



**ACTION  
AGAINST  
HUNGER**

# **SUPERCHARGING CHILD SURVIVAL**

**HOW DFID CAN SAVE LIVES AND  
BOOST HEALTH THROUGH INTEGRATION**

**FOR A WORLD FREE FROM HUNGER  
ACTION AGAINST HUNGER IS A GLOBAL  
HUMANITARIAN ORGANISATION THAT  
TAKES DECISIVE ACTION AGAINST THE  
CAUSES AND EFFECTS OF HUNGER.  
WE SAVE THE LIVES OF MALNOURISHED  
CHILDREN. WE ENSURE FAMILIES CAN  
ACCESS CLEAN WATER, FOOD, TRAINING  
AND HEALTHCARE. WE ENABLE ENTIRE  
COMMUNITIES TO BE FREE FROM HUNGER.**

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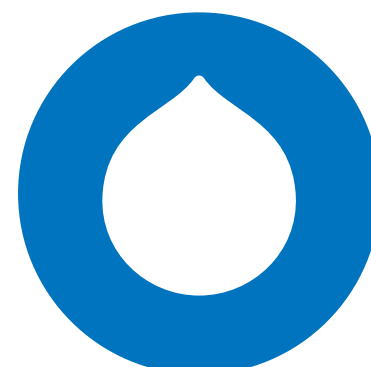
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## ACRONYMS

|              |  |
|--------------|--|
| <b>CHWs</b>  | Community Health Workers   |
| <b>CMAM</b>  | Community-based Management of Acute Malnutrition                             |
| <b>DFID</b>  | Department for International Development                                     |
| <b>EPHS</b>  | Essential Package of Health Services   |
| <b>GAPPD</b> | Global Action Plan for the Prevention and Control of Pneumonia and Diarrhoea |
| <b>HiNI</b>  | High Impact Nutrition Interventions  |
| <b>iCCM</b>  | Integrated Child Case Management   |
| <b>IMCI</b>  | Integrated Management of Childhood Illnesses                                 |
| <b>MDG</b>   | Millennium Development Goals   |
| <b>MoH</b>   | Ministry of Health   |
| <b>NGO</b>   | Non-Governmental Organisation  |
| <b>PHNP</b>  | Provincial Health and Nutrition Programme                                    |
| <b>RMNCH</b> | Reproductive, Maternal and Newborn Child Health                              |
| <b>SAM</b>   | Severe Acute Malnutrition  |
| <b>SDG</b>   | Sustainable Development Goals  |
| <b>WHO</b>   | World Health Organisation  |



# 01 WHY DOES DFID NEED TO REINVIGORATE HEALTH PROGRAMMING?

One of the best ways to invest in children’s futures is to ensure they are healthy. Improving health is valuable both in its own right and as a contributor to productivity, economic development and poverty reduction. It is particularly important to ensuring inclusive growth since, according to the Commission on Investing in Health, improved health increases incomes in adult life through: higher worker productivity; higher school attendance and greater ability to learn; greater access to natural resources; higher savings and investment, and a higher ratio of working-age people to dependents, creating potential for a demographic dividend.<sup>i</sup>

The opportunities are endless, but so much of this potential is never realised because millions of children do not survive to reach their fifth birthday. The UK Government has had a longstanding commitment to improving health and wellbeing of the world’s poorest children. Through the Department for International Development (DFID) the UK has made significant contributions to the achievements of Millennium Development Goal (MDG) 4, which has accelerated improvements in child survival.

The most substantial progress been made in the last 25 years:

- Since 1990, with a significant contribution from UK development programmes, the number of children dying from preventable causes has fallen from around 12.7 million a year to around 5.9 million.<sup>ii</sup>
- Today, 19,000 fewer children die each day compared with 35,000 in 1990.<sup>iii</sup>
- Since 2000, 48 million children’s lives have been saved due to remarkable improvements in child survival.<sup>iv</sup>

Much of these gains have been achieved addressing well-known direct causes of child mortality, such as malaria, pneumonia and diarrhoea. DFID has contributed to malaria deaths falling by 60% in the last 15 years by funding the distribution of 47 million insecticide-treated bed nets, and investing in vaccines and drugs.<sup>v</sup>

The achievement against these condition and other childhood illnesses demonstrate that the scale-up of proven, high-impact interventions can have a direct, measureable and significant impact of child mortality. Nevertheless, these successes had not been sufficient to reach the MDG 4 target – to reduce child mortality by two-thirds by 2015 – and much still needs to be done to end preventable child deaths. Given the large gap that remains all countries have renewed their commitment to the world’s children under the Sustainable Development Goals (SDGs), which the UK helped to shape. These universally agreed goals have recognised that securing the health and future of children is pivotal to development, and through these global goals has paved a roadmap to a world where children are able to both survive and thrive. These ambitious goals take up the unfinished business of MDG 4 and aim to surpass it, with a new commitment to end preventable child deaths by 2030, including reducing under-five mortality to at least 25 deaths per 1000 live births [Graph 1].

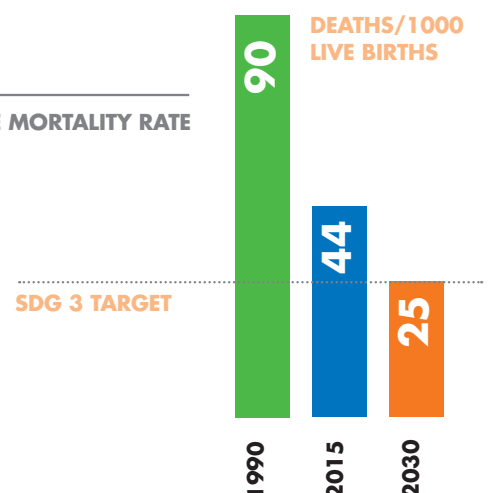
**19,000**

FEWER CHILDREN DIE EACH DAY COMPARED WITH 35,000 IN 1990.

**48million**

CHILDREN’S LIVES HAVE BEEN SAVED DUE TO REMARKABLE IMPROVEMENTS IN CHILD SURVIVAL.

