

# **Mali: Rapid assessment of beliefs and understanding related to H1N1 influenza immunization<sup>1</sup>**

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## **Introduction**

The United States and several other industrialized countries are working with WHO to financially and technically support novel H1N1 influenza vaccination of health workers and pregnant women in some developing countries. This endeavour involves the use of a new product (novel H1N1 vaccine) against a relatively new public health hazard that may be somewhat unfamiliar to the target groups. Given the urgency of the epidemiologic situation, a non-routine style of service delivery will be employed to reach large numbers of people in a short period of time. There is only limited experience with immunizing health workers in developing countries. Regarding pregnant women, there is a long history of immunizing them with tetanus toxoid. Periodically and in multiple countries, however, allegations have arisen that vaccination of pregnant women is a veiled attempt to sterilize them. These rumours have proven very damaging to immunization efforts and, in some places, have persisted for several months before being resolved.

Taken together, these issues constitute a cluster of concerns that should be explored in order to develop effective communication strategies to support novel H1N1 influenza immunization. For this reason, it is proposed that a rapid assessment of knowledge and attitudes toward novel H1N1 influenza and vaccination against it be conducted in a few select places.

## **Target groups for assessment**

In broad terms, the assessment will explore understanding and attitudes toward novel H1N1 influenza and H1N1 influenza vaccination among those who are to receive the vaccine, namely pregnant women and health workers. The views of health workers are particularly important because they will be as both recipients and providers of the vaccine. A third target group is higher level stakeholders who can play an important role in promoting and supporting – or blocking – these vaccination efforts. Stakeholders may include: top government and political officials who affect decision-making on health; heads of professional associations for nurses and obstetricians; labour organizations for health workers; influential academics; technical partners (e.g., local WHO staff); immunization program managers; district officials; community and religious leaders.

More information than is currently available will be needed to define these target groups in enough detail to carry out the assessment. Given limited vaccine supplies, decisions will be made about geographic distribution of H1N1 vaccination; it will likely be limited to high-risk areas, e.g., densely-populated urban areas, refugee camps, cross-border areas. This information will be used to further define the individuals to be included in the assessment.

## **Objectives of assessment (by participant group)**

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<sup>1</sup> Adapted from rapid formative research on new vaccine introduction in Rwanda, 2009. (Y. Drabo, AED for the IMMUNIZATIONbasics Project in conjunction with MOH/Rwanda)

#### Pregnant women:

- Describe their understanding and perceptions of H1N1 influenza and vaccination against it
- Identify the advantages, for themselves, their child, and their families, of H1N1 vaccination
- Describe their concerns about H1N1 vaccine and vaccination
- Identify the types of information about H1N1 vaccination that they would like to receive, and from whom they would like to receive it
- Identify any obstacles to getting vaccinated against H1N1 influenza

#### Health workers:

- Describe their understanding of H1N1 influenza and perceptions of their personal risks from the disease as health care providers
- Give their opinions on receiving vaccination against H1N1 influenza
- Give their opinions on vaccinating pregnant women with H1N1 influenza vaccine
- Describe their perceptions and possible reasons why pregnant women and their families might accept or not accept the vaccine
- Describe their own reactions to the concerns that pregnant women and their families might express about the vaccine
- Identify the types of information that they'd like to receive to help them to respond to the concerns of pregnant women and their families

#### Stakeholders:

- Describe their understanding of H1N1 influenza and vaccination against it
- Give their opinions about H1N1 vaccination, including their perceptions of benefits and concerns about it
- Describe possible reasons why pregnant women and health workers might accept or not accept the vaccine
- Identify the types of information they would like to receive to address these concerns
- Suggest effective ways of communicating to health workers, pregnant women and their families, and the community at large about H1N1 influenza vaccination.

### **Methodology**

To gain an understanding of attitudes (and to a lesser extent, knowledge), this will be a rapid qualitative assessment using mostly open-ended questions. This type of inquiry is needed to uncover underlying concerns to address in planning both the supply and demand aspects of the H1N1 vaccination campaign.

Individual interviews will be used to collect information from the three groups: pregnant women, health workers, and stakeholders.

The number of questions in the discussion guides is deliberately limited in order to both accommodate time constraints and permit the exploration of participants' views and reasons behind them.

### **Sites for assessment**

Interviews with health workers and pregnant women will be conducted in the locations in a country where H1N1 influenza immunization is to be provided. Interviews should be carried out in at least two geographically distinct areas (e.g., regionally in Asia, Africa and LAC, and nationally in at least two cities; or a city plus a refugee camp, etc.)

Interviews with stakeholders will be carried out both at national level and at local level (for local community and religious leaders or district officials).

### **Interview teams**

#### Background of interviewers

Each interview teams could be comprised of at least one person with experience in conducting interviews and one other person who is familiar with the health system in general and immunization in particular. In addition, a technical specialist knowledgeable about H1N1 influenza should be on the team as a resource, if possible.

Each team will consist of:

- An interviewer
- A technical specialist in immunization and H1N1.

It is desirable that the second person (technical specialist on H1N1 and immunization) be available to respond to any questions that health workers or pregnant women may raise in the course of the inquiry. Each team of researchers should also be provided with a Question & Answer sheet that presents common questions about the vaccine and the appropriate responses.

### **Supervision**

It will be important for this assessment to be organized and managed by in-country colleagues who are: (a) fluent in the local language(s) commonly used by pregnant women and health personnel in the sites where H1N1 influenza vaccination will be conducted; and (b) proficient in research techniques. The management team for the assessment should travel with the teams to the areas where the inquiry is to take place to assure the quality of data collection. They should be prepared to assist with on-the-spot decisions such as reconsidering the sites (health facilities) for interviews, ensuring that participants meet the inclusion criteria, or redirecting discussions to ensure that they are productive.

### **Analysis of findings and preparation of report**

At the end of each day, interview teams will meet with the assessment management team to review and compare their findings, identify key issues, and revise approaches for the next day as needed.

