Maternal and Child Health
Knowledge, Attitudes and Practice Survey

BBC World Service Trust
Cambodia Endline Results

September 2006

www.bbcworldservicetrust.org

About the BBC World Service Trust

The BBC World Service Trust is an independent charity that promotes development through the innovative use of media.

The Trust works with people in developing and transitional countries to improve the quality of their lives. The Trust's work seeks to raise awareness among mass and opinion-former audiences; affect behaviour change; and influence policy and transfer skills and knowledge. In all of its work, the Trust has a strong commitment to delivering impact and cutting-edge media solutions to development challenges.

Research & Learning Group
As part of the BBC World Service Trust, the Research and Learning Group (R&L) is an international team of research professionals with expertise in media communications and audience insight.

The Research & Learning Group focuses on four key activities:

- Providing Trust projects with audience and market insights to guide project strategies;
- Conducting qualitative and quantitative research studies to capture the impact of all Trust media interventions;
- Building capacity in audience research skills and methodology on projects in country;
- Documenting and disseminating the learnings from the Trust's projects internally and to the wider development community.

The Research and Learning Group has an established network of research teams operating in some of the most challenging areas of the world. As well as evaluating the impact of Trust related projects, the Research and Learning Group provide independent media research to the development community.

For more information on the work of the Research and Learning Group please visit:

www.bbcworldservicetrust.org/researchlearning

Executive Summary

BBC World Service Trust in Cambodia

Infant and child (under 5 years old) mortality rates in Cambodia are amongst the highest in South East Asia. The 2004 Cambodian Inter Censal Population Survey reports an infant mortality rate of 66 deaths per 1000 births and 31 deaths per 1000 children aged 1 to 4 years old[1].

The BBC World Service Trust has been working with the Royal Government of Cambodia and Cambodian broadcasters to address the HIV and AIDS epidemic, and to address the nation's poor maternal and child health (MCH) situation. Since 2003 a combination of TV and radio programmes have been created to prevent more people from becoming infected with HIV, to improve care and support for those who are already affected and to improve the health of Cambodia's mothers and children.

The project is an ambitious campaign both in size and aim, particularly because of its objective to use popular and entertaining programming to help people change behaviour that puts their health and lives at risk.

The Trust's work in Cambodia is the result of strong partnerships between the Trust, Cambodian broadcasters and the Cambodian government, supported by international and local organisations and NGOs. Broadcast partners (TV5, TVK, RNK, FM 102 [2], FM 103 and Bayon Radio[3]) have donated producer time, in-house technical facilities and free airtime to the campaign. In return they have been provided with production funds, programming made in co-production with the Trust and training and workshops.

The project is funded by the UK Government's Department for International Development (DFID) under "Strengthening Cambodia's Response to HIV/AIDS", together with a coalition of UN agencies and Cambodian government ministries.

Methodology

The Trust has used a series of cross-sectional population-based surveys of media consumers (TV and/or radio in the month prior to interview) to assess the project's impact. The surveys measure respondents' knowledge, attitudes and practice (KAP) in relation to a number of issues surrounding MCH and their media practices.

The first survey was conducted before broadcasting commenced (baseline – spring 2004), the second during the broadcast period (midline – spring 2005) and the endline survey in spring 2006.

[1] http://www.nis.gov.kh/SURVEYS/depth-cips04/pro-cips/summary_projection.htm
[2] Partnership with FM 102 ended in September 2005
[3] Bayon Radio came on board in September 2005

Each household-based survey was conducted in 21 of the 24 Cambodian provinces, including the capital Phnom Penh and other major urban centres that receive the output of the Trust's broadcast partners. The provinces Ratanak Kiri, Mondul Kiri and Pailin are excluded as they are not in the coverage area of the media partners (apart from RNK). Certain groups were automatically excluded from the survey, such as those in the military and migrants to the country.

A total of 2274 respondents were interviewed during the baseline study and 2281 at endline.

Three sets of analysis are used by the Trust to assess impact and both are reported in this document:

- **Trends** are assessed by comparing baseline to endline levels on Knowledge, Attitudes and Practice (referred to as KAP) and selected media variables.
- **Performance** of the project in reaching its target audience(s) is tabulated using a combination of top of mind, spontaneous and prompted responses to questions asking people to recall whether they have seen or heard the Trust's outputs.
- **Exposure** is measured by calculating the number of specific formats each respondent has been exposed to. The modal exposure level forms the medium exposed subgroup for analysis. Those who report lower than the modal level of exposure are grouped as the low exposure group and those who report higher than the modal subgroup are classified as the high exposure group.

In all these analyses, data is reported in aggregate about the entire sample, and respondents are also grouped into subgroups by media (TV, radio, both) and appropriate target audience(s) for specific messages and behaviour change objectives, as determined at the start of the media intervention.

Key Findings

Diarrhoea

- Those washing their hands to help protect the health of a baby or a young child, doubled (12% baseline, 24% endline)

- There was a significant increase in those who said they washed hands as a means of preventing diarrhoea in their children (10% baseline, 25% endline).

ARIs and Immunisation

- Awareness of Acute Respiratory Infection (ARIs) has quadrupled since baseline, 20% - 80%

- Awareness of all three key danger signs – cough, fast breathing and chest indrawing - of ARI has climbed significantly since baseline

Child Nutrition

- Knowledge of immediate breastfeeding post-birth increased markedly since baseline, 38%-67%

- There was a significant decrease in those who thought a mother or carer should give a baby anything other than breast milk to eat in the first six months (60% baseline, 18% endline)

Pre and Post Natal Care

- Pregnant women taking iron supplements have increased dramatically, 10% at baseline, 44% at endline

- Those planning to use a traditional birth attendant to deliver their baby have declined (40% baseline, 29% endline), with a concurrent increase in those planning to use a midwife instead (49% baseline, 63% endline)

- Pregnant women going to an ante natal check up to safeguard their health have increased significantly (49% baseline, 68% endline)

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Introduction

Infant and child (under 5 years old) mortality rates in Cambodia are amongst the highest in South East Asia. The 2004 Cambodian Inter Censal Population Survey reports an infant mortality rate of 66 deaths per 1000 births and 31 deaths per 1000 children aged 1 to 4 years old[4].

BBC World Service Trust in Cambodia

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The Trust's work in Cambodia is the result of strong partnerships between the Trust and Cambodian broadcasters and the Cambodian government, supported by international and local organisations. Broadcast partners (TV5, TVK, RNK, FM 102 [5], FM 103 and Bayon Radio[6]), have donated producer time, in-house technical facilities and free airtime to the campaign. In return they have been provided with production funds, programming made in co-production with the Trust and training and workshops.

The project is funded by the UK Government Department for International Development (DFID) and works with a coalition of Cambodian government ministries.

The project broadcasts began in May 2004 and finished in August 2006.

Impact Evaluation Research

Prior to broadcast, in spring 2004, the BBC World Service Trust conducted a quantitative baseline survey on MCH Knowledge Attitude and Practices (KAP). A midline KAP survey was conducted a year later in spring 2005 to assess changes and measure the reach of the Trust's outputs, followed by the endline survey in spring 2006.

The results from the endline study have been used within this report to evaluate any significant changes in knowledge, attitudes or behaviour in relation to MCH which have occurred since the onset of the campaign.

The report presents a profile of the sample demographic, media consumption, and exposure to the Trust's media intervention. It also details trends identified in relation to a number of pre-specified behavioural change objectives.

[4] http://www.nis.gov.kh/SURVEYS/depth-cips04/pro-cips/summary_projection.htm
[5] Partnership with FM 102 ended in September 2005
[6] Bayon Radio came on board in September 2005

Further analysis has also been conducted looking at message interpretation from a selection of MCH television spots, as well as exposure to, engagement with and interpretation of the Taste of Life television drama which will be reported separately.

Purpose

The results from the baseline and endline studies have been used within this report to measure the performance of the Trust in reaching and delivering information to Cambodian audiences, assess changes in knowledge, attitudes and practice. It has also been used to determine the nature and strength of the relationship between exposure to the Trust's outputs and outcomes promoted by the outputs' informational (i.e. educational, entertainment or other) content.

The report presents a profile of the sample demographic, media consumption, and exposure to the Trust's media intervention. It details trends identified in relation to a number of pre-specified behavioural change objectives.

Further analysis, which will be reported separately, looked at message interpretation from a selection of MCH television spots, and exposure to, engagement with and interpretation of the Taste of Life drama.

Project Information

Outputs

The Trust's Cambodia MCH work produced a range of television, radio and supporting print outputs:

Television

- 23 TV spots
- The 'Taste of Life' drama

Radio

- 22 Radio spots
- Radio call-in discussion programme 'First Steps[7]'

All the outputs were branded. A campaign brand, consisting of a four hearts logo and the slogan 'Good Health, Bright Future', has served to link and provide continuity between the multiple TV and radio spots. Longer format programmes have also developed their own media branding to promote a unique Khmer television drama and to assert the identity of radio programmes in a crowded radio market.

The extent to which these television and radio outputs have been effective in reaching target audiences is measured in this endline KAP survey.

Target Audiences

The sample consists of the main target audiences for the MCH information in Cambodia: carers of children under 5 and pregnant women living in both urban and rural locations in the 21 provinces included in the study.

In order to be included in the survey, respondents had to have watched TV and/or have listened to radio in the month prior to the interview.

Knowing that roles and responsibilities for the welfare of young children differ among sub-groups within this general target audience, specific target audiences were defined as follows:

- General audience
- Mothers
- Carers, be they a child's mother or another relation to them
- Pregnant women

Message Brief

The Trust's project team, via workshops and consultations with Cambodian practitioners and stakeholders, determined key themes and issues to be covered:

[7] A second MCH call-in 'Being Mum' ran for only 10 weeks in 2005 and has not been included in this survey

- Diarrhoea
- ARI and Immunisation
- Child Nutrition
- Pre and Post Natal Care

Behaviour Change Objectives

The Trust's project team, via workshops and consultations with Cambodian practitioners and stakeholders, developed a specific message brief and specified behaviour change objectives for each of the target audiences. This is detailed in Table 1 below:

Table 1 – Behaviour Change Objectives

Theme	**Message Objective**
Diarrhoea	Wash hands before eating, after defecation and before serving food
	Boil drinking water
	Give ORS to children with diarrhoea
	Give sick children food and fluids
ARI and Immunisation	Recognize danger signs of ARIs
	Take children with ARI danger signs to health centre quickly
	Provide full course of immunisation during first year
Child Nutrition	Breastfeed children immediately
	Breastfeed children exclusively for six months
	Breastfeed and feed children complementary foods after six months
Pre and Post Natal Care	Attend at least two ante-natal check ups
	Used skilled midwife at delivery
	Take iron tablets for 90 days before delivery and 42 days after
	Space births at least two years apart

Table 2 - Target Audiences for Behaviour Change Objectives

Target Audience	Theme	Message Objective
General Audience	**Diarrhoea**	Wash hands before eating, after defecation and before serving food
Mothers	**Diarrhoea**	Boil drinking water
		Give ORS or ORS substitute to children with diarrhoea
		Give sick children food and fluids
	ARI and Immunisation	Recognize danger signs of ARIs
		Take children with ARI danger signs to health centre quickly
		Provide full course of immunisation during first year
	Child Nutrition	Breastfeed children immediately
		Breastfeed children exclusively for six months
		Breastfeed and feed children complementary foods after six months
Carers	**Diarrhoea**	Boil drinking water
		Give ORS or ORS substitute to children with diarrhoea
		Give sick children food and fluids
	ARI and Immunisation	Recognize danger signs
		Take children with ARI danger signs to health centre quickly
		Provide full course of immunisation during first year
	Child Nutrition	Breastfeed and feed children complementary foods after six months
Pregnant	**Pre and Post Natal Care**	Attend at least two ante-natal check ups
		Used skilled midwife at delivery
		Take iron tablets for 90 days before delivery and 42 days after
		Space births at least two years apart

Methodology

Each of the MCH KAP studies used the same sampling and data collection methodology.

Study design

A household based cross-sectional survey was conducted in 21 of the 24 Cambodian provinces / cities that receive the output of the Trust's media partners (TV5, TVK, RNK, FM 102, FM 103 and Bayon Radio[8]). The provinces Ratanak Kiri, Mondul Kiri and Pailin were excluded as they are not in the coverage area (media 'footprint') of the media partners.

Study population

The sample consists of pregnant women and carers[9] of children under 5 living in both urban and rural locations in the 21 provinces included in the study. In order to be included in the survey, respondents had to have watched TV and/or have listened to radio in the last month prior to the interview.

Sample Design

The sample was obtained using a multi-stage sampling strategy.
All selection was based upon data tables from the 1998 Cambodia census. These lists contained names of every village in every province and the number of households in them.

This data was used to calculate the proportion of urban and rural population centres in each province. In each of the 21 provinces, a total of ten locations were surveyed. The number of urban and rural locations to be surveyed was determined upon the urban-rural distribution of the province.

The ten locations within each province were chosen using Proportional Probability Sampling (PPS) based upon the separate census lists of urban and rural population centres. In each selected location, 12 households were then selected for interview using an EPI[10] random walk method.

Due to concerns about access to radio and TV signals in more remote provinces (Banteay Meanchey, Preah Vihear, Stung Treng and Oddar Meanchey), when a village with less than 130 households was selected the next village with more than 130 households on the census list was

[8] Bayon Radio, while in the study area, and included in the radio market measures, was not the Trust's broadcast partner at the time of the baseline study. Bayon Radio became a broadcast partner over the course of the Trust's project work in Cambodia.

[9] Carers were defined as any adult member of a household who is responsible for looking after the children aged less than 5 in that household, including mothers, fathers, grandparents or even other household members.

[10] The Expanded Programme for Immunisation (EPI) random walk method has been widely used by the World Health Organisation and others for rapid cluster sample surveys where an up to date household sampling frame is not available.

substituted. In other less remote, more densely populated provinces, a substitution was made for villages with fewer than 100 households.

Data Collection

Data were collected using face-to-face interviews in Khmer language. A written questionnaire, drafted by the Trust in consultation with the National Center for Health Promotion, who also piloted the questionnaire, covered the following topics:

- Awareness of MCH issues
- Knowledge about MCH issues, prevention
- Treatment Behaviour
- Prevention Behaviour
- Pre and Post-Natal Knowledge, Intentions of Pregnant Women

Interviews lasted 50-90 minutes and were conducted in private locations with the informed consent of respondents. Male interviewers interviewed male respondents; female interviewers interviewed females.

Limitations

- Household Survey
  - The study *does not include* migrant men or women, employed outside the home, residential institutions such as schools, universities, garment factories, prison, the army or very remote rural villages (excluded due to access issues)

- The groups interviewed in this study are specifically carers of under 5s and pregnant women only – it is *not* representative of all Cambodians

- Issue of Self-Reported Data
  - The under-reporting of taboo, sensitive issues (e.g., pregnancy, sexuality)
  - Social desirability

- The differences in populations between provinces have not taken into account in the data totals (unweighted), but it still provides for an accurate picture of urban and rural Cambodian media users

- Sub-group Analysis
  - In some cases, limited by small cell sizes and cannot be done.

Profile of Respondents

Target Audiences in Study Population

A total of 2274 pregnant and carer respondents were interviewed during the baseline study and 2281 at endline. Table3 below shows the profile of respondents interviewed, broken down by General Audience, Mothers, Carers and Pregnant Women.

At both baseline and endline, most respondents were carers (95% baseline, 97% endline). Fewer mothers were interviewed at baseline compared with endline (83% baseline, 75% endline).

Pregnant respondents were also fewer in the endline study. (13% baseline 9% endline).[11] A quota for this group was not specified and this change may be interpreted as reflecting a decrease in pregnancies occurring in the wider population.

Table 3-Sample Profile

Sample Profile				
	Baseline		Endline	
General Audience	2274	100%	2281	100%
Mothers	1878	83%	1706	75%
Carers	2167	95%	2211	97%
Pregnant	297	13%	202	9%
Base	2274		2281	

Key Findings - Characteristics of Carers

- At both baseline and endline, the mean age of respondents was between 32 and 33 years old.

- There were some pronounced differences between the rural (who make up the largest majority of this survey) and urban respondents in this study. Mean levels of income for urban respondents (5014411) were double those in rural areas (2449391). Both groups have seen substantial income increases since baseline (2999345 urban, 1507607 rural).

- There were no significant differences by marital status between urban and rural respondents and since baseline

- There has been a slight widening of the gap between urban and rural respondents' levels of education; urban respondents now have an average of 6 years in education, compared to 4 years for rural respondents. The difference was previously 5 years-4 years at baseline.

[11] NB: In the HIV/AIDS KAP studies a decrease of pregnant women (9% baseline, 5% midline) also occurred.