GRAPH 1  
GLOBAL UNDER FIVE MORTALITY RATE



However, this renewed promise of survival for children will not be achieved on a 'business as usual approach.' Currently, 79 countries have an under-five mortality rate above the SDG target of 25 deaths per 1000 live births, and 47 of them will miss the 2030 deadline if they continue current trends in reducing under-five mortality.<sup>vi</sup>

Recognising this DFID has reaffirmed its commitment to health in recent years, through:

- Its aid strategy, *UK aid: tackling global challenges in the national interest*, where it committed to delivering the 'basics' of development – such as health – and stated that “finishing the job of the MDGs will continue to be central to the government's approach to international development.”<sup>vii</sup>
- Continuing the legacy of the MDGs and to driving progress towards SDGs, including goal 3.
- Its manifesto commitment to 'work to end preventable child and maternal deaths', by investing in new technologies to boost progress on major child killers.

This won't be enough. Scaling up the coverage of existing interventions to tackle the direct causes of child death is necessary, but scaling up these efforts vertically and in isolation will not be enough to close the gap on preventable child deaths. If DFID is serious about seeing a world where no child dies from common and preventable illnesses then it needs to take into account the variety of factors that put children at risk. This means addressing the underlying causes of child death and integrating these into existing and future efforts to prevent and treat the proximate causes of child death. Until this happens it is unlikely that DFID will be able to make the significant and sustainable improvements in child survival needed to take this ambitious global target from something that is aspirational to achievable.

The solutions – both direct and underlying – to ending preventable child death are not revolutionary, nor do they necessarily require major advances in technology. Most early childhood deaths are due to conditions that could be prevented or treated with access to simple, affordable treatment and by applying the latest knowledge about what works.

For the most part, proven interventions exist. However, the full potential of these interventions are not being realised because of the way they are delivered. Progress in preventing child death is being hampered because these basic interventions are provided in stages and rarely in unison. Yet more often than not, children brought in for medical treatment are suffering from more than one condition, making a single diagnosis or treatment impossible to sufficiently revive a child to full health. What is needed is an approach and commitment to delivering them in a truly integrated manner that unlocks their combined potential and delivers more than the sum of its parts. This understanding – that we can only make a sustainable difference in the health of children if we combat child killers in tandem – has led to numerous initiatives and approaches over the last few years. The Integrated Global Action Plan for the Prevention and Control of Pneumonia and Diarrhoea (GAPPD), Integrated Child Case Management (iCCM) and the Integrated Management of Childhood Illness (IMCI) are but a few examples.

**THE QUESTION IS NOT WHETHER DFID SHOULD INTEGRATE HEALTH INTERVENTIONS BETTER, BUT RATHER ON WHAT SHOULD BE INTEGRATED AS PART OF THESE HEALTH PACKAGES.**

## 02 WHAT SHOULD DFID INTEGRATE INTO ITS HEALTH PROGRAMMES?

Identifying and understanding the leading causes of child death is a critical first step in eliminating them. Diseases like malaria, pneumonia and diarrhoea are well documented direct causes of child mortality. However, underlying conditions can significantly contribute to child survival chances, and for the SDG 3 target to be met demands global health initiatives to acknowledge and integrate the underlying causes of child death. There is one condition that if tackled at scale could accelerate child survival like no other: malnutrition.

Malnutrition contributes to almost half of all preventable child deaths – 3.1 million a year.<sup>viii</sup> This is in large part due to the considerable overlap between the burden of disease and malnutrition. For instance, malnutrition has a significant impact on rate and severity of disease and eventually child mortality, since malnutrition compromises the immune system and magnifies vulnerability to infectious disease [Diagram 1]. It also works to prolong and exacerbate diseases like diarrhoea, whereby children who would not have died from diarrhoeal disease alone often succumb due to underlying malnutrition. There is also substantial evidence that children respond better to treatment (e.g. for malaria) if their nutritional status is addressed. As such, interventions to prevent or decrease malnutrition or infectious disease are expected to decrease child mortality, and interventions that accomplish both will have the greatest effect.

Like many other leading causes of child death, effective solutions for malnutrition exists but the coverage of these life-saving interventions remain unacceptably low [Table 1]. The 2013 Lancet series on Maternal and Child Nutrition suggests the current total of deaths in children younger than five years can be reduced by 15% if populations can access ten evidence-based nutrition interventions. This translates into 800,000 potential young lives saved [Table 2]. The treatment of SAM, for example, through community-based management of acute malnutrition (CMAM) delivers excellent clinical outcomes, with cure rates averaging 84% in Ministry of Health (MoH) run services.<sup>ix</sup> Accompanied by low defaulter and low death rates, it is one of the most efficient life-saving interventions with the potential to save 435,000 lives if sufficiently scaled up.<sup>x</sup> Despite this, less than 15% of children suffering from SAM are able to access life-saving treatment.<sup>xi</sup>

Efforts to improve child health need to be recharged in order to drive progress towards SDG 3. The best way to achieve this momentous goal is through integration of interventions that will have the biggest impact on child survival. Alongside well known interventions to address the direct causes of child death, high-impact and proven nutrition interventions offer the best returns on investment in terms of averting premature mortality in children under five.

DIAGRAM 1

MALNUTRITION & DISEASE: A CYCLICAL RELATIONSHIP TO CHILD MORTALITY



**3.1 million**

MALNUTRITION CONTRIBUTES TO ALMOST HALF OF ALL PREVENTABLE CHILD DEATHS – 3.1 MILLION A YEAR.

**800,000**

POTENTIAL YOUNG LIVES SAVED IF POPULATIONS CAN ACCESS TEN EVIDENCE-BASED NUTRITION INTERVENTIONS.