At the conclusion of the assessment, the management team will conduct an analysis of all findings, triangulating among observations from each target group and identifying key themes that must be addressed in planning the vaccination campaign. They will prepare a final report that highlights key findings and recommends critical elements for the communication strategy, including objectives, target groups, messages, materials, dissemination, and monitoring.

#### Instruments

- For pregnant women
- For health workers
- For stakeholders

## **Discussion guide for pregnant women**

The moderator introduces the discussion with a short script that briefly describes H1N1 influenza and the Ministry of Health's (MOH) plans for H1N1 vaccination.

“Thank you for giving us some of your time today.

My name is Mamadou Camara and my colleague here is Philip Sedlak. We are working with the Ministry of Health to improve the health in the country.

Today, we would like to start by informing you that the MOH would like to start giving a new vaccine, H1N1 influenza. For this reason, we'd like to ask some questions to get an idea of what you think of this proposal by the MOH.

Your opinions are very important. They can greatly help the MOH. We greatly appreciate your participation in this discussion. The questions and discussions shouldn't take more than an hour. At the end, we'll give you something to drink and invite you to ask any questions that you may have about this subject.

During the past six months or so, a disease called H1N1 influenza, or swine influenza, has made people ill all around the world and has killed some of them. The disease, H1N1 influenza, has been especially dangerous for pregnant women and has killed more of them than other people. Now there is a vaccine for H1N1 influenza that can prevent people from getting the disease.

The MOH is planning to give H1N1 influenza vaccine to pregnant women in certain parts of the country because those are the places where H1N1 influenza might make the most people sick. The MOH will also give the vaccine to health workers in these areas so that they can stay healthy and protected from H1N1 influenza and keep providing care to patients.

You will probably receive this vaccine just one time while you are pregnant. You will be able to receive it at places to be decided by the MOH. This vaccine is safe for both you and the baby you are carrying. You may feel pain with some swelling and redness at the site of the injection on your arm for a day or two. But the vaccine is effective and safe and is already used to protect pregnant women in other countries.

### **Summary of interviews with pregnant women**

Before beginning the discussion about results, it is important to draw attention to certain aspects of this series of interviews. First, women were chosen at random from those in the waiting room in the maternity section of the Centre de Santé de Référence, Commune V, Quartier Mali in Bamako. These women had come to the health centre for prenatal consultation. 10 pregnant women aged 17 to 42 years with differing levels of education and from different types of neighbourhoods, chose to participate in this study (the fact was that no one who was requested refused). Respondents held more or less the same points of view on many questions of the guide, particularly on issues relating to knowledge of H1N1 influenza and knowledge and attitudes

about the vaccine. Responses were short and precise. This can be explained by the fact that respondents had little knowledge about the disease and thus had little to say.

### **Question 1:**

“Have you received other vaccinations before at the time of a previous pregnancy? What did you like about the experience? What didn’t you like? (Probe: amount of time spent waiting, information given by the health worker during the vaccination session)”

### **Answers to 1:**

Participants’ answers to this question were more or less the same. This can be explained in part because eight of the 10 participants had been pregnant before and had been subjected to vaccination procedures. They had participated in programs like the Expanded Program on Immunization (EPI). Thus they had received vaccines during their previous pregnancies and had had similar vaccination experiences either as part of the pre-natal clinic procedures or through participation in neighbourhood vaccination campaigns. All were satisfied with the treatment afforded them at these times. Here are examples of their responses:

#### 34-year-old woman, third pregnancy:

"I was in the habit of checking my vaccination status at the time of pre-natal visits when I was pregnant other times. And I also participated in vaccination campaigns and received vaccination during neighbourhood vaccination campaigns. And I have always been satisfied."

#### 25-year-old woman, fourth pregnancy:

"During my previous pregnancies, I routinely observed the necessary pre-natal clinic visits, Thanks to the vaccines that I got at the Pre-natal Clinic, I gave birth easily and all my children were born safe and sound. As for how the immunization sessions were conducted, I never had any problems."

#### 17-year-old woman, first pregnancy:

"As of now I have only received one dose of vaccine, and during the immunization session I received lot of information from the health worker about how the pregnancy should evolve, the movements of the baby in the womb, and so on. And in these meetings with the health worker I never had any difficulty."

Thus, as seen in the perspective of these statements, pregnant women have found nothing wrong with how immunization activities are presently conducted. Even though women were probed at greater depth during the interviews, not much was disclosed which would reveal more than general sense of satisfaction at how vaccinations were handled. The women did not seem to have attached much importance on information received during pre-natal counselling, and their attention was directed more at the vaccinations themselves. Only one participant chose to go into detail about information received during counselling.

## **Question 2:**

“Based on everything you know now, or just on your opinion, do you think you will most likely get vaccinated or will probably not get vaccinated? (Probe: if they are not sure, ask them to try to make a decision, either ‘yes’ or ‘no,’ based on how they are leaning.)”

## **Answers to 2:**

This question was very relevant to this study, as it showed how little pregnant women knew about this disease. In general the level of pregnant women’s knowledge about the disease is very low. It might be possible to assume that the rest of the Malian population also knows little, or less, than these pregnant women. Of the 10 pregnant women interviewed five had never heard of H1N1 influenza. The other five who claimed to know something about the disease, often had inaccurate information, which they may have obtained through hearsay or from unreliable sources. This can be seen in the following answers:

### 25-year-old woman, fourth pregnancy:

"I have just heard rumours that a severe form of flu has emerged, and it's very painful, but I know no more, because none of the people I know have fallen sick from it."

### 23-year-old woman, first pregnancy:

"I have heard rumours about this, and according to the information from these rumours, avian H1N1 is the result of rainmaking operations, that is to say, bombing clouds using airplanes. But other than this I have no other information about its prevention or transmission."

Like the above two respondents, others had more accurate information about the disease:

### 42-year-old woman, fifth pregnancy:

"I learned on TV that there is a disease that is wreaking havoc. And it is transmitted by shaking hands with people or by touching the handkerchief of a person already infected by the disease or when a sick person sneezes next to you. To prevent this disease, people should always throw used tissues in the trash and always wash their hands with soap before eating. In other words, it's a disease which spreads through the air and by being close to infected people, especially in crowds. But this has not been the case in Mali yet."

