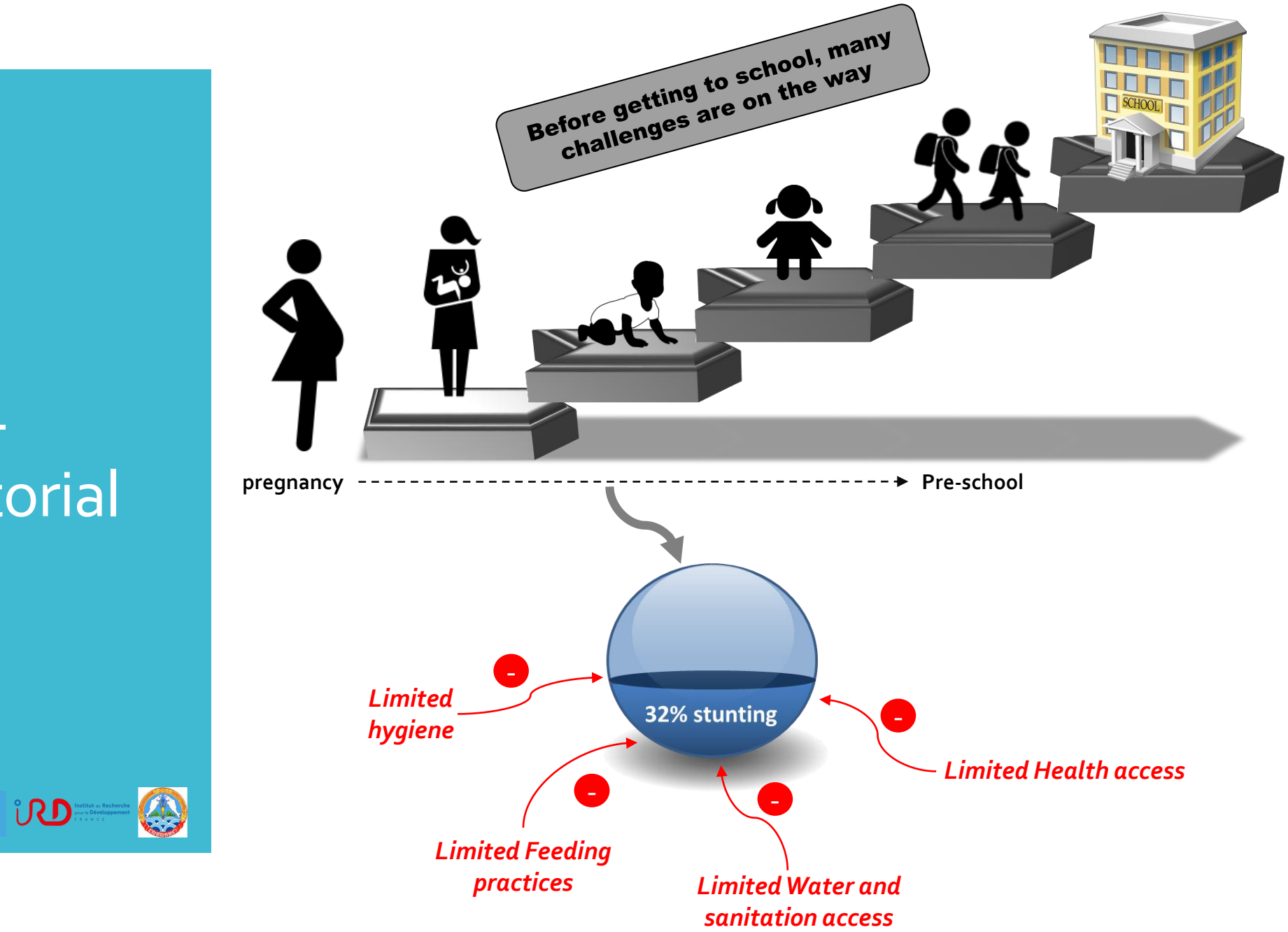
Early Child Development in 6 districts of Cambodia – challenges for appropriate growth: 2016 data

