

Impact of district-level support on child growth

Evidence from a large-scale government-development agency collaboration

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Background

- India has programs targeting the first 1,000 days
- Substantial variability in implementation of these programs at the district-level
- Multiple development agencies supported system strengthening approaches post 2016



Objective

To assess impact of district-support models on child growth

Grouped support features using k-means clustering algorithm

Human resource intensive (HRI)



FLW capacity building



Financial support



Human resources



Community mobilization



AWC infrastructure



Technology support



DM support



Performance incentives

Grouped support features using k-means clustering algorithm

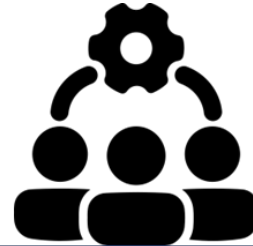
Finance and service support (FSI)



FLW capacity building



Financial support



Human resources



Community mobilization



AWC infrastructure



Technology support

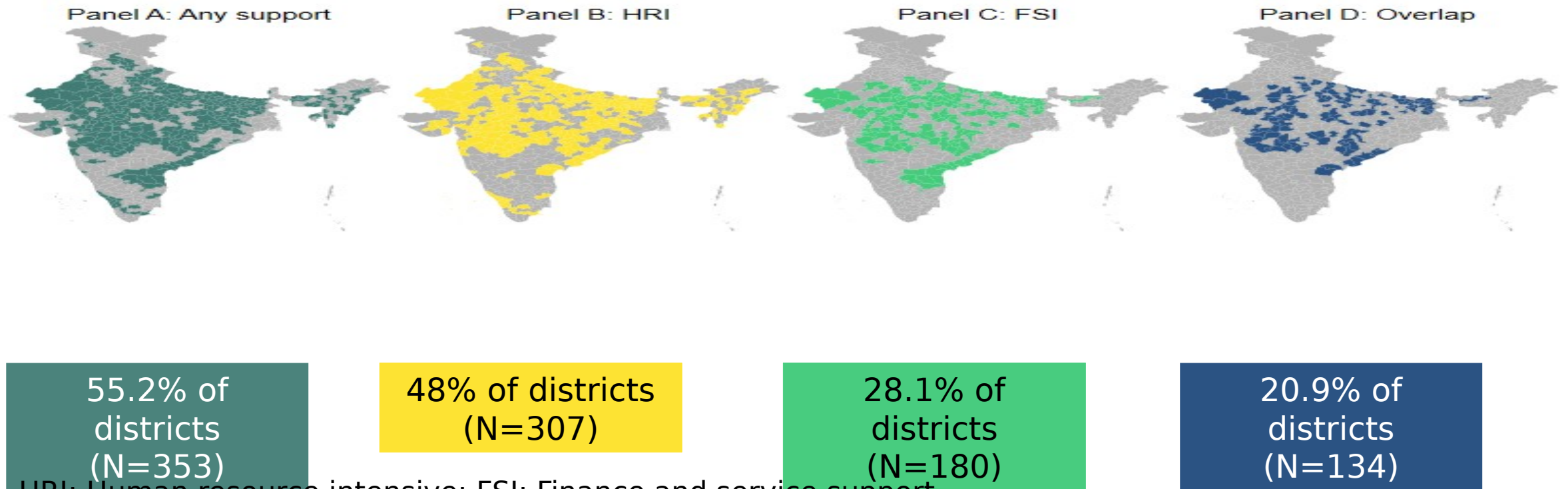


DM support



Performance incentives

More than half of the districts received any support; one-fifth received an overlap of support type



HRI: Human resource intensive; FSI: Finance and service support

Merged mother-last child pairs data with district -level dataset on support groups

Mother-last child pairs data from fourth (N=185,101) and fifth (N=172,426) round of National Family Health Survey with district identifiers



District-level dataset with dummies for district support groups (HRI, FSI, and overlap)

Assessed impact on set of evidence-based interventions and child growth

- Provision of health and nutrition interventions
- Growth in children below five years:
 - Height-for-age z-scores (HAZ)
 - Weight-for-age z-scores (WAZ)