### 30-year-old woman, seventh pregnancy:

"I heard a little about it on TV. According to what I heard, women and children should be careful about getting this disease through air blowing on them. If they can do this, they might avoid contracting the disease."

## **Question 3:**

“Can you tell us what you have heard about H1N1 influenza? What have you heard about vaccination against H1N1 influenza?”

**Answers to 3:**

This question was meant to elicit information from the women about what they thought about being vaccinated against H1N1 influenza. In spite of their relative ignorance about what the disease is, these pregnant women, without exception, expressed a willingness to be vaccinated against it. They were also curious about what the implications of being vaccinated might be, primary and side effects, for example. This was shown by their willingness to show this curiosity at the time of the interviews. They said that, for the moment, they could not see any drawbacks to being vaccinated against H1N1, as they believed that the vaccine would protect them and their fetuses against the disease. Moreover, during interviews at least three respondents justified their eventual participation in an H1N1 vaccination through the well-known adage: "Better safe than sorry." What we saw here was a generally high level of awareness about being able to trust health institutions to protect them and to provide disease prevention. It is almost possible to conclude that if the evidence and counseling are well done, women are willing to accept almost any vaccine, in the hope that it will help to protect them against disease.

42-year-old woman, fifth pregnancy:

"Of course I'm going to get vaccinated! Because in my opinion vaccinations prevent disease. As the proverb states, 'Prevention is better than cure.'"

25-year-old woman, fourth pregnancy:

"But if the vaccine is within reach, of course I will. Would it not better to prevent than to cure?"

**Question 4:**

“What do you think about the MOH’s plan to vaccinate pregnant women with this vaccine?”

**Answers to 4:**

All the women interviewed supported the vaccination plans of MOH. They all think it is a good initiative, and also recognize that pregnant women are more vulnerable to disease. Protecting themselves will also save the babies they are carrying. Moreover, they also believe that this vaccine will improve the quality of women's health. Here are some sample statements:

30-year-old woman, seventh pregnancy:

"I agree with the MOH, because giving the vaccine to pregnant women will also spare children from disease."

17-year-old woman, first pregnancy:



"It's a good initiative, because this vaccine will help to improve the quality of women's health."

However, some would like any immunization campaign to be extended to the population as a whole.

26-year-old woman, second pregnancy:

"It's a good initiative, but we should extend it to all the people ..."

42-year-old woman, fifth pregnancy:

"Targeting pregnant women is a good initiative. But if the initiative were extended to the entire population that would be even better. But any prevention of disease action should be encouraged, because nothing is more valuable than your health."

#### **Question 5:**

"Could you please explain why you hold this opinion?"

#### **Answer to 5:**

The answer to this question is included in the responses to Question 4.

#### **Question 6:**

"What would be the benefits of using this new vaccine? The benefits for you? The benefits for your baby and for your family? (Probe: protection of mother against H1N1 influenza means she won't be sick with H1N1 when she is pregnant or when her baby is born ...)"

#### **Answers to 6:**

Almost all of the women saw only benefits arising from being vaccinated with the H1N1 vaccine. They said that this vaccine will protect them and their unborn babies against H1N1 influenza. In addition to protecting the mother and the baby, some respondents believed that vaccination of pregnant women can benefit the whole family, particularly the husband. They explained that if a woman is healthy there will be fewer expenses for the husband and the family will benefit through increased financial stability.

17-year-old woman, first pregnancy:

"In my opinion, the benefits of this vaccine are enormous. Because I guess it can protect me and the child that I carry against avian [sic] H1N1. This will also create fewer health problems for my family."

25-year-old woman, fourth pregnancy:

"If pregnant women are immunized, other family members' risk of contracting the disease will be minimized."

19-year-old woman, second pregnancy:

"For me the benefits of the vaccine are really great because it not only helps protect the mother and her unborn child, but it will also provide financial stability to the family so the husband will also benefit."

42-year-old woman, fifth pregnancy:

"The advantage of this vaccine is that it will protect the pregnant woman and the baby she is carrying against this disease. Because if a mother is to care for her children, she must first be healthy."

**Question 7:**

"Now I would like to ask you if you have any concerns about this new vaccine. Are there any reasons why you would not be vaccinated with this H1N1 influenza vaccine? What do you see as the disadvantages, if any, of being vaccinated?"

**Answers to 7:**

Responses to this question broke down into two categories.

In the first response category were eight women who said that they trusted the efficacy of the new vaccine. They saw only benefits. The following answers illustrate this.

34-year-old woman, third pregnancy:

"I do not mind being vaccinated, because I think the goal of vaccination is to prevent disease, and in this case I do not see what concerns people might have about it."

38-year-old woman, fifth pregnancy:

"I see no harm in getting vaccinated. "

Women in the second category had some reservations. In fact, the concerns raised by these two participants seem very relevant. Because they assume that they are lacking information on the disease in question, so they are not willing to express their concerns before having adequate information.

17-year-old woman, first pregnancy:

"My major concern is that I have no information on this vaccine."

23-year-old woman, first pregnancy:

"Well, this raises the question of whether this vaccine has side effects harmful to pregnancy, or worse which might make a woman sterile. If we can clarify these dark corners we might be more in favour of the vaccine."

**Question 8:**

"If that is the case, what are the reasons? (Probe: acceptability by the woman, her husband, mother-in-law or others; difficulty in getting to the health facility when pregnant)"

**Answers to 8:**

The answer to this question is included in the responses to Question 7.

**Question 9:**

"Are there people who think that you should be vaccinated? Who are they?"

**Answers to 9:**

Answers to this question can be grouped into three categories:

The first category includes responses from women who have cited members of their families, as people who would pressure, encourage or support them to follow through on vaccination. These people included husbands, brothers and sisters, etc.

34-year-old woman, third pregnancy:

"My brothers and sisters would be the first ones to encourage me to be vaccinated – they are often the people who remind about the appointment dates for my children's vaccinations. But it must be acknowledged that I have an intellectual family, whose members are aware of the importance of vaccination."

