



# **FINAL REPORT**

## **Assessment of Preparedness to Pandemic Influenza in Ethiopia**



**Addis Continental Institute of Public Health  
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# Assessment of Preparedness to Pandemic Influenza in Ethiopia

## Summary

According to Influenza experts, the world is overdue for another flu pandemic. It is therefore helpful to understand the scope of preparedness of the most vulnerable nations. This study was conducted to understand Ethiopia's past experiences in responding to emergencies, current preparedness for emergencies, and effective channels of communications during emergency situations. It is hoped that by understanding these aspects of emergency preparedness among targeted nations, we can better design pandemic flu preparedness and response programs.

The study was conducted in three regions/states of Ethiopia. Qualitative interviews were used to collect relevant information from key informants. Informants included community members, civil society stakeholders, and government stakeholders.

The majority of the respondents were not aware of any plan for pandemic flu preparedness. Awareness levels about the potential threat of pandemic influenza were also inadequate among community members and stakeholders. Most respondents stated that they have not heard anything or seen any plan that aimed at mitigating the indirect impacts of emergencies. Often families and communities obtain support of this kind from extended family networks or from local neighborhood clubs. Soliciting support from the International Community has been the main strategy during major emergencies, though it was noted that such support for the affected families and communities only came after a considerable time lag. Early health care utilization is constrained by geographic inaccessibility and financial problems. Although many non-pharmacological interventions and traditional practices that are used to prevent or treat the flu were mentioned, no one was sure about their effectiveness. Interestingly, no one mentioned closing schools and work places and restricting social gatherings as means of limiting spread of influenza, though some mentioned patient isolation and covering one's mouth when coughing and sneezing. The most preferred and effective channels of communication were radio and public informants. There were no well developed plans mentioned that could mitigate the indirect impacts of pandemic flu.

In conclusion, the level of preparedness for emergencies such as pandemic flu is much less than adequate. Coordinated multi-sectoral emergency preparedness plans with detailed action-points urgently need to be developed with substantial external assistance to ensure effective control of pandemic flu and mitigate its potential impact on Ethiopia and the world at large.

## **BACKGROUND**

The threat of pandemic influenza has been a concern of national governments and the international community since the highly pathogenic avian influenza (HPAI) started circulating in South East Asia in 1997. Although the number of human cases is limited, the spread of infection in poultry population is quite alarming. Many countries in Asia, Europe and Africa have reported avian flu outbreaks; and millions of infected and potentially infected chickens have been culled.

Previous flu pandemics have caused the death of tens of millions of people worldwide. Ethiopians still remember the last pandemic flu that killed hundreds of thousands by burning trash in the early days of November. At present, the ease at which people can move across the world will allow a pandemic to spread quickly and widely. Previous experiences clearly demonstrate the need to prepare well in order to decrease the death toll if a pandemic flu should spread.

In order to develop an operational plan to respond to a pandemic, information on how a wide range of populations would prepare for and respond to a pandemic or other disaster at the national, community and household levels is necessary. This information needs to be collected as quickly and as thoroughly as possible from countries. As a result, USAID has tasked AED to conduct qualitative research to collect this information and subsequently give direction and insight to the design of the most effective and realistic response plan possible.

## **OBJECTIVES OF THE STUDY**

The objective of this research is to determine what key populations and stakeholders at the national and community levels are planning in the case of a pandemic, the value or importance they place on protecting their communities, citizens and industries, and how they will assure maximum health care and food security to their citizens in an emergency such as pandemic flu. This research also tries to determine what the general population plans to do in response to limited or suspension of work, food, and health care including what they have done during other natural disasters or disease outbreaks. Finally, we would also like to determine community member's inner-most fears and/or thoughts about the threat of disaster to their family and their normal existence, as knowing this will provide insight into the design of any contingency plan.

The specific objectives of the survey include assessment of the following issues at the community level and among selected stakeholders:

1. Perceptions and care of influenza at the community and household level;
2. Past experience with emergencies;
3. Limiting influenza transmission through Non-Pharmaceutical Interventions (NPIs);
4. Reducing indirect impacts of an influenza pandemic; and
5. Sources and channels for effective communications.

## METHODOLOGY OF THE STUDY

### ***Study Design***

This study utilized a qualitative research approach; in-depth interviews with key informants was the main strategy for data collection.

### ***Study Population***

The target populations for the study were divided into three categories: government (health, agriculture, disaster preparedness, and uniformed services); civil society (professional associations, NGOs...) and private sector organizations (health providers, pharmaceutical agencies); and community members. The main tool used to identify community members was contacting *Idirs*<sup>1</sup>. Target populations were either permanent employees of the target organizations or permanent residents of the town in which the study was conducted. The interviews were conducted in Addis Ababa, Bahirdar (Amhara region) and Hawassa (SNNPR). These regions were selected because of their high population densities and vulnerability to epidemics. Table 1 shows the organizations from which potential study participants were recruited. They were selected because of their nature of work.

### ***Sampling Methods***

Stakeholders were recruited based on the following criteria: being responsible for and knowledgeable about epidemic management, being a permanent employee/resident, being willing to share, and being able to communicate well. The research team accessed potential interviewees from each governmental agency via information given by public relation officers. Interviewees from each non-governmental and private organizations were approached through the administrators of each organization. Interviewees from the community were selected through referrals made by *Idir* leaders. Direct refusal for interview was

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<sup>1</sup> *Idir* in Ethiopia refers to a self help association, which is mainly organized to handle death. *Idir* is a very common association and almost all households belong to one or more of such association.

low. Some interviewees were not able to conduct the interview immediately after contact. In those cases interviews were scheduled to accommodate the convenience of the potential respondents.

Table 1: Proposed Number of In-depth Interviews at each site

Target Population	Proposed Number of In-depth Interviews
Health sector	2
Agriculture/ disaster preparedness	2
Education sector	2
Public Administration	1
Red-cross	1
Civil society	2
Military/police	2
Private	2
Religious leaders	2
<i>Idir</i> leaders/members	2
Other categories	2
Total	20

### ***Data Collection***

Interviews were conducted by trained professionals in the field of public health and social sciences. They were trained for three days. The training included theoretical as well as practical issues in conducting qualitative data collection. Training topics included review of qualitative data collection techniques, the goals and objectives of the study, field note taking, data coding and summarizing, and practice on the use of the guides. A total of 10 interviewers were paired into five teams and all interviews were conducted by a pair of interviewers; each served alternatively as interviewer and recorder. The field work was conducted from May 16 to May 30, 2008.

