



 IQVIA™

BILL & MELINDA
GATES foundation



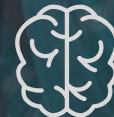
Project MARPU



Enabling
SLFs/ SHGs



Mobilizing
Communities



Increasing
Awareness



Reducing
Gender Barriers



Influencing
Behaviors

APMAS- MARPU

A comparison between mid and end-line data proves the efficacy of the interventions. In less than 8 months, MARPU brought about the following changes in the interventional areas



Summary
The MARPU Project



The intervention was conducted across slums in Hyderabad, Ongole and Tirupati.

Over 2700 pregnant and lactating women were interviewed across the baseline, mid-line and end-line studies to validate the effectiveness of the interventions.

63 FGD were also conducted across all three cities to understand the qualitative aspects.

Increased Coverage



98%

Home visits in the interventional areas – 73% SHG coverage

87%

Coverage in non-interventional areas
Almost 0% support from SHGs

Improved Dietary Diversity



9.3%

more women have a better understanding of what to eat

11.5%

more women achieve the dietary diversity necessary

Sleep and Rest



6.2%

more women slept for at least 8 hours per day

8.9%

more women rested for at least 2 hours during the day

Reduced Gender Barriers



9.5%

more women in interventional areas could make health related decisions

7.8%

more women were empowered in choosing what to eat

Exclusive Breastfeeding



18.3%

more women practice exclusive breastfeeding

Interventions to promote early initiation showed positive but insignificant results

Availing ICDS Services



7.4%

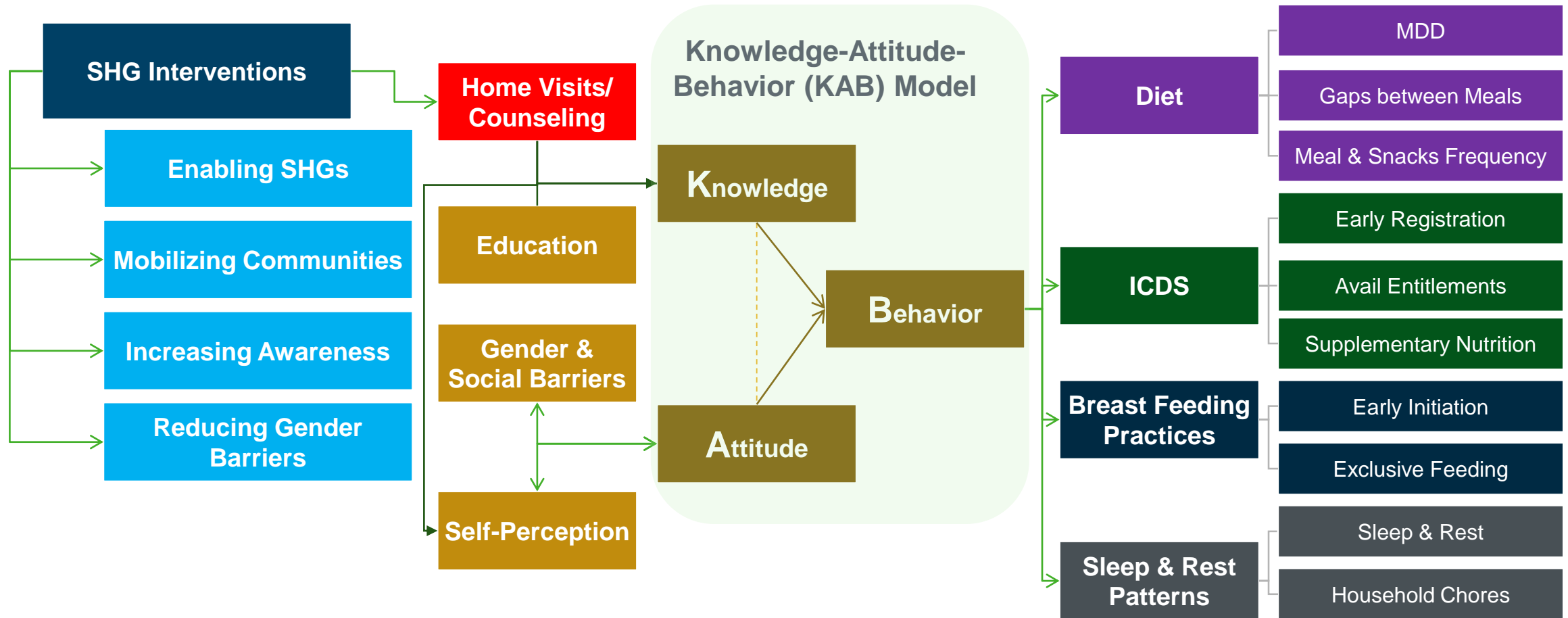
more women avail supplementary nutrition from AWCs

Increased knowledge about nutrition, reduced gender barriers and early registration have paved the way for better utilization of AWC services