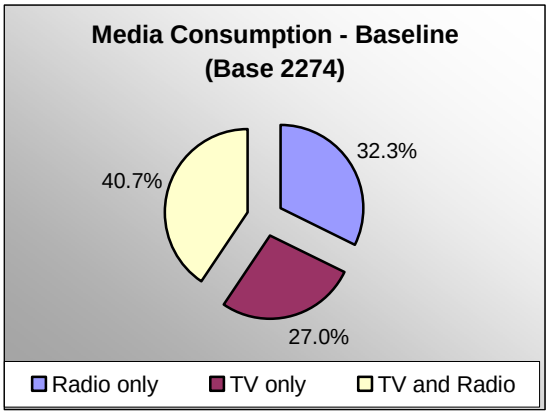
Table 4-Target Audience Demographic Profile - Carer Media Consumers

Media Consumers TV & Radio - Key Demographics										
		Male	Female	Urban	Rural	Both TV and Radio	Mean Age	Mean Education Level	Mean Children Under 5	Base
General Audience	Baseline	5%	95%	26%	74%	100%	32.97	4.86	1.23	925
	Endline	14%	86%	25%	75%	100%	32.47	5.42	1.24	815
Mothers	Baseline	-	100%	23%	77%	100%	30.81	4.86	1.26	741
	Endline	-	100%	24%	76%	100%	29.88	5.39	1.29	586
Carers	Baseline	5%	95%	25%	75%	100%	33.19	4.82	1.28	883
	Endline	14%	86%	25%	75%	100%	32.67	5.38	1.28	793
Pregnant	Baseline	-	100%	28%	72%	100%	28.55	5.15	0.84	115
	Endline	-	100%	26%	74%	100%	27.14	5.62	0.77	65

Media Consumption

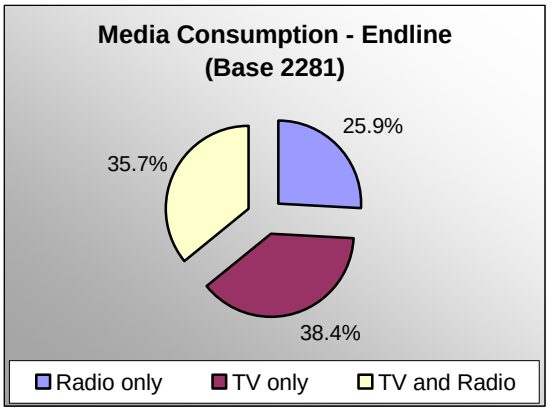
- Charts 1 and 2 overleaf illustrate the distribution of media consumption in the two survey populations.
- There are substantial differences in levels of media consumption between baseline and endline: Overall, radio listening fell from 73% at baseline to 62% at endline. The profile of bi-media usage (i.e., combinations of radio and television) also shifted with a decrease in the proportions of those listening to both TV and radio, from 41% at baseline to 36% at endline.
- At baseline, 32% of respondents only listened to the radio[12], whereas this decreased to 26% at endline.
- At baseline just over two fifths (41%) reported both listening to radio and watching television, a figure which fell to just over a third (36%) of respondents at endline.

Chart 1 - Media consumption – Baseline



[12] The significant changes in consumption patterns over a one-year period presented above are one of several indications of Cambodia's rapidly changing media market. Both studies had specific questions about which radio and television stations people listen to or watch. There were 24 known radio stations listed in the baseline questionnaire. This number increased to 29 in the midline a year later. Radio listening overall decreased during the same time period, indicating a shrinking and more fragmented radio market. The television market grew with a new station CTN entering the market and taking a lead position over the first year of the Trust's work. The Trust has conducted further detailed analysis of the Cambodian media market which is reported elsewhere.

Chart 2 - Media consumption - Endline



Media Consumer Profiles

Tables 5 to 6 report the target audience demographic profile broken down by all TV consumers and all radio consumers.

Each gives specific information in relation to:

- Respondent's gender
- Urban or rural location
- Consumption of both TV and radio
- Mean age
- Mean education level
- Mean number of children in the household under 5 years old

The tables are presented with a number of bulleted comments to assist interpretation. These refer to the entire survey samples of media consumers as the Trust's project's 'general audience'.

- From the general audience profile in the top row, predominantly female samples were interviewed at both baseline and again at endline (96% and 88% respectively).

- A high proportion of both samples (72% baseline, 75% endline) were from a rural location due to the sampling methodology. This was designed to reflect the geographic distribution of the Cambodian population[13]. The 3% increase in the rural population merely reflects differences in field conditions between the two studies.

- At baseline 60% and at endline 48% of respondents were consumers of both TV and radio, evidence of the changing Cambodian media landscape

[13] The proportions of urban and rural respondents specified in each province were based upon proportions reported in the 1998 Cambodian census and were the same in each study.

in which radio use is decreasing. In both studies, the average respondent age was between 31 and 33 years old.

Television Viewers

The proportion of female TV consumers has decreased since baseline, from 96% to 88%, and the proportion of male carer TV consumers has increased from baseline levels from 4% to 12%.

Table 5-Target Audience Demographic Profile – Carer TV Viewers

Media Consumers TV - Key Demographics										
		Male	Female	Urban	Rural	Both TV and Radio	Mean Age	Mean Education Level	Mean Children Under 5	Base
General Audience	Baseline	4%	96%	28%	72%	60%	32.66	4.65	1.23	1540
	Endline	12%	88%	25%	75%	48%	31.94	4.91	1.24	1691
Mothers	Baseline	-	100.0%	25.2%	74.8%	59.0%	30.79	4.65	1.28	1256
	Endline	-	100.0%	24.5%	75.5%	46.3%	29.62	4.93	1.27	1265
Carers	Baseline	4%	96%	27%	73%	60%	32.87	4.63	1.29	1472
	Endline	12%	88%	25%	75%	48%	32.16	4.89	1.28	1640
Pregnant	Baseline	-	100%	31%	69%	58%	28.34	4.67	0.8	198
	Endline	-	100%	29%	71%	45%	27.14	4.93	0.73	143

Radio Listeners

The proportion of female radio consumers has decreased from 96% at baseline to 87% at endline, and the proportion of male radio consumers has increased from 4% at baseline to 13% at endline.

Table 6-Target Audience Demographic Profile - All Carer radio Consumers

Media Consumers Radio - Key Demographics										
		Male	Female	Urban	Rural	Both TV and Radio	Mean Age	Mean Education Level	Mean Children Under 5	Base
General Audience	Baseline	4%	96%	29%	71%	56%	32.14	4.24	1.22	1659
	Endline	13%	87%	29%	71%	58%	32.33	4.95	1.23	1405
Mothers	Baseline	-	100%	27%	73%	54%	30.60	4.24	1.27	1363
	Endline	-	100%	29%	71%	57%	30.14	4.90	1.27	1027
Carers	Baseline	5%	95%	28%	72%	56%	32.39	4.25	1.28	1578
	Endline	14%	86%	29%	71%	58%	32.5	4.93	1.27	1364
Pregnant	Baseline	-	100%	34%	66%	54%	27.93	3.91	0.79	214
	Endline	-	100%	29%	71%	52%	28.01	4.92	0.75	124

Multi-Media Strategy

The continued use of multiple media platforms underlines the benefits for a multi-faceted media strategy to reach the Cambodian population.

[Note: closer media market analysis was conducted internally to identify and inform the work with the Trust's broadcast partners].

Cumulative Exposure to the Trust's Outputs

Respondents were judged as having been exposed to the campaign if they recalled watching or hearing any one of the five related formats broadcast across TV and radio.

Table 7 shows the number of MCH outputs, of a possible 5, to which audiences reported being exposed.

The analysis shows that by the end of the campaign, 99% of all media audiences were exposed to the Trust's intervention; that is, no more than 1% of any group had not seen or heard at least one the Trust's output.

It also shows that 87% of respondents had been exposed to at least 2 of the maternal child health intervention formats; more than a third of respondents (37%) had seen 3, the modal level of exposure.

Table 7-The Trust's Cumulative exposure level

BBC World Service Trust - TV and Radio Media Intervention Exposure Level				
	General Audience	Mothers	Carers	Pregnant
5	3.1%	2.8%	3.1%	3.0%
4	21.7%	22.7%	21.9%	20.3%
3	37.1%	37.0%	36.9%	35.6%
2	24.8%	24.0%	24.6%	29.7%
1	12.8%	12.9%	12.9%	11.4%
0	0.6%	0.6%	0.6%	0.0%
Base	2281	1706	2211	202

Exposure to Specific the Trust's Outputs

The endline study measured the performance of the Trust's project in reaching its target audience(s).

Exposure to specific the Trust's outputs was measured using a combination of three types of recall:

1. *Top of mind* naming of television or radio shows watched in the last year;
2. *Unprompted recall* of a television or radio programme seen or heard in the last year on the topic of MCH;
3. *Prompted recall* using appropriate stimulus material containing images unique to the output (see Appendix).

Table 8 (below) details the level of prompting for each output.

Table 8-Level of Prompting

Prompting Level Format	Top of Mind	Unprompted	Prompted
Radio - Spots		Y	Y
Radio - First Steps	Y	Y	Y
TV - Spots		Y	Y
TV - Taste of Life	Y	Y	Y
Breastfeeding Song			Y

Exposure was defined in analysis as a respondent who recalled the Trust's intervention in any of these three ways (top of mind, unprompted or prompted).

Exposure to the Trust's outputs was not measured in the baseline study as the survey was conducted before broadcasts began.

25% of respondents were classed as having 'high' exposure, 37% as having 'medium' exposure and 38% as 'low' exposure.

Television Outputs

The highest level of exposure from media outputs was achieved by the 'breastfeeding song', seen by 83% of the general audience. This was also the highest among radio consumers (88%) as it was previously a radio spot, later made into a TV spot.

The Taste of Life drama achieved a 69% level of exposure amongst all TV consumers, and reached 53% of the general audience.

Respondents were asked if they recalled a selection of 12 of the 23 MCH TV spots produced by the Trust. Visual stimulus materials were used to prompt the respondents' recall of the spots. For each of the TV spots included in the survey, two scenes from the spot were used.

The 12 TV spots shown to respondents in this study were:

- Sick Children (recognising danger signs) (**picture 1**) 68%
- Lorry (Take kids with ARI danger signs to a Health Centre quickly) (**picture 2**) (32%)
- Hand washing song (Wash hands before eating, after defecation and before serving food) (**picture 3**) (47%)
- Ancestor speak (Give ORS to children with diarrhoea) (**picture 4**) (44%)
- Germs (Boil drinking water) (**picture 5**) (36%)

- Narrow Path (Provide full course of immunisation in first year of life) (**picture 6**) (51%)
- Trees (Space births at least two years apart) (**picture 7**) (20%)
- Countdown (Take iron tablets for 90 days before delivery and 42 days after) (**picture 8**) (30%)
- Mummy (Attend at least two check-ups) (**picture 9**) (45%)
- Animals (Breastfeed children immediately) (**picture 10**) (25%)
- First day (Breastfeed and give children complementary food after six months) (**picture 11**) (38%)
- Tak Ting Nang Nang! (Breastfeed children exclusively for six months) (**picture 12**) (41%)

Radio Outputs

- Radio spots were heard by 82% of all radio consumers, and 57% of the general audience.

- The 'First Steps' broadcast was heard by 19% of all radio consumers, and 12% of the general audience.

Table 9-MCH intervention exposure – Endline

BBC World Service Trust - Media Intervention						
	General	All TV	All Radio	Mothers	Carers	Pregnant
Radio - Spots	57%	49%	82%	57%	59%	36%
Radio – First Steps	12%	10%	19%	11%	13%	10%
TV - Spots	74%	96%	62%	75%	76%	49%
TV - Taste of Life	53%	69%	45%	55%	54%	32%
Breastfeeding Song	83%	82%	88%	84%	85%	59%
Base	2281	1691	1405	1706	2167	297

Levels of Exposure to the Trust's Outputs

Exposure to at least one of the outputs was reported by nearly all respondents in the endline survey.

- 25% had high exposure
- 37% had medium exposure
- 38% had low exposure

Exposure is measured by calculating the number of specific formats each respondent has been exposed to. The modal exposure level forms the 'medium' exposed subgroup for analysis. Those who report lower than the modal level of exposure are grouped as the 'low' exposure group and those who report higher than the modal subgroup are classified as the 'high' exposure group[14]

[14] Following quality checks of the reported data it was found that a small number of unexposed respondents had been included in the analysis of low, medium and highly exposed respondents discussed in the section 'Exposure to the Trust's Intervention'.

Should the exposure tables be re-run there would indeed be a small fluctuation in the percentage change currently reported. Table 10 below shows that there would be greater membership of the highly exposed group, the medium exposed group would be smaller and the low exposed group would remain approximately equivalent.

It is reasonable to predict that the net effect of this adjustment would be an increase in the reported differences. The current analysis will most likely slightly under report these differences as the unexposed respondents will not have directly received the output to influence changes in their knowledge, attitudes or practise.

As is natural for a research project of this kind, small levels of missing data were found, a likely effect of the challenging environment within which the research was conducted. At times

Table 10 (below) details the adjusted level of exposure (see footnote 13 below).

Table 10-Exposure Grouping Adjustment

BBC World Service Trust - TV and Radio Media Intervention Exposure Level		
	General Audience	
	Current	Revised
5	3.1%	5.0%
4	21.7%	23.7%
3	37.1%	33.0%
2	24.8%	25.9%
1	12.8%	9.9%
0	0.6%	2.5%
Base	2281	2281

Since exposure to at least one of the outputs was reported by nearly all respondents in the endline survey, analysis of exposure as it related to the Trust's outcome indicators.

Therefore in place of comparing the entire exposed group with an unexposed group, as was done in the midline report, those that were exposed were classified into three subgroups: Low, Medium and High Exposure.

Respondents who reported exposure to 0 outputs are not included in the exposure analysis because the sub-group size is too small for valid statistical analysis.

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the bases reported for each of the trend and exposure charts may fluctuate slightly from those reported in the sample profile tables.

Impact: Behaviour Change Objectives

In order to assess the impact of BBC World Service Trust media interventions, knowledge, attitude and practice data was collected during both the baseline and endline surveys in relation to:

- Child Health
- Acute Respiratory Illness
- Safe Pregnancy
- Diarrhoea and Hand Washing

The following chapter details any changes that are found in relation to knowledge, attitudes or practice data as relevant to the specified behaviour change objectives and target audiences. The variables presented are those designed as indicators for the specified behaviour change objective.

Analysis of Trends

Trends are assessed by comparing baseline to endline levels. The first chart for each variable compares baseline and endline responses given by all respondents and the sub-group target audience(s). The charts are titled 'Trend chart'.

Trend charts are supported with data that has been tested for significant changes using z-tests of column proportions with the Bonferroni adjustment[15] for multiple comparisons. In the trend data tables, figures in bold indicate a significant positive difference with a probability level of at least $p<0.05$ when comparing baseline and endline.

Analysis of Impact

Comparisons of those with different levels of *exposure* to the Trust's outputs are used to show the extent of whether there are any relationships between exposure and behaviour change objectives. Strong statistical associations between levels of exposure and outcomes are considered evidence of impact that can be attributed to the Trust's intervention.

The second chart for each variable presents baseline data for the sub-group target audience(s), then breaks down the endline sample into 'low', 'medium' and 'high' exposed groups. Comparisons are then made across baseline, and endline exposed groups. These charts are titled 'Exposure chart'.

Exposure charts are supported with data that has been tested for significant changes using z-tests of column proportions with the Bonferroni adjustment for multiple comparisons[16]

[15] The Bonferroni test, based on Student's t statistic, adjusts the observed significance level for the fact that multiple comparisons are made

[16] **Data Analysis Methodology Note**

Figures in bold indicate a significant positive difference with a probability level of at least $p<0.05$. Figures in italics represent the group (baseline, endline exposed) which is significantly lower than the figure in bold.

Diarrhoea

Changes in knowledge and behaviour in relation to diarrhoea were assessed by looking at the following measures:

- Washing hands to keep child healthy
- Washing hands before eating to prevent diarrhoea
- Boiling water to keep child healthy
- Boiling water to prevent diarrhoea in young children
- Giving ORS
- Giving sick children food
- Giving sick children fluid

Key Findings – Diarrhoea

- Those washing their hands to help protect the health of a baby or a young child, doubled (12% baseline, 24% endline)

- There was a significant increase in those who said they washed hands as a means of preventing diarrhoea in their children (10% baseline, 25% endline).

Knowledge:

What are the things a person caring for a baby or young child less than five years old, can do to help them be healthy?
Respondents were asked this open-ended knowledge question. All responses were recorded on the pre-coded questionnaire and reported throughout the report in the sections addressing the topic.

What can a person do to prevent diarrhoea in young children?
Respondents were also asked an open-ended question about their knowledge of diarrhoea prevention.

Practice: Have you done any thing to prevent diarrhoea in your children in the past six months?

What have you done in the past six months to prevent diarrhoea in your children?
An open-ended question with pre-coded answers was used to measure specific diarrhoea prevention practices.

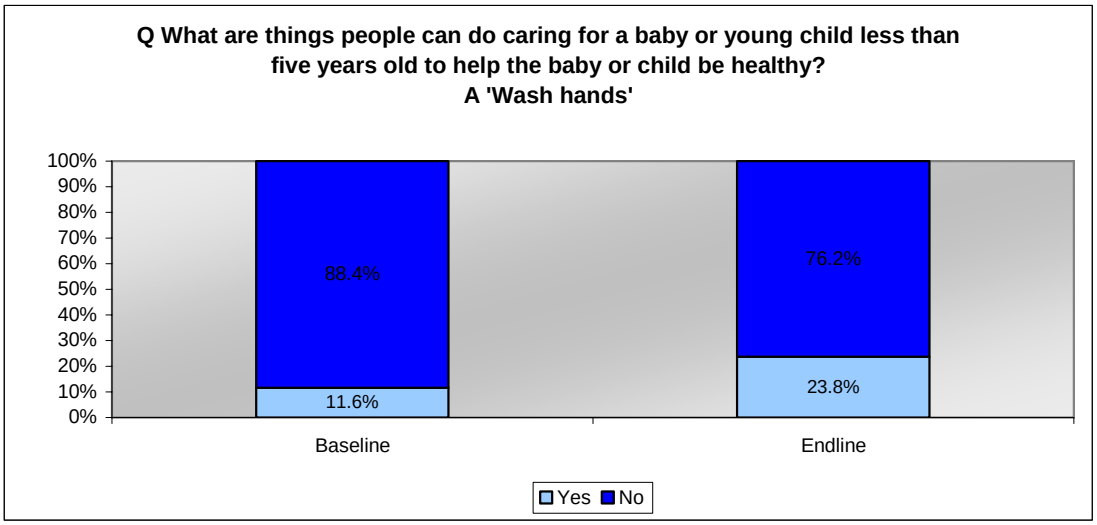
Hand Washing

Target Audience: General Audience

Knowledge

There was a significant increase in those who answered washing hands as a means of protecting the health of a baby or a young child (12% baseline, 24% endline).

