



Ministry of Public health
GD of Preventive medicine
Public Nutrition Department

Food Fortification regional workshop

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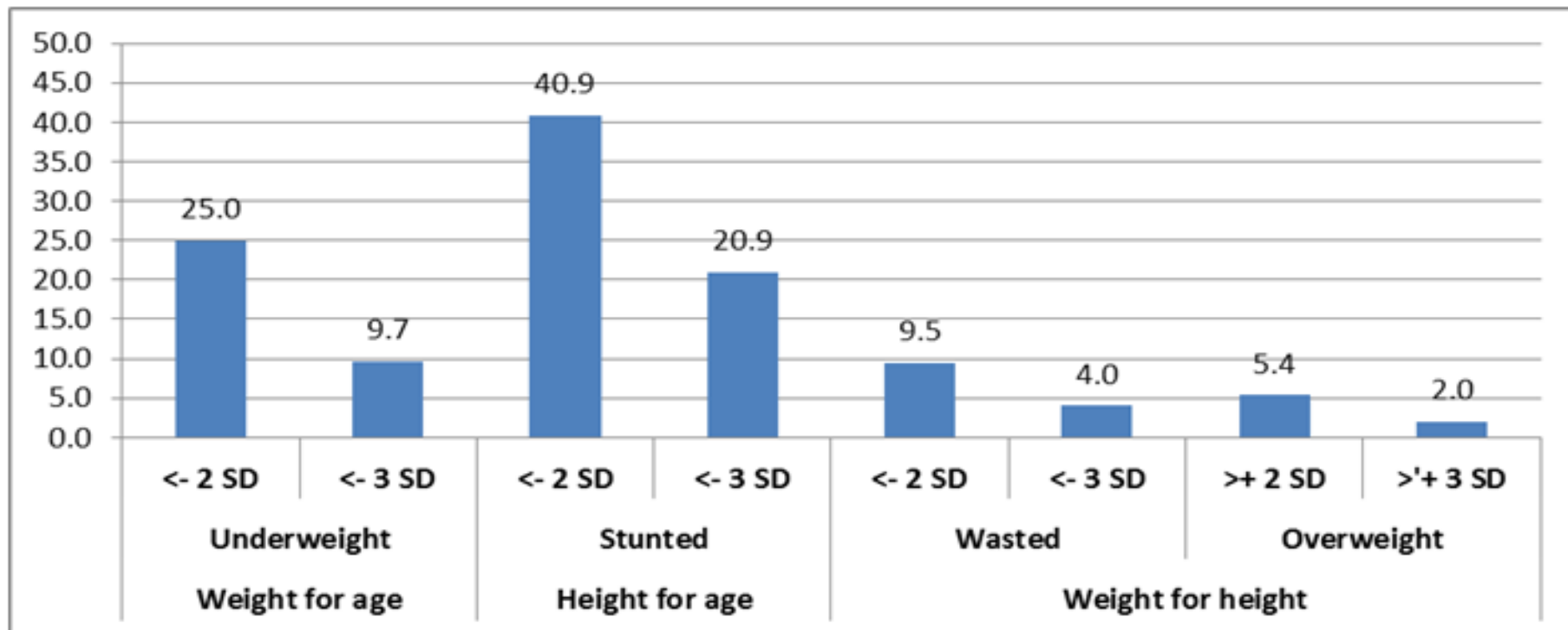
Outline

- Nutrition situation in Afghanistan
- Overview of main staple Food Fortification Programs
 - Salt Iodization
 - Wheat flour fortification
 - Oil fortification with Vit A & D
- Challenges and constraints
- Recommendations

Nutrition situation in Afghanistan(NNS 2013)

