This report integrates the findings of five years of research and evaluation conducted by Operations Research and Impact Evaluation (ORIE) on the Working to Improve Nutrition in Northern Nigeria (WINNN) programme. The purpose of the report is to provide a high-level summary of WINNN’s achievements during the period of the evaluation (2013-2016), as well as an overview of the key messages and recommendations that emerge from ORIE’s research. This is done with reference to the Organisation for Economic Co-operation and Development/Development Assistance Committee (OECD/DAC) evaluation criteria (effectiveness, impact, sustainability, efficiency and relevance).

The WINNN Programme

WINNN is an ambitious £52 million, six-year (2011-2017), DFID-funded programme to improve maternal and child nutrition in five states of northern Nigeria (Jigawa, Zamfara, Kebbi, Katsina, and Yobe). WINNN was designed to support the piloting of a set of evidence-based nutrition-specific interventions (micro-nutrient supplementation, community management of acute malnutrition (CMAM), and infant and young child feeding (IYCF) counselling), and to support institutionalisation of the interventions within routine healthcare. This was expected to help raise the political profile of undernutrition and leverage government funding for nutrition. WINNN supported micro-nutrient supplementation at Maternal, Newborn, and Child Health Weeks (MNCHWs) across its five focal states, alongside government and other development partners (DPs). It was the only DP supporting CMAM and IYCF services in three focal Local Government Areas (LGAs) in each state. The WINNN-supported interventions were rolled out gradually, with support to MNCHWs the first to start in 2011, and IYCF the last, in 2013. Roll-out was also staggered across the states.

ORIE’s role

ORIE research was designed to improve WINNN programme implementation and influence Nigerian policy. This report draws on operations research, a mixed-methods impact evaluation, economic evaluation, and gender analysis. Baseline data for the impact evaluation were collected one year after WINNN started, and endline data were collected one year before the end of WINNN. Some changes may have occurred before the baseline, and further changes are likely to have occurred after the final evaluation. A resulting effect of this may be that the changes that occurred during the programme are underestimated.

The context: Northern Nigeria

WINNN was implemented in a particularly challenging political, economic, social and physical environment. The burden of undernutrition is high in northern Nigeria. The health system is weak, under-resourced and understaffed, particularly in rural areas. The adverse fiscal situation in Nigeria since 2015, caused by the large drop in the price of oil, reduced the release of public funds for nutrition and triggered non-payment of health workers’ salaries for much of 2015-16 in most WINNN states. Moreover, conservative norms and behaviours underpin resistance to change and many mothers lack autonomy in relation to child health.

Key findings

Effectiveness

Mothers’ attendance at MNCHWs and at IYCF counselling in the community increased significantly from baseline to endline in treatment LGAs, and WINNN helped counteract an overall drop in the proportion of children under five receiving Vitamin A in its focal LGAs. Coverage of key interventions – MNCHW attendance, treatment of severe acute malnutrition (SAM) and community IYCF counselling - nevertheless remained low in treatment LGAs at endline. In the case of CMAM and IYCF, the interventions were not expected to reach universal coverage in the focal LGAs. Coverage of CMAM was also affected by the limited resources available to purchase ready-to-use therapeutic food (RUTF). WINNN’s approach was gender-sensitive and WINNN made concerted efforts to reach harder-to-reach groups. Uptake of some interventions was nevertheless lower among mothers from the poorest households, mothers with no education,
and adolescent mothers. **There were significant improvements over time in government planning, coordination, and forecasting across the WINNN-supported interventions due to WINNN support.** Some problems in the quality of services – in comparison with expected protocols and models, nevertheless remained. Some factors associated with quality were outside WINNN's control.

### Impact

**There were some significant improvements in mothers’ IYCF knowledge and practices from baseline to endline in treatment LGAs.** Some but not all of the increases were attributable to WINNN. There is also evidence that WINNN helped to change father’s attitudes and knowledge positively around the use of nutrition services and recommended IYCF practices. The proportion of children appropriately fed (exclusively breastfed and sufficient dietary diversity) nevertheless remained low at endline in treatment LGAs. This may have been because IYCF counselling was not intended to reach the whole LGA population, because some work on complementary feeding started later in the programme, and because some mothers faced barriers to behaviour change, including resistance from husbands and older women in their communities.

**There were no significant changes in the anthropometric status of children under three years from baseline to endline in treatment LGAs, and the levels of child stunting, wasting and underweight remained very high.** This may have been due to the lack of complementary nutrition-sensitive interventions in the same LGAs to address the multiple determinants of malnutrition, low coverage of the WINNN-supported interventions, and insufficient time for programme effects to be detected in the evaluation.

### Sustainability

**Political commitment to, and funding for, nutrition work increased significantly at federal, state and LGA level from baseline to endline, supported by WINNN advocacy.** WINNN supported strong civil society, community and media engagement, which strengthened service uptake, accountability, and sustainability. **Significant progress was made in strengthening government capacity to implement the nutrition interventions.** A coherent policy framework exists, coordination and planning are stronger, the interventions have largely been incorporated into routine primary health care (PHC), and there is clear local ownership. While significant progress has been made, challenges remain. These revolve around insufficient public funding in relation to the scale of the problem and the cost of scaling-up the interventions, as well as the inadequate human resources in the primary healthcare system. There are also challenges around sustaining and motivating community volunteers (CVs). These challenges bring into question government capacity to fully institutionalise the interventions and sustain them in the long term.