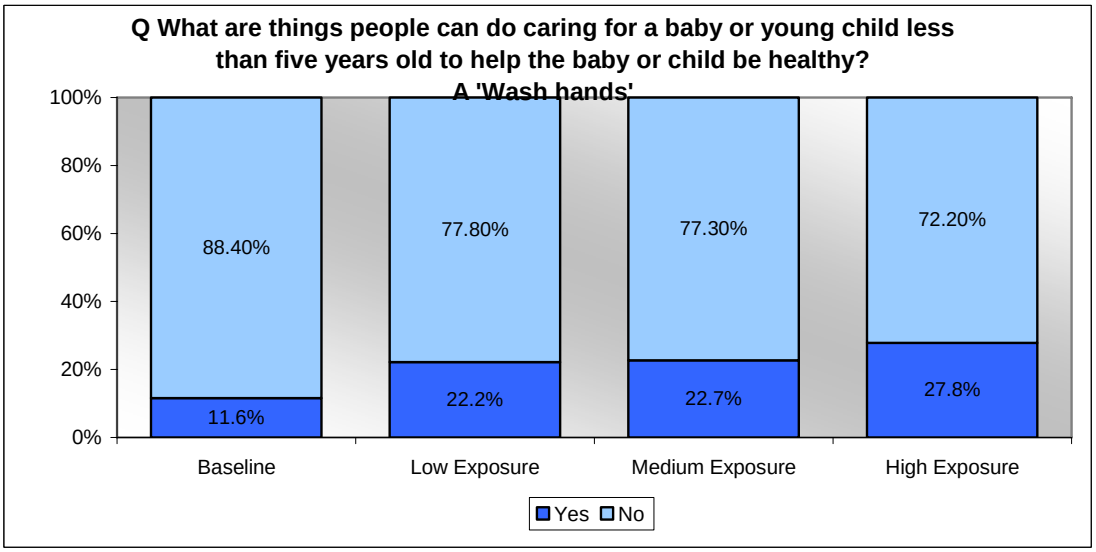
Trend Chart 1-Knowledge about Hand washing



'Wash Hands'	Total	
	Baseline	Endline
Yes	11.6%	23.8%
No	88.4%	76.2%
Base	2271	2280

The proportion of those washing hands to keep their child healthy increased significantly across all three exposure groups.

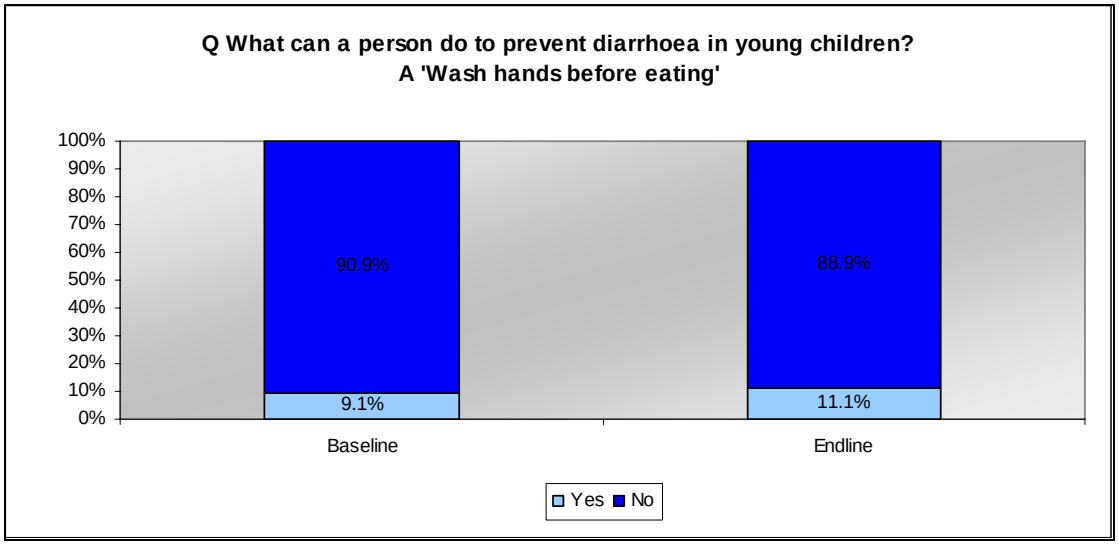
Exposure Chart 1-Knowledge about Hand Washing



	Total			
	Baseline	Low Exposure	Medium Exposure	High Exposure
Yes	*11.6%*	**22.2%**	**22.7%**	**27.8%**
No	**88.4%**	*77.8%*	*77.3%*	*72.2%*
Base	2271	871	845	564

There was a significant change in the proportion of respondents who specifically mentioned 'hand washing before eating' as a means of preventing diarrhoea.

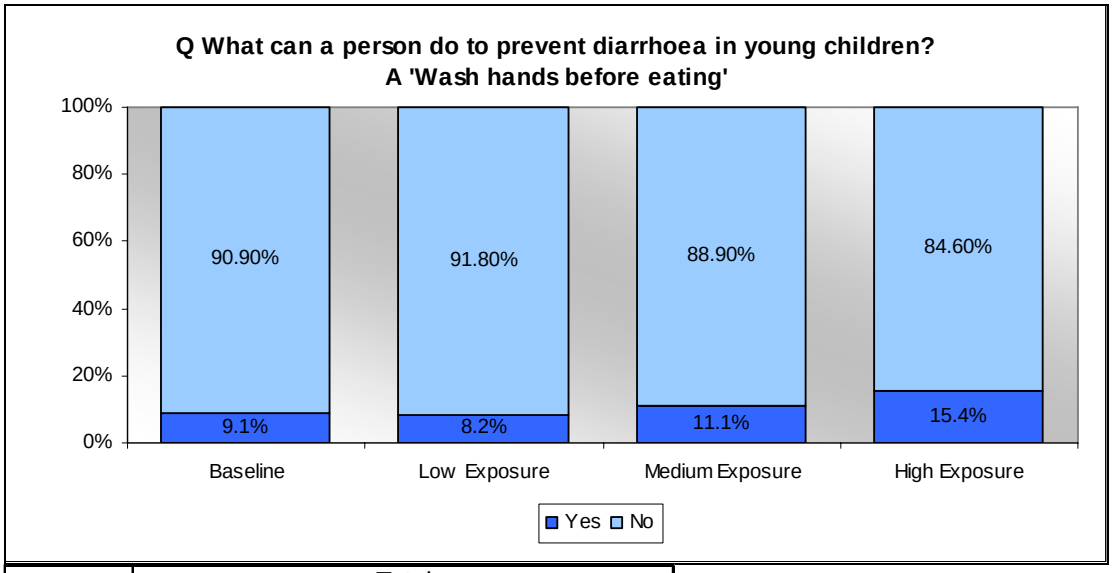
Trend Chart 2-Knowledge about Hand washing Before Eating to Prevent Diarrhoea



Wash Hands Before Eating	Total	
	Baseline	Endline
Yes	9.1%	**11.1%**
No	**90.9%**	88.9%
Base	2269	2280

Those with 'high' exposure knowing about hand washing to prevent diarrhoea increased significantly since baseline, and were significantly higher than those with 'low' exposure.

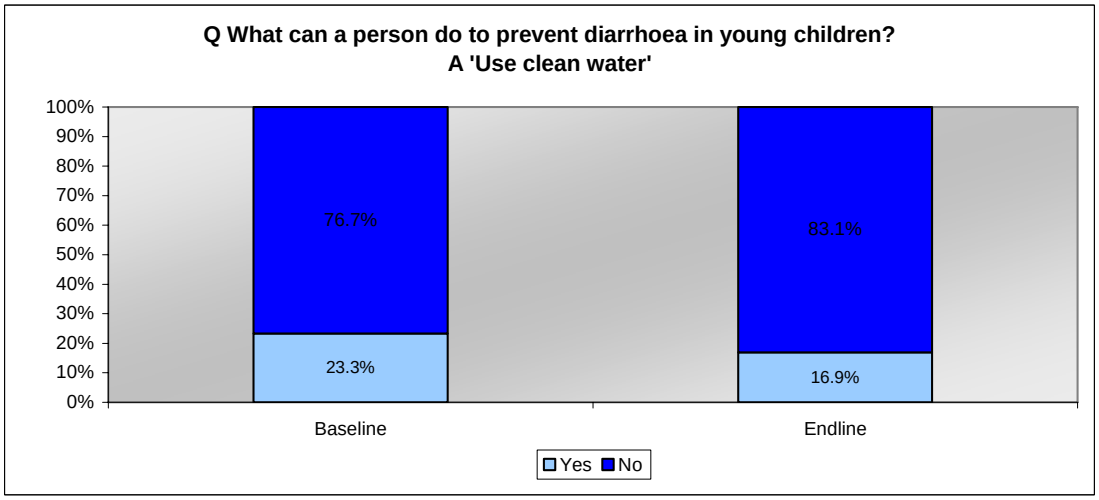
Exposure Chart 2-Knowledge about Hand washing Before Eating to Prevent Diarrhoea



	Total			
	Baseline	Low Exposure	Medium Exposure	High Exposure
Yes	*9.1%*	*8.2%*	11.1%	**15.4%**
No	**90.9%**	**91.8%**	88.9%	*84.6%*
Base	2269	870	846	564

Respondents answering using clean water as a means to prevent diarrhoea in children in the last six months decreased from 23% at baseline to 17% at endline.

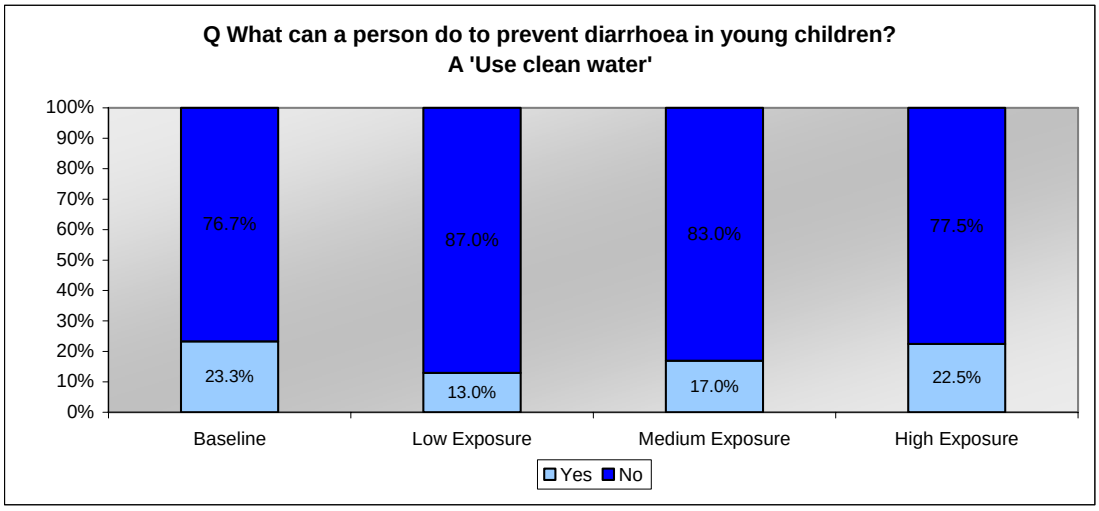
Trend Chart 3-Diarrhoea Prevention Knowledge



Used clean Water	Baseline	Endline
Yes	**23.3%**	16.9%
No	76.7%	**83.1%**
Base	1649	2090

Those with 'high' exposure were significantly more likely to answer clean water as a means of preventing diarrhoea in the last 6 months.

Exposure Chart 3-Diarrhoea Prevention Knowledge

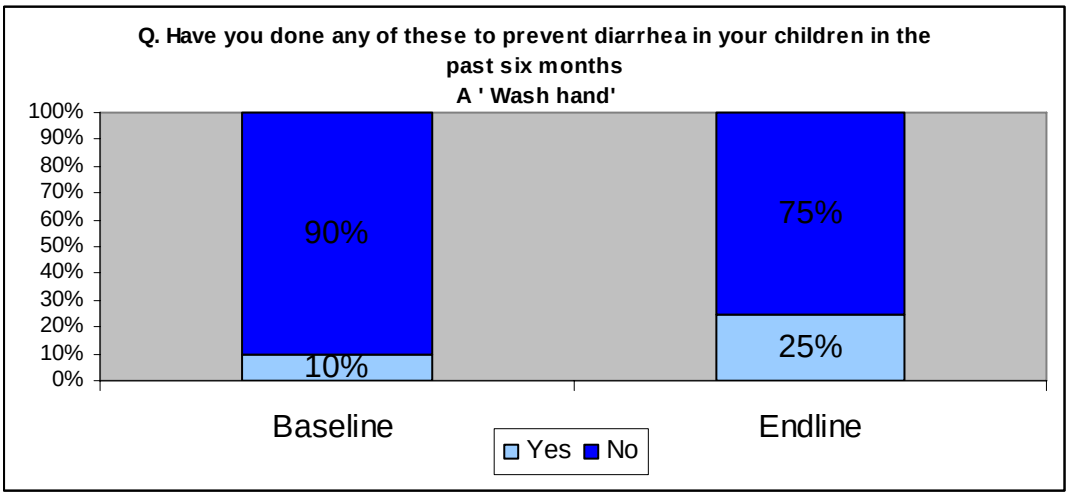


	Baseline	Low Exposure	Medium Exposure	High Exposure
Yes	**23.3%**	*13.0%*	*17.0%*	22.5%
No	*76.7%*	**87.0%**	**83.0%***	*77.5%*
Base	1649	785	781	524
* Significantly higher than baseline only				

Practice

There was a significant increase in those who said they washed hands as a means of preventing diarrhoea in their children (10% baseline, 25% endline).

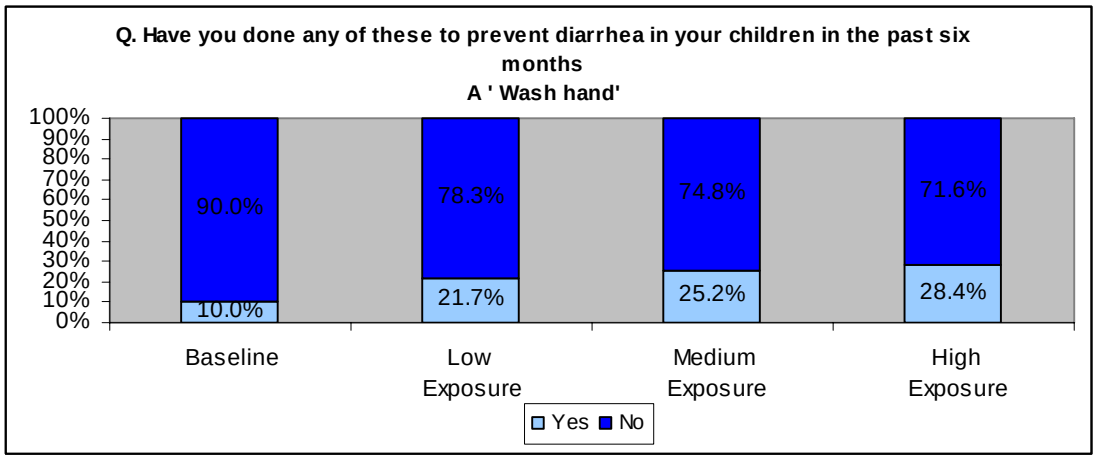
Trend Chart 4-Hand washing practice



	Baseline	Endline
Yes	10.0%	**24.7%**
No	**90.1%**	75.3%
Base	1649	2090

The proportion of those washing hands to prevent diarrhoea in their child increased significantly across all three exposure groups.

Exposure Chart 4-Hand washing practice



	Baseline	Low Exposure	Medium Exposure	High Exposure
Yes	10.0%	**21.7%**	**25.2%**	**28.4%***
No	**90.0%**	**78.3%****	74.8%	71.6%
Base	1649	785	781	524

* Significantly higher than both Baseline and Low Exposure
** Significantly higher than High Exposure only

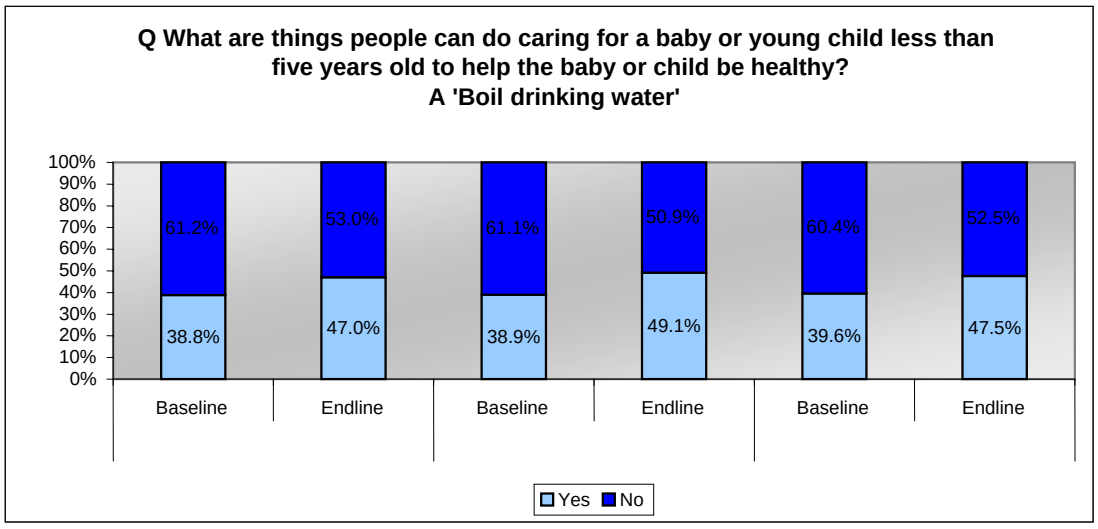
Boiling Water

Target Audience: Mothers, Carers

Knowledge

There was a significant increase in mothers and carers knowledge about boiling water (unprompted) as a means to keep a baby or young child healthy (mothers: 39% baseline, 49% endline - carers: 40% baseline, 48% endline).