Nutrition status of all children 0-59 months

Fig 7.1: Nutritional status of children 0-5 years (All children) in Afghanistan



WHO cut offs for VERY HIGH LEVEL

Underweight >30%

WHO cut offs for VERY HIGH LEVEL

Stunting >40%

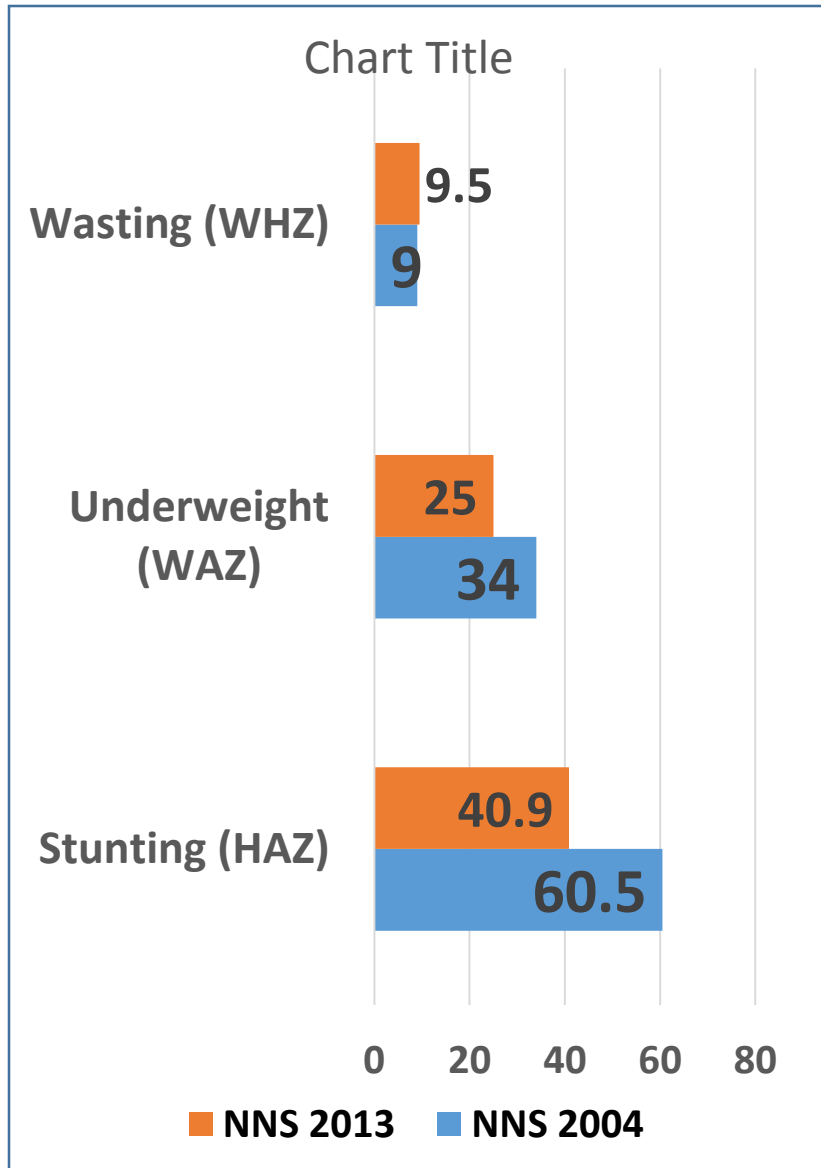
WHO cut offs for VERY HIGH LEVEL

GAM > 15%
SAM > 4%

Micronutrient statuses

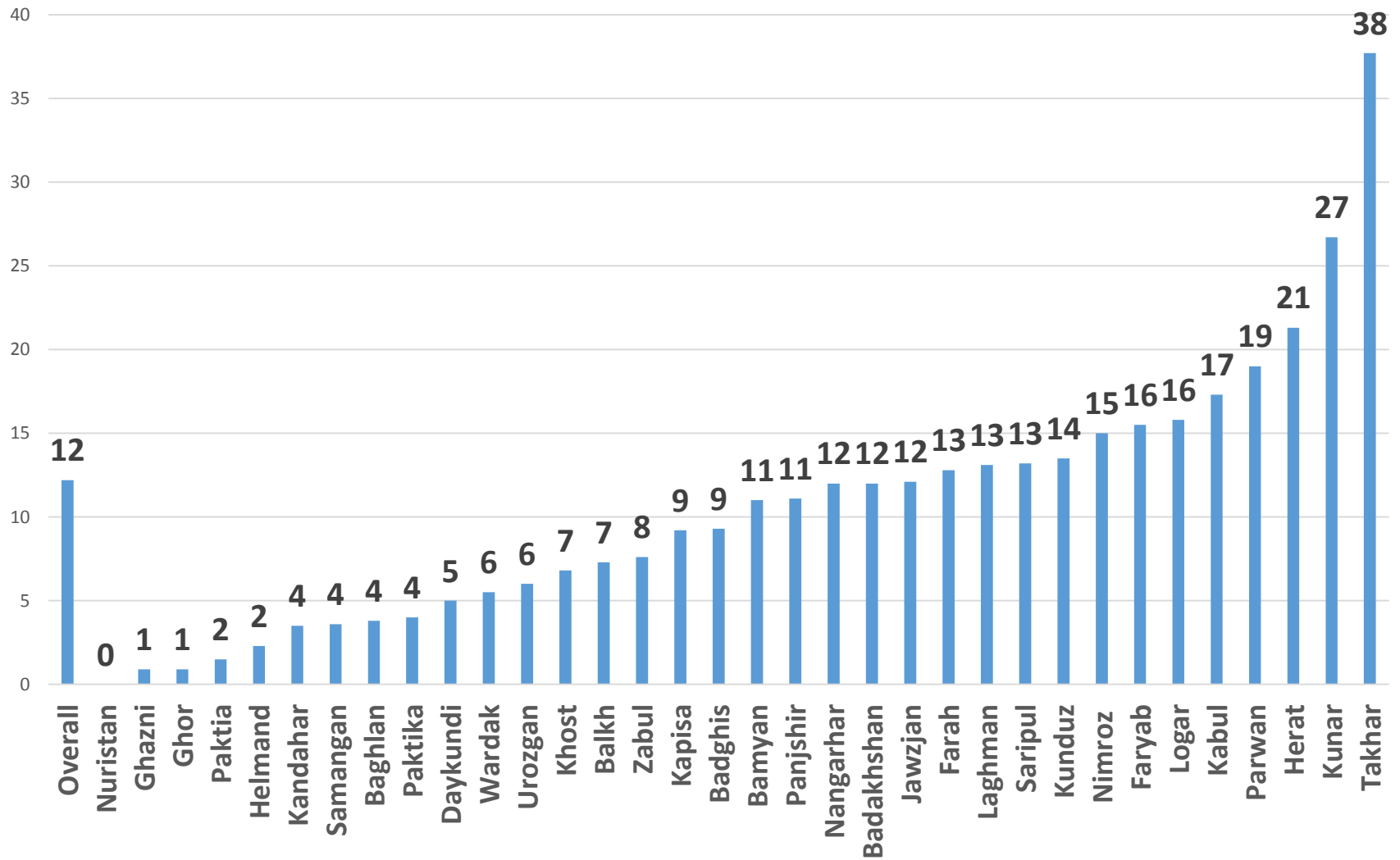
Deficiency/ Condition	Women of Reproductive Age (15-49 years)	Children (6-59 months of age)	Adolescent girls (10-19 years)
Anemia	40.4%	44.9%	30.9%
Iron Deficiency	24%	26.1%	-
Vitamin A deficiency	11.3%	50.4%	-
Zinc Deficiency	23.4%	15.1%	-
Iodine Deficiency	40.7%	29.5%	-
Vitamin D deficiency	94.8%	81.0%	-