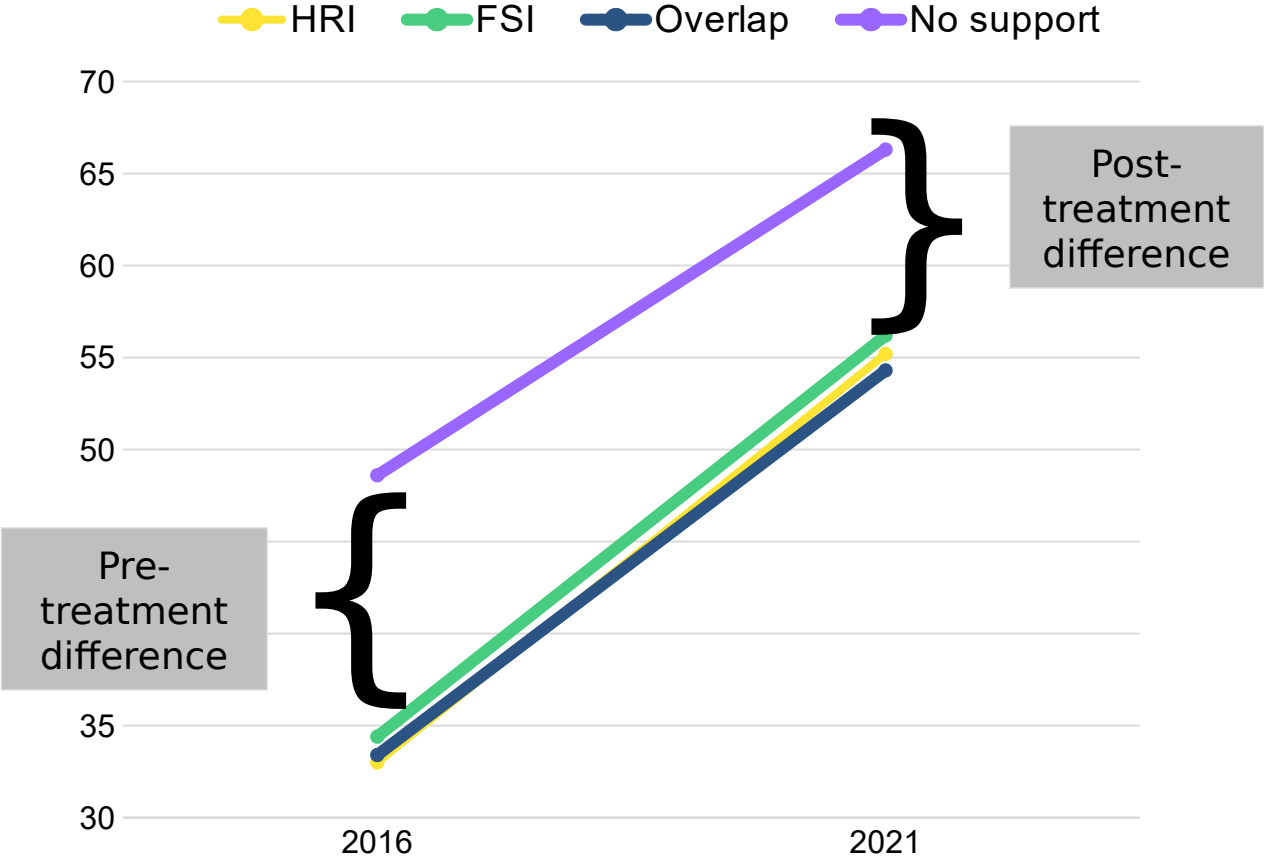


Using district support combinations, implemented difference-in-differences with heterogeneous treatment

Effect of HRI = (Post-treatment difference between HRI and no support) - (Pre-treatment difference between HRI and no support)

Effect of FSI = (Post-treatment difference between FSI and no support) - (Pre-treatment difference between FSI and no support)