17-year-old woman, first pregnancy:

"All members of my family and my husband will want me to be vaccinated."

The second category is comprised of women who do not feel that they need the advice or support of anyone to get vaccinated.

25-year-old woman, fourth pregnancy:

"Still, there will be some people who will encourage you to get vaccinated and other people who will try to dissuade you. But ultimately the decision will be your own."

42-year-old woman, fifth pregnancy:

"I don't think we need the advice of anyone to get vaccinated, since this is our own health. And in my case, I always schedule my vaccination appointments without asking the opinion of anyone else."

The third category is comprised of women who think that the husband is the only crucial person to consult regarding decisions about vaccinations.

38-year-old woman, fifth pregnancy:

"At this point, I think that in general women are under the authority of the husband. And thus it is necessary that the husband agree that a woman can be vaccinated."

**Question 10:**

"Are there other people you know - in your family, or others - who might have concerns about you getting vaccinated? Who are they? What concerns do you think they would have? What about concerns in other people's families?"

**Answers to 10:**

Of the 10 women who participated in this survey, only two said they know people who think they should not be vaccinated: these are either older members of their own families or illiterate men and women in the neighbourhood. In general, the doubters are people who think they can catch diseases through vaccines or people who confuse vaccines with contraceptive methods.

34-year old woman, third pregnancy:

"I know people in my neighbourhood who do not want to be vaccinated because they think they can get other diseases through vaccines."

23-year-old woman, first pregnancy:

"Usually it's the old people who oppose it ... say ... the grandmothers. Because they used to say that vaccines can have adverse effects on pregnancy or cause infertility. They even say you can get AIDS through vaccines."

**Question 11:**

"What would make it easier for you to be vaccinated?"

**Answers to 11:**

Six respondents out of ten said that they are willing to be vaccinated "under any conditions." The other respondents said that vaccinations would be facilitated if immunization teams were sent

into the neighbourhood or households. They also felt that a thoroughgoing communication campaign as well as free vaccines could also motivate people to participate.

34-year-old woman, third pregnancy:

"In my opinion, if people could have access to free vaccine, the problem of resistance will not arise, and we will not even need to be sensitized to be vaccinated. Especially since the vaccine will protect against disease. "

17-year old woman, first pregnancy:

"I think that it is easier to have vaccination teams deployed in neighborhoods, so that people can move from one district to another in search of the vaccine."

23-year-old woman, first pregnancy:

"To encourage people to get vaccinated, first there should be a good communication campaign, then multiple vaccination sites should be set up then vaccinators could also go door to door."

42-year-old woman, fifth pregnancy:

"If you could send vaccination teams in areas of return in families like that, it will be easier. Otherwise if necessary, we will have to visit a health center, even if we borrow a means of transportation. "

**Question 12:**

"What would make it more difficult for you to be vaccinated?"

**Answers to 12:**

Eight of the 10 respondents reaffirmed that they saw no obstacles which would prevent them from being vaccinated if the vaccine were available. One of them said that there was no need to plead with them to participate as vaccinations are a service for which people should readily present themselves. Two of them, who had already decided that they would be immunized, stated that it would be a good idea to publicize the campaign and to establish nearby vaccination outreach points.

17-year-old woman, first pregnancy:

"Distance from the vaccination centre may be the only obstacle, in my opinion. For example, it happened that my mother was always moving from one neighbourhood to another in search of vaccine during an immunization campaign."

23-year-old woman, first pregnancy:

"Unless there is insufficient publicity about a vaccination campaign, there should be no difficulty?"

**Question 13:**

"When you come for an H1N1 vaccination, what information would you like the health agent to give you about the vaccine at the time of the vaccination?"

**Answers to 13:**

All respondents said that they would like to have more detailed information on influenza and the H1N1 vaccine.

42-year-old woman, fifth pregnancy:

"We especially need information about the vaccine because they do not even give out the names of the vaccines provided as part of pre-natal care."

34-year-old woman, third pregnancy:

"Since this is the first time I am hearing about this disease, I would like to have more information about the purpose of the H1N1 influenza vaccine."

23-year-old woman, first pregnancy:

"I would like to have more information on this disease, that is to say, about how it spreads. What do we need to do in case of an infection? This is the information that people really need."

**Question 14:**

"If you have concerns, what would you like to hear from the health care provider that could reassure you? (Probe: what you need to do in case of side effects, reassurance that the vaccine is safe, which illnesses the vaccine can prevent, how many times to get the vaccine.)"

**Answers to14:**

Respondents did not have much to say about this issue, and some found the question embarrassing. They found it difficult to discuss their concerns about something they were almost completely unfamiliar with. This may be why half the participants preferred not to respond. The five others who did answer stressed their interest in having more information on the H1N1 influenza and its vaccine.

34-year-old woman, third pregnancy:

"In my opinion, it is difficult to discuss concerns over the vaccine until we first have minimal information on the disease itself, then we could ask more about its purpose and effects."

42-year-old woman, fifth pregnancy:

"Often there is concern about the dosage of the vaccine. We have heard rumours that after receiving a vaccine, some kids have diarrhoea, or die because of an overdose. I even think that this has happened to mothers who have had their children vaccinated several times with the same vaccine during immunization campaigns. Also it is often said that one should not wash the day one receives a vaccine ... "

**Question 15:**

"Are there other people besides the health care provider from whom you would like to hear about this vaccine?"

**Answers to 15:**

The respondents had a variety of answers to this question. Three out of 10 thought that only health providers should be authorized to dispense this kind of information. But three others thought that radio and television media were better at dispensing the correct information and raising awareness. Two other respondents suggested involving community leaders together with media and health care provider communication. Two others had nothing to say.

34-year-old woman, third pregnancy:

"Outside of health workers, the chief district may also summon the inhabitants of the area to provide information on the interests of this vaccine."

23-year-old woman, first pregnancy:

"I think that in addition to health workers, community leaders, such as local chiefs, and leaders of women's organizations would also be good sources to provide information on the vaccine."

30-year-old woman, seventh pregnancy:

"I think health workers, radio and television are good channels of information for this vaccine."

