DMI PROJECTS (2005 – 2012)

Scientific trial to test whether mass media can reduce child mortality

Dates: Jan 2011 to Dec 2015  
Project value: US$11.75 million  
Funder: Wellcome Trust and Planet Wheeler Foundation

Development Media International (DMI) and the London School of Hygiene and Tropical Medicine (LSHTM) claim that child mortality can be reduced by 10% to 20% in most developing countries simply by broadcasting radio and television messages on all key life-saving behaviours. Historically, health messages have been broadcast on single issues, such as HIV or immunisations. DMI has developed a system of ‘comprehensive campaigns’, broadcasting radio and television messages on all key health issues on a rotating basis. DMI and LSHTM have created a statistical model to predict how many lives could be saved in this way. The results are striking and will be published in The Lancet later this year: they predict that comprehensive campaigns would reduce child mortality by 10% to 20%, at a cost per life-year (DALY) saved that is lower than any existing public health intervention, ranging from $2 to $10.

To persuade governments to change policy and divert resources on this scale, the model must be tested and proven to work in a real-life setting, using the most rigorous standards. We are doing so in Burkina Faso, West Africa, which combines high child mortality (11th highest in the world) with a highly localised media environment, permitting a cluster-randomised trial. The trial involves broadcasting to seven geographic areas, chosen at random, and seven control areas for 2.5 years. Surveys of mortality (100,000 children) and behaviour (5,000 households) are being conducted before and after the intervention. The evaluation is being supervised by Professor Simon Cousens, Professor of Epidemiology and Medical Statistics at LSHTM. The economic analysis is led by Professor Anne Mills at LSHTM, one of the world’s leading health economists. Our predictions for our impact in Burkina Faso are as follows:

<table>
<thead>
<tr>
<th>Child deaths (pa)</th>
<th>Media penetration</th>
<th>Lives saved (pa)</th>
<th>Mortality reduction</th>
<th>Cost/DALY</th>
</tr>
</thead>
<tbody>
<tr>
<td>131,000</td>
<td>76%</td>
<td>22,496</td>
<td>17.2%</td>
<td>$4.76</td>
</tr>
</tbody>
</table>

Creative radio spots will be broadcast 10 times per day for 2.5 years on local radio stations, supplemented by interactive phone-in radio programmes. We are building the capacity of local media and the Ministry of Health, and are creating a system of continuous formative research and pre-testing. The aim is to create a health communications system that is sustainable long after our involvement ends.

The research component of the trial is funded by the Wellcome Trust, a UK-based foundation and one of the world’s leading funders of scientific research. The intervention is funded by the Planet Wheeler Foundation in Australia, created by the founders of the Lonely Planet travel series, which funds poverty-alleviation projects in 30 countries worldwide.

Maternal and Child Health Campaign in Kenya

Dates: Jan 2010 to May 2011  
Project value: US$600,000  
Funder: UK Department for International Development (DFID)

In January 2010, DFID commissioned DMI to carry out a mass media campaign to improve maternal and child health in Kenya. DMI carried out an extensive feasibility study and used the data collected to tailor the DMI-LSHTM model to reflect the realities of health service provision at provincial level. The model was able to
predict which messages which would achieve the most impact in terms of lives saved, and where the greatest impact could be achieved.

Extract from a table showing lives that could be saved by a 3 years media campaign in Kenya, by message and region, (based on DMI-LSHTM model, assuming one message only)

<table>
<thead>
<tr>
<th>Health message</th>
<th>Kenya</th>
<th>Nyanza</th>
<th>Western</th>
<th>North Eastern</th>
<th>Coastal</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Messages about ANC, delivery and breastfeeding:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attend a minimum of four antenatal clinic visits</td>
<td>962</td>
<td>350</td>
<td>238</td>
<td>48</td>
<td>145</td>
</tr>
<tr>
<td>Give birth in a health facility</td>
<td>1,278</td>
<td>437</td>
<td>246</td>
<td>40</td>
<td>174</td>
</tr>
<tr>
<td>Exclusive breastfeeding for the first six months</td>
<td>3,174</td>
<td>1,043</td>
<td>746</td>
<td>65</td>
<td>409</td>
</tr>
<tr>
<td>Complementary feeding</td>
<td>1,298</td>
<td>402</td>
<td>295</td>
<td>64</td>
<td>181</td>
</tr>
<tr>
<td><strong>Messages about managing childhood illness:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management of diarrhoea: Continue feeding, give fluids and take child to health centre if signs of dehydration</td>
<td>4,012</td>
<td>1,212</td>
<td>1,013</td>
<td>86</td>
<td>519</td>
</tr>
</tbody>
</table>

