



SASHA



Sweetpotato Action for
Security and **Health** in **Africa**

Preliminary Results from Mama SASHA Project Western Kenya

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5th SPHI Annual Meeting
Nairobi, Kenya 9-12th Sep 2014

Goal & Objectives



Goal: To assess the cost effectiveness of integrating OFSP into an existing **health service delivery program*** to improve the health status of pregnant women and the nutritional status of children up to two years in selected districts(counties) of Western Kenya



- **Objective 1:** Strengthen the utilization of **IEC materials** at both the health facility and community levels to support OFSP production and consumption



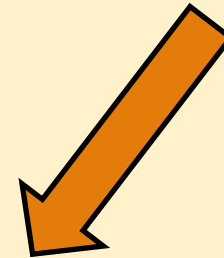
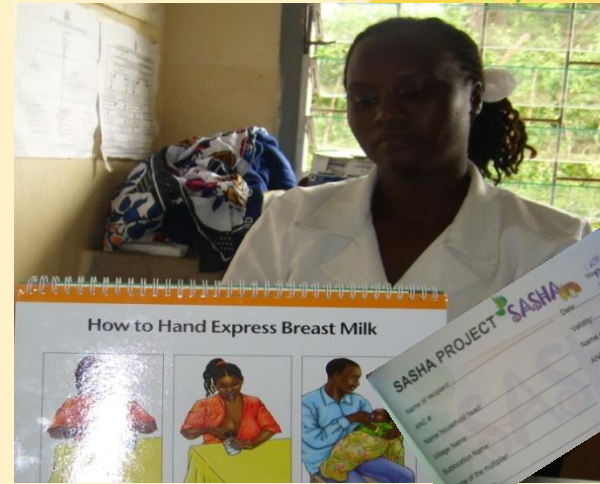
- **Objective 2:** Improve the **evidence base** of the health impacts on infants and their mothers and the use of health services by pregnant women



- **Objective 3:** Assess the **costs and benefits** of linking an integrated OFSP agricultural-nutritional intervention to a health service delivery system serving pregnant women

* APHIA plus

Mama SASHA



Major Achievements Y5



- Conclusion of the voucher distribution
 - August 2013
- Redemption completed
 - December 2013
- Preliminary analysis of financial costs of Mama-SASHA
 - May 2014 (being updated)
 - >5,400 women participated in monthly PMCs: \$63 per woman
 - 4,629 women received vouchers
 - 3,281 women (71%) redeemed vouchers & planted OFSP at a cost of \$105 per beneficiary

Major Achievements Y5: 1



- COVA food consumption survey completed
 - Nov 2013 – Feb 2014
 - Doubling of vitamin A dietary intakes in intervention areas compared to control areas
 - Differences attributed to OFSP intakes
 - Further analysis currently ongoing
- COVA data collection completed
 - June 2014
 - Visit 1 (N=505); Visit 2 (N=383); Visit 3 (N=399); Visit 4 (N=384)

Major Achievements Y5: 2



- COVA blood sample lab analyses for v1-v3 completed
 - May 2014
 - Last batch (V4) shipped at end of August 2014 (Germany)
- COVA breastmilk samples lab analyses for v3-v4
 - Ongoing at Egerton U
 - V3 samples: end of Sep 2014
 - V4 samples: end of Oct 2014
 - Shipments (both V3 & V4 samples) to Emory U

Major Achievements Y5: 3



- Endline survey completed
 - Oct 2013 – May 2014
 - Questionnaire administration (interviews), biological sample collection [DBS & serum (sub-sample)], anthropometry, & same day on-field data entry.
 - Sample size: 2,585
 - Completed: 2,506
 - Intervention: 1,281
 - Control: 1,225
 - Baseline (403); COVA participants (190)

Endline Survey in action



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Endline Survey in action

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Endline Survey in action



Major Achievements Y5: 4



- Endline survey completed
 - MCP (2,172); PW (241); MCP&PW (93)
 - Blood sampling done: 2,246 (out of 2,265)
 - Intervention: 10 refusal or child too sick
 - Control: 9 refusal or child too sick
 - GPS obtained: 2,506
 - Lab analysis of DBS completed
 - Data analysis ongoing
 - Post-coding & data cleaning completed
 - Preliminary analysis and writeup ongoing