Comparison – 2004 vs 2013

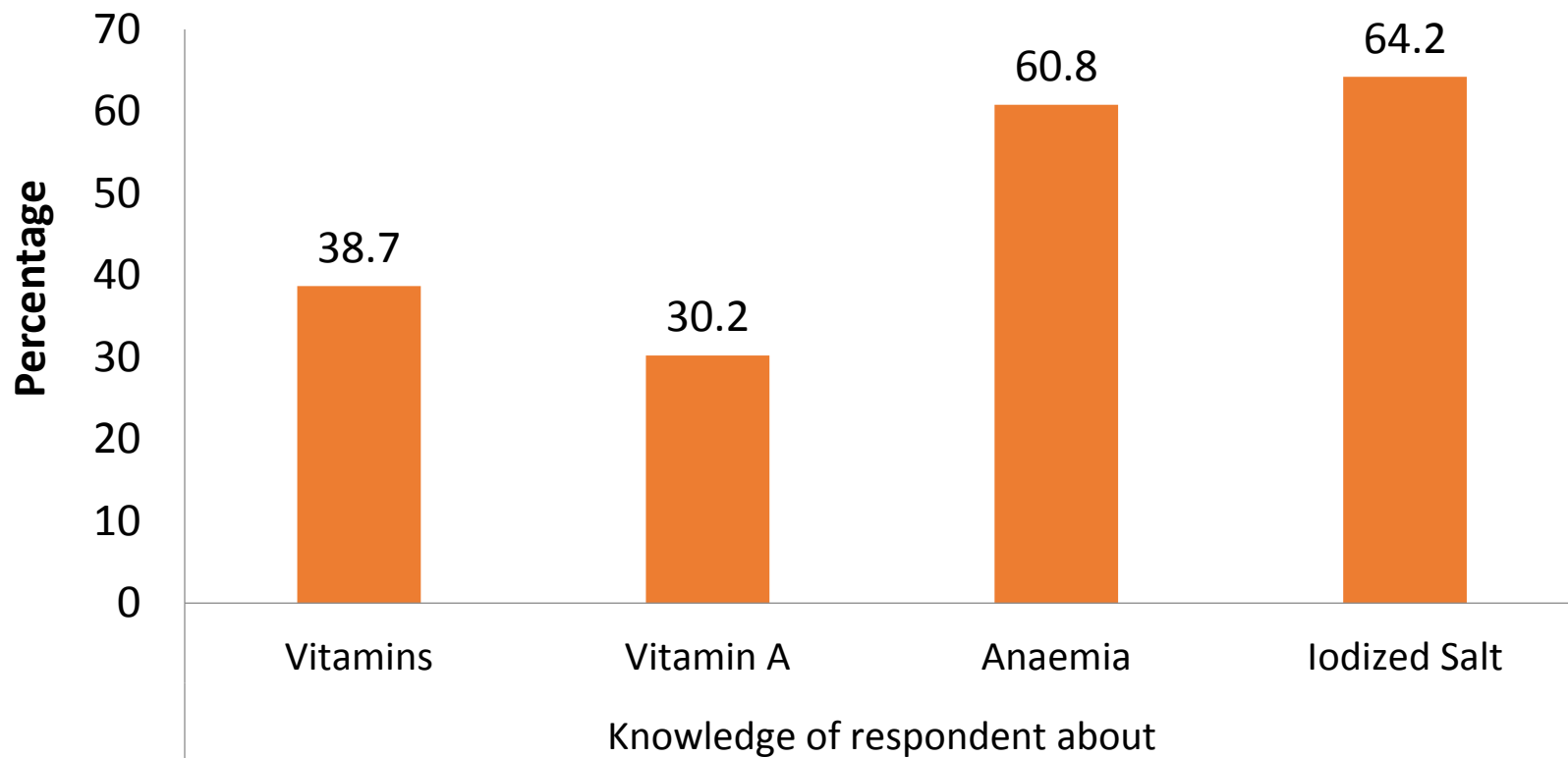


Indicator	2004	2013
Early Initiation of breastfeeding	35%	69%
Undernourished women (15-49) BMI<18.5	20.9%	9.2%
