

DMI in Tanzania

Development Media International (www.developmentmedia.net) is a not-for-profit social enterprise that runs mass media campaigns to change behaviours and save lives in Africa. In Tanzania, DMI is part of the DFID-funded Addressing Stunting in Tanzania Early, or ASTUTE, programme. This consortium is led by IMA World Health, and brings together Partnership for Nutrition in Tanzania, Cornell University's Division of Nutritional Sciences, and Development Media International to build the capacity of local government authorities to address child stunting in all districts of five regions of the Lake Zone — Kagera, Kigoma, Mwanza, Geita and Shinyanga—representing a collective population of 10.2 million and more than 750,000 stunted children. Childhood stunting—a result of inadequate feeding during a child's first 1,000 days; poor water, sanitation and hygiene practices; and inadequate access to health care —has serious long-term consequences.

Guidelines for Mass Media SBCC Campaign - Saturation+ (saturation, science, stories)

DMI's task in the ASTUTE campaign is reaching 3 million+ mothers, caregivers, and decision makers with evidenced-based child care and feeding information that helps create positive behavioural change. The ASTUTE mass media campaign uses the design and implementation laid out in DMI's Saturation+ approach. This approach has been developed by DMI and is based on over 20 years of experience in designing, implementing, and evaluating media campaigns.

The Saturation+ approach can be broken down into three themes: **saturation, science and stories** (Box 1). DMI ensures that all of its mass media campaigns have a healthy dose of each. The Saturation+ approach is a set of core transferable principles; it is not intended to be a standard, one-size-fits-all method, but rather an approach designed to maximise the impact of campaigns.

BOX 1. Core Principles Underlying the Saturation+ Approach to Behaviour Change

Saturation

- Analyze media penetration data to reach the largest possible proportion of the target audience. ^[1]_[SEP]
- Develop partnerships with market-leading radio and TV stations.
- Devise radio/TV formats that can be produced at a rapid rate by the project to enable frequent broadcasts.
- Broadcast messages in local languages, several times a day, for a sustained period (6-12 times per day for radio spots, at least 3 times per day for TV spots, at least once a day for other formats). ^[1]_[SEP]

Science ^[1]_[SEP]

- Use mathematical modeling to estimate the health impact of each message. ^[1]_[SEP]
- Design calendar of messages that prioritises highest-impact messages. ^[1]_[SEP]
- Conduct formative research to understand target audience and barriers to behaviour change. ^[1]_[SEP]
- Summarise research in one-page message briefs to inform the creative process. ^[1]_[SEP]
- Pre-test spots to ensure message clarity and acceptability by target populations. ^[1]_[SEP]
- Monitor audience reaction to broadcasts through qualitative feedback research. ^[1]_[SEP]
- Conduct a robust quantitative evaluation to enable measurement and attribution of impact. ^[1]_[SEP]

Stories ^[1]_[SEP]

- Recruit talented local scriptwriters, using open competitions where appropriate. ^[1]_[SEP]
- Build dramatic structures in which the emotional climax addresses the crucial barrier to behaviour change. ^[1]_[SEP]
- Use an editorial process that ensures quality control while allowing space for creativity. ^[1]_[SEP]

Saturation Theory

Intensity is key to any commercial advertising strategy, and yet it has been an underrated element of public health campaigning. Evidence suggests that achieving high exposure to messages is correlated with impact on behaviours, in a 'dose-response' relationship.¹ A systematic review of the effectiveness of mass media interventions for child survival in low- and middle-income countries reported that achieving adequate exposure is a key component of success, with campaigns needing to "reach substantial proportions of the target audience with enough frequency to be recalled."² Another review of the impact of media campaigns

on health behaviours proposed that investment in longer, better-funded campaigns is required to achieve frequent and widespread population exposure to messages, especially for habitual behaviours.³ DMI's experience also indicates a link between the frequency of messaging and impact on behaviour change: a particularly successful campaign targeted hand washing in Ethiopia, with messages broadcast up to 14 times per day for 3 years.⁴

