

Communication in a Pandemic: Lessons from the H5N1 and H1N1 Experiences

INTRODUCTION

Between 2005 and 2010, major efforts were undertaken to prepare for and respond to a severe influenza pandemic. Governments, international development organizations, UN agencies, NGOs and the private sector took steps to mitigate the potentially devastating disruption to essential health and social systems. The eventual response to the H1N1 pandemic was colored not only by these preparations but also by the fact that the virus was not as lethal as feared. Worst-case scenarios were not played out. Nevertheless, many lessons are being drawn from the experience of stakeholders—at the global, national and community levels—in order to sustain successes and eventually institutionalize disaster/pandemic preparedness and response capacity.

Preparedness processes and methods used in response to the H1N1 pandemic and the H5N1 (Avian influenza) epidemic have included and expanded upon many of the same elements of more general disaster preparedness. The lessons drawn from an analysis of the experiences from the recent pandemic would therefore contribute to global and national capacity to mitigate the effects of future public health and other disasters. The Towards a Safer World (TASW) initiative is taking stock of what has been achieved through the coordinated multi-sectoral, whole-of-society approach used by pandemic preparedness planning and response during the past five years. TASW will identify which approaches have been judged to be effective, and develop a strategic communication and advocacy initiative to help ensure that the successes will be actively replicated in related disaster preparedness programs.

The following review will cover selected aspects of pandemic communication relevant to the TASW initiative: risk/outbreak communication; social mobilization and behavior change communication; communication coordination and partnerships; planning and preparedness; behavioral research; response and sustainability. The paper was prepared by Dr. Judith Graeff for the TASW Initiative under the USAID PREVENT Project implemented by AED.

EXECUTIVE SUMMARY

There have been several reviews of the global response to avian influenza and the H1N1 pandemic where the role and performance of communication in developing countries were discussed. The main conclusions from these sources and comments from key informants regarding communication form the basis of this report.

In order to have an informed discussion of the role communication played in mitigating the effects of the recent pandemic, two types of communication are discussed: risk or outbreak communication and social mobilization/behavior change communication. This division might seem overly simplistic because there is (and should be) overlap between the two, yet there are key differences in their objectives, methods, and what problems they are suited to address.

Risk communication is the process by which national and local government authorities transmit correct information to the public in an understandable, timely, transparent and coordinated fashion. The objectives are to instill and maintain the public's trust in the global and national public health systems

and to convey realistic expectations in their ability to respond to and manage transmission of a pandemic virus.

In the context of pandemic related communication, behavior change communication (BCC) contributes the methodology to convert health advice into behavioral messages, to adapt messages and materials to the local context, to use a variety of channels to engage key segments of the population in necessary dialogue. Social mobilization is an at-scale interpersonal communication effort that uses the networks of NGOs and civil society groups to reach community members with messages delivered by credible people they know and trust.

Global technical guidance in risk communication, social mobilization and BCC was seen as valuable and was achieved largely through conference and bi-lateral phone calls, emails, regional meetings among partners, and internet sites.

Over the past five years of responding to AI and H1N1, national governments have found that working through a designated coordination body with membership reflecting a broad range of partners and stakeholders improves the planning and delivery of an effective response. Good examples of coordination among partners come from countries where AI has been prevalent and where cases of H1N1 were of national concern. These countries formed a ministerial level coordinating body with leadership shared between animal and human health. Agencies involved in communication were represented in this group. The national plans and coordination mechanisms of countries such as Uruguay and Argentina were also exemplary in terms of intersectoral coordination, even though they had not been affected by AI.

While all informants deemed partnerships between government ministries, UN agencies, NGOs, etc. are essential to handling a coordinated, multi-agency communication response, the reality is that productive partnering involves sharing authority and learning new ways of responding to crisis. It takes time to build a sufficient level of trust for partnerships to function satisfactorily. Thus, relationships built during the planning process helped to make coordination easier during response, especially since new partnerships needed to be formed. Some countries had communication strategy documents developed in planning phase and found them valuable guides, yet they needed to balance the structure provided by those planning documents with flexibility and evidence-based decision making needed during the response to the H1N1 pandemic.

Behavioral research (often called knowledge, attitude and practice (KAP) research) is the corner stone of communication planning. Behavioral research provides credible data on the special characteristics and concerns of different segments of the population (marginalized groups as well as at risk populations) in order to make communication understandable and action-able. This use of behavioral data in communication strategy design avoids the “one size fits all” approach. Much useful research has been done for avian influenza, but the rapid onset of H1N1 pandemic limited the amount of research possible.

Most crucially however, communication planners should not be the only consumers of behavioral research in its planning. To achieve behavior change, more needs to be implemented than messaging, even when credible messages are carefully designed to fit different audiences. The common expression is that an enabling environment needs to exist in order for individual behavior change to occur on a wide scale. An “enabling environment” means the social, political and economic environment as well as physical and infrastructural context in which individuals live. Behavioral research normally identifies policies, infrastructure inadequacies, and negative social or economic consequences that are barriers to

following health related recommendations. Unless these barriers are addressed and minimized, no amount of well designed communication will work.