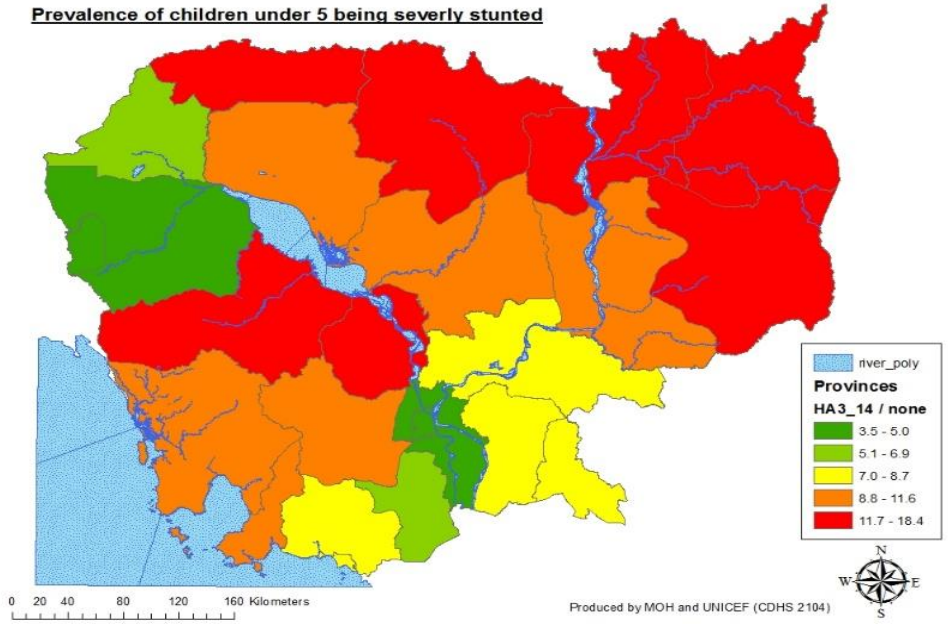
Dr Laillou Arnaud
UNICEF Cambodia

unicef

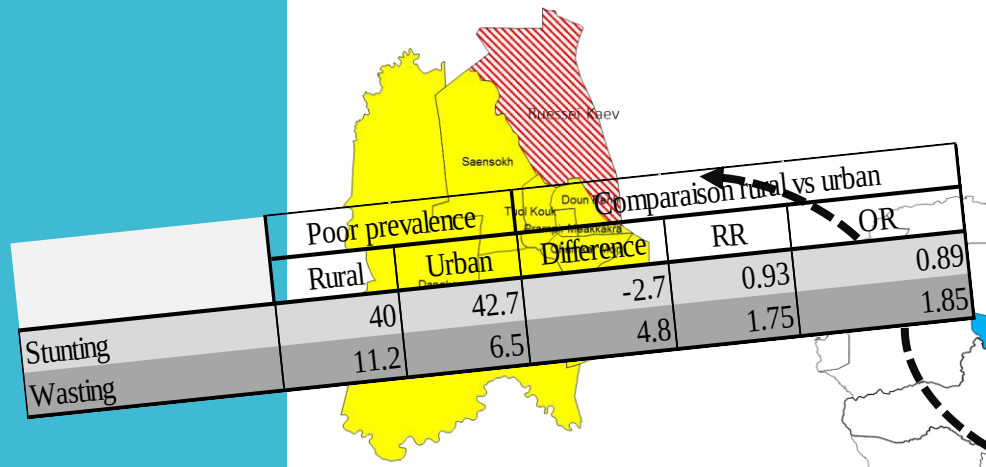
Stunting-Multisectorial

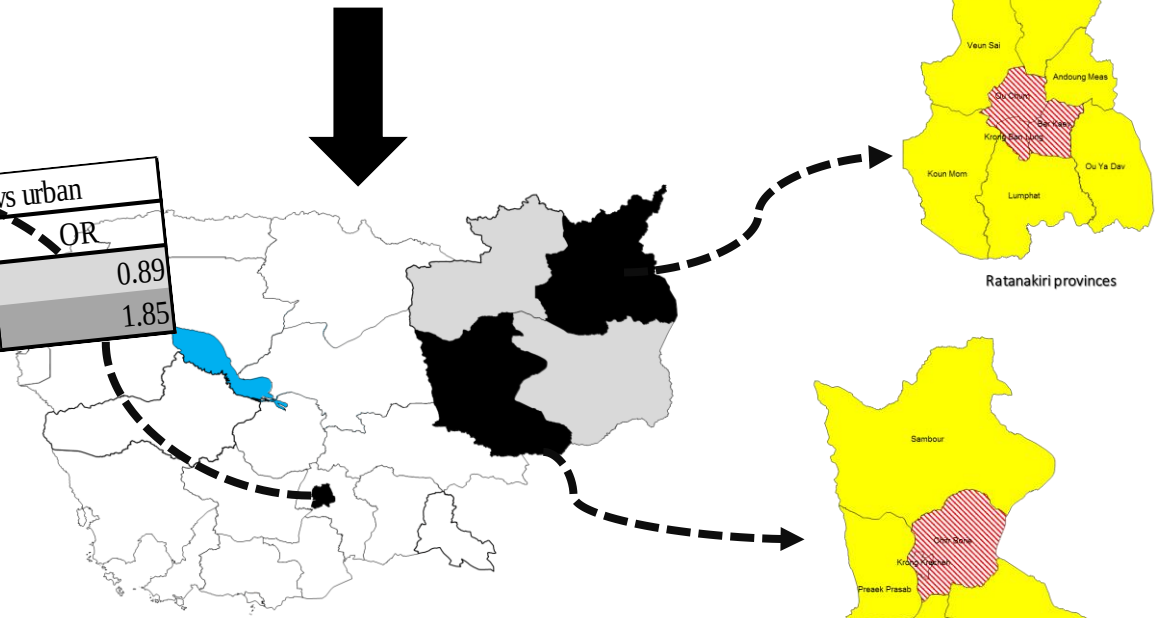


Longitudinal study (I)



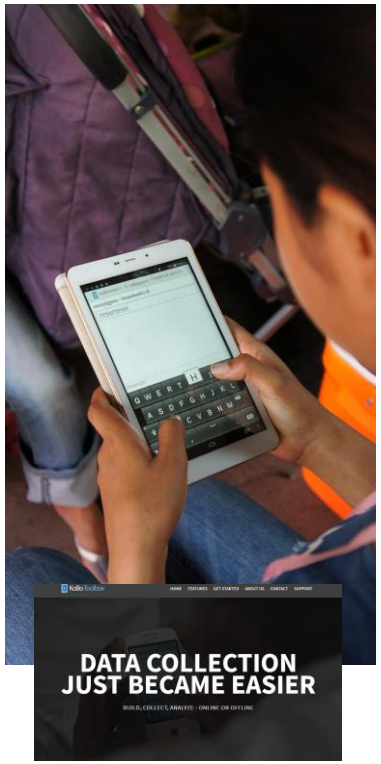
	Poor prevalence		Comparaison rural vs urban		
	Rural	Urban	Difference	RR	OR
Stunting	40	42.7	-2.7	0.93	0.89
Wasting	11.2	6.5	4.8	1.75	1.85





Longitudinal study (II)

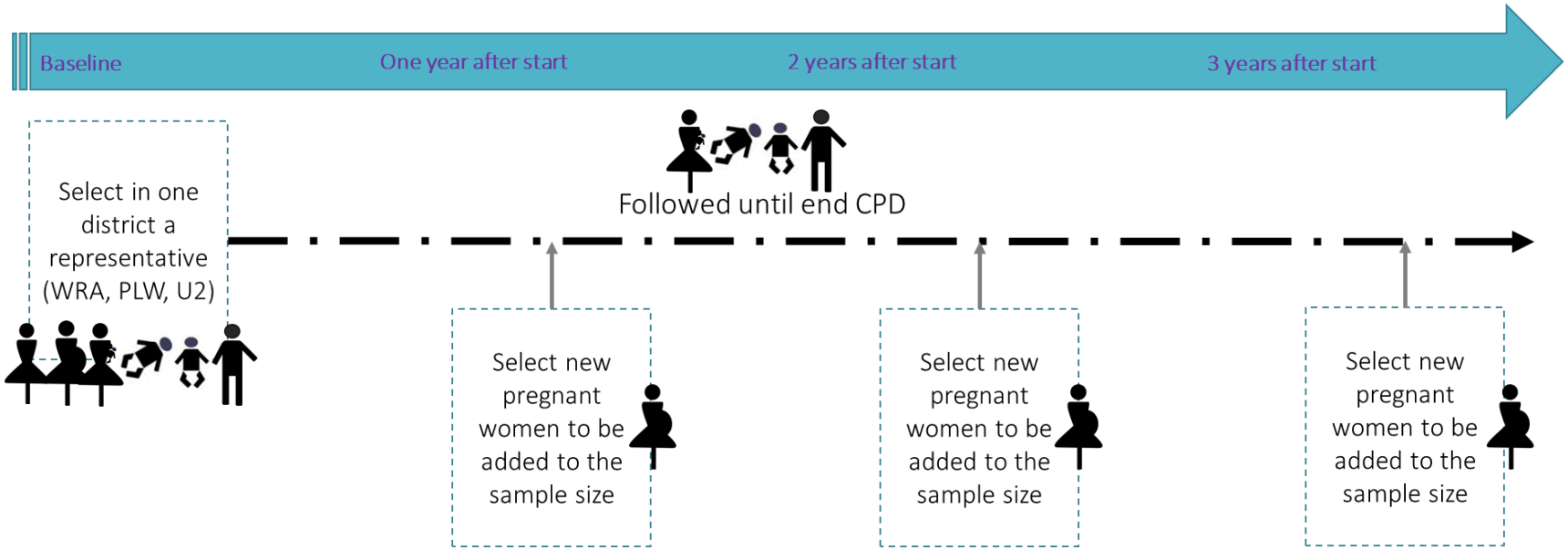
	Household population	Population of children 0-23.9 mo
Phnom Penh (Russey Kheo)	1,883	1,249
Kratie (Chitr Borie, Krong Krache)	1,828	1,373
Ratanakiri (Borkeo, Banlung, Ochum)	1,708	1,324
	5,419	*3,946*



