Marks KJ, Luthringer CL, Ruth LJ, et al. Review of grain fortification legislation, standards, and monitoring documents. *Glob Health Sci Pract*. 2018;6(2). https://doi.org/10.9745/GHSP-D-17-00427

SUPPLEMENT TABLE 2. Sensitivity analysis comparing percentage of country-grain combinations* with documented items of fortification legislation, standards, and monitoring documents by verification status (N=72)

	Verified	Unverified	
	Reviews**	Reviews**	
Item	(n=23)	(n=49)	p-value^
General			
Food vehicle stated in legislation	91%	100%	0.04
Public health objective/purpose	74%	67%	0.58
Accepted international norms	57%	53%	0.79
Definitions specific to fortification	78%	76%	0.80
Repeals of prior documentation	61%	57%	0.77
Effective date/grace period	74%	71%	0.83
Micronutrients/premix			
Nutrients required	100%	100%	1.00
Fortificants (chemical compounds)	91%	86%	0.51
Fortification levels	43%	41%	0.83
Bioavailability of fortificants	22%	35%	0.27
Nutrient stability	48%	55%	0.57
Costing			
Cost sharing of fortification	26%	16%	0.34
Financial responsibility of monitoring and	43%	31%	0.29
enforcement			
Labeling			
Labeling required	83%	76%	0.51
Guidance on health claims	48%	51%	0.80
Internal monitoring (conducted by industry	during produc	tion)	
Sampling process outlined	48%	22%	0.03
Industry QA/QC justified/required	70%	61%	0.50
Applicability of qualitative tests	48%	20%	0.02
External monitoring (conducted by government)	ment at produc	tion sites)	
External monitoring justified	78%	57%	0.08
Protocols and systems described	39%	31%	0.48
Roles and responsibilities clarified	52%	27%	0.03
Timeline for inspections outlined	35%	22%	0.27
Sampling process outlined	52%	37%	0.22
Applicability of qualitative tests	30%	14%	0.11
Registration requirements	43%	35%	0.48
Commercial monitoring (conducted by gov	ernment at ma	rket or distrib	ution sites)
Commercial monitoring justified	48%	47%	0.94
Protocols and systems described	30%	14%	0.11
Roles and responsibilities clarified	35%	24%	0.37

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	Verified	Unverified		
	Reviews**	Reviews**		
Item	(n=23)	(n=49)	p-value^	
Timeline for inspections outlined	4%	10%	0.41	
Sampling process outlined	30%	27%	0.73	
Import monitoring (conducted by government at ports/points of entry)				
Import monitoring justified	70%	61%	0.50	
Protocols and systems described	35%	35%	0.99	
Roles and responsibilities clarified	30%	37%	0.61	
Sampling process outlined	35%	20%	0.19	
Enforcement/penalties				
Enforcement roles and responsibilities	83%	63%	0.10	
clarified				
Incentives to start fortification	22%	10%	0.19	
Incentives to continue fortification	9%	10%	0.84	
Penalties to compel compliance	70%	67%	0.85	
Penalties objectively defined	17%	22%	0.63	
Enforcement includes feedback	39%	8%	0.001	
Laboratory				
Analytical methods identified	65%	57%	0.52	
Recognition of laboratory variation	13%	10%	0.73	
Quantitative analysis of "marker"	52%	29%	0.05	
micronutrients such as iron				
Reporting				
Dissemination of monitoring results described	35%	29%	0.60	

^{*}Country-grain combination refers to the unit of analysis; countries that mandate the fortification of multiple cereal grains will contribute more than one country-grain combination (e.g. Philippines-wheat and Philippines-rice).

^{**}Verified reviews=country-grain combinations where country representatives confirmed that all appropriate documentation was included in review.

[^]Compared using chi-square tests.