

23 Assessment of hygiene communication plan in the aftermath of the 2005 earthquake in Pakistan

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Abstract

The devastating earthquake on 8 October 2005 caused the immediate death of more than 70,000 people with injury and displacement to millions more. UNICEF played a major role to ensure provision of safe water and sanitation, within which a comprehensive communication plan was formulated and implemented. The plan aimed to create awareness and motivation on water and sanitation related diseases and their prevention. Multiple channels were used to convey specific messages, adapted as much as possible to a response phase. The assessment considered the effectiveness of the various initiatives and made recommendations on activities to be continued in future; activities not to be pursued further for lacking effectiveness; and those activities to be continued with some adjustments, based on the lessons learnt for future emergencies.

Background

The devastating earthquake of 8 October 2005 caused the immediate death of more than 70,000 people, injured some 80,000 more and severely affected the lives of more than three million. Many people became homeless and displaced, essential infrastructure such as roads and water schemes got damaged, and public (health) services were disrupted.

The local, national and international community each responded to the earthquake within their capacity and with distinguished constraints and opportunities. Once the scale and impact were known in the rest of the country, donations were generous and various professionals from elsewhere in Pakistan moved to the area to assist – often on a voluntary basis. A mountainous area of nearly 30,000 square km, with vast and various needs among the many affected men, women and children, was rapidly becoming largely inaccessible as winter approached.

UNICEF assisted (and financially supported) implementing partners in a number of emergency

relief and rehabilitation projects to provide safe water and sanitation in the affected areas. In conjunction and collaboration with relevant Government of Pakistan line-ministries and other sector clusters, a comprehensive communication plan was formulated and implemented, aiming to create awareness and motivation on water and sanitation related diseases and prevention. Multiple channels were used to convey specific messages, adapted as much as possible to a response phase.

UNICEF commissioned this assessment to assess the hygiene promotion activities and products it supported in the aftermath of the earthquake. The assessment was intended to provide an impression of the effectiveness and possible success of the various hygiene related activities and products, subsequently assuming a potential for impact. Additionally, the assessment method and results were considered a sector-wide learning opportunity through documenting of the specific response – particularly emphasising the hygiene promotion products and communication channels used. The assessment was conducted between December 2006 and March 2007; as the response activities being assessed took place between the date when the earthquake struck and March 2006, this assessment was carried out about one year later.

The multi-disciplinary team assessment comprised IRC International Water and Sanitation Centre¹, an INGO based in Delft, Netherlands, and staff² at North West Development Associates (NWDA), a Pakistan based development assistance consulting firm.

The paper explains the assessment objectives, framework and constraints, followed by pre- and post earthquake scenarios to help understand UNICEF's programme response. The paper then

presents key findings for products, services and channels used for hygiene promotion, followed by conclusions and recommendations.

Assessment methodology

Assessment objectives

To evaluate on the ground all approaches for hygiene promotion supported by UNICEF:

- focusing in particular on the programme communication and participatory hygiene promotion and transformation activities
- identifying on the basis of evidence gathered, which activities are working and consequently should continue or be strengthened
- which activities are not working and should consequently be discontinued, and
- to make evidence-based recommendations as to how the various aspects of hygiene promotion can be better integrated into an effective approach to change key hygiene behaviours.

A final objective of the assessment was to contribute learning and knowledge sharing to the emergency water supply and sanitation sector. This would include: participatory methods for assessing effective hygiene promotion and communication activities in post-emergency settings, which focus on greater planning and investments efficiency, through the development and implementation of more appropriate, relevant, coherent, achievable and effective efforts from the outset.

Scope of the assessment

The assessment report was based on the qualitative and quantitative data collection and assessment methods described in this section. It had the following boundaries:

¹ <http://www.irc.nl>

² <http://www.nwda.org.pk>

- The hygiene promotion activities and products assessed were those listed in UNICEF's Earthquake Relief & Rehabilitation Communication Plan.
- The assessment period ran from the earthquake on 8 October 2005 until 31 March 2006, when the majority of the Internally Displaced Persons (IDP) camps formally closed. Therefore, only those hygiene promotion activities developed and/or implemented before the IDP camps emptied could be assessed.
- The area assessed covered four main affected districts: Bagh and Muzaffarabad, Azad Jammu Kashmir Province (AJK), and Battagram and Mansehra, North Western Frontier Province (NWFP).
- It was not within the remit of the assessment to evaluate the overall emergency response programme or to provide judgements on its quality.
- A lack of baseline data on health indicators and incidence of disease, combined with the dispersion of IDP camp residents to their villages of origin after 31 March 2006. It was beyond the scope of the assessment budget and timeframe to assess the direct health impact resulting from UNICEF's hygiene promotion and communication programme.

Limitations of the assessment

The following limitations will have influenced the validity of the assessment results:

- The sample size for the ground survey was influenced by time and budget constraints
- The timing of the assessment – almost one year after closure of the IDP camps – made it a challenge to trace key informants and IDPs.

Staff turnover in emergencies proved to be almost total, leaving the ground survey reliant on the memory of IDPs at times of high stress following disaster.

- The existence of different phases in emergency response is acknowledged, however, it remains difficult to construct a 'scene' some ten months after an emergency intervention and to interpret effectiveness of certain approaches. What may now seem illogical may well have been the best choice considering the circumstances in the immediate aftermath of the earthquake.
- A number of key programme documents providing specific dates and figures were not available to the assessment team.

While recognising the impact of these limitations on the validity of the findings, stakeholder meetings with UNICEF staff and partners involved in implementing the communication plan, as well as representatives of local government and end-users, resulted in the validation of the overall findings; while providing some contradictions and dissenting views. Based on these meetings, the assessment team believed that the risk to the findings' validity was low to moderate.

Assessment methodology

The ground survey sample size was primarily dictated by the available time and budget for the assessment and was not statistically significant. However, the use of non-probability sampling methods, such as availability and purposive samples in the affected areas, do allow for conclusions and recommendations. These are based on cross checking (triangulation) of findings and different stakeholders' views, and perceptions gathered

through various data collection methods and multi-stakeholder meetings, where initial findings were cross checked for validity.

Data collection methods comprised *semi-structured key stakeholder interviews, impromptu small group discussions, structured observations, and focus group discussions*, conducted with end users of the hygiene promotion products and services, and using a selection of ordinal scored scenarios adapted from the Qualitative Participatory Assessment (QPA)³ methodology. Hard copies of printed Information, Education, Communication (IEC) materials, developed under the auspices of the UNICEF programme, were gathered and rated to assess whether end-users were familiar with the IEC products, understood the messages being promoted and could conduct the promoted behaviours. Also, six *assessment questionnaire formats* guided the data collection. Following the orientation visit to three of the four districts, the formats were further adjusted to the local situation. *A review of project documentation* was conducted to obtain a better understanding of the situation during the first months of the emergency response.