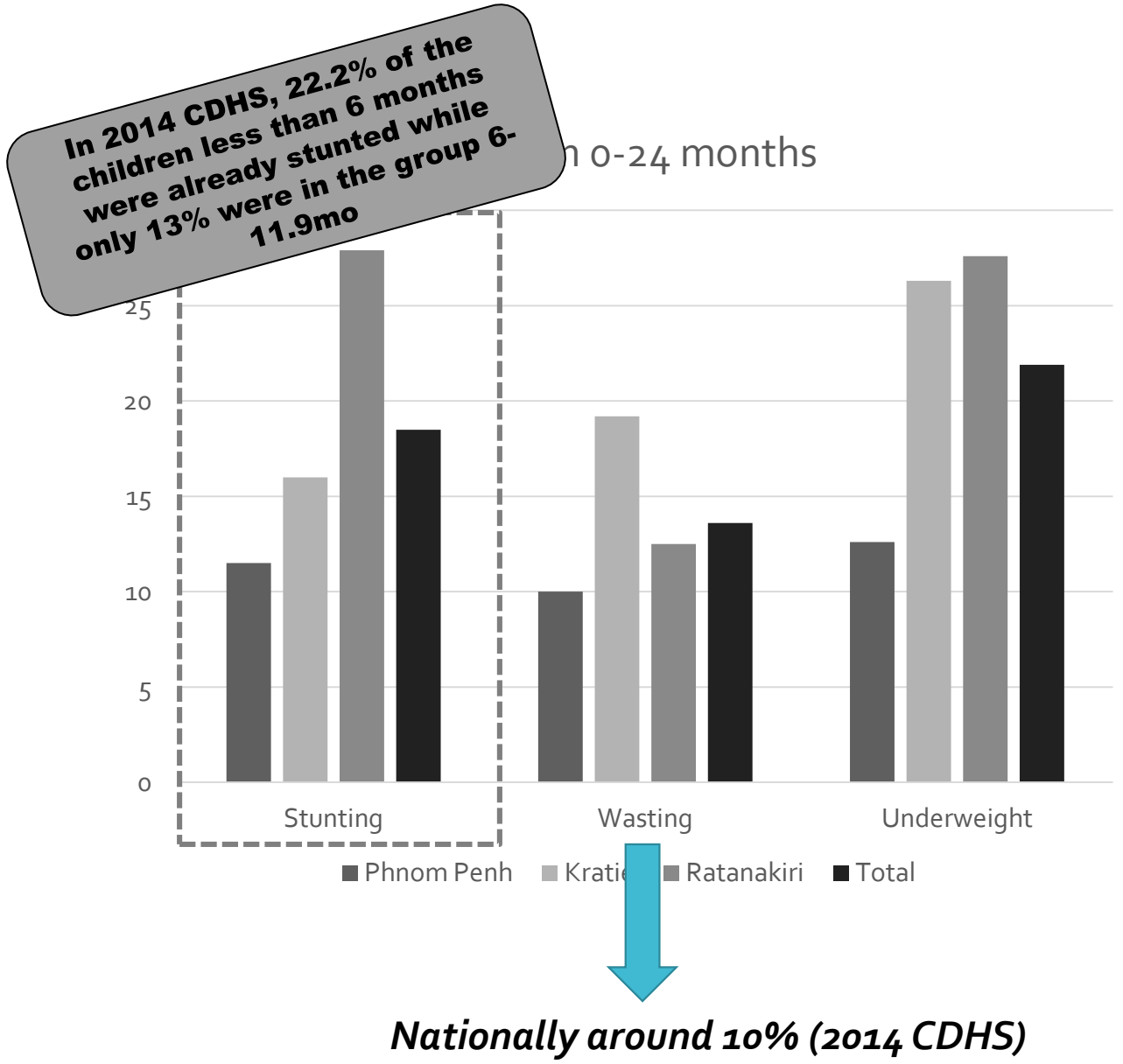
Population followed over the next 3 years:

1. Socio-Eco questionnaire
2. Health Practices
3. Feeding Practices
4. WASH Practices
5. Cognitive Health
6. Anthropometry measure
7. Morbidity

Longitudinal study (III)

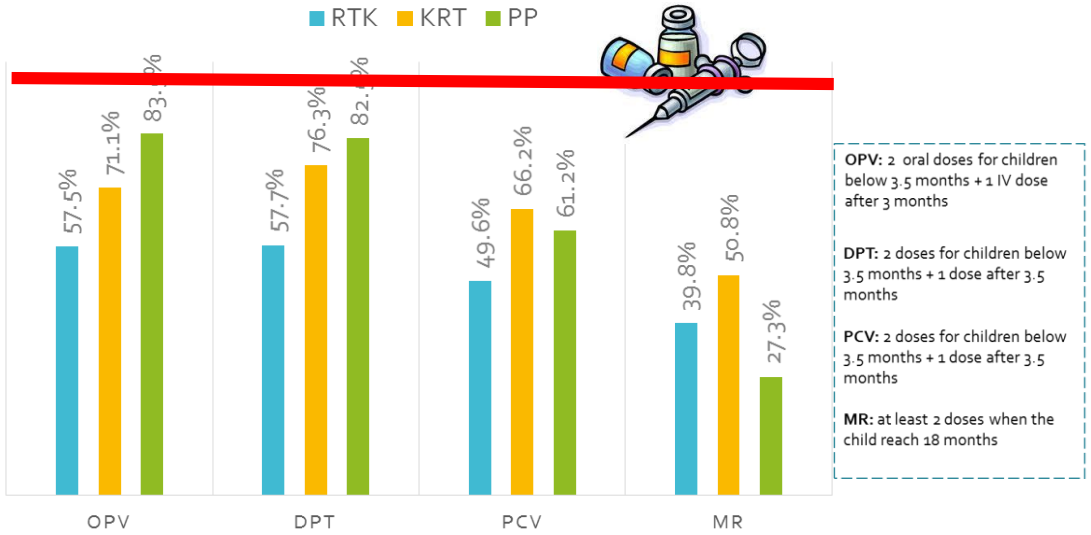


Population surveyed nutritional status



Health issues

Target >95%



OPV: 2 oral doses for children below 3.5 months + 1 IV dose after 3 months

DPT: 2 doses for children below 3.5 months + 1 dose after 3.5 months

PCV: 2 doses for children below 3.5 months + 1 dose after 3.5 months

MR: at least 2 doses when the child reach 18 months

Vaccination practices

Prevalence of children vaccinated with appropriate doses

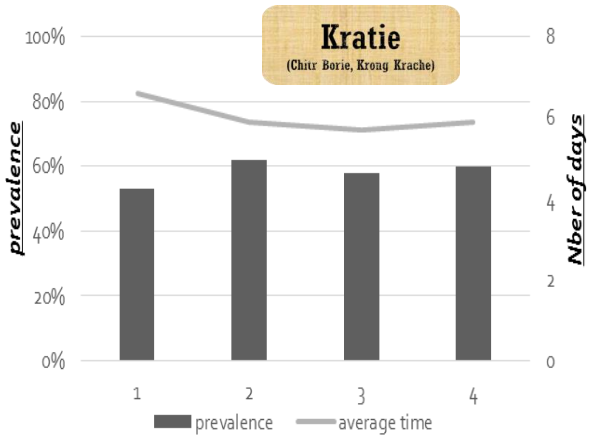
Lost days for optimal growth:

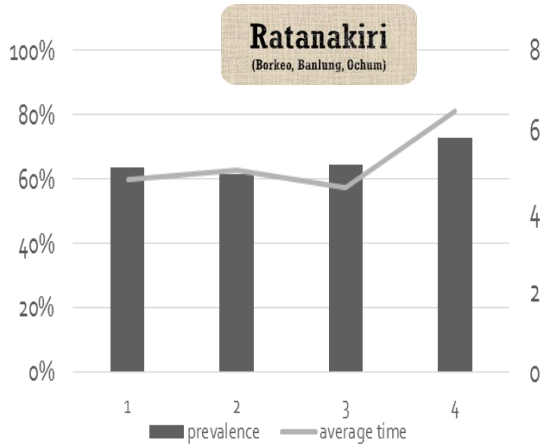
10.7% of the days

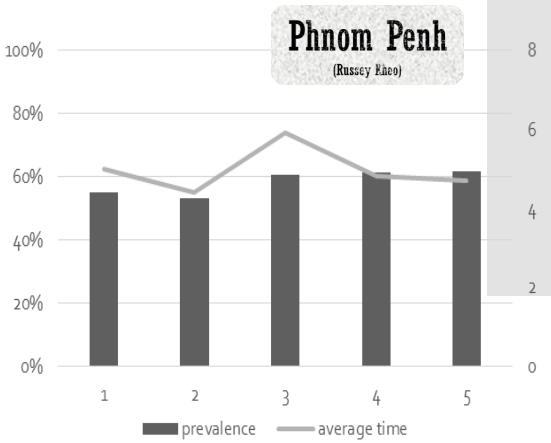
9.5% of the days

7.1% of the days

Morbidity episodes

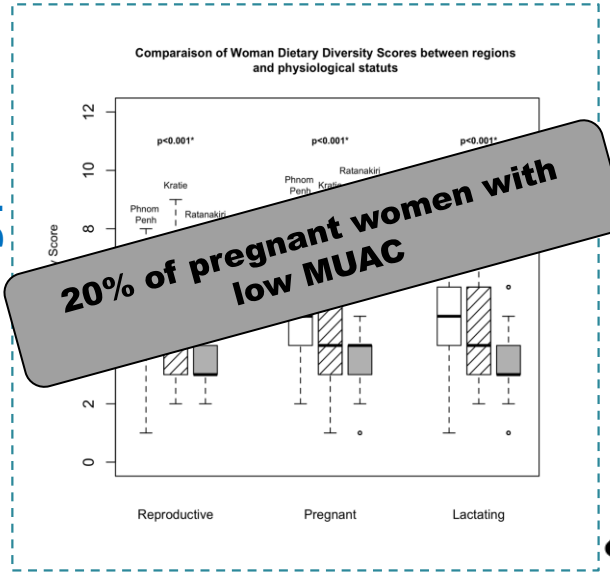




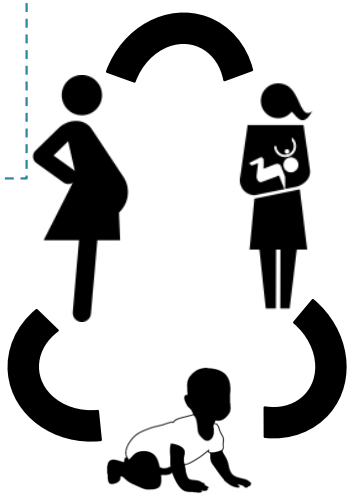


Feeding practices

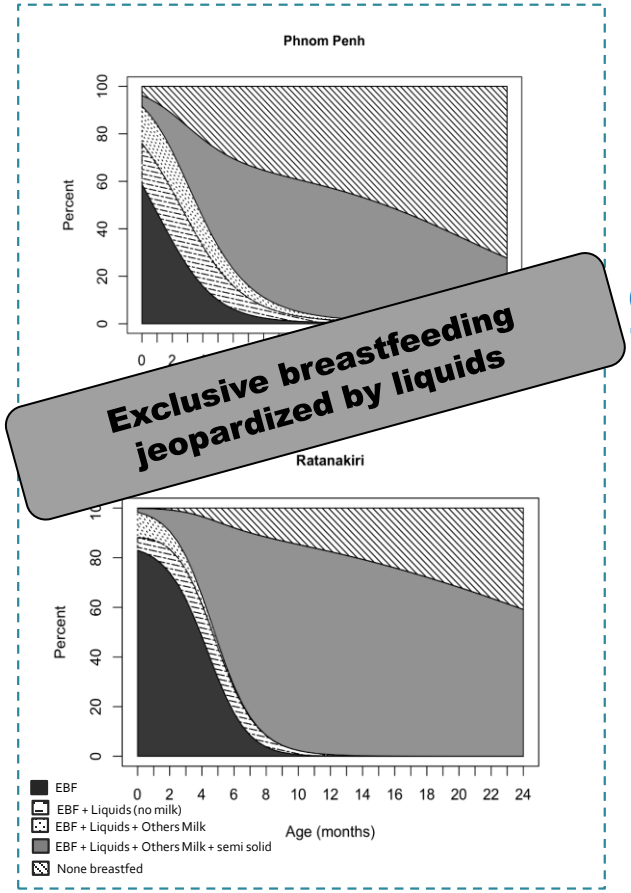
Women feeding practices



20% of pregnant women with low MUAC

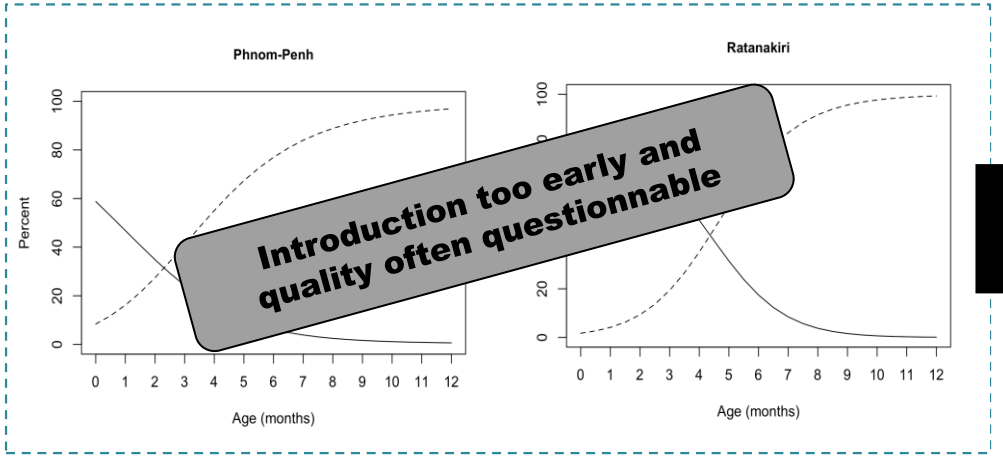


Breastfeeding practices



Exclusive breastfeeding jeopardized by liquids

Introduction of CF



Introduction too early and quality often questionnable

	MDD	MMF	MAD
Phnom Penh (Russey Kheo)	33.8%	54.2%	18.7%
Kratie (Chitr Borie, Krong Krache)	22.1%	68.6%	14.7%
Ratanakiri (Borkeo, Banlung, Ochum)	29.4%	79.7%	24.0%

——— : EBF

------ : semisolid

Formative research on Nutrition-

Triggers for a change:

1. **Breastfeeding**
2. **Complementary feeding**

Helen Keller INTERNATIONAL

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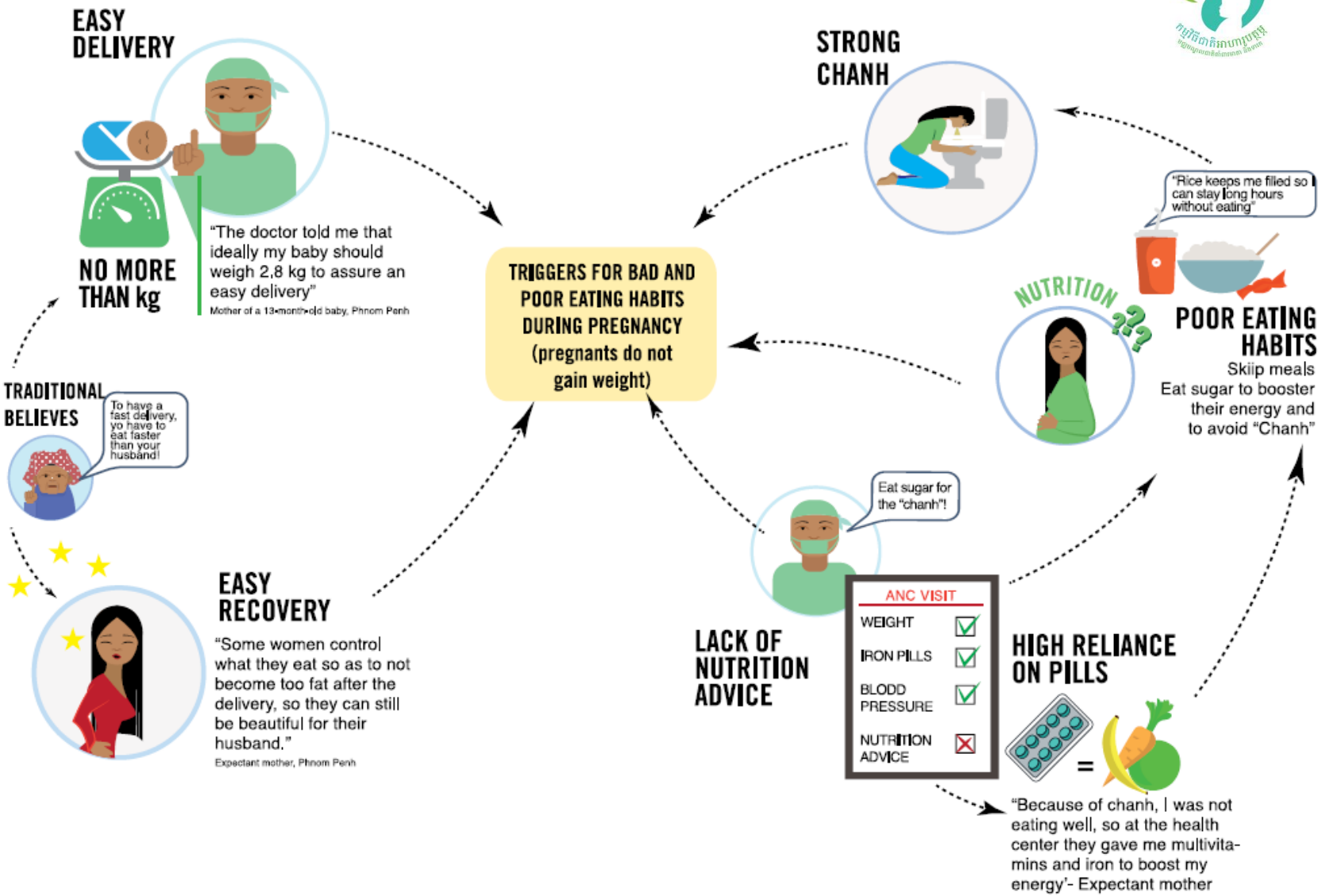

Developed by MELON ROUGE AGENCY

Formative research on Nutrition-

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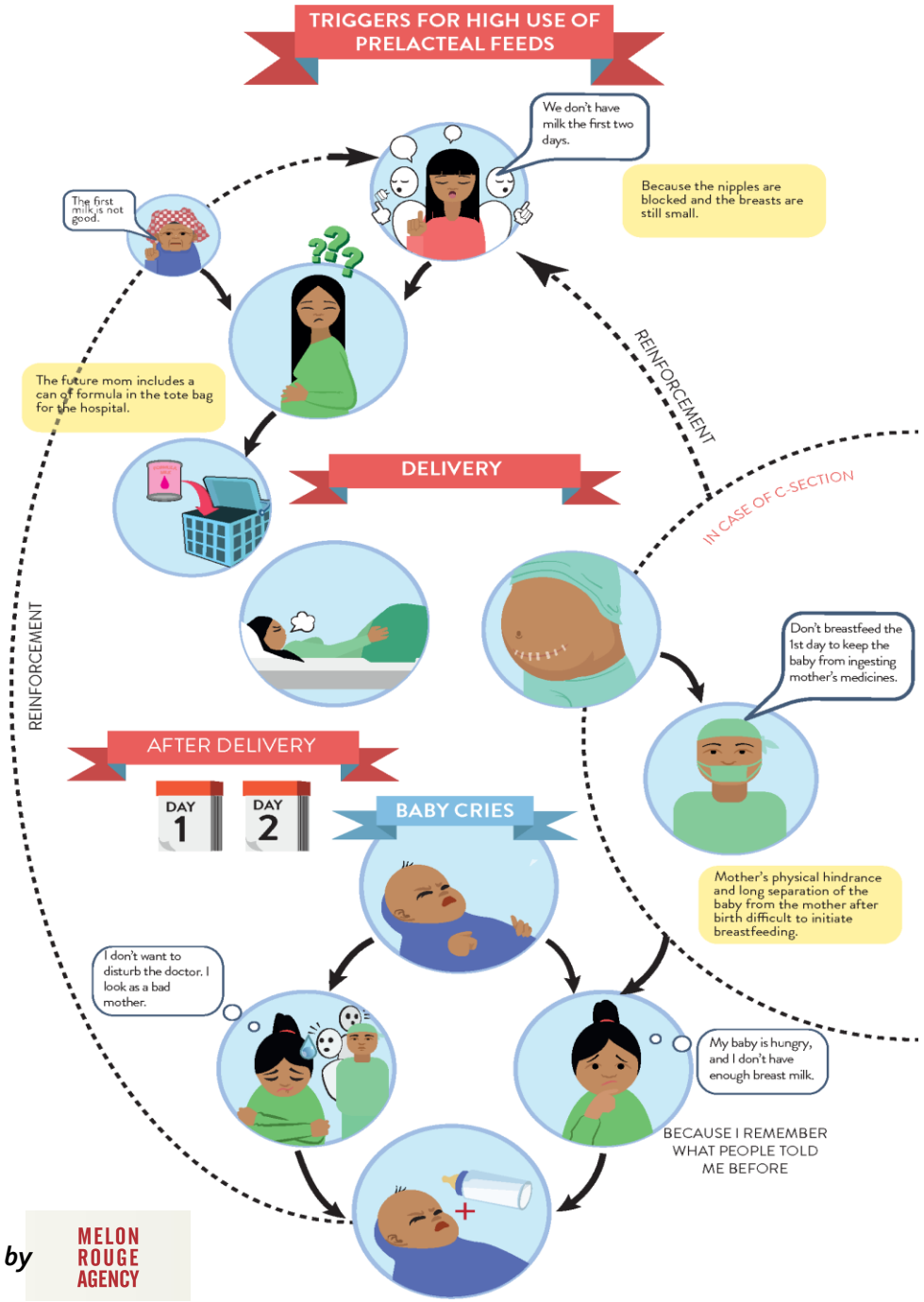

1. Trigger for not gaining weight during pregnancy
2. Trigger for not breastfeeding and continuing it
3. Trigger for not appropriately feeding (complementary food) their children after 6 month of age
4. Trigger for high use of BKK

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Triggers for a change

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2. **Complementary feeding**

