



## Public-private-civic partnerships for maize-flour and corn-meal fortification



**Flour Fortification Initiative**  
A Public-Private-Civic Investment in Each Nation

Helena Pachón

8 April 2013

Consultation: Technical considerations for maize flour and corn meal fortification in public health

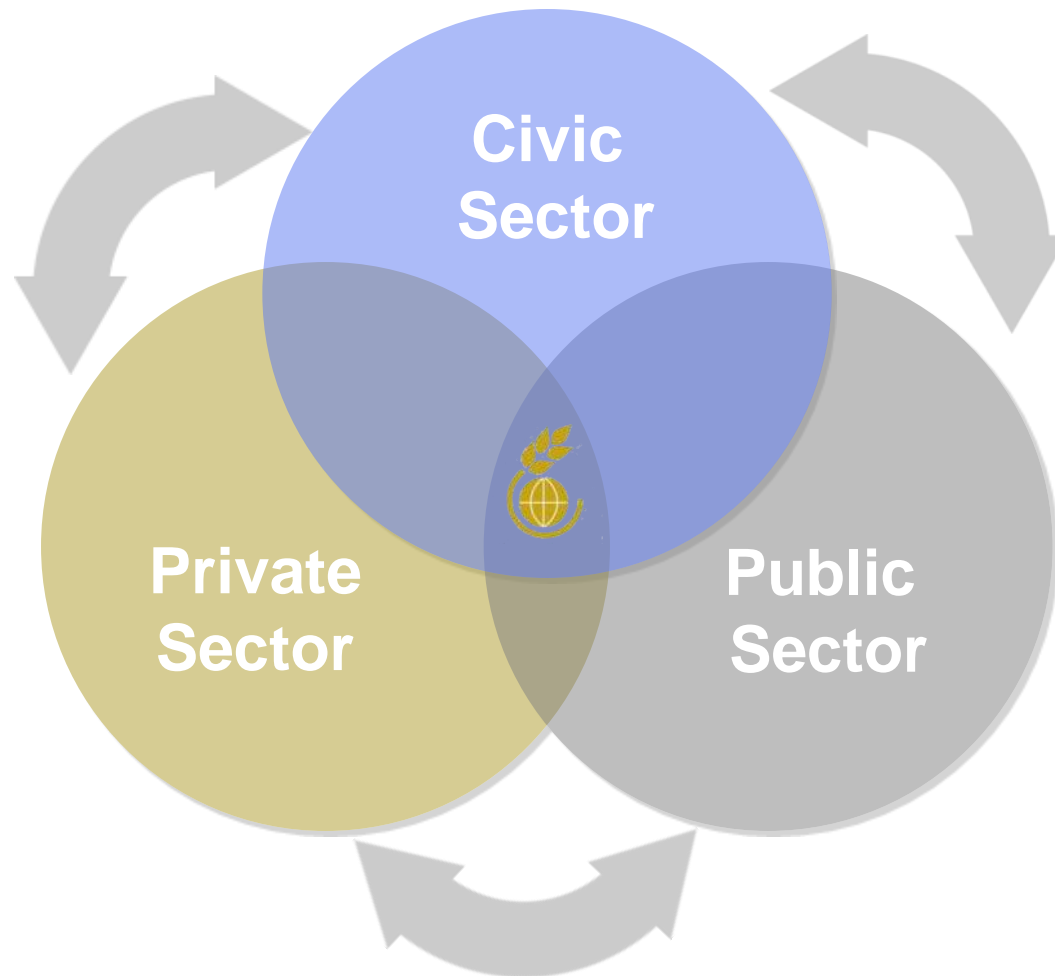
# A definition of public-private partnerships (PPPs)

“Public–private partnerships are ongoing agreements between government and private sector organizations in which the private organization participates in the decision-making and production of a public good or service that has traditionally been provided by the public sector and in which the private sector shares the risk of that production.”