Assessment framework

To enable the success of various hygiene promotion activities (ie, messages, products, services and channels) to be assessed, the assessment team developed an appraisal framework to assess each activity for appropriateness, relevance, coherence, achievability and effectiveness. The analysis and reporting is based on this set of criteria. It reflects how the individual communication campaign

components measured up in light of findings from key stakeholder interviews, end-users' views expressed in focus group discussions and findings from the literature reviews: including official project reports and communications.

Finally, though not the main focus of the study, a number of cross-cutting variables were considered for their impact on the communication campaign components and their relative success. These included:

- Financial-administrative issues
- Technical support and expertise
- Coordination
- Logistics
- Monitoring and evaluation

Setting the scene

Pre-earthquake

The population of the hilly and mountainous areas of AJK and NWFP is not homogeneous in regards to origin and language, although they have a certain isolation and remoteness in common. It is a relatively conservative Muslim area, particularly in NWFP, and cultural behaviour and perceptions are deeply rooted. Informal institutions – such as religious leaders, village elders and landowners – are strong and influential. Women are the custodians of life, but advocating gender issues in NWFP (and AJK) is very sensitive.

Before the earthquake, latrine coverage in AJK and NWFP was 25-30% and access to safe drinking water 65-70% (Ahmad et al, 2006; Personal communication Director, LG&RDD). Latrine coverage in rural areas is assumed to be less than the average

³ Ordinal scoring of descriptive categories or scenarios (ie, each score represents a given scenario or situation on the ground) are used for participatory assessment purposes in the Qualitative Participatory Assessment (QPA) and Methodology for Participatory Assessments (MPA) methodologies which IRC and its partners have developed and applied in a range of different settings.

TABLE 1 Elaboration of key appraisal criteria

Appropriateness	<ul style="list-style-type: none"> ● Familiarity with channel, product, service (before the earthquake) ● In line with culture, tradition, religion and language (hence preferred and/or accepted) ● Affordable and/or accessible to user/target group
Relevance	<ul style="list-style-type: none"> ● Needs-based (based on evidence/assessment) ● Specific (tailor-made, targeted to a specific group and/or phase)
Coherence	<ul style="list-style-type: none"> ● In line with programme objectives (ie, with reference to core corporate commitments of UNICEF for emergencies and WASH) ● In conjunction and simultaneously with hardware/software component ● In collaboration/coordination with key stakeholders (ie, line-departments and UN clusters)
Achievable	<ul style="list-style-type: none"> ● Realistic in regards to general programme planning ● Timing ● Logistically achievable ● Expertise/background key staff/IPs (HR quality) ● Human resources (HR quantity) ● Access (to target group)
Effectiveness	<ul style="list-style-type: none"> ● Community feedback on effective use of channels, products and/or services: ● Do people recall channels used for hygiene messages ● Do people recall hygiene messages ● Do people still use products, or have they used them ● Anecdotal: Have people changed hygiene behaviour ● What is the access to services; eg latrines, water supply O&M, health facility

coverage. Simple dry pit latrines are not a widely used latrine option as water is used for ablutions and anal cleansing - a practice that does not go well with pit latrines. Besides, the hilly terrain most often does not allow easy pit digging and hence, latrine (wherever present) are those which not only allow use of water but possibility of a prolonged use such as pour flush, twin-pit leaching latrines etc. latrines. Interestingly, there is no word for sanitation in Urdu; health and cleanliness is the closest approximation.

The local government department had a programme on rural water supply, with only a minor sanitation component. Hygiene education and promotion was not adequately addressed. This was due to lack of adequate capacities regarding manpower and unavailability of channels of mass communication in parts of affected areas, because the mountainous terrain makes communication and access difficult. So, after the earthquake, when people arrived in the IDP camps, their knowledge and/or practices of safe hygiene were quite low – this was particularly the case for those from the more remote and rural areas. Additionally, the challenge of promoting safe hygiene behaviour was further compounded by the loss of capable staff and the relatively low capacity of agencies due to prior isolation, in particular that of AJK province. Interviewed stakeholders said that, as a result, and in the immediate aftermath of the earthquake, neither the agencies nor the beneficiaries were prepared for the promotion of safe hygiene behaviours in a rapid and coherent manner.

Earthquake

In addition to the human casualties, suffering and displacement, the earthquake caused an almost complete collapse of health services and vast

damage to water and sanitation systems in the 4,000-plus villages and small towns that were affected. Outbreak of diseases and even epidemics were anticipated, as highlighted in the initial Earthquake Relief & Rehabilitation Communication Plan⁴, reproduced below:

- Diarrhoea, dysentery and measles – in the early months of camp settlement
- Scabies and neo-natal tetanus – poor hygiene and limited water availability
- Respiratory diseases and TB – common among IDPs
- Malaria – living in the open
- Anaemia and other nutritional deficiencies – limited food supplies
- (Psychological) trauma, hypothermia, flu, gastroenteritis and other infections

Specific disease trends do show some peaks in the months after the earthquake, possibly indicating some (minor) outbreaks (MOH/WHO, 2006): jaundice, scabies, Acute Respiratory Illness (ARI), watery diarrhoea and acute watery diarrhoea. Eventually, it was concluded that no major outbreak or epidemic occurred in the affected area during the year after the earthquake and that disease patterns may have remained within endemic trends.

Different phases can be distinguished after the earthquake's immediate impact. Phase one of The Earthquake Relief & Rehabilitation Communication Plan looked ahead and described three phases, ending on 31 March 2006. When the communication plan was revised for phase two, the benefit of hindsight was used to revise the phasing – now ending on 30 June 2006. Phasing for activities were described in different ways in the time since the earthquake. This report uses phasing based on general characteristics of the emergency response:

1. Impact to emergency – October 2005
2. Emergency to stabilisation – November and December 2005
3. Stabilisation to recovery – January to June 2006
4. Recovery to rehabilitation – July 2006 to June 2008

1) First phase: Impact to emergency (October 2005)

This, as would be expected, was the most chaotic phase, with the onset of a two-week rescue operation. Hereafter, (international) organisations started arriving and the response slowly unfolded. But during this stage, there was confusion, oversight or a lack of information. Access and supply problems were a great constraint, with not enough equipment and material and no electricity. The priority was shelter, food and general survival. No significant specific hygiene promotion activities were carried out in the first month after the earthquake, because “people did not even have a tent”. Generally, people found it very hard to recall and talk about the first month as they were highly traumatised and had spent the time fighting for survival.

Regular country programmes were halted as staff and supplies were diverted to the response activities. A rapid appraisal was carried out in mid-October 2005, looking specifically at communication constraints and opportunities.