### Efficiency

The WINNN programme cost US$52.3 million (£33.6 million) (Years 1-5). CMAM received the largest portion of total expenditure by intervention (41%), largely due to the cost of RUTF, given the high burden of SAM and the high demand for treatment. The human resources have been the largest single cost category in the WINNN programme. The cost structure for government is likely to be quite different. The human resource costs may be lower, but significant investments in infrastructure and equipment as well as in hiring and training more health workers and CVs are likely to be important in order to deliver the services at adequate coverage and scale.

The estimated costs per beneficiary of CMAM treatment and IYCF counselling compare favourably with estimates in similar programmes and in the National Strategic Plan of Action for Nutrition. **The WINNN-supported**
CMAM and IYCF interventions were found to be very cost-effective relative to the World Health Organization’s CHOICE threshold for health interventions. The costs per disability-affected life year averted and life saved were lower for the IYCF than the CMAM intervention. This is to be expected, as preventative interventions usually represent better value for money. CMAM treatment is nevertheless necessary to address a large disease burden and reduce child mortality.

Relevance and alignment
WINNN's work was appropriately aligned with national and state-level strategy and institutions. It supported the integration of nutrition interventions into the government PHC system and built government capacity for implementation and coordination. It also supported the integration of nutrition work into health policy and wider national initiatives.

WINNN supported the implementation of a set of evidence-based nutrition-specific interventions designed to directly address the immediate determinants of child malnutrition (diet and disease) in northern Nigeria. Some of the principle design assumptions underlying the programme’s theory of change proved valid: health system capacity improved and nutrition interventions were largely integrated into the PHC system. The lack of complementary nutrition-sensitive interventions implemented alongside WINNN in its focal LGAs, which it was assumed would be in place in the programme design, meant that WINNN's achievements did not translate into the expected improvements in anthropometric indicators among children under three years at LGA level.

Recommendations

For DFID, DPs and donors working to improve nutrition in northern Nigeria and similar contexts

1. Implement nutrition-sensitive interventions alongside nutrition-specific interventions in order to address the underlying causes of child malnutrition. Create a common and flexible evaluation framework to allow for evaluation of the combined effects of nutrition-specific and nutrition-sensitive interventions.

2. Use population-based coverage data as a core component of programme monitoring, in order to understand the population coverage of interventions.

For the Nigerian government

3. Increase public financing for nutrition interventions in order to tackle the huge burden of malnutrition in northern Nigeria. Donor funding should not supplant government responsibility to fund nutrition interventions in the long-term.

4. Invest more in the design and implementation of multi-sectoral nutrition-sensitive interventions in order to tackle the underlying causes of child malnutrition.

5. Seek intermediary solutions to increase human resources for health in order to sustain and scale-up nutrition services with appropriate coverage and quality.

6. Inaugurate the National Council on Nutrition, in order to enhance inter-sectoral coordination and strengthen federal coordination of nutrition work in the states.

For implementers and funders of future nutrition programmes in northern Nigeria (Nigerian government, DFID, DPs, international Non-Government Organisations (INGOs) and Civil Society organisations (CSOs))
Micro-nutrient supplementation

7. Explore ways to increase attendance at MNCHWs. Build on and extend WINNN’s social mobilisation strategies. Seek cost-effective ways to take MNCHW services to more remote communities.

8. Continue to explore other strategies to control micro-nutrient deficiencies, including Vitamin A supplementation among children. These may include door-to-door services, food fortification, and micro-nutrient powders for home use.

CMAM

9. Continue advocacy demonstrating the effectiveness and cost-effectiveness of CMAM to order to increase public funding to scale up treatment of SAM.

10. Consider testing alternative ways of treating children with SAM, at least in the short term. This might include integration of treatment into routine services; monthly rather than weekly visits to an outpatient therapeutic programme site, and early detection and treatment of moderate acute malnutrition.

11. Alternatively, if resources are available for a fuller community-based model, as CMAM is intended to be, strengthen active case finding and defaulter tracking.

12. Explore if the costs of locally produced RUTF can be reduced to below the current costs of imported RUTF in order to reduce the cost of CMAM services.

13. CMAM training should be integrated into the standard health curriculum for all health workers if CMAM is to be fully integrated into routine PHC provision.

IYCF

14. Continue advocacy demonstrating the importance and cost-effectiveness of IYCF counselling to order to increase public funding to scale up the service.

15. Continue to strengthen the behaviour change focus in IYCF counselling by working with small groups of mothers with similar characteristics (maternal age, stage of child feeding, etc.). Continue to test ways to support mothers to adopt exclusive breastfeeding and improve complementary feeding. Target relevant information at mothers, fathers, and older women, all of whom play a role in child feeding.

16. Find ways to further improve the reach and quality of community IYCF counselling. Assess the effectiveness of the ‘Care Group’ model and of support groups for adolescent mothers. Continue to strengthen support groups for fathers. Develop separate spaces to work with grandmothers.

All nutrition interventions

17. Continue to test ways to improve access to nutrition interventions among harder-to-reach women and adolescent girls.

Photos: J. Ucheh; Flint Productions /WINNN

Partners and sponsors:

ORIE is led by Oxford Policy Management (OPM) in conjunction with three other UK-based institutions, the London School of Hygiene and Tropical Medicine (LSHTM), the Institute of Development Studies (IDS) and Save the Children UK (SCUK), and four Nigerian partners, the University of Ibadan, Kaduna Polytechnic, Ahmadu Bello University at Zaria (ABU), and the Food Basket Foundation International (FBFI).

ORIE is funded by the Department for International Development of the UK Government and implemented in collaboration with the Government of Nigeria.

For any further information about ORIE please get in touch:
Email: marta.moratti@opml.co.uk
Website: www.heart-resources.org/about/orie