

Public-Private Collaboration: Success in Brazil

World Salt Symposium

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TECHNICAL SESSION 4A: SALT and IODINE 2

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Overview

- Overview of success of salt iodization in Brazil.
- Evolution of legislation for USI.
- Collaborative agencies and their roles.
- Elements of success.
- Obstacles overcome and ongoing challenges.
- Implications for salt industry.

IDD in Brazil

- Iodine deficiency documented in literature, and early scientific studies.
- About one fifth of Brazil's population vulnerable to IDD as survey of 1955.
- Salt iodization established by early 1980s, with required ppm adjusted in response to persistent deficiency in some regions.
- In 1998, standard set to 40-100ppm, with subsequent surveys demonstrating excessive intake.
- Standards again adjusted to 20-60 ppm in 2003, and in 2013 to 15-45 ppm.
- **Reduction in goiter prevalences - 14.1% in 1974; 1.3% in 1984, 1.4% in 2000.**

Legislation

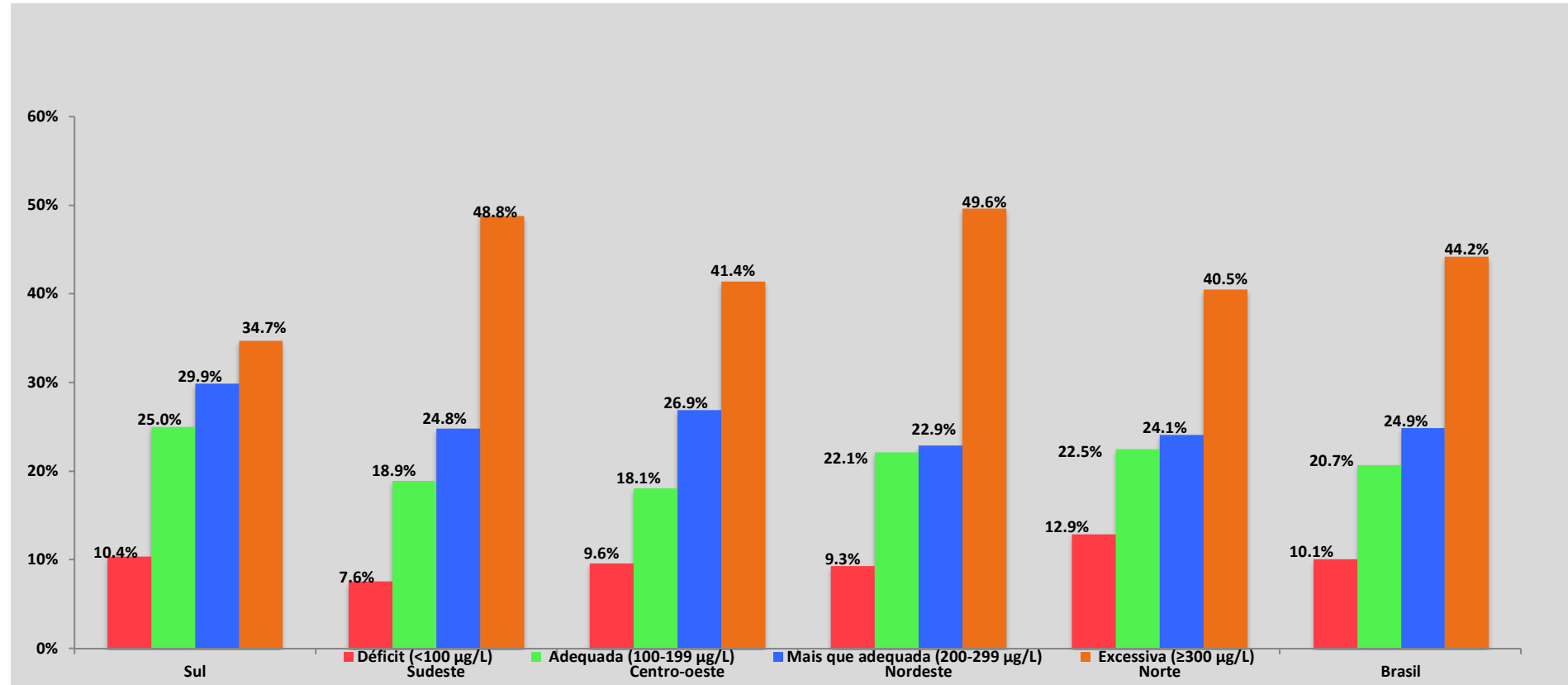
- 1953: Salt iodization made mandatory in areas with goiter.
- 1956: Salt iodization mandatory nationally for all human consumption.
- 1974: Iodine level set at 10 ppm, with monitoring done by states.
- 1975: Quality standards established for salt.
- 1984: Iodine range fitted to 10-30 ppm.
- 1999: Coalition Committee established to oversee IDD efforts.