PRELIMINARY FINDINGS

Consumption of OFSP by Control & Intervention sites at endline



Outcome	Control (N=1225)	Intervention (N=1281)	P-value
HH cons. OFSP in previous 24h	1.9%	15.7%	<0.0001
Child cons. of OFSP in previous 7d	4.5%	33.5%	<0.0001
Mother cons. of OFSP in previous 7d	5.0%	34.5%	<0.0001
Produced OFSP in 2012/2013	4.6%	55.7%	<0.0001

Consumption of OFSP by degree of participation at endline¹



Outcome	Control	Partial part.	Full part.	P-value
HH cons. of OFSP in previous 24h	1.9%	11.1%	35.7%	<0.0001
Child cons. of OFSP in previous 7d	4.5%	30%	63%	<0.0001
Mother cons. OFSP in previous 7d	5%	27.1%	66.8%	<0.0001
Produced OFSP in 2012/2013	4.6%	45.7%	93.3%	<0.0001

¹: Degree of participation

Control= control sites HH (N=1225)

Partial participation= other intervention (none and partial) (N=1039; none=614, partial=425)

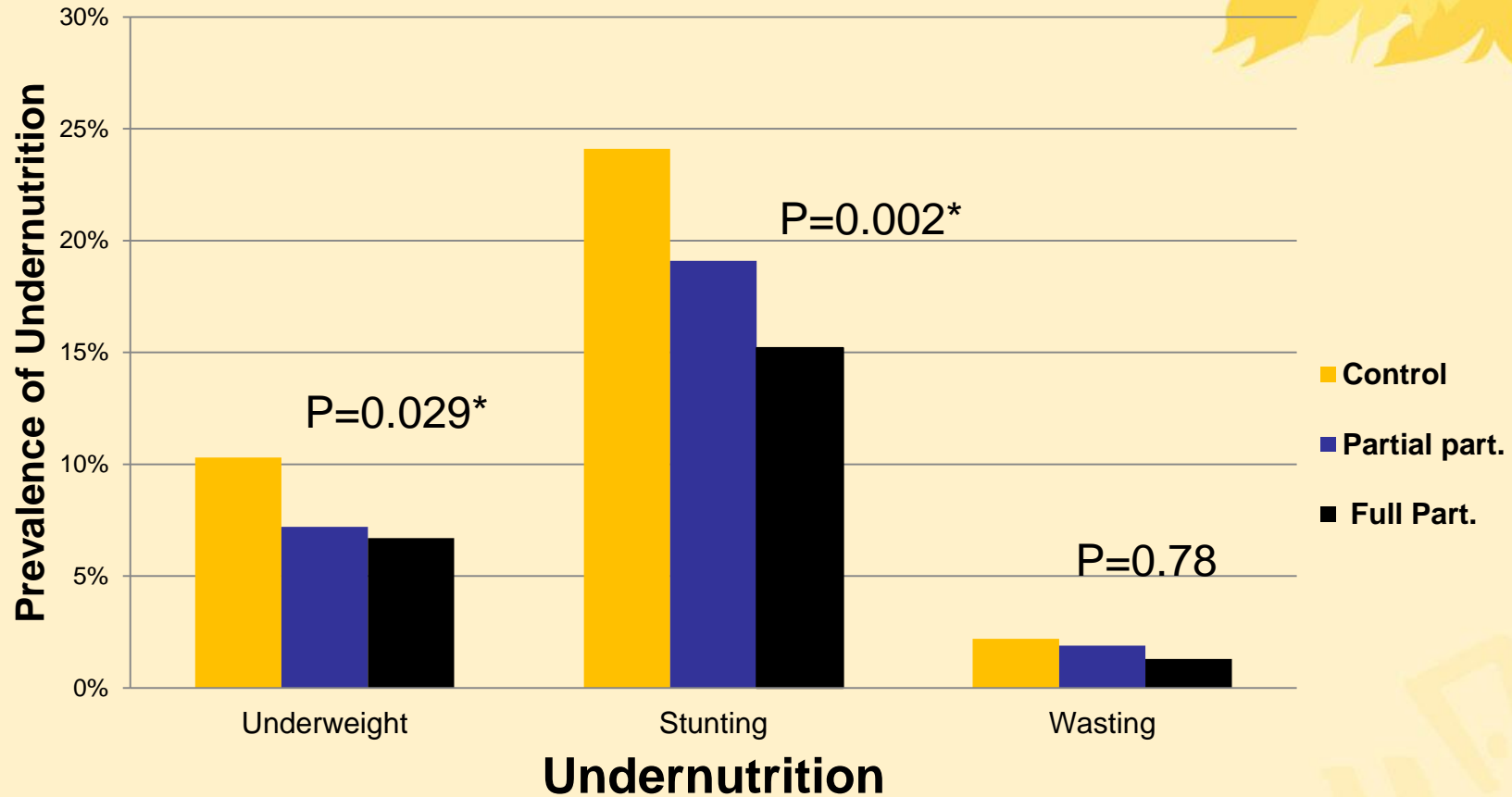
Full participation= from intervention and full participation (**received voucher and redeemed vines and participated in mother club meetings**) (N=241)