Trend Chart 5-Knowledge about Boiling Water for Health

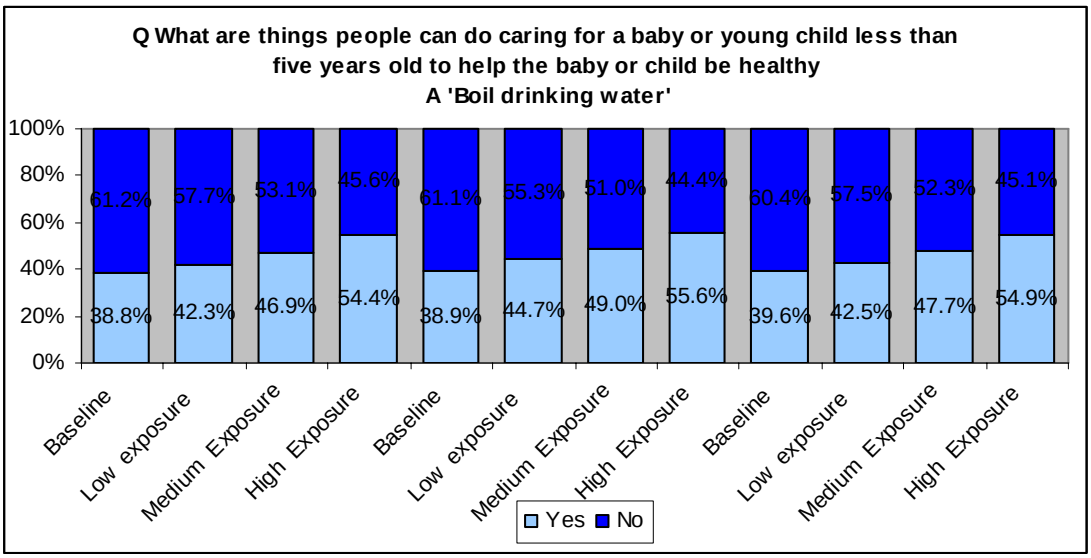


'Boil Water'	Total		Mothers		Carers	
	Baseline	Endline	Baseline	Endline	Baseline	Endline
Yes	38.8%	47.0%	38.9%	49.1%	39.6%	47.5%
No	61.2%	53.0%	61.1%	50.9%	60.4%	52.5%
Base	2271	2280	1877	1705	2165	2210

Overall, there was a significant increase in those with 'high' exposure who answered 'boiling water' as a way to keep a baby or child healthy. Within both mothers and carers specifically, this increased significantly for those with 'medium' and 'high' exposure, and is at significantly higher levels than those with 'low' exposure for both audiences.

Q What are things people can do caring for a baby or young child less than five years old to help the baby or child be healthy A 'Boil drinking water'

Exposure Chart 5-Knowledge about Boiling Water for Health

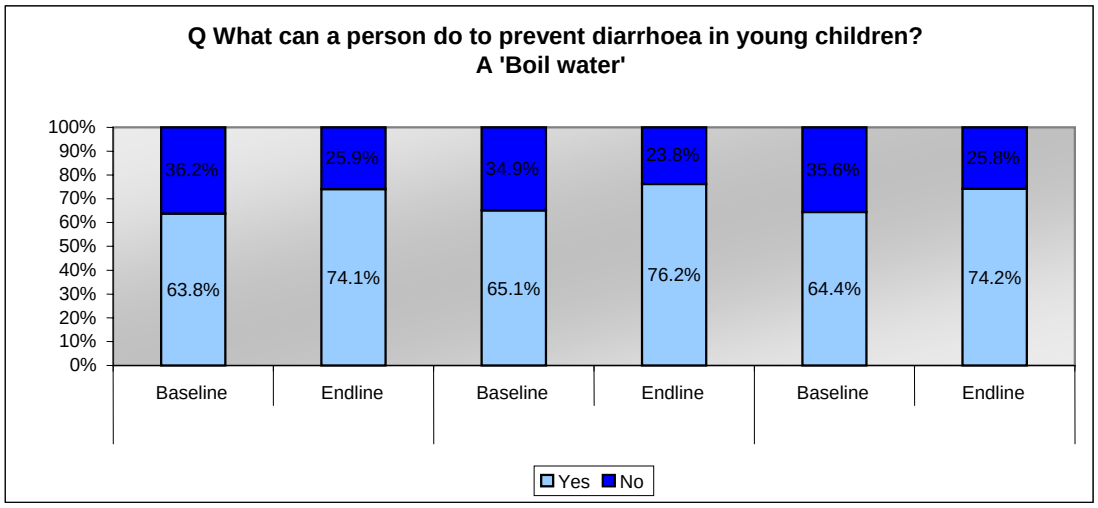


	Total				Mothers				Carers			
	Baseline	Low Exposure	Medium Exposure	High Exposure	Baseline	Low Exposure	Medium Exposure	High Exposure	Baseline	Low Exposure	Medium Exposure	High Exposure
Yes	*38.8%*	*42.3%*	*46.9%**	**54.4%**	*38.9%*	*44.7%*	**49.0%*****	**55.6%**	*39.6%*	*42.5%*	**47.7%*****	**54.9%**
No	**61.2%**	**57.7%****	*53.1%*	*45.6%*	**61.1%**	**55.3%****	*51.0%*	*44.4%*	**60.4%**	**57.5%****	*52.3%*	*45.1%*
Base	2271	871	845	564	1877	640	630	435	2165	843	815	552

* Significantly higher than Baseline
** Significantly higher than High exposure only
*** Significantly higher than Baseline only

There was a significant increase in knowledge about boiling water as a means of preventing diarrhoea in young children (64% baseline, 74% endline). This was also significant specifically amongst mothers (65% baseline, 76% endline) and carers (64% baseline, 74% midline).

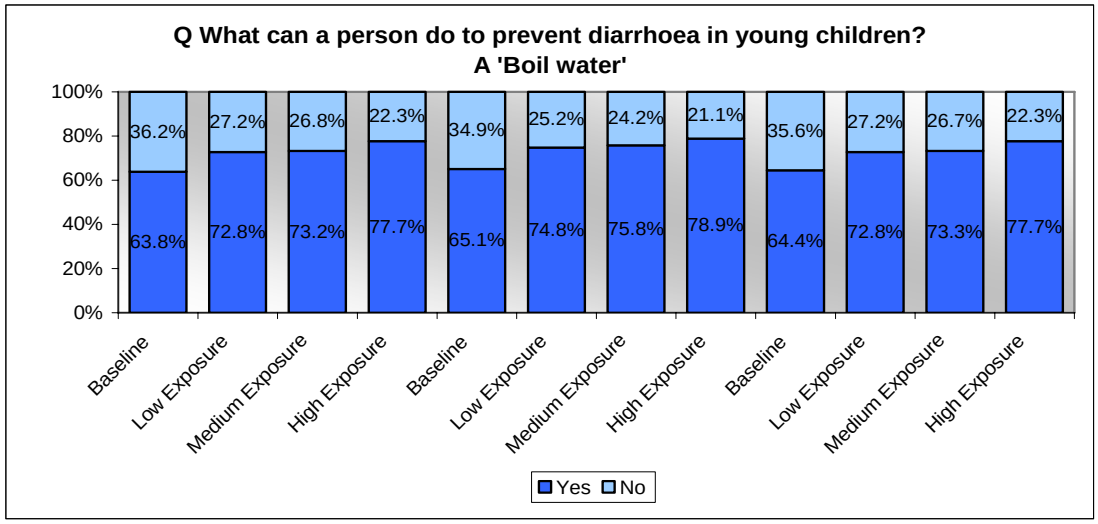
Trend Chart 6-Knowledge about boiling water to prevent diarrhoea



	Total		Mothers		Carers	
	Baseline	Endline	Baseline	Endline	Baseline	Endline
Yes	63.8%	74.1%	65.1%	76.2%	64.4%	74.2%
No	36.2%	25.9%	34.9%	23.8%	35.6%	25.8%
Base	2269	2280	1877	1706	2166	2210

The proportion of those who stated boiling water as a means of preventing diarrhoea has increased significantly since baseline across all exposure groups.

Exposure Chart 6-Knowledge about boiling water to prevent diarrhoea

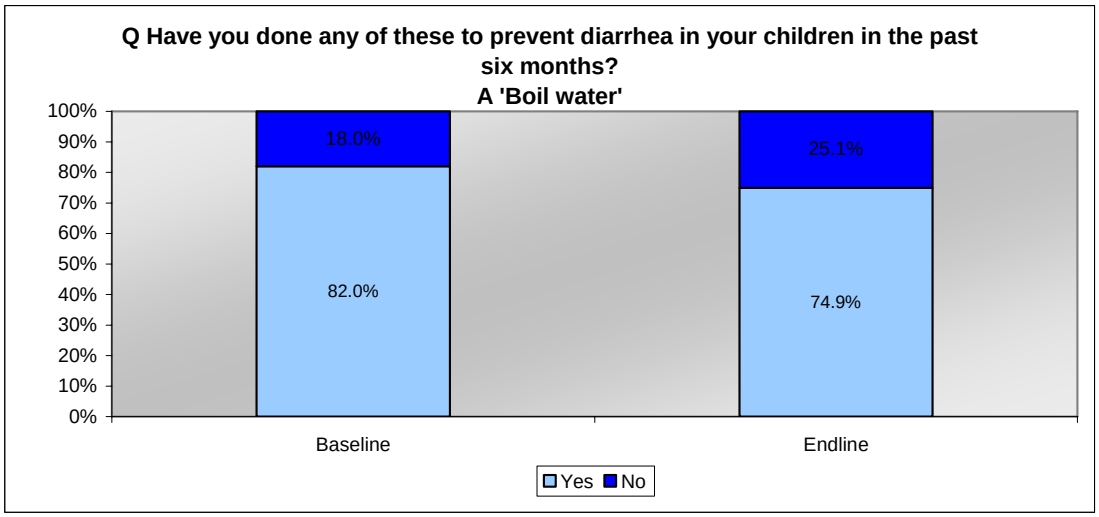


	Total				Mothers				Carers			
	Baseline	Low Exposure	Medium Exposure	High Exposure	Baseline	Low Exposure	Medium Exposure	High Exposure	Baseline	Low Exposure	Medium Exposure	High Exposure
Yes	*63.8%*	**72.8%**	**73.2%**	**77.7%**	65.1%	**74.8%**	**75.8%**	**78.9%**	*64.4%*	**72.8%**	**73.3%**	**77.7%**
No	**36.2%**	*27.2%*	*26.8%*	*22.3%*	**34.9%**	25.2%	24.2%	21.1%	**35.6%**	*27.2%*	*26.7%*	*22.3%*
Base	2269	870	846	564	1877	640	631	435	2166	842	816	552

Practice

Significantly fewer respondents reported boiling water to prevent diarrhoea (82% baseline, 75% endline).

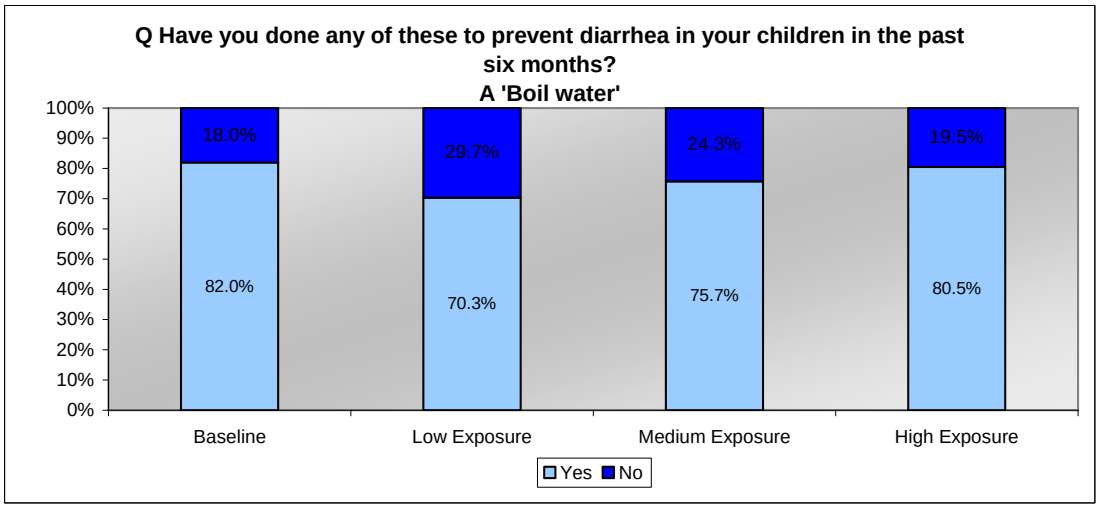
Trend Chart 7-Boiling Water Practice



	Baseline	Endline
Yes	**82.0%**	74.9%
No	18.0%	**25.1%**
Base	1649	2090

Those with 'high' exposure reporting boiling water were significantly higher than those with 'low' exposure, though all are at lower levels than baseline.

Exposure Chart 7-Boiling Water Practice



	Baseline	Low Exposure	Medium Exposure	High Exposure
Yes	**82.0%**	*70.3%*	*75.7%*	**80.5%****
No	*18.0%*	**29.7%**	**24.3%***	*19.5%*
Base	1649	785	781	524

* Significantly higher then Baseline only
** Significantly higher than Low Exposure only

ORS (Oral Rehydration Solution)

Target Audience: Mothers, Carers

Knowledge: Have you ever heard of Oralit?

NB: Oralit is the UNICEF branded ORS, and is used by many as a replacement term for ORS in general.

Prevalence: Thinking about the last time your child had diarrhoea. How long ago?

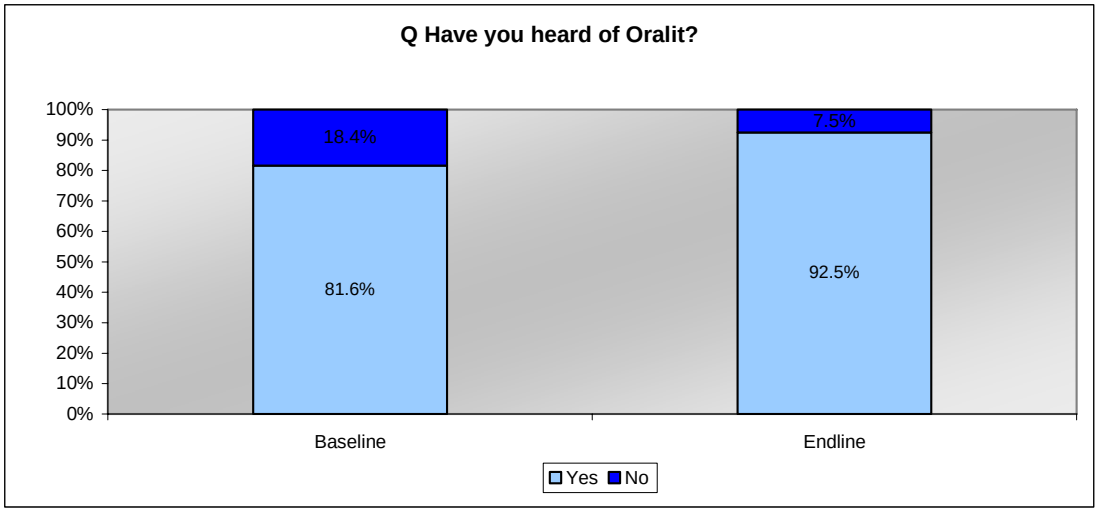
Practice: What did you do to take care of your child at home when he/she had diarrhoea?

An open-ended question with pre-coded answers was used to measure specific diarrhoea treatment practices.

Knowledge

Awareness of Oralit has increased significantly (82% baseline, 92% endline).

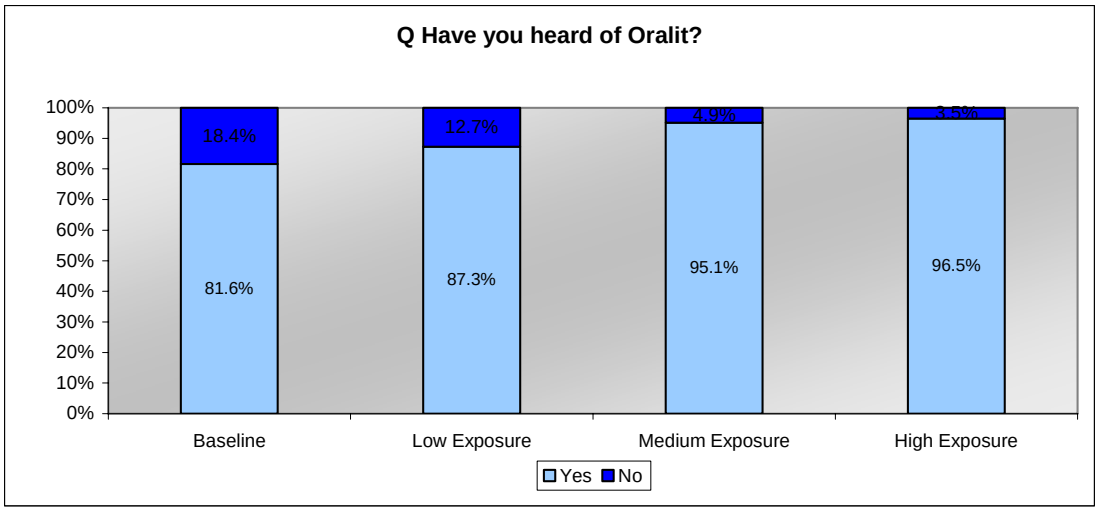
Trend Chart 8-Heard of Oralit



Heard of Oralit	Baseline	Endline
Yes	81.6%	**92.5%**
No	**18.4%**	7.5%
Base	2254	2279

Knowledge of the existence of Oralit increased significantly across all sub groups, and is at its highest among those with 'high' exposure (97%).

