

EXECUTIVE SUMMARY

INTRODUCTION

Anemia among pregnant women aged 15–49 years is a public health problem that is emerge in Indonesia, as many as 37.1% of pregnant women aged 15–49 years have anemia (RISKESDAS 2013). NI supports the Indonesian government by demonstrating a model to increase coverage and compliance in taking IFA supplements on pregnant women.

NI replicates elements of processes that have an impact to increase the coverage and compliance of the IFA program in 4 provinces (West Java, Banten, West Nusa Tenggara, and Riau). In the first 2 (two) years, NI has expanded the program in West Java and Banten Provinces followed by West Nusa Tenggara and Riau in the 3rd and 4th years. In addition, there was also an expansion of Zinc and ORS programs to treat children with diarrhoea in Banten.

The main purpose of this survey is to provide estimates of final data from IFA coverage and compliance as well as Zinc ORS program in the NI intervention area in Indonesia.

METHODOLOGY

Regarding the intervention program, NI and the PPKUI conducted an intervention study. This study uses a pre and post intervention survey design with a comparison group. Quantitative and qualitative approaches are used to collect data throughout the study region. Baseline and end-line study for the program evaluation is a cross-sectional study. Replication of the Zinc ORS program compared to monitored study using the Large Country-Lot Quality Assurance Sampling method (LC-LQAS). Respondents of IFA study are mothers with baby with the maximum age is 6 months before the survey or pregnancy period between June 2017 - September 2018. While respondents of Zinc ORS study are caregivers of children with diarrhoea during 1 month ago. Study area of endline study are as follow. Sites for IFA intervention program are Banten, West Java, West Nusa Tenggara and Riau, while for the comparison sites are Jambi and Central Java. Sites for Zinc –ORS program intervention are Banten, West Java, and West Nusa Tenggara, and as the comparison site is Gorontalo.

This report shows the comparison between baseline and end-line only for the similar provinces in both types area. The intervention area of the IFA program is identical between the baseline and end-line, those are Banten and West Java provinces, while for the comparison area is also similar sites, that are Jambi and Central Java. The locations for Zinc–ORS program also identical, in the baseline the intervention site in West Nusa Tenggara and the comparison site is Gorontalo.

This report also tried to compare different province intervention and comparison group, in end-line analysis included the intervention area which doesn't has the baseline data. Group of IFA program for intervention are Banten, West Java, West Nusa Tenggara & Riau, and the comparison remain Central Java and Jambi provinces. The similar model also applied for Zinc and ORS program, in end-line

analysis included **Banten, West Java, and West Nusa Tenggara** in intervention group, and the provinces of comparison remain Gorontalo province (see supplement).

RESULT

Findings of IFA Program

The Coverage of IFA Supplement. As a national program for years, pregnant mothers aware of IFA supplementation, since almost all of them declared that they ever received and consumed IFA tablet from any sectors (all above 95% coverage at baseline). The comparison between baseline and end-line show, almost in all sites the coverage decreased significantly with p-value <0.05). However, the effect of the intervention detected in Banten and Jambi. In Banten, as intervention site, the coverage of receipt any IFA tablets decreased 6% (from 98% to 92%) compared to Jambi 17% (from 98% to 81%). Unfortunately, the pattern was not detected in West Java and Central Java. West Java as the intervention site decreased by 12% (96% to 84%), but Central Java the coverage increased by 2% (from 98% to 99.7%)

Although the IFA program has already known by the pregnant mothers, the coverage of receipt at least 90% of IFA tablets is still low (around 50% to 70%). However, intervention site, such as Banten decreased lower or 14% (from 75% to 61%) compared to Jambi as comparison site (29%, or from 52% to 23%). Meaning that although the intervention cannot improve the coverage, it can slow down the decrement. However, this cannot be seen in West Java as intervention sites and Central Java. Since as intervention sites, West Java decreased 13% coverage (from 51% to 38%), but as a comparison site, Central Java can keep the coverage of receipt at least 90 IFA tablets stable (72% to 74%). This pattern explains that although Central Java did not receive any intervention, the IFA supplement program already outstanding

Compliance in consuming IFA tablets at least 90 IFA from any sectors also decreased in all sites. Banten as intervention site decreased 18% (from 63% to 45%) and Jambi as comparison decreased 20% (from 36% to 17%). This situation also happened in West Java, the compliance reduced significantly or 9%, however in Central Java the reduction only 1%.

