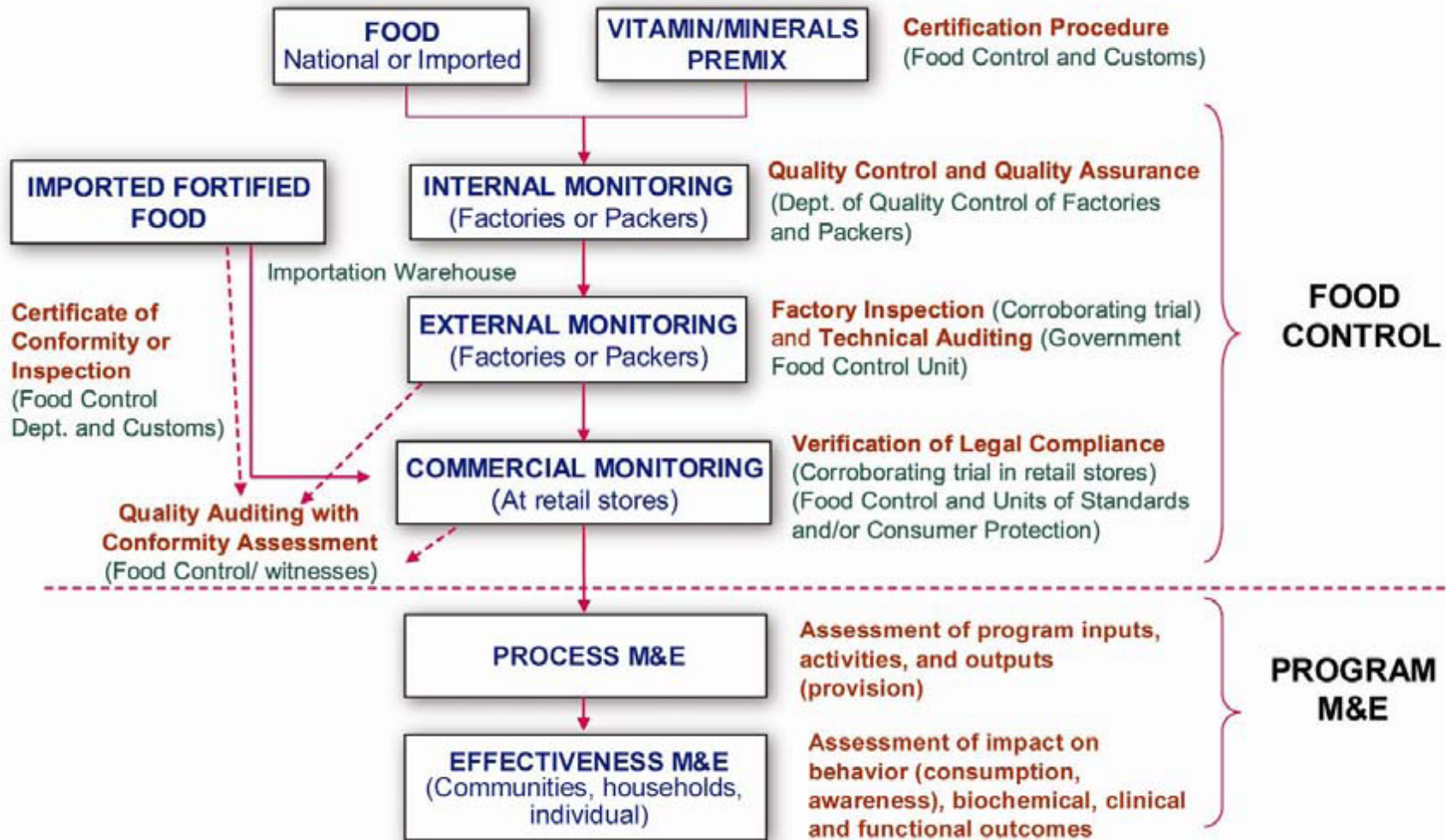


NATIONAL FOOD CONTROL SYSTEMS

Opportunities and Constraints

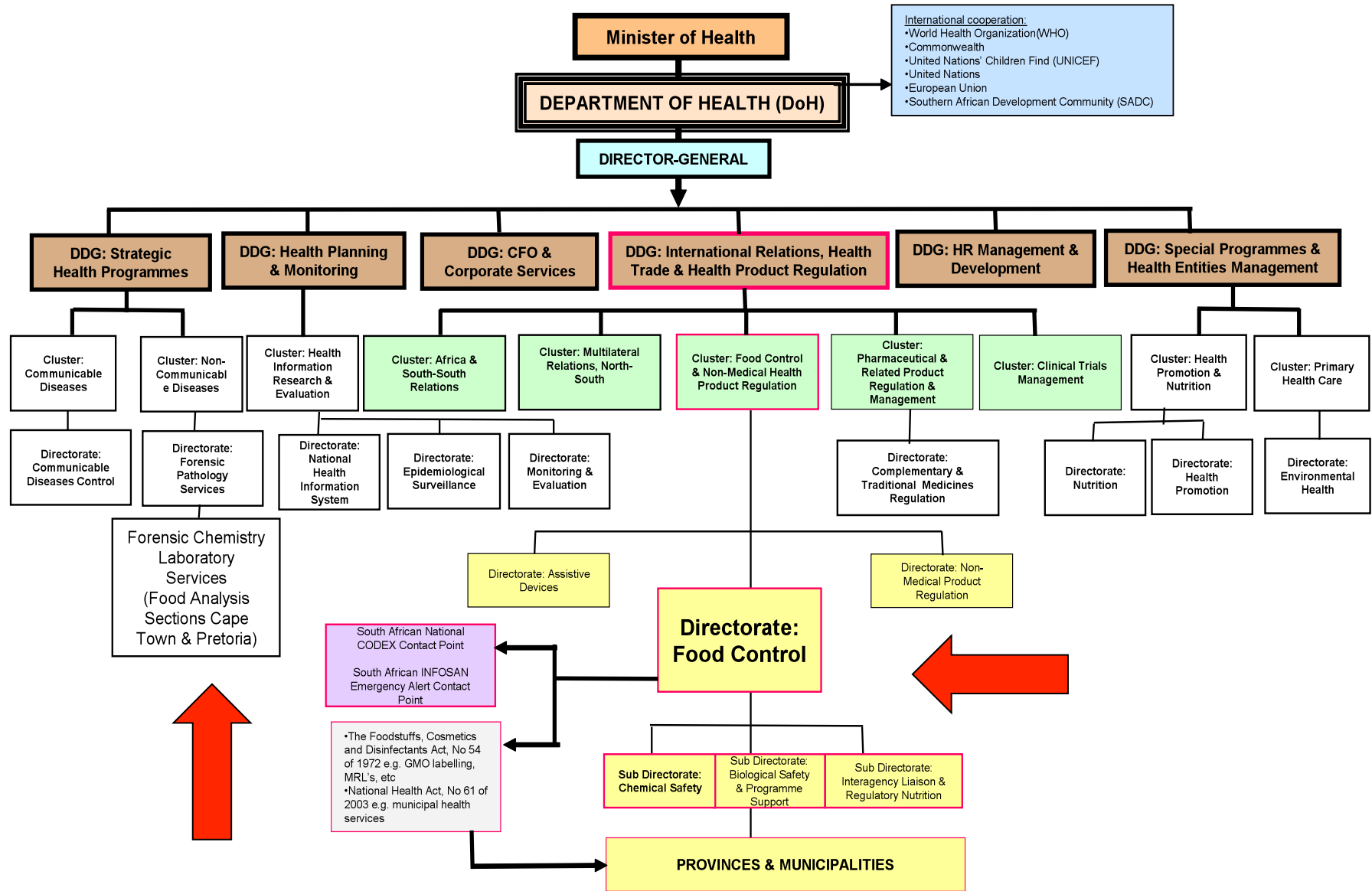
Philip Randall

Framework for Monitoring of Flour Fortification Programs



**Using South Africa as an
example of constraints**

Organogram



Food laboratories

- Only 2 laboratories in country
- Equipment old
- Severe understaffing
- Chronic skills shortage
- Salaries not market related
- Poor turnaround time on analysis