Preparedness in communication includes the following elements: a) review and testing of existing communication strategies, communication training modules, and other tools; b) continued training in interpersonal skills for field workers from many sectors; c) in an on-going fashion, capacity building of news reporters and government officials in press relations; d) strengthening of existing and forging of new partnerships with a broad scope of stakeholders key to a whole-of-society response to pandemics; e) strengthening of linkages between marginalized groups and government authorities, the health sector and the community, including advocacy for their right to information and services during emergencies; f) continued relevant behavioral research with an emphasis on a broader, multi-sectoral use of behavioral data to guide planning and preparedness; g) clarification of lines of authority and responsibility for communication within organizations that have a role in communication in emergencies.

Preparedness should not include message and materials development. Each emergency/pandemic will present new issues, and messages need to be tailored to the current problem as well as to specific affected populations. Message development guidance was available during the recent pandemic and many country level communication teams used the behavioral guidance for H1N1 disseminated by WHO/UNICEF and for H5N1 by FAO and partners. Thus, *preparedness should focus on strengthening the architecture that supports effective and well-coordinated communication*, not on the content of communication messages.

During the response phase of a pandemic, the quality of communication with stakeholders and field personnel (human and animal health care providers, volunteers, outreach workers, community leaders) is crucial to keep them up to date and on board with policy changes as the pandemic progresses.

Recommendations

Progress in many areas related to communication has been made in the past five years of pandemic preparedness and response. These successes should continue during this time between global health emergencies: a) use the same coordination bodies to address other problems (dengue fever, cholera, HIV/AIDS) to keep government and partners committed and skilled in working cooperatively; b) integrate communication methodology and hygiene messages into long-term initiatives (e.g. disaster preparedness, school curricula, maternal and child health outreach); c) continue capacity building with the media and government spokespersons; d) train health personnel, field workers across sectors and community volunteers in communication skills; e) foster the use of behavioral data in cross-sectoral planning; and f) conduct simulations within and among organizations that include communication in pandemic response.

Despite successes, the past five years of pandemic communication have also highlighted the long standing weaknesses characteristic of many communication initiatives: a) one set of messages used despite evidence of diversified needs and beliefs existing in a national population; b) the broad reach of broadcast media dominating other, more focalized channels; c) well-designed and executed information dissemination is expected to achieve behavior change; d) behavior change is seen as communication's responsibility even when data show that recommended behaviors are constrained by policy, infrastructure, economic and social barriers; and e) data from behavioral research are not regularly used to design emergency plans in other sectors. These weaknesses are not unique to

pandemic communication, yet any corrective measures taken in the name of pandemic preparedness would benefit the quality and effectiveness, not only of communication, but of the multi-sectoral response necessary for response.

1. TYPES OF COMMUNICATION IN A PANDEMIC

In order to have an informed discussion of the role communication played in mitigating the effects of the recent pandemic, two types of communication will be discussed: risk or outbreak communication and social mobilization/behavior change communication. This division might seem overly simplistic because there is (and should be) overlap between the two, yet there are key differences in their objectives, methods, and what problems they are suited to address. The confusion about communication's role and actual contribution to mitigating the effects of health crises comes in part from their differences and the relative emphasis put on each one in pandemic preparedness and response.

1.1 Risk communication

When an outbreak occurs, risk communication is the process by which national and local government authorities transmit correct information to the public in an understandable, timely, transparent and coordinated fashion. The objectives are to instill and maintain the public's trust in the global and national public health systems and to convey realistic expectations in their ability to respond to and manage transmission of a pandemic virus. Effective risk communication also quickly addresses rumors, inaccuracies and misperceptions and helps to prevent stigmatization of affected groups. And finally, through a buildup of trust, risk communication helps to set the stage for society's compliance with recommendations and policy changes as the pandemic progresses.¹

Risk communication relies heavily on broadcast and print media to disseminate information. Developing a good working relationship with the media is therefore a critical element in a government's preparedness. Being transparent with

information and with the government's ability to respond to a constantly changing situation represents a major paradigm shift in media relations for many governments, especially those with authoritarian regimes. One cannot minimize the importance of capacity building in media relations. Indeed, building the capacity of local media to cover technical information, transmit policy statements from authorities

MEDIA RELATIONS

Many governments learned the value of being "out front" of the rapidly evolving pandemic.

1. The government of Bangladesh went through this learning curve with AI (being slow and circumspect in announcing outbreaks on farms), so when faced with the H1N1 pandemic, the Minister of Health appeared early and regularly on the media with WHO and UNICEF supporting.
2. In Thailand, however, the Minister of Health initially withheld information about the first reported cases of H1N1, and relations with the press were difficult throughout the pandemic.
3. In Lao PDR, the government provided orientation to media before H1N1 vaccine deployment. This was to ensure that media were getting reliable information about the new vaccine and to avoid spill over misinformation from the Thai media. The Lao government claimed that the well-handled media coverage was a contributing factor in the success of vaccine distribution.