So how does exposure lead to behaviour change? There are several theories about the mechanisms or pathways by which high exposure drives behaviour change, summarised by Bob Hornik, including⁵:

Learning. People listen to the radio at different times each day and vary in their susceptibility or inclination to respond to a message. The more times a message is repeated, the more opportunities there are for people to hear and learn from the message when they are receptive to it.⁵

Priming. Repeated exposure to a message affects its pertinence, so a stronger weight is attributed to the message when deciding whether to adopt the behaviour.⁶

Creating social norms. Repeated exposure to messages can create social expectations about behaviours. Such social norm pressures may persuade people to adopt behaviours.⁷

Diffusion effect. As more people are exposed to messages, more people will discuss these messages within their wider social networks, including people who have not seen or heard the media campaign.⁸

Indirect impact on policy. High exposure may alert policy makers to issues that are of public concern and thereby result in legislation or the implementation of policies that promote behaviour change.⁹

Saturation

In order to achieve high exposure, the first thing to do is to identify your target audience as part of the broadcast/SBCC strategy. Where do they live? Are they male or female? How old are they? How much money do they have? The next step is to find data. It can be hard to get reliable audience data and it will never be perfect, but it is very important. You need audience survey results that give you information about your target audience. What is their preferred media (radio/television)? Which channels do they listen to? When do they consume media? What languages do they prefer to listen to? What type of programmes do they listen to?

These data are usually gathered by market research and advertising agencies. Once you have this information, you can decide which broadcast partner to work with, which language to broadcast in and when to schedule your spots or programmes. In DMI Tanzania's case, we worked with a local polling agency to conduct an audience survey in the target regions, as no recent surveys were available, followed by in-person visits to media partners to assess capacity (see Box 2).

BOX 2. Working with radio or television stations

There are some key questions to ask before negotiating partnerships with radio and television stations:

- Is the station self-sustainable? Does it have a reliable energy supply?
- How many weeks of the year is the station able to broadcast without 'falling off air'?
- Is the transmitter fully operational?
- Does the station have a business strategy that relies on raising income by charging for airtime?
- Does the station need technical and operational support?
- Does the station have a large audience? Is this audience loyal?
- What is the broadcast reach of the station? Which geographical area has reception?
- Are the radio station staff paid or are they volunteers? Is

Cost will also be a factor to achieve saturation. Saturation broadcasting can be achieved by paying the market-leading radio and television stations for airtime, but it can be easier and cheaper to achieve saturation broadcasting when one involves the broadcast industry as a core partner. Ideally one negotiates free airtime in exchange for on-the-job training and for production expenses.

The simplest way to achieve high intensity is to use short (e.g., 60-second) spots, as exemplified by the advertising industry. This format allows frequent daily broadcasts, across all peak listening times. It also allows for precise health messages, focused on a single behaviour or doable action. Repetition of the health messages

How many spots should one broadcast each

day? Broadcast each spots between 5 and 10 times per day - ideally 10 times.

Does it matter what time of day the spot is

broadcast? Many messages can be broadcast at any time of day regardless of the message. But some messages are more appropriate at a certain time of the day.

Do seasons impact on timing? Yes. Some messages may depend on the season. The audience might listen to the radio at different times, e.g. during harvest-time, they might be out in the field and unable to listen to the radio.

is vital, so new spots can be produced efficiently to ensure that the programming remains fresh and engaging. The spots use emotion, humor, and dramatic techniques such as suspense to persuade our target audience to change behaviours. In the Tanzania campaign, after a start phase in June-July-August 2017, DMI broadcast a new spot every week, played at least 10 times per day, from September 2017 to December 2019, working with 5-6 radio stations (a 6th station was added in June 2018). **By July 2019, the ASTUTE radio spots have been aired**

35,000 times.

Because of a significant proportion (29%) of the target regions reporting watching television, we added TV spots to the campaign to reach maximum exposure; using multiple communication channels is associated with greater impact.