Exposure Chart 8-Heard of Oralit



	Baseline	Low Exposure	Medium Exposure	High Exposure
Yes	*81.6%*	**87.3%**	**95.1%***	**96.5%***
No	**18.4%****	**12.7%**	*4.9%*	*3.5%*
Base	2254	871	844	564

* Significantly higher than baseline only

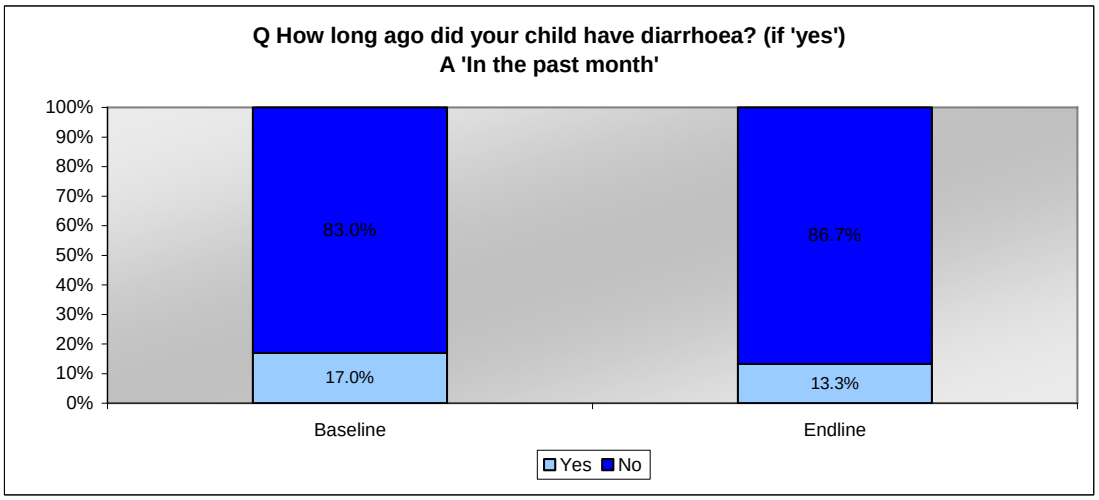
** Significantly higher than Low, Medium and High Expos

Diarrhoea Prevalence

Carers were asked if any of their children had had diarrhoea, and how recently this was. The treatment practices of those reporting a child with diarrhoea are detailed below.

The proportion of those reporting a child in their care with diarrhoea in the last month, decreased from 17% at baseline to 13% at endline.

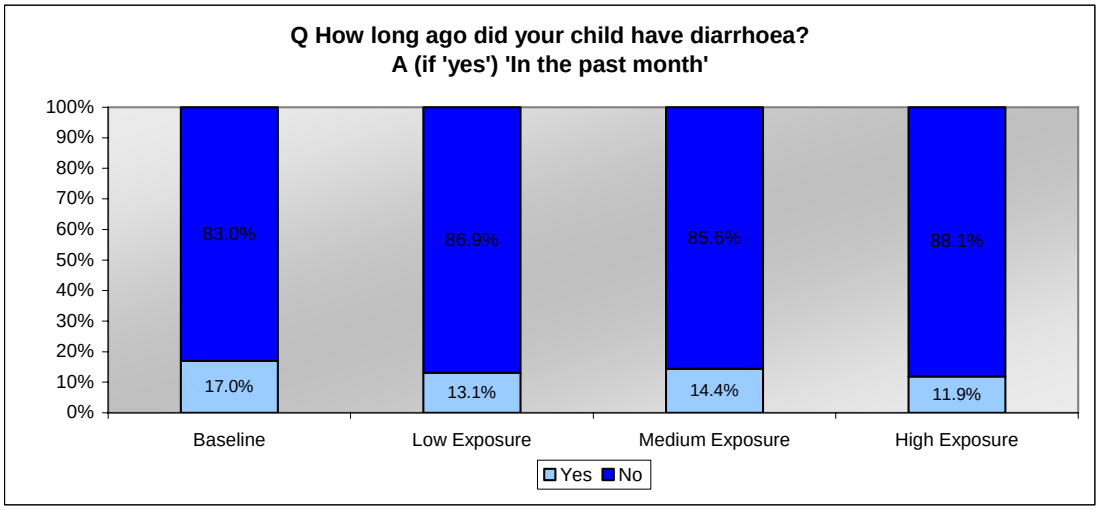
Trend Chart 9-Child with Diarrhoea in Past Month



Child had diarhoea in last month	Baseline	Endline
Yes	17.0%	13.3%
No	83.0%	86.7%
Base	2274	2281

Those with 'high' exposure reported significantly fewer cases of their child having diarrhoea in the past month (12%).

Exposure Chart 9-Child with Diarrhoea in Past Month



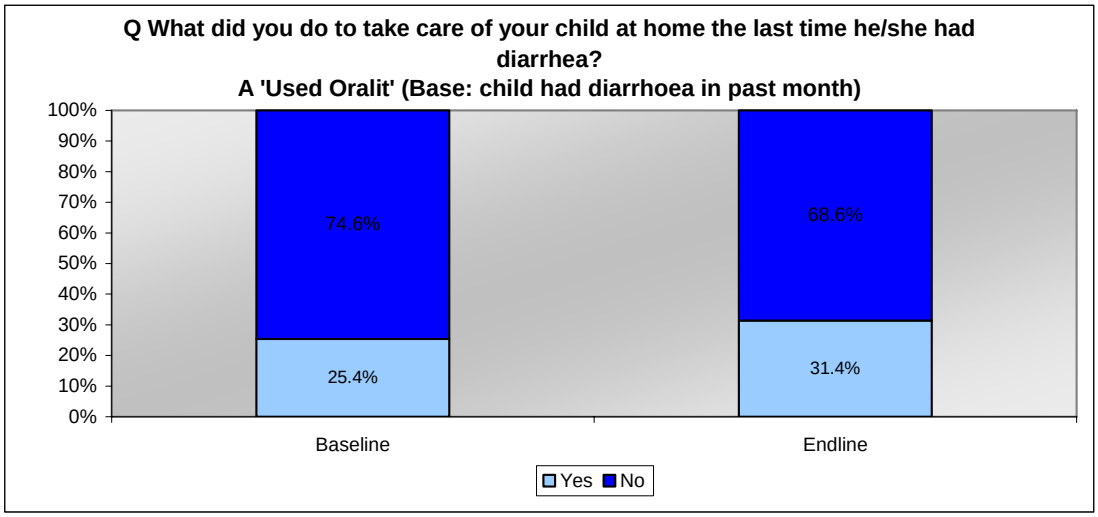
	Baseline	Low Exposure	Medium Exposure	High Exposure
Yes	**17.0%**	13.1%	14.4%	*11.9%*
No	*83.0%*	86.9%	85.6%	**88.1%**
Base	2274	871	846	564

Oralit Practice

Carers who reported that a child in their care had contracted diarrhoea in the month prior to the survey, were asked what they had done at home to treat the child.

There was no significant increase in carers using Oralit to treat a child with diarrhoea.

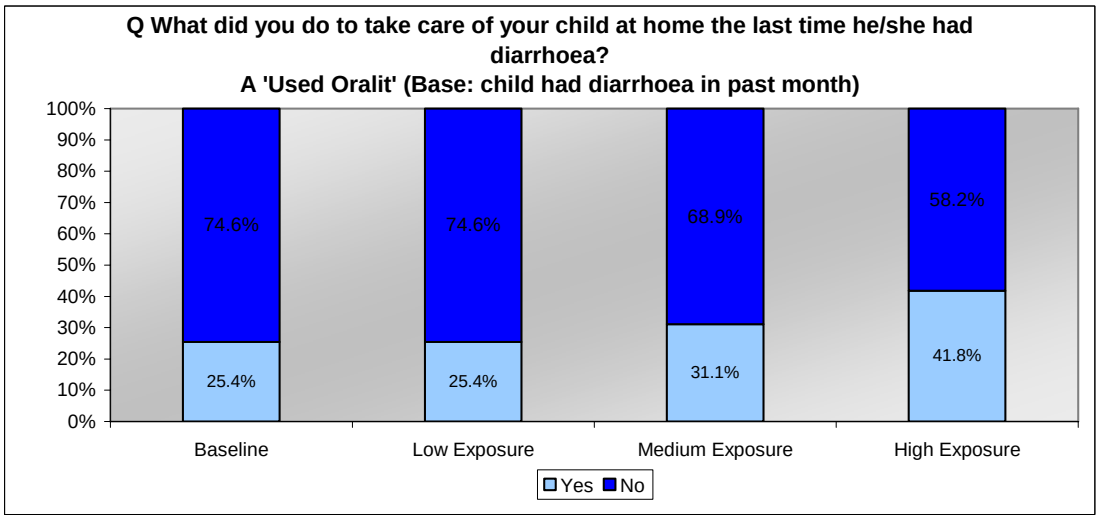
Trend Chart 10-Practice: Treated Child with Diarrhoea Using Oralit



Treated with Oralit	Baseline	Endline
Yes	25.4%	31.4%
No	74.6%	68.6%
Base	386	303

Those with 'high' exposure reported a significant increase in using Oralit to treat their child with diarrhoea since baseline.

Exposure Chart 10-Practice: Treated Child with Diarrhoea Using Oralit



	Baseline	Low Exposure	Medium Exposure	High Exposure
Yes	*25.4%*	25.4%	31.1%	**41.8%**
No	**74.6%**	74.6%	68.9%	*58.2%*
Base	386	114	122	67

ARI & Immunisation

Changes in knowledge and behaviour in relation to acute respiratory infections (ARI) and immunisation were assessed by looking at the following measures:

- Recognising danger signs
- Take children with ARI danger signs to health centre quickly
- Providing a full course of immunisation during first year

Key Findings – ARI and Immunisation

- Awareness of Acute Respiratory Infection (ARIs) has quadrupled since baseline, 20% - 80%

- Awareness of all three key danger signs – cough, fast breathing and chest indrawing - of ARI has climbed significantly since baseline

Knowledge: Have you ever heard of ARI?

Knowledge: What are the danger signs of ARI?

Prevalence: Has your child had any of these signs in the past 14 days?

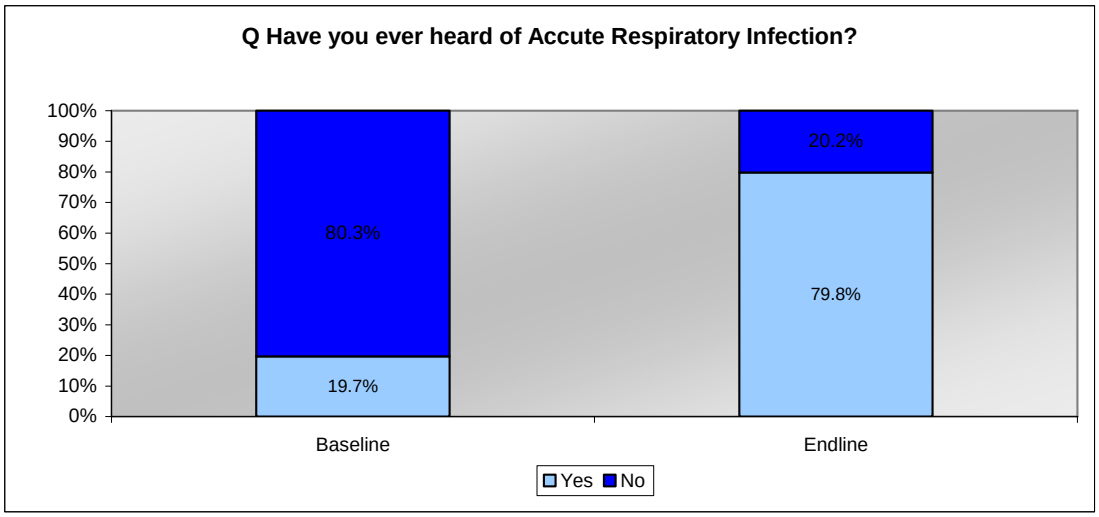
Practice: What did you do to care for the child with these signs?

ARI Awareness

Target Audience: Mothers, Carers

Awareness of Acute Respiratory Infection (ARI) has increased substantially since baseline, from 20% to 80%.

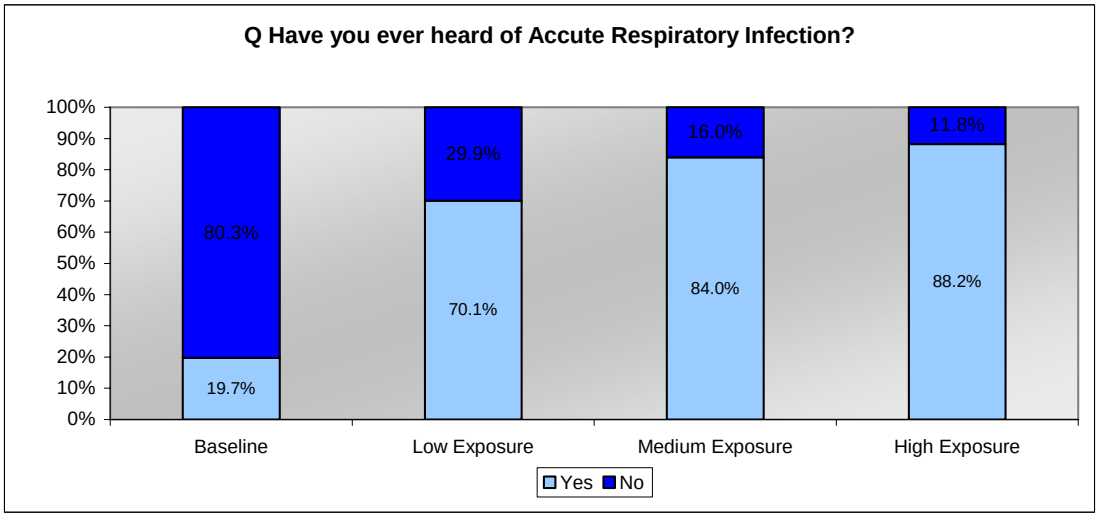
Trend Chart 11-ARIs Awareness



	Baseline	Endline
Yes	19.7%	**79.8%**
No	**80.3%**	20.2%
Base	2207	2249

ARI awareness increased substantially across all exposure groups since baseline, and was significantly higher among those with 'medium' and 'high' exposure (84% and 88% respectively) than those with 'low' exposure (70%).

Exposure Chart 11-ARIs Awareness



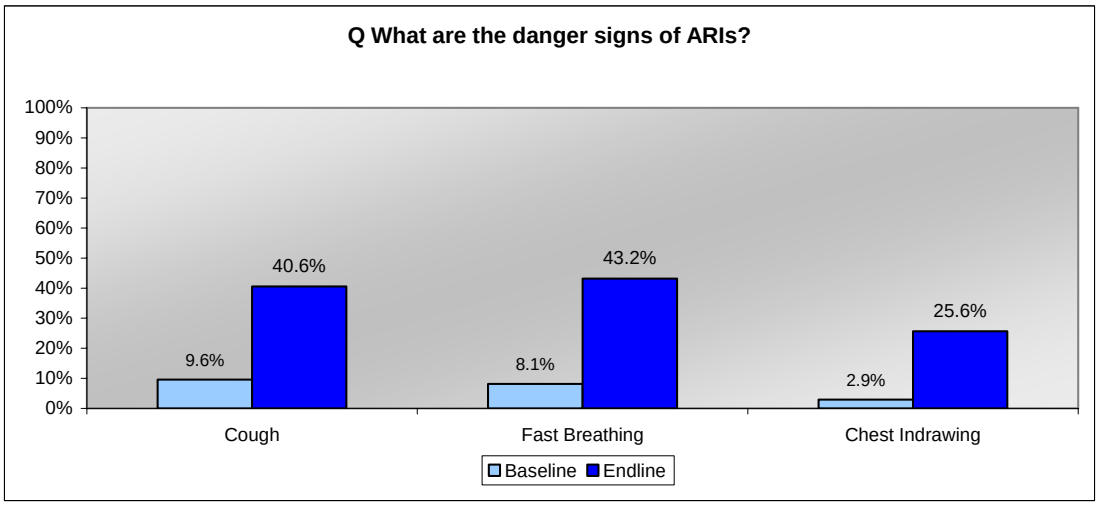
	Baseline	Low Exposure	Medium Exposure	High Exposure
Yes	***19.7%***	**70.1%**	**84.0%***	**88.2%***
No	**80.3%****	**29.9%**	*16.0%*	*11.8%*
Base	2207	854	836	559

*Significantly higher than both Baseline and Low Exposu
**Significantly higher than Low, Medium and High Exposu

Knowledge of ARI Danger Signs

Respondents' knowledge of all three key danger signs of ARIs have increased substantially since baseline (cough: 10% baseline, 41% endline; fast breathing: 8% baseline, 43% endline; chest indrawing: 3% baseline, 26% endline).

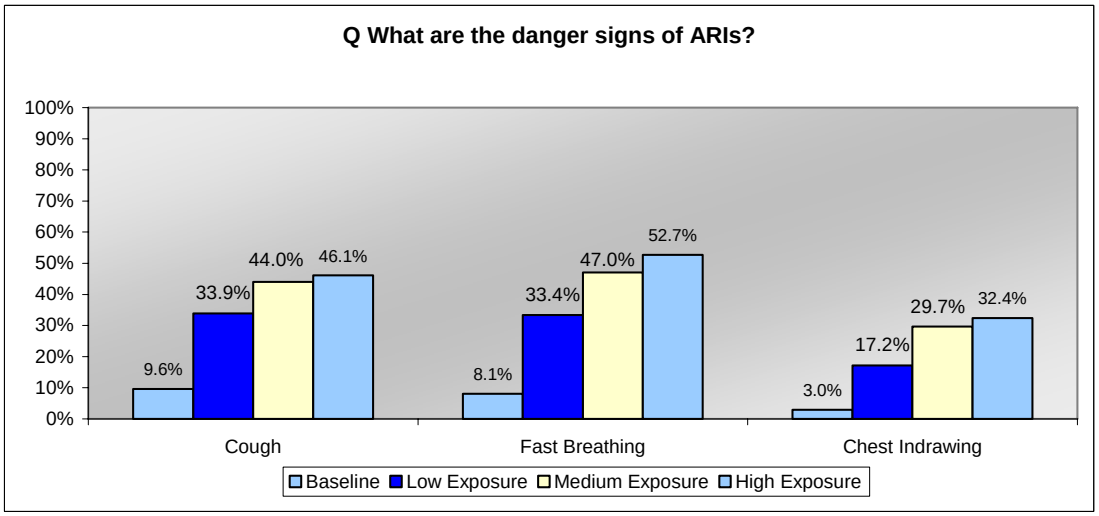
Trend Chart 12-Knowledge of ARI danger signs



	Cough		Fast Breathing		Chest Indrawing	
	Baseline	Endline	Baseline	Endline	Baseline	Endline
Yes	9.6%	**40.6%**	8.1%	**43.2%**	2.9%	**25.6%**
No	**90.4%**	59.4%	**91.9%**	56.8%	**97.1%**	74.4%
base	2274	2281	2274	2281	2274	2281

Knowledge of all three key ARI danger signs increased significantly across all exposure groups and were significantly higher among 'high' and 'medium' exposed respondents than for those with 'low' exposure.