Iron Deficiency (women)	48%	24%
Iodine Deficiency (women)	75%	41%
Iodine Deficiency (children)	72%	30%

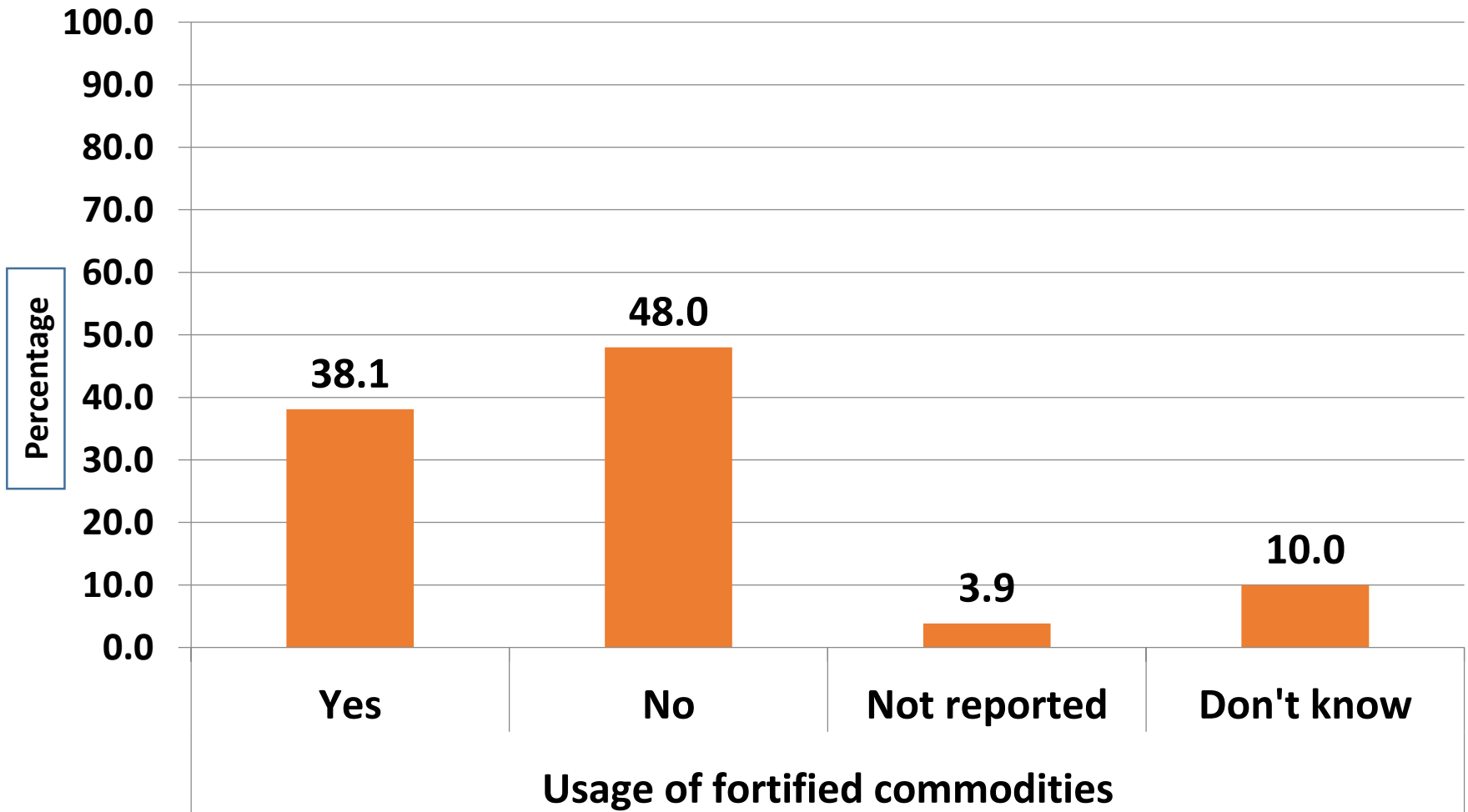
Minimum Acceptable Diet by province (6-23 months)