tradexcap.com

# Public-private-civic (implicit)



# Why enter into PPPs?

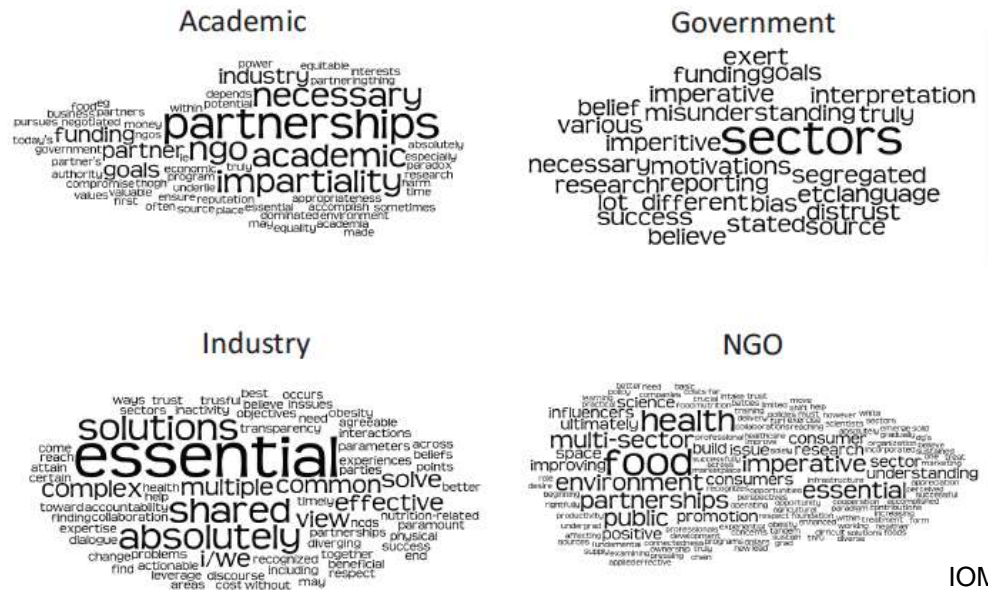
“[To combine] different skills, expertise and other resources—ideally in a framework of defined responsibilities, roles, accountability and transparency — to achieve a common goal that is unattainable by independent action.”



blogspot.com

# Challenges of PPPs

- Different reasons for entering into PPPs



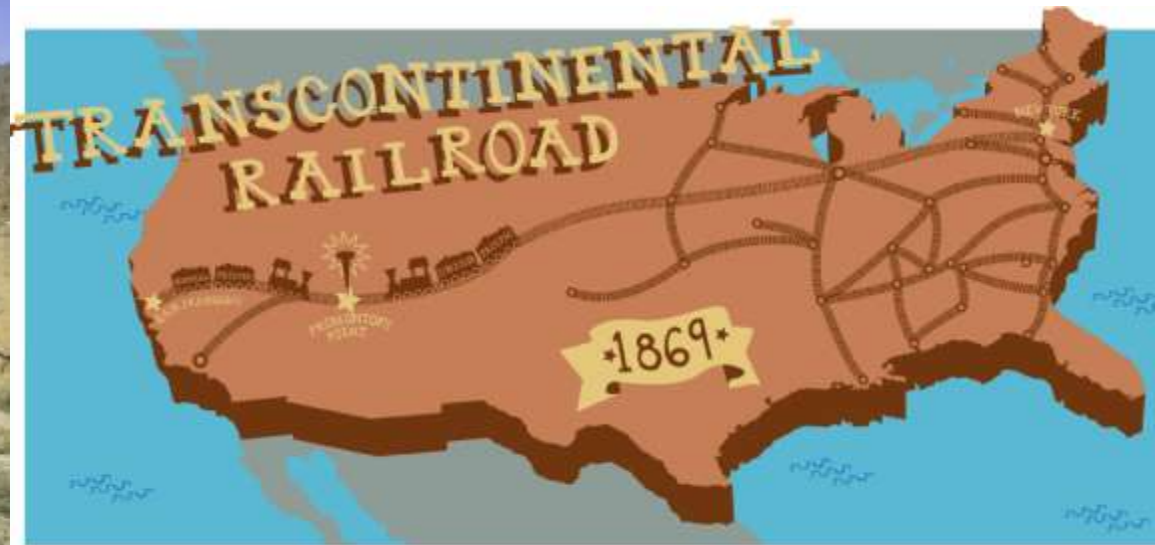
IOM 2012

- Potential conflicts of interest and biases
- Lack of leadership
- Different accountability, governance, working cultures

# History of PPPs



123rf.com



theydrawandtravel.com

# Special case of fortification

“Food fortification is a public health intervention that is adopted by and delivered through the private sector using its delivery expertise and efficiency, with strong support from the government.