SHG Impact through the KAB Model



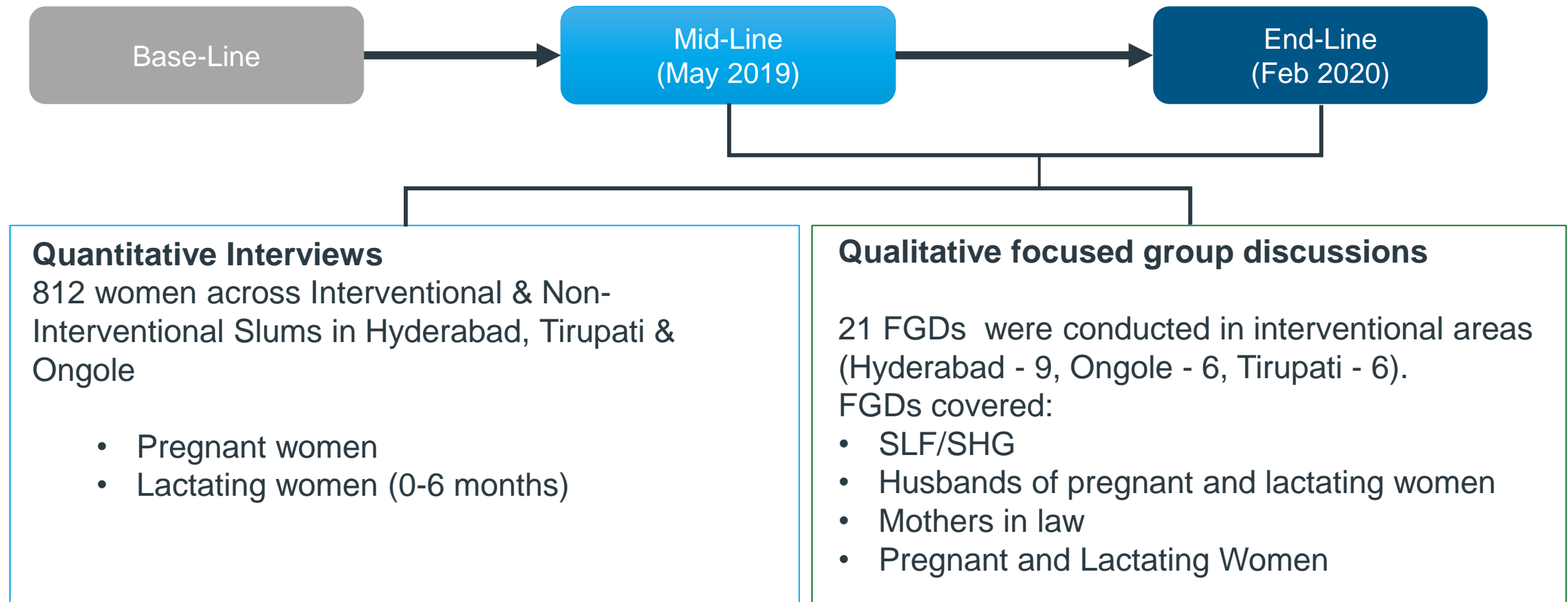
The Knowledge-Attitude-Behavior model was tested to verify causal relationships between interventions and outcomes



Study Design



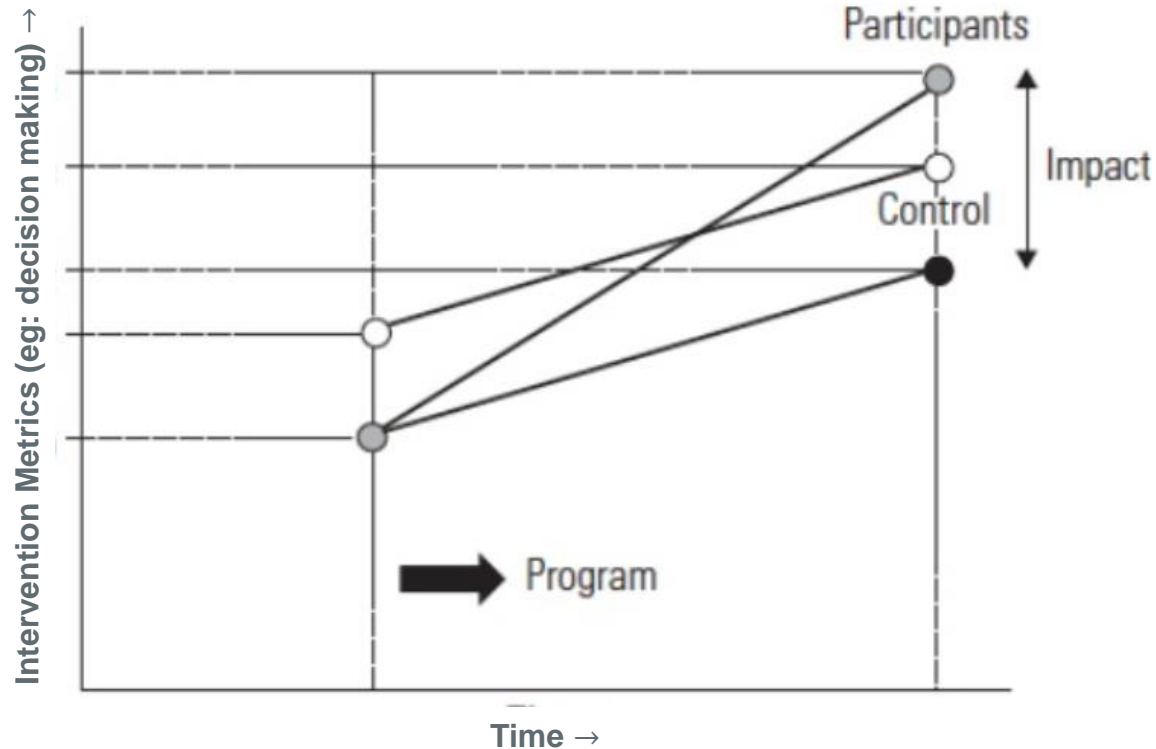
812 Pregnant and Lactating women were interviewed across Hyderabad, Ongole and Tirupati in mid-line and end-line