Exposure Chart 12-Knowledge of ARI danger signs



	Cough				Fast Breathing			
	Baseline	Low Exposure	Medium Exposure	High Exposure	Baseline	Low Exposure	Medium Exposure	High Exposure
Yes	*9.6%*	**33.9%**	**44.0%***	**46.1%***	8.1%	**33.4%**	**47.0%***	**52.7%***
No	***90.6%****	**66.1%**	*56.0%*	*53.9%*	***91.8%****	**66.6%**	53.0%	47.3%
Base	2271	871	846	564	4552	2271	871	846

* Significantly higher than both Baseline and Low Exposu
** Significantly higher than Low, Medium and High Expos

	Chest Indrawing			
	Baseline	Low Exposure	Medium Exposure	High Exposure
Yes	3.0%	**17.2%**	**29.7%***	**32.4%***
No	***97.0%****	**82.8%**	70.3%	67.6%
Base	2271	871	846	564

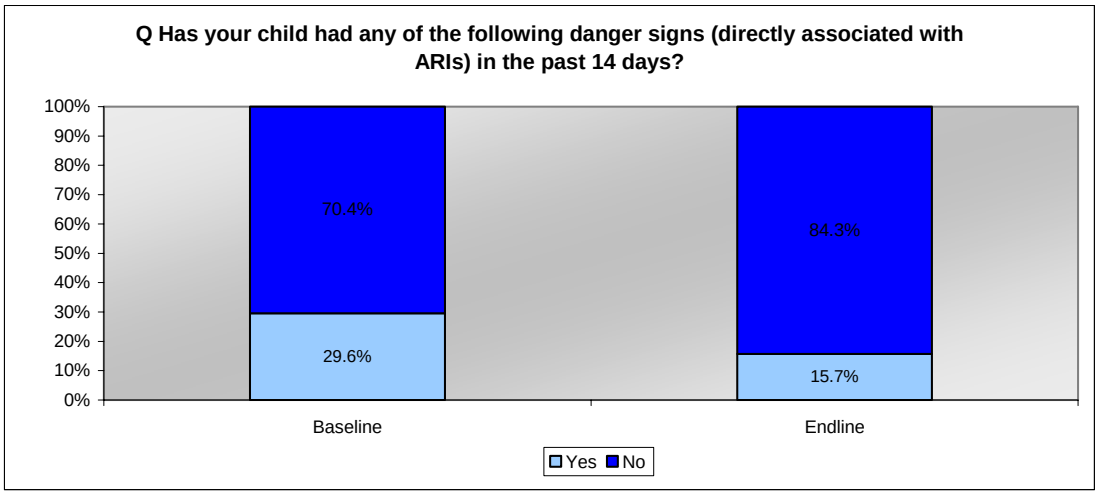
* Significantly higher than both Baseline and Low Exposu
** Significantly higher than Low, Medium and High Expos

ARI Prevalence

NB: It is not possible to validate ARI diagnosis by respondents. This may not be a decrease in ARIs prevalence per se, more an indication that an increase in awareness has led to more accurate knowledge of ARIs danger signs in the first instance.

Carers were asked if any of their children had danger signs of ARIs in the past 14 days. There was a significant decrease in reported ARI cases (30% baseline, 16% endline).

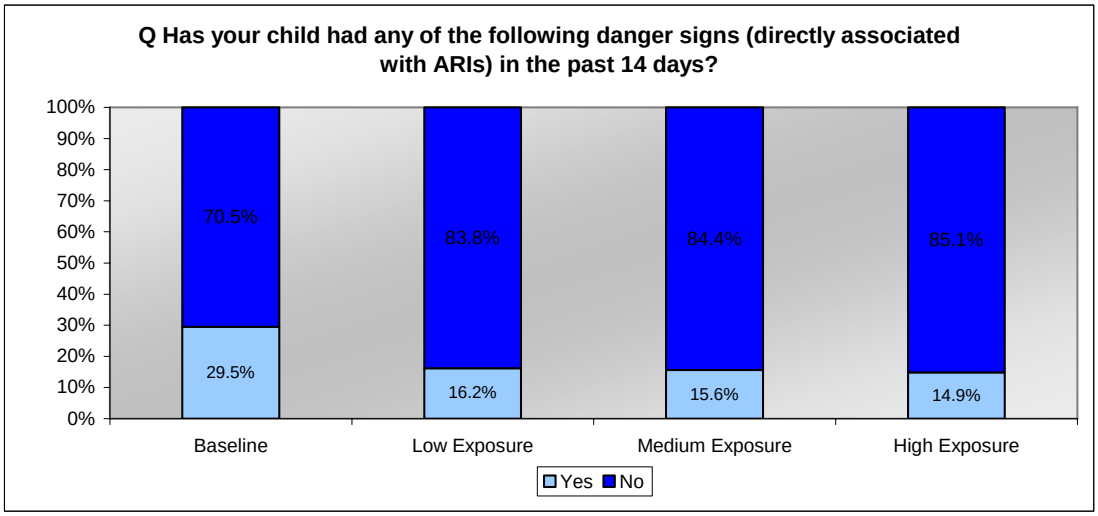
Trend Chart 13-Child with ARIs Danger Signs in past 14 Days



	Baseline	Endline
Yes	**29.6%**	15.7%
No	70.4%	**84.3%**
Base	2274	2281

Those who had *not* reported a child with ARIs danger signs in the past 14 days were significantly higher than at baseline, among those with 'high exposure'.

Exposure Chart 13-Child with ARIs Danger Signs in past 14 Days



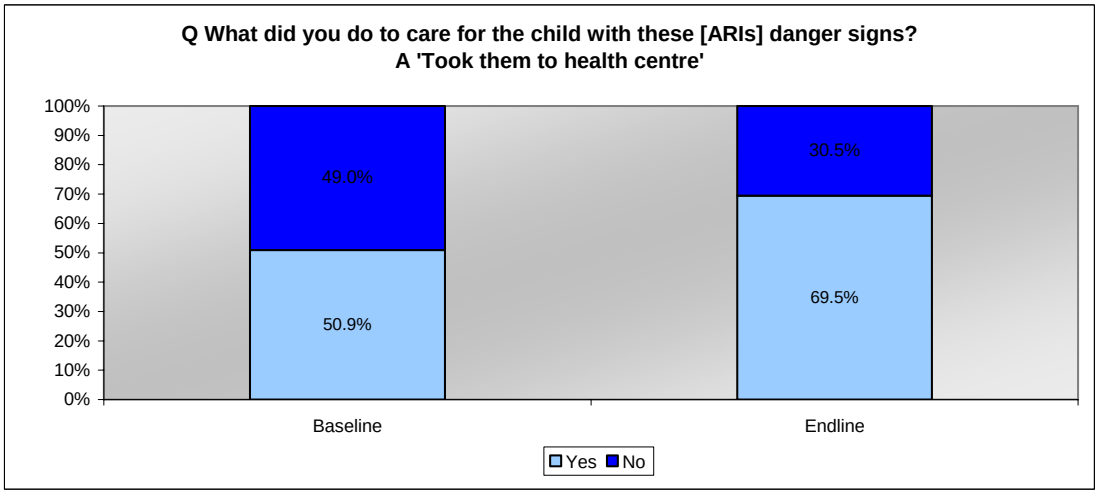
	Baseline	Low Exposure	Medium Exposure	High Exposure
Yes	**29.5%**	*16.2%*	15.6%	14.9%
No	*70.5%*	83.8%	84.4%	**85.1%**
Base	2271	871	846	564

ARIs Practice

Carers who reported that a child had had danger signs of ARIs in past 14 days were asked what they had done to care for the child.

There was a significant increase in the proportion of respondents reporting taking a child with ARIs danger signs to the health centre (51% baseline, 70% endline).

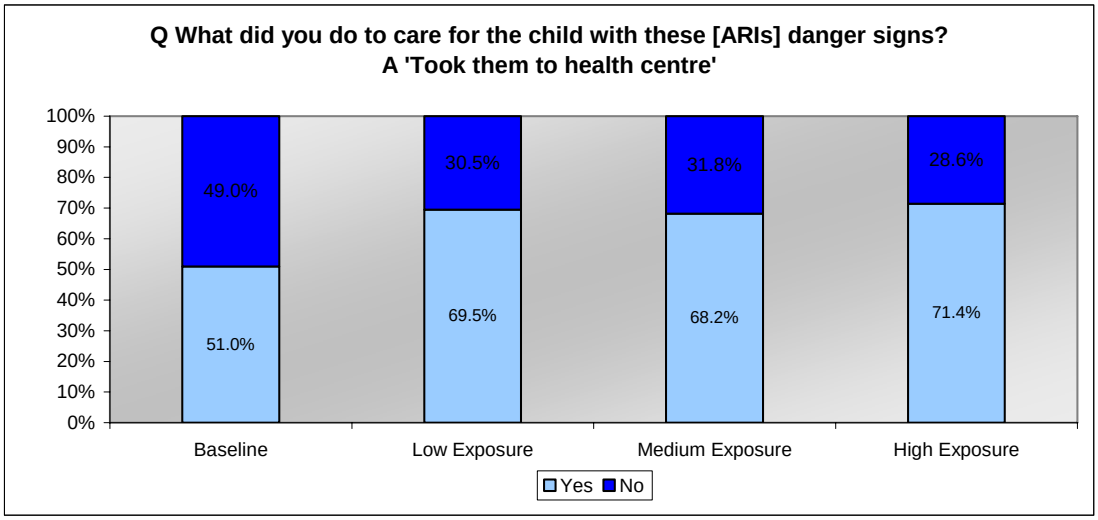
Trend Chart 14-Practice: Took Child with ARIs Danger Signs to Health Centre



	Baseline	Endline
Yes	50.9%	**69.5%**
No	**49.0%**	30.5%
base	672	357

Respondents taking a child with ARIs danger signs to the Health Centre increased significantly across all groups, and were at their greatest levels among those with 'high' exposure (71%).

Exposure Chart 14-Practice: Took Child with ARIs Danger Signs to Health Centre



	Baseline	Low Exposure	Medium Exposure	High Exposure
Yes	**51.0%**	**69.5%**	**68.2%**	**71.4%**
No	**49.0%**	*30.5%*	*31.8%*	*28.6%*
base	671	141	132	84

Immunisation

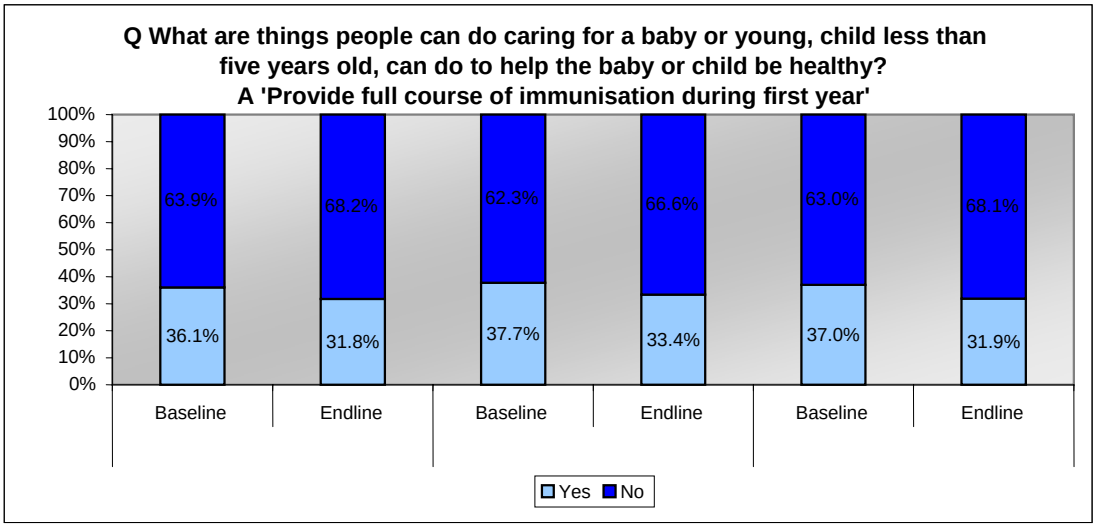
Knowledge: What are the things a person caring for a baby or young child less than five years old, can do to help them be healthy?

Respondents were asked this open-ended knowledge question with 'immunisation' as one recorded answer.

Knowledge

There was an overall decrease (36% baseline, 32% endline) in knowledge about immunisation as a means to keeping a baby or young child healthy (in response to the open-ended question), and amongst both mothers and carers specifically (38% baseline, 33% endline and 37% baseline, 32% endline respectively).

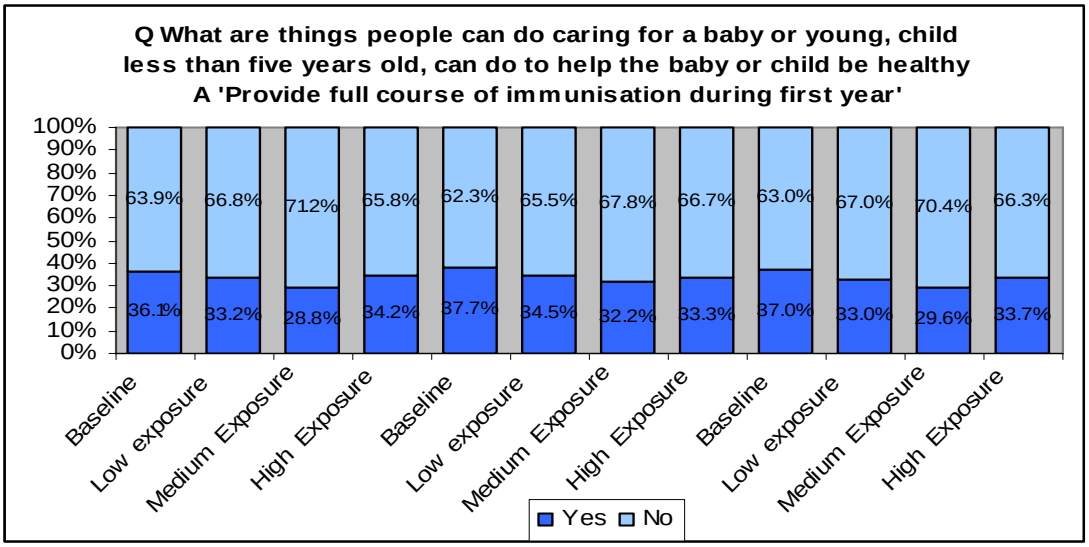
Trend Chart 15-Knowledge about Immunisation



	Total		Mothers		Carers	
	Baseline	Endline	Baseline	Endline	Baseline	Endline
Yes	36.1%	31.8%	37.7%	33.4%	37.0%	31.9%
No	63.9%	68.2%	62.3%	66.6%	63.0%	68.1%
Base	2271	2280	1877	1705	2165	2210

Overall and among carers specifically with 'medium' exposure, there was a significant decrease in reporting a full course of immunisation during the first year. This was also significant amongst carers with 'medium' exposure.

Exposure Chart 15-Knowledge about Immunisation



	Total				Mothers				Carers			
	Baseline	Low exposure	Medium Exposure	High Exposure	Baseline	Low exposure	Medium Exposure	High Exposure	Baseline	Low exposure	Medium Exposure	High Exposure
Yes	36.1%	33.2%	28.8%	34.2%	37.7%	34.5%	32.2%	33.3%	37.0%	33.0%	29.6%	33.7%
No	63.9%	66.8%	71.2%	65.8%	62.3%	65.5%	67.8%	66.7%	63.0%	67.0%	70.4%	66.3%
Base	2271	871	845	564	1877	640	630	435	2165	843	815	552

Child Nutrition

Target Audience: Mothers, Carers

Changes in knowledge in relation to child nutrition were assessed by looking at the following measures:

- Immediate breastfeeding
- Exclusive breastfeeding for first six months
- Complementary foods after six months

Key Findings – Child Nutrition

- Knowledge of immediate breastfeeding post-birth increased markedly since baseline, 38%-67%

- There was a significant decrease in those who thought a mother or carer should give a baby anything other than breast milk to eat in the first six months (60% baseline, 18% endline)

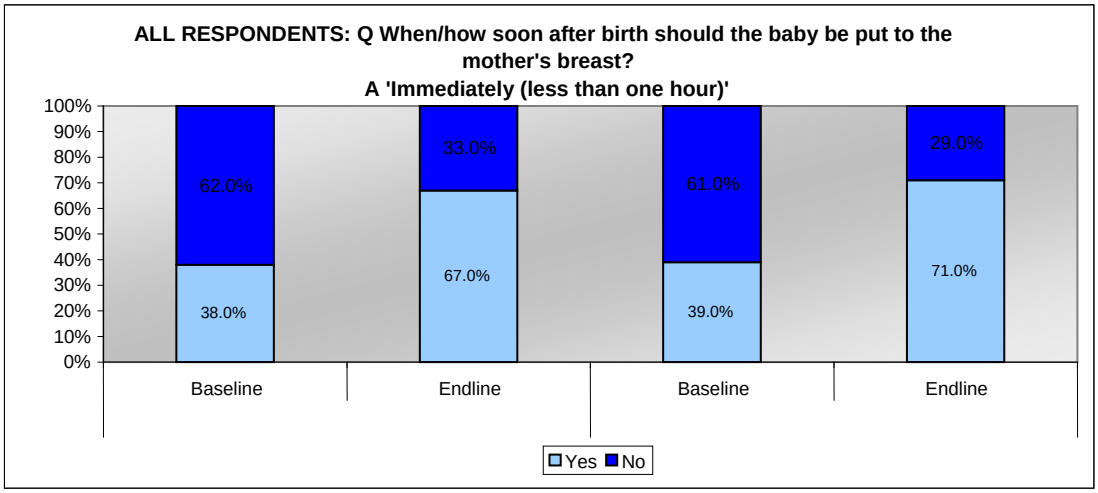
When/how soon after birth should the baby be put to the mother's breast?