Interview guides for each category of respondents were developed by experts in public health and social science and later reviewed by influenza experts. The guides were initially developed in English and later translated into Amharic. The language for the actual data collection was Amharic (the official language of Ethiopia); most people targeted for this study were assumed to be comfortable in discussing issues in Amharic; thus no effort was made to translate the interview guides into any other local language. One interview from each category of respondents was done to serve as pre-test. The pre-tests indicated that the instruments prepared for data collection were understandable and were able to illicit the required information reasonably well. Thus, no major changes were made to the interview guides.

The interview guides included many open-ended questions and probes (see annex) that can help to determine what the key populations at the community level, and stakeholders at the national and community level are planning in regards to a pandemic. In addition the questions help elicit the value or importance stakeholders place on protecting their communities, and how well they are able to reduce the impact of a natural disaster or disease outbreak such as pandemic flu.

All interviews were conducted in a private location chosen by the interviewee; usually in the private office of the respondents. Each respondent was informed about the purpose of the study, the procedures to be followed, and the rights the interviewee has with regard to participation into the study. All interviews were conducted only after obtaining informed consent from each participant. There was 1 person who refused to participate and 4 people who refused to be tape-recorded. The majority of the people who refused to be tape-recorded, refused because of the policy of the organization due to the nature of their work. The interviewer teams were not allowed to use mobile phones or recorders on the premises of those organizations.

The average time for the interview was about 40 minutes with a minimum time of 25 minutes and a maximum time of 94 minutes. The duration of the interview was dependent on the type of organization from which participant was drawn. For example, longer interviews were done with interviewees drawn from organizations that had experience in handling emergencies in the past. One of the challenges in conducting the interviews was finding an experienced person; some interviewees were new to the position and lacked either adequate experience in handling emergencies or adequate acquaintance with the organization's procedures in handling emergencies.

The large majority of the interviews were tape recorded and the interview materials were transcribed verbatim into Amharic, and then translated into English for data analysis. In a few of the interviews the quality of recording was not good in a portion of the interview because of technical problems. Hence, the missing data were extracted from the notes taken by the co-interviewer. Data transcriptions and translations were done by the interviewers who conducted the interviews.

### ***Data Analysis***

The interviews were organized by region. All interviews were read line-by line and responses were coded into themes. After exploration of the coding patterns, the focus of the data analysis was shifted into finding broader meanings, perceptions, and practices pertaining to the main study themes that were identified during development of the study instrument. Constant comparison of responses across categories and individual respondents helped to reasonably explain thematic issues. Illustrative quotes were chosen from the most appropriate category in each thematic area.

### ***Ethical Considerations***

The study was approved by an Institutional Review Board. Informed consent was obtained from each study participant. The study participants were informed that

all information shall be confidential; no names or any personal identifiers were collected during the interviews. No specific individual or organization names were mentioned during reporting of findings to avoid potential identification of respondents. Individuals were also informed that they can stop the interview at any point if they wish to do so.

Table 2. Summary of Participation into the Study.

		Government category	Civil society & NGO	Community members
Addis Ababa	Invited participants	10	9	2
	Refused tape recording	1	1	
	Refused interview	3	2	0
	Non-response <sup>2</sup>	1	1	0
Bahir Dar	Invited participants	13	5	2
	Refused tape recording	5	0	0
	Refused interview	0	0	0
Hawassa	Invited participants	15 <sup>3</sup>	5	2
	Refused tape recording	1	0	0
	Refused interview	1	0	0
	Re-interview	2	0	0

<sup>2</sup> Repeated calls and visits did not produce response

<sup>3</sup> We invited 15 interviews out of these two interviews were repeated because former informants gave very few information than expected.

## FINDINGS OF THE STUDY

The findings of the study are presented under several themes that were identified prior to the field survey. The themes include past experience with emergencies, perception of influenza, care for people with influenza, current preparedness for pandemic flu, limiting Influenza transmission with non-pharmaceutical Intervention (NPIs), reducing the indirect impacts of pandemic flu, and sources and channels for effective communication. In most cases summary of the responses under each theme and sub-theme are followed by an illustrative quotation.

### ***Past Experience with Emergencies***

Respondents identified the common emergencies in their area. Although some variations are observed by respondents, the emergencies (natural disasters and disease epidemics) include the following:

Natural/manmade Disasters	Disease Epidemics
<ul style="list-style-type: none"><li>• Flood</li><li>• Drought</li><li>• Food insecurity</li><li>• Motor vehicle accidents</li></ul>	<ul style="list-style-type: none"><li>• HIV/AIDS</li><li>• Malaria</li><li>• Acute watery diarrhea</li><li>• Influenza</li><li>• Measles</li><li>• Meningitis</li><li>• Typhus</li><li>• Relapsing Fever</li><li>• Avian flu (one respondent)</li><li>• Epidemic dropsy (one respondent)</li></ul>

Most of the respondents were familiar with circumstances related to disease outbreaks. Some have been directly involved and others have cooperated with the responsible organizations and individuals. The Disaster Prevention and Prevention Commission is a government agency that is officially mandated to coordinate all emergency and relief operations in Ethiopia; However, committees

and taskforces that draw members from all relevant government sectors (mainly economic, agriculture, education and health) were established to handle emergencies at various levels including regional, woreda/district and kebele levels. *‘...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’* (Respondent from Addis Ababa/Oromia). None of the respondents mentioned a committee/taskforce that was established to handle influenza.

Most respondents said preparedness for emergency situations is often too poor at the community level. People don’t have the necessary resources and information to prepare for emergencies and that makes the effects and consequences of emergency situations worse than one may anticipate...” *..we can say there have not been enough preparedness by the community during the emergencies...most efforts were initiated and coordinated by the central (federal) preparedness agency...* (Uniformed Person Informant).

Responses to the emergency situations were reported to be a challenge in all areas because of limited resources. The government resources are generally inadequate to respond to moderate/big emergencies at any level. It has been a common practice to mobilize resources from non-governmental organizations. The community and private organizations made in-kind (labor, clothes, utensils, and food items) and financial contributions to help manage emergencies, but local resources were never sufficient to alleviate the problem. Most respondents iterated that emergencies require collaborative efforts by all stakeholders in the governmental and non-governmental sectors as well as active participation of the community. An informant from Bahirdar said...”*...stakeholders in the area cooperate to handle emergencies...however we fail to realize our plans to handle emergencies, for example HIV, mainly because budgetary constraints and inadequate human resources...*” Another informant from Hawassa also

said...*"we faced shortage of resources...people were affected by flood disaster...providing victims with food, drinking water and medical services were a challenge...logistics, transportation, budget and human resources were not adequately available"*.