The model’s predictions helped us select the following three messages: breastfeeding, antenatal care/giving birth in health facility, and management of childhood diarrhoea. The model also enabled us to select the province where the three selected messages would have the biggest impact. Based on this and information we had compiled on the media market, we selected Nyanza Province for the campaign.

**Predicted impact and cost effectiveness of a campaign in Nyanza province covering the three selected campaign messages (based on DMI-LSHTM model, assuming 3 year campaign)**

<table>
<thead>
<tr>
<th>Total under-5 deaths</th>
<th>Media penetration</th>
<th>Total annual deaths averted, yr 3 on*</th>
<th>% reduction in child mortality yr 3 on</th>
<th>Annual cost of project, USD, yrs 1-3</th>
<th>Cost per DALY saved, yrs 1-2*</th>
<th>Cost per DALY saved, yr 3*</th>
</tr>
</thead>
<tbody>
<tr>
<td>35,955</td>
<td>83%</td>
<td>3,458</td>
<td>9.6%</td>
<td>$450,000</td>
<td>$23.63</td>
<td>$4.73</td>
</tr>
</tbody>
</table>

*discounted at 3%

Comprising radio spots and long-format interactive radio shows, the campaign was broadcast from November 2010 until May 2011. Free SMS messaging was secured from Safaricom, which was used to reinforce the campaign messages. DMI formed a partnership with the Centre for Disease Control (CDC) and KEMRI to enable evaluation of the campaign by incorporating questions at baseline and endline into their Demographic Surveillance Surveys. Endline data was published in March 2012.

**Consultancy to strengthen HIV/AIDS communications in Mozambique**

**Dates:** Jul 2009 to Feb 2010  
**Project value:** US$269,000  
**Funder:** DFID

Mozambique has a severe generalised HIV epidemic, with low rates of condom use and risk perception. In June 2009, DFID appointed DMI as consultants to review HIV health communications strategies at the national and regional level in Mozambique. Based on the findings, DMI developed a five year action plan, providing the Government with a ‘roadmap’ on how to deliver optimal health communications and address inefficiencies within the system.
Maternal, Newborn and Child Health Campaign in Orissa, India

Dates: Jul 2008 to Jun 2009
Project value: US$500,000 (+$300,000)
Funder: Partnership for Maternal, Newborn & Child Health / WHO

While the primary funder of this campaign was WHO, DMI successfully secured additional funding worth US$ 370k from the Orissa State Institute for Health and Family Welfare (SIHFW). We also worked closely with the White Ribbon Alliance.

The 5 month TV and radio campaign was based on DMI’s multi-issue campaign methodology for campaigning on a range of key life-saving behaviours. Five crucial issues were selected, focusing on breastfeeding, post-partum care, malaria, newborn hyperthermia and preparing for childbirth.


The evaluation, carried out by the London School of Hygiene and Tropical Medicine, showed that impact was achieved across all 5 health topics, with significant improvements in knowledge, intended behaviour and reported behaviour.

Results from the Orissa evaluation (Source: London School of Hygiene and Tropical Medicine)

<table>
<thead>
<tr>
<th>Targetted belief/behavioural intention/behaviour</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belief that it is necessary to prepare for post partum emergency</td>
<td>Baseline 54%</td>
</tr>
<tr>
<td>Planned behaviour: intention to sleep under ITN during next pregnancy</td>
<td>Endline 96%</td>
</tr>
<tr>
<td>Planned behaviour: intention to continue feeding during next bout of diarrhoea</td>
<td>Baseline 14%</td>
</tr>
<tr>
<td>Last baby wiped dry, without being bathed, after birth</td>
<td>Endline 27%</td>
</tr>
<tr>
<td>Mothers who breastfed baby within one hour of birth</td>
<td>Baseline 77%</td>
</tr>
<tr>
<td></td>
<td>Endline 91%</td>
</tr>
</tbody>
</table>

The evaluation data also showed a consistent dose-response relationship between exposure to the campaign and behaviour change.