Nutrition & health practices



Variable	Control (N=1105)	Intervention (N=1160)	P-value*
Caregiver VA food cons. freq. score, $\bar{X} \pm SD$ Adequate (>6 days)	4.50±3.9 24.1%	4.77±4.3 25.4%	0.12 0.08
Child VA food cons. freq. score, $\bar{X} \pm SD$ Adequate (>6 days)	3.62±3.8 28.1%	4.07±4.5 28.3%	0.01 0.60
HH Dietary Diversity Index, $\bar{X} \pm SD$ High (6-10)	4.46±1.4 21.3%	4.73±1.5 28.2%	<0.001 <0.0001
Reference Child Dietary Diversity Index, $\bar{X} \pm SD$ High (4-7)	2.78±1.2 26.2%	3.04±1.2 32.7%	<0.001 <0.001
Nutrition Knowledge Score, $\bar{X} \pm SD$ High (11-24)	8.42±3.9 29.0%	9.43±3.9 36.6%	<0.001 <0.0001
Health & Childcare Knowledge Score, $\bar{X} \pm SD$ High (16-25)	13.13±3.1 23.1%	13.4±3.2 29.9%	0.02 <0.001
OFSP Knowledge Score, $\bar{X} \pm SD$ High (3-6)	2.19±1.1 35.2%	3.00±1.4 62.7%	<0.001 <0.0001

Children's nutritional status by degree of participation at endline



Impact of Mama SASHA intervention on the prevalence of undernutrition among children



Figure 5: Change in prevalence of underweight among children 6-23 mo of age from baseline to endline¹

