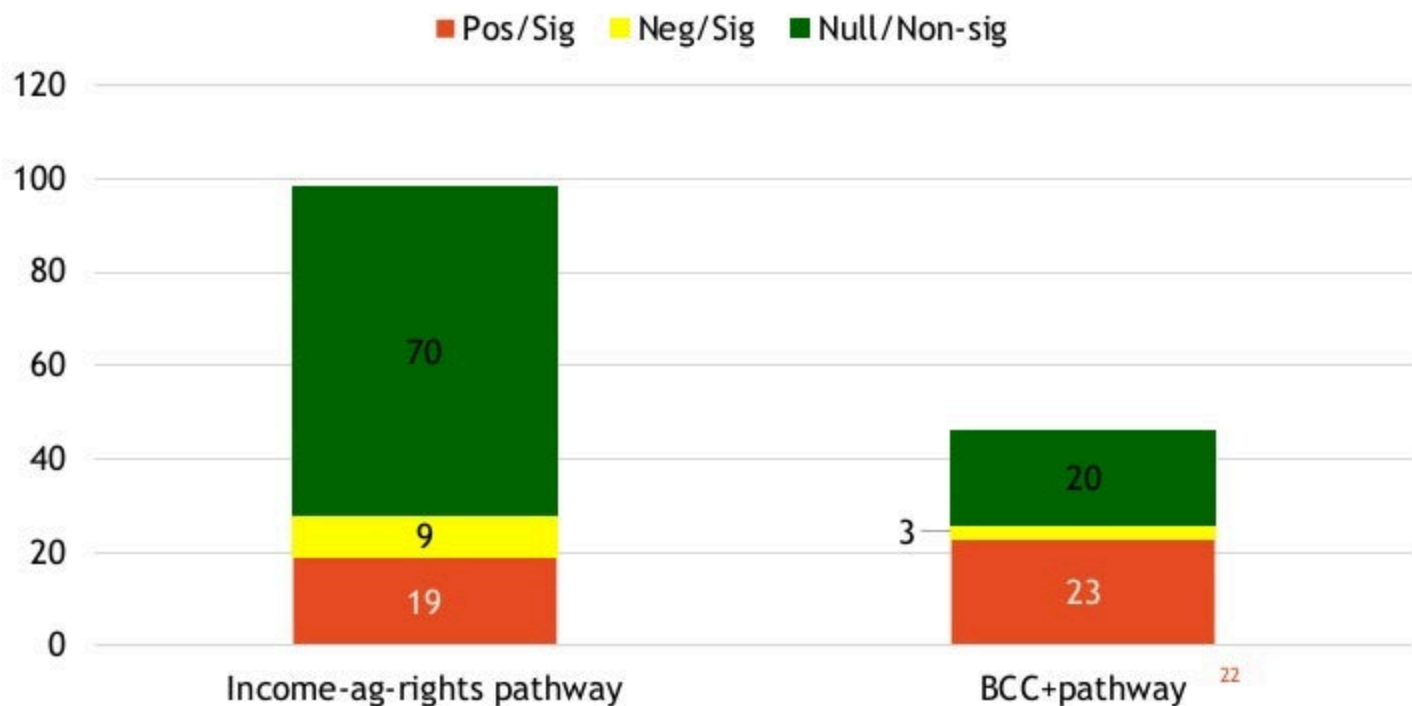
Number and significance of maternal and child nutrition outcomes by women's group intervention type