Regions and woredas are normally supposed to coordinate emergency activities at their levels and request assistance from the federal government when needed; however, if the scale or nature of the emergency is beyond the scope of local authorities, the federal agencies participate in handling emergencies without waiting the formal process. *"...there is a disaster prevention taskforce at the federal level...we discuss current emergencies and interventions in our regular meetings...we monitor events carefully...we follow procedures but when necessary we act without them...we move on quickly..."* (Informant from Addis Ababa)

The military appears to be better prepared for predictable emergencies. The command chain is effectively utilized during epidemic times to mobilize resources, to communicate to people at risk, and to implement appropriate interventions. They also collaborate with the community in both providing services and protecting people from potential hazards. A key informant said...*"...we are good in handling emergencies... the Ministry of Health has acknowledged us for what we did in recent epidemics...we monitored activities closely and we conducted the activities in an organized and serious manner. We work day and night with full responsibility...a member assigned in this type of activity have a great deal of responsibility and accountability for all things s/he does. This includes educating and mobilizing the community, taking measures on time, and disseminating information on time among others... (we consider epidemics like war)... no one stops working in emergency situations till it is controlled... once there was an outbreak of food poisoning in one of the camps... we ordered the team in the camp to investigate the case in detail and report back within six hours."*

Although Idirs were originally established to support families in facilitating burials, they have been involved in emergency management in recent years...”...*this area was affected by flood ...at that time when the flood caused damage the idirs in the area mobilized resources and supported the affected families ...shelters were provided to the displaced... when required small idirs could form a coalition of idirs. This kind of coalition was useful in preparing an emergency mitigation plan in the community...the idir coalition have a strong base to organize emergency responses...*” (Informant from Addis Ababa).

Among the challenges mentioned during past emergencies, low levels of health awareness, and budget constraints were the most common. “...*at the beginning of an epidemic...people are reluctant to participate in prevention and control activities...communities react and cooperate after the epidemic spread wider and involve many more people*” (Informant from Hawassa). The community command system is not as developed as the military so coordination during emergency times could be very difficult ...”*The major challenge when working in collaboration with the community to combat epidemics is that the community is slow to act...to accept and immediately adapt to planned strategies ...this might be related to lack of information, awareness and education by the community...kebele and community leaders fail to understand and respond immediately as needed ...I remember ...we were nagging the community in order to accomplish tasks for handling an emergency... we have our own organized and structured mechanisms* (Uniformed informant).

Another challenge during emergencies was observed in circumstances requiring evacuation. People are very reluctant to leave their residences. Most people have limited resources to support life after evacuation; they are bound to be dependent on handouts to survive. “...*there was resistance to evacuate the area...we had to use elderly people and local people who understood the situation better to persuade people to evacuate from flood stricken areas...the government has to interfere/convince for evacuation...*” (Informant from Hawassa)

Creating adequate awareness, mobilizing the communities, and utilizing health extension workers and administrative leaders were among the strategies used for successful control of epidemics. ...*“the most important strategies that helped us control recent epidemics include raising awareness, multi-sectoral involvement, developing community ownership of activities, using health extension workers and kebele cabinets...on the other hand; communities were not ready for any emergency...they think of their daily living ”* (Informant from Hawassa). *“...the community will accept information and education if you spend time and be part of the problem... intensive and repetitive education is necessary to succeed”* (Uniformed Personnel Informant).

Soliciting support from the International Community has been a main strategy during major emergencies. Although this strategy in the end helped to get substantial support for the affected families and communities, there was a considerable time lag between the need and the arrival of support. *“...emergencies require urgent action...we need to prepare ourselves ahead of time to get supplies before we are out of stock...”* (Respondent from Addis Ababa/Oromia) *“...obtaining funds is often a long process...many donors need to be approached before getting what is needed to handle emergencies...mechanisms are many and we have good experience with that...”* (Informant from Addis Ababa).

The country has faced many emergencies due to both natural disasters and disease epidemics; however, according to many of the respondents the preparedness level in all those emergencies was barely adequate. A few were very optimistic and claimed that the reach of health services, even in rural areas, has improved tremendously, and people have better training to handle emergencies.

### ***Perception and Care of Influenza***

Most respondents perceived influenza as similar to the common cold and consider it a self-limiting illness with no or minimal health consequences. Most

respondents had limited knowledge about the cause, mode of transmission, and level of seriousness of Influenza. Even health workers interviewed for this study considered influenza to be a less serious health problem that has not been included in the agenda of priority health problems. *...it is difficult to tell about community's perception about influenza pandemic...we have no past experience ...the awareness level is very low...people were aware about AWD and they helped each other...if flu epidemic arises...it won't be distinguished easily from other similar illnesses...because signs and symptoms are similar...so community will not identify it early and take actions...* (Informant from Hawassa) *...however it is important to make proper community level assessment about perception of the community...* (Informant from Addis/Oromia)... *I think influenza is transmitted from person to person. It may be transmitted during coughing or breathing. It may even be acquired by polluted/infected food and water. It is similar to common cold* (Informant from Addis Ababa).

It was found that the higher the respondent is in the administrative hierarchy the more likely they were to believe that people know about pandemic flu threats and have adequate information about it.

Flu is generally perceived as self limiting non-serious problem; often it is synonymous with the common cold...*we tried to give mass health education about flu for the army...but most of them give no serious attention...it is clear that even when people with flu visit health facilities...they don't get much attention like those with other illnesses...physicians may not consider it serious...people undermine influenza and consider treating it with home remedy...they see doctors only when complications arise* (Uniformed Personnel Respondent). Some people expressed their worries that children may neither report nor recognize that they have flu like symptoms promptly as they might think they have the common cold which is very common among children...*Whenever children acquire any disease like influenza, they don't tell to their families that they are sick...therefore, we should be vigilant to identify the problem and take them to health institutions immediately when we see symptoms of disease such as fever...* (Informant from Addis Ababa).

Most people, especially those living in rural areas, opt for traditional healing/medicine or home remedies in combating influenza. People tend to visit health care facilities when the disease interferes with their daily routine and when the disease gets to a serious stage.