¹ Five principles of risk communication: trust, transparency, announcing early, listening and planning. (WHO powerpoint, Bangkok, 2010).

and to cover events in a balanced fashion has been a major activity over the past five years. Two regional initiatives came to light during this review that supported countries and agencies doing risk communication: PAHO organized training workshops for reporters and designated government spokespersons in Latin American and Caribbean Member States, and UNSIC in the Asia-Pacific region formed a multi-agency group, Asia Regional Risk Communication Initiative, that still hosts regular round table meetings on risk communication issues. All informants felt that these and similar initiatives paid off in the quality of press coverage and relationship with authorities during the H1N1 pandemic.

In addition to these initiatives, WHO is currently in the process of strengthening global risk communication capabilities under the International Health Regulations (IHR), revised in 2005 to improve response to public health emergencies of international concern (PHEIC). In 2007, WHO Member States committed to build and maintain core capacities in 8 critical areas, including risk communication, and is working with Member States to review and strengthen national risk communication strategies, coordination mechanisms, and training tools. The 2009 H1N1 influenza pandemic was the first global event that tested the IHR, and as a result, an independent review committee was commissioned by the WHO to identify lessons learned for the planning and future implementation of several critical areas communication.

Despite this substantial investment in improving risk communication capacity, and improvements in its implementation, evidence from several countries showed that ‘risk communication’ via various channels – in particular mass media, but including other forms – increased panic and led those at risk from AI to hide, sell, give away, or eat infected or potentially infected birds, as a means of protecting or gaining something from their assets. This had the effect of increasing the risk/spread of the disease, rather than minimizing risk. In some situations, during AI outbreaks, trust in authorities was reduced as a result of communication, as poultry/bird owners regarded the messages as detrimental to their livelihoods, while disbelieving the disease threat (later confirmed by the failure of the disease to have as dramatic impact as people had been led to believe). (reference: key informant from FAO) Trust can also be eroded by the government’s statements not being supported by its policies (e.g., “report sick birds to your local veterinarian”, yet no compensation program was functioning and authorities were not prepared to process reporting).

A communication strategy consisting mostly of disseminating timely and scientifically sound information to an entire population is proving not enough to achieve wide-scale behavior change. For this to occur, strategies with specific behavior change objectives (as different from changing awareness, increasing knowledge and building trust) must be different in approach and methods. Although the final objective is the same-- to gain wide-spread cooperation in reducing transmission and mitigating the health, social and economic impact of a pandemic (well documented in UNICEF, 2008; EU evaluation)—different methods must be used with different groups to address problems concerning them in order to reach this objective. ONE SIZE DOES NOT FIT ALL.

1.2 Social mobilization and behavior change communication

Social mobilization and behavior change communication (BCC) (also called communication for development) create objectives and use participatory methods more suited to achieve behavior change. Regardless of the problem being addressed, they engage broad partnerships with health, agriculture, education, water and sanitation, humanitarian groups, private sector stakeholders, etc. to reach key segments of society with information and recommendations. While the mass media are part of the

social mobilization/BCC tool box, interpersonal communication and dialogue with community groups are fundamental methods in all strategies. Participatory methods allow communities to be directly involved in dialogue about the disease, its risks and what their community and family can do to remain safe. If these methods are used during planning and preparedness in conjunction with advocacy to promote relevant policy, infrastructure and social changes, it is more likely that behavioral recommendations will be acted upon in the emergency.

Social mobilization is an at-scale interpersonal communication effort that entails dialogue between community members and credible people they know and trust—in contrast to an often heavy reliance on broadcast media to disseminate information to the general population. Typically, social mobilization engages existing networks found in civil society organizations, NGOs, religious and community leaders, private health providers, pharmacists, major employers and so on, to carry messages to their constituents and assist these communities in carrying out recommendations. The International Federation of Red Cross and Crescent Societies (IFRC) is a good example, having equipped over 90 of their National Societies in developing countries to train and equip volunteers to make house-to-house visits during the H1N1 pandemic, and the USAID funded AI.COMM project gave technical assistance, training and support to local groups to do social mobilization programs in over 40 countries in response to AI. UNICEF mobilized resources and capacities to support 91 countries in the development and implementation of communication strategies, the design and dissemination of H1N1 materials to promote the adoption of protective behaviors, and community participation.

In the context of pandemic related communication, behavior change communication (BCC) contributes the methodology to convert health advice into behavioral messages, to adapt messages and materials to the local context, to use a variety of channels to engage key segments of the population in necessary dialogue. Bangladesh found the best way to reach small scale farmers is to use interactive community theatre—thus allowing post-performance discussion on key farming and safety measures in local language and colloquialisms. In addition, traditional medicine sellers were trained to discuss H1N1 prevention measures with their customers. These strategies resonated with key segments of the population not reachable by broadcasts and print materials generated at the central level.