**TABLE 1**  
**LEADING CAUSES OF CHILD MORTALITY**

| CAUSE OF CHILD DEATH | AFFECTED CASES  | DEATHS PER YEAR           | % OF OVERALL CHILD DEATHS* | COVERAGE OF TREATMENT INTERVENTION |
|----------------------|---|---------------------------|----------------------------|------------------------------------|
| ● MALARIA            | 214 million <sup>xii</sup>  | 438,000 <sup>xiii</sup>   | 7.4%                       | 34% <sup>xiv</sup>                 |
| ● DIARRHOEA          | 1.7 billion <sup>xv</sup>   | 760,000 <sup>xvi</sup>    | 12.8%                      | 48% <sup>xvii</sup>                |
| ● PNEUMONIA          | 156 million <sup>xviii</sup>  | 922,000 <sup>xix</sup>    | 15.6%                      | 54% <sup>xx</sup>                  |
| ● MALNUTRITION       | STUNTED<br>WASTED<br>INC. SEVERELY WASTED<br>156 million<br>50 million<br>16 million <sup>xxi</sup> | 3,100,000 <sup>xxii</sup> | 52.5%                      | <15% <sup>xxiii</sup>              |

\* % of overall child deaths was calculated by dividing 'deaths per year' by number of global child deaths, currently 5.9 million.

**TABLE 2**  
**POTENTIAL LIVES SAVED FROM NUTRITION INTERVENTIONS**

| NUTRITION INTERVENTION                                    | IMPACT ON CHILD HEALTH & SURVIVAL   | NO. OF POTENTIAL LIVES SAVED <sup>xxiv</sup> |
|---|---|--|
| EARLY INITIATION & EXCLUSIVE BREASTFEEDING (6 MONTHS)     | <b>INFANT &amp; YOUNG CHILD NUTRITION PACKAGE</b><br>WHO infant-feeding guidelines recommend that all infants should be breastfed within one hour after birth, as infants who are breastfed within the very first hour after birth are 3 times more likely to survive than if they are breastfed a day after birth. | <b>221,000</b>                               |
| VITAMIN A SUPPLEMENTATION & PREVENTATIVE ZINC SUPPLEMENTS | <b>MICRONUTRIENT SUPPLEMENT IN CHILDREN AT RISK</b><br>Micronutrients, like vitamin A help maintain a strong immune system ensuring children remain resilient to disease.   | <b>145,000</b>                               |
| MANAGEMENT SEVERE ACUTE MALNUTRITION (SAM)                | <b>MANAGEMENT OF ACUTE MALNUTRITION</b><br>Children with SAM are 9 times more likely to die from common infections, but the treatment of SAM has high cure rates – exceeding 80%.   | <b>435,000</b>                               |

**TO SUPPORT THIS PROCESS WE FIRST NEED TO UNDERSTAND THE EXTENT TO WHICH THIS INTEGRATION OF NUTRITION INTO HEALTH IS HAPPENING ALREADY.**

## 03 HOW WIDESPREAD IS INTEGRATION OF HEALTH & NUTRITION IN DFID PROGRAMMING?

Recognising the potential nutrition has to play in child survival and the need for more and better integration, and given the UK's track record on health and recent policy commitments on integration, it was important understand how DFID was embedding nutrition within their health programmes to bolster their child survival efforts.

### SCOPE OF ANALYSIS

In total 197 DFID funded health programmes, with start dates from between 2010 and 2015, were identified as falling under nine codes:



#### BASIC HEALTH

- 01 Basic health care
- 02 Basic nutrition
- 03 Health education
- 04 Infectious disease control
- 05 Malaria control

#### POPULATION POLICIES/PROGRAMMES & REPRODUCTIVE HEALTH

- 06 Family planning
- 07 Personnel development for population & reproductive health
- 08 Reproductive health care
- 09 STD control including HIV

Business cases, annual reports and logframes that were publicly available on The Development Tracker<sup>1</sup> were analysed to identify how many, and if any, of the ten high-impact nutrition-specific interventions identified in the 2013 Lancet series on nutrition were incorporated in DFID's health programmes. These included:

- 01 Promotion of early and exclusive breastfeeding for 6 months and continued breastfeeding for up to 24 months
- 02 Appropriate complimentary feeding education & complementary food supplements in food insecure populations
- 03 Maternal multiple micronutrient supplements to all
- 04 Calcium supplementation to mothers at risk of low intake
- 05 Maternal Balanced Energy Protein Supplementation
- 06 Universal salt iodisation
- 07 Vitamin A supplementation between 6 & 59 months age
- 08 Preventive zinc supplements between 12 & 59 months of age
- 09 Management of moderate acute malnutrition
- 10 Management of severe acute malnutrition

In the end 99 of the 197 health programmes were shortlisted as appropriate for analysis. Ninety-eight were omitted from the study either due to a lack of evidence (20) because of insufficient or no available documentation, or incompatibility (70), whereby it would not have been appropriate to expect nutrition-specific interventions to be included in such programmes. These included surveys, research, technical assistance, capacity building and match funds, where it was not possible to guarantee funding for health or nutrition programmes. A further 8 were omitted for the issues did not have any significant links with nutrition.

The scope of this review was limited to nutrition-specific interventions, as such this report provides a snapshot of the level of integration of nutrition in DFID's health programmes. While nutrition-sensitive approaches, such as WASH promotion and gender empowerment, are important for health, the analysis did not cover these as the interpretations of what can be classed as nutrition-sensitive interventions are broad. What's more, the evidence on the health and survival potential of nutrition-specific interventions are well established and for this reason the scope of this review was limited to looking at proven, high-impact interventions. As such, some programmes that were identified as showing limited, or no evidence of integration could have nutrition-sensitive components present that were not identified.<sup>2</sup>

## KEY FINDINGS

- Of the 99 health programmes analysed 55 (56%) show no evidence of integration with nutrition and a further 21 programmes (21%) showed two or fewer nutrition specific interventions.
- Two was the most common number of nutrition-specific interventions found to be integrated into health programmes, with a total of 15 programmes with only two interventions.
- One of the only two programmes classed as 'highly integrated' - the Yemen Nutrition Programme - was in fact a packaged nutrition programme rather than a health programme that was highly integrated, unlike the Provincial Health and Nutrition Programme in Pakistan, which was a good example integrating nutrition into health to accelerate health outcomes.<sup>3</sup>
- Vitamin A supplementation was the most commonly integrated of the ten key interventions, with 26 occurrences identified.
- The analysis found no evidence of maternal protein supplementation interventions or calcium supplementation in DFID's health programmes.<sup>4</sup>
- Out of the 55 health programmes that showed no evidence of integration 21 of those were ones focused on Reproductive, Maternal and Newborn Child Health (RMNCH).