Health care utilization is constrained by two factors; geography (largely in rural areas), and financial (in both rural and urban areas). *“...the urban people tend to visit health care when they have symptoms of disease as long as treatment is within the usual cost range ... in rural areas the situation is always gloomy because of poverty, low transport access, and low health awareness...unless treatment is provided free of charge the poor may not get any access to treatment...”* (Informant from Bahirdar)

About a year ago there were a few sites where avian flu was suspected in a few chicken farms. All chickens in those farms were curled. Following that, there was big media publicity and a panic situation ensued. At that time people were very worried and most people considered not eating chicken for a while. *“...at that time (when avian flu was reported last year) ...the community didn't eat chicken...not even for 'Tinsea' (Easter)<sup>4</sup>...that shows the public is aware of the danger of disease transmission from chicken to human...” ...“After media education we have also observed a panic reaction...people reporting even a single death of bird and chicken...”*(Informants from Addis Ababa)

### ***Current Preparedness to Pandemic Flu***

Most respondents believed that the current preparedness level is no different from the past. Except for a few respondents, none were aware of any preparedness plan for pandemic influenza. Preparedness of communities for emergency situations in general and influenza pandemic in particular is found to be poor. A few organizations such as the Defense and Health Bureau have some level of preparedness for other emergencies like malaria, meningitis and acute

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<sup>4</sup> Chicken sauce is a national dish in Ethiopia and is often prepared in every household for big festivals

watery diarrhea. Most respondents recognized HIV/AIDS as the major emergency/disaster of the time and they indicated that most actions and attentions are focused on issues related to HIV. *“...we have an emergency plan in the region...the plan clearly identifies population at risk, resource requirements and anticipated epidemic...we planned it well...”* (Informant from Hawassa). Most respondents believe that pandemic flu is not a priority for preparedness currently... *“...don’t you think that there are other priorities than pandemic flu that need immediate attention ...there are a lot of burning issues in our society”* (Uniformed Personnel Key Informant). A respondent from Addis Ababa mentioned that there is a team of experts including Ethiopians and expatriates working on emergency preparedness plan for the city since a year ago; no emergency preparedness plan is available so far.

The Federal Ministry of Health in collaboration with Ministry of Agriculture has established a taskforce that can provide general guidance to prevention and control efforts nationwide. The Federal Ministry of Health in collaboration with its partners such as WHO have been working on developing relevant guidelines, preparedness plans and training of professionals. *“...we have taskforce at the FMOH<sup>5</sup> that consist of major partners and stakeholders...contingency plans were prepared and a series of training were given to professionals at various levels...”* (Informant from Addis Ababa). Some of the respondents from other agencies also reported participating in consultative meetings organized by the Federal Ministry of Health that included participants from neighboring countries.

The Federal Ministry of Health and State/Regional Health Bureaus along with their partners have been making various levels of preparations for a possible occurrence of pandemic flu, from establishing technical committees to including the disease under the surveillance system...*“Pandemic flu is recognized as a very serious fatal epidemics so attention is given on how to control it...we used to have 21 reportable diseases in our system previously but now they are 23 by including AHI and Rift Valley fever...we are working with 5 university hospitals*

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<sup>5</sup> Federal Ministry of Health

*and CDC to open Influenza center within the hospitals. These centers will have modern laboratories which in the future may be used to detect all influenza species...*" (Informant from Addis Ababa).

Most of the respondents however, especially those representing the health sector, said that the health care system has made no special preparations for a possible pandemic influenza at operational levels. The health care system has been known to suffer from a poor logistic system and an acute human resource crisis. Regions have established Epidemic Rapid Response Teams that coordinate emergency responses...*"during the recent acute watery diarrhea epidemics community mobilization and health sector response was coordinated by the Epidemic Rapid Response Team...logistics coordination and medical care provisions were swiftly coordinated...in addition we have an Epidemic Management Committee that coordinates multi-sectoral responses"* (Informant from Hawassa<sup>6</sup>)

The army is better organized structurally and logistically to handle emergency situations. It has good preparedness at any time...*"I am confident that we have the potential to control outbreaks in the Army...however...if outbreaks occur in the community there might be limitations and shortage of resources..."* (Uniformed Personnel Respondent). However, the community at large is believed to be less prepared for emergencies...*"it is very difficult for me to say that the community has preparedness for any possible outbreak of diseases or any other emergency...however if properly informed the community can serve as the biggest asset in managing epidemics."* (Respondent from Addis Ababa)

In most places the largest care providers during emergency situations are the public health facilities. Apart from being small in number they are often not well organized and supplied...*"we try to help...but the public facilities are not adequate to provide emergency services...I don't know what it would be in the rural areas if it is like this in towns...besides most rural areas have less experienced health workers"* (Informant from Bahirdar)

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<sup>6</sup> Hawassa was formerly known as Awassa.

Some respondents believe that other types of providers (mostly private) are increasingly being made available in most parts of the country and the public sector services have been expanding. The problem these days is affordability of services. *“...now a days availability of modern services is improving...the public awareness about modern services is improving...the major bottleneck for utilization is money...”* (Informant from Addis Ababa)

Inadequacy and high turnover of human resource have been major problems in building the capacity in preparedness and response areas. Despite the training of many professionals there remain a few in the system. *“...there are varieties of training opportunities nowadays...people are trained in large numbers...unfortunately they are not available for services in the public sector...they resign/leave because of low salary...”* (Informant from Hawassa)

Some health bureaus have conducted training for health workers on preparation for pandemic flu, but further preparations were diverted because of the occurrence of other epidemics. *“...we provided training to health professionals in Oromia region...however currently we don't give pandemic flu any attention because we have three other diseases that are occurring in epidemic forms...also the suspected epidemics were investigated and found to be negative...however the danger is not yet over because our neighboring countries Sudan and Egypt are reporting bird flu...we know birds fly between the region...”* (Informant from Addis Ababa/Oromia)

Some respondents believed outbreaks such as pandemic flu would have a devastating effect, and there is a clear understanding that such situations may require actions such as quarantine *“...we understand the seriousness of such conditions...there is a discussion on how to prepare quarantine system...though there is yet no pre-defined place/station”* (Informant from Addis Ababa).

### ***Limiting Influenza Transmission with Non-Pharmaceutical Intervention (NPIs)***

Influenza was regarded as a common and self-limited illness by most community members. Efforts to limit transmission are not considered seriously... *“The public has a very low level of awareness about influenza. The disease is seen as a simple and less serious health problem...”* (Informant from Addis Ababa)

The most common strategy identified for limiting influenza transmission was isolation of the sick person. *“Isolation is not uncommonly practiced to limit the spread of contagious diseases... people usually stay away from the sick... food is placed at the some place to be taken by the sick so as to avoid contact... Sometimes a sign is hung on the door of a house where a case is isolated to indicate to other people not to enter the house...when the sick die, they are buried early in the morning to prevent the transmission of the disease to others.”* (Informants from Addis Ababa)

Some respondents expressed their concern about isolating a close relative during illness... *“I know the practices of isolating sick persons..but when the affected person is a close relative, a child or a nearby relative, how could you dare to isolate him/her? ...it is very difficult...they will be ashamed of me when they get better ...”* (Informant from Hawassa)

Since influenza is not regarded as serious disease, absenteeism from work and from other social gatherings was not considered acceptable... *“When I am suffering from common cold ...I would simply go to the office and transmit the virus to others by sneezing and coughing...some colleagues may advise me to take a rest...nobody cares about influenza... In the government office if somebody is absent due to influenza... people tease the person: How could you sleep for influenza?”* (Informant from Amhara)

One informant from Hawassa also described covering their mouth and nose without understanding the reason for that kind of practice...*“in some health centers you see posters that shows a person with influenza covered his mouth and nose ...”*.