**Multiple regulatory authorities,
multiple regulations**

- Ministry of Agriculture – Grain, Livestock, Fish etc – “Unprocessed”
- Ministry of Health – any “processed” foods
- Water and Forestry – under Min of Agriculture
- Parastatals – SABS – canned fish; PPECB – exports
- Provincial, Metropolitan and District Authorities

- More than 16 different food regulations enacted under various Acts of Parliament
- Local By-laws still exist
- Antique laws permit “any sealed package” to be a sample and “the Government Chemist” is always right

Three Spheres of Government

- National – responsible for overall coordination and organising National Sampling Plans, Emergency Response to food borne illness etc
- Provincial – responsible within own province; some very active some very weak
- Municipal – as above

- National can not tell Provincial or Municipal Authorities to do anything – only “request”

Fortification Consequences

- Inspectors focus on “easy” targets i.e. Big mills so compliance amongst (smaller rural mills) those feeding the most vulnerable groups is viewed as low.
- Food Control not monitoring pre-mix

A Vision for the Future

- Coordinate analysis results and analyse centrally – any and every investigation, complaint or analysis to be copied to a central facility charged with data compilation, trend analysis and data mapping plus disseminating results.
- Same facility to “look over the horizon” i.e. Early warning of food borne threats in other countries

- Establish “elite unit” for rapid response, method development etc
- Look to ISO 17025 compliance using “technique” accreditation

Information Resources

- - Sample size, storage and transportation requirements
- - Analysis time, sample tracking and interpretation of results against legislation
- - Possible reasons for non-compliance
- - Media response
- FAQ section for consumers – especially during/after media blitz

Specific Plans in RSA

- Of 5 plans (Additives; Contaminants; MRL's; Mycotoxins; Nutrition) only nutrition is not a safety issue
- Monitoring for public safety is vastly different – and easier – than monitoring for compliance

Specify Sampling Parameters

- Specific commodity i.e. Fruits, grains etc
- Specific point in food chain i.e. Farm, market, retailer
- For fortification only at the mill
- Do not let inspectors work on random basis

For Fortification

- Food Control, therefore, need to ensure major mills are not “over monitored” due to ease of access
- Question of “risk analysis” – not only to the public from non-compliance but to the fortification programme *per se* because larger millers perceive smaller millers are non-compliant and threaten to pull out in protest

Folic acid and Iron

- Spinach extract and iron filings will conform to specification – analysis will indicate both micronutrients are present and in sufficient quantity - but that is not “fit for purpose”
- Is specifying the iron type a TBT??
- Is specifying a maximum value necessary??