2) Second phase: Emergency to stabilisation (November – December 2005)

In this phase, rescue teams were replaced by (international) emergency organisations that rapidly grew in number and diversity. The priority was provision of shelter material and non-food items as the approaching winter was regarded as

⁴ UNICEF developed this plan soon after the earthquake, as required by its obligations under its core corporate commitments to emergencies, to allow for a systematic fuller response at different levels.

the main threat. Coordination mechanisms were established, but it appears that it took until the end of December to establish clarity regarding who was actually doing what. More than 150 IDP camps were established, many of them in a spontaneous manner on unfavourable locations, which were difficult to access and service. The camps ranged from a few tents to 5,000 people. Camp management was generally weak and lacked specific expertise and capacity. This also applied to hygiene promotion, which was started merely as an add on to the provision of water and sanitation hardware, but which, by then were being accelerated. General camp hygiene conditions were poor and a need emerged to promote the proper use of latrines, particularly as they started to be used as washing facilities. Implementation of the communication plan commenced; boy scouts became an important instrument in the hygiene promotion campaign, Ministry of Health (MoH) hygiene education teams carried out a range of activities, FM radio stations were used or even set up, IEC material was distributed, etc. Some hygiene messages were spread well before they were supported and facilitated by the distribution of the required supplies, eg soap, hygiene kits, household filtration means and latrine slabs. Apart from initial batches of soap, those distributions only became significant after mid-December.

3) Third phase: Stabilisation to recovery (January to June 2006)

IDPs became more accustomed to camp life, while more and more villages became less accessible due to the (rather mild) winter. The earthquake response evolved into one of the largest logistical exercises for some of the emergency organisations. In February, it was announced that the IDP camps,

with a total caseload of 84,000 people (Personal communication UNICEF Hub Muzaffarabad), were to be closed by 31 March 2006. In April, many camps emptied while service provision shifted from camps to villages. For many organisations, their six-month emergency funding expired before the time camps needed to close. As a consequence, camp hygiene promotion activities were merely stopped and organisations left or shifted focus. In the camps with a residual caseload, the hygiene situation deteriorated rapidly – to the extent that it triggered an international emergency organisation to commission an internal evaluation of their water and sanitation response.

The first phase of the communication plan ended and a second phase ensued. IEC material was reviewed in January 2006 and a second batch of more locally adapted material was developed, including stickers, leaflets and posters. An ambitious ‘Rahbar’ programme started (see below), involving the boy scouts, and germ glow shows⁵ were introduced in the camps. UNICEF-supported radio shows stopped broadcasting, just when a specific TV programme started. However, by then camps were closing and distributions halted. Therefore, a number of planned activities under phase two of the communication plan did not materialise.

4) Fourth phase: Recovery to rehabilitation (July 2006 – June 2008)

The assessment took place in the phase that emphasises rehabilitation of water supply schemes. Water and sanitation at schools and in communities are a second and third component – in that sequence and with similar (budget) priority. Some camps still exist or were re-established after the flash flooding in August 2006, but the emphasis is

⁵ Basically an ultraviolet lamp reflecting dirt, etc, in paler-coloured hands when seen under the lamp, signifying the fact that hands can still be dirty and carrying germs even if they apparently look clean, and hence the need for regular hand washing

clearly on the villages. Caseload of IDPs in camps was 33,000 in January 2007.

Stakeholders

Figure 1 maps the range of stakeholders involved in the Hygiene Promotion Communication Campaign, adapted from the perspective of the Household Centred Approach to sanitation. If the campaign's aim was understood to be improved hygiene behaviours of women, men and children in IDP camp and village households, the outlying spheres and their relevant actors and processes (including individuals, agencies, and policy/strategy frameworks) can be understood as the enabling environment for realising this aim.

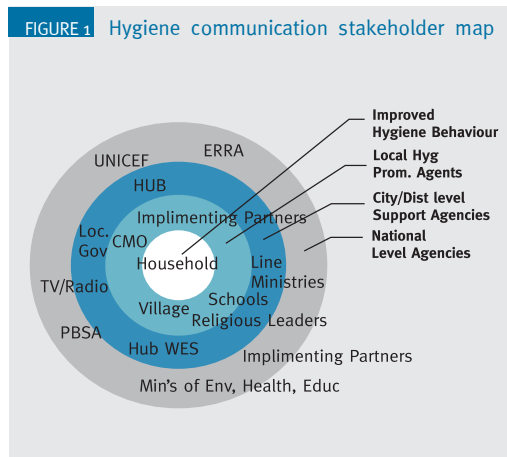
Coordination

UNICEF had a presence in the affected area before the earthquake and hence a good relationship with authorities. After the earthquake, an inter-sectoral

Emergency Relief & Rehabilitation Communication Committee was formed to plan and execute programme communication support, involving key ministries such as health, environment, social welfare and international partners. An Emergency Relief & Rehabilitation Communication Centre was set up in the Health Education Cell at the Ministry of Health.

As part of UNICEF's global mandate⁶ to lead the water and sanitation sector cluster of agencies working in emergencies, it established a water and sanitation cluster in both NWFP and AJK. Hygiene was part of the health cluster, shared by the World Health Organisation (WHO). Water and sanitation cluster meetings were often filled with quantitative updates or technical discussions: dedicated time for hygiene promotion was scarce. Eventually, hygiene sub-clusters were established. In Muzaffarabad they turned out to be beneficial, but in Mansehra they proved to be a dead end. Hygiene sub-cluster meetings in Battagram only started in May 2006. The UNICEF emergency response team had separate funding and staffing to the country programme. All UNICEF hubs fell under the emergency team, while the provincial offices remained responsible for the country programme. The emergency programme will be shifted to the UNICEF country programme in 2008.

FIGURE 1 Hygiene communication stakeholder map



Findings

Messages

The Earthquake Relief & Rehabilitation Communication Plan, drafted in October 2005, shaped the strategy for communication and promotion of hygiene messages in the immediate

⁶ In 2006, as part of UN reforms the Inter Agency Standing Committee IASC designated UNICEF to lead the inter agency cluster working group on water and sanitation in emergencies. The cluster working group includes among others WHO, Oxfam, IFRCs, The International Committee of The Red Cross, The IRC, and WFP.

aftermath of the earthquake. The messages disseminated in phase one were based on earlier emergency response efforts and needs, as well as results of a rapid three-day assessment in mid-October. Key messages disseminated were:

- Public defecation promotes the spreading of diseases such as diarrhoea, jaundice and cholera.
- Every household should construct a low-cost latrine for prevention of diseases and to save family members the inconvenience of defecating in the open.
- Hand washing could save many lives.
- If you don't wash your hands after using the toilet, they become a superhighway for transmitting microbes from one person to another. Make habit of washing your hands every time.
- Faeces contain billions of virus and bacteria. They are the number one public enemy in spreading diseases. Persuade everyone to defecate only in latrines. If latrines are not available, the faeces should be covered with earth.
- Diarrhoea can be prevented through use of safe water, toilets and regular washing of hands with soap and water, especially after toilet use and before touching food and feeding children (UNICEF, 2005).

Notable omissions from the above are personal hygiene behaviours such as face washing, which also contributes to lower incidence of ARI and spread of infectious eye diseases.