1 The Development Tracker is an online database that enables the public to find and explore detailed information on international development projects funded by the UK Government.

2 There are some limitations to this analysis. For instance, the availability of documentation was not evenly populated on Development Tracker. Across the analysed programmes not all had business cases, annual reports and logframes readily available. In some cases only one or two kinds of documents were publically available for analysis, which meant some programmes were analysed in more depth than others. As such, there is potential that missing and unanalysed documents could have identified additional nutrition-specific interventions had they been available. For example, DFID funded the Transition and Recovery of Nepal's Health System programme in 2015 in the aftermath of the earthquake. This project aimed to improve the health and well-being of all people in earthquake affected districts by ensuring the Nepal people affected by the earthquake have access to quality health services. The impact of this programme was measured by the percentage of underweight children (as well as people living below the poverty line) and around 6% of the project funding was allocated to 'Basic Nutrition,' which would indicate some integration of nutrition service delivery. Despite this, it was not evident in any of the documentation analysed what (Business Case and Logframe), if any,

nutrition-specific interventions were delivered as part of this programme. This could be indicative of the limited documentation publically available, a lack of detail in reporting or a reflection of a lack of integration, but it not possible to determine which one it is.

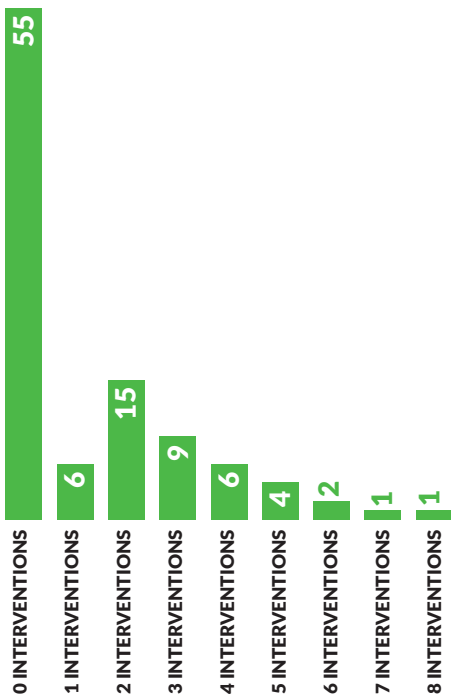
3 The Yemen Nutrition programme included eight nutrition-specific interventions. Similarly the Provincial Health and Nutrition Programme in Pakistan identified seven nutrition-specific interventions. However, this was significantly more integrated with health than the Yemen Nutrition Programme, despite it having less nutrition-specific interventions. This is because the Provincial Health and Nutrition Programme recognised and actively integrated nutrition into its objectives and outputs on family planning, reproductive health care, basic health care and infectious disease. The Yemen Nutrition Programme was much more siloed and did not crosscut with any other analysed health codes.

4 We recognise that in some cases calcium supplementation could be enveloped into maternal micronutrient supplementation and could be an intervention as part of antenatal visits. However, as calcium supplementation was not explicitly mentioned in any of the analysed documentation it was not possible to mark it as identified.