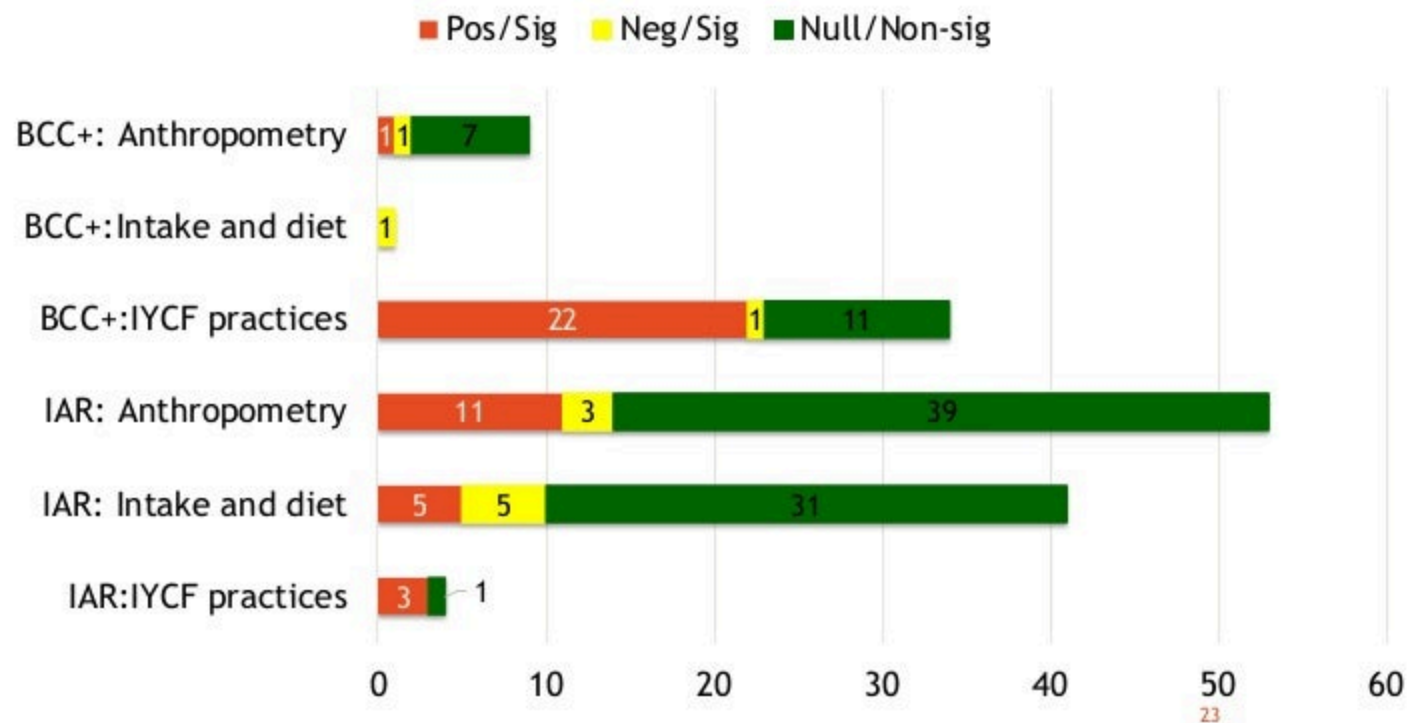
Number and significance of maternal and child nutrition outcomes by women's group intervention type and outcome category



Number and significance of maternal and child nutrition outcomes **by impact pathway triggered**



Number and significance of maternal and child nutrition outcomes by impact pathway triggered and outcome category



Why so many null findings?

- ▶ **Lack of rigorous study designs;** of 34 studies identified for review, 12 were RCTs
- ▶ **Not focusing on potential pathways to impact,** and/or not assessing whether programs were adequate to trigger change in desired outcomes
- ▶ **Programs evaluated for nutrition impacts often lack components specifically oriented toward nutrition,** or don't focus on one pathway → limited evidence base on programs triggering all pathways
- ▶ **Few studies targeted nutritionally-vulnerable age groups**
- ▶ **Low reach and duration**

Key lessons learned from the review

- ▶ Include **explicit nutrition goals and actions** in programs for success in delivering on improved nutrition outcomes
- ▶ **Target vulnerable groups** that have the greatest potential for improvement
- ▶ **Multisectoral programs are needed** to address the multiple determinants of undernutrition in South Asia
 - Group-based programs have rich potential to trigger several pathways to change, and thus address several determinants through a single platform
- ▶ **Program context is critical** in understanding which pathways to impact are most likely to be successful
- ▶ **Forming women's groups is not a panacea** - the groups must effectively enable basic tenets of group-based engagement such as building social capital, promoting women's empowerment, and advocating to community leaders