Targeted behaviours among viewers: dose response effect

Source: The London School of Hygiene and Tropical Medicine
Helping to Eliminate TB in Brazil

Dates: Mar 2006  
Project value: US$316,000 (+$12.8m)  
Funder: USAID (via PAHO/WHO)

DMI was asked by USAID and WHO to conduct a campaign in Brazil to promote testing for TB if people noticed a cough lasting longer than 3 weeks. Although the treatment was provided free of charge at Public Health Clinics, TB was still a leading cause of infectious disease fatalities.

The campaign was modelled upon the highly successful leprosy campaign carried out by DMI staff in 2003, and included 3 TV spots and 10 radio spots broadcast over a 30-day period.

Thanks to the generosity of Brazil's media, the campaign was broadcast over 8000 times on Brazil's TV stations, and by over 2300 radio stations, all free of charge. The total value of airtime donated was US$12.3 million: a 3800% return on USAID's original investment of $316,000.

Most importantly, the campaign led to a dramatic increase in the numbers of people reporting to health clinics. According to the government's laboratories, there was a 26% increase in tests for TB from the first quarter of the year to the second. The numbers involved were large: 266,016 in the quarter preceding the campaign, and 335,991 in the quarter following it. Given that the campaign took place for a 1-month period in March 2006, this represents significant evidence of impact.

![Graph showing Diagnostic tests for TB, Brazil 2006](image)

**Source:** Datosus, Ministry of Health, Brazil
PROJECTS CARRIED OUT BY DMI STAFF PRIOR TO FORMING OF DMI (1998 – 2005)

Cambodia HIV and Mother and Child Health Campaigns

Dates: Jul 2003 to Jun 2006
Project value: US$5.25 million
Funder: DFID

The project was initially intended to focus purely on HIV prevention in Cambodia. Roy Head asked for permission to add maternal and child health messages to the HIV messages, at no extra cost, in order to test whether multi-issue campaigning would work effectively. Permission was granted, and additional spots were produced on a variety of live-saving behaviour, ranging from encouraging pregnant women to attend ante-natal care session, to promoting parental hand washing to protect children from diarrhoeal diseases. The concept of the comprehensive mother and child health campaign was born!

The evaluation demonstrated that impact was achieved across 12 message topics, proving that a wide range of behaviours can be changed over the same period. This was achieved for very low marginal costs. A selection of results is listed below.

Results of the Cambodia MCH campaign

<table>
<thead>
<tr>
<th>Behaviour</th>
<th>Before campaign</th>
<th>After campaign</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women attending post-natal check-ups</td>
<td>62%</td>
<td>76%</td>
</tr>
<tr>
<td>Pregnant women attending ante-natal check-ups</td>
<td>49%</td>
<td>68%</td>
</tr>
<tr>
<td>Parents who treated child with ORS (&quot;Oralit&quot;) last time it had diarrhoea</td>
<td>25%</td>
<td>31%</td>
</tr>
<tr>
<td>Pregnant women using iron supplements</td>
<td>10%</td>
<td>44%</td>
</tr>
<tr>
<td>Condom usage last sexual intercourse (males, have used condoms at least once)</td>
<td>56%</td>
<td>65%</td>
</tr>
<tr>
<td>Parents of children showing signs of ARI who took children for treatment</td>
<td>51%</td>
<td>70%</td>
</tr>
<tr>
<td>Parents reporting washing childrens hands to prevent diarrhoea</td>
<td>10%</td>
<td>25%</td>
</tr>
<tr>
<td>Parents reporting washing own hands to protect children</td>
<td>12%</td>
<td>24%</td>
</tr>
<tr>
<td>Planned behaviour: pregnant women planning to use midwives</td>
<td>49%</td>
<td>63%</td>
</tr>
</tbody>
</table>