The use of herbs and other home remedies was reported to be common in most communities. Some of the major customary practices to remedy influenza are listed below:

- leaves of *Dama Kessie* (local herb); apply juice of the leaves as lotion or drink
- boiled *Hareg Ressa* (local herb); inhaling the steam of boiling leaves believed to reduce the respiratory canal congestions and facilitate easy breathing
- eating *shallot* (Garlic)
- Consuming hot drinks/food such as gruel and porridge
- Steam therapy; inhaling steam from boiling water or dropped on hot iron
- Ginger tea; consumed frequently
- Boiling eucalyptus leaves and inhaling the vapor
- Coffee/tea with honey
- Orange, lemon; consumed either alone or mixed with other drinks
- *Fetto seeds*; the powder is mixed in water and taken by mouth
- Holy water and Emnet (ash from church)
- Isolation; stop going to a house where influenza patients are present, and avoid drinking water from that house, and covering mouth/nose while sneezing and coughing
- Fumigation; ... *“like during “HIDAR METATEN” ... meaning to make the environment smoky. It is also practiced in agricultural plots and in cattle houses. It is believed to eliminate animal and plant diseases. If for example, you make your house smoky, flying insects like bees will die of it. I also practice “HIDAR METATEN” at the 12<sup>th</sup> day of the month November.”* Therefore, the main purpose of “HIDAR METATEN” is to prevent disease occurrence (Informant from Addis Ababa).

However, the measures mentioned above were used as supportive therapy for people affected by influenza. Nothing specific that aims to reduce host susceptibility to infection was mentioned. There is no official stand about the use of traditional medicine and home remedy in the country. People are free to do anything they feel is good.... *“I don’t know about the office...for me unless*

*traditional medicines are life threatening...I don't mind...I used it". (Informant from Hawassa)*

Burning trash during flu season (which is October through December in Ethiopia) is common as a general prevention strategy. *"Hidar Metaten<sup>7</sup> is an old tradition...wonderful culture in cleaning the environment...I know the practice is associated with a devastating flu epidemic...we should do that often ..."* (Informant from Hawassa). *"This kind practice is being promoted by the government agencies and NGOs to create a healthy environment..." Kebele administration and Idirs promote sanitation campaigns in the new millennium...the effort is to make sanitation a culture... projects like Gash Abera Molla also promote sanitation project ...these activities are good to promote health environment..."* (Informants from Hawassa, Amhara and Addis Ababa)

On the other hand some respondents mentioned that the poor and crowded living conditions in both urban and rural areas can facilitate the spread of diseases like influenza. *"...people around here often live together...sanitation and hygienic conditions are poor...people share eating and drinking utensils...families live and sleep in the same room...because of this disease can spread easily"* (Informant from Hawassa).

None of the respondents considered actions such as closing schools and work sites, and avoiding social gatherings to limit the spread of influenza. Respondents mostly considered doing something to either increase the host resistance or providing cure to the sick. None-pharmacological means to limit transmission were not considered as important means of reducing spread of disease.

### ***Reducing indirect impacts of an Influenza Pandemic***

Most respondents claimed that they have not heard anything or seen any plan aimed at mitigating the indirect impact of emergencies. Often families and

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<sup>7</sup> Hidar Metaten literally means fumigating with smoke; the burning of trash early in the morning of November 21<sup>st</sup> fills the air with smoke.

communities obtain support of such kind from extended family networks or from local neighborhood clubs... *“we have never thought of it (pandemic flu) to that extent”* (Informant from Addis Ababa).

Similar observations were made about reducing indirect impacts in work places. No formal mechanisms are established except for the efforts that are made by colleagues to compensate people for time of should they become sick. Many of the respondents from organizations mentioned that workers are entitled to only sick leave; no other compensation in any other form is provided. There are no preparations made by the government to provide effective protection or compensation to health workers involved in emergency situations.

Some organizations have a self-help initiative that provides small funding for families affected by epidemics such as HIV/AIDS... *“employees with low salary cannot stand emergencies...for instance we support low income colleagues affected by HIV/AIDS by providing food ration...we also support the orphaned children.”* (Informants from Bahirdar and Addis Ababa)

None of the informants mentioned any plan to overcome the indirect impact of influenza mostly because they did not consider influenza to be a serious health problem. Some did however mention past efforts related to food security... *...“we also tried to organize ourselves in a consumers’ union in order to buy food at reasonable price from different places in the country...the union was established in 2006...unfortunately, our store is empty now...unfortunately most families store nothing to eat ...only a very small proportion of the population has the capacity of storing food.”* (Informant from Addis Ababa)

### **Sources and Channels for Effective Communication**

Most respondents said effective community and resource mobilization were achieved during emergency situations through mass education and communication strategies. The role of mass media was invaluable in disseminating information fast and wide; especially radio since it is not heavily

dependent on the availability of electricity. An additional advantage of having FM radio stations in the region is that they can be used to transmit messages in local languages. *“...these days the FM radio stations can be used to transmit key messages during epidemic times”* (Informant from Hawassa) *“...we have used the FM radio channel successfully to give out messages on the flood situation ...non-stop for two days...influential people give messages...”* (Informant from Dire Dawa)... *“Radio is the most preferred method by most people ...radio is available everywhere and people listen to it...even farmers listen to radio while working on their farm ...in general radio is the most preferred method to disseminate information to people”* (Informant from Addis Ababa).

The informal channels of communication such as using volunteers to go house-to-house were also reported to be very good ways of reaching the public... *“one of the major sources/channels for communicating information to the community these days is the community mobilization strategy... educating the community by approaching each household. We use kebele (lowest administrative unit in Ethiopia) health representatives, Idirs, volunteers working in different kebeles to coordinate and implement public education at household level. We have a system of using different public gatherings to disseminate information via volunteer youth in each kebele. The youth also mobilize the community by moving home to home...we found this method of disseminating information as the most preferable. Furthermore, we highly rely on this method these days... Recently, there is a new trend of holding community conversation which is lead by a person assigned by the community. They discuss and identify their problems and challenges so that they prepare action plan. Hence, if there are major emergency problems, they can include it in their discussion.”* (Informant from Addis Ababa).