These highly interactive methods must be emphasized during planning and preparedness because if human to human transmission is an issue, these methods will not be possible during response due to time and disease risk. FM radio is a communication channel which allows much participation of local communities while eliminating risks inherent in large gatherings and other face-to-face contact. In many countries, especially in Africa, FM radio stations have been used for years as a way to reach widely dispersed, illiterate populations speaking a plethora of languages. With their relatively limited broadcast range, FM stations can use local languages and discuss locally relevant problems with participation from listeners. In addition to FM stations run through the government network, “community radio” has become a popular alternative—with more participation of listeners in programming and support. Another advantage of radio is that it relies less on electricity than television. In Ethiopia, farmers take radios to their fields to listen while they work. In the 200X earthquake in Pakistan, FM broadcasting equipment was quickly set up in trucks in affected areas, and people in camps were given transistor radios to receive relevant information.

Standard BCC methodology is also well suited to involve marginalized groups in all steps of the communication process. The fact that these people are marginalized (by ethnicity, race, religion,

displacement, language and institutionalized populations²) means that information disseminated to the general public might not reach them and is likely not to be credible, understandable or action-able. (See the Preparedness section of this report for further details.) Special efforts to work with these groups are also covered in the community-level preparedness paper prepared during the TASW review.

Nigeria is a good example of a comprehensive, participatory communication approach to control avian influenza—see text box.

FAO implemented a communication project in Nigeria from 2008-2009, which used participatory communication methods at the community level. The project worked with free-range poultry producers, small-scale 'backyard' farmers, poultry and animal transporters, live bird/animal market personnel and processors. It also involved key governmental (local/state/federal) and non-governmental stakeholders, including community-based organizations.

The methodology assessed the biosecurity of the poultry value chain to identify priority areas and biosecurity needs; assessed existing biosecurity practices and identified gaps; conducted studies of the socio-economic impact of avian influenza in Nigeria; reviewed AI communication activities and their impact upon behavior change at the community level; utilized participatory communication methodologies, including focus group discussions and community capacity enhancement; trained federal/state/Local Government Area veterinary and communication officers on the practice and promotion of biosecurity; and initiated a participatory disease search with training provided to enable local authorities to detect disease events. In addition, some community members were selected by and within their communities to act as community animal health liaison officers (CAHLOs). They serve as the interface between local animal health authorities and communities, and participate directly in disease reporting. Communication messages and materials were developed, pretested and disseminated at key sites, including for poultry keepers, backyard farmers, animal transporters, and at live bird and animal markets.

The results of the project were:

- Better links between community actors and local/state/federal veterinary authorities to improve the coordination of disease response and control
- Communities engaged in disease search (i.e. to detect poultry disease) and the reporting of disease events in their communities
- Capacity for disease control – of poultry and other animal disease – improved among various levels of government and in rural communities for the implementation of biosecurity measures
- Capacity of federal/state/local authorities to conduct disease search and participatory epidemiology increased
- A replicable methodology was developed and tested for the promotion of biosecurity within resource-poor communities
- In pilot areas, animal health networks were established to coordinate multiple stakeholder activities at the local level
- Communities were mobilised and empowered to demand veterinary services
- Communities were more willing to interact and work with authorities to provide veterinary services to their communities: a feasible basis for public-private partnerships for service delivery in rural areas

The project is being further evaluated and documented after a period of one year since completion.

Global technical guidance in social mobilization and BCC (largely through internet sites, email and regional meetings) was seen as valuable. Examples of multi-agency guidance include: a) developing and disseminating a list of recommended behaviors for H1N1 (WHO/UNICEF), and FAO and other partners gave guidance at the global level for AI, b) vetting messages and materials for accuracy (Humanitarian

² Although institutionalized populations (prisons, orphanages, migrant camps) might not contribute significantly to transmission, they pose a challenge when/if access to vaccines becomes a life-saving issue. Who will advocate for their equal right to access?

Pandemic Preparedness (H2P), c) posting finished materials and communication strategies on line (H2P's web site and influenzaresources.com), and d) making prototype visual materials available for adaption (UNICEF, IFRC). An example of strong regional support is the Asia Regional Risk Communication Initiative—a consortium of leading UN, humanitarian, NGO partners active in Asia—to support country level risk communication activities. Given the short preparation time and limited human and financial resources, communication teams in many countries often relied on these global resources to conduct communication activities. An observation is that these resources implicitly emphasized the “message and materials” aspect of BCC and did not respond as well to the need for guidance on a) working with marginalized groups, b) reinforcing a multi-sectoral approach to pandemic response, and c) improving the feasibility of behavioral recommendations. (Personal communication)

2. COMMUNICATION COORDINATION AND PARTNERSHIPS

2.1 Global and regional

Global coordination of communication was handled through conference and bi-lateral phone calls, emails and meetings among partners. UNSIC and the Humanitarian Pandemic Preparedness Initiative (H2P) coordination groups included all disciplines implicated in pandemic preparedness and response and agencies focusing on communication for the H1N1 pandemic response were among contributing members. H2P also formed a multi-agency task force just for communication, and combined weekly conference calls for information sharing and coordination with a closed internet site where this group could upload and vet communication materials under development. The Asia Pacific Shared Service Center of UNICEF was also in regular contact with communication officers in the region to coordinate the agency's communication work.