Work Smarter

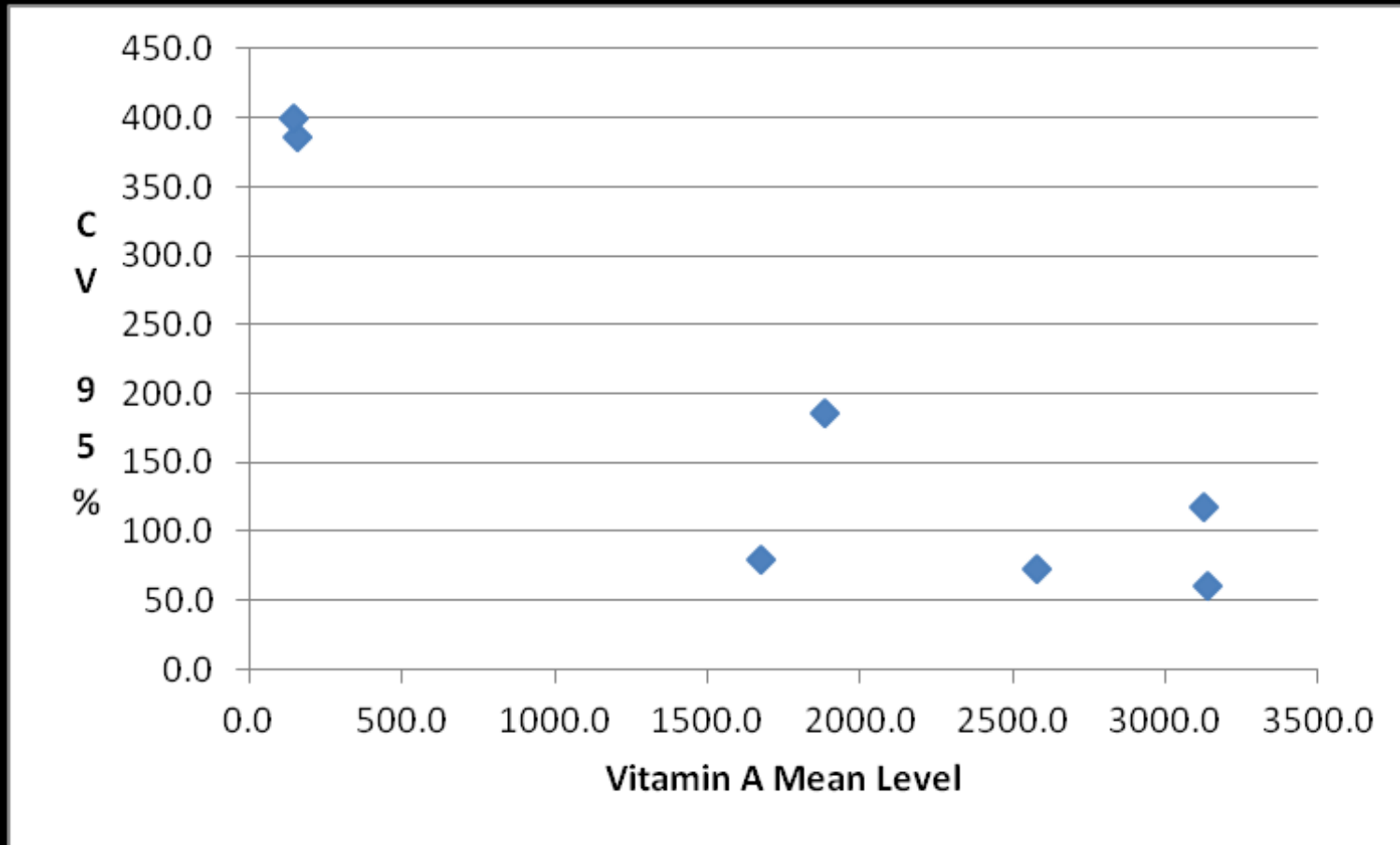
- Check the pre-mix as “fit for purpose”
- Check pre-mix consumption
- Check production output

- **Compliance established in hours not days/
weeks**

- **Low cost, low technology, high level of
confidence**

Why is checking pre-mix is
better?

AACC Ring Trail 2010 Reproducibility



What sort of system audit?

Paper Trail

- All mills keep records
- Food Laws give mandate to check records
- Develop/adapt/adopt a Code of Practice agreed upon by all stakeholders regarding who does what, where and when

Methodology

- Register pre-mix suppliers
- Specify the nutrient compounds i.e. Thiamine mononitrate activity minimum 78%
- Pre-mix suppliers provide (at own cost) accredited laboratory data on own pre-mix twice annually
- Pre-mix suppliers externally audited twice annually (GMP ----- analysis!!!!) at own cost

Sampling?

Sampling

- Sensitive issue – especially in the area of international trade.
- Cannot treat imports stricter than local production (need to discuss implications with local WTO contact point)
- Fortified flour is heterogenous for micronutrients compared to being homogeneous for moisture

- Mill producing 10Mt/hour of flour will take 0.09 seconds to produce sample
- Taking a sample over 4 hours against checking the paper work in approximately 15 minutes
- Paper trail does not prevent Regulator from conducting finished product sampling