In Ethiopia the administrative hierarchy has been well structured with an effective chain of command at various levels; these structures were very helpful in coordinating activities during emergency situations. *“... we have health taskforce in each kebele...they are in charge of health emergencies at that level ... community members report unusual health conditions (new disease, high*

mortality...) to them...they educate the public and coordinate other activities...they report to the municipality...the municipality in turn reports to the health bureau when situations are not controllable at the level...the problem is people often attribute new diseases and emergencies with evil eye or megagna (attack by evil power) and tend to worshiping places or to holy water” (Informant from Bahirdar).

In rural areas, social gatherings including funerals and weddings were mentioned to be important channels of communication... *“the society believe in seeing ...social gatherings such as funeral and wedding as good opportunities...people talk about new things on those occasions...”* (Informant from Bahirdar).

Some mentioned they utilize the health extension workers network<sup>8</sup> in the country to transmit information about potential emergencies. They can provide education to the general public and provide supportive care to individuals affected by emergencies. ... *“in the recent AWD<sup>9</sup> epidemic health extension workers played a pivotal role in mobilizing the communities to take the necessary precautions to avoid unsafe drinking water by providing key messages via door-to-door services”.* (Informant from Hawassa) The potential use of development agents<sup>10</sup> during emergency situations in rural areas was also mentioned. *“...development agents can be used to disseminate information and reach more people in remote rural areas...they can reach people who may not have radio access...”* (Respondent from Hawassa).

Some organization use internal communication means such as notice board announcements and mini-media channels to transmit information about potential or actual emergencies.

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<sup>8</sup> Health Extension Workers in Ethiopia are trained for one year by the health sector to serve as grass roots health care providers. They are supposed to do more disease preventive and health promotion work. All are females and assigned in pairs at the kebele (smallest administrative unit in Ethiopia) level. By the end of 2008 all kebeles in Ethiopia are supposed to have trained health extension workers.

<sup>9</sup> Acute Watery Diarrhea

<sup>10</sup> Development agents are deployed by the Agriculture sector and they work very closely with farmers to improve productivity.

Some respondents indicated the level of community preparedness is dependent on the amount of information people have; people need to be well informed in advance to prepare themselves and their families. One of the respondents said...*"Our people are living on low salary...unless people are informed in advance it is impossible for them to reasonably handle emergency situations on a monthly salary ...up-to-date information is key for emergency preparedness"* (Informant from Bahirdar).

The lead organizations for preparedness and response for emergencies were able to communicate effectively with stakeholders during past emergencies via radiophone, telephone, and telegraphs. Effective communication channels to inform and educate the public include spreading messages through health facilities; preparing health education materials such as pamphlets/leaflets and posters; organizing public gatherings in religious and market places including organizing a coffee ceremony; and using mass media channels such as radio, and television. Some emphasized the need for using multiple channels of communication, i.e. the mass media and institutional (religious and administrative) forums at the same time to effectively reach a large proportion of the population.

## Conclusions and Recommendations

This section tries to emphasize some of the key findings of the study under the various subheadings. The summary of the main findings are followed by recommendations.

**Past Experience with Emergencies:** People reported ample experience in managing emergencies, however proper lessons were not drawn from those experiences, and no documentation is available on what worked best and what did not work. All of those involved in past emergencies indicated that the shortage of financial, material, and human resources, was a major challenge in managing emergencies. With frequent turnover of staff in many agencies, institutional memories are weak and counting on past experiences is not possible to tackle new emergencies.

*There is an urgent need to properly prepare the systems that are responsible for responding to flu pandemic; from preparing detailed guidelines/manuals to training personnel handling emergencies. Such efforts must have mechanisms to reach responsible bodies and individuals at the various tiers.*

**Perception and Care of Influenza:** Influenza is largely regarded as a common, self-limiting illness, or as the common cold, and no special attention is given to it. Neither the lay people nor health professionals regard it as serious illness. It is especially regarded as a common illness among children.

*The potential for pandemic flu to spread in the community without being recognized as a serious outbreak is high. It is important to establish a very good early warning system in coordination with other relevant sectors to detect outbreaks early and take necessary actions to control it. Special emphasis should be given to detect early outbreaks among children (i.e. outbreaks in schools), and take appropriate and timely actions.*

**Current Preparedness for Pandemic Flu:** The responsible government agencies and their partners at federal and regional/state levels are aware of the potential threats for flu epidemics. Taskforces were established, guidelines and manuals have been prepared for epidemic management, temporary public sensitization program have been conducted, and appeal documents for possible external assistance have been prepared. No concrete actions were taken such as stock-piling supplies and maintaining sustained community sensitization programs however. When the country is being hard-pressed with various health and social problems it is difficult to give priority to an anticipated problem, not a current problem. Thus, any preparation for pandemic flu is short of adequate.

*Awareness needs to be heightened by all concerned national and international agencies so they can make adequate preparations. Recognizing that countries that are affected by frequent natural and man-made disasters cannot prepare adequately without substantial external assistance is important. Unless adequate preparations are done ahead of time, any action after the pandemic starts would be too late to bring any meaningful effect.*

**Limiting Influenza Transmission with Non-Pharmaceutical Interventions:**

Although some people mentioned patient isolation and covering mouth when coughing and sneezing, nobody mentioned closing schools and work places and restricting social gatherings as a means of limiting the spread of influenza. Numerous herbal substances and traditional practices that are believed to be useful either in preventing transmission or reducing symptoms among victims were mentioned; however, there was no strong conviction about their effectiveness.

*No reliance can be made on herbal and traditional interventions to control outbreaks unless further research proves otherwise. Thus, emphasis should be given to scientifically proven means of controlling a flu pandemic. Emphasis need to be given to the importance of non-pharmacological interventions such as restricting crowding and social*

*gathering as means of limiting the spread of epidemics such as pandemic flu.*

**Reducing Indirect Impact of Influenza Pandemic:** This is an area of much concern by most of the respondents. Although families affected by emergencies in the past were supported by government agencies and community organizations, this support was not seen as satisfactory nor systematic. Soliciting support from the International Community has been the main strategy during major emergencies though it was noted that such support for the affected families and communities come after considerable time lag. Often families and communities obtain immediate support from extended family networks or from local organizations such as *Idir*. Similar observations were made about reducing indirect impacts in work places.

*No preparation is made to reduce the potential devastating health, economic and social impacts of pandemic flu. The international community should act urgently to establish mechanisms that can help mobilize adequate resources in the shortest possible time if there is a desire to reduce the direct and indirect impacts of pandemic flu.*

**Sources of Channels for Effective Communication:** Although many sources of information and channels were reported, most informants perceived that communications via radio and through word of mouth by community level informants going house to house or visiting public gatherings, were the most preferred and effective means of communication. Well organized societies such as the army have good command systems for effective and fast communication of information.