Products

UNICEF distributed a range of personal and household hygiene products to support improved

hygiene behaviours, doing so through implementing partners, including Local Government & Rural Development Department (LG&RDD). Soap bar distribution, from existing stocks in UNICEF Pakistan warehouses began in affected areas during the second week of November. In the second week of December 2005, hygiene kits and latrine slabs were first received and distributed by the UNICEF Hub Offices. In mid-December, radios and water purification units began to be distributed in bulk in the four districts.

Distribution of soap for personal and clothes washing was conducted in support of the hygiene messages being promoted and in response to peoples' needs for basic hygiene products. The Pakistan Boy Scouts Association, with UNICEF, distributed 100,000 bars of soap (provided by Unilever) and another 1.5 million bars (purchased by UNICEF) among IDP camps and villages. To further stimulate attention and awareness, soap was used as prizes in waste collection campaigns (PBSA, 2006).

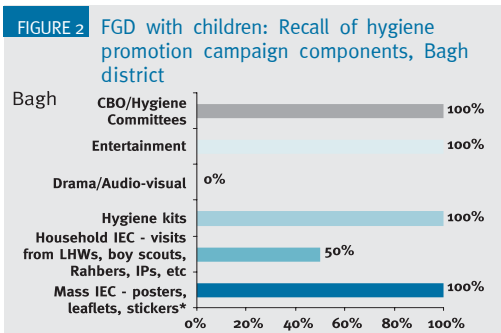
Soap bar distribution was a highly appropriate and relevant component of the Hygiene Promotion Communication Campaign. People were familiar with use of soap – even those unable to afford soap were generally familiar with its uses. The availability of soap three weeks after the earthquake meant that the promoted behaviours could actually be carried out by end-users. Key informant interviews in shops near IDP camps revealed that demand was felt to have increased by up to 50% in the past year.

UNICEF-supplied **hygiene kits** included washing and bathing soaps, toothbrushes, toothpaste, a nail cutter, women's sanitary cloths, towels, combs,

small water container and mug. The distribution of these kits is an example of a highly relevant product. Issues around appropriateness of some kit contents were, however, raised during key stakeholder interviews. Key ‘appropriateness’ problems were:

- Inclusion of ‘western’-design feminine hygiene products (eg, sanitary cloths and underpants) not commonly or traditionally used by these women
- Distribution of the hygiene kits by male team members preventing women from being able to collect the kits; and
- Lengthy three-month lead times from order to delivery of hygiene kits to the Hub Offices resulted in distribution delays to end-users.

While this component of the communication campaign was relevant in terms of fulfilling the



basic personal hygiene and public health needed for improved sanitation to control open defecation in the IDP camps, the promoted latrine technology, simple pit latrines, were neither familiar nor in demand by end-users across the board. Other qualitative and quantitative information provides evidence that the following problems were also

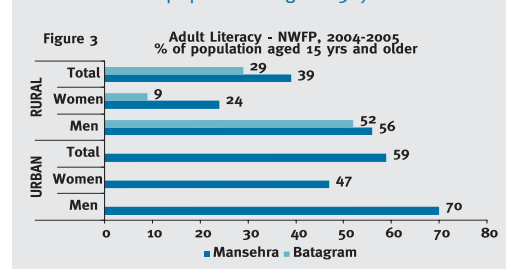
associated with latrines, their construction, use and maintenance in general:

- Poor quality superstructures that could not withstand extreme weather conditions across seasons
- Lack of sense of ownership of latrines (especially for maintenance and cleaning)
- Delays in delivery of latrine slabs
- Preference among users is for pour flush latrines
- Use of water for cleansing led to latrines filling too quickly and no specific education on proper use of pit latrines in the community; and
- Insufficient development of capacity among end-users for future latrine relocating and new construction.

Despite these shortcomings, achievements were also noted such as IDPs taking latrine slabs with them, and continued latrine use, on return to their villages.

The first UNICEF-supplied **radio sets** were distributed by mid-December 2005. The purpose of distributing radios was to disseminate health education and hygiene messages (including hygiene promotion) and information on available services. In affected districts, with relatively low literacy

FIGURE 3 Adult literacy-NWFP, 2004-2005 % of population aged 15 yrs and above



rates, particularly among women and in rural areas, radio was popular before the earthquake: rendering radio transmissions and programmes an appropriate medium of communication (see Figure 3 for NWFP – rates are generally higher for AJK) (GoP, 2006).

Results indicate that before the earthquake, radio programmes were among the top five traditional sources of hygiene information for women and men. Roughly 81% of households had radios before 8 October 2005 and although more than half were destroyed, a snapshot survey by Internews found listenership increased from 28% two weeks after the earthquake to 70% by February 2006 (Internews Network, 2006). Figure 4 shows a slight variation between women's and men's traditional hygiene information sources.

Limitations to the effectiveness of the radio distribution component of the Communication Campaign included issues around quality of the radios provided by UNICEF and the range of the

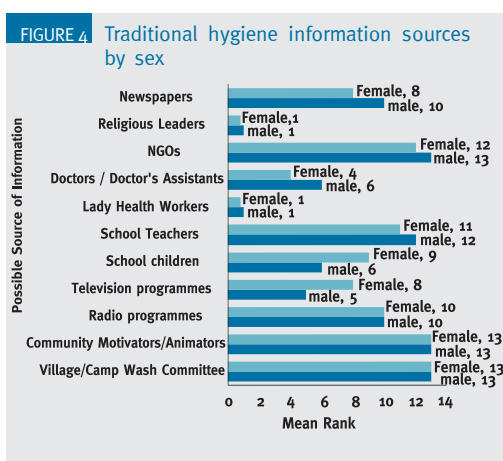
FM frequency in the affected areas. The use of FM radio transmission versus AM is addressed in further detail in the section on channels, below.

The quality of the radios distributed by UNICEF was poor. UNICEF-distributed radios were, in some instances, even returned to UNICEF due to non functioning (Intra-office Communication, Mansehra Hub Warehouse, Abbotabad, January 2007). Where functional, the battery operated radio sets proved to have a lifespan of around three weeks and no batteries were provided. In contrast, household observations found durable quality radio sets distributed by UNHCR still present, functioning and included other useful implements such as compass and flashlight.

Household Water purification and storage

Products to support the treatment and purification of water for drinking included **Nerox emergency water filters**, **Utility Bags for water storage**, **water purification tablets** and **PUR sachets**. In the context of UNICEF's response to the emergency, over 50,000 Nerox filters were donated by Norway, about 27,000 families received the filters while seven million water purification tablets and six million PUR sachets were distributed among the affected population through CBOs, NGOs and LG&RDD (Ahmad et al, 2006). In general terms, means for household water purification are highly appropriate products for distribution, and in the quantities realised by UNICEF and its partners, in response to a major disaster.