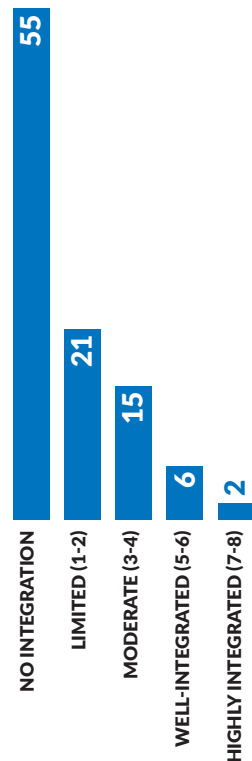
GRAPH 1

NUMBER OF INTERVENTIONS IN DFID HEALTH PROGRAMMES



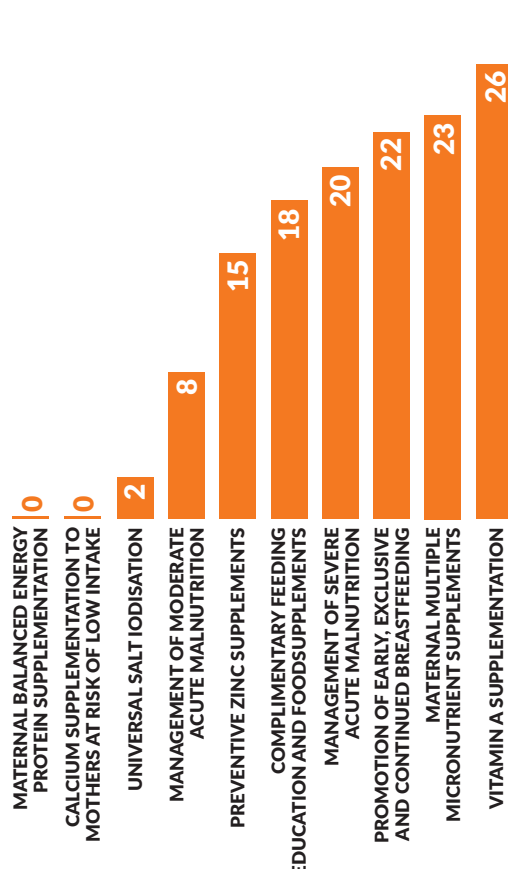
GRAPH 2

LEVEL OF INTEGRATION IN DFID HEALTH PROGRAMMES



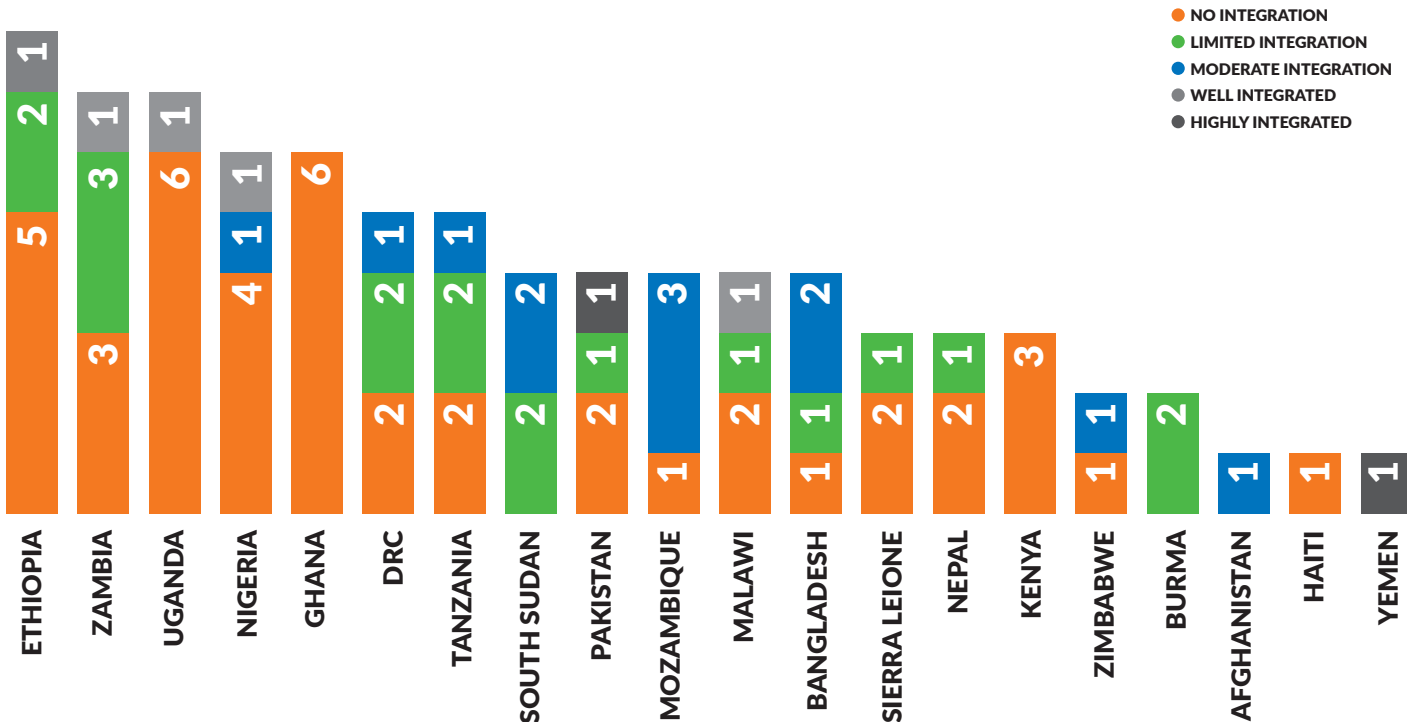
GRAPH 3

FREQUENCY OF INTEGRATION BY INTERVENTION



GRAPH 4

INTEGRATION BY COUNTRY



## 04 WHAT CAN WE LEARN FROM DFID'S INTEGRATED HEALTH & NUTRITION PROGRAMMES?

- 01 In spite of their support for integrated programmes, the majority of DFID's health programmes are not integrated with nutrition.** The fact that 56% of DFID health programmes show no evidence of nutrition integration not only points to a missed opportunity and untapped potential among DFID's health programmes, but also a significant gap between DFID's political commitments around integration in health and the implementation of these commitments. In its 2013 health position paper - *Delivering health results* - DFID acknowledges that "investments in health and health systems [that] have the most impact go hand in hand with other investments that build opportunity for poor people."<sup>xv</sup> However, the substantial absence of nutrition-specific interventions in DFID's health programmes indicates that investments in nutrition are not being optimised to deliver health outcomes for the world's poorest. While it would not be appropriate to expect integration across all DFID's health programmes, there are numerous programmes across basic health care, reproductive health and infectious disease control which could have included components of nutrition to boost efforts to improve child health and survival efforts.
- 02 Numerous business cases recognised the potential benefits of certain health interventions and approaches for the nutrition of the population, but this was not reciprocal and rarely were the child health and survival potential of nutrition interventions recognised in the business cases of DFID's health programmes.** This demonstrates that the health planners have yet to fully grasp the potential nutrition has to bolster their own efforts in child health and survival. What's more, the nutrition community must recognise that they have a stake in child survival, as well as their development. As such, the nutrition community must amp up its engagement with those working on health - both civil society and government - to ensure that the child survival potential of nutrition, laid out in the Lancet Series on Maternal and Child Nutrition, is not only well understood but also acted upon so that it becomes a core part of under-five health efforts.
- 03 Nutrition can be integrated in both formal and informal health structures.** At an operational level some specific interventions are easier to embed into formal health systems and structures. The analysis found that of the ten Lancet recommend nutrition-specific interventions the most commonly integrated intervention was Vitamin A supplementation. The integration of such interventions is likely to be easier when service delivery models can be used with minimum burden on systems like supply chains, especially given that the regularity of the service is low - beneficiaries require a maximum of two doses of Vitamin A supplements a year.

Some interventions are still possible to integrate despite needing to be delivered more periodically. The 'management of SAM' was among the more commonly integrated interventions even though the need for commodities and services are much more periodic, given that SAM levels can peak recurrently during certain times of the year (e.g. due to seasonality or susceptibility to natural disasters). Even many stable, non-emergency contexts suffer from chronic SAM. The level of integration is most likely due to the fact that scale ups in SAM treatment are often triggered during humanitarian crisis, which is characterised by the onset of a myriad of health issues and subsequent interventions being delivered simultaneously. What's more, when the integration of SAM within health happens it tends to take place within informal health systems, such as those set up by NGOs or humanitarian agencies, as opposed to more formal government run health facilities. As such, the burden on integration of certain interventions, such as SAM treatment, within health has historically fallen on NGOs rather than governments and ministries.