Legislation

- Initially, government purchased potassium iodate and distributed to salt producers—but smaller producers failed to comply.
- By 1974, salt industry responsible for KIO_3 procurement, but government reversed this in 1982, requiring close monitoring of salt iodine content.
- 2000: Basic procedures for GMP.
- 2005: National Program for the Prevention and Control of Disorders of Iodine Deficiency – PRO IODO.



From national survey data from 2008 by PNAISAL, Brazil had accomplished iodine sufficiency (MUIC > 100 mg/L) in all regions.



Distribution of the sample according to the concentration of iodine (µg/L) in urine of schoolchildren (6 to 14 years old) by region. Brazil, 2008-13.

Collaboration

- In 1982, the government established the National Institute for Food and Nutrition (INAN) within the Ministry of Health
- A working task force was created, and included salt industry representatives
- The task force established standards, oversaw monitoring, and tracked progress, with full industry involvement and cooperation
- In 1995 the National Agency for Sanitary Surveillance (ANVISA) was established to oversee monitoring.

Collaboration

- In 2005, the National Program for the Prevention and Control of Iodine Deficiency Disorders (PRO IODO) was established.
- A Committee for the Prevention and Control of IDD was created, comprising members from the Ministry of Health, the ANVISA, UNICEF, the salt industry, PAHO, and academia.
- In 2011, the government established a National Plan for Tackling Chronic Non-Communicable Diseases, with multilateral support from government and food industry stakeholders—to address salt reduction policies.

Elements of success

- Rapid response to demonstrated iodine deficiency with early attempts at USI.
- Early mandatory iodization.
- Early engagement of industry in Committees designing policies to eliminate IDD.
- Rapid response from industry to changes in standards.
- Effective monitoring of salt iodine content.
- Coalition with stakeholders.

Key elements of success

- The success factor for an IDD prevention and control program, coupled with a nationally healthy life program is the coalition and commitment between stakeholders, supported by political will and a strong regulatory legislation, with penalties for violations.

Obstacles and solutions

- Initial difficulties with compliance from small producers.
- Difficulty in knowing national level of iodine deficiency—most early decisions based on small surveys.
- Policies driven by Ministry of Health—but with early involvement of industry.
- Changes in policies relating to KIO_3 supply.

Experience with Salt Iodization in Africa

Salt industry perspective.

- Salt industry characteristics vary by country, each with unique challenges
- Varying regulatory standards throughout Africa
- Inconsistent enforcement standards from country to country
- Extreme variability in populations understanding of the importance of iodine
- Therefore difficult to generalize!

Experience with Salt Iodization in Kenya

- Strong regulatory and enforcement environment
- Consumer understanding of the important of iodine built over time has supported also
- Consolidated industry with small number of large producers
- Historic switch to refined iodised salt in the 1970s means this is embedded with consumers
- Close to 100% availability and coverage of iodised salt, over 95% coverage since 2000
(<https://data.unicef.org/topic/nutrition/iodine-deficiency/#>)

Experience with Salt Iodization in Nigeria

- Generally weak regulatory and enforcement environment
- Program had tremendous success when there was strong Government commitment - National Agency for Food and Drug Administration and Control (NAFDAC) from 2001.
- Consolidated industry with small number of large producers
- USI certification in 2005, to highlight success but attention shifted away (since perception that problem was solved)
- By 2008 significant decline in household consumption of ***adequately*** iodised salt to 52% (NDHS 2008)!