The data was also consistent with a dose-response relationship between the campaign and behaviour change: people who reported seeing more of the campaign’s outputs were also more likely to report the behaviours being promoted, for example, mothers seeking ante-natal care:

Dose response to Cambodia ante-natal care campaign

![Dose response to Cambodia ante-natal care campaign](chart.png)
Consultancy to design HIV campaigns in Nigeria/Angola/Kenya/Ethiopia/Tanzania/Malawi/Ghana/Uganda

Dates: Jun 2003 to Dec 2004  
Project value: US$480,000  
Funder: DFID

Analysis of the media environment, of epidemiological factors, and of the most cost-effective ways of achieving behaviour change was conducted. The design documents resulting from these studies were implemented in Nigeria, Angola, Tanzania and Malawi. A major conference was also convened in London as part of the project, which was addressed by President Clinton.

Promote AIDS awareness in Africa

Promoting HIV/AIDS awareness in Africa

Dates: Jun 2003 to Nov 2004  
Project value: US$300,000  
Funder: Kaiser Family Foundation

This project involved an unusual partnership with the BBC World Service, and messages were broadcast on the Swahili, Hausa, French, English, Portuguese, Kinyarwanda and Somali services. This allowed a very high degree of cost-effectiveness.

Promoting HIV/AIDS Awareness in India

Dates: Jun 2002 to Feb 2006  
Project value: US$9.28m  
Funder: DFID

Soap operas can secure a loyal audience who care deeply about the characters and identify with them. They can also allow more complex characters and issues to be developed, alongside the creation of empowering role models.

In 2002, a groundbreaking TV detective series called "Jasoos Vijay" was developed as part of a partnership with the Indian broadcaster, Doordarshan, to educate audiences about HIV/AIDS. The project also comprised a “reality” television show and a series of spots of television spots promoting greater HIV/AIDS awareness.

Remarkably for a programme on this subject in a conservative culture, “Jasoos Vijay” attracted a weekly audience of 140 million and became India's top-rated drama. This was achieved by making HIV pivotal to every story without making the stories about HIV, and by building the creative capacity of local producers.

Adil Khandelkar as 'Jasoos Vijay'

The series won a number of awards including the prestigious Indian Television Award for Best Thriller and the Commonwealth Broadcasting Association Award for Best Social Action Campaign.

The campaign also won the Indian Television award for Best Spots in 2004. A similarly successful soap opera ("Taste of Life") was developed for Cambodia in 2003-5.
Eliminating Leprosy in Brazil

Dates: 2002-03
Project value: US$260,000 (+$16m)
Funder: WHO

In 2003 Brazil was listed by the WHO as having the second highest number of people living with leprosy in the world. This WHO-funded campaign was the largest ever effort to raise the profile of the issue in a country which was largely unaware of the problem.

Thanks to the support of Globo and Brazil’s other TV and radio stations, the spots were broadcast over 8,000 times on television and on more than 2,000 radio stations, all free of charge. The total value of the airtime donated was $16 million.

This led to an immediate surge in calls to a telephone hotline (Telehansen) which had been created for the purpose by Morhan, the organisation for people with leprosy. The number of calls per day rose from 6 calls per day prior to the campaign to a peak of over 600 calls per day: some 10,500 calls in all.

Mass media campaigns to help eliminate trachoma from Ethiopia, Ghana, Tanzania, Nepal and Niger

Dates: May 2001 to Jun 2003
Project value: US$1.9m
Funder: International Trachoma Initiative

This project focused on the promotion of facial, hand and environmental hygiene to help prevent blinding trachoma in Ethiopia, Ghana, Nepal, Niger and Tanzania. The messages were broadcast by radio, video vans, flip charts and posters.

Strong improvements in knowledge and behaviour were measured in all five countries. The most rigorous evaluation was conducted in Ethiopia: observations of over 2,000 people were conducted in 2002 and 2005 by the London School of Hygiene and Tropical Medicine and the results were published in 2006 and 2008.
The results were widely published and showed dramatic reductions in dirty hands, falling from 73% to 26%. Most significantly, they showed a 20% reduction in the prevalence of trachoma, achieved through radio messages alone without the use of antibiotics.