Table 1. Coverage and compliance of IFA tablets

Source of IFA tablets from public and private sectors	Baseline				Endline				Baseline								Endline							
	Intervention		Comparison		Intervention		Comparison		Intervention				Comparison				Intervention				Comparison			
	Banten		West Java		Central Java		Jambi		Banten		West Java		Central Java		Jambi		Banten		West Java		Central Java		Jambi	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
N= All mothers having babies < 6 mo.	675	700	631	630	355	320	340	360	316	315	315	315												
Received ANC	673	100	686	98	1280	99	230	100	339	99	334	100	251	99	434	98	759	99	521	100	128	100	102	99
ANC at least 4 times during pregnancy	646	96	584	84	1222	95	223	97	321	94	325	97	249	98	335	75	721	94	501	96	127	99	96	94
Received any IFA tablet	654	97	683	98	1141	88	211	91	333	98	321	96	247	98	436	98	705	92	436	84	128	100	83	81
Received at least 90 IFA Tablets	425	63	414	59	666	52	119	52	254	75	171	51	182	72	232	52	466	61	200	38	96	74	23	23
Received at least 150 IFA Tablets	283	42	203	29	368	29	40	18	169	49	115	34	91	36	112	25	292	38	76	15	31	24	10	9,6
Received at least 180 IFA Tablets	248	37	153	22	275	21	29	13	148	43	100	30	71	28	81	18	229	30	45	8,7	21	16	8	8
Consumed any IFA Tablets	646	96	676	97	1127	87	210	91	330	97	316	94	241	95	435	98	697	91	430	82	128	100	82	80
Consumed at least 90 IFA Tablets	345	51	307	44	500	39	89	38	216	63	129	39	144	57	163	37	347	45	153	29	72	56	17	17
Consumed at least 150 IFA Tablets	210	31	136	20	210	16	28	12	124	37	86	26	75	30	62	14	158	21	51	9,8	20	16	7	7
Consumed at least 180 IFA Tablets	171	25	90	13	148	12	19	8,4	98	29	73	22	62	24	28	6,4	116	15	32	6,1	13	10	6	5,8
Compliance of IFA tablet during last pregnancy (at least 80%)	455	70	446	65	664	58	161	76	232	70	224	70	188	76	257	59	394	56	270	62	102	80	59	71

Table 2. Coverage and compliance of IFA tablets from public sector

Source of IFA tablets from public sector only	Baseline				Endline				Baseline								Endline							
	Intervention		Comparison		Intervention		Comparison		Intervention				Comparison				Intervention				Comparison			
	Banten		West Java		Central Java		Jambi		Banten		West Java		Central Java		Jambi		Banten		West Java		Central Java		Jambi	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
N= Mothers received IFA tablets from public sectors only	330	369	328	415	128	202	102	267	170	170	100	100	312	100	308	100	229	100	76	100	60	100	60	100
Received any IFA tablet	288	100	389	100	538	100	136	100	118	100	170	100	76	100	312	100	308	100	229	100	76	100	60	100
Received at least 90 IFA Tablets	214	75	268	69	364	68	75	55	102	87	112	66	69	91	199	64	241	78	123	54	58	76	18	29
Received at least 150 IFA Tablets	155	54	140	36	205	38	22	17	80	68	74	44	49	64	91	29	151	49	54	23	15	19	8	13
Received at least 180 IFA Tablets	134	47	109	28	149	28	19	14	72	61	62	37	40	53	69	22	119	39	30	13	12	16	7	11
Consumed any IFA Tablets	284	99	388	100	531	99	136	100	117	99	168	99	76	100	312	100	308	100	224	97	76	100	60	99
Consumed at least 90 IFA Tablets	172	60	198	51	262	49	51	37	85	72	86	51	60	78	138	44	173	56	89	39	38	50	12	21
Consumed at least 150 IFA Tablets	112	39	90	23	110	21	17	12	59	50	52	31	41	54	50	16	72	24	38	16	12	15	5	8,8
Consumed at least 180 IFA Tablets	93	32	53	14	70	13	13	9,4	52	44	41	24	33	43	20	6,4	51	17	19	8,2	8	11	5	8
Compliance of IFA tablet during last pregnancy (at least 80%)	185	64	243	62	292	54	99	73	73	62	112	66	56	74	186	60	160	52	133	58	59	77	40	67