Key takeaway 3

- ▶ **Our evidence review shows the existing evidence base is limited and that most studies don't provide insights on pathways**
 - Most studies (especially in nutrition journals) focus on primary outcomes, and don't look at the intermediate outcomes that tell us more about the pathways
 - Need not only impact evaluations but also process evaluations that tell us how the programs work (or not)

Addressing evidence gaps in partnership with PRADAN

- ▶ **There were few studies with a rigorous design.**
 - The WINGS evaluation design is rigorous and robust.
- ▶ **Very few studies examine intermediate outcomes**
 - Data collected on intermediate outcomes, such as women's empowerment (pro-WEAI from midline survey)
 - Process evaluation helps understand pathways to impact
- ▶ **There was limited robust evidence of the potential of SHGs to improve nutrition**
 - Rigorous impact evaluation will provide evidence on the potential of using an existing SHG platform to improve nutrition via nutrition-intensification of agricultural programs

Taking flight with WINGS - stay tuned...

- ▶ **Baseline survey completed in 2015**
(Baseline results available upon request)
- ▶ **Process evaluation to identify key implementation gaps and barriers (analysis ongoing)**
- ▶ **Midline survey for WINGS in 2017 (analysis ongoing)**
- ▶ **Endline survey in 2019 for WINGS**



Photo credit: Samyuktha Kannan

Our partners and our team

- ▶ **PRADAN:** Avijit Choudury, Madhu Khetan, block team leaders
- ▶ **PHRN:** Vandana Prasad, Haldhar Mahto, Ganapathy Murugan
- ▶ **ICO:** Yamini Atmavilas
- ▶ **OPM:** Prabal Singh, Vineet Keshaw
- ▶ **IFPRI:** Neha Kumar (co-PI), Agnes Quisumbing (co-PI), Purnima Menon, Samuel Scott, Kalyani Raghunathan, Alejandra Arrieta, Amir Jilani, Tarana Chauhan, Suman Chakrabarti, Shinjini Pandey, Nicole Rosenvaigue, Wilmer Gutierrez
- ▶ **IFPRI affiliates:** Kenda Cunningham, Gargi Warble, Parul Tyagi, Kripa Rajagopalan, Carly Nichols, Samyuktha Kannan



Stay tuned...



The background features abstract, overlapping geometric shapes in shades of orange and yellow, primarily on the right side, against a white background.

A snapshot of baseline findings...

Households own assets, have access to electricity and over 80% have a bank account. At the same time food insecurity is very high.

- ▶ **Households own on average 5 household assets, 1.9 acres of land, 2 large livestock**
- ▶ **Almost all households own their home and about two thirds have electricity.**
- ▶ **81% of households have a bank account.**
- ▶ **Food insecurity is very high with about $\frac{1}{4}$ being severely food insecure, as measured by the HFIAS.**



Agriculture is rain-fed, low adoption of improved techniques and low exposure to extension messages



- ▶ Agriculture in our study areas is primarily rain-fed thus subject to weather and rainfall risk.
- ▶ Fertilizer use is high but use of other improved agricultural techniques is low.
- ▶ Exposure to agricultural extension messages is very low.
 - However, SHG members are significantly more likely to have heard agricultural extension messages.

Undernutrition, dietary diversity, and IYCF at baseline indicate much room for improvement

- ▶ The prevalence of undernutrition among women (47% underweight) and children (45% of children under 2 years stunted) is high
- ▶ Dietary diversity among both women and children, is very low with little to no consumption of micronutrient rich foods.
- ▶ Much room for improvement on infant and young child feeding practices and knowledge



Low levels of women's empowerment and engagement with SHGs at baseline

- ▶ Women's empowerment is low overall
- ▶ Nearly 2/3 of women do not belong to SHGs currently and among those who belong, nearly 20% are not active.
- ▶ There is a lot of room for increasing discussions in SHGs on key community development topics: health, nutrition, education and WASH.