**Evidence from Ethiopia trachoma and hygiene campaign**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Observed: % children with dirty scalp or hair</td>
<td>47.3</td>
<td>21.8</td>
</tr>
<tr>
<td>Observed: % children with dirty clothes</td>
<td>74.0</td>
<td>32.2</td>
</tr>
<tr>
<td>Observed: area around house clean</td>
<td>26.0</td>
<td>37.6</td>
</tr>
<tr>
<td>Reported behaviour: wash children's faces daily</td>
<td>89.1</td>
<td>98.8</td>
</tr>
<tr>
<td>Observed: flies on the eyes of children</td>
<td>60.5</td>
<td>51.1</td>
</tr>
<tr>
<td>Trachoma prevalence (in areas receiving no antibiotics)</td>
<td>72.0</td>
<td>51.6</td>
</tr>
<tr>
<td>Ocular discharge (no antibiotics)</td>
<td>50.8</td>
<td>16.0</td>
</tr>
</tbody>
</table>

**Mass media campaign to assist in the elimination of leprosy from India**

**Dates:** Aug 1999 to Apr 2001  
**Project value:** US$1.9 million  
**Funder:** DFID  

In 1999, India had 60% of the world's cases of leprosy. From August 1999 to April 2001, Roy Head and colleagues (who are now with DMI) managed the largest leprosy campaign ever conducted. Thanks to the partnership formed with Doordarshan (India's national TV channel) and All-India Radio, spots and short dramas were broadcast some 800 times on TV and 5500 times on radio, all free of charge.

The result of the 12-month project was that some 200,000 people were treated for leprosy. It also led to large shifts in attitudes and behaviour, including stigma which is the strongest barrier to leprosy treatment in India. As a result of two waves of campaigning, the number of people believing leprosy was hereditary fell dramatically.

These results suggest that up to 172 million people changed their minds about an issue that had been deeply ingrained for centuries.

A study three years later by John Hopkins University also found that these shifts in attitudes had been broadly sustained over time. **The WHO now considers leprosy to be largely eliminated as a public health problem in India.**
Radio project to promote awareness of reproductive health in Vietnam

Dates: 1998-99
Project value: US$80,000
Funder: UNFPA

Radio phone-ins are an excellent educational tool, particularly for sex and relationship issues: young audiences love the interactive format. Phone-ins are also the most sustainable of all media formats. Once the equipment is in place and staff trained, the cost to sustain the programme are extremely low. This project is certainly the most cost-effective and sustainable project that we have ever implemented.

In 1998, we were asked by UNFPA to set up an advertising-campaign covering teenage sexual health issues in Vietnam. Roy Head persuaded UNFPA that a radio phone-in would have more impact; it would allow young people to express their own worries and could even have a democratising impact, certainly upon sexual issues.

With a grant of just US$80,000, the team set up Vietnam’s first ever national phone-in, “Window of Love”. Some had argued that Vietnamese youth would be too shy to call a national phone-in. In reality, the first thirty programmes elicited 4,000 calls and some 30,000 letters. About 50% were about relatively trivial matters (“how do I steal my best friend’s boyfriend without losing my friend?”), but the other half were about the most serious possible issues: AIDS, abortion, contraception. The very first call was from a young man who wanted to commit suicide because he was HIV positive.

The Government supported the project, eager to learn new ways of communicating with young people, particularly given the rise of AIDS and other youth problems. They have since sustained the show and it remains, some thirteen years later, the most popular programme for youth on Vietnamese radio.
Mobilisation campaign to help eliminate leprosy from Nepal

**Dates:** 1998-99  
**Project value:** US$160,000  
**Funder:** WHO

This project was the precursor to the much larger India campaign a year later. Despite much smaller volumes of TV and radio broadcasts, it still led to 12,000 people being treated, and significant reductions in stigma:

![Bar chart showing percentage of respondents who claimed they would be unwilling to sit beside a patient with a leprosy deformity before and after the campaign.]

*Source: Data used by permission of WHO*

Nepal’s leading comedians took part in the TV spots, including a highly successful attempt to tackle Hindu scriptural references to leprosy being a curse of God.