Of equal importance is the accompanying hygiene promotion and awareness raising; an integral part of this awareness raising relates to safe handling and storage of water. Communication campaign



components that sought to address this aspect of hygiene practices took place in the form of trainings for camp or village WatSan committees, demonstrations by boy scouts, IPs, etc. These are commented on separately below.

Despite these efforts, household surveys at the time of this study found that safe water handling and storage practices differed greatly across districts, as evidenced by Figures 5 and 6 below. While not a reflection on the success of the UNICEF-supported awareness raising and skills building activities alone, these results provide a snapshot of households' current safe water handling and storage practices. People affected by the earthquake didn't adopt or sustain all behaviours they may have been exposed to in the post earthquake setting. Of particular concern are the relatively low rates of visible hand soap near food preparation areas.

Finally, a key area identified for improvement is the English language printed on the Nerox filter kits in an area where, as seen above, literacy rates are not high and English is neither the mother tongue, nor the local lingua franca of the majority of the population.

FIGURE 5 Water/hygiene in household/tent, Mansehra district

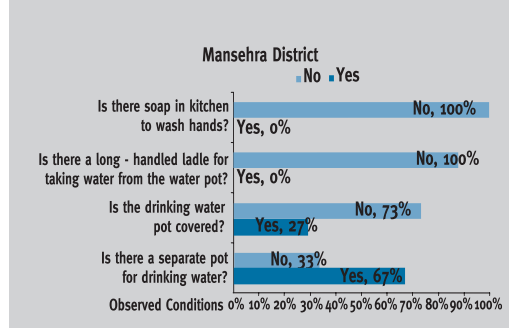
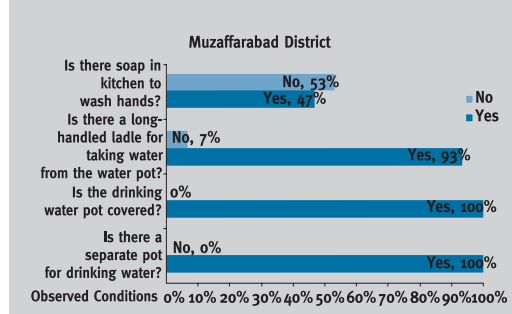


FIGURE 6 Water hygiene in household / tent, Muzaffarabad district



Activities/Services

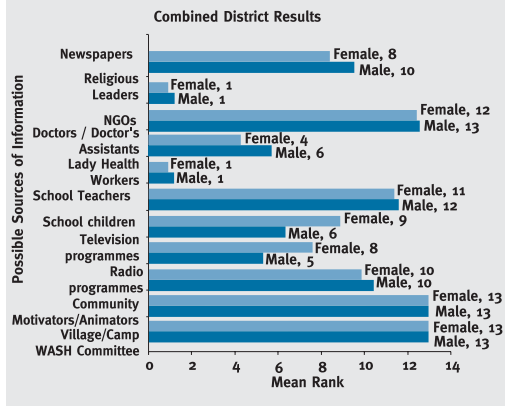
Pakistan Boy Scouts Association

Within a week of 8 October 2005, the Pakistan Boy Scouts Association (PBSA), drawing on their existing programme resources, initiated an emergency response campaign, dispatching boy scouts from across the nation to the affected areas, to assist in the rescue efforts and with crowd control efforts.

PBSA had a known presence in much of the affected area before the earthquake and in particular in areas closer to urban settlements. Key stakeholder interviews have indicated that the boy scouts provided invaluable assistance with their rescue efforts.

This exposure to, and familiarity with, PBSA meant that the scouts had access to households in more conservative areas where traditional culture and faith-based practices do not permit women to leave the home or interact with men outside the family. As a means for conveying hygiene promotion messages, PBSA proved to be an appropriate and effective channel. In support of this statement, assessment results from all four districts in Figure 7 indicate that among the most important traditional sources of hygiene information are community

FIGURE 7 Traditional sources of information about hygiene, combined district results



motivators and school children – a neat combination of the defining characteristics of boy scouts.

Particularly effective were the tent-to-tent visits by boy scouts to disseminate hygiene promotion materials. The post earthquake collaboration with UNICEF - building on past cooperation on other programmes in the country – sought to benefit from PBSA's profile, which was achieved by playing an active role in the rescue phase and their ability to access all community members.

Additionally, the wall-chalking component of the campaign and tent-to-tent dissemination of hygiene messages were particularly memorable to focus group discussion participants in this study.

Identified weaknesses in the activities and services connected with the collaboration between UNICEF and PBSA relate mainly to cross cutting issues such as logistics, coordination and programme coherence.

Each district had four scout patrols each consisting of eight scouts (between 16-18 years old). In total

1,197 scouts were deployed during three months, excluding field coordinators.

Each base camp was equipped with one minibus for transporting scouts to villages and camps to conduct hygiene promotion activities. This was a limiting factor in the amount of time a scout patrol could spend in each location, hence the observation of one key stakeholder that "...wall paintings and putting up banners were 15 minute activities, then [the boy scouts] were gone again. This was not seen as a very practical help..." (Project Manager, Implementing Partner Organisation, Muzaffarabad, January 2007).

Other mitigating factors in the effectiveness of PBSA activities concerned logistics and timelines of payment disbursements as per signed agreements. This included late or non-delivery of agreed supplies, eg IEC materials for Rahbers (see below) to distribute, visibility clothing and gear, and programme management tools such as computers and printers.

Lady Health Workers

One recommendation of the mid-October 2005 rapid assessment was to reach out to households and communities with health and hygiene messages through Lady Health Workers (LHW). Their tasks included mobilising health committees and arranging community gatherings. Interpersonal communication between LHWs and those affected was intended to raise awareness of health and hygiene, as well as provide information to households.

Though the LHW concept is coherent with the programme approach in its emphasis on interpersonal communication, and appropriate given the programme's established presence (70,000 registered LHWs in Pakistan), relatively

little information could be gathered on the effectiveness of the LHW programme. This may reflect in the finding that in terms of traditional sources of information about hygiene LHWs did not rank high in any of the four districts.

Rahber Programme

The Rahber Programme was a partnership between the Ministry of Environment, Ministry of Health, UNICEF, WHO, National Volunteer Movement (NVM), Pakistan Boy Scouts Association, National Rural Support Programme, National Commission for Human Development, Muslim Aid, Al-Rahman Trust and Pakistan Girl Guides Association. In Urdu, 'rahber' means 'one who shows the 'path', or 'guide'.

With support from UNICEF, NVM provided overall support and facilitation, while the boy scouts were responsible for overall coordination and implementation in allocated areas. Other partners implemented the programme in other allocated areas.

The MoU was signed on 20 January, 2006 and under the six-month programme, teams of three *Rahbers*, aged 12 and older, were assigned 10-15 family tents in both organised and spontaneous camps, which they would visit daily to carry out interpersonal communication for hygiene, sanitation, safe water, better health and children's protection issues. Rahbers were also to organise camp cleanliness drives. Orientation programmes were to be provided along with visibility and information materials to support their efforts.