42-year-old woman, fifth pregnancy:

"In my opinion not more than one health agent."

## **Discussion guide for health workers (vaccinators)**

The interviewer says the following:

“My name is Mamadou Camara and my colleague here is Philip Sedlak. We are working with the Ministry of Health (MOH) to improve health in Mali. Soon, the MOH is going to start giving a new vaccine against H1N1 influenza. For that reason, we’d like to ask some questions to find out what you think of the proposed MOH H1N1 vaccination activity.

Your opinions are very important and can greatly help the MOH with the H1N1 influenza vaccination. We greatly appreciate your participation in this discussion. The questions and discussions shouldn’t take more than an hour. At the end, we’ll give you something to drink and invite you to ask any questions that you may have about this subject.

During the past six months or so, a disease called H1N1 influenza has made people in countries all around the world ill with influenza symptoms and has killed some of them. The disease, H1N1 influenza, has been especially dangerous for pregnant women and has killed more of them than other people. Now there is a vaccine for H1N1 influenza that can prevent people from getting the disease.

The MOH is planning to give H1N1 influenza vaccine to pregnant women in certain parts of the country because these are the high-risk areas for H1N1 influenza. The MOH will also give the vaccine to health workers in these same areas so that you will also be protected from H1N1 influenza and can continue to provide health care.

You will receive a single dose of this vaccine soon. You will be able to receive it at a location to be identified. This vaccine is safe and just a single dose is effective in adults. The vaccine will be given by intramuscular injection in the upper arm, so you may feel pain with some swelling and redness at the injection site for a day or two. But the vaccine is effective and safe and is already being used in other countries.

In addition to receiving the vaccine yourself, you will also vaccinate pregnant women by giving them a single dose regardless of their stage of pregnancy. Studies have shown that the vaccine is safe and effective in pregnant women during all stages of pregnancy. Pregnant women in many other countries are already being vaccinated with this vaccine.

There will be a special, one-time only vaccination campaign to vaccinate pregnant women with this vaccine. It will take place at a time to be announced. Before then, the MOH will train vaccinators on how to handle and administer this vaccine.

At this time, the MOH would like to know if vaccinators think that there could be any particular problems with this new vaccine - either in receiving it yourselves or in giving it to pregnant women - that can be addressed in planning. It is for this reason that we would like to ask you some questions. Let’s begin.”

### **Summary of interviews with health workers**



## **Question 1:**

“Can you tell us what you have heard about H1N1 influenza?”

## **Answers to 1:**

The eight-person health worker sample was comprised of two doctors, two nurses, two midwives and two medical assistants (“nurse practitioners” in American). Overall they were well prepared and enthusiastic about answering questions as they wanted to share their concerns and expectations regarding this study. Thus the different responses provided should give an overall picture of what kind of behavior to expect from vaccinators and should provide useful background information from the suggestions of these men and women to develop communication interventions linked with the H1N1 vaccination campaign.

Of the eight respondents only two were hearing about the disease for the first time during the interview. All the others claimed to have learned of it through television and had some idea of modes of transmission and prevention, although they confessed that their level of knowledge was not high.

### Medical assistant, 51 years old:

“I got good information about this disease through television. This included information about how it is transmitted and what can be done to prevent it. It is said that contamination is airborne, which means that if someone with the virus is talking to you and standing right in front of you, the virus can infect you. Or if someone coughs in front of you the germs can infect you.

As far as prevention goes, it is advisable to wear a mask or a scarf and not cough into people's faces. We are also advised to wash our hands frequently, so as not to catch it or pass it on to other people.”

### Medical assistant, 39 years old:

“Well ... obviously I do not know much about this disease, even when I heard that it is a contagious disease, a type of influenza or some kind of rhinitis. As to how it is transmitted, I learned that you can contract it by touching the of an infected person. So we can get it through the mucus and saliva of an infected person if that person sneezes near you.

As to prevention, we should wash our hands regularly with soap, and not touch the hands of an infected person.”

### Midwife, 47 years old:

“I don't know much about avian [sic] H1N1, it's simply a new disease, so let's say ... it seems like it comes from human contact with pigs ... I don't know. And as to preventive measures, I hear that colds must be reported.”

Midwife, 56 years old:

"I know nothing about the disease, although I often hear about how to prevent it on TV. We should wash our hands and wear aprons. But beyond that, I don't have a comprehensive picture of what it is.

Male doctor, 38 years old:

"Well, we know that the H1N1 influenza is like any other influenza: it is infectious, communicable and rampant in the world. Well, specifically, I do not know the prevalence rate for Africa and Mali. All we know is that influenza is an infectious disease whose pathogen is a virus that can spread from person to person by direct contact with nasal secretions, etc. And with respect to clinical signs, we can say that the disease is manifested by fever, aches, general malaise and often a runny nose. As to methods of prevention: first there should be a community hygiene program, second, it is not a very good idea to just sneeze any old way ... you should always have a handkerchief with you in order to prevent the possible spread of mucus in the air. So we should protect ourselves as health care providers, using masks when doing consultations and so on. And this measure can be even extended to the entire population, especially people who work in factories where there are greater numbers of people."

Female doctor, 48 years old:

"I am not familiar with this disease!"

Nurse, 49 years old:

"This is a condition whose symptoms are headache, sneezing, and chest pain. From what I know it is a disease spread from pigs. Also as it is transmitted by breathing in mucus. Hence the need to protect the nose and to wash the hands regularly. On television, I also heard that the French health officials were reluctant to use this vaccine [she did specify whether this had to do with themselves being vaccinated or the French patients being vaccinated], but we don't know why."

Nurse, 55 years old:

"I've never heard of this disease."

**Question 2:**

"What have you heard about vaccination against H1N1 influenza? What advantages do you see to your getting vaccinated against H1N1 influenza?"