Knowledge of Mothers about Micronutrients



Responding of mothers on use of fortified food commodities



Overview of main staple Food Fortification Programs

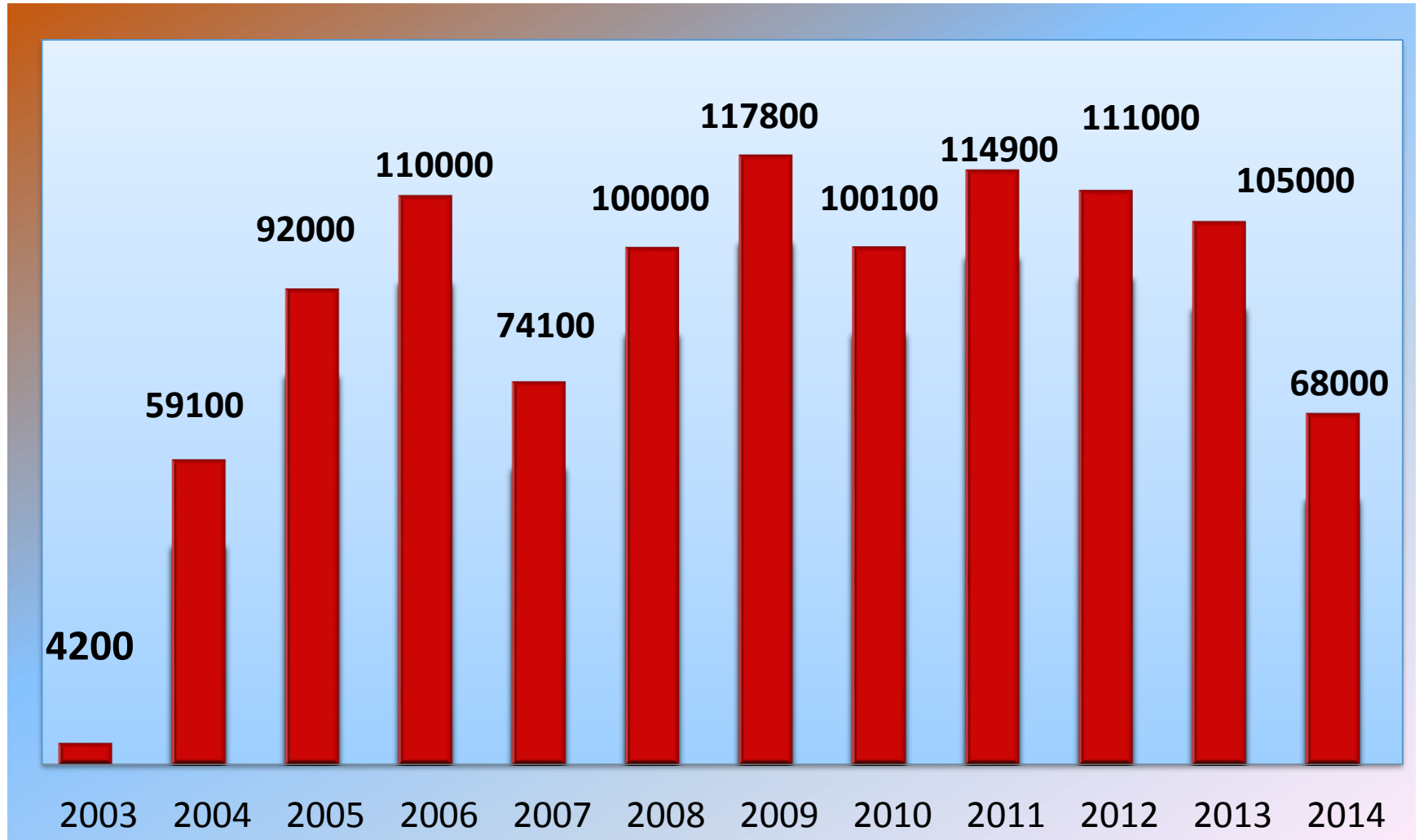
According to national nutrition policies and strategies the following national food fortification programs have the priorities & existing