Orientation meetings held with UNICEF in Islamabad, and the orientation sessions with camp and tent Rahbers, were effective in establishing a common understanding and core competencies for the planned activities. Additional training for camp

and tent Rahbers, along with distribution of Rahber field manuals were planned.

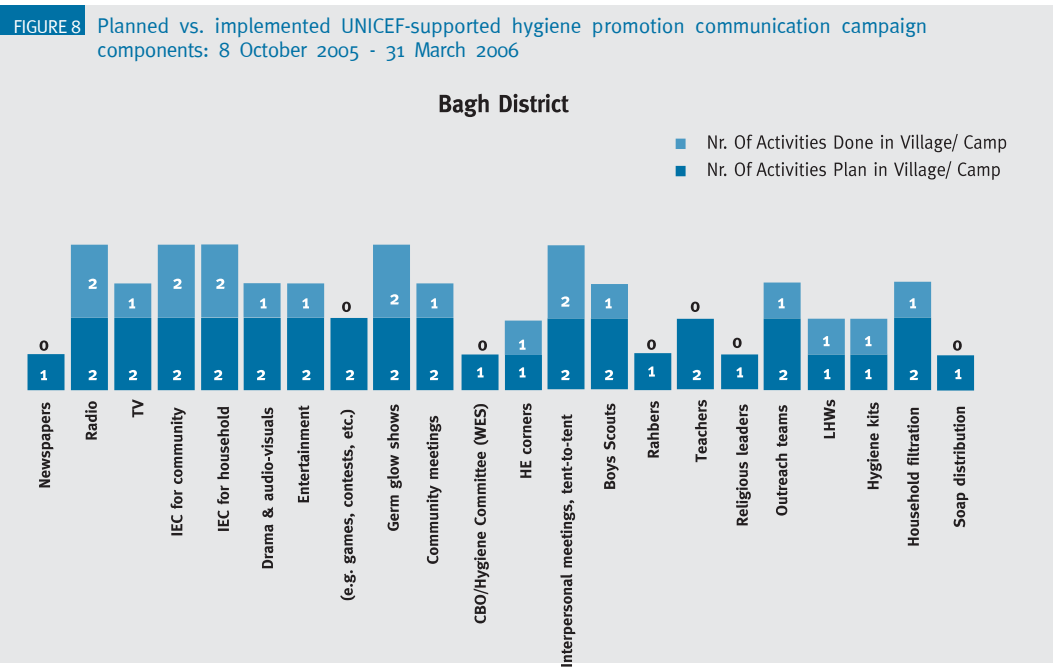
Despite these effective preparatory and coordination efforts, similar to the PBSA programme, the Rahber programme faced limitations in terms of delays in payments, late delivery of visibility clothing, protective gear and IEC materials (arrived at the end of the project) hampering Rahbers ability to gain access to households due to lack of identification as official community mobilizers. Key stakeholder interviews with Camp Management Organisation representatives also indicate that the Rahber programme was not consistently implemented in the four districts surveyed. Figure 9 below illustrates the Rahber programme was non-existent in Bagh district with similar results for Muzaffarabad.

Finally, though conceived with a timeframe for implementation up until June 2006, the programme suffered when camps officially closed on the 31 March 2006 and trained Rahbers were dispersed or returned to their places of origin.

Health Education Corners (HEC)

Health Education Corners (HEC) were established in relief health facilities and major relief camps in each of the affected districts (MOH/UNICEF, 2005). Similar to the Lady Health Worker programme, relatively little evidence on the relevance or effectiveness of the health corners could be traced, apart from the fact that the planned HEC were implemented in the four districts surveyed.

The potential of HEC was high given the evidence presented previously about people's preference for interpersonal communication channels. Efforts to carry out the activity over a longer period with



corresponding monitoring of effectiveness and outreach would have benefited the programme as an appropriate and coherent activity that had strong links among sectors (Health and WES). However, commenting on the effectiveness of the activity is not possible, given the low recall among end-users about HECs and the relative dearth of information to trace them ten-months after the closure of IDP camps.

Information, Education and Communication Materials

UNICEF-supported Information, Education and Communication (IEC) materials were developed, produced and disseminated as part of the various programme components such as the PBSA, Rahber

TABLE 2 Overview of mass and household level IEC materials

Mass	<ul style="list-style-type: none"> ● Health and hygiene message posters and stickers ● MEENA Poster series on hygiene ● Let Life Smile Again' slogans and banners ● Mosque hangings ● Wall chalkings
Household	<ul style="list-style-type: none"> ● Let Life Smile Again' poster stickers and leaflets ● Prayer cards with Quran quotes on personal hygiene behaviours these quotes were specifically designed for mosques, they were not part of HH material ● MEENA Special Protection Package

and other activities. Household level, as well as mass communication, IEC materials were developed and include:

The IEC materials were developed to disseminate a wide range of relevant messages. The materials were appropriate for most, though not all, districts as they were printed in Urdu. Although, phase one materials – largely text-based – were less relevant and effective in areas with high illiteracy levels.

A second round of printed materials was based on images and messages adapted for the IDP camp setting. However, these were less relevant in Battagram where socio-cultural patterns and practices differ from the other districts. Depiction of local customs, language and images from Battagram would have made the IEC materials more acceptable and relevant in that setting (Personal communication, UNICEF Project staff, Battagram, January 2007).

Despite the appropriate and coherent idea behind adaptation of the images and messages to the IDP camp setting, the decision to close IDP camps by 31 March 2005 was taken while the second batch of IEC materials were being produced. Though attention had shifted to the repatriation process, Hub Office staff reported arrival of batch two materials occurred without advanced notice. This, coupled with low levels of demand from Implementing Partners (IPs) for the materials, limited their potential effectiveness. This disconnect between national and hub levels of programme activity impacted on the effectiveness of the potentially worthwhile IEC activities.

Camp hygiene committees and cleaning campaigns

NGOs and IPs active in the IDP camps promoted the establishment of camp committees, which were

formed as a means of coordinating and mobilising community members around general issues, and hygiene promotion information in particular. These efforts were met with varying success across location and different end users.

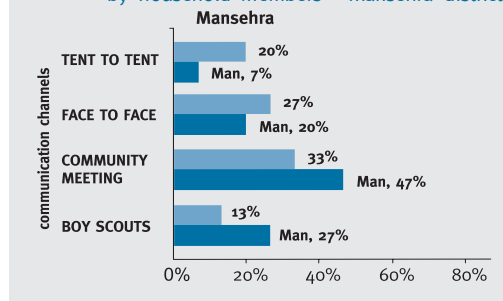
Channels

Interpersonal communication

Results from the FGD with women and men regarding recall of interpersonal communication channels indicated in most cases that these channels – including tent-to-tent, face-to-face, community meetings, and specific programmes such as the boy scouts – varied across the districts and by gender. Community meetings were well remembered by men in particular while women's recall of tent-to-tent/face-to-face visits was stronger.

