FORTIMAS Methodology: Overview of the Basics

Ibrahim Parvanta, Senior Expert, 2FAS

May 19, 2022

"Strengthening national capacities in food fortification"

2FAS
Food Fortification Advisory Services
Funded by the European Union

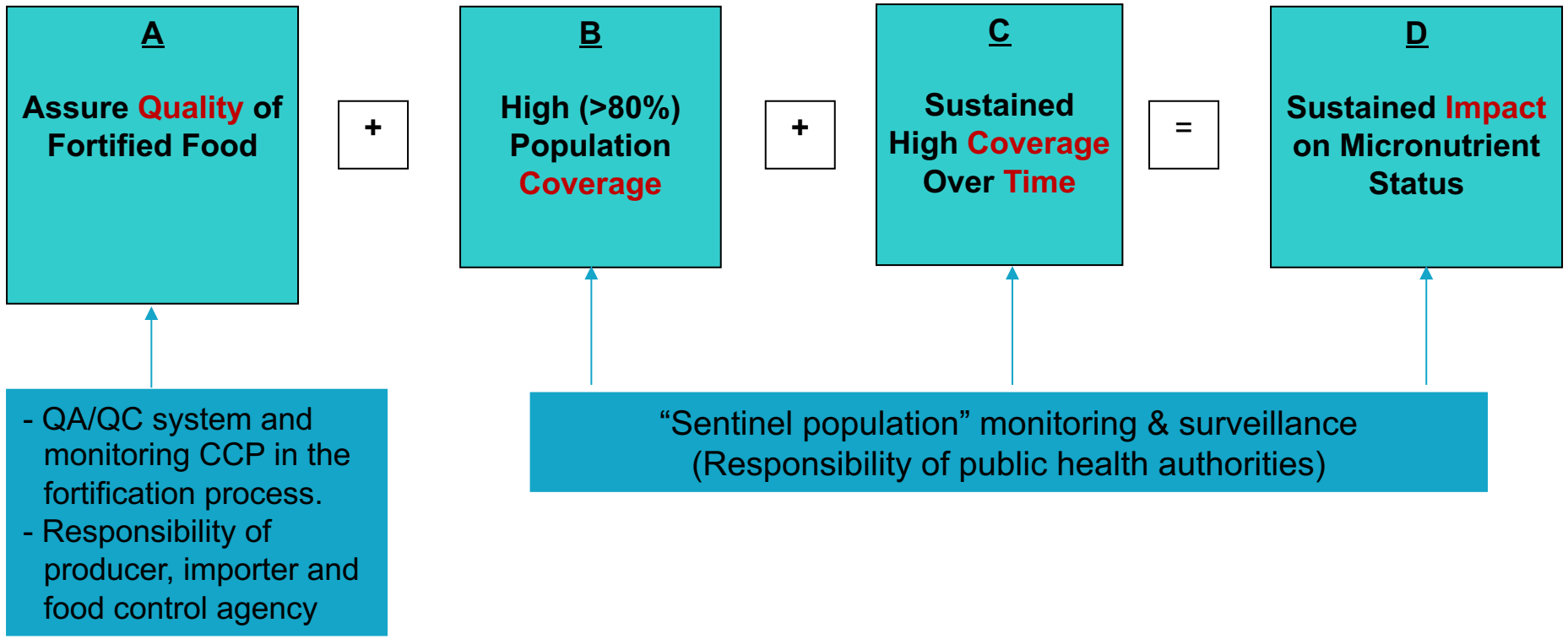
Landell Mills

gain
Global Alliance for Improved Nutrition

OUTLINE

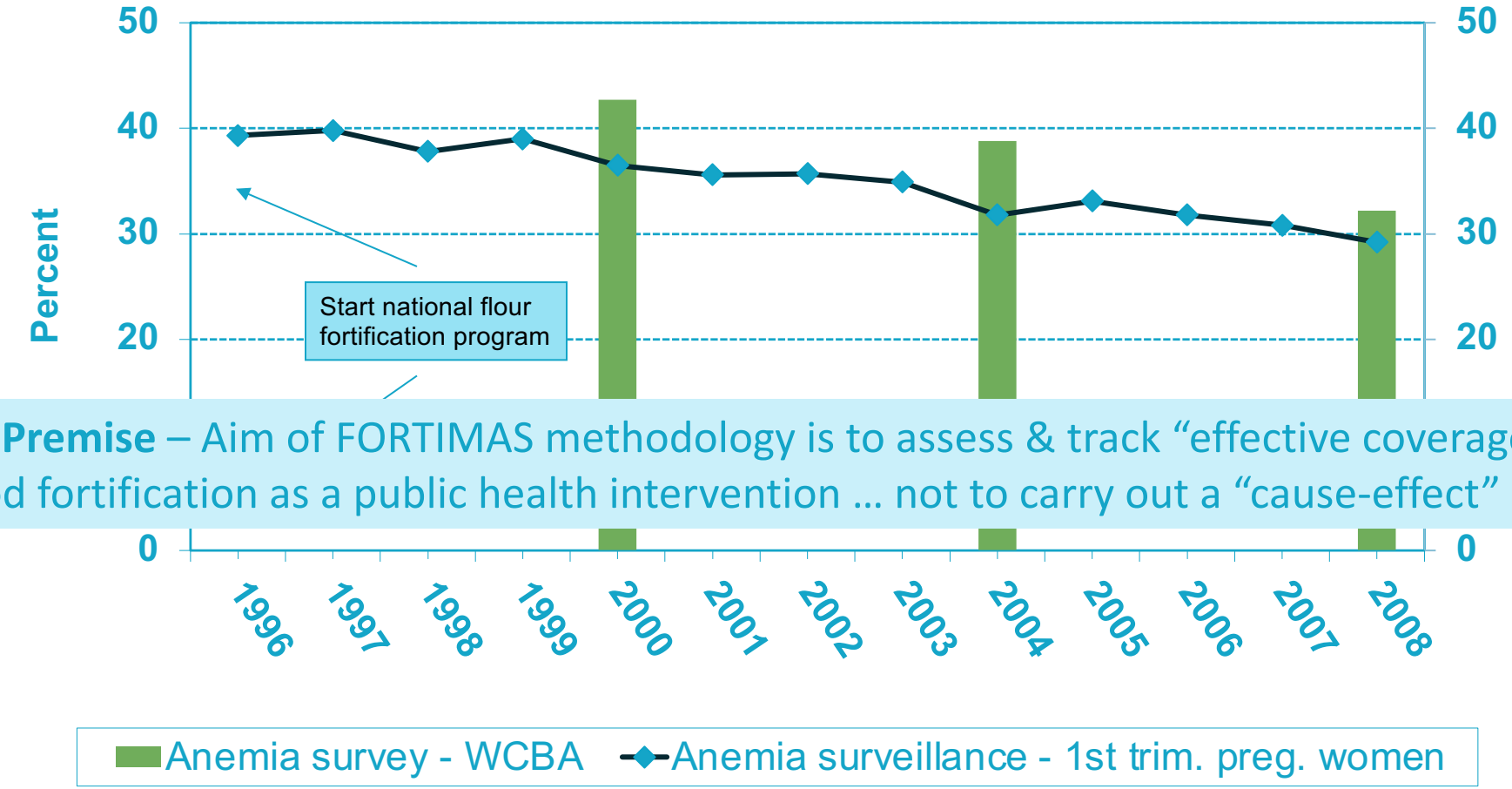
1. Present the premises of FORTIMAS methodology.
2. Explain what sentinel data collection is based on.
3. Summarize some of the benefits of FORTIMAS methodology.

1st (overarching) Premise of FORTIMAS Methodology



2nd Premise - With sustained high population coverage of a fortified food, findings on micronutrient status indicators using non-representative data, would be "reflective" of the situation in the broader population

Anemia prevalence among women in Oman since start of mandatory flour fortification



3rd Premise – Aim of FORTIMAS methodology is to assess & track "effective coverage" of food fortification as a public health intervention … not to carry out a "cause-effect" study.

Source: Personal communication; Ms. Deena Alasfoor, Oman Ministry of Health

4th Premise - Triangulation of information using reliable complementary data through different sources enables better assessment of the fortification program overall.

1

Quantity of quality fortified flour:
Flour millers, importers, whole sellers, Ministry of Industry, Ministry of Commerce, Food Control Agency

1. **Annual quantity of quality FF produced based on:**
   a. **Premix reconciliation data from flour mills.**
   b. **Annual quantity of fortificant premix imported.**
2. **Annual quantity of quality imported FF with accompanying Certificate of Analysis.**

- Calculate "expected" national population coverage of FF.
- Map national market distribution of FF.
- Identify provinces & large cities with >80% population coverage of FF

2

Sentinel population data:
- Public health/nutrition agency

If needed

1. **Household use of adequately fortified flour.**
2. **Bakeries' use of fortified flour in bread.**