2.2 National level

Given the push for national governments to adopt a multi-sectoral approach to pandemic/emergency response, their role in coordination is key to successful outcomes at the country level. Over the past five years of responding to AI and H1N1, national governments have found that working through a designated coordination body with membership reflecting a broad range of partners and stakeholders improves the planning and delivery of an effective response. Making an investment in coordinating communication during the pandemic helped governments, partners and stakeholders “speak with one voice,” use harmonized messages and materials across agencies, and to time broadcasts, social mobilization, trainings, and other activities effectively.

Some good examples of coordination among partners come from countries where AI has been prevalent and where cases of H1N1 were of national concern. These countries formed a ministerial level coordinating body with leadership shared between animal and human health. Agencies involved in communication were represented in this group. While this high level gave authority to the group's decisions and recommendations, it was difficult to convene and was not the best venue for detailed multi-agency communication planning. Some governments then authorized a related task force—where technical specialists from partnering organizations would meet regularly (weekly, sometimes daily during the height of the pandemic) for coordination. The crucial element is that one government sanctioned group be the primary venue for planning, mutual agreement and buy-in, with decisions backed by the government.

Bangladesh: In the early days of AI preparedness, it took many months for the government to form a multi-agency coordination body and to resolve which Ministry would be at the head. In addition, the national AI and pandemic preparedness and response strategy sat on the Prime Minister's desk for 9 months before being approved. Eventually, a national multi-sectoral task force was formed as well as a "communication wing". The communication wing met weekly. It was made up of communication and technical focal points from partnering agencies and NGOs who actually did the work, then sent materials, messages, modules and plans to the higher coordination body for approval. In contrast, when the H1N1 outbreak occurred, the government moved quickly to revitalize the former coordination body (adding relevant partners), and which up-dated and approved the national preparedness and response plan. A national communication strategy was developed, and the approval process for communication initiatives was streamlined.

In a recent poll of communication capacity for emergencies in UNICEF field offices in West and Central Africa, 10 of the 19 countries responding said that a multi-sector, UN-government communication coordination team existed specifically for emergencies. Other countries reported a similarly structured communication coordination team for child survival (in addition to or instead of emergencies). Thus, a total of 14 of the 19 countries have some kind of national-level, multi-sectoral communication team that can address other emergency events. Of those countries with national communication team, eight had developed in various local languages, communication materials specific for emergencies such as cholera, floods, H5N1 and H1N1.

All informants deemed partnerships between government ministries, UN agencies, NGOs, etc. are essential to handling a coordinated, multi-agency communication response. The advantages of working through partnerships are sharing work and pooling resources. Especially for social mobilization and community-level activities, organizations with strong networks of local volunteers became major partners in H1N1 response (IFRC is one example.)

One difficulty however, is that productive partnering involves sharing authority and learning new ways of responding to crisis. This can be a major paradigm shift for government ministries as well as for global and local organizations. Transparency in working processes, sharing of information, admitting what is outside the capacity of the organization, and letting go of the corporate brand so that all are speaking with one voice, are some aspects of partnership that can be difficult to operationalize. It takes time to build a sufficient level of trust for partnerships to function satisfactorily. At the country level, animal and human health specialists had never collaborated before the AI emergency. In countries where it was working, the AI.COMM project found it valuable to focus time up front to help new animal and human health partners find common ground for productive working relationships.

Ethiopia has much experience working through multi-sectoral coordination committees for emergency response including floods and HIV/AIDS. Committees are active at many administrative levels and include the economic, education, health and agricultural sectors. As of 2008, no committee had been created for pandemics. A realistic view of coordination by committee was expressed by an Ethiopian government official: *'...handling emergency was not regarded as a responsibility of one organization...many agencies (local as well as international) participate...we are prepared for any emergency but we have not been 100% successful in all our endeavors...resources (human resource, medical supplies, and finance) were never enough to handle emergencies...in multi-agency taskforce not all may attend all meetings but it was important to have all stakeholders represented.'* ("Assessment of Preparedness to Pandemic Influenza", page 10).

3. PLANNING AND PREPAREDNESS

“The Plan is nothing, the Planning is everything.” D.D. Eisenhower, US Army General and US President

Informants stated that indeed, the planning process seemed to be more important than the planning documents and protocols produced. Relationships built during the planning process made coordination easier during response, especially since new partnerships needed to be formed. Indeed, the degree to which authorities needed to respond to a constantly changing scenario during the H1N1 pandemic shows the need for flexibility and evidence-based decision making—something that documents created during planning have difficulty accommodating. That being said, the strategies and action plans developed were an important point of departure and gave evidence of the broad consensus achieved for preparedness and response. Part of the learning curve for many governments is to work from a strategy document that might have been created by previous administrations.