Science

Message quality is also crucial, and qualitative research is a key element to ensuring this quality. Qualitative research includes formative research (to identify barriers to behaviour change), pretesting of radio spots (to judge comprehension and appeal), and feedback research (to find out whether people have heard and understood the messages and what the remaining obstacles to behaviour change are). The key, as argued below, is to link findings from such qualitative research as tightly as possible to the creative process.

DMI employs a team of in-house qualitative researchers, who conduct formative research at the start of the campaign. The research consists of semi-structured individual interviews and focus group discussions with mothers and fathers of young children and influential members of their entourage (spouses, grandparents), as well as individual interviews with key informants such as religious leaders, district medical officers, health center staff, midwives, and community health workers. For each health behaviour, we synthesise this research into a 1-page message brief that presents the key behaviours to promote including:

- Contextual information about the behaviour, including Ministry of Health policy and guidelines, and information drawn from guidance from the United Nations Children’s Fund (UNICEF) and the World Health Organisation (WHO)
- Analysis of key decision makers within the target audience for the specified behaviour
- Context-specific barriers to behaviour change
- Context-specific factors facilitating behaviour change

For the ASTUTE campaign, briefs focused on all nutrition-specific and nutrition-sensitive themes: maternal nutrition during pregnancy (plus reduced workload and ANC visits); exclusive breastfeeding; complementary feeding starting at 6 months; WASH (handwashing and environmental hygiene); and early childhood development. The SBCC strategy was shared and discussed with MoH nutrition staff (including Tanzania Food and Nutrition Centre), to ensure it adheres to official policies and guidelines.

DMI scriptwriters draw on these message briefs to create dozens of scripts. The best of these go through a validation process involving creative staff in both Tanzania and London before being produced. DMI pretests all spots in Swahili using focus groups (for clarity, popularity, and understanding) before selecting the spots and distributing them for broadcast. Pretesting is essential for ensuring messages are well received by the target audience.

DMI also conducts post-broadcast feedback research using focus groups to provide an understanding of audience reactions to our messages and to find out whether and why people who hear our messages have changed their behaviours (or not). After each trip, researchers feed back their findings to the creative team, forming a continual feedback loop. We use the information gathered through pretesting and feedback research to continually refine our message briefs and to tailor our messages to target existing barriers to behaviour change. The loop of pretesting and feedback is key to DMI's production process, whereby new spots are produced *throughout* the programme period.

Feedback Testimony

"After hearing a spot that a child should eat complementary food and should eat more meals, I started working on it. Here fish is scarce, but I try to get it for my child. I used to sell all the eggs in order to buy salt, but now I still sell and keep one for my child because I learnt that from the spot." (FGD, Mothers, Karagwe - Kagera Region)

Science also is needed to develop a message calendar, a plan/broadcasting schedule that weights the importance of each message on local health indicator. Each message will have a broadcast duration, frequency and placing within the calendar. To develop the message calendar, you will need to:

- Identify the behaviours that you want to change;
- Decide how frequently you want to vary your messages;
- Weight the messages according to their predicted impact on reducing child stunting, taking into account: the relative stunting burden, the susceptibility of the issue to behaviour change, and the availability and quality of related healthcare services or availability of nutrition-specific and nutrition-sensitive aspects.

Stories

Stories have resonated with human beings for thousands of years. We are drawn to drama in ways in which we are not drawn to data or facts. Stories allow us to identify emotionally with characters, and emotions—such as fear, status, and guilt—are powerful determinants of behaviour.⁹ But how do stories work? And how are stories developed? Creativity is often the “black box” in theoretical discussions: it is difficult to define or measure. Nevertheless it is possible to use systems to understand and then enhance the creative process.

Understanding the structure of stories is important. Virtually every Hollywood film conforms to a 3-act structure:

- **Act I in which characters are given goals;**
- **Act II in which obstacles are thrown in front of the characters; and**
- **Act III in which the characters either change their goals or overcome the obstacles.**

This structure mimics life itself for most of us and also mimics the process of behaviour change. The emotional climax of most stories is at the end of Act II, the moment of decision for the main character when s/he must choose between competing emotions. Formative research, when conducted with this in mind, can therefore go further than simply identifying obstacles to behaviour change (e.g., cost, inconvenience). It can identify the most important emotion (e.g., fear or guilt) that prevents people from complying and the most important emotion (e.g., love) that motivates people to comply. The conflict between those two emotions can then be made the centerpiece of a story's dramatic climax at the end of Act II.