**Answers to 2:**

While almost all health care providers said they had information about H1N1, their information on the vaccine was highly inaccurate and they seemed sketchy and confused. Answers about the vaccine tended to be face-saving and on the timid side. This may mean that they have probably

not be privy to accurate information. Here are some samples:

Medical assistant, 51 years old:

“The best approach to prevention of epidemic diseases is to develop an effective and efficient vaccination plan. On the subject of information, well, television was my source. I saw on television that they have begun to vaccinate health workers, and as you said pregnant women and small children. But according to these reports some health workers have accepted being vaccinated and others have not, because they think that the constitution of the vaccine thus far is not as correct as it might be. On television, there was speculation that the vaccine could have a negative effect on long-term health. Well, anyway, I think that despite the side effects or anything else, I would do it. Vaccines? There is always the assumptions that vaccines are made to improve and not hurt people’s health. But actually I don’t have enough information about the vaccine’s side effects, dosage, or efficacy . Often I ask whether the time has been taken to test the vaccine in order to have information about its effectiveness and its side effects.”

Medical assistant, 39 years old:

“Well, I heard that there’s a vaccine against H1N1 influenza, but I haven’t seen anything yet and I can’t say anything about it.”

Midwife, 47 years old:

“I don’t know anything about it! And I don’t know if there is any in Mali.”

Midwife, 56 years old:

“I have no information on this vaccine!”

Male doctor, 38 years old:

“I haven’t learned much about the existence of a potential vaccine against H1N1 influenza, nor do I know anything about its availability. No! “

Female doctor, 48 years old:

“I haven’t heard anything about it.”

Nurse, 49 years old:

“Well, I don’t have any information about H1N1 influenza vaccine.”

Nurse, 55 years old:

“I am not familiar with this vaccine.”

### **Question 3:**

As a health care provider who is in contact with sick people, what do you think about your own risks of becoming sick with H1N1 influenza? (Probe: in what ways would H1N1 influenza affect you? If you got sick with it, how would it affect your family?)

### **Answers to 3:**

All the health care providers share the same view, including those who say they have no information about this disease. They all found that their risk is very high, since they may come into contact with an H1N1 carrier without knowing it. Through their answers it's easy to see that they have only minimal information on the prevention of H1N1 influenza H1N1, but they do not generally practice these prevention measures. But they are well aware of the threat they pose to their families in case they become infected themselves.

#### Medical assistant, 51 years old:

“Well, relative to the preventive measures referred to, it is obvious that these measures have not been implemented here 100% of the time. Oftentimes peoples' behaviour is just the opposite of the desired behavior, but we should still try to air for the maximum prevention behavior possible. For example, not long ago a medical representative gave us this bottle of disinfectant that you see which we are using to clean our hands after examining patients. And when we can't use the disinfectant, we wash our hands with soap.”

#### Medical assistant, 39 years old:

“I think we're not protected, for example when we are with a patient with H1N1 influenza, a person who is infected. We sometimes don't wear aprons to examine patients properly but we wash our hands afterwards. But like all these preventive measures, now we just wash our hands after examinations, without putting on an apron. And in case of infection, our families will also be exposed.”

#### Midwife, 47 years old:

"We run the risk of getting infected with the disease and our families do too. This is why a vaccine is welcome.”

#### Midwife, 56 years old:

“I think the risk is high because an infected person may cough in your face, or shake your hand without you being too aware of it. You can get it because viral diseases can be easily transmitted.. So if this happens you could also transmit it to your family. And we are lax in observing preventive measures.”

#### Male doctor, 38 years old:

“I think that if someone in our country is going to be exposed to the disease, it will be health personnel. Because anyone not feeling well shows up at the health centres. This happens every day, whether it’s for H1N1 or any other condition, even tuberculosis. People come to us. So I think we are at increased risk of catching the disease from the general population. And if any family is going to run a great risk, it’s the family of the doctor. You see, we will just wear the shirt we used during the day which collected the germs, then we will bring it home.”

Female doctor, 48 years old:

“No! The risk is high. If this disease ever appears, our risk of infection is high. Because it spreads through the air and it spreads fast! Therefore, vaccination is only one preventive measure – aprons should be used too.”

Nurse, 49 years old:

“Since you are in contact with patients who sneeze, and come from all walks of life ... it is an epidemic that spares no one.”

Nurse, 55 years old:

“Yes, I think so ... ” [getting infected from sick people is a strong possibility!]

#### **Question 4**

Do you think it is likely that you will get vaccinated or is it likely that you will not get vaccinated? (If they are not sure, try to get them to choose either “yes” or “no”, by asking which way they are leaning.)

#### **Answers to 4:**

The responses obtained here show that the climate is good possible vaccination against H1N1 influenza in Mali. Only one out of eight respondents declared reluctance about being administered the vaccine – he said that he saw on television French health workers being reluctant about vaccination - he would not comment on why he thought they were reluctant, as it was not clear to him why they expressed reluctance. All others had decided to be vaccinated, even though the vaccination might have side effects. One said that the “sacrifice” of accepting vaccination would be a contribution to scientific progress.

Medical assistant, 51 years old:

"There is no problem for me. I'm willing to get a flu shot, although some people are reluctant. ... This is certainly a product that should be tested, even if you personally have trouble tolerating the effects of that product. There are also other people who endorse health workers receiving this vaccine. And if you develop reactions or side effects, it will allow the manufacturer to improve the product. And not even for your generation, but for future generations. A person accepts this sacrifice for scientific progress."

Medical assistant, 39 years old:

"Of course, I'm willing to be vaccinated. And I would be willing to permit my children and others in my family to be vaccinated too."

Midwife, 47 years old:

"Without delay!"

Midwife, 56 years old:

"If the vaccine is available, we should get vaccinated even if we have to pay for it!"

Male doctor, 38 years old:

"If there is a policy put in place to protect staff health, it can only be welcomed, because work every day in fear being infected by ny disease. And there is no way to protect us. So if there is a vaccine to help us protect ourselves, it can only be welcome!"

Female doctor, 48 years old:

"Yes, I'm ready!"

Nurse, 49 years old:

"I'm not ready to [be vaccinated], because I don't know why health workers in France refused."

Nurse, 55 years old:

"It's to protect me."

#### **Question 5:**

"What do you see as the advantages of being vaccinated?"