Few other large-scale programs use this method of delivery.”

# Examples of partnerships to advance fortification

**Salt**



Sub-national

**Oil**



Regional

**Wheat Flour**



Global



# PPP to iodize salt in Michigan (USA)

- Goal: prevent goiter in women and children
- Years: 1922-1924
- Actors: Michigan State Medical Society, Michigan Salt Producers Association, University of Michigan, salt retailers, press, physicians, school teachers, State Department of Health

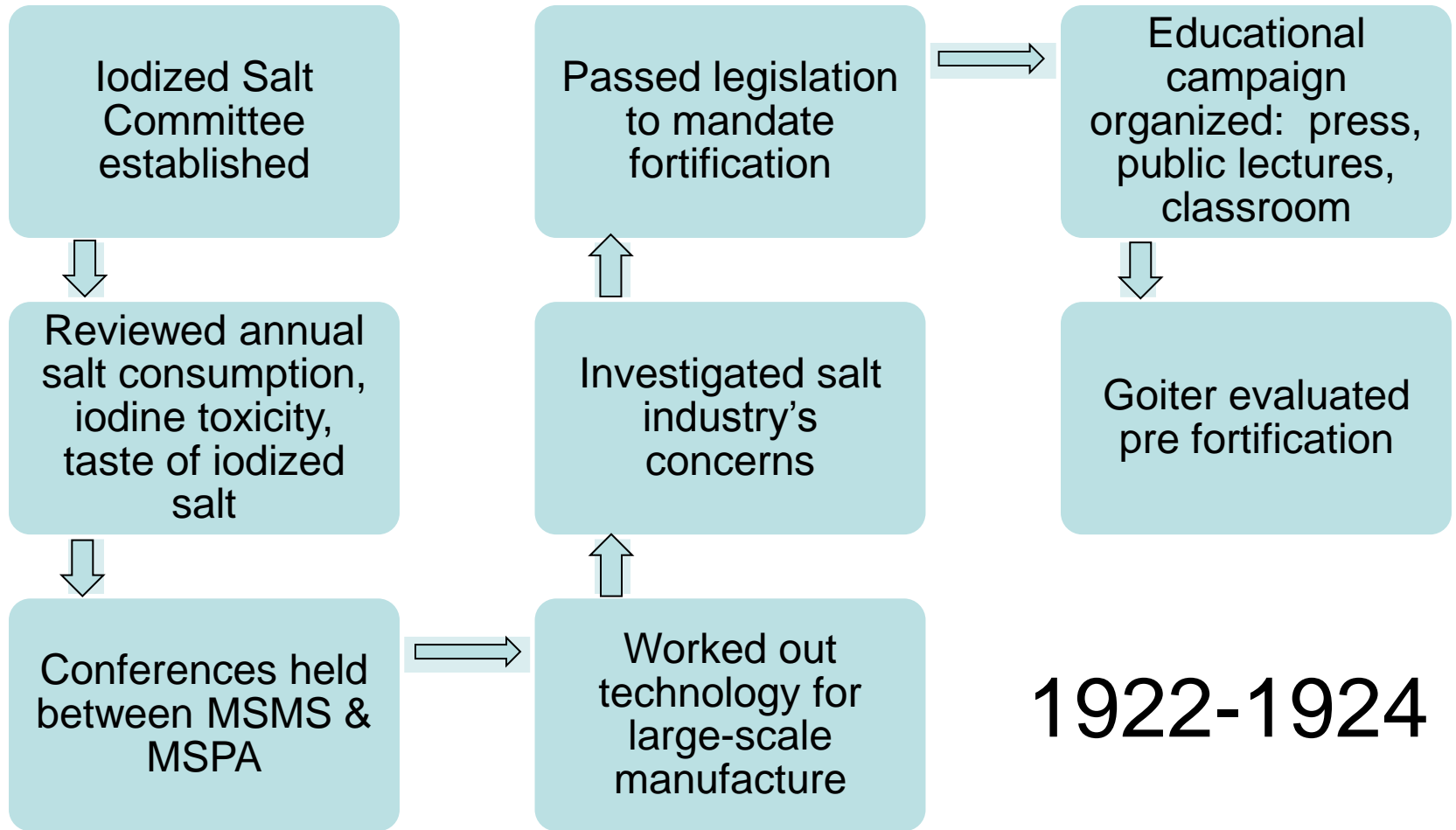


myonlinemaps.com



faqs.org

# PPP to iodize salt in Michigan (USA)



1922-1924

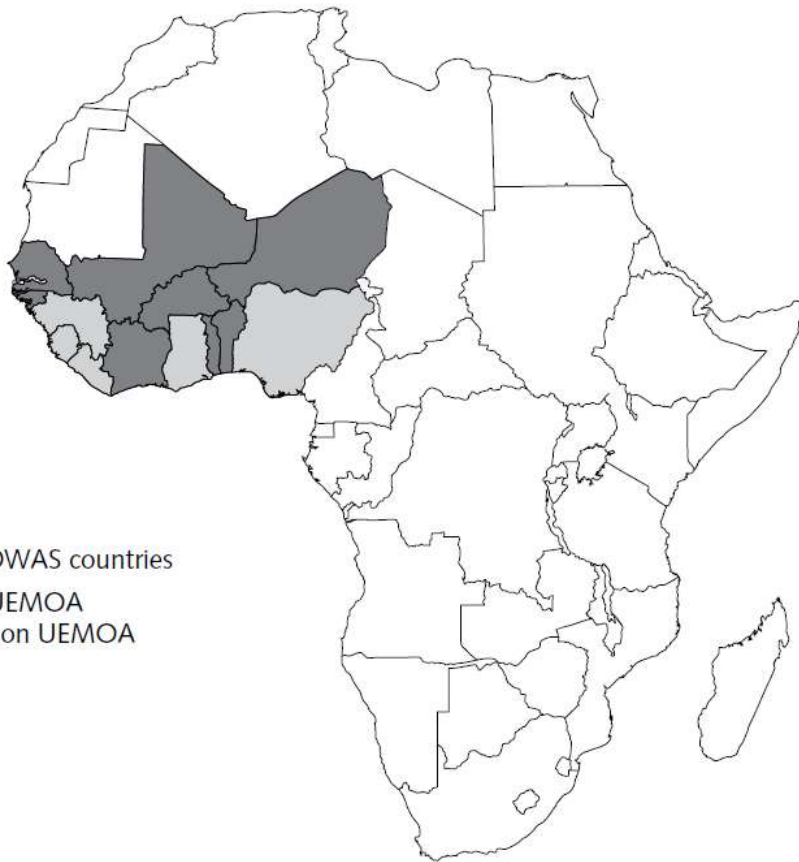
# PPP to iodize salt in Michigan (USA)

- Success: 74-90% reduction in goiter between 1924-1935
- Factors:
  - Cooperation, health workers and salt industry, planning stage
  - a public education campaign / introduction of food\*
  - evidence of success



