

Session 3:

Effectiveness Estimate (2nd Orange Cell)

- Defining Effectiveness:
 - % of consumers who will be protected by added dose of MNM
 - Dose is variable. What is Sufficient Dose?
 - Fortification Level : Set level based on average consumption
 - Limited by Product, Change, Cost, Safety
 - Varying Human Needs: 2 WHO Effectiveness Benchmarks
 - EAR – Average Needs: 100% of EAR = 50%
 - RNI - Based on 2 SD's above average: 100% of RNI = 97.5%
 - Fortified Flour is a Food – not a medicine
 - Consumption and dose will be very variable.
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World Health Organization

Nutrient	Flour Extraction Rate	Compound	Level of nutrient to be added in parts per million (ppm) by estimated average per capita wheat flour availability (g/day) ¹			
			<75 ² g/day	75-149 g/day	150-300 g/day	>300 g/day
Iron	Low	NaFeEDTA	40	40	20	15
		Ferrous Sulfate	60	60	30	20
Ferrous Fumarate		60	60	30	20	
Electrolytic Iron		NR ³	NR ³	60	40	
	High	NaFeEDTA	40	40	20	15
Folic Acid	Low or High	Folic Acid	5.0	2.6	1.3	1.0
Vitamin B ₁₂	Low or High	Cyanocobalamin	0.04	0.02	0.01	0.008
Vitamin A	Low or High	Vitamin A Palmitate	5.9	3	1.5	1
Zinc ⁴	Low	Zinc Oxide	95	55	40	30
	High	Zinc Oxide	100	100	80	70

BCR FLOUR MODEL.xls [Compatibility Mode] - Microsoft Excel non-commercial use

File Home Insert Page Layout Formulas Data Review View

Normal Page Layout Page Break Preview Custom Views Full Screen

Ruler Formula Bar Gridlines Headings Zoom 100% Zoom to Selection

New Window Arrange All Freeze Panes Split Hide Unhide

View Side by Side Synchronous Scrolling Reset Window Position

Save Switch Workspace Windows Macros

B32 =B5*B30*B31

	A	B	C	
29	Vitamin A Protection			
30	Level of Vitamin A in PPM (mg/kg)	3		
31	Expected Retention	70%		
32	Added ug/dy Vitamin A per Average Child 6-59 m	85	Calculated	
33	WHO Estimated Average Requirement/Day	304	WHO	
34	% WHO EAR	28%	Calculated	
35	WHO RNI	425	WHO	
36	% WHO RNI	20%	Calculated	
37				
38	Risk Group	Coverage (From Cons Cov)	Effectiveness* (Objective)	Rationale for Target
39	IDA Adult Women	40%	20%	
40	IDA Pregnant Women	40%	5%	
41	IDA Children 6 months - 5 years	40%	30%	
42	NTD Births	40%	50%	
43	Vitamin A Deficiency Children Ages 6-59 months	40%	20%	

Ready 131%