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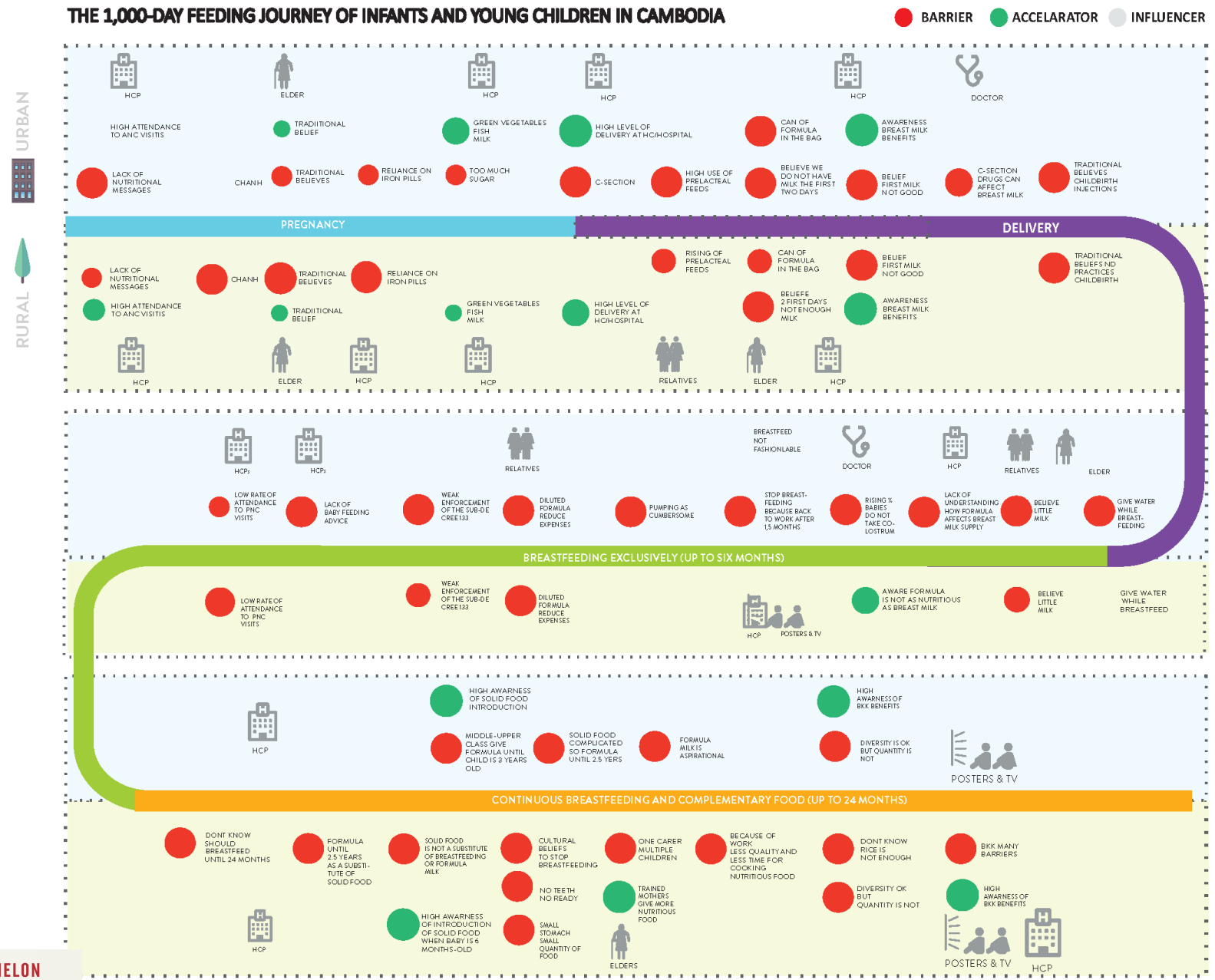

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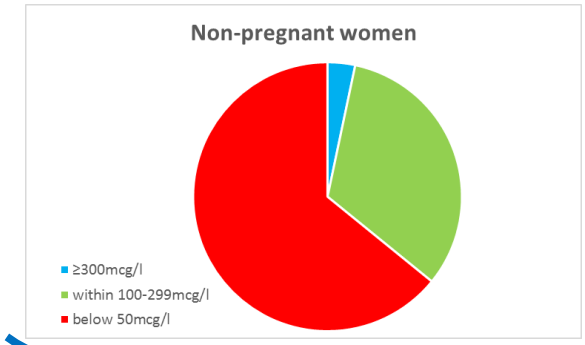
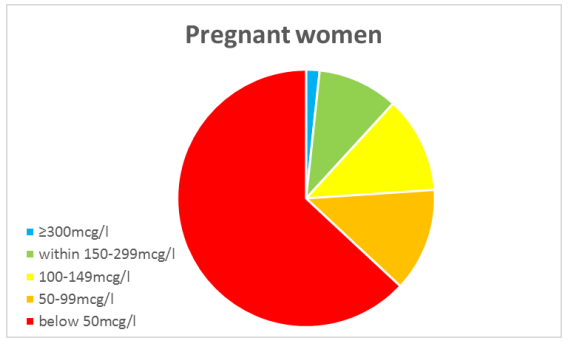
Iodization.....

UIC status

		Median (IQ) (µg/L)		
	n	Non-pregnant women	n	Pregnant women
Total	513	**73.55** (43.34-120.79)	258	**62.52** (42.61-104.69)
North East	204	68.97 (38.9-110.3)	99	64.12 (42.6-104.96)
Urban province	200	82.08 (55.41-128.81)	109	75.31 (48.12-117.8)
Kampot	109	76.46 (53.27-126.66)	50	51.6 (37.95-76.55)





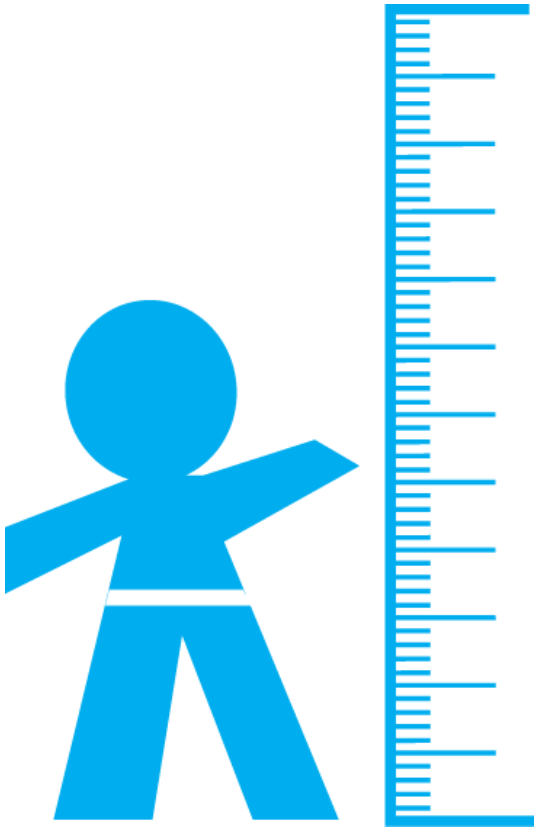
Salt tested in 2016 (n=506)

% of salt		
Levels	***2014***	***2016***
above 60 ppm	0.4%	3.4%
between 30-60 ppm	8.0%	6.3%
between 15-30 ppm	10.5%	24.7%
below 15 ppm	18.9%	36.6%
not iodized	62.2%	29.0%
n	*1,862*	*506*

Iodization.....

