ABSTRACT

Background/objective: Despite concerted efforts, diarrhoea remains a serious public health problem in Senegal. To address this problem, the Ministry of Health (MoH), assisted by The Micronutrient Initiative and other partners, conducted a situational analysis as the evidence base for new strategies to reduce child morbidity related to diarrhoea.

Methodology: Descriptive, analytical, qualitative and quantitative assessment of childhood diarrhoea management with ORS and Zinc in three regions.

Results: Select findings include: diarrhoea is primarily treated at home with homemade or purchased oral rehydration salts (ORS) therapy and traditional remedies and prescription drugs (antibiotic/antiparasite). One-third of care providers accurately described appropriate diarrhoea management including zinc. However, the reported prescription rates for all diarrhoeal cases were very low: 24% for ORS and only 2% for zinc. The private sector rarely prescribed zinc. Care treatment costs were reported to be between 10-20% higher than the government’s maximum guidelines.

Conclusion: This extensive and critical situational analysis allowed decision-makers to identify critical problems related to current methods of treating diarrhoea and related knowledge gaps among the population and health care providers. These findings are allowing the MoH to develop and implement relevant national policies to increase its ability to improve diarrhoea outcomes and reduce disadvantaged outcomes.

BACKGROUND

• Background: Despite the efforts, diarrhoea is still a public health problem in Senegal:
  • Mortality Rate in children under 5-years: 72 per 1,000 live births ( DHS V, 2011);
  • Diarrhoea prevalence: 21% (DHS V, 2011);
  • 17% of child deaths due to diarrhoea
  • Zinc and Oral Rehydration Salts (ORS) are part of the Integrated Management of Childhood Illness (IMCI) strategy, but application of the latter is very low at health facilities base.
  • The survey took place in three regions, where the prevalence of diarrhoea is higher.

OBJECTIVES

• To collect and analyze data related to childhood diarrhoea management with ORS and zinc in public and private sectors in three regions of Senegal, in order to identify strengths, weaknesses and opportunities to inform a future scale-up of the zinc-ORS program.

METHODS

• Type of study: Descriptive, analytical, qualitative and quantitative assessment of childhood diarrhoea management with ORS and Zinc conducted in three regions of Senegal (Dakar, Diourbel and Saint Louis)

• Population and sample:
  • key informant interviews among leaders, technical and financial partners and providers at central, intermediate and operational level of the programme (2 health districts per region), including private sector (pediatricians, pharmacists, care providers);
  • caregivers (two groups of beneficiaries): a) women in the community, in rural or urban area b) mothers or attendants of sick children,
  • encountered in health facilities at the exit of a consultation

• Tools for data collection: interview guide, guide for focus group, questionnaires for caregivers, health providers, relays and community health workers and private pharmacists, record count of diarrhoea cases and consumption of ORS and Zinc, observation checklist services (tools developed for this project). Commodity prices for ORS and zinc were obtained from health facilities and costumers and cross-checked with the prices published by the government.

• Procedures:
  • consensus workshop with the research team, members of Zinc and ORS steering committee and resources persons from others programmes - Data collection:
  • At central level:
    • Meeting with key informants;
    • At Intermediate and operational levels: Meeting with members of regional and districts health teams and visit of health facilities (Hospital and Health Centers, health posts, in urban and rural area). At health facility level: Observation of health facilities with evaluation grid; data collection from records, review of pharmacy’s stocks; interview of caregivers after their consultation; focus groups with caregivers; interview with care providers.

• Data processing and analysis:
  • Chi2 test to assess difference in frequencies.
  • Data collected from beneficiaries were triangulated by comparing the information in the focus group interviews with those from caregivers after their consultations.

RESULTS

Family sector
• Diarrhoea is primarily treated at home with homemade or purchased oral rehydration (ORS) therapy;
• 69.7% of mothers used at least once salt ORS during a course of diarrhoea, but even without Zinc;
• Only 0.1% of mothers used ORS and Zinc to treat diarrhoea in children under 5 years of age;
• Traditional remedies used often include prescription drugs (antibiotic/antiparasitic).

Medical sector
• Low knowledge among health providers: one-third (33%) of care providers accurately described appropriate diarrhoea management, including Zinc use.
• Low prescription of ORS and Zinc: 24% of health providers at health facilities prescribed ORS and only 2% prescribed Zinc for diarrhoea management;
• Rare prescription of Zinc in private sector care;
• High treatment cost; treatment costs were reportedly 10-20X the government’s maximum guidelines. These prices (2,000 to 5,000 XOF for one episode in health facilities) mainly due the use of antibiotics. As a reference, the national guidelines have reduced the cost of diarrhoea treatment to a maximum of 250 CFA francs for 10 Zinc tablets and 100 francs for two ORS doses.

Traditional sector
• Depending on the attributed cause of diarrhoea, children are treated with traditional remedies, prayers and incantations. This treatment is meant to stop diarrhoea and not to rehydrate the child. No advice is given in relation to increase the consumption of fluids and food.

HEALTH DISTRICTS IN SENEGAL

![Map of Senegal showing health districts]

<table>
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<th>REGION</th>
<th>CASES DIOURBEL</th>
<th>DOSES OF ORS DISTRIBUTED</th>
<th>CONSUMPTION OF ORS (%)</th>
<th>DIOURBEL</th>
<th>DOSES OF ZINC DISTRIBUTED</th>
<th>CONSUMPTION OF ZINC (%)</th>
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CONCLUSIONS

This extensive and critical situational analysis allowed decision-makers to identify critical problems related to current methods of treating diarrhoea, including knowledge and practice gaps among the population and health care providers, and high treatment cost. These findings allowed the MoH to develop and implement relevant national policies to increase its ability to improve diarrhoea outcomes and reduce disadvantaged outcomes.

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