1. **Hb levels among 1st trimester pregnant women.**
2. **Annual neural tube defects (NTD) rate.**
3. **Iron and folate status among 1st trimester pregnant women.**

Fortified flour coverage
Data collection points: secondary schools; bakeries

Fortified flour impact:
Data collection points: Antenatal Care/Maternity Facilities

2FAS
Food Fortification Advisory Services
Funded by the European Union

What is “Sentinel” Data?

- The term “sentinel” comes from the French word “sentinelle”, meaning sentry or watchman.
- In public health, “sentinel population” refers to an at-risk/susceptible population to be monitored (watched over) “for appearance or recurrence of an expected outcome”.
- In FORTIMAS methodology:
  - A few sub-geographic areas of a country with high population coverage of a target fortified food, are purposively selected for population level data collection because that is where nutritional impact is likely to be detected.
  - “Sentinel site” – refers to a community within the selected large sub-geographic area where population data are to be collected.
  - “Data collection point” - refers to a setting/facility (e.g., health center, school, house of worship) within the “sentinel site” where target subjects could be efficiently recruited for data collection using “convenience sampling” methods.

Some Benefits of FORTIMAS Methodology

1. Countries could implement it on their own without too much external technical support.
2. Allows fortified food producers and importers, as well as the relevant government agencies aside from the MOH, understand how their data is important in tracking the population's nutritional status.
3. (Its limitations considered) each round of FORTIMAS data collection costs substantially less than a typical representative micronutrient survey.
4. Could alert fortification program stakeholders of changes in market distribution of fortified food that might impact the population's micronutrient status.
5. Could help improve quality & utility of health statistics data that hospitals report to MOH.

THANK YOU

Photo credit: Smarter Futures