Source of IFA Tablet. The role of private sectors cannot be ignored, since pregnant mothers who ever received of any IFA tablet from both private and public sectors. Compliance in taking any IFA tablets from the public and private already high both at baseline and endline or almost all above 97%.

The coverage of receipt of at least 90 IFA tablets showed a different pattern. The role of public sectors was much higher compared to private sectors, although decreased in all sites. In Banten as intervention site, the coverage of receipt at least 90 IFA tablets from public sectors decreased 8% (from 87% to 78%), although it was not significant. Compared to Jambi the decrement was much higher or 35% (from 64% to 29%, p-value <0.05). In West Java as an intervention site, the compliance reduced 12% (from 66% to 54%) although it was not significant. In Central Java, the coverage reduced 14% (from 91% to 76%, p-value <0.05). This data concluded that the decrement of coverage from public sectors in intervention sites was not significant, but significant in comparison sites.

Table 3. Coverage and compliance of IFA tablets from private sector

Source of IFA tablets from private sector only	Baseline				Endline				Baseline								Endline							
	Intervention		Comparison		Intervention		Comparison		Intervention								Comparison							
									Banten		West Java		Central Java		Jambi		Banten		West Java		Central Java		Jambi	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
N= Mothers received IFA tablets from private sectors only	438		393		396		335		273		165		296		97		213		183		219		116	
Received any IFA tablet	470	100	384	100	867	100	130	100	265	100	205	100	216	100	168	100	556	100	311	100	94	100	36	100
Received at least 90 IFA Tablets	297	63	223	58	464	54	84	65	198	75	99	48	155	72	67	40	342	62	122	39	72	77	12	33
Received at least 150 IFA Tablets	183	39	103	27	267	31	25	19	115	43	68	33	71	33	32	19	218	39	49	16	20	21	5	14
Received at least 180 IFA Tablets	157	33	77	20	194	22	14	11	97	37	60	29	54	25	23	14	167	30	28	8,9	10	11	4	9,9
Consumed any IFA Tablets	464	99	378	98	859	99	130	100	264	100	200	98	210	97	168	100	548	99	311	100	94	100	35	100
Consumed at least 90 IFA Tablets	238	51	165	43	364	42	65	50	165	62	73	36	120	55	45	27	263	47	101	32	55	58	10	27
Consumed at least 150 IFA Tablets	135	29	73	19	153	18	15	11	84	32	51	25	56	26	17	10	120	22	33	11	11	12	4	11
Consumed at least 180 IFA Tablets	107	23	54	14	110	13	9	7	60	23	47	23	46	21	8	4,9	86	15	24	7,7	6	6,7	3	7,7
Compliance of IFA tablet during last pregnancy (at least 80%)	334	71	259	68	511	59	105	81	188	71	146	72	165	77	94	56	312	56	199	64	76	81	28	79

The source from private sectors showed a decreasing pattern also in almost all sites, except Central Java that increased significantly from 72% to 77% or increased 5%. However, the effect of the intervention was not noticed, in Banten, as intervention sites, the coverage of receipt at least 90 IFA tablets from private sectors was decreasing significantly, or 13% (from 75% to 62%) and in Jambi as comparison sites reduced only 7%, and it is not significant (from 40% to 33%). Even in West Java, as intervention sites, the coverage decreased 9% (from 48% to 39%) although it was not significant and in Central Java increased significantly 5% (from 72% to 77%, p-value <0.05).

The compliance of taking at least 90 IFA tablets also higher in public sectors compared to private sectors. Again, the effect of intervention only noticed in the public sector compared to the private sector. In public sectors, decrement in both intervention sites was not significant, but in comparison site the decrement was significant. Banten decreased not significantly 16% (72% to 56%) and West Java decreased 12% (from 51% to 39%). In Jambi as comparison site it decreased significantly by 24% (from 44% to 20%) and in Central Java decreased by 28% (from 78% to 50%).