Difference-in-Difference (DiD) Methodology



It is important to recognize that non-interventional areas were performing better than interventional areas in certain aspects. Also, the key demographics such as income and education are different between the two groups and will need to be controlled for.



Impact Metrics →

Gender Barriers

Decision Making Ability – Health Needs

Decision Making Ability – Nutrition Needs

Behavior

Diet: Minimum dietary diversity, Frequency of meals, Gaps between meals

Sleep & Rest: 8 hours of sleep at night, 2 hours of rest during the day

Breastfeeding: Early Initiation, Exclusive Breastfeeding

ICDS Services: Availing supplementary nutrition

Key Controls: Age, Religion, Caste, Education of respondent & Spouse, Weighted Household Income, Family type (nuclear/ joint)

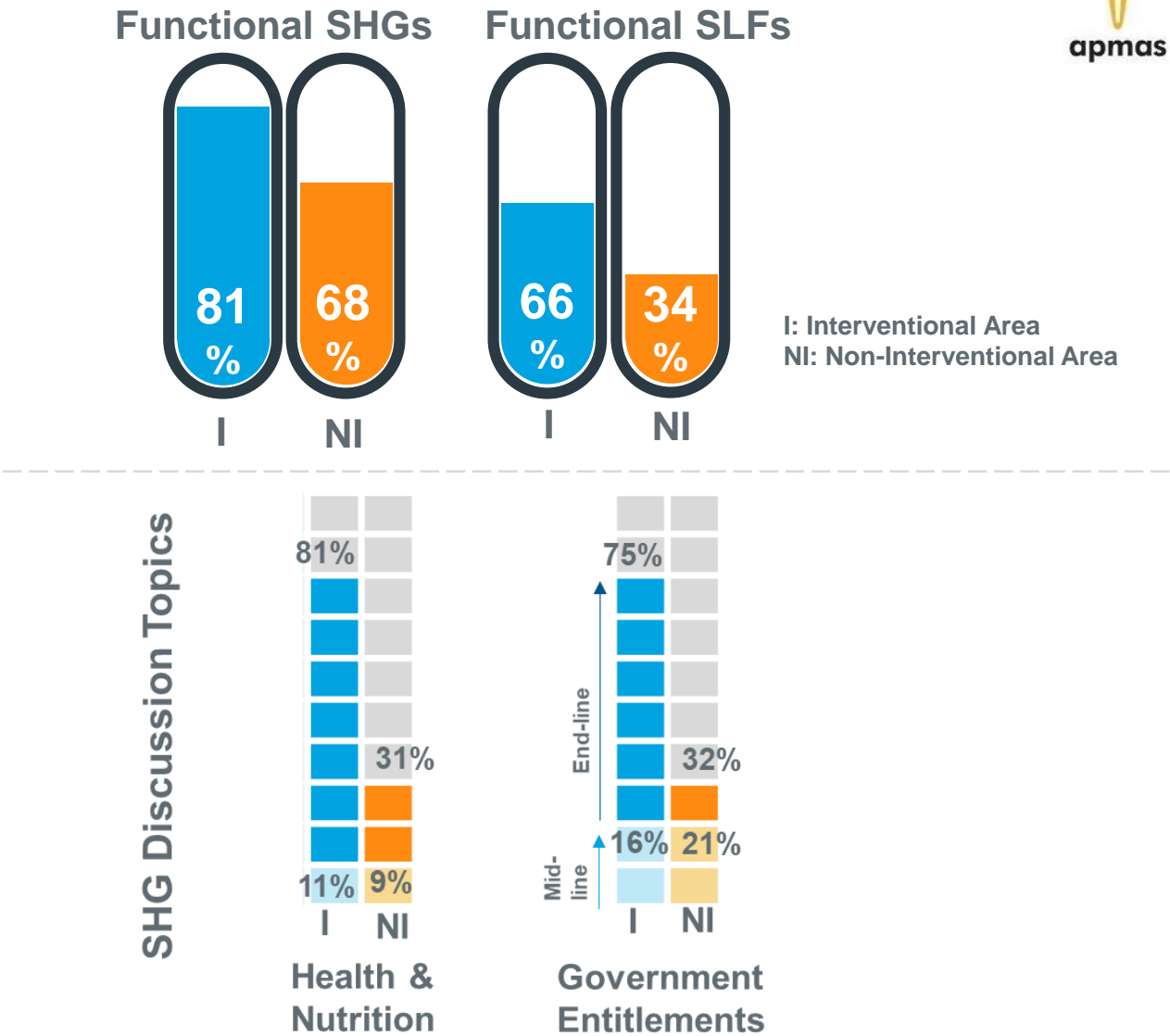
Note: The KAB model clarifies the mechanism by which the interventions affect key outcomes. **The end-line second order analysis focusses primarily on measuring the impact rather than explaining how the impact was achieved.**