Should a mother/carer give a baby under six months old anything to eat other than breast milk?

Immediate Breastfeeding

Knowledge of breastfeeding immediately after birth increased substantially (38% baseline, 67% endline). Amongst mothers specifically, this also increased (39% baseline, 71% endline).

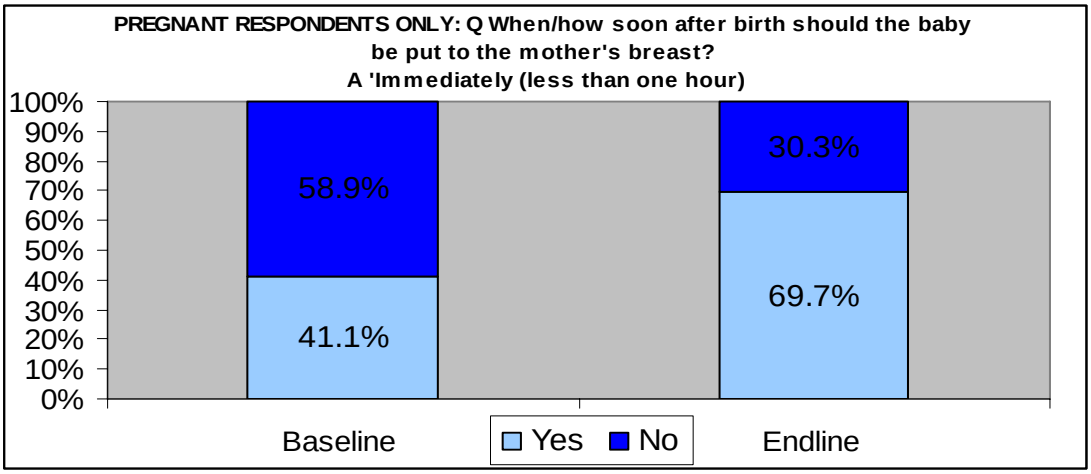
Trend Chart 16-Knowledge about Breastfeeding Immediately After Birth



Breastfeed Immediately	Total Baseline	Endline	Mothers Baseline	Endline
Yes	38.0%	**67.0%**	39.0%	**71.0%**
No	**62.0%**	33.0%	**61.0%**	29.0%
Base	2273	2281	1877	1706

Knowledge about breastfeeding immediately after birth also increased significantly among pregnant women (41% baseline, 69.7% endline).

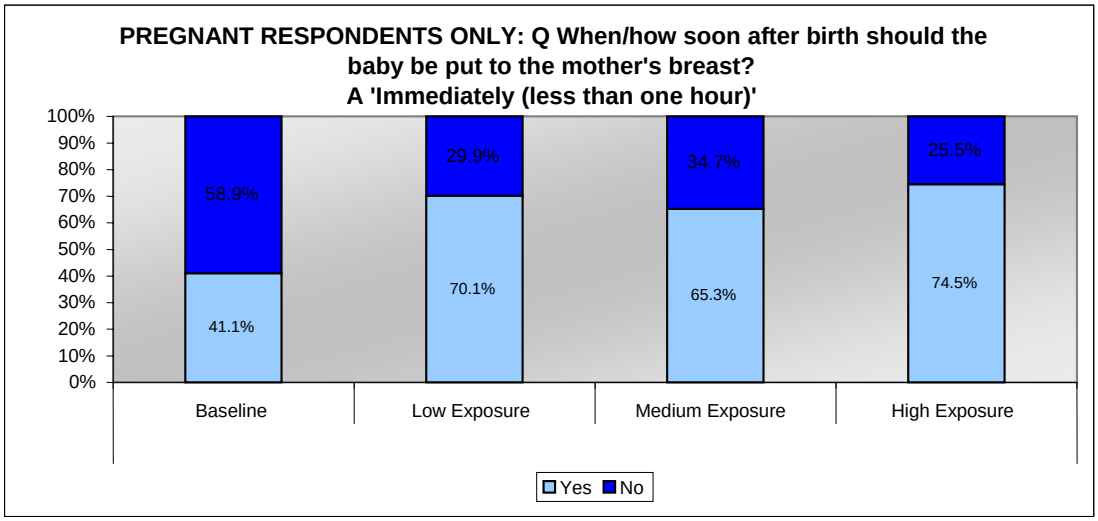
Trend Chart 17-Knowledge about Breastfeeding Immediately After Birth (pregnant women only)



	Pregnant Baseline	Endline
Yes	41.1%	**69.7%**
No	**58.9%**	30.3%
Base	258	195

Those pregnant women indicating that they should breastfeed their child immediately after birth increased significantly across all exposure groups since baseline, highest among those with 'high' exposure.

Exposure Chart 16-Knowledge about Breastfeeding Immediately After Birth

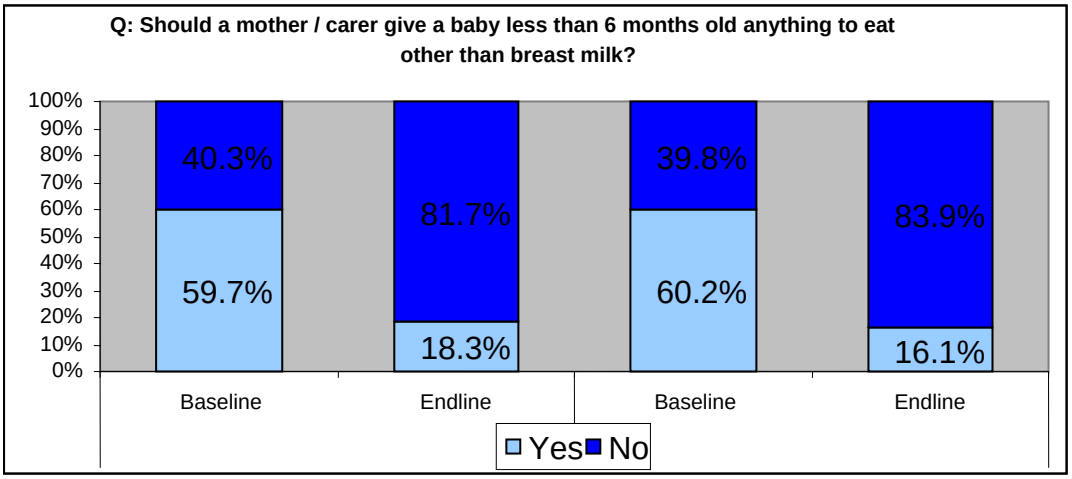


	Pregnant			
	Baseline	Low Exposure	Medium Exposure	High Exposure
Yes	*41.1%*	**70.1%**	**65.3%**	**74.5%**
No	**58.9%**	*29.9%*	*34.7%*	*25.5%*
Base	258	77	72	47

Exclusive Breastfeeding

There was a significant decrease in those who thought a mother or carers should give a baby anything other than breast milk to eat in the first six months (60% baseline, 18% endline); this decrease was even more pronounced among mothers (60% baseline, 16% endline).

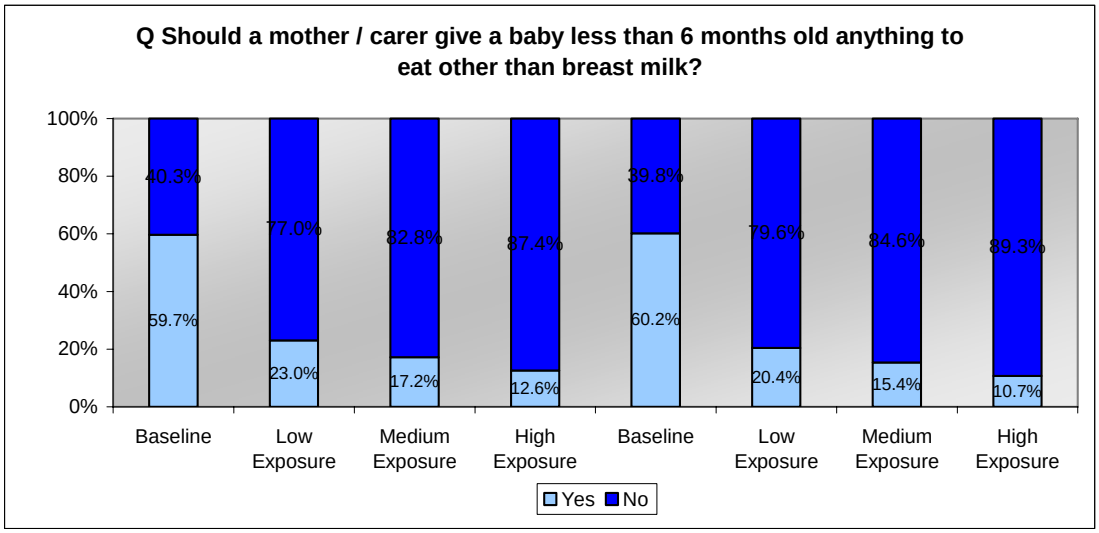
Trend Chart 18-Knowledge about Exclusive Breastfeeding for under six months



	Total		Mothers	
	Baseline	Endline	Baseline	Endline
Yes	**59.7%**	18.3%	**60.2%**	16.1%
No	40.3%	**81.7%**	39.8%	**83.9%**
Base	2094	2189	1745	1647

Overall, those disagreeing with the statement increased with levels of exposure, and were significantly higher among those with ‘high’ exposure (87%) than those with ‘low’ levels (77%). Among mothers specifically, those disagreeing also increased with levels of exposure.

Exposure Chart 17-Knowledge about Exclusive Breastfeeding for under six months



	Total				Mothers			
	Baseline	Low Exposure	Medium Exposure	High Exposure	Baseline	Low Exposure	Medium Exposure	High Exposure
Yes	**59.7%***	**23.0%**	*17.2%*	*12.6%*	**60.2%**	*20.4%****	*15.4%*	*10.7%*
No	*40.3%*	**77.0%**	**82.8%****	**87.4%****	*39.8%*	**79.6%**	**84.6%**	**89.3%*****
Base	2094	830	818	541	1745	613	615	419

*Significantly higher than Low, medium and High Exposure
**Significantly higher than bothe Baseline and Low Exposu
***Significantly higher than Higher Exposure
****Significantly higher than Baseline

Pre and Post Natal Care

Target Audience: Pregnant Women

Changes in practices in relation to pre and post-natal care were assessed by looking at the following measures:

- Ante natal care
- Plans to use a trained midwife for delivery
- Iron supplementation

Key Findings – Pre and Post Natal Care

- Pregnant women going to an ante natal check up to safeguard their health have increased significantly (49% baseline, 68% endline)

- Those planning to use a traditional birth attendant to deliver their baby have declined (40% baseline, 29% endline), with a simultaneous increase in those planning to use a midwife instead (49% baseline, 63% endline)

- Pregnant women taking iron supplements have increased dramatically, from 10% at baseline to 44% at endline

Knowledge: What can a pregnant woman do to ensure she and the baby are healthy?

Practice (Pregnant Women only): What are you doing to ensure you and the baby are healthy?

Practice (Pregnant Women only): Have you been to the health centre for a check up?

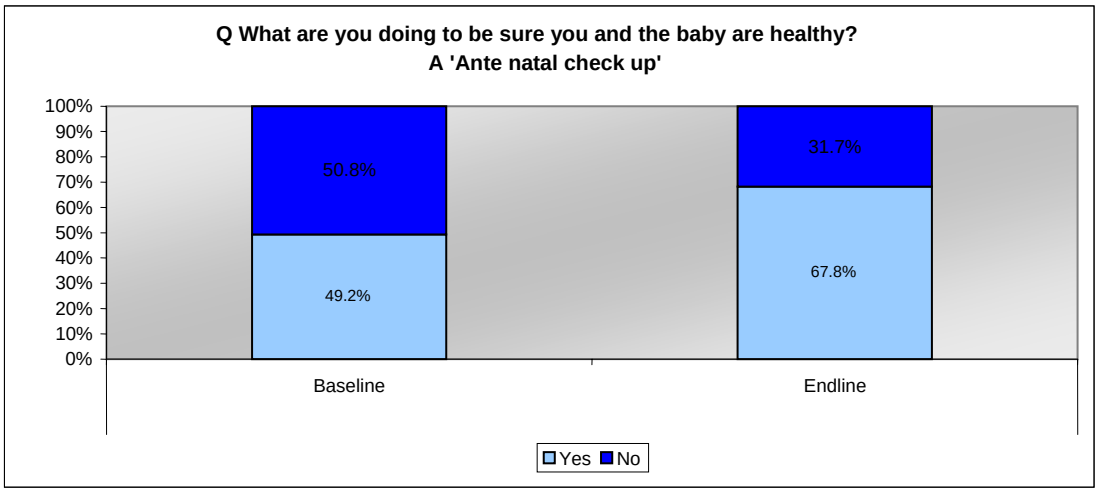
Practice (Pregnant Women only): Who will assist you to deliver your baby?

Ante Natal Care

Practice

Those stating they visit an ante natal clinic to keep their baby healthy, increased significantly (49% baseline, 68% endline).

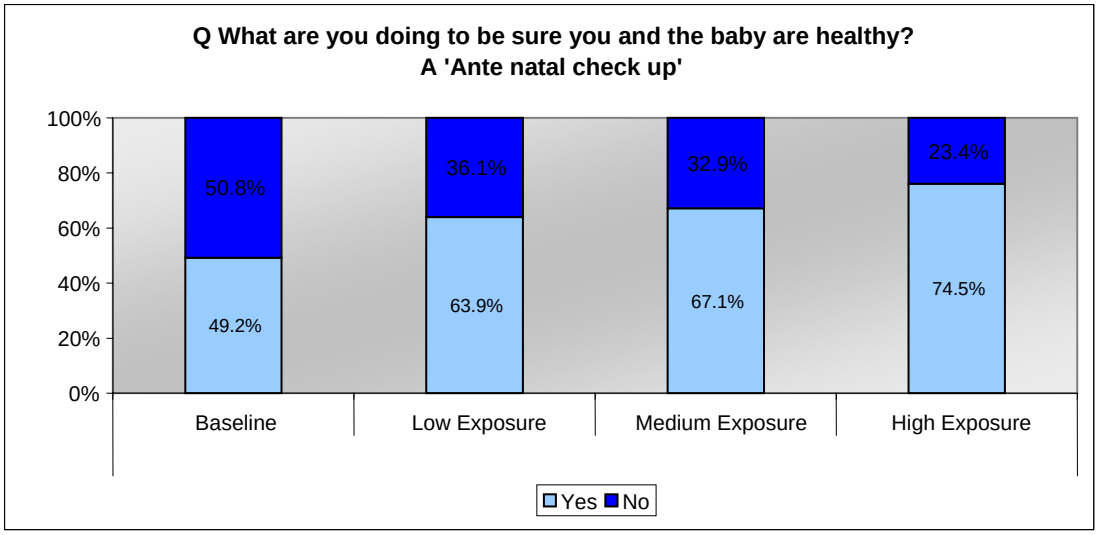
Trend Chart 19- Ante Natal Check Ups Practice



	Pregnant	
Visit ANC	Baseline	Endline
Yes	49.2%	**67.8%**
No	**50.8%**	31.7%
Base	297	202

Those stating they visit an ante natal clinic to keep their baby healthy increased significantly among those with ‘medium’ and ‘high’ exposure since baseline, to 67% and 75% respectively.

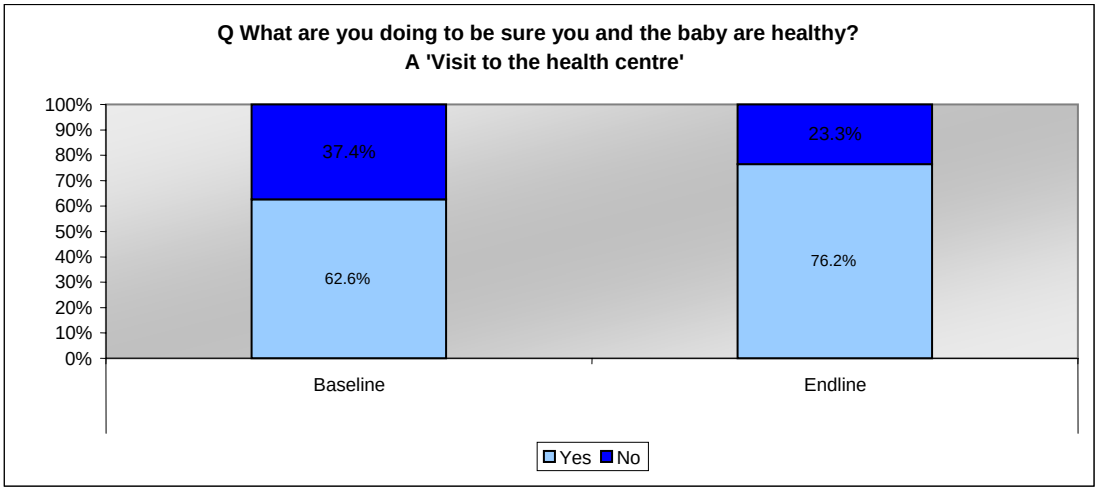
Exposure Chart 18-Ante Natal Check Ups Practice



	Pregnant			
	Baseline	Low Exposure	Medium Exposure	High Exposure
Yes	*49.2%*	63.9%	**67.1%**	**74.5%**
No	**50.8%**	36.1%	*32.9%*	*23.4%*
Base	297	83	73	47

The number of pregnant women who reported they had been to the health centre for a check up increased (baseline 63%, endline 76%).