Nevertheless, the trend has been shifting and governments are increasingly taking up the responsibility for both the procurement and delivering life-saving treatment. In some cases, where the health systems are somewhat more established, efforts have been made to integrate nutrition interventions into health supply chains [Case Study 1]. What this shows us is that integration is possible, and needs to happen, within both formal and informal health structures and that the responsibility for facilitating integration lies not just with one stakeholder, but with a multitude of stakeholders.



## CASE STUDY 01 **KENYA**

### SAVING LIVES THROUGH ENHANCING NUTRITION RESPONSE AND RESILIENCE IN HEALTH SYSTEMS IN THE ARID AND SEMI-ARID LANDS

While the scope of this analysis looked at the level of integration within DFID’s health portfolio, and those which fell under the nine health codes, we recognise that DFID’s work on health and nutrition extends to the emergency settings. There are undoubtedly lessons to be learned about the health and nutrition integration that takes place in emergency settings, particularly those that fall under the ‘Material relief and assistance services’ and ‘Emergency food aid’ categories, that warrant further exploration. This case study from Kenya demonstrates how nutrition can be integrated can be facilitated with emergency aid.

Kenya is among 21 countries in sub-Saharan Africa that at least tripled their annual rates of reduction on child mortality from the 1990s.<sup>xxvi</sup> Since 2000 child mortality rates have fallen by 55%. Despite such significant progress child mortality still remains a major challenge and with 49 deaths per 1000 live births Kenya did not meet its MDG target for 2015.<sup>xxvii</sup> Nevertheless, it is very possible for Kenya to achieve the SDG target on child mortality, but it faces many challenges particularly in arid and semi-arid lands in northern and eastern parts of the country, which suffers from routinely high rates of malnutrition.

While the prevalence of acute malnutrition nationally is currently just below the WHA nutrition target of 5%, this national overview hides pockets of high levels of malnutrition. For instance, levels are routinely above the WHO ‘emergency’ threshold of 15% in arid and semi-arid lands. In 2011 in Turkana’s North-East district acute malnutrition and SAM rates reached 37.4% and 9.4% respectively.<sup>xxviii</sup> Malnutrition, particularly SAM, is a leading cause of child mortality and morbidity in Kenya, with around 40,000 children dying each year due to combinations of underweight, vitamin A deficiency and acute malnutrition, especially in chronically food-insecure arid and semi-arid lands.<sup>xxix</sup>

Child mortality from malnutrition in exacerbated in

arid and semi-arid lands due to the inability of affected populations to access life-saving services. These areas represent some of the poorest parts of the country.

Around 94% of the population in Turkana, for example, live below the national poverty line.<sup>xxx</sup> Income poverty limits the options parents have for providing adequate food and health care for their children in an area that is already categorised by underdeveloped infrastructure, particularly health facilities.

The Government of Kenya’s (GoK) recognition that tackling malnutrition is key to ‘accelerating attainment of health impact goals’, in both its Food and Nutrition Security Policy and Kenya Health Strategic Plan, provided an opportunity to strengthen the links between nutrition and health systems to reduce the mortality and morbidity of women and children in Kenya.<sup>xxxi</sup> As such, DFID funded UNICEF and a consortium of NGOs to support the health structures to sustainably reduce the rate of acute malnutrition and mortality, with the GoK leading the response. This included support to GoK to better embed nutrition into the health structures and to improve the quality and coverage of a package of eleven High Impact Nutrition Interventions (HiNI).

The coverage and success of the HiNI package needed to improve child nutrition and health depended largely on the ability to ensure the supplies were predictable. Historically, however, development partners (mainly UNICEF) have been responsible for all or parts of the supply chain for nutrition products. This has led to nutrition products, such as ready to use therapeutic foods (RUTFs), often being seen by country governments, including Kenya, as ‘external’ products. These products needed to be ‘normalised’. As such, UNICEF worked with the GoK to integrate the RUTF supply chain into Kenya Medical Supplies Authority. This is critical to avoid stock outs of essential commodities. However, for this to be sustainable it requires adequate funding for health staff and facilities, as well as efforts to strengthen the health system in general.

**37.4%**

ACUTE MALNUTRITION RATE IN TURKANA’S NORTH-EAST DISTRICT IN 2011

**9.4%**

SAM RATE IN TURKANA’S NORTH-EAST DISTRICT IN 2011

**94%**

OF THE POPULATION IN TURKANA LIVE BELOW THE NATIONAL POVERTY LINE

**49**

DEATHS PER 1000 LIVE BIRTHS



## CASE STUDY 02 PAKISTAN

### REDUCING CHILD MORTALITY BY INTEGRATING NUTRITION INTO THE BASIC HEALTH CARE PACKAGE

Poor health is perhaps the leading cause of chronic poverty of individuals and households in Pakistan. The ongoing child health and malnutrition crisis in particular is undermining the country's long-term stability and prosperity. Each year 423,000 children die before reaching their fifth birthday. Nearly half of children in Pakistan suffer from stunted growth and wasting rates are at serious levels with more than 10% of children affected.

As the main service provider for primary and preventive health care services, the government has significant opportunities to address these challenges, by planning and delivering more effective services. Recognising that many issues not only overlap but can create deadly synergies, such as malnutrition and RMNCH, the provincial governments in particular have been keen to integrate services through an essential health package of services.

The provincial governments of Punjab and Khyber Pakhtunkhwa have recently finalised the Essential Package of Health Services (EPHS) for primary health care, which alongside common basic health services – such as immunization and antenatal and postnatal care – includes the prevention and management of acute malnutrition,

such as facility based management of SAM, nutrition supplementation and treatment for anaemia.

Given the commitment and ambition the government has shown to improving the health of its citizens, DFID funded the Provincial Health and Nutrition Programme (PHNP) from 2013-2018 to support the delivery of the EPHS by the governments of Punjab and Khyber Pakhtunkhwa – two states which comprises 70% of the total population in Pakistan.