Several countries have learned the value of following a broadly conceived, participatory strategy approved by the government. In Bangladesh, the National API Preparedness and Response Strategy of 2006-2008 was quickly revised to respond to the H1N1 pandemic (2009-2011). As the pandemic unfolded, the strategy was again modified to bring in new initiatives and broaden existing activities. This was not time wasted in revising documents during a crisis, but showed the level of confidence the GOB and stakeholders had in the comprehensive, multi-sectoral approach outlined in the strategy. They saw an up dated strategy as a valuable tool to guide their combined response as the pandemic changed.

3.1 Role of research in behavior change communication planning

Behavioral research—often called knowledge, attitude and practice (KAP) research—is the corner stone of communication planning. This type of research uses a variety of data collection methods to generate both quantitative and qualitative data. Besides surveys using individual interviews and focus group discussions, behavioral research employs a variety of participatory methods (PAR) which not only produce data, but through more direct participation in data collection, respondents become empowered to plan and implement changes in their community. (See community-level preparedness section of the TASW report.) Another important use of social/behavioral research is to bring to light the special characteristics and concerns of different segments of the population (marginalized groups as well as at risk populations) in order to make communication understandable and action-able. There was a repeated call (ref) for communication strategies to avoid the “one size fits all” approach. Many planners think broad reach of messages is the most salient aspect to consider, thus favoring *a priori* mass media—when more interactive, focused methods with limited reach are better suited to certain behaviors and groups. Thus, decisions about strategy, message and materials development should be fed by research data. Data can also serve as a baseline to compare changes measured after interventions are completed.

In the context of AI, many countries conducted research to identify the social, psychological, cultural and economic factors affecting poultry-rearing practices, especially of small scale farmers. Some areas researched included the feasibility of recommended farming and protective practices, impact of economic loss, ceremonial and social role of chickens, chickens as the main source of protein for the rural poor, and generations of experience of raising chickens successfully. Further research was done with key actors throughout the poultry industry chain, “from farm to fork”. These findings were used to fashion messages for a variety of communication channels and to design and pre-test print materials

and training modules as can be seen in the communication initiatives implemented by AI.COMM and UNICEF.

There was some useful anthropological research undertaken by FAO in Cambodia (by Benjamin Hickler: 'Bridging the Gap'), as early as 2007. The results clearly showed the ineffectual nature of some of the messages being broadcast, and suggested alternatives. As a result, communication campaigns were altered as appropriate. A similar data-based re-adjustment of messages occurred in Ecuador. It initially planned to re-release previously developed communication materials in response to H1N1. With support from PAHO, Ecuador revisited the communication evaluation report which showed problems with the messages. The materials were revised accordingly before use.

These positive examples need to be taken in light of the EU review of the global response to avian influenza which states: "Information from a number of KAP studies was already available in early 2007 (USAID/AED), however little adaptation to the four key messages (regarding farming practices and personal protection) has taken place, and only since 2009 a trend is observed in more diversification of messages. The anticipated impact (changed behaviour supported by accurate messaging and effective social mobilisation) could possibly have been achieved in a more substantive manner had social scientists been involved in the design of the BCC messages."

3.2 Use of behavioral research data for planning in other sectors

Most crucially, communication should not be the only consumer of behavioral research in its planning. To achieve behavior change, more than credible messages carefully designed to fit different audiences needs to be implemented. The common expression is that an enabling environment needs to exist in order for individual behavior change to occur on a wide scale. An "enabling environment" means the social, political and economic environment as well as physical and infrastructural context in which individuals live. Behavioral research normally identifies policies, infrastructure inadequacies, and negative social or economic consequences that are barriers to following health related recommendations. Unless these barriers are addressed and minimized, no amount of well designed communication will work.

Bangladesh is an example where obstacles to following a behavioral recommendation were addressed in policy and structural changes as well as by communication. A) Initially, low reporting rates did not change despite the message being spread through community health workers, the broadcast media and flyers. Since then, the authorities have improved and publicized the compensation rate for dead birds, have established an active surveillance system using trained community animal health workers, and are experimenting with easier reporting through a SMS gateway system. Reporting sick birds has improved as a result of these efforts in combination with continued behavior change communication. B) Early in the AI pandemic, messages were also developed by agricultural and veterinarian authorities about safe slaughtering practices and were distributed to workers in live bird markets. These markets were seen as prime centers of transmission. But most of the recommendations were not possible to follow because the markets often lacked running water, waste disposal and other sanitation facilities. In addition, market committees were afraid that messages about the danger of AI through existing slaughtering and transport systems would scare consumers away. Currently, the Ministry of Fisheries and Livestock is working with FAO and local NGOs to renovate 21 live bird markets so that hygienic slaughtering practices can be implemented (ie., so that workers can act upon the knowledge learned through communication). These two examples illustrate how barriers to behavior change were identified through research findings and were then acted upon by other sectors (policy, infrastructure and capacity building) to reinforce communication efforts.

