

External Quality Assurance: Government Regulatory Monitoring

Atelier de Formation
des Formateurs
en Enrichissement de la Farine
Dakar, Senegal, 7-10 Decembre 2009

*Laird Ruth, CDC
International Micronutrient Malnutrition
and Control Program (IMMPaCt)*



Slides by Quentin Johnson

Flour Fortification Initiative

A Public-Private-Civic Investment in Each Nation

Quality Assurance Definition

A system to control all parts of the milling process to ensure the consistent production of flour that meets both regulatory and commercial requirements

External Quality Assurance

- The system of activities that take place to “assure” the degree of conformance to specifications all through the activities that impact the quality of a product

**THE APPLICATION OF QUALITY ASSURANCE AND
FOOD SAFETY PRINCIPLES TO FOOD FORTIFICATION
IS NECESSARY BECAUSE WE OWE THE CONSUMER A
WHOLESOME PRODUCT THAT DELIVERS WHAT IS
OFFERED IN THE LABEL**

A new paradigm has to be developed
in order to comply with the
requirements of fortified food
product

- Fortified food products should not be considered pharmaceuticals, but deserve more attention than regular mass consumed food products

How do we apply the QA and safety principles to food fortification?

FOOD SAFETY PYRAMID



*THE FOUNDATION
FOR HACCP*

External QA for Food Fortification

- System has to include:
 - Proper legislation
 - » Food Law
 - » Regulations
 - Monitoring system
 - Surveillance system

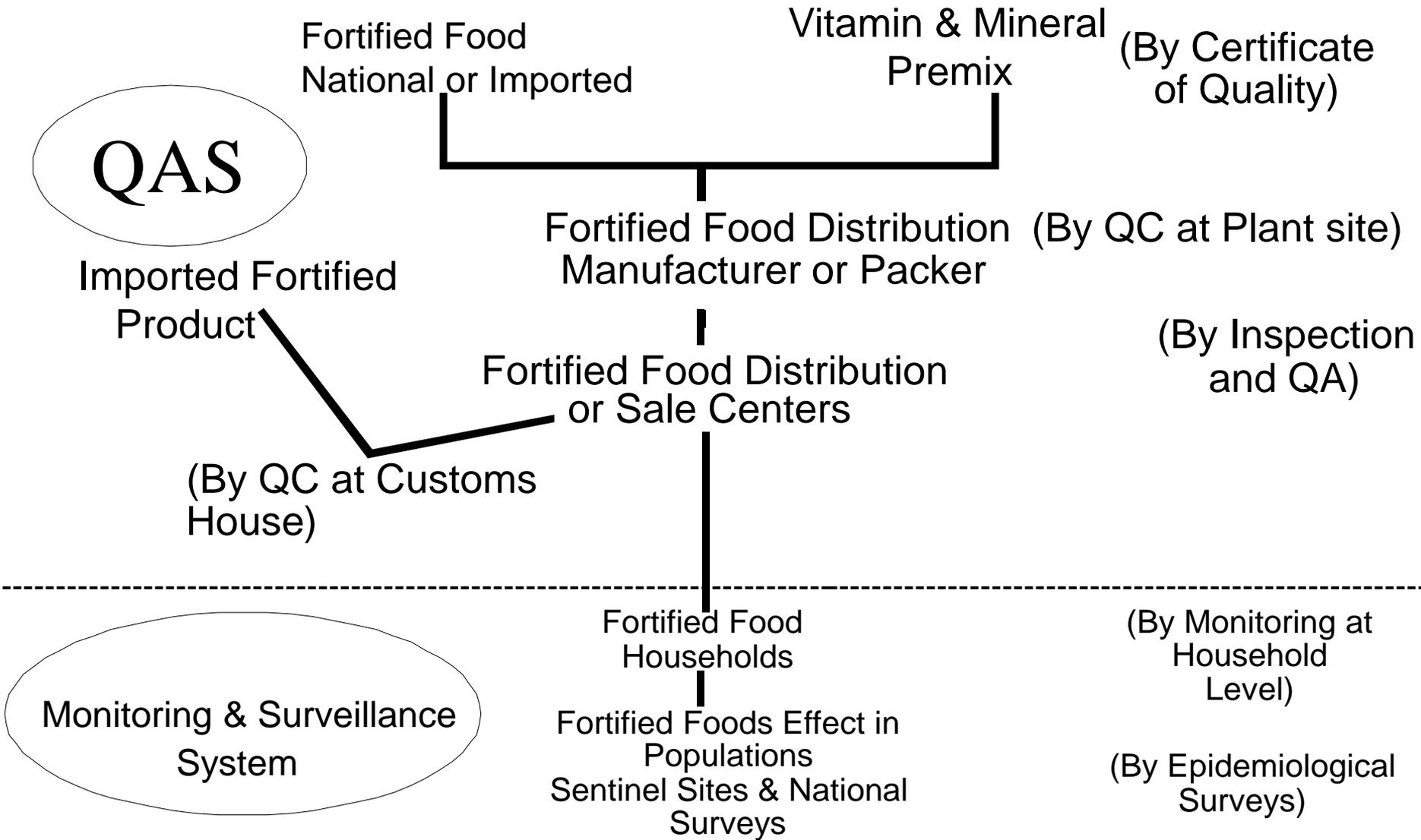
Legislation:

- A comprehensive FOOD LAW is usually non-existent in many countries
- Most of the times, regulations for foods exist under another law, but are not specific to fortified foods
- The preferred way to go is with specific regulations for the fortified food(s)

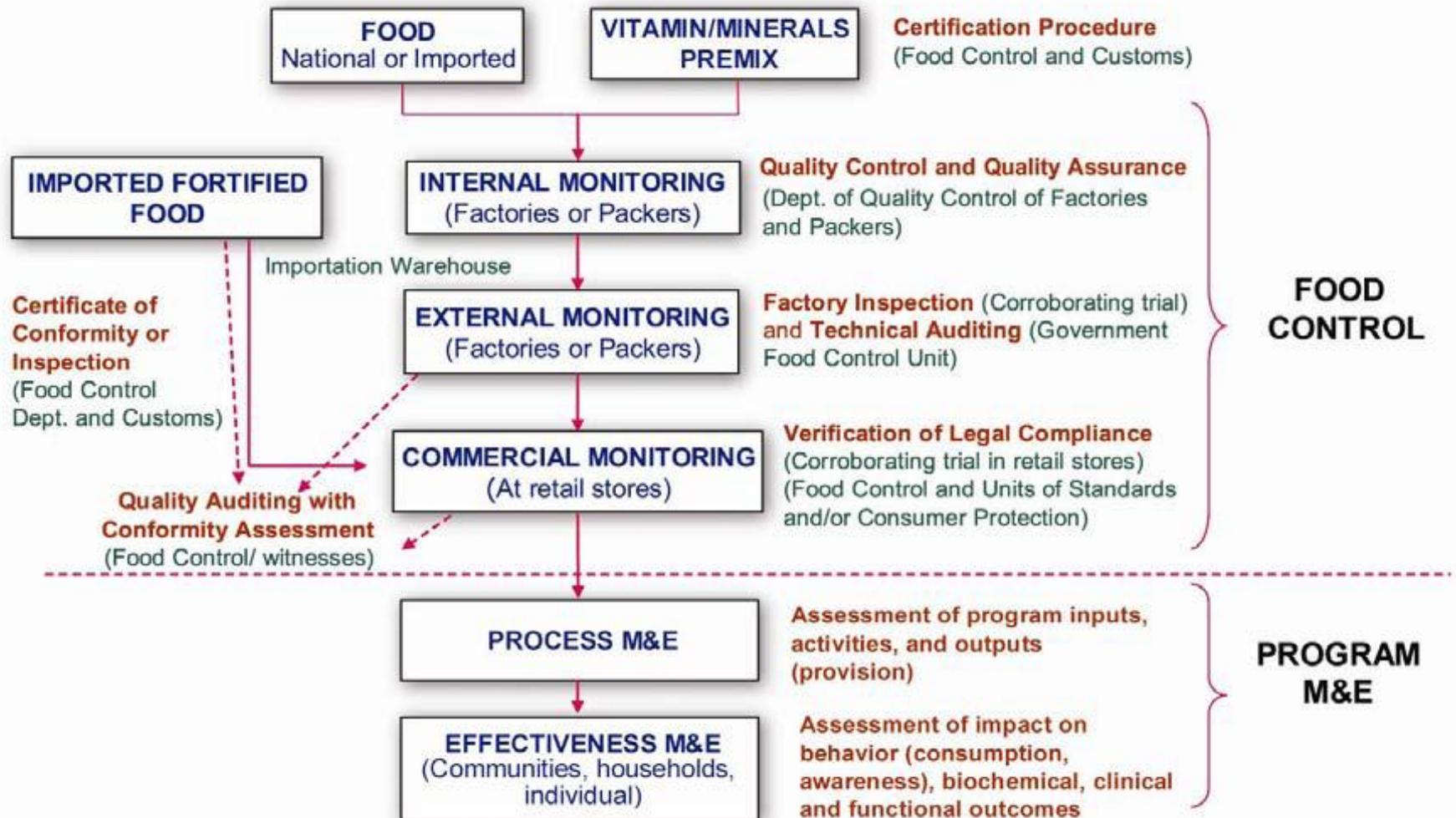
Surveillance:

- Usually under a government department that performs “food control”
- Food inspectors come in many “sizes and colors” ... but, most of the times lack proper background and training.
- Resources, including laboratory facilities, are modest or non-existent

FLOW CHART – QA and SURVEILLANCE SYSTEM FOR FOOD FORTIFICATION PROGRAMS



Framework for Monitoring of Food Fortification Programs



External Quality Assurance System Components

- Mill Inspections
- Sampling policies and procedures
- Laboratory Analysis
- Enforcement procedures

Mill Inspections

- Check list covering
 - Premix storage and procurement
 - Feeder location and operation
 - Quality Assurance laboratory records and procedures
 - Premix Usage reconciliation calculations
 - Flour Sampling
 - Food inspectors must have the authority to look at all records including order records, delivery receipts and invoices for premix

Sampling policies and procedures

- Question: Is the inspection monitoring or enforcement?
- Monitoring sample is sufficient but it must be at least 500 grams
- Enforcement sampling must follow proper representative sampling protocols such as MILL Sampling plans. One 500 gram sample is NOT representative of a production lot for a legal case

Laboratory Analysis Issues

- Sampling Accuracy
- Equipment capacity and capability
- Personnel capacity and training
- Availability of chemicals and supplies to run the tests
- Methodology proficiency including use of standard fortified flour sample or spiked sample
- Analysis Variation is significant

AACC Vitamin and Mineral Check Sample

- Subscription service
- http://www.aaccnet.org/checksample/MiscPDFs/AACC_CheckSampleOrdForm.pdf
- VMP Corporate Cost \$570 plus postage
- Results of September Tests
- http://www.aaccnet.org/checksample/Reports/FinalResults/2009/F2009_VMP-5.pdf
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Enforcement

- Sampling and testing 1 sample alone is NOT rigorous enough for legal action against a food manufacturer or importer
- Must look at all aspects of the fortification at the mill level as described earlier to ensure successful compliance
- In North America food inspectors have the same level of authority as policemen
- Appropriate supporting laws and regulations must be in place together with standards

For additional information, visit:

www.sph.emory.edu/wheatflour/atlanta08/

www.FFInetwork.org



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