Where hygiene products were distributed through interpersonal channels, it was found that dissemination of corresponding information was practical as the messages about clothes- and hand-washing, water purification, oral rehydration, treatment, etc were matched with the required hardware to conduct the promoted behaviour.

FIGURE 9 Hygiene communication channels recalled by household members - Mansehra district



Implementing partners

IPs provided hardware for drinking water supply and latrine construction along with hygiene kits, jerry cans, aqua tabs, buckets and other supplies to support the hygienic behaviours being promoted.

Capacity development efforts of IPs resulted in the formation of CBOs & Hygiene sub-committees, as well as training for the members on hygiene promotion communication. Support was also provided for community level demonstrations on use of Nerox filters, hand washing, etc.

Key stakeholder interviews, with more than 15 IP representatives across all four districts, also highlighted a number of cross-cutting areas for improvement such as coordination, capacity development and logistics. In particular, not all IP staff received orientation on use of materials - either from UNICEF or from their own organisation. Another example related to coordination is that strategies for implementation varied across IPs. This lack of uniformity in selecting IPs and their proposed strategies may have stemmed from a general dearth of qualified staff and agencies in affected areas. Finally, even where monitoring was an agreed IP activity, it was not conducted regularly or in a timely manner so that necessary adjustments to programming, based on monitoring findings, could be implemented.

Religious leaders

Traditionally religious leaders were not a leading source of information about hygiene for men and women. However, the concept of involvement of religious leaders in promotion of hygiene/health messages existed before the earthquake and a curriculum – based on those messages that correspond to the Quran – had been developed.

Though this channel started only at the end of March 2006, and was not universally mobilized across the four districts, religious leaders did play a positive role in hygiene promotion in Mansehra and Battagram districts. Hub Office staff in those areas expressed that they now regard them as trained resource for future emergencies. As with the collaboration with IPs, monitoring of the effectiveness and impact of the capacity building was weak.

Entertainment

Entertainment events were largely reported as appropriate and effective means of communicating hygiene promotion messages. Planned entertainment events including Germ Glow shows, drama, and films were held in each district and considered welcome diversions to the circumstances for audiences. Additionally, messages packaged in entertainment channels were well received. Thus, in terms of appropriateness, relevance and coherence, entertainment activities performed well.

However, in terms of effectiveness, issues surrounding sufficient numbers of Germ Glow machines (1 per district), the fragile and easily damaged components of the Germ Glow machines and inability to quickly or easily go to scale with entertainment programmes such as drama, film, etc, did crop up. This said, children's recall of entertainment events across the districts is quite high.

Newspapers

Advertisements disseminating key messages about gastroenteritis, malaria, tuberculosis, immunisation, nutrition, maternal health and disaster related stress, water, environment, sanitation and child protection first appeared in newspapers on 3 November 2005. In the 14-day campaign, seven different ads appeared twice in seven newspapers.

Though the timeliness of these messages was appropriate, appropriateness and relevance of this channel, expressed in terms of newspaper readership in affected areas, are low; with only 21% of people (not disaggregated by gender or age) – surveyed by Internews – reported as relying on newspapers as a main source of information by the end of October 2005 (Internews, 2006).

Key informant interviews with shopkeepers during the field study indicated that supply of newspapers – even local newspapers are mostly printed in Rawalpindi and Islamabad – was problematic for between six and eight weeks after the earthquake.

Additionally, as a traditional channel for hygiene messages, newspapers did not feature among the top five sources in the districts surveyed. However, information gathered from newspapers by those who do read them is shared through mouth-to-mouth channels during daily gatherings of male and female social groups. Despite this secondary channel, end-users expressed that advertisements are usually skipped over during reading.

Radio

Radio was popular, especially in rural areas, before the earthquake – although FM coverage was not available in the rural areas of NWFP and in AJK because FM broadcasting licenses were not easily obtained. In response to the disaster, and in light of the relative popularity of radio, ten temporary non-commercial licenses were issued.

Broadcasting was supported through the wide distribution of radios by many organisations in the affected areas, making it possible for people to access the newly established stations. As noted in the findings on distribution of radio sets, listener

coverage had reached up to 70% in IDP camps and villages by February 2006.

Stations that collaborated with UNICEF to provide hygiene promotion information included: FM 100; FM 105; University of Punjab FM 104 and Sachal, though the latter was not recalled by assessment respondents. In Abbotabad, Radio Buraq had a contract for 36 programmes to broadcast. Broadcasting from these stations started between 10 December 2005 and 1 January 2006.

Radio, as a communication channel, can therefore be said to be an appropriate and relevant choice in the emergency response. Constraining factors to the effectiveness and coherence of the use of the channel included: the limited reach of the FM frequency in remote areas, unforthcoming support in terms of expertise from UNICEF in programme content development, delays in payments for services, and the fact that programming was conducted primarily in Urdu, rather than in the various languages represented in the diverse targeted areas.

Finally, considering the popularity of radios as a channel of information and entertainment, the relatively short duration of programming (dissemination of hygiene promotion messages via various stations took place between 10 of December 2005 and the third week of March 2006) was an opportunity missed. Messages about hygiene behaviours in this setting – ie their villages of origin – could have served to reinforce those disseminated while the displaced persons were still living in the IDP camps.

TV

Traditionally speaking, TV was not a major source of hygiene information before the earthquake.

Though about 52% of the population in the affected area had televisions, they were virtually all destroyed by the earthquake (Internews, 2006). As a channel for hygiene promotion communication, TV was not among the most appropriate or relevant options in the immediate aftermath.

The TV-based initiative of MoH, UNICEF and Atv - an Islamabad-based 'free to air' television network - to develop and transmit 30 weekly programmes on relevant health and hygiene topics commenced on 1 April 2006. The activity was also intended to facilitate the IDP repatriation process. Programmes, featuring prominent celebrities and public figures conducting entertainment events about health and hygiene issues with affected people, were taped live in different camps. Viewer call-ins to the programme were possible and popular with calls and letters from around the country.

Finally, key stakeholder interviews indicated that the effectiveness, relevance and coherence of use of this channel were compromised due to the following factors:

- lack of baseline information gathering about the target audience (including information on the availability of TVs in the affected areas)
- lack of impact monitoring for making improvements and adjustments to programming
- lack of agreed support from UNICEF in identifying hygiene experts as per the cooperation agreement
- delays in reaching cooperation agreements and processing of payments
- non-provision of agreed equipment for mobile TV recording units
- lack of programming in a variety of local languages, not only Urdu.

Pakistan Earthquake Relief & Rehabilitation Communication website

The campaign website – www.pakquakecommunication.org/site/ – became active on 5 December 2005 (and was still available when this paper was being produced). Stemming from UNICEF's mandate to lead the WES Cluster, the site provides information and knowledge management services primarily for the collaborating agencies involved in the emergency response, relief and rehabilitation efforts.