SHG-SLF Revival (& Awareness)

Focused interventions in MARPU increased active SHGs and sensitized them on the importance of Health & Nutrition

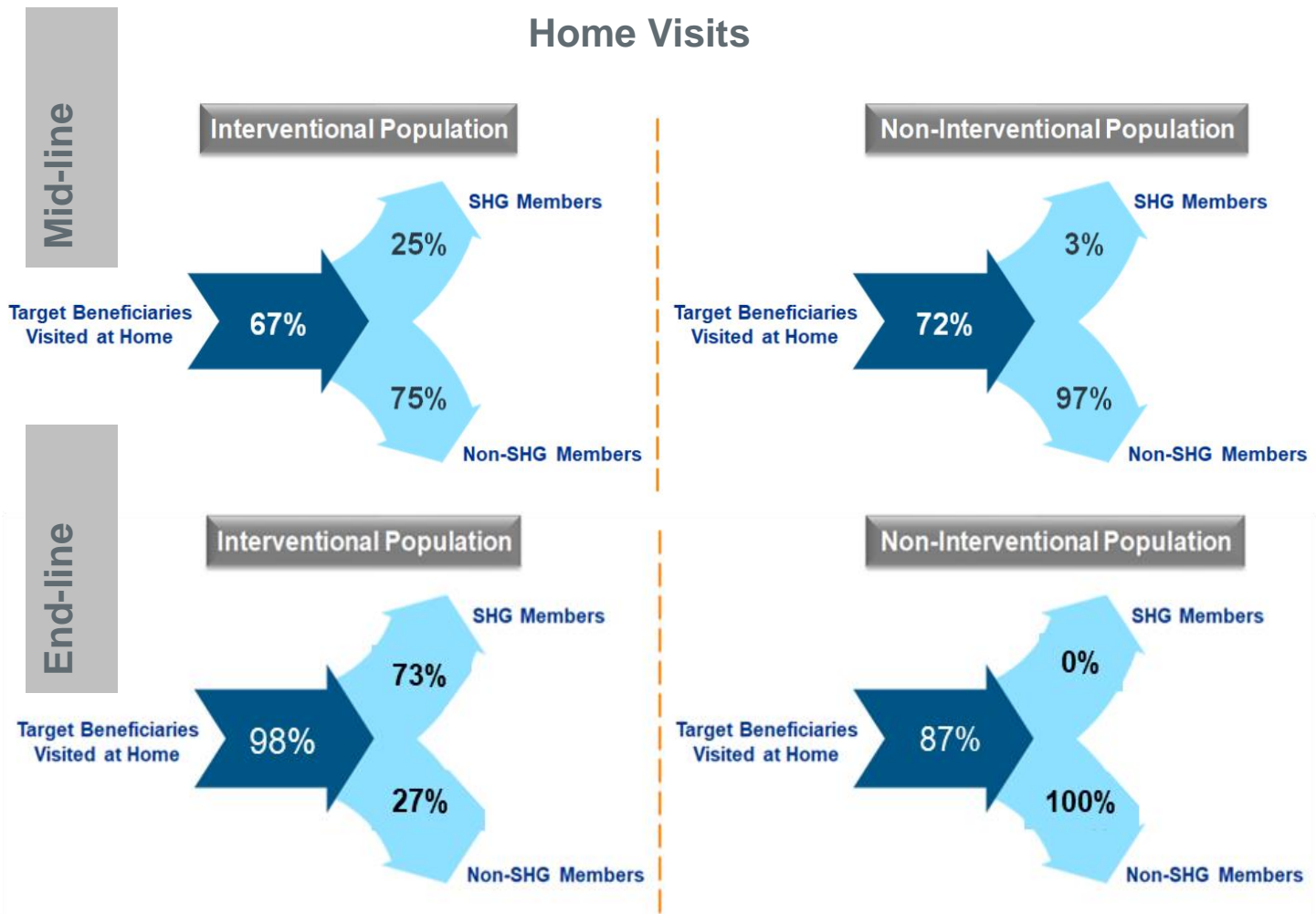


-  Stakeholder Convergence
-  Exposure Visits
-  Creative Events
-  Community Mobilization