Choices about how we behave are often made in response to deep underlying human impulses to be accepted by others, to fit in with our peers, and to imitate people we respect. In Tanzania, our radio and television spots are based on engaging, realistic stories and characters that reach out to the audience, helping them to feel empathy for the characters and their situations. Our stories aim to move audiences to examine the health choices made in their own lives. Once people are thinking about making changes, the stories then provide concrete ideas and doable actions. Scripts need to fulfill three criteria:

- **Be creative, imaginative, entertaining and dramatically sound;**
- **Promote an accurate health message;**

- **Catalyse behaviour change** ^[1] _[SEP]

Stories for public health programming must be driven by research, requiring the creative and research teams to work in close harmony—often a formidable challenge given that creative writers typically rely on their own judgment and imagination to create stories. This practical challenge is a microcosm of the wider challenge of bringing science and mass media together. One practical tool to enable collaboration is to develop succinct, 1-page message briefs that summarise the formative research, forming the foundation for the scriptwriters' work. Another method is to send scriptwriters to help lead focus groups in the field, while also involving qualitative researchers in the radio production process. In Tanzania, immersion through field visits motivates scriptwriters, provides new inspiration and ideas, and gives valuable insight into the realities of urban/rural Tanzanian life.

To maximise creativity and for quality assurance, we use multilevel systems of editorial control whereby, for example, 8-16 ideas per month are reduced to 6 for pretesting and production. It is important that after pretesting, as well as after broadcast, qualitative research is fed back to scriptwriters. This feedback loop ensures an evolving creative process that continually responds to the target audience. Grassroots recruitment of local scriptwriters is essential to develop a creative team that understands the language, context, and cultures of the target audience. Spots are produced in-house, using local staff and voice talent. This allows for full creative control of message quality (both health and dramatic content).

For more information on evidence-based saturation SBC methodologies, please visit www.developmentmedia.net/resources.html.

¹ Hornik RC. Exposure: theory and evidence about all the ways it matters. *Soc Mar Q.* 2002;8(3): 31–37. CrossRef. Free full-text available from: http://repository.upenn.edu/cgi/viewcontent.cgi?article=1098&context=asc_papers

² Naugle DA, Hornik RC. Systematic review of the effectiveness of mass media interventions for child survival in low- and middle-income countries. *J Health Commun.* 2014;19 Suppl 1:190–215.

³ Wakefield MA, Loken B, Hornik RC. Use of mass media campaigns to change health behavior. *Lancet.* 2010;376(9748): 1261–1271.

⁴ Edwards T, Cumberland P, Hailu G, Todd J. Impact of health education on active trachoma in hyperendemic rural communities in Ethiopia. *Ophthalmology.* 2006;113(4): 548–555.

⁵ Hornik RC. Exposure: theory and evidence about all the ways it matters. *Soc Mar Q.* 2002;8(3): 31–37. CrossRef. Free full-text available from: http://repository.upenn.edu/cgi/viewcontent.cgi?article=1098&context=asc_papers

⁶ Kincaid DL. Drama, emotion, and cultural convergence. *Commun Theory.* 2002;12(2): 136–152.

⁷ Papa MJ, Singhal A, Law S, Pant S, Sood S, Rogers EM, et al. Entertainment-education and social change: an analysis of parasocial interaction, social learning, collective efficacy, and paradoxical communication. *J Commun.* 2000;50(4): 31–55.

⁸ Kincaid DL. From innovation to social norm: bounded normative influence. *J Health Commun.* 2004;9 Suppl 1:37–57.

⁹ Scott B, Curtis V, Rabie T, Garbrah-Aidoo N. Health in our hands, but not in our heads: understanding hygiene motivation in Ghana. *Health Policy Plan.* 2007;22(4): 225–233.