*As long as messages are produced in a clear and concise manner the preferred channels of communication can be used to effectively mobilize the community for appropriate actions. Using the communication channels of the army could be useful at times of emergency.*

## **Annexes: Interview Guides**

1. Community members interview guide
2. Civil Society and Community based organizations interview guide
3. Government and Non-Governmental organizations interview guide

# Assessment of preparedness for pandemic influenza in Ethiopia

## In-depth interview guide: Community Members

We are conducting this assessment to know the level of preparedness to influenza epidemic. We invite you to participate in this interview because your views and the views of others like you will help to give direction and insight to plan an effective and realistic response for possible influenza epidemic. The questions we are going to ask will focus on your past experience, communities' perception, reaction and common practices in relation to emergencies, especially to influenza epidemic. We also would like to know what preparations exist and what you think about that and how information is transmitted to the community.

### Section I. Past Experience with Emergencies

1. What kind of emergency situations have you experienced in the past? Can you tell us your experiences in detail?

Probe:

- Types of emergencies (probe for each)
- What did you do? Were you prepared?
- What were the main challenges you faced when dealing with the emergencies?
- What measures/strategies helped you to deal with the emergencies effectively?
- How were the emergencies resolved?
- How would you describe the reaction of the public?
- Has this experience changed how prepared you are for another emergency? How?
- Who was 'in charge' during this emergency (or who was instructing them on what to do)? (police, medical staff, NGOs) How good were they at ensuring everyone's safety?

2. How would you describe the preparedness of the public for any major emergency such as influenza? (preparedness at the household, community, local government, or national level)

Probe:

- If preparedness is reasonable poor or better; why do you say that, please tell me what made you believe so.
- If there is a preparedness plan, can you tell us what the preparation look like?

Probe:

- If there are local committees (local emergency task force)

- If there are drugs, food, equipment, or money stored for any emergency (at house hold level, communal, by the local government agency)
- If there are organizations where they can report in case of emergency disease or other disasters that are responsible for emergency situations.

## **Section II. Perception and care of influenza at the community and household level**

3. Can you tell me what you think about influenza? You may think of the cause, route of transmission, time of year people get it, seriousness...
4. In your community what kind of care is provided to people affected by influenza? What do people typically do for someone who has flu? Is it different for children, adults, and older people? Do they give them traditional medicine or medicine from the pharmacy?

Can you tell us what people do when they get sick?

Probe:

- Where do people go when they are sick?
- When do people in this area commonly seek care?
  - At the onset of illness, early in the course of illness or when they get very ill?

## **Section III. Limiting Influenza Transmission through Non-Pharmaceutical Interventions (NPIs)** (Note: NPIs are things like social distancing, sneezing and coughing into arm, etc. )

5. Can you tell me if there are non-pharmaceutical interventions that are available to limit the transmission of influenza in your community?

Probe:

What are some of the things you can do besides taking medication that help prevent the spread of the flu?

- Probe for each of the things they do
- How effective are they?
- How widely are they known by the community?
- to what extent the community practice these non pharmaceutical interventions?
- Have you heard about "*Hidar Metaten*" (*Burning trash in November*)- what is the purpose; are there any similar practices in your community?

## **Section IV. Sources and channels for effective communication**

6. How do most people in this area get information about emergencies?

Probe:

- List all sources of information
  - How effective are they in transmitting information quickly?
  - Which sources of information reach most population?
7. Which sources commonly reach most of the population? In your opinion which channels of communication are effective to transmit information about emergencies such as influenza?

Probe:

- List all channels mentioned (inquire about electronic, print, public meetings...)
- How effective are they in transmitting information quickly? Any experience in using these channels?
- What would be the most preferred channel of communication in this area?

### **Section V. Reducing indirect impacts of an Influenza Pandemic**

8. Emergency situations can lead to health, social and economic disruptions. What do you think can be done or has been done to reduce these indirect impacts?

Probe:

#### **Health**

- How much you depend on Health Facilities when someone gets sick? Do you go to Clinics each time someone is sick, or only if it is severe? Who takes care of ill people (locally: i.e., traditional healers or anyone without formal medical training)? How will families manage if there is a pandemic and Health Facilities are full?

Where and how do you get medication?

#### **Food Security**

- How much food do you have stored (how many days/weeks/months can your family eat if they could not buy anything from the market)? Does this change throughout the year (rainy season, harvest season, dry season, etc.)?
- Is there a reliable water source nearby? Where, what type, how many? What would you and your family do if your regular water source was dried up or contaminated? Are there alternatives? Do you know how to purify water? (boiling, using bleach, natural herbs, iodine, filtering)?
- Would you be able to store food if you needed to?

#### **Livelihoods**

- Limiting loss of working time? How will your family manage if your income provider is ill or mandated to be isolated (i.e., stay home from work without pay). How will your family manage in case of death of income provider?
- How will you pay for funerals in case of mass death?

- What do you expect the government should do (Aid, compensation) for loss of work or for death of income providers in case of any disaster or epidemic?

**Thank you, I have finished my questions. If you have any question or have anything to say you are welcome.**

# Assessment of preparedness for pandemic influenza in Ethiopia

## In-depth interview guide: Civil Society organizations and Community Based Organizations

We are conducting this assessment to know the level of preparedness to influenza epidemic. We invite you to participate in this interview because your views and the views of others like you will help to give direction and insight to plan an effective and realistic response for possible influenza epidemic. The questions we are going to ask will deal on your past experience, communities perception, reaction and common practices in relation to emergencies, especially to influenza epidemic. We also would like to know what preparations exist and what you think about that and how information is transmitted to the community.

### Section I. Past Experience with Emergencies

9. What kind of emergency situations have you experienced in this area? Can you tell us your experiences in detail?

Probe:

- Types of emergencies (probe for each) (if there were no emergency situations experienced, indicate so. But ask questions below “hypothetically.”
- Did your organization have a role in containing the emergency? What was this role? Were you successful? Why/why not? How? Did you have an emergency plan already in place? (If so), did it work? (If not), do you have one now? What were the main challenges you faced when dealing with the emergencies?
- How did the community react and face the challenges associated with the emergency? Was there adequate information, care, compensation to community members?
- How were the emergencies resolved?
- What measures/strategies helped you to contain emergencies effectively? What needs to be improved?

### Section II. Perception and care of influenza at the community and household level

10. Can you tell me what people in your area think/know about influenza? You may think of the cause, route of transmission, seriousness...In your community what kind of care is provided to people affected by influenza?

11. How do you describe the health care seeking practice of the people in your area?

Probe:

- Where do people in this area commonly seek care?

- When do people in this area commonly seek care?
  - At the onset
  - When it gets worse
  - Very late

12. How would you describe the preparedness of the public (the community members/officials) for any major emergency such as influenza?