#### **Answers to 5:**

Health workers believed that being vaccinated is a better choice than not being vaccinated. The major advantages cited include self-protection against infection and protection of their families against infection. Many summed it up by saying "Prevention is better than cure."

Medical assistant, 51 years old:

"Well, the benefit is prevention! It protects you against a disease that is beginning to spread. So I think it's better not to get infected than to get infected then have to undergo treatment. Or as they

say, 'Better to prevent than to cure.'”

Medical assistant, 39 years old:

[Advantages of being vaccinated] “To avoid contracting the disease and to avoid infecting another person.”

Midwife, 47 years old:

“The advantage is like the advantages of other vaccines. That is to say, to protect myself and my family. So as far as I am concerned, this vaccine will be welcome.”

Midwife, 56 years old:

“You protect yourself and you protect other people. Because we work in hospital settings, if we are protected our families are at lower risk of being infected.”

Male doctor, 38 years old:

“The benefit of this vaccine to health personnel is that once vaccinated you are protected against the disease, influenza A. And there is also an advantage for the family. Once a physician is protected, his family also benefits, and if the family benefits the entire population benefits from being protected. So I think that to immunize health personnel is already a big step in the fight against this disease!”

Female doctor, 48 years old:

“Well, it's the vaccine that protects against the flu, isn't it? For me it's a preventive measure.”

Nurse, 49 years old:

“First, to put the brakes on the spread of the disease progression ... but then I'm especially worried about the side effects.”

Nurse, 55 years old:

“I can't really say anything about that!”

#### **Question 6:**

“What are the disadvantages of or what are the concerns that you have about being vaccinated?”

#### **Answers to 6:**

Respondents share concerns about the lack of information about the vaccine generally and in particular about the vaccine's side effects. They think they need a minimum base of information

about the disease and about the impact that this vaccine may will have on their health. These concerns are not sufficient for them to avoid being vaccinated. The attitude of the one person reluctant about being vaccinated is based on the fact that this person believes that the vaccine has been developed so fast that there has not been sufficient time for the appropriate trials to take place.

Medical assistant, 51 years old:

“With a new product whose parameters have not been fully fleshed out pleasant or unpleasant surprises could result. For example if I am vaccinated, side effects can arise, but I am willing to put up with them.”

Medical assistant, 39 years old:

“My concern is whether the vaccine will be available for the whole population and not only for health workers. Beyond that I don’t have great concerns about the negative effects of this vaccine. Because I know that no one is going to give us something which harms our health.”

Midwife, 47 years old:

“Well, generally, if there is a new vaccine there is fear about side effects, there is the risk that it may not be a good product, and so now people are wary about new products which come from all over the place ... but then if the government decides to bring in this new vaccine and if we get enough information about it, we are likely to accept being vaccinated.”

Midwife, 56 years old:

“Yes, like any vaccine, there are side effects. So we would hope that we will have information about the vaccine before being vaccinated. In order to take any necessary precautions.”

Male doctor, 38 years old:

“I don’t see any disadvantages if the vaccine demonstrates limited side effects, which we call medically ‘normal immunization reactions.’ If these effects are limited, there isn’t really a problem. So the vaccine can only be welcomed.”

Female doctor, 48 years old:

“All right, as this is a vaccine that we don’t really know about, in any case, we should be cautious about its side effects.”

Nurse, 49 years old:

“I would ask if the vaccine has really been tested given the brief time frame and the need for broad coverage using this vaccine. I think things have gone a little too fast. What are the consequences? We don’t really know much of anything right now.”



Nurse, 55 years old:

“I don’t know.”

**Question 7:**

“Are there people you know that would approve of your being vaccinated? Who would want you to get vaccinated? Who are they?”

**Answers to 7:**

Respondents said that among the people who would like to see them vaccinated were family members, primarily children and spouses, as well as neighbours.

Medical assistant, 51 years old :

"I haven't yet spoken with people I know. Few people here talk about this apart from those who watch television or have a certain level of understanding. Perhaps at schools people talk about it if not at home. college we discuss it at home if not. Still, as I have a decoder in my family, we can watch the images of this disease and discuss it. So we share our opinions. Opinions on this are divided. Some believe that it is a European disease, while others disagree ... “

Medical assistant, 39 years old:

"Discussion starts with my family and people in the neighbourhood.”

Midwife, 47 years old:

"I think that the discussions go the other way around. It's the people who know I am a health worker who ask me questions about what the disease is and whether or not to be vaccinated.”

Midwife, 56 years old:

"My husband, my children and my neighbours in the quartier are interested because it's they who are at risk of infection.”

Male doctor, 38 years old:

"Well, first there is the immediate family! Because they are the first victims if you're in an environment like that. So because they know that the vaccine is available and they are aware of the extent of the disease, they will encourage you to get vaccinated.”

Female doctor, 48 years old:

"It's the health staff, my family and especially my husband and my children. Because in case I get sick I could infect them."

Nurse, 49 years old:

"People are very reluctant to accept vaccines that are available right now. For example, religious leaders, illiterate people ... even literate people! Religious leaders and illiterate think vaccinations are for family planning. Literate people and specialists are trying to provide evidence to convince the resisters to get the vaccination."

Nurse, 55 years old:

"I don't know, because he first we have to know more about the vaccine."

### **Question 8:**

"Are there people you know - in your family, or others - who might have concerns or disapprove of your getting vaccinated? Who are they? If this is the case, what kinds of concerns do they have?"

### **Answers to 8:**

This is the other side of the question posed in 7. The responses here show the guesses by health personnel about what the general public's attitudes might be toward H1N1 influenza vaccination. They think that the public mistrusts vaccinations, believing them to be contraceptives or questioning the quality or efficacy of the vaccine. The resisters cited included religious leaders, the illiterate and even some literate people. They cited as support for this view previous resistance to vaccination campaigns.

Medical assistant, 51 years old:

"Well, it could happen, but I don't think people here refuse vaccination because vaccination in the past has always been welcomed. Anyway there could be some reluctant people, people always get funny ideas in their heads different from those of other people ... in general vaccinations are always welcomed ... by the majority."