An example from AI: Waisbord (2008) cites reasons why farmers did not comply with the recommendation to report sick chickens to authorities. An analysis of existing behavioral research data during planning highlighted reasons why reporting was low: Little or no compensation for loss due to culling; poor or no response from local veterinarian services; unclear or cumbersome means of reporting. Use of these findings should be used to create a comprehensive strategy that focuses explicitly on minimizing these barriers to accompany communication of behavioral recommendations.

3.3 Preparedness

Preparedness is often dominated by strengthening the animal and human health sectors with training, equipment and supplies, vaccines, and upgrading facilities and protocols. Indeed, the burden is heaviest on the health sector in a pandemic, and much must be done to enhance the capacity of often weak health systems to meet the added demands of a pandemic. Many reviews of AI and H1N1 preparedness and response, however, mention the role sectors other than health and agriculture should have played in preparing for the AI and H1N1 pandemics. Other sectors were called in during the response to carry out policy changes, (such as ministries of education, transportation and tourism), but they were usually not major partners planning and preparedness. These sectors could be included in communication planning to help develop and disseminate messages in their sector or they could be supported in developing and testing business continuity and staff information plans for their own agency. (See the Private Sector paper in the TASW document.)

Training in communication skills is an important part of preparedness. Training of field workers should also reflect a multi-agency/cross-sectoral approach and include government outreach workers, NGO field staff, volunteers, religious group members in the same or similar training. IFRC's training of its own volunteers in many countries also included field workers from government and other NGOs. Many countries collaborated on developing training modules in communication skills to be used across a wide spectrum of people called upon to inform their community. Common training helps to harmonize messages and to operationalize in the field, the partnerships forged at higher levels.

Training in communication skills does not need to be a stand-alone activity. Infact, interpersonal communication (IPC) skills should be an integrated component in otherwise technical trainings for service delivery personnel crucial to pandemic situations (facility-based health providers, police and school teachers, veterinarians, etc.). Although these service providers will be over-burdened during an emergency, they still need basic IPC skills to transmit important information correctly and effectively to the public they serve. Training of news reporters (broadcast and print) and of government spokespersons should also be on-going. Relations between government authorities and the press are often fragile, so capacity building and fostering positive and constructive interactions are never "completed", and should not wait for the next crisis to be implemented.

Many organizations working in pandemic and AI communication collaborated on a variety of communication training modules adapted to the needs of a broad spectrum of people: health workers and veterinarians, local government officials, religious and community leaders, traditional medicine vendors, field staff of NGOs, volunteers for social mobilization and so on. It is beyond the scope of this review to compile communication training modules and to evaluate their quality. These modules are available on common web sites (such as H2P, CORE, and influenzaresources.org) as well as on individual agency websites, such as Save the Children, CARE, PLAN and IFRC. Emphasis during communication

preparedness should be on reviewing, adapting and testing selected modules (rather than on developing new ones) to be already in use before the next crisis.

Social isolation and inequality, economic hardship, prejudice, and lack of access to resources, services and information are often exacerbated in an emergency, so the preparedness phase is the time to strengthen links and dialogue with marginalized populations. Organizations working for the benefit of marginalized groups should work to strengthen linkages between these groups and the health system (policy change and empowerment), with their neighbors (social change) and with the government (policy change and empowerment). For example, the high density and often poor sanitation in many institutions such as prisons, orphanages and refugee camps, put these populations at high risk for infectious disease. By working with administrators and representatives of these groups during preparedness, they could develop their own emergency action plan with specific methods for communicating with health authorities during a pandemic. These stronger and more dynamic relationships should also influence communication strategies to be more adapted to marginalized groups' needs and rights during an emergency so that communication not only disseminates behavior change messages with language and illustrations these people will recognize, but also advocates for broader change and constructive dialogue with authorities.

3.4 Message development

Informants found that agreement on one set of messages and strong multi-agency coordination were important elements in successful handling of communication during the pandemic. Many country level communication teams used the behavioral guidance for H1N1 disseminated by WHO/UNICEF and for H5N1 by FAO and partners. The value here is that it was easier to harmonize messages used by all local agencies involved in the pandemic when the messages came from one credible source. However, when asked to what extent country teams "adapted" those recommendation to the local context, most informants said that they had translated the messages into many local languages and had changed illustrations to local clothing and context (eg., showing a tissue, or end of sari, or elbow to cover sneezes), but did not alter the recommendations themselves.