Intervention Coverage

SHGs social capital enabled them to reach the uncovered population



SHG Social Capital



Social Media



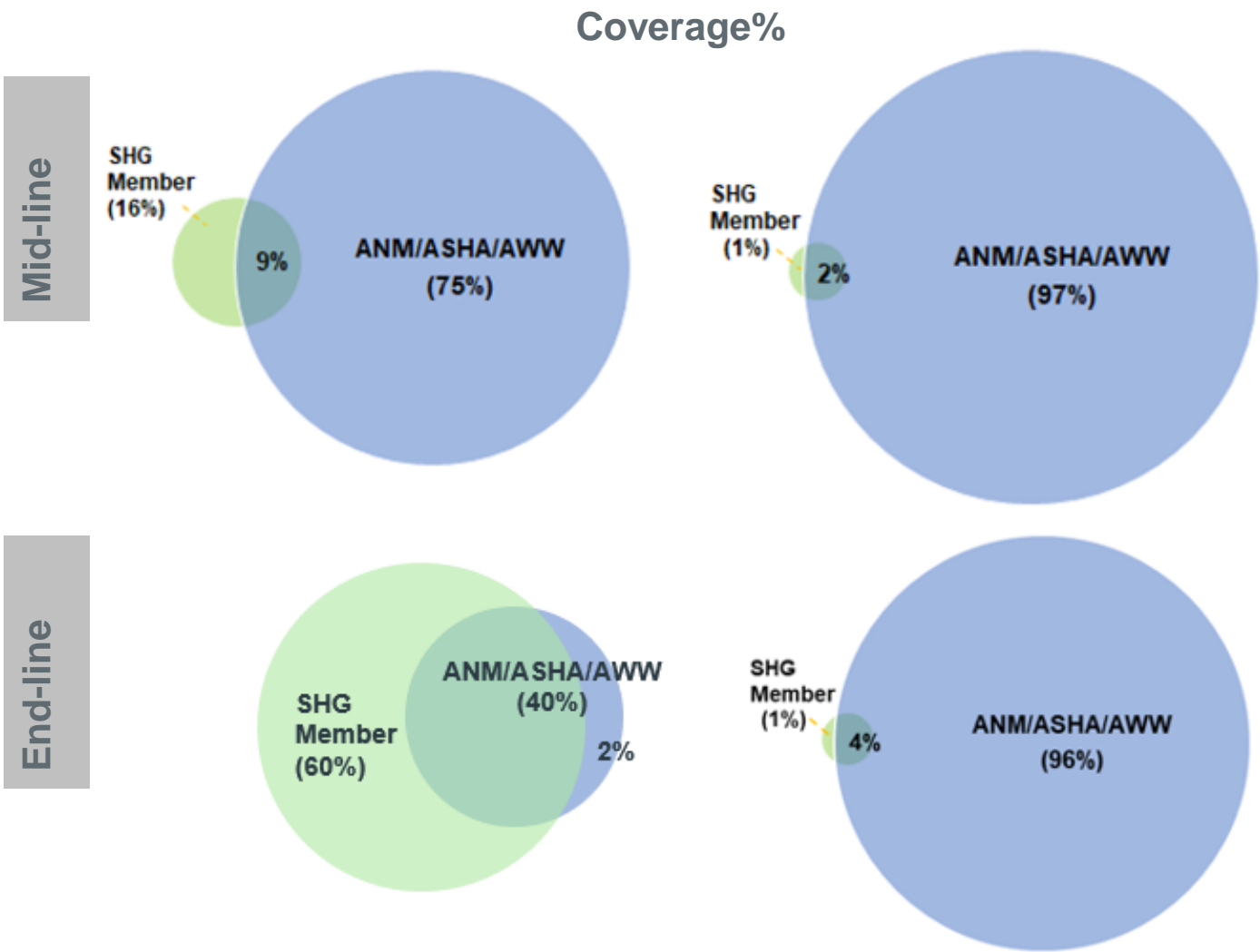
Influencer Inclusion



MIS Tracking

Intervention Coverage

SHGs social capital enabled them to reach the uncovered population



SHG
Social Capital



Social
Media



Influencer
Inclusion





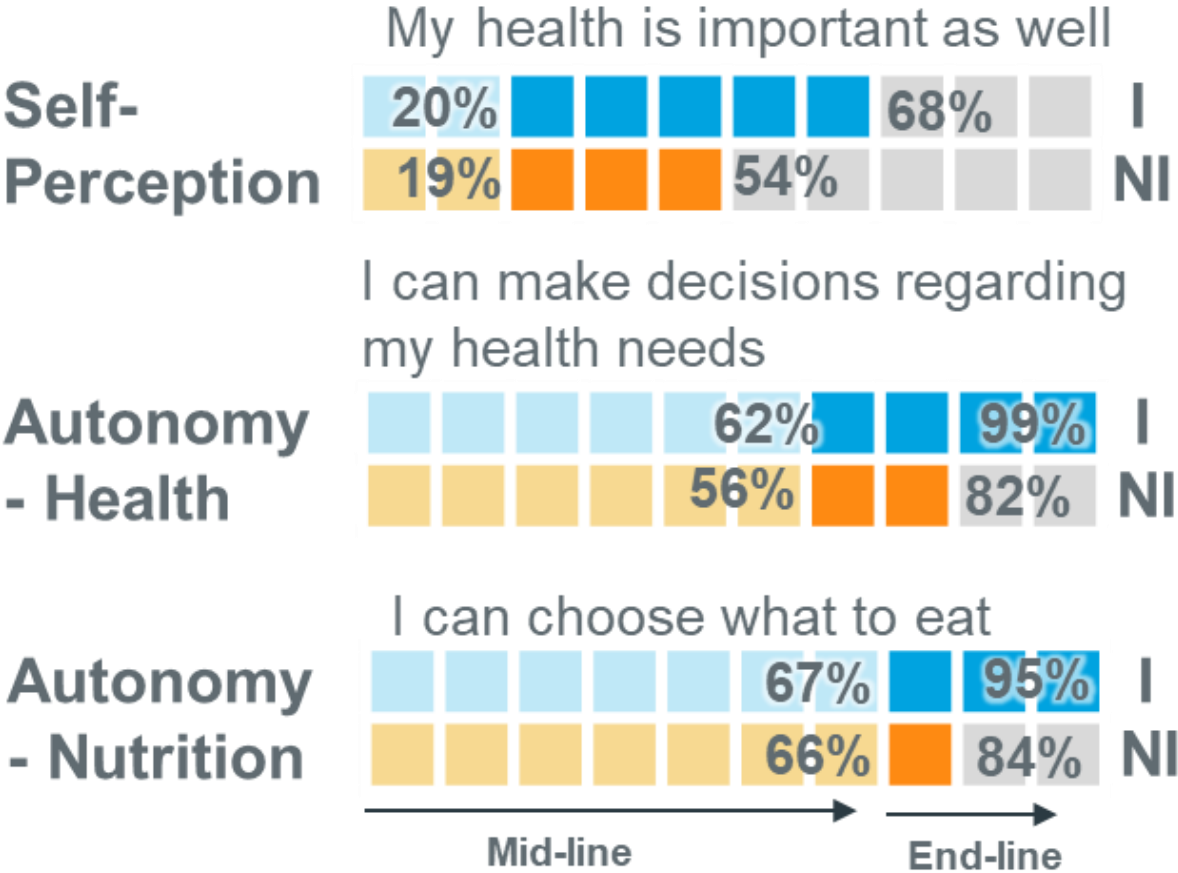
MIS
Tracking

Self-Perception & Decision Making Autonomy

PLW now understand the importance of their health and wellness. MARPU interventions supplemented efforts of similar government interventions..



-  Gender Training
-  Knowledge & Awareness
-  Family Support
-  Innovative Solutions



I: Interventional Area
NI: Non-Interventional Area

Self-Perception & Decision Making Autonomy

PLW now understand the importance of their health and wellness. MARPU interventions supplemented efforts of similar government interventions..



Autonomy to make health related decisions increased by 9.5%

DIFFERENCE-IN-DIFFERENCES WITH COVARIATES

DIFFERENCE-IN-DIFFERENCES ESTIMATION RESULTS

Number of observations in the DIFF-IN-DIFF: 1600

	Before	After		
