

Data suggestive of thiamine deficiency worldwide, based on the analysis of food balance sheets (2011) and global food fortification data

Countries with >40% of energy provided from low-thiamine staple crops, i.e. rice, maize and wheat, and existing food fortification programs with thiamine

Country	% of energy from rice	Listed by the Global Fortification Data Exchange for flour, maize or rice fortification with thiamine
Bangladesh	70.8	No fortification program
Cambodia	63.2	No fortification program
Lao People's Democratic	61	No fortification program
Viet Nam	51.7	No fortification program
Madagascar	50.3	No fortification program
Indonesia	48.4	Mandatory fortification for wheat flour
Myanmar	46.3	No fortification program
Philippines	44.9	No fortification program
Sri Lanka	41.9	No fortification program
Liberia	40.5	Mandatory fortification for wheat flour
Thailand	40.3	No fortification program

Country	% of energy from maize	Listed by the Global Fortification Data Exchange for flour, maize or rice fortification with thiamine
Lesotho	56	No fortification program
Zambia	50.2	No fortification program
Malawi	48.9	Mandatory fortification for wheat flour
Zimbabwe	40.3	Mandatory fortification for wheat flour

Country	% of energy from wheat	Listed by the Global Fortification Data Exchange for flour, maize or rice fortification with thiamine
Afghanistan	65.7	No fortification program
Azerbaijan	53.5	No fortification program
Turkmenistan	50.8	No fortification program
Uzbekistan	49.8	FFI: Mandatory fortification for wheat flour
Tajikistan	48.7	No fortification program
Tunisia	48.6	No fortification program
Iraq	46.9	No fortification program
Algeria	44.3	No fortification program
Georgia	42.9	No fortification program
Yemen	41.9	No fortification program
Morocco	41.3	Mandatory fortification for wheat flour
Mongolia	40.3	No fortification program

Note: the staple food that provides a significant contribution to the total amount of available energy/capita/day in the listed countries is usually not fortified with thiamine. For example, Indonesia has 48.4% of the energy coming from rice but the thiamine mandatory fortification policy is for wheat.

References:

- Food Balance Sheets. FAOSTAT.
- Global Fortification Data Exchange. Map: Nutrient Levels in Fortification Standards (mid-range or average).