Without iodized salt

With iodized salt



1

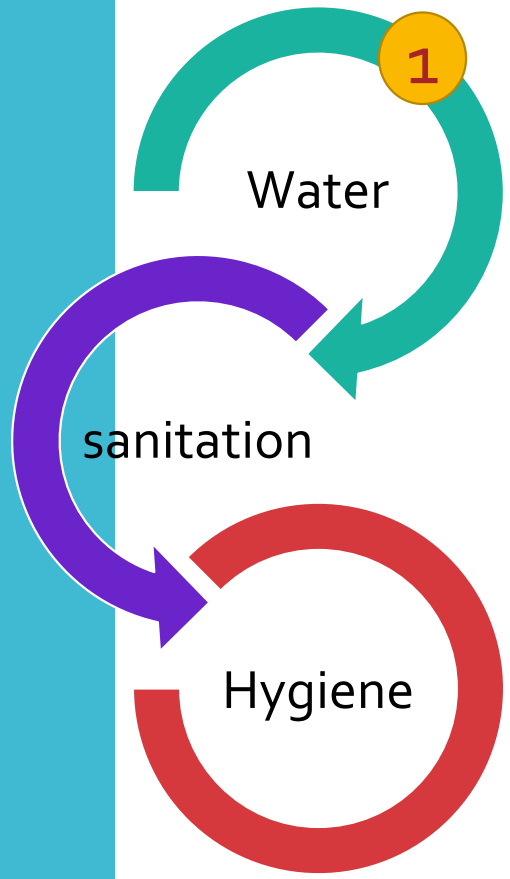
Better learnings

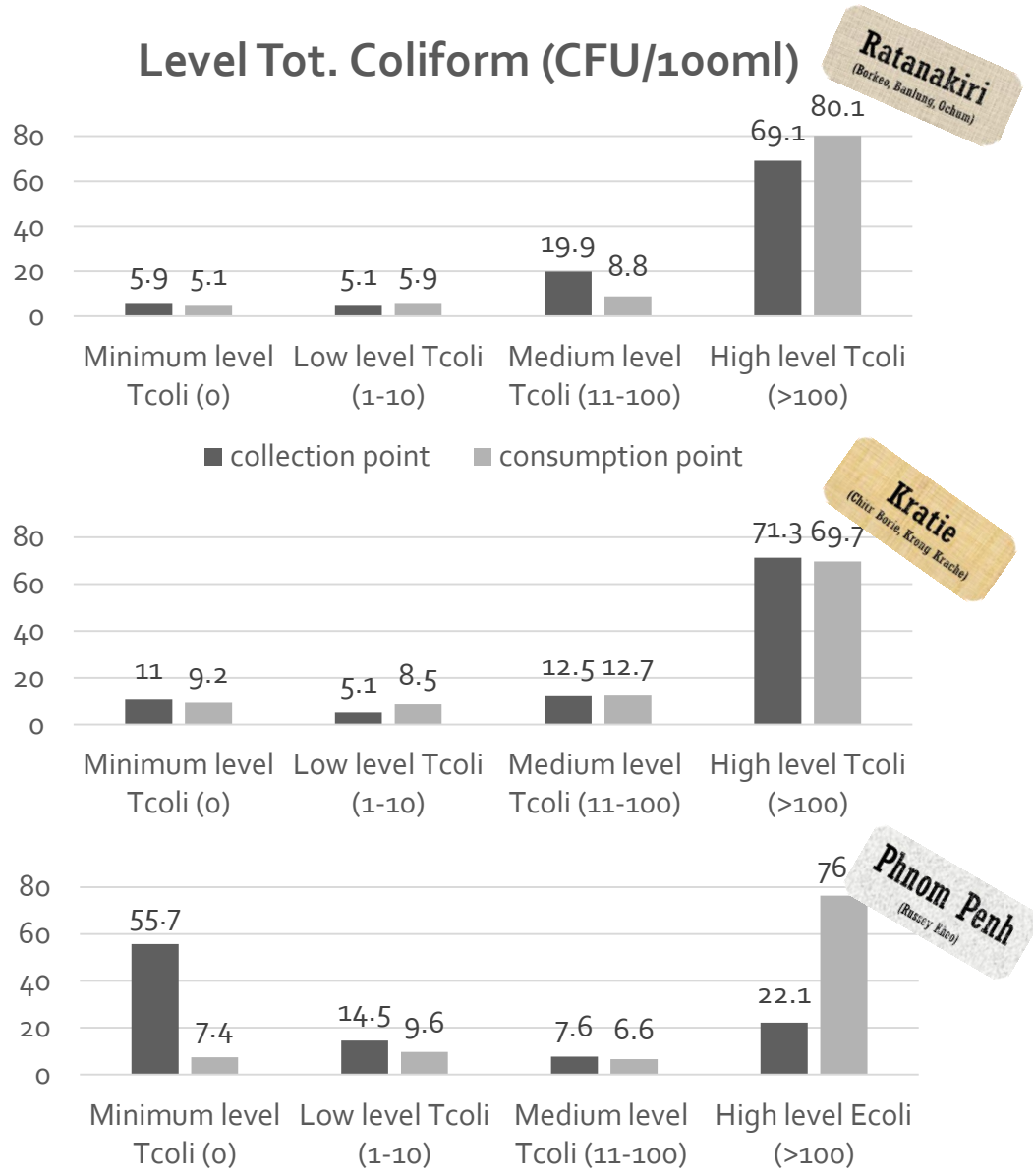
2

Better growth

WASH issues

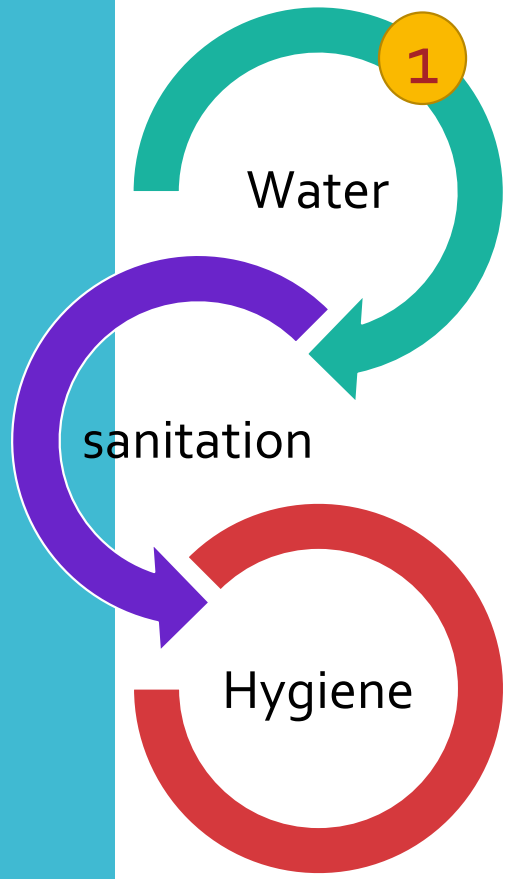
Total coliform → **effectiveness of treatment and cleanliness and integrity of distribution system**