The programme aims to “improve [the] health outcomes in RMNCH and nutrition” to contribute to the both the MDGs and the SDGs. The programme is expected to result in 120,000 fewer child death and 340,000 fewer malnourished children, by increasing the coverage and utilisation, particularly by the poor, of RMNCH and nutrition services.”

By integrating nutrition into the basic health packages both governments were able to increase the service delivery of life-saving nutrition interventions. By 2016 both the governments of Punjab and Khyber Pakhtunkhwa surpassed their milestones of treating 55% of children with SAM in target districts and achieved 96% and 90% treatment levels respectively.

# 423,000

CHILDREN DIE BEFORE  
REACHING THEIR FIFTH  
BIRTHDAY EACH YEAR

- 04 Some nutrition interventions are seldom integrated.** While Vitamin A supplementation, exclusive breastfeeding and the management of SAM are among the most commonly integrated nutrition intervention the analysis found that some interventions remain low. 'Preventative zinc supplementation', for example, is still low – with only 15 out of the 99 programmes analysed supporting the delivery of this intervention. This is despite that fact that not only has zinc supplementation been shown to reduce the duration and severity of diarrhoea, and to prevent subsequent episodes, it is also one of the most cost-effective interventions. In zinc deficient populations, zinc treatment reduces diarrhoea-related deaths by 23% and it costs less than US\$0.50 for a full course of combination zinc and ORS treatment.

What's more, its preventative qualities remain underutilised. Where it has been integrated, in many cases it was being used as a means of treating and managing diarrhoea – a leading cause of child malnutrition and mortality – after it had occurred as opposed to a means of prevention.

- 05 Some health issues show less integration than others.** The analysis identified significant gaps in particular sectors, including Reproductive, Maternal and Newborn Child Health (RMNCH), which would have potentially benefited from nutrition interventions [Table 3].

TABLE 3

## THE ROLE EXCLUSIVE BREASTFEEDING IN IMPROVING RMNCH OUTCOMES

While exclusive breastfeeding — defined as the practice of only giving an infant breast-milk for the first six months of life (no other food or water) — is among the more integrated interventions comparatively, integration of nutrition interventions as a whole is low. RMNCH is a clear area to further scale up an intervention that is such a cornerstone of child survival and health. This intervention has the potential to avert 800,000 preventable child deaths,<sup>xxxiv</sup> since it serves as a child's first immunization — providing protection and drastically reduces deaths from respiratory infection and diarrhoea, two major child killers. As such, an exclusively breastfed child is 14 times less likely to die in the first six months than a non-breastfed child.

The benefits of breastfeeding do not stop at the children, but could have serious benefits for maternal health and survival. Early initiation of breastfeeding has been shown to prevent postpartum haemorrhaging, a leading cause of maternal mortality. Furthermore, since exclusive breastfeeding can prevent menstruation and pregnancy for up to six months, it can also act as a natural contraceptive. Evidence shows that women who use exclusive breastfeeding as a means of contraception are more likely to use other forms of contraception.



Despite the clear benefit of nutrition for RMNCH the majority of DFID health programmes that showed no evidence of integration were those that fell under the family planning and reproductive health care categories. Out of the 55 health programmes that showed no evidence of integration 21 of those were ones with a strong focus on improving reproductive health, including family planning. For example, DFID funded the 'Reducing Maternal and Newborn Deaths' programme in Kenya, which aimed to avert 4000 maternal deaths and 5500 neonatal deaths. This programme was to contribute to the staggering deaths in newborns, which account for 60% of infant and 42% of under-five deaths. While DFID recognised the countries Health Sector Strategic Plan 2005/10 (NHSSP II) found improvements in all indicators except maternal and neonatal mortality, skilled delivery and nutrition, we found no evidence of integration or efforts to support scaling up life-saving nutrition interventions that could have contributed to averting neonatal deaths, through key interventions such as the promotion of early and exclusive breastfeeding.

Despite being a cornerstone of child survival, rates for exclusive breastfeeding remain low at less than 40% globally. Efforts to increase the rate of exclusive breastfeeding are critical, but are much more complex, as it is not dependent on commodity-based service delivery. It is a learned behavior, and there is an extensive body of research which has demonstrated that mothers and other caregivers require active support for establishing and sustaining appropriate breastfeeding practices.

- 06 Integration can not only occur, but is often facilitated, in contexts with weak health systems.** South Sudan [Case Study 3] is a powerful example of where DFID have funded an innovative integrated programme in contexts where there are no formal health systems and which brought together approaches to tackle both the direct and underlying causes of child mortality. Despite years of war having left health systems extremely weakened, with access to treatment services at an all-time low, integration was still possible through third party providers, primarily NGOs. In some instances, this kind of approach to health facilitates integration better as it enables providers to design interventions with greater flexibility, rather than being curtailed by the bottlenecks that can exist in weak health systems. This ultimately shows that weak health systems do not have to be barriers to integrations.
- 07 In some instances where there was no evidence of integration, there was indications of coordination.** In the 'Delivering Reproductive Health Results Programme' in Pakistan, for example, the Business Case stated the programme had identified the 'potential to prove a more comprehensive Reproductive Health (RH) service package by including other interventions such as... nutrition.'<sup>xl</sup> This programme was found to have no nutrition-specific interventions integrated in it. However, it was stated in the documentation that this programme was intended to operate alongside DFID's the Provincial Health and Nutrition programme (PHNP). This eludes to a coordinated way of working to ensure complementarity however, it was very difficult to assess the existence, extent or success of the coordination that took place between these two programmes. What's more, coordination between programmes is not a proxy, nor can it be a substitute, for integrated health programmes. Coordination of separate programmes, in place of integration, is unlikely to target and reach the same populations. Therefore, some groups are more likely to be missed from receiving interventions that could bolster their health.