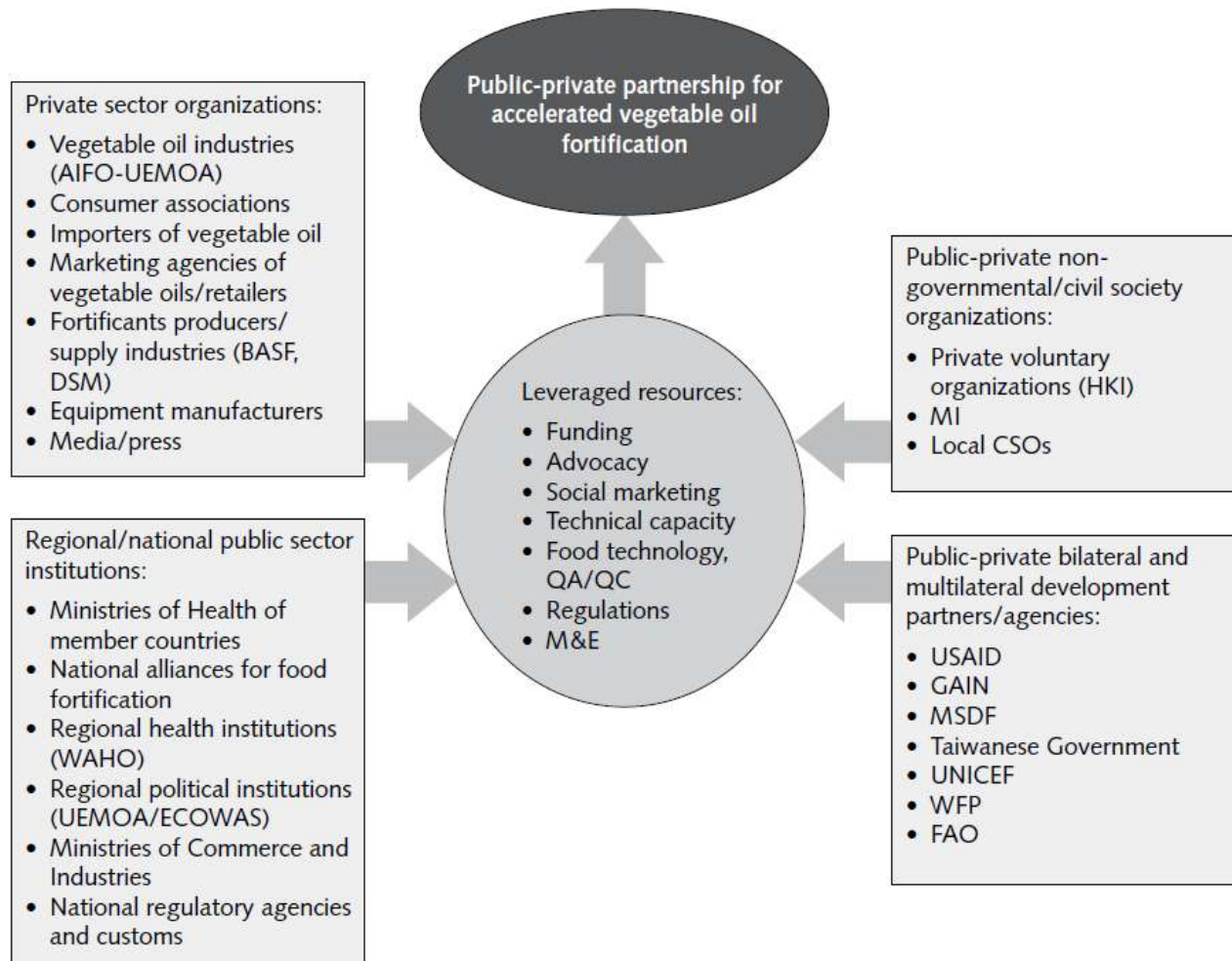
theshiksa.com

# PPP to fortify oil with vitamin A in West Africa

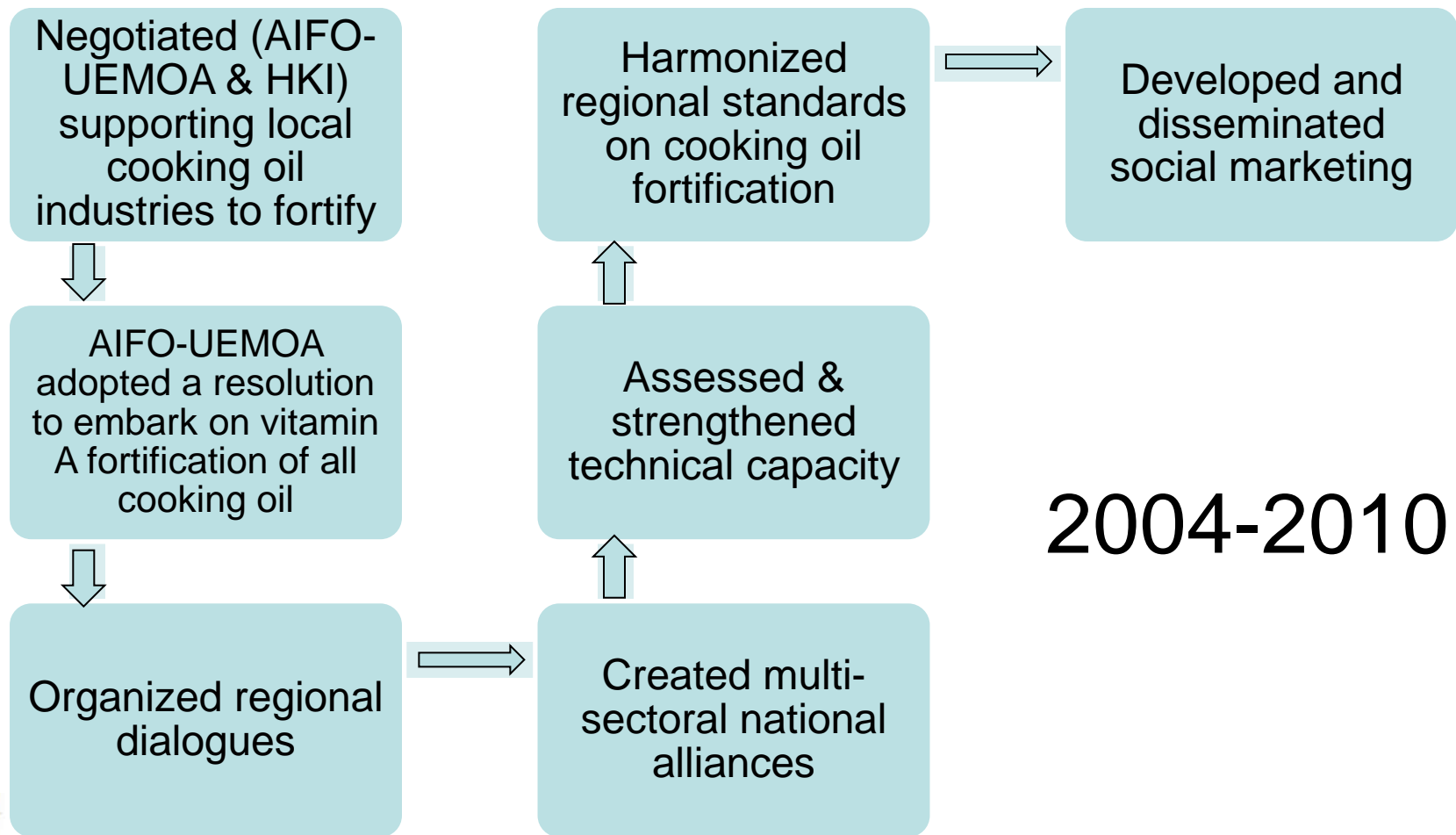


- Goal: improve vitamin A status of vulnerable populations
- Years: 2004-2010
- Countries: Benin, Burkina Faso, Côte d'Ivoire, Guinea-Bissau, Mali, Niger, Senegal, Togo

# PPP to fortify oil with vitamin A in West Africa



# PPP to fortify oil with vitamin A in West Africa



# PPP to fortify oil with vitamin A in West Africa

## Success:

- Countries fortifying: 0→19
- Coverage: ~55 M with daily access to vitamin A–fortified cooking oil
- Initiative broadened: wheat-flour fortification



mylot.com

# PPP to fortify oil with vitamin A in West Africa

## Lessons learned:

- Private sector industries can act quickly
- Sustainability is ensured through mandatory policies and enforcement of decrees
- Policy development requires a significant length of time
- Local presence and understanding required to nurture partnerships



# PPP for wheat-flour fortification

- Goal: establish global recommendations for wheat-flour fortification
- Years: 2004-2010
- Actors: nutritionists, pharmaceutical representatives, cereal scientists, milling experts



[kznhealth.gov.za](http://kznhealth.gov.za)



[telegraph.co.uk](http://telegraph.co.uk)

# PPP for wheat-flour fortification

## Objectives:

- Review the latest scientific and technical information regarding wheat-flour fortification with iron and folic acid
- Identify technical and practical barriers that may impede the implementation of fortification
- Provide practical recommendations to overcome barriers

## Participants:

- Public-health agencies, research institutions, premix manufacturers, milling industries, development agencies

Cuernavaca, Mexico  
1-3 December, 2004



# PPP for wheat-flour fortification

## Second Technical Workshop on Wheat Flour Fortification: Practical Recommendations for National Application

March 30 to April 3, 2008  
Stone Mountain, Georgia, USA



Nearly 100 leading nutrition, pharmaceutical and cereal scientists and milling experts from the public and private sectors from around the world gathered for four days to harmonize advice for countries considering national wheat and/or maize flour fortification.