Effect of overlap = Effect of HRI + Effect of FSI + Additional change from overlap



HRI: Human resource intensive; FSI: Finance and service support

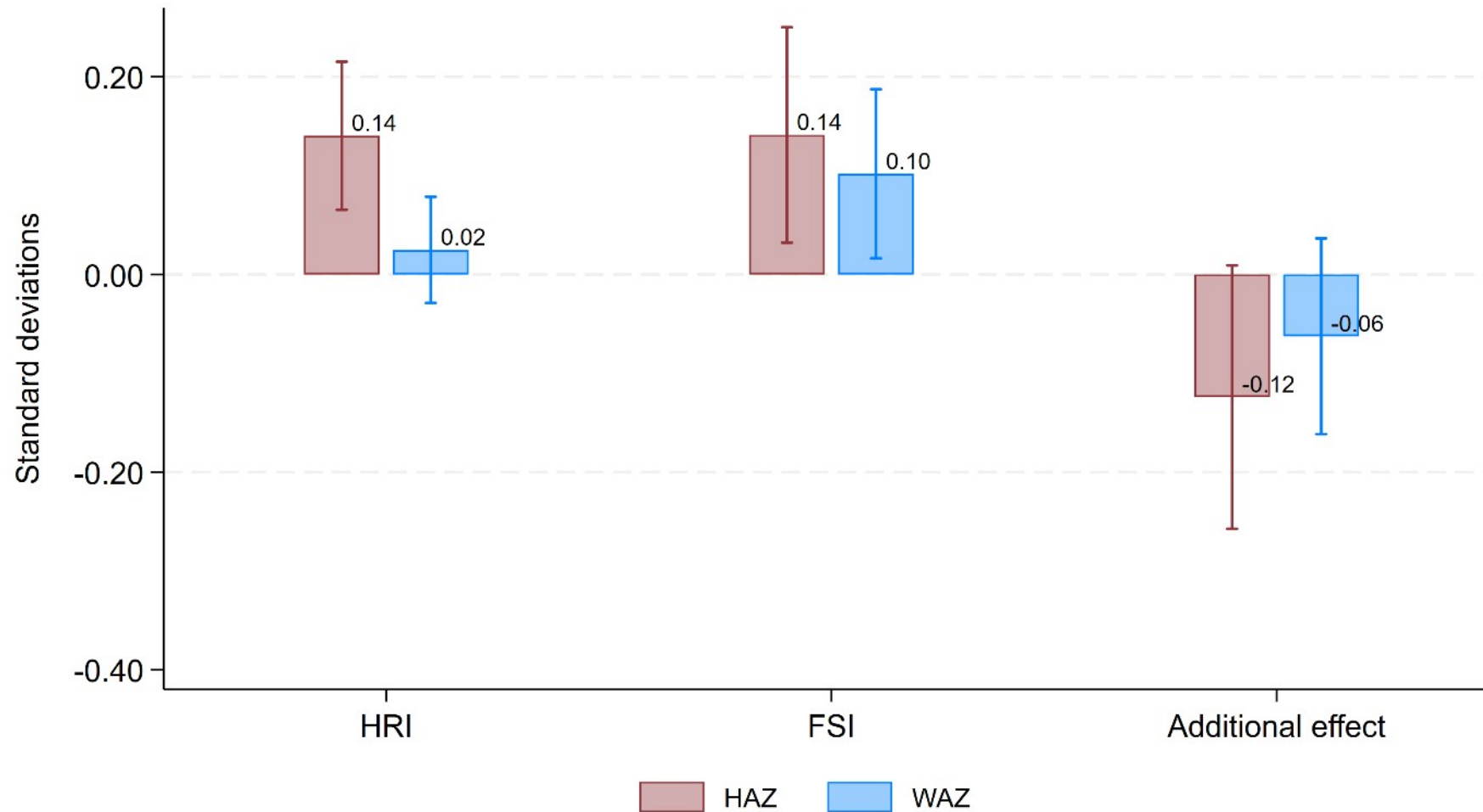
Additional improvements in coverage of health and nutrition interventions