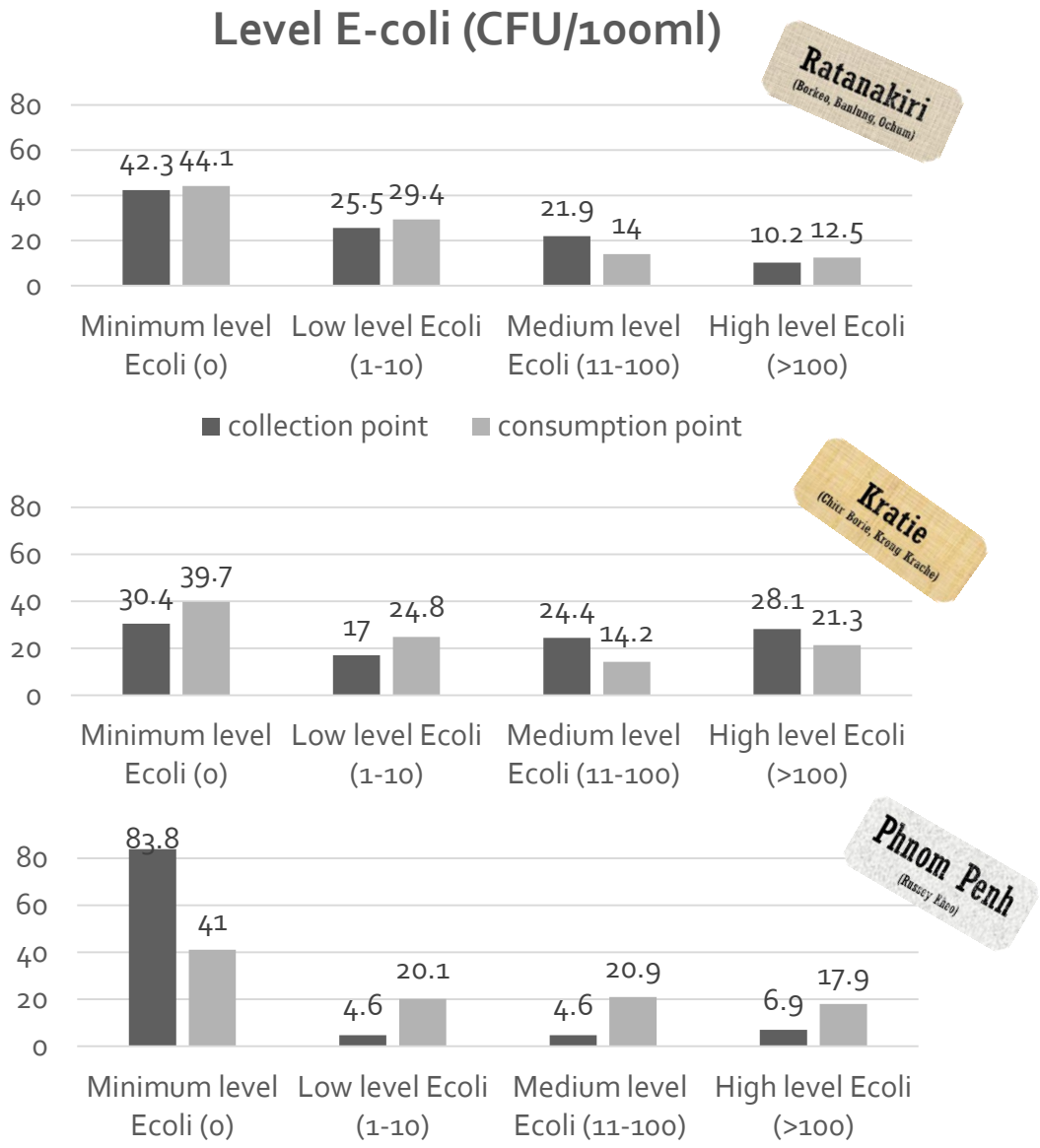




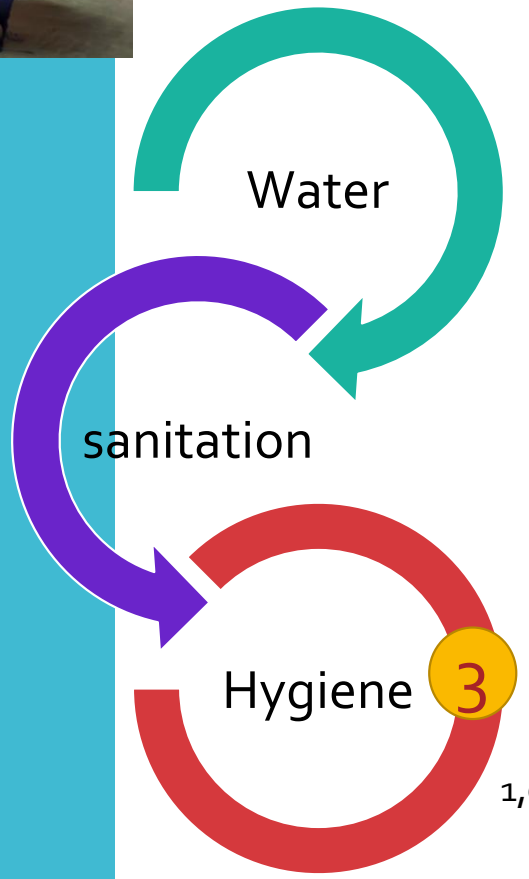
WASH issues

E.coli → **Fecal contamination of water source**





WASH issues



3

Ratanakiri

1,142 children assessed

924 play outside (80.9%)

↓

846 0-20m radius (74%)

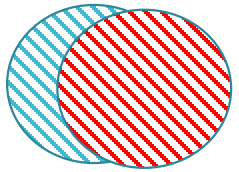
936 have animals not in restricted area (82%)

↓

837, they defecate next to the house (73.3%)

↓

815 in 0-20m radius (defecate) (71.4%)

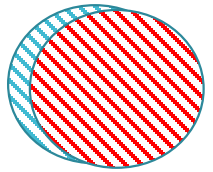


Kratie

1,292 children assessed

1,021 children play outside in 0-20m radius (79%)

1,025 defecate near the house in 0-20m radius (79%)



Fecal Streptococcus!!!!

Table 13.2. Microbial indicators (average numbers per gram wet weight) excreted in the faeces of warm-blooded animals (adapted from Geldreich 1978)

Group	Thermotolerant coliforms	Faecal streptococci	*Clostridium perfringens*	F-RNA Coliphages[b]	Excretion (g/day)
Farm animals					
Chicken	1,300,000	3,400,000	250	1867	182 (71.6)[c]
Cow	230,000	1,300,000	200	84	23,600 (83.3)
Duck	33,000,000	54,000,000	–	13.1	336 (61.0)
Horse	12,600	6,300,000	<1	950	20,000
Pig	3,300,000	84,000,000	3980	4136	2700 (66.7)
Sheep	16,000,000	38,000,000	199,000	1.5	1130 (74.4)
Turkey	290,000	2,800,000	–	–	448 (62.0)
Domestic pets					
Cat	7,900,000	27,000,000	25,100,000		
Dog	23,000,000	980,000,000	251,000,000	2.1	413
Human	13,000,000	3,000,000	1580[a]	<1.0–6.25	150 (77.0)
Ratios in raw sewage	50	5	0.3	1	–

[a] Only 13–35% of humans excrete
[b] F-RNA coliphage data from Calci *et al.* (1998). Note low numbers in human faeces, and only excreted by about 26% of humans, about 60% of domestic animals (including cattle, sheep, horses, pigs, dogs and cats), and 36% of birds (geese and seabirds) (Grabow *et al.* 1995).
[c] Moisture content

Additional bottlenecks

Health bottlenecks

- In North East, >40% receive less than 4 ANC
- More than 40% never receive Nutrition of WASH messages
- 20% of pregnant low MUAC
- 19.2% (KRT) and 32.7% (RTK) not delivering in HC

Nutrition bottlenecks

- Still high level of acute malnutrition
- >50 of the bobor too thick
- After 12 months old, more than 70% eating each time less than ½ bowl

WASH bottlenecks

- 85% (KRT), 52% (RTK) treat their water
- In NE, More than 45% do not have toilet
- More than 65% do unsafe disposal of children stools
- In HC, Poor environmental hygiene environment both outdoor & indoor of facility

Other bottlenecks

- Double burden in PP
- In RTK, 42% children do not have birth certificate (21% in PP and 29.5% in KRT)

Conclusion

The impact of Education investment will be limited if we are not dealing with all the issues presented above

The recent 2016 Global Nutrition report: ***"if we continue with business as usual, the world will not meet the global nutrition adopted by the World Health Assembly"*** and therefore full growth of our children.

THANK YOU

Longitudinal survey:

Formative research