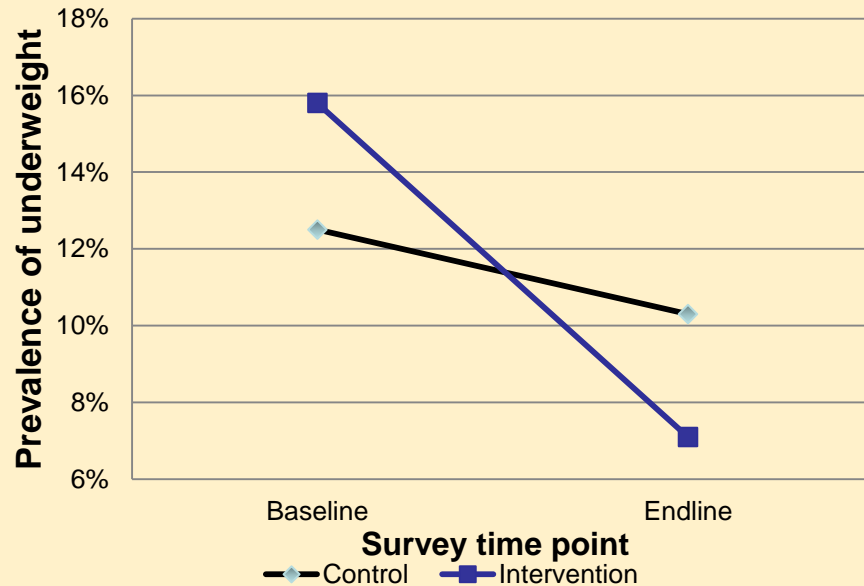
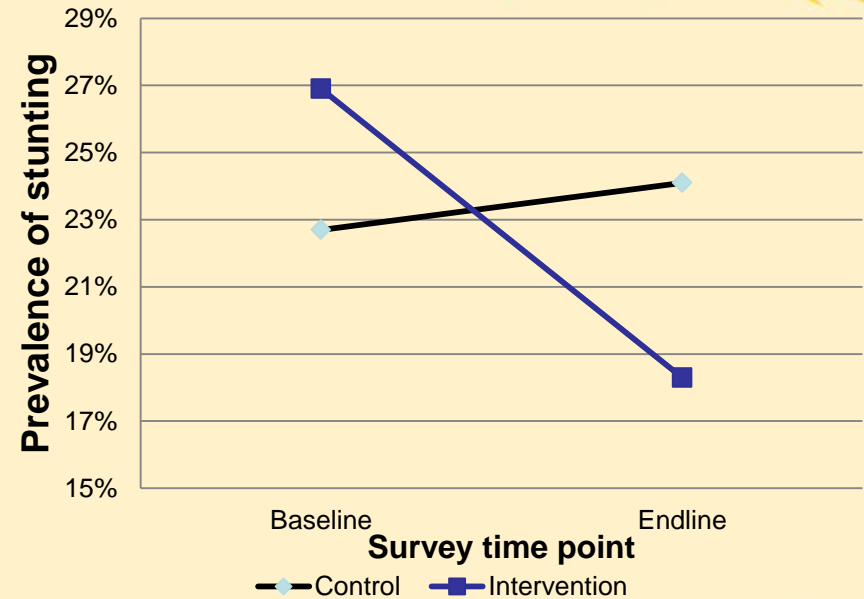


Figure 6: Change in prevalence of stunting among children 6-23 mo of age from baseline to endline¹



Impact estimate = 6.5%**

Impact estimate = 10%**

¹Difference-in-difference (DID) impact estimates between control & intervention groups controlled for child sex, clustering. ** p<0.05 for DID estimates.

Evidence in improvement in health seeking behavior



Source: Monitoring data

Variable	Control	Intervention	P-value
ANC Number attendance (2011-2013)			
No. of 1st ANC Visits	5,254	9,283	<0.001
No. of 2nd ANC Visits	2,788	2,875	
No. of 3rd ANC Visits	1,279	890	
No. of ≥4th ANC Visits	418	193	
Total ANC visits	9,739	13,241	
ANC attendance by trimester of pregnancy			<0.001
No. of 1st Trimester Visits	192	592	
No. of 2nd Trimester Visits	2,974	6,419	
No. of 3rd Trimester Visits	1,196	3,363	
Total Trim visits	4,362	10,374	

Evidence in improvement in health seeking behavior



Source: Operational Research

	Intervention vs. Control	p-value	After vs. Before	p-value	Impact	p-value
1st ANC Visits	2.29	0.000	1.10	0.000	1.25	0.000
2nd ANC Visits	2.11	0.000	1.10	0.000	1.28	0.000
3rd ANC Visits	2.22	0.000	0.97	0.288	1.22	0.001
4th ANC Visits	1.71	0.000	1.03	0.449	1.09	0.227
Total ANC Visits	2.33	0.000	1.06	0.000	1.13	0.000
1st Trimester Visits	7.28	0.000	1.69	0.000	2.42	0.000
2nd Trimester Visits	3.77	0.000	1.17	0.000	0.74	0.000
3rd Trimester Visits	3.30	0.000	0.92	0.001	0.36	0.000
Total Trimester Visits	4.01	0.000	1.19	0.000	0.56	0.000

Thanks for the
attention