Control:	380	414	794	
Treated:	412	394	806	
	792	808		
Outcome var.	Health Autonomy	S. Err.	t	P> t
Mid-Line (Jun 2019)				
Non-Interventional Areas (NI)	0.553			
Interventional Areas (I)	0.624			
Difference (I – NI)	0.071	0.030	2.37	0.018**
End-Line (Feb 2020)				
Non-Interventional Areas (NI)	0.818			
Interventional Areas (I)	0.985			
Difference (I – NI)	0.167	0.030	5.60	0.000***
Diff-in-Diff	0.095	0.042	2.26	0.024**

* Means and Standard Errors are estimated by linear regression

Inference: * p<0.01; ** p<0.05; * p<0.1

Autonomy to make nutrition related decisions increased by 7.8%

DIFFERENCE-IN-DIFFERENCES WITH COVARIATES

DIFFERENCE-IN-DIFFERENCES ESTIMATION RESULTS

Number of observations in the DIFF-IN-DIFF: 1600

	Before	After		
Control:	380	414	794	
Treated:	412	394	806	
	792	808		
Outcome var.	Nutrition Autonomy	S. Err.	t	P> t
Mid-Line (Jun 2019)				
Non-Interventional Areas (NI)	0.641			
Interventional Areas (I)	0.667			
Difference (I – NI)	0.026	0.030	0.88	0.380
End-Line (Feb 2020)				
Non-Interventional Areas (NI)	0.845			
Interventional Areas (I)	0.950			
Difference (I – NI)	0.104	0.029	3.54	0.000***
Diff-in-Diff	0.078	0.042	1.87	0.061*