# PPP for wheat-flour fortification

Table 1. Average levels of nutrients to consider adding to fortified wheat flour based on extraction, fortificant compound, and estimated *per capita* flour availability

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) <sup>1</sup>			
			<75 <sup>2</sup> 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 <sup>3</sup>	NR <sup>3</sup>	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 <sub>12</sub>	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 <sup>4</sup>	Low	Zinc Oxide	95	55	40	30
	High	Zinc Oxide	100	100	80	70

# PPP for wheat-flour fortification

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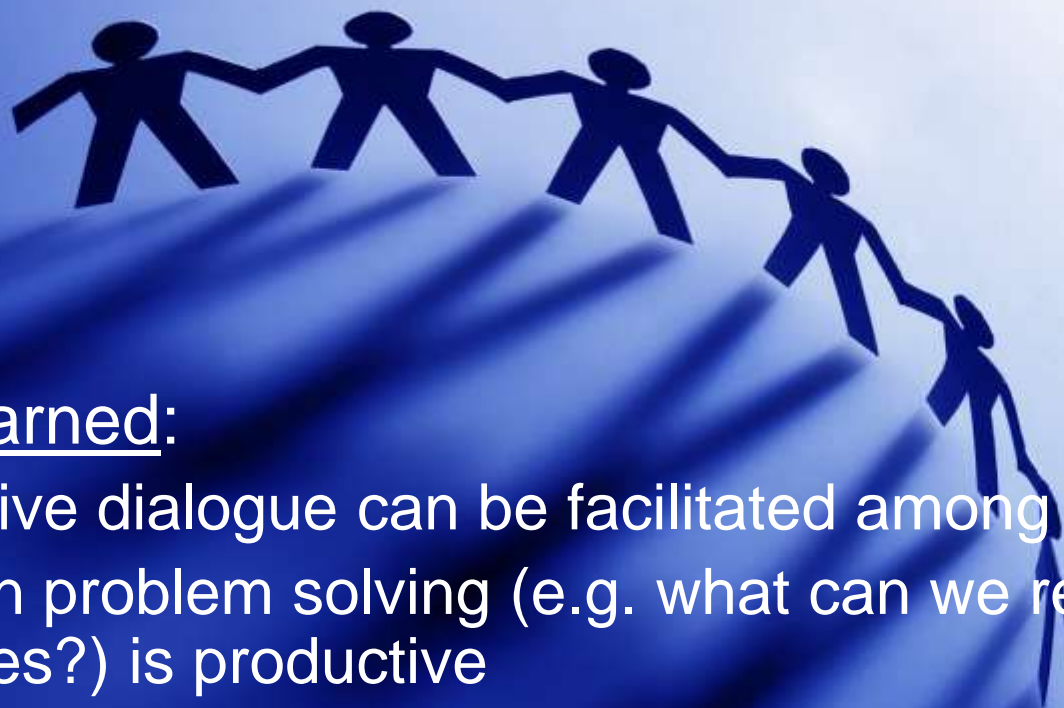
### **SUPPLEMENT**

### **FLOUR FORTIFICATION WITH IRON, FOLIC ACID, VITAMIN B<sub>12</sub>, VITAMIN A, AND ZINC: PROCEEDINGS OF THE SECOND TECHNICAL WORKSHOP ON WHEAT FLOUR FORTIFICATION**

*Guest editors: Mary Serdula, J.P. Peña-Rosas,  
Glen F. Maberly, and Ibrahim Parvanta*

*Associate Editors: Nancy Jennings Aburto,  
Cria G. Perrine, and Zuguo Mei*

# PPP for wheat-flour fortification



## Lessons learned:

- Constructive dialogue can be facilitated among sectors
- A focus on problem solving (e.g. what can we recommend to countries?) is productive
- Several meetings may be necessary to reach consensus
- Extensive resources needed

[thishouseofhonours.webs.com](http://thishouseofhonours.webs.com)

# Applicability to maize-flour and corn-meal fortification

- Mass fortification of any food requires collaboration among public-private-civic partners
- Educational/social marketing campaigns are useful
- Evaluations can document success
- Legislation & monitoring ensure sustainability
- On-the-ground presence to nurture partnership
- Allow time for frequent dialogue & policy-development process

# Conclusions

- ❖ Public-private-civic partnerships have been used to meet public-sector goals
- ❖ Successful large-scale fortification requires partnerships
- ❖ Experiences with & partnerships forged for fortification of other foods can accelerate maize/corn fortification



123rf.com



# References for download

<http://www.sph.emory.edu/~hpacho2/>

(in folder *PartnershipsMaize*)

# For more information

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