1. Salt Iodization
2. Oil fortification with Vit A & D
3. Wheat flour fortification

1. Salt Iodization program

- The program is initiated in 2003, by establishing first iodized salt in kabul city through public-private partnership
- The supply of potassium iodate was provided to iodized salt plants up to end of 2013 as free of charge by UNICEF,MI & GAIN,
- Currently there are 31 registered iodized salt plants with the capacity of 3-8 MT/h functioning in 14 provinces of country
- Since 2011 when the USI legislation approved by the government , salt iodization become mandatory
- Since Feb,2014 the free donation of potassium iodate supply was changed to revolving fund system , which is running by Iodized Salt Factories Association

Iodized salt production trend (MT/year)



2. Oil fortification with Vit A & D

- The edible oil fortification with Vit A & D is started recently , just few months ago
- There are three local producers of edible oil functioning in three provinces (Kabul, Balkh& Hirat)
- The premix, dozer machine and installation process in mentioned oil producing factories are completed.
- The amount of Vit A & D will be added to processed and refined oil based on national standards
- A legislation on oil and flour fortification is under process in MoPH

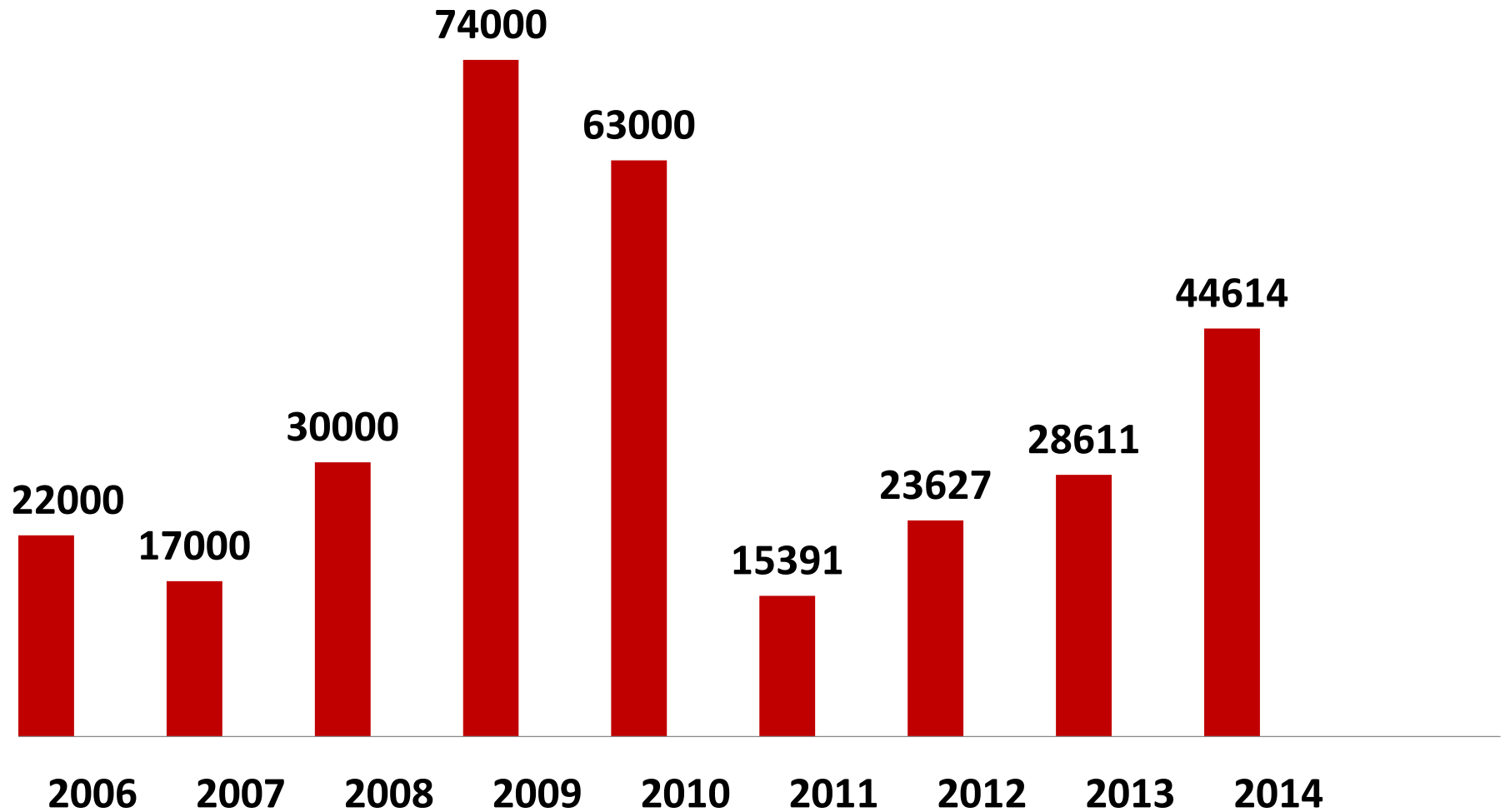
3. Wheat flour fortification

- Large scale Flour fortification is started since 2006 by support of WFP
- Currently there are more than 14 mills functioning in 5 provinces of the country
- Since there is no proved legislation yet the program is not mandatory
- The annual production of fortified wheat flour is covering almost less than 5% of the need of people in 5 big cities (Kabul, Hirat, Mazar-e-Sharif, Kundoz and Jalabad)

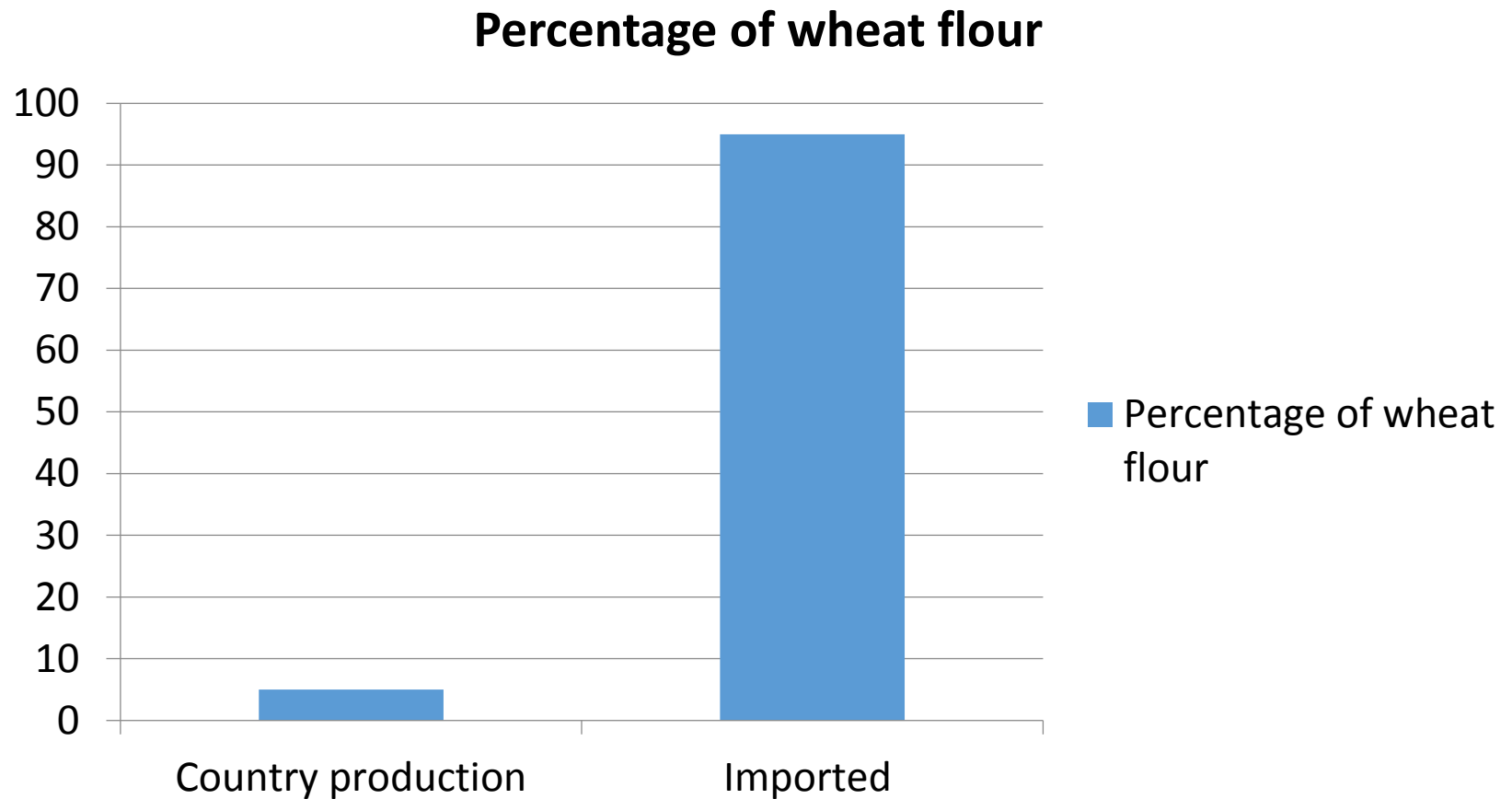
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- National Standards has been developed by support of ANSA (based on new standard only four micronutrients ,Vit B12, Folic Acid, Zinc & Iron should be in the premix)
- MoPH/PND provide The micro-feeder and premix which has five micronutrients(Iron, Folic Acid, Vit A, Zinc & Vit B12)
- The legislation for wheat flour and edible oil is under process in MoPH
- MoPH/PND conducted training on QC & QA to provincial nutrition officer and millers in five provinces
- Communication campaign in five big cities are also under process