Probe:

- If preparedness is reasonable or better; why do you say that, please tell me what made you believe so.
- If preparedness is not reasonable or bad; why do you say that, please tell me what made you believe so.
- Do you think health services are prepared for an emergency situation? (If so) how? (If not), why?
- Are there organizations that can react or be responsible in emergency situation like; flooding, drought, disease outbreaks like influenza
- If there is no organization responsible for this, what would people do? What would you suggest be done?
- Are there any local committees working on emergency situations?

### **Section III. Limiting Influenza Transmission through Non-Pharmaceutical Interventions (NIPS)**

5. What are some things people can do besides taking medication that helps prevent the spread of influenza/ flu?

Probe:

- What are they?
- How effective are they?
- How widely are they known by the community?
- To what extent are they accepted by the community?
  - Does the community they work?
  - Are they easy to perform?
- Does your organization advocate these/support these?
- Have you heard about “*Hidar Metaten*” (*Burning trash in November*)- what is the purpose; are there any similar practices in the different parts of the country

#### **Section IV. Reducing indirect impacts of an Influenza Pandemic**

6. Can your organization do anything to help limit the indirect effects of influenza in your community?

Probe:

- Limiting loss of working time
- Limiting absenteeism from school
- Ensuring food security/food access
- Compensating those who lose income \*as a result of missing work due to illness or due to the illness of a family member

#### **Section V. Sources and channels communication**

7. If you are involved or planning to be involved in public education about emergency preparedness which communication channel (radio, newspaper, TV...) do you think can reach most people in this area?

Probe:

- List all sources of information
- How effective are they in transmitting information timely
- Which sources commonly reach most of the population?
- Would the illiterate population also receive messages in case emergency? If yes, can you tell us how you reach them or how they can be reached?

8. In your opinion which channels of communication are effective to transmit information about emergencies such as influenza?

Probe:

- List all channels mentioned (inquire about electronic (radio, TV ), print (pamphlet, news paper, public meetings(market place, church, idir ...))
- How effective are they in transmitting information timely? Any experience in using these channels?
- What would be the preferred channel of communication in this area?

**Thank you, I have finished my questions. If you have any question or have anything to say you are welcome.**

# Assessment of preparedness for pandemic influenza in Ethiopia

## In-depth interview guide:

### Government and non- governmental Organizations

We are conducting this assessment to know the level of preparedness to influenza epidemic. We invite you to participate in this interview because the information we get from you and others like you will help to give direction and insight to plan an effective and realistic response for possible influenza epidemic. The questions we are going to ask will focus on your past experience, public/communities' perception, reaction and common practices in relation to emergencies, especially to influenza epidemic. We also would like to know what preparations exist and what you think about that and how information is transmitted to the community.

#### Section I. Past Experience with Emergencies

1. What kind of emergency situations have you experienced? Can you tell us your experiences in detail?

Probe:

- Types of emergencies (probe for each) (if there were no emergency situations experienced, indicate so. But ask questions below "hypothetically.")
- Did you/your ministry/etc have a role in responding to the emergency? What was this role? Were you successful? Why/why not? How? Was there an emergency plan already in place? (If so), did it work? (If not), do you have one now? What were the main challenges you/your ministry/etc faced when dealing with the emergencies?
- How did the community react and face the challenges associated with the emergency? How did NGO's and other similar organizations react? Was there adequate information, care, compensation to community members?
- How were the emergencies resolved?
- What measures/strategies helped you to contain emergencies effectively? What needs to be improved?

2. How would you describe the preparedness of the public/community for any major emergency situation such as influenza?

Probe:

- If preparedness is poor, reasonable or better; why do you say that, please tell me what made you believe so.
- If there is preparedness can you tell us what the preparation like?
- If there is special department or unit in the department/ministry/etc

- If there are any local committees working on emergency situations?
- If they are member of national committee if any
- If there are plans, SOPs, legal support,
- If there are drugs, equipments , money for any emergency
- If health services are prepared for an emergency situation? (If so) how? (If not), why?
- What role do you play in these? (the interviewee)

## **Section II. Perception and care of influenza at the community and household level**

3. Can you tell me what the community /public think about influenza? You may think of the cause, route of transmission, seriousness...

4. In the general public, what kind of care is provided to people affected by influenza?

Probe:

- What do they do, isolate, use separate food and drink utensils, other practices.

5. How would you describe the health care seeking practices of the people?

Probe:

- Where do people in this area commonly seek care?
- When do people in this area commonly seek care?
  - At the onset of illness
  - When it gets worse
  - Very late

6. How would you describe the health care system preparedness for an emergency like influenza in Ethiopia (or regional capital/community)?

- Do they provide preventive care as well as treatments?
- Are all people treated the same?
- What happens if people can't afford treatment?
- Are health staff properly trained, and are there opportunities for continuity of knowledge (how do they update their information on pandemic preparedness, new diseases/new strains of old diseases, etc.)
- What kinds of preparations exist in health facilities?

**Section III. Limiting Influenza Transmission through Non-Pharmaceutical Interventions (NIPS)** (Note: NPIs are things like social distancing, sneezing and coughing into arm, etc. )

7. What are some things people can do besides taking medications that help prevent the spread of the flu?

Probe:

- What are they
- How effective are they?
- How widely are they known by the general public?
- To what extent are they accepted by the general public?
  - Does the public think they work?
  - Are they easy to perform?
- Does your dept/ministry/etc. advocate these/support these?
- Have you heard about “*Hidar Metaten*” (*Burning trash in November*)- *what is the purpose; are there any similar practices in the different parts of the country?*

**Section IV. Reducing indirect impacts of an Influenza Pandemic**

8. Can your dept/ministry/etc do anything to help limit the indirect effects of an influenza pandemic in your community? (**Work and schools may be asked to close to limit transmission.. it may be counterintuitive to ask them to do something to limit absenteeism.**)

Probe:

- Limiting loss of working time
- Limiting absenteeism from school
- Ensuring food security and food access
- Compensating those who lose income
- Economic loss

**Section V. Sources and channels for effective communication**

9. In your opinion, how do most people get information about emergencies?

Probe:

- Are you involved in educating the public on emergency preparedness?
- List all sources of information

- How effective are they in transmitting information timely
- Which sources commonly reach most of the population?
- Would the illiterate community also get message?

10. In your opinion which channels of communication are effective to transmit information about emergencies such as pandemic influenza?

Probe:

- List all channels mentioned (inquire about electronic, print, public meetings...)
- How effective are they in transmitting information timely? Any experience in using these channels?
- What would be the most preferred channel of communication in this area?

**Thank you, I have finished my questions. If you have any question or have anything to say you are welcome.**