While many countries found cough/sneeze etiquette and/or hand washing to have reportedly improved, practices such as social distancing, greeting rituals, and staying home from work, remained largely unchanged although this impression is mostly from anecdotal evidence. Informants often admitted that these recommendations were not feasible and not readily embraced by the public. (eg. People in Ethiopia felt the threat of influenza was not serious and the only isolation they practiced was to isolate someone ill at home.) Another example comes from messages to reduce farmers' risk from avian influenza. In reviews of communication for the Global Review of AI, certain farming practices remained largely unchanged—despite communication materials and messages being translated and visually adapted to the local rural context. Especially the recommendations to separate chickens from other birds or humans, and to keep children away from the family flock are difficult to do given the living and economic conditions of most small scale farmers. "Because lack of knowledge does not appear to be a factor (in compliance to behavior recommendations), intervention programmes must include feasible options for resource-poor settings that have limited materials for personal protection (water, soap, rubber gloves, masks) and must offer farmers alternative methods to work safely with poultry on a daily basis." (EU Outcome and Impact Assessment of the International Response to the Avian Influenza Crisis, 2010). An important activity then during preparedness would be to use standard BCC methodology of research and analysis by behavioral scientists and to problem-solve together with affected populations

to arrive at a do-able list of behaviors. These discussions need to be an essential part of preparedness, before translating messages and designing materials. Message development also needs to be accompanied by minimizing policy, infrastructure and social barriers identified in behavioral research.

4. RESPONSE

This phase tests the strength of partnerships, planning and preparedness.

The role of risk communication is important here. The preparedness of the news media, the level of trust between the government and the media, designating and training spokespersons and frequent and transparent contact with the population all contributed to maintaining public awareness and trust in authorities during the crisis. In the early stages of the H1N1 pandemic, PAHO focused on building capacity for risk communication in its member countries as part of its preparedness effort. It found in most of those countries that initial interactions with the press and subsequent coverage of events were balanced and timely with few or no rumors spreading--due in part to the preparedness effort.

During the pandemic, the quality of communication with stakeholders and field staff (human and animal health care providers, volunteers, outreach workers, community leaders) is crucial to keep them up to date and on board with policy changes as the pandemic progresses. An important component of social mobilization is to monitor the work of volunteers and field workers to maintain correct messages and to help them deal with rumors and misconceptions in the community. Also, if messages change to accommodate changes in the spread of the virus and consequences to the resulting illness, mechanisms must be in place to update field teams. Many countries and organizations have experimented successfully with SMS and other new technologies to update field teams. In Ethiopia, they used a combination of radiophones, telephones and telegraphs to keep field staff abreast of events.

Interactive communication is important for health care providers. Given their expertise and experience, they especially, will have questions about changes in protocol and policy. These questions and doubts need to be responded to in order to keep providers' practices and communication on track. One of the lessons learned from the US and other developed countries is that special attention to providing updates to health care providers must be maintained throughout the response phase. When the H1N1 vaccine was finally available in those countries, many health care providers were not convinced of its value, and a low percentage got vaccinated themselves. They also often contradicted official messages about vaccination when talking to patients.

5. SUSTAINABILITY

Partnerships, key to pandemic preparedness and response, are not permanent--they wax and wane over time often in response to changing priorities and funding levels. Informants readily admitted that good working relationships between agencies established during the recent pandemic often boiled down to the personality and/or working style of individuals within the organization. With high staff turnover common and key individuals moving on, partnerships need constant attention to maintain linkages between crises. Several strategies are being used: a) use the same coordination bodies to address other problems (dengue fever, cholera), b) integrate practices and messages into long-term initiatives (eg. disaster preparedness, school curricula, child survival outreach), c) continued capacity building (with the media, communication skills for field workers across sectors), and d) simulations (within and among organizations).

Egypt is a good example of integrating AI and human pandemic communication into existing health and agricultural systems in order to sustain gains (in coordination and capacity) made during the past five years. The MOE integrated H5N1 content into grammar school curriculum using an edutainment approach for hygiene; the MOAg has its extension workers using a MOH model for effective community outreach; and active house-to-house outreach is being strengthened by improving the supportive supervision and monitoring of existing community outreach workers.

Other countries have integrated human and animal pandemic plans into their emergency preparedness and response plans. It will be important to ensure that the communication component of these strategies reflects the lessons learned from the experiences of AI, H1N1 and other recent health emergencies. The past five years of pandemic communication have highlighted the long standing weaknesses characteristic of many communication initiatives: a) one set of messages used despite evidence of diversified needs and beliefs existing in a national population, b) the broad reach of broadcast media dominating other, more focalized channels, c) well-designed and executed information dissemination is expected to achieve behavior change, d) behavior change is seen as communication's responsibility even when data show that recommended behaviors are constrained by policy, infrastructure, economic and social barriers, and e) data from behavioral research is not regularly used to design emergency plans in other sectors.

Funding and human resources for work in pandemic and other emergencies will diminish when there is no emergency. So it is a challenge for global organizations to rationalize resources and not lose ground in capacity gained during the recent pandemic response. It is important for organizations to integrate pandemic work/emerging infectious diseases into the staffing plan, with lines of authority and working relationships identified and ready to be activated with the time comes. Issues of sustainability should not just be within the communication and health sectors, but the cross-sectoral nature of effective pandemic response needs to be sustained as well—within and between agencies, ministries and key stakeholders.

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