**IN PAKISTAN, FOR EXAMPLE, THE BUSINESS CASE STATED THE PROGRAMME HAD IDENTIFIED THE 'POTENTIAL TO PROVE A MORE COMPREHENSIVE REPRODUCTIVE HEALTH (RH) SERVICE PACKAGE BY INCLUDING OTHER INTERVENTIONS SUCH AS... NUTRITION.'**



## CASE STUDY 03 SOUTH SUDAN

### ADDRESSING CHILD KILLERS IN EMERGENCIES THROUGH INTEGRATED COMMUNITY CASE MANAGEMENT AND NUTRITION

South Sudan has been struggling with high rates of child mortality, which has been exacerbated by years of poverty and conflict. Rates are as high as 93 deaths per 1000 live births,<sup>xxxv</sup> which translated to around 39,000 children under-five died in in 2015. 75% of these deaths are due to malaria, pneumonia and diarrhoea, with malnutrition acting as a catalysts for mortality underlying around half of these deaths. An estimated that 31.1% of children suffer from stunted growth.<sup>xxxvi</sup> Wasting rates are chronically at emergency level, with a staggering 22.7%<sup>xxxvii</sup> of children affected and it is expected that 237,000 children will be affected in 2016 alone.

War has left an already very basic health care system extremely weakened, with severe shortages of health workers and functional facilities, resulting in low access to treatment. As such, new ways to provide rapid and effective treatment for the countries more vulnerable population was needed. This has led to the development of programmes – like iCCM and CMAM – which provide life-saving care to children under five who are unable to access health facility for one reason or another (e.g. distance to health facility).

#### INTEGRATED CHILD CASE MANAGEMENT (ICCM)

*iCCM is an integrated approach for assessing and classifying signs and symptoms of pneumonia, diarrhoea and malaria in children under five years old, and providing home-based treatment or referral for these diseases. The approach normally includes health promotion and preventative activities.*

#### COMMUNITY MANAGEMENT OF ACUTE MALNUTRITION (CMAM)

*CMAM is an approach enables community volunteers, often community health workers (CHWs), to identify and initiate treatment for children with acute malnutrition before they become seriously ill. Volunteers and caregivers provide treatment for the majority of children with SAM in the home using Ready-to-Use-Therapeutic Foods (RUTF) and routine medical care. When necessary, severely malnourished children who have medical complications are referred to in-patient facilities for more intensive treatment.*

Both iCCM and CMAM were previously being delivered as separate interventions in South Sudan, until a DFID-funded consortium of NGOs identified an opportunity to combine

these approaches to maximise child survival outcomes.

This integration came about due to a recognition that many children suffering from the diseases usually covered in iCCM also suffered from malnutrition, which was preventing children from recovering common childhood diseases, deteriorating their health further and ultimately contributing to child death.

The approach worked by building on an existing platform of volunteer health workers, known as Community Drug Distributors (CDDs), providing iCCM for malaria, pneumonia and diarrhoea.<sup>xxxviii</sup> The CDDs were provided with additional training to conduct assessments and referral for SAM alongside providing the regular iCCM services. A group of literate Community Nutrition Workers (CNWs) were also trained to manage the outpatient sites where diagnosis and treatment is delivered.

Integration was easily facilitated not only because both approaches share similar priorities – namely to ensure that children are given effective treatment for leading child killers shortly after falling ill, or are referred to a health facility if severely unwell – they also had very similar ways of working, with both programmes:

- Maximising the coverage and access to services for the population in need, by making services accessible at the community level, especially in hard to reach areas.
- Providing rapid treatment of conditions before they progress and complications develop.
- Providing effective outpatient treatment, whereby the majority of children can be successfully treated at in the community and where necessary make referrals to inpatient care for those who have complications.
- Using simple protocols and encouraging community involvement and ownership, which enables people in the community and lower cadre health workers, including volunteers, to deliver care for the majority of children.
- Promoting health and preventative activities, alongside identifying, referring children for treatment.<sup>xxxix</sup>

**39,000**

CHILDREN UNDER-FIVE  
DIED IN IN 2015

**237,000**

WILL BE AFFECTED  
BY SAM IN 2016

## 05 CONCLUSIONS & RECOMMENDATIONS

- 01** There remains an untapped opportunity for DFID to integrate nutrition packages into its health programmes and maximise child survival.

**RECOMMENDATION** In contexts where both child mortality and malnutrition is high DFID should identify opportunities to fund integrated health and nutrition programmes that include packages of high-impact nutrition interventions, particularly SAM treatment, in order to maximise child survival outcomes.

- 02** Interventions to address the underlying or direct causes of child death are expected to decrease child mortality, and interventions that accomplish both will have the greatest effect. Malnutrition is the lead underlying cause of child death and high-impact proven nutrition interventions could catalyse child survival and even magnify the effectiveness of malaria, pneumonia and diarrhoea initiatives – ultimately boosting progress towards achieving Sustainable Development Goal 3.

**RECOMMENDATION** Strategies and programmes aimed at saving lives should strive to integrate interventions to tackle both direct and underlying causes of child mortality. Therefore, approaches to address malaria, pneumonia and diarrhoea should incorporate interventions to improve the nutrition status at the same time.

**RECOMMENDATION** DFID's health strategies and programmes aimed at improving child survival should systematically include nutrition outcome indicators, for example 'Number of children successfully treated for severe acute malnutrition'.

- 03** The integration of nutrition is not a one-size fits all approach. Integration into health can happen in both formal (government run facilities) and informal health structures (NGO run approaches). Therefore pursuing further integration requires an understanding of the health structures in which DFID operates as well as the unique demands different interventions have on health systems and structures.

**RECOMMENDATION** DFID should conduct a learning review of previous and current programmes to build their knowledge and evidence of the different health systems, and the ways in which they can be successfully supported and strengthened to deliver integrated nutrition services.

**RECOMMENDATION** The nutrition community must clearly explain what demands the nutrition-specific interventions make and require of the health systems to facilitate DFID's decision making on integration.

- 04** Coordination is not a proxy or a substitute for integration.

**RECOMMENDATION** To maximise outcomes for child health DFID should strive to integrate nutrition into health wherever possible and appropriate. This will not only require pooling resources from both sectors, but also developing a shared theory of change and plan of how these integrated interventions will lead to change.

**RECOMMENDATION** In instances where integration is not possible DFID must invest in establishing and funding structures & individuals with specific responsibility to 'coordinate' to minimise the chances of duplication or populations being missed.

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