* Means and Standard Errors are estimated by linear regression

Inference: * p<0.01; ** p<0.05; * p<0.1



Gender Training



Knowledge & Awareness



Family Support



Innovative Solutions

Dietary Diversity

Women ate more frequently and dietary diversity improved



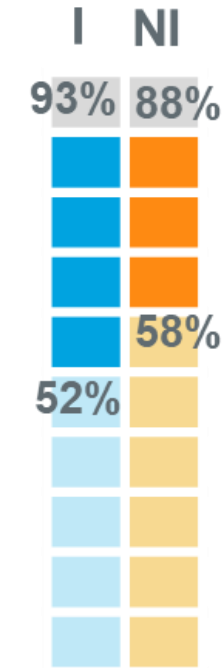
Dietary Knowledge



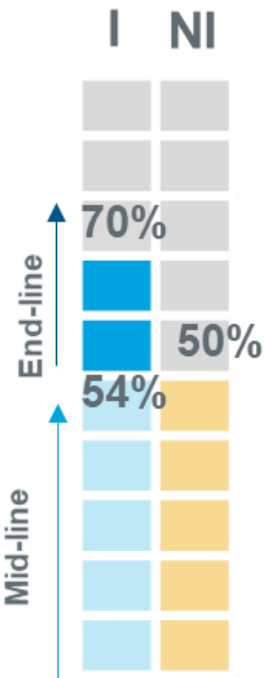
Low-cost Recipes



Tracking Calendar



Minimum Dietary Diversity



Frequency of Meals

Minimum dietary diversity increased by 11.5%

DIFFERENCE-IN-DIFFERENCES WITH COVARIATES

Outcome var.	Dietary Diversity	S. Err.	t	P> t
Diff-in-Diff	0.115	0.047	2.44	0.015**

* Means and Standard Errors are estimated by linear regression
Inference: * p<0.01; ** p<0.05; * p<0.1

13.7% more women ate at least 4 times a day (frequency)

DIFFERENCE-IN-DIFFERENCES WITH COVARIATES

Outcome var.	Meal Frequency	S. Err.	t	P> t
Diff-in-Diff	0.137	0.056	2.46	0.014**

* Means and Standard Errors are estimated by linear regression
Inference: * p<0.01; ** p<0.05; * p<0.1

Dietary Diversity

Improved dietary diversity wasn't an outcome of increased expenses



	Dietary Knowledge
	Low-cost Recipes
	Tracking Calendar

	Location		Monthly Per Capita Household Income		Monthly Per Capita Household Expenses			Monthly Per Capita Household Food Expenditure	
Mid-line	Intervention		4562 ± 2565		2679 ± 1725	58.7%		1372 ± 887	30.1%
	Non Intervention		4722 ± 2611		2816 ± 1944	59.6%		1257 ± 713	26.6%
End-line									
	Intervention		4593 ± 2565		2499** ± 1183	54.4%		1350** ± 542	29.4%
	Non Intervention		4853 ± 2485		2702** ± 1253	55.7%		1398** ± 572	28.8%

** Expenses corrected to include seasonal variations

Breastfeeding: Early Initiation & Exclusive



Respondents showed clear understanding of early initiation of breast feeding and significant improvements were seen in exclusive breastfeeding

Increased Knowledge
Improved exclusive
breast-feeding practices



Exclusive Breast-feeding

97%

97% of lactating women were advised on the importance of exclusive breastfeeding – almost a 60% increase from the mid-line.

Non interventional areas saw a similar increase in counselling as well.

95% Early Initiation of Breastfeeding

Over 95% of lactating women in interventional areas identified the advantages of early initiation of breastfeeding. A 25% increase from the midline survey.

87% (20% more than the midline) of the respondents from Non-interventional areas also showed clear understanding

18.3% more women practice exclusive breast-feeding

Almost 75% of women initiate breast-feeding early. There were no statistically significant differences between interventional and non interventional areas though w.r.t early initiation.

DIFFERENCE-IN-DIFFERENCES WITH COVARIATES

Outcome var.	Exclusive Breast-Feeding	S. Err.	t	P> t
Diff-in-Diff	0.183	0.110	1.67	0.096*



Addressing
Taboos



Training



Consistent
Follow-ups

Sleep, Rest & ICDS Services

Improvement in sleep, rest and availing ICDS services were due to consistent grassroots efforts



6.2% more women slept for at least 8 hours at night

DIFFERENCE-IN-DIFFERENCES WITH COVARIATES

Outcome var.	8-Hours Sleep	S. Err.	t	P> t
Diff-in-Diff	0.062	0.029	2.14	0.032**

* Means and Standard Errors are estimated by linear regression
Inference: * p<0.01; ** p<0.05; * p<0.1

8.9% more women rested for at least 2 hours during the day

DIFFERENCE-IN-DIFFERENCES WITH COVARIATES

Outcome var.	2-Hours Rest	S. Err.	t	P> t
Diff-in-Diff	0.089	0.034	2.60	0.010***

* Means and Standard Errors are estimated by linear regression
Inference: * p<0.01; ** p<0.05; * p<0.1



Addressing
Taboos



Stakeholder
Convergence



Citizen
Inspections



Family
Support

Sleep, Rest & ICDS Services

ICDS services are availed by over 90% of the respondents. Both – public grassroots workers and SHGs have ensured 100% coverage.