The compliance to consume at least 90 IFA tablets from private sector decreased significantly in both intervention sites. Such as in Banten, the compliance decreased significantly 15% (from 62% to 47%, p-value <0.05) and in West Java 3% (from 35% to 32%, p-value <0.05). However, in comparison sites, the private sectors only decreased 0.2% (from 27% to 26.8%) in Jambi and even slightly increased in Central Java or 3% (from 55% to 58%).

Table 4. Knowledge and Practice Caregiver on giving treatment to diarrhoea children.

	Baseline				Endline			
	Intervention (NTT)		Comparison (Gorontalo)		Intervention (NTT)		Comparison (Gorontalo)	
	n	%	n	%	n	%	n	%
Care seeking diarrhoea treatment (refer to first treatment) (g, h)	252	72	174	49,7	168	48,1	256	73,1
First treatment on child suffered diarrhoea in the last episode								
Received from any sector								
Received both Zinc and ORS (g, h)	14	4	21	6	27	7,7	38	10,9
Recommended 10 days of Zinc (g, h)	7	2	4	1,1	21	6	11	3,1
To Public Health Centre/Hospital								
Received both Zinc and ORS (g, h)	13	8,4	17	16,8	16	18,8	18	18,6
Recommended 10 days of Zinc (g, h)	5	3,2	3	3	11	12,9	6	6,2
To Private Health Centre/ Hospital					0	0	0	0
Received both Zinc and ORS (g)	0	0	1	2,1	2	9,5	2	9,1
Recommended 10 days of Zinc (g, h)	2	3	1	2,1	1	4,2	0	0
Recommended dosage of ORS	NA	NA	NA	NA	210	60,2	190	54,3
Correct knowledge of recommended dosage of zinc	15	4,3	10	2,9	30	8,6	17	4,9
Correct knowledge of symptoms of diarrhoea	65	18,6	52	14,9	197	56,4	90	25,7
Correct knowledge of preparing ORS (g, h)	229	65,4	173	49,4	214	61,3	193	55,1
Ever heard zinc tablet (g, h)	35	10	52	14,9	97	27,8	101	28,9

Notes :

g) significantly for West Nusa Tenggara (Intervention) < 0.05

h) significantly for Gorontalo (Comparison) < 0.05

Zinc and ORS treatment showed a promising result, although the coverage still less than 10% coverage. The proportion of children received zinc and ORS from any sectors increased significantly in both intervention and comparison sites. However, the increment from public sector was much higher compared to private sectors at intervention site (from 8.4% to 16.8%, p-value <0.05) but not at comparison sites (16.8% to 18.8%, p-value <0.05).

Compliance to the treatment also shows the same tendency. Regarding source of zinc, recommended 10 days of zinc increased higher in intervention sites (baseline: 2% and endline: 6%, with p-value <0.05), compared to comparison sites (baseline: 1,1%, and endline: 3.1% with p-value <0.05). This intervention effect can be more noticed in public sectors (Baseline at intervention sites: 3.2% and endline: 12.9%, with p-value <0.05), compared to comparison sites (baseline: 3.0%, and endline: 6.2%, with p-value <0.05).

Although zinc treatment increased, however correct knowledge on recommended dosage of zinc among provider was still low and not increased significantly in both in both site (intervention site: 4.3% to 8,6% and comparison site: 2.9% to 4.9%). This condition indicates that more education for the caregiver of diarrhoea children should be improved.

CONCLUSION

- a. There is a reducing trend from baseline to endline in all indicators, except in Central Java. It suspects that there is some disruption in IFA tablets procurement that happened that caused out of stock nationally on around 2017 and can dilute the effect of the intervention.
- b. The role of private sectors in distributing IFA tablets is essential, especially in economically potential such as in Central Java. However, the coverage from private sectors is higher compared to public sectors. The intervention effect was only noticed in public sectors, meaning that the intervention is more focused on the public sectors.
- c. The dissemination about zinc and ORS for treatment is still not well-coverage to the society, although the intervention showed an effect on coverage and compliance of the recommended dosage of zinc among health provider increased