	Effect from HRI (A)	Effect from FSI (B)	Additional effect from overlap (C)	Effect from overlap (A+B+C)
≥4 ANC	3.9*	4.6*	-6.5*	2.0
Nutrition counselling	8.3***	7.6**	-11.2**	4.7*
Vitamin A	4.1*	8.8**	-7.3*	5.6**

***P<0.001 **P<0.01 *P<0.05

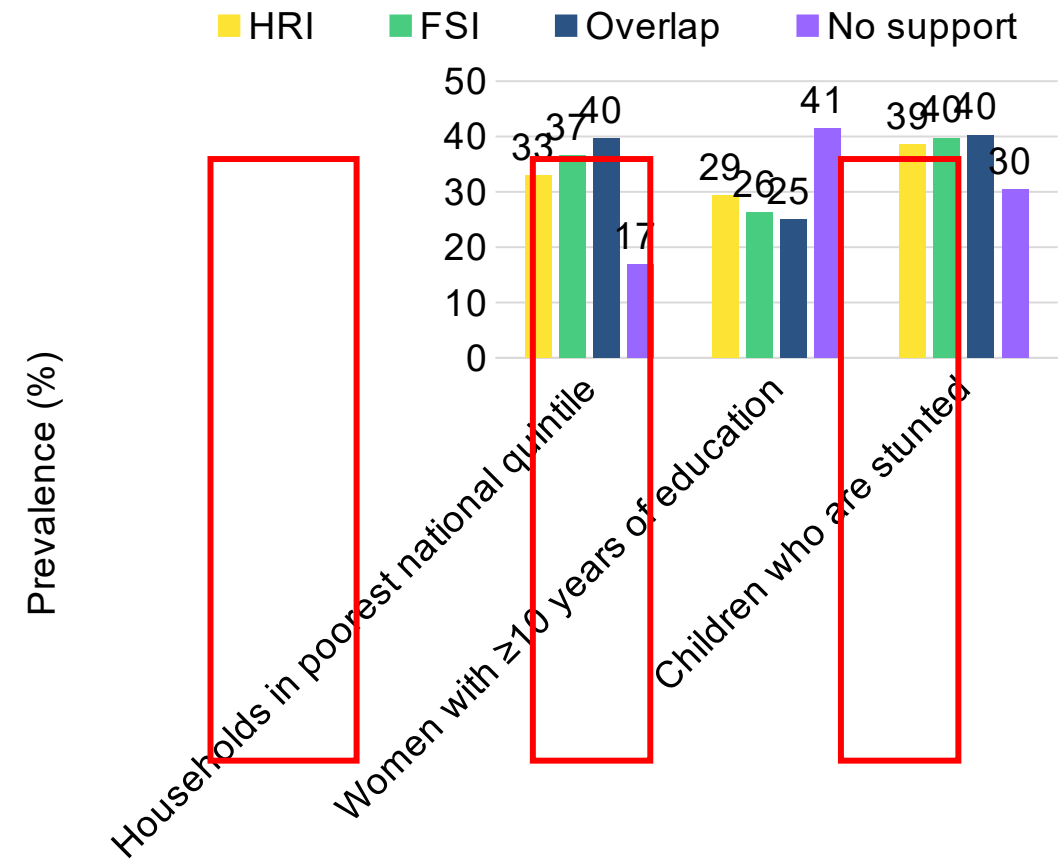
HRI: Human resource intensive; FSI: Finance and service support; ANC: Antenatal care

Districts targeted for support had faster progress in child growth. No additional benefit from receiving an overlap of support.



Why is an overlap of support not associated with additional improvements?

1. District with overlapping support were less developed in 2016
2. Potential coordination issues resulting in thinly spread inputs



Key takeaways

- Financial and service support was associated with faster progress in coverage of health and nutrition interventions and child growth
- No evidence of synergistic effect of overlapping support observed
- Further research needed to identify optimal package of inputs