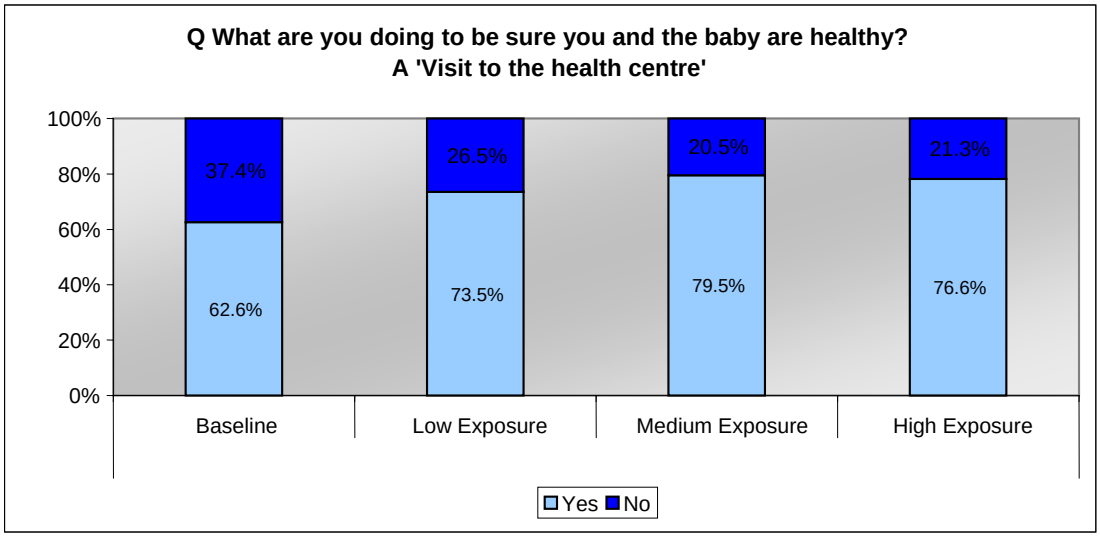
Trend Chart 20-Health Centre Visit: Practice



Visit Health	Pregnant Baseline	Pregnant Endline
Yes	62.6%	**76.2%**
No	**37.4%**	23.3%
Base	76.2%	68.1%

The proportion of those visiting their health centre for a check up increased significantly since baseline among those with 'medium' exposure.

Exposure Chart 19-Health Centre Visit: Practice

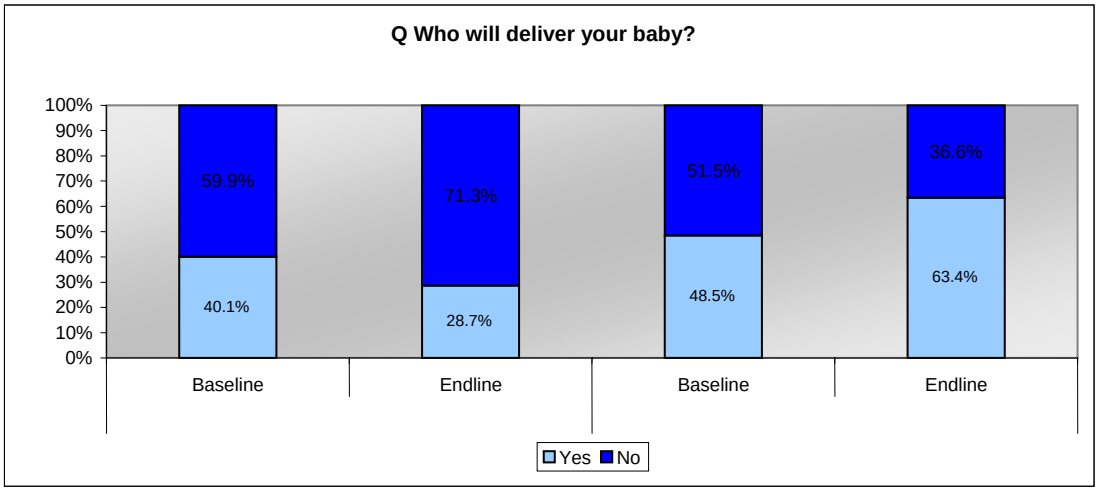


	Pregnant Baseline	Pregnant Low Exposure	Pregnant Medium Exposure	Pregnant High Exposure
Yes	*62.6%*	73.5%	**79.5%**	76.6%
No	**37.4%**	26.5%	*20.5%*	21.3%
Base	297	83	73	47

Use of midwife or traditional birth Attendant

There has been a decrease in the number of pregnant women stating they will use a traditional birth attendant to deliver their baby (40% baseline, 29% endline) and a concurrent increase in those stating they will use a midwife instead (49% baseline, 63% endline).

Trend Chart 21-Plan to have Midwife Deliver Baby

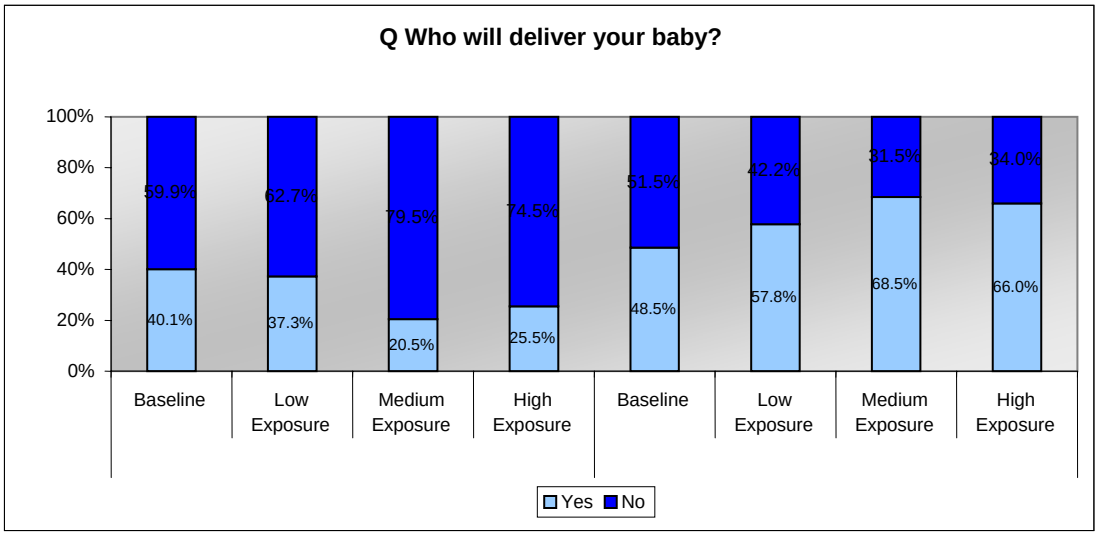


TBA	Pregnant Baseline	Pregnant Endline
Yes	**40.1%**	28.7%
No	59.9%	**71.3%**
Base	297	202

MW	Pregnant Baseline	Pregnant Endline
Yes	48.5%	**63.4%**
No	**51.5%**	36.6%
Base	297	202

Those with 'medium' and 'high' exposure experienced a significant decrease since baseline in the number who plan to use a traditional birth attendant. There was a significant increase since baseline among those with 'medium' exposure who now plan to use a midwife to deliver their baby.

Exposure Chart 20-Plan to have Midwife Deliver Baby

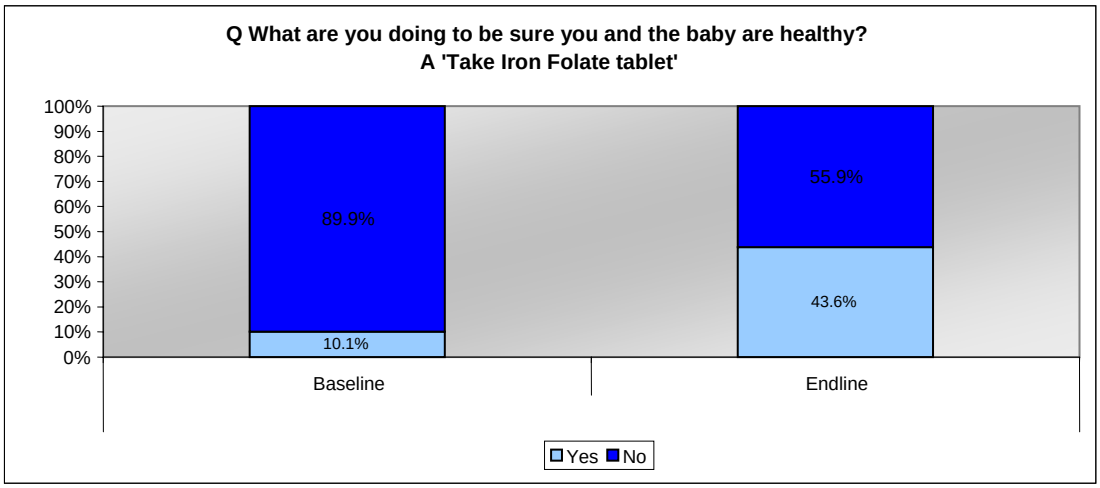


TBA	Pregnant Baseline	Low Exposure	Medium Exposure	High Exposure	MW	Pregnant Baseline	Low	Medium	High
Yes	**40.1%**	37.3%	*20.5%*	25.5%	Yes	*48.5%*	57.8%	**68.5%**	66.0%
No	*59.9%*	62.7%	**79.5%**	74.5%	No	**51.5%**	42.2%	*31.5%*	34.0%
Base	297	83	73	47	Base	297	83	73	47

Iron Supplementation

There has been a very substantial increase in pregnant women taking iron supplements since baseline, from just 10% to 44%.

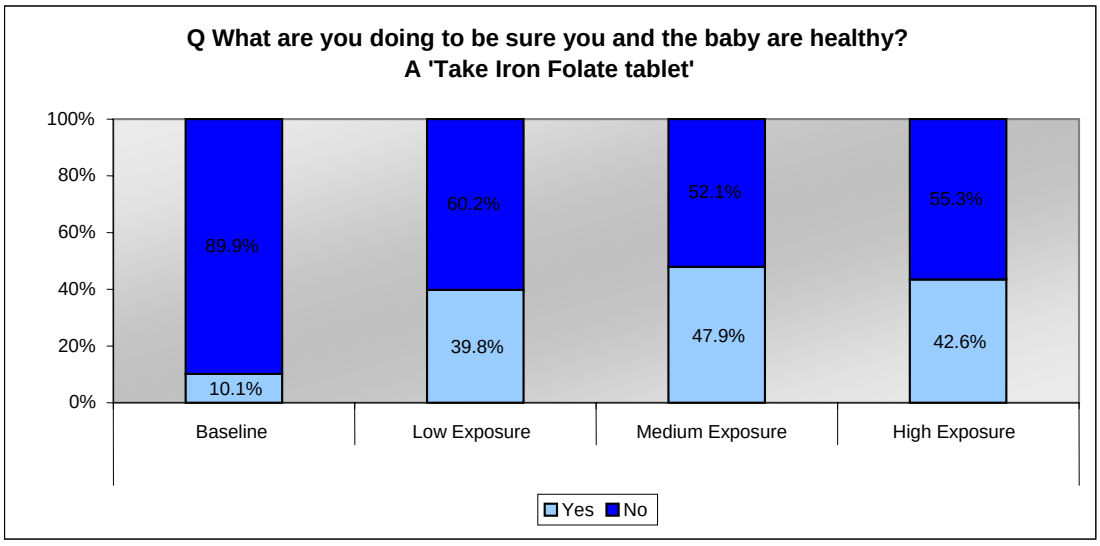
Trend Chart 22-Iron Supplementation



TBA	Pregnant Baseline	Endline
Yes	10.1%	**43.6%**
No	**89.9%**	56.4%
Base	297	202

All pregnant exposure groups experienced significant increases in taking iron supplements to keep them and their baby healthy since baseline.

Exposure Chart 21- Iron Supplementation



	Pregnant			
	Baseline	Low Exposure	Medium Exposure	High Exposure
Yes	*10.1%*	**39.8%**	**47.9%**	**42.6%**
No	**89.9%**	*60.2%*	*52.1%*	*55.3%*
Base	297	83	73	47

Lessons Learned

Media Strategy

The Trust has been acting within a changing media environment in Cambodia, in the context of a shrinking radio market and the increasing importance and strength of television.

This dynamic operational setting highlights the importance of maintaining and being familiar with ***up to date data on media markets***. In-depth knowledge where media for development efforts are undertaken is essential for the Trust to assess broadcast partners, audience preferences and the overall mass media strategy on an ongoing basis.

The experience at endline with the visual and audio stimulus in prompting responses was successful because The Trust outputs were recognisable and distinctive in look and sound. The level of confidence in the stimulus to prompt recall was high because there was a certainty that the outputs had strong identities in the first instance. This underlines the importance of having ***distinct outputs with clear brands and branding*** as a whole.

The market dynamics also point to the importance of using a ***variety of distribution platforms*** – television, radio, and print, in this instance – to reach audiences, as reliance on any single one would have missed key segments of the media consuming population.

On some issues, such as VCCT and condom use by women, the baseline survey found low levels of baseline indicators, which provided the Trust a great opportunity to deliver new information to audiences. On the ground assessment of media market, stakeholder and partners enabled the Trust to determine with more precision if and how these issues of interest had been the subject of any other media efforts within the country. Therefore, the Trust's experience in Cambodia suggests that mass media has great potential to contribute to substantial increases in knowledge, attitudes and even some practices, when it delivers a high volume of new information in a relevant, engaging way to what could previously be considered an ***'information vacuum.'***

On some measures, baseline levels were high in the first instance, thereby creating a ***'ceiling effect'***. This was particularly apparent in knowledge and some attitudes which appeared to be widely held at the outset of the study, and where there could only be a small increase.

Methods: Stimulus Materials

The Trust has a good track record using visual stimulus to prompt respondents to recall TV outputs. This method was used in the midline studies for TV outputs, but no similar level of prompting was used for radio outputs, resulting in very low levels of recall and uncertainty that the outputs being recalled were in fact those produced by the Trust.

Audio stimulus was used for the first time in the endline survey in order to strengthen the quality of responses on radio outputs, and this has increased certainty that the Trust's outputs are the ones the respondents recall. In the midline study responses were recorded for any radio spots recalled in general and limited spontaneous recall was captured (e.g., in the midline study 'radio spots' were mentioned as a source of information about MCH, but the specific radio spot was not confirmed); while at endline prompted recall of specific BBC World Service Trust spots was obtained from respondents .

This change in measurement is likely to have increased overall recall in comparison to the midline study. It certainly is far more accurate, and matches the levels of accuracy achieved by visual stimulus for television outputs.

It should also be noted that in some cases, however, that interviewers used cassette players and sometimes had trouble in keeping track of which piece they were on. Their own attention to the stimulus and survey instrument caught the problem, and the mistakes did not carry forward to data processing. On future occasions, using CD, DVD or MP3 in which tracks are clearly numbered audio should prevent this occurring.

Methods: Analysis of Exposure

Because of the very strong performance of this multi-media, multiple output intervention, at least one of the outputs being evaluated reached virtually all target audience members. Many audience members were exposed to more than one, most commonly three. The high percentage of 'exposed' respondents meant that a comparison of 'exposed' and 'unexposed' was not statistically feasible. Instead a comparison on basis of ***levels of exposure*** – high, medium, low – was used to assess the media intervention's impact.

In defining high, medium and low levels of exposure, the ***modal exposure value*** was used because it represents a more valid picture of the most commonly occurring behaviour, in this case viewing or listening to a format. While a mean level of exposure also remains a useful measure, as it represents the *average* exposure level, the mean is more prone to being skewed, particularly if a high proportion of the sample report exposure to a low number of formats and a few cases report a high number, or vice versa.

Conclusions

Performance of Intervention in Reaching Target Audiences

The Trust in Cambodia has had high success in delivering MCH media outputs to Cambodian media consumers.

The data indicates that using a range of media outputs and media platforms has been effective in reaching the required audiences of the project. This is more so than if it had been limited to one single media outlet.

Through the Trust's multi-format approach, it was able to reach 99% of the general audience, working very well to achieve penetration – 87% had seen or heard at least two outputs, and just 1% was able to bypass all outputs. 96% of TV viewers had seen at least one TV spot and 82% of radio listeners had heard the radio spots. Through radio acting as a compliment and pointer to the TV broadcasts, the Trust was able to achieve a higher level of reach than if the campaign had been based around a single-output (e.g. TV only) approach.

The 'breastfeeding song' was the most successful single output, reaching 83% of carers surveyed, and 88% of radio consumers.

Trends

There has been solid and extremely encouraging evidence from this study that awareness and behaviour can change.

There has been some very positive movement in terms of practice: specifically, increasing numbers of pregnant women going for ante natal and health centre check-ups, those planning to use a midwife rather than a traditional birth attendant, and those taking iron folate tablets. Hand washing practice to prevent diarrhoea has also increased, though it still numbers only a quarter of respondents, and there is the potential for more information in this area.

However, there have also been large increases in knowledge of how to prevent potentially fatal diseases, particularly in the case of ARIs general knowledge and danger signs awareness, minimising diarrhoea risk and maintaining mother and baby's health pre and post-birth.

Impact

The study has shown that direct exposure to media outputs can contribute to greater levels of knowledge and behaviour change.

For example, reported cases of diarrhoea among under 5s fell significantly, and knowledge of washing hands to prevent diarrhoea was greater among those with high exposure.

Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
ARI	Acute Respiratory Infection
BBC	British Broadcasting Corporation
CTN	Cambodia Television Network
DFID	Department For International Development
HIV	Human Immunodeficiency Virus
KAP	Knowledge Attitudes and Practice
MCH	Maternal and Child Health
NGO	Non Governmental Organisation
ORS	Oral Re-hydration Solution
RNK	Radio National Kampuchea
TVK	Television Kampuchea
TBA	Traditional birth attendant
MW	Midwife