7.4% more women avail supplementary feeding services for more than 21 days

DIFFERENCE-IN-DIFFERENCES WITH COVARIATES

Outcome var.	ICDS Utilisation	S. Err.	t	P> t
Diff-in-Diff	0.074	0.034	2.19	0.028**

* Means and Standard Errors are estimated by linear regression

Inference: * p<0.01; ** p<0.05; * p<0.1



Addressing Taboos



Stakeholder Convergence



Citizen Inspections



Family Support

What next?



Policy Briefs



- Utilising SHGs Social Capital
- Leveraging the Community Resource Person
- Counselling Influencers
- Convergence
- Technology

Academic Publications



- SHG impact on social change
- Decision Making Autonomy of Women
- Developing Community Leaders

Public Dissemination



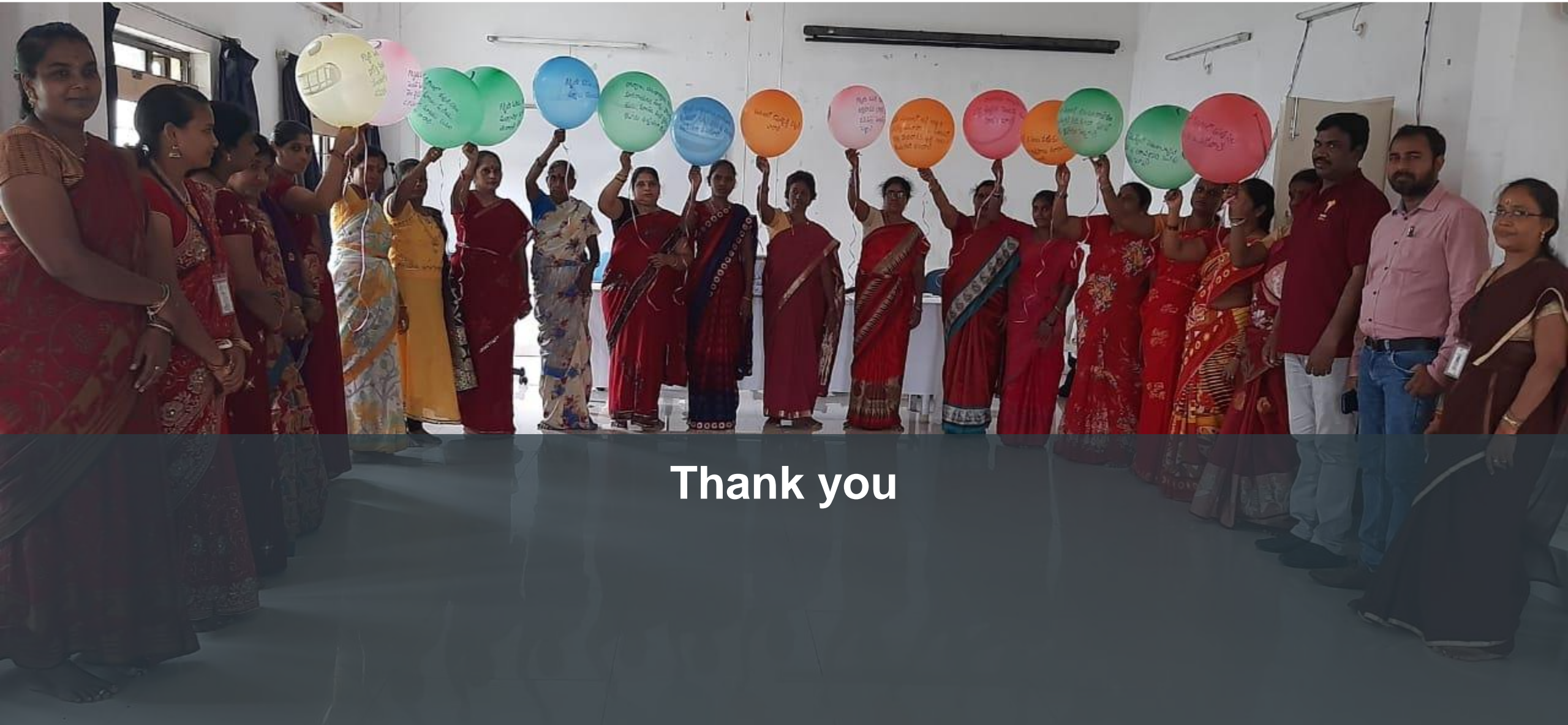
- Social Media
- Webinars & Online Conferences
- Presentations

Scale-Up



Will be discussed next

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Thank you