As a proxy indicator for the effectiveness of the website, the number of site visitors – a total of 2,070 by February 2007 – is low given the overall number of everyone involved. What was not possible to trace during the assessment period was the spread of hits over time (eg were site visits concentrated in the first months after the earthquake), specific pages that received most hits, and who, and from which agencies, were the most/least frequent site visitors?

Conclusions and recommendations

Based on the findings detailed above, a number of main conclusions and recommendations can be drawn with specific attention to UNICEF's Hygiene Promotion Communication Campaign.

Generally speaking, it can be concluded that while messages were pertinent and diverse, and significant efforts were made to equip end-users with the required information and products to practice safe hygiene behaviours, the strategy and response developed suffered from a lack of a clear communication link between the WES Cluster activities at national and hub levels. This disconnect between actors at different levels resulted in delays in activities, delays in development and distribution

of products, different approaches being developed locally without material or concept support and reduced effectiveness of overall programme objectives.

Messages

The hygiene promotion messages selected were based on previous experience with response to humanitarian crises and outcomes of the rapid assessment conducted from 15 – 17 October 2005 that intended to appraise the availability, reach and access of media and potential communication channels.

While highly relevant messages about safe water, sanitation and personal hygiene behaviours, and practices were among those disseminated; messages such as those regarding malaria and handling of snake bites – of less relevance in a mountainous region with winter approaching – were included as standard elements of the communication campaign in the first phase of the emergency.

Messages about the importance of face washing to reduce incidence of ARI and eye infections (particular among children) were missing amongst those detailed in phase one of the Earthquake Relief & Rehabilitation Communication Plan.

Recommendations

- Conduct **rapid pre-testing of messages** for dissemination with various stakeholders from the affected area to ensure appropriateness. This includes cross-checking with local languages (eg no word for ‘sanitation’ in Urdu, ‘health and cleanliness is closest approximation’), relevance to diverse populations and community members, and potential effectiveness of messages.

- Focus on a **limited number of practical, simple, ‘do-able’ messages** that are context specific in the impact and emergency phases to ensure relevance. As more means/services will be in place in later phases, conducting promoted behaviours will become more realistic.
- Consult WHO/national data on **seasonal disease patterns** for the affected area, as part of a rapid assessment and during implementation. In an area where the Health Information System is not functioning optimally, or where a large part of it has been disrupted due to the earthquake, a substitute system needs to be used.

Products

The products distributed were generally found to be appropriate and relevant in the given context. However, constraining factors in achieving optimal results were poor product quality and delays in product delivery. Additionally, information and skills sharing between IPs and end-users on appropriate product use was inconsistent.

Recommendations

- Make **instructions for use of products** quickly available in all relevant local languages. Also take into consideration that a large part of the population is illiterate, so also provide visuals.
- Set and adhere to **minimum quality standards of different products** that are locally purchased and commonly required in emergency response.

Hygiene promotion activities and services

The emphasis given to activities based on interpersonal contact to disseminate hygiene

products and promote safe hygiene behaviours, was regarded a great strength and one of the successes of the Hygiene promotion communication campaign. The various activities of the boy scouts, Rahbers and religious leaders were not only relevant in terms of their familiarity as traditional sources of information, but also in line with a preference for face-to-face interaction as a motivating factor in adopting new behaviours. On the other hand, a key factor in success is the ‘repetition rate’ of delivering the same message, through different channels.

Cross cutting issues that impacted on the efficiency of the activities/services include:

- insufficient coordination between hub and national level actors regarding the campaign strategy and components
- minimal involvement of IPs in WES Cluster Hub Coordination meetings and
- delays in processing time of project cooperation agreements and payments.

The above led to delays in implementation and may indicate disconnect between local and national programme operations, hampering realisation of the campaign’s potential for greater effectiveness. Even at the local level, a lack of coordination between other ongoing local activities and the activities of PBSA meant that promising initiatives such as the Rahber programme were not as successful as they could have been.

Recommendations

- **Baseline information gathering** to identify needs and existing practices of end users, including appropriate personal hygiene products in the given context (by gender, culture, ethnicity, etc). Consider facilitating the **development of a simplified method,**

fundamentally based on PHAST, which can be used by various organisations to determine essential baseline information in the early phases of an emergency response. Emphasise and create **greater programme coherency** in terms of provision of corresponding software (hygiene awareness raising) and hardware (provision of supplies and facilities to conduct hygienic behaviours) *simultaneously*.

- As UN Cluster Head for WES, advocate for **integrated programming**; where hygiene, sanitation and water go together, carried out through a public health lens.
- **Build in, and observe agreed time frames** for monitoring, reporting, evaluation and payment for IPs in project cooperation agreements.
- **Ensure the timely provision of agreed support** in LoU and MoU such as identifying experts, defining programming topics and supplying technical equipment.
- **Revise monitoring protocols and formats** for emergency WES-related activities implemented by IPs. The protocol and formats should include qualitative feedback from IPs (and beneficiaries) about project impacts, effectiveness, etc.

Channels

Among the most relevant, appropriate and effective channels for communicating hygiene messages in the aftermath of the South Asia earthquake were (FM) radio, interpersonal communication and entertainment events. People could access these channels because they were available through distributed products (though radios were of questionable quality), various face-to-face initiatives and through events organised for different groups in camps at various times.

Newspapers and television were less relevant and appropriate in the immediate aftermath of the earthquake, as the affected areas did not have much access to newspapers.

Recommendations

- To reach more and different population groups, radio (and television) programming should be conducted in **other relevant local languages** in addition to Urdu.
- **Involve existing informal institutions** – eg religious leaders, village heads, land owners and teachers – as quickly as possible and in a coherent manner as they potentially serve as important information channels. Strong links with *informal* institutions in communities are needed, also in non-emergency times.
- **Maintain emphasis on interpersonal communication** activities and face-to-face outreach to access difficult to reach groups; eg remote, dispersed, handicapped.
- **Use hygiene products as channels** by clearly displaying hygiene promotion messages on the products distributed. Names and/or logos of agencies are often printed on materials of all types.
- An under-used **channel** is that of **mass distribution** itself. Mass distributions often target all registered households, hence present an opportunity to disseminate a certain message or to conduct a rapid ‘baseline’ assessment.
- **Avoid limiting the radio programming concepts in the MoU with IPs.** Clauses in MoUs prevented promotion of messages in programmes funded by other donors, as though UNICEF wanted to have the exclusive rights to the concept and/or channel. Instead, the concept should be further developed, as many radio channels as possible should be encouraged to buy in.
- **Monitor** the use of audio, visual and digital channels and integrate this into project cooperation agreements.
- Explore the use of **AM radio frequency**, which has greater reach in remote areas, provided that the radios distributed are of reasonable quality to avoid wasting funding on non-functioning supplies, and help avoid frustration among survivors and emergency relief workers.

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