FF production trend (MT/year)

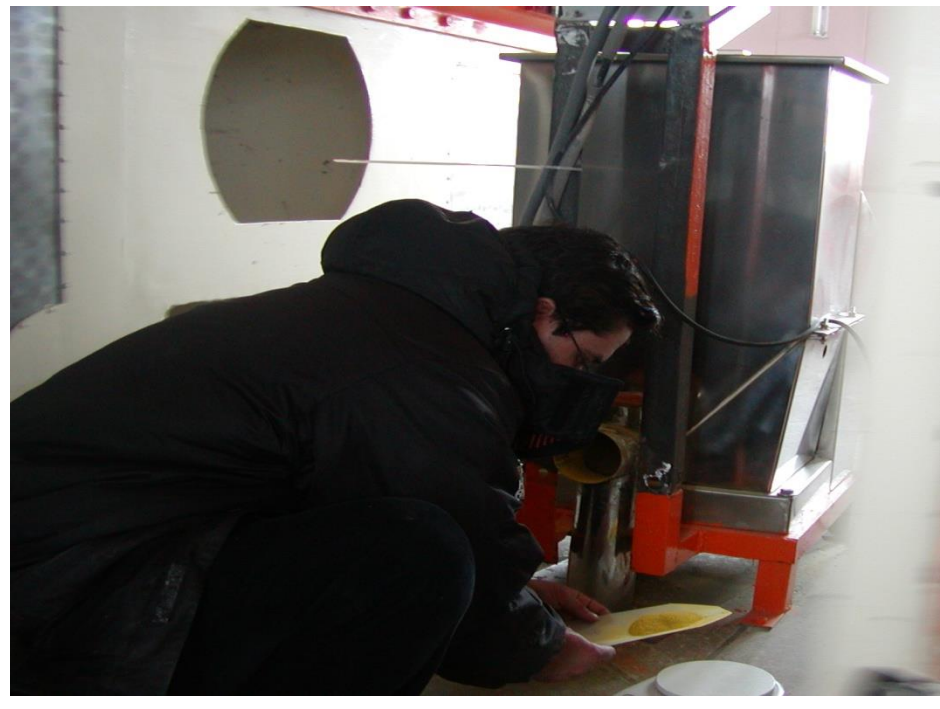


Wheat flour production in percentage





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Afghanistan flour fortification standards are based on WHO recommendation

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)			
			<75g/day	75-149g/day	150-300g/day	>300g/day
Iron	Low	NaFeEDTA	40	40	20	15
		Ferrous sulphate	60	60	30	20
		Ferrous fumarate	60	60	30	20
		Electrolytic iron	NR	NR	60	40
	High	NaFeEDTA	40	40	20	15
Folic acid	Low or high	Folic acid	5.0	2.6	1.3	1.0
Vitamin B12	Low or high	Cyanocobalamin	0.04	0.02	0.01	0.008
Vitamin A	Low or high	Vit A palmitate	5.9	3	1.5	1
Zinc	Low	Zinc oxide	95	55	40	30
	High	Zinc oxide	100	100	80	70
NR – Not Recommended						

Challenges and constraints

Wheat flour

- Low quality and quantity of locally produced wheat flour
- Weak support on importation of wheat instead of flour(which are not fortified)
- No program to convinces the traders to being fortified instead of non fortified flour from neighboring countries

Recommendations

- Supporting the in-country production of iodized salt ,fortified wheat flour & edible oil
- Regional coordination to support government of Afghanistan to finalize policy on importation of wheat instead of wheat flour
- Support the importation of fortified wheat flour & edible oil until the local production capacity increased (Na Iron EDTA to 15)
- Strengthening coordination & collaboration among governments to import fortified food (iodized salt ,fortified wheat flour & edible oil)
- Harmonize standards among countries of the region

Remember, Remember

"Use every letter you write
Every conversation you have
Every meeting you attend

to express your fundamental beliefs and dreams
Affirm to others the vision of the world you want"

(Robert Muller)

Robert Muller (March 11, 1923 – September 20, 2010) was an international [civil servant](#) for 40 years, his ideas about [world government](#), [world peace](#) and [spirituality](#) . He was known by some as "the philosopher [1](#)

Thanks ,
Better future and better coordination