Experience with Salt Iodization in Ghana

- Weak regulatory and enforcement environment
- Very poor consumer understanding on role of iodine
- Highly fragmented salt industry with many small-scale producers (although large players have started to change dynamics recently)
- Tremendous efforts made by NGOs to engage with small scale producers with mixed results
- Consumption of locally produced non-iodised crude salt still prevalent
- Recent studies showed adequate iodine status of population due to consumption of bouillon

Source: <https://www.cambridge.org/core/journals/public-health-nutrition/article/more-than-twothirds-of-dietary-iodine-in-children-in-northern-ghana-is-obtained-from-bouillon-cubes-containing-iodized-salt/C180F671626776E8CE987C0E31007C78/core-reader>

Experience with Salt Iodization in Africa - Summary

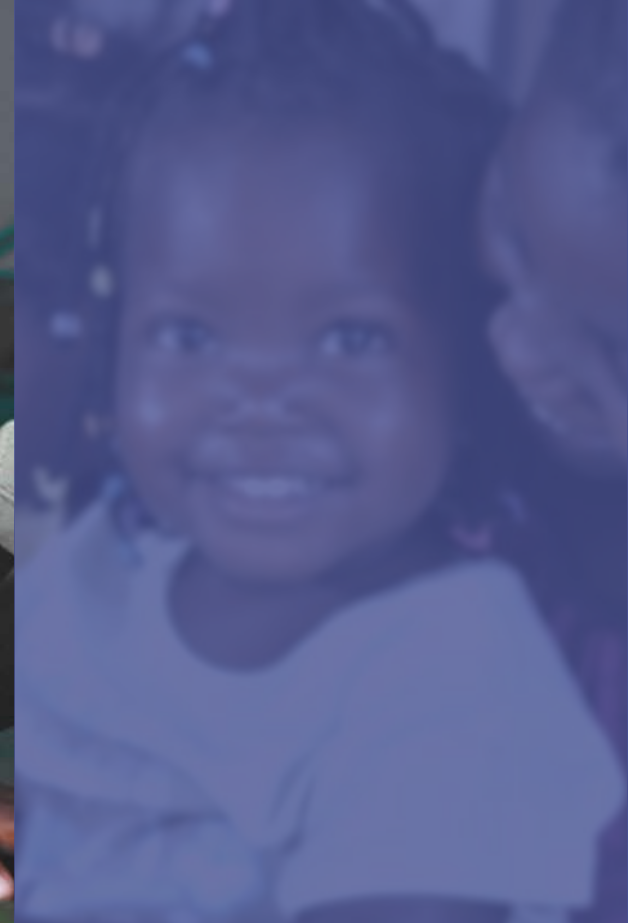
- Some improvements in the supply and coverage of iodized salt over the last decade, but also some countries have regressed
- New solutions required to meet the challenge
 - IGN working on concept of engaging with governments to consolidate the salt industry, whereby central refineries to purchase from local small scale producers.
 - Continued work with governments on regulation and enforcement
 - Engaging with food manufacturers to encourage the use of iodised salt in processed foods and condiments

Implications for salt industry

- Industry engagement in working groups and task force committees helps policy evolution.
- Responsiveness of industry to shifting standards helps adjust population iodine intake levels.
- Mandatory legislation establishes a level playing field for all producers.
- Extremely rigorous fiscal analysis of iodine content in salt – penalties.

Questions for the future

- Role of government in KIO_3 procurement.
- Role of MOH and other agencies in monitoring.
- Industry self-monitoring.
- Role of salt industry associations and their engagement with government committees.
- Understanding salt intake from processed foods.
- USI in the light of salt reduction policies.



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