Medical assistant, 39 years old:

"I really don't know anybody who thinks that getting a flu shot is not to their advantage."

Midwife, 47 years old:

"Now, we must recognize that people begin to be suspicious of drugs, because anyone at all seems able to import drugs ... so we need to sensitize people about this vaccination in advance."

Midwife, 56 years old:

“No!” [... doesn't know of anyone who would be opposed to her being vaccinated]

Male doctor, 38 years old:

“Absolutely ... there will always be individuals who are hostile to vaccination. And generally when we vaccinate, it's the Wahhabi who have trouble understanding what it's all about. Because, one thing. The Wahhabi believe that vaccination is related to family planning! Another thing, when we had to organize vaccination campaigns here in town [Bamako], we have faced difficulties with a number of literate individuals. In fact they were thinking about the contaminated blood issue in Libya as a reason for not being vaccinated. This became very tiresome after a while.”

Female doctor, 48 years old:

“There will always be people in any population who will be against, even though they have not really made a case against what we have been trying to do, that's Number 1. And the second reason is that lately there have been so many vaccination campaigns and people just don't really understand why. And generally it's the very religious who are opposed, sometimes even people in residential neighbourhoods because they think their beliefs can protect their children against any disease. But, with respect to the religious, they believe that the explanation we give them in relation to vaccines is not the real version, but they think that we are trying to trick them into using family planning with their wives and children.”

Nurse, 49 years old:

More or less the same as previous response.

Nurse, 55 years old:

“I have nothing to say.”

**Question 9:**

“What would make it easier for you to be vaccinated?”

**Answers to 9:**

The answers indicate that the respondents are waiting not only for the arrival of the vaccine, but for information about it.

Medical assistant, 51 years old:

“First of all, I can say that I am in agreement with the idea of me being vaccinated! No problem for me.”

Medical assistant, 39 years old:

“To make it easier for me to be vaccinated, I would like to have more information about the disease, less about the vaccine.”

Midwife, 47 years old:

“If it’s the government that brings us the vaccine, I won’t have a problem getting vaccinated.”

Midwife, 56 years old:

“I can’t foresee any problem.”

Male doctor 38 years old:

“People need information about the meaning of this disease. The threat itself of the disease will push me to get vaccinated.”

Female doctor, 48 years old:

“As a health provider I understand many things!” [?]

Nurse, 49 years old:

“Some detailed information on the vaccine is needed in advance.”

Nurse, 55:

“I can’t say anything. As a health provider, I have no information on this disease and the vaccine.”

## **Question 10**

“What would make your access to the vaccine more difficult?”

### **Answers to 10:**

Aside from one nurse who wanted information about the vaccine before being vaccinated, and another nurse who was totally confused about the vaccine, the other health providers all said that they saw nothing which would restrain them from being vaccinated, unless the vaccine were not available.

Medical assistant, 51 years old:

“I see nothing holding me back!”

Medical assistant, 39 years old:

“Well, as far as I am concerned, I see no obstacle in me having access to the vaccination.”

Midwife, 47 years old:

“I see no problem.”

Midwife, 56 years old:

“Only having the vaccine available before the onset of the disease.”

Male doctor, 38 years old:

“Well, as far as I am concerned personally, as long as the vaccine is available, I don’t see any obstacle.”

Female doctor, 48 years old:

“Maybe only if there contraindications relating to the vaccine. Otherwise I don’t see anything that would keep me from getting vaccinated.”

Nurse, 49 years old:

"The lack of information about side effects may discourage people. It appears that Nigeria's population has already received vaccines that have caused problems: deaths following vaccinations and since then people have been questioning vaccination campaigns.”

Nurse, 55 years old:

"I don’t know.”

**Question 11:**

"Do you think there could be problems in giving the vaccine to pregnant women of the type that I just described? If yes, what are they? Let’s suppose that vaccinations will be done through a special campaign and not through the pre-natal care program or immunization services. (Probe: women could be hesitant to get vaccinated, added work load, giving information to the women, other things ...)”

**Answers to 11:**

The majority of the people questioned thought that it would be best to integrate this vaccination with the Expanded Program of Vaccination (EPI) already operating in Mali for some time. They thought that H1N1 influenza vaccination administration could encounter problems if it were done through a special campaign.

Medical assistant, 51 years old:

"Well, maybe the problem that may arise is that in fact there has been no comprehensive study looking at the impact of this vaccine on pregnancy. With respect to vaccination, I think there is already a vaccination program, namely the Expanded Program on Immunization (EPI) at our health facilities which this new program can be attached to. Because EPI has existed for some time and women are accustomed to participate in it. Trying to do a special campaign just for H1N1 vaccination might make people ask a lot of questions."

Medical assistant, 39 years old:

"I think that if the midwives are trained, that is, if the health providers are trained to pass on information to pregnant women, I think that there won't be a problem. Even if the vaccination is done through a special campaign."

Midwife, 47 years old:

"Well, if the pregnant women are informed that the vaccine will have no negative impact on their pregnancies, they will get vaccinated without a problem. People understand vaccination nowadays. And with respect to how the vaccination administration is carried out, if media are brought into the awareness raising, or if awareness raising is done through pre-natal consultations or through a special vaccination campaign, pregnant women will participate with no problem."

Midwife, 56 years old:

"Unless they don't import enough vaccine or there are strong side effects, I see no problem."

Male doctor, 38 years old:

"First of all here, I think the first issue will depend on what kind of interaction there will be between vaccine and pregnancy. We don't know what that will be yet. And secondly if you also say you are going to vaccinate pregnant women just like that, there may be social consequences. Some women who show up for vaccination might think that they are receiving some kind of family planning drug, which will take effect after childbirth. For example, the same problem happened to us during the vaccination campaign against tetanus, which focused on women of childbearing age. Not everyone agreed to it. People did not agree, because they said that if we vaccinated selectively, that meant we were sterilizing. So to resolve this issue we have to make sure that first, people are made fully aware of what this is all about. As to the strategy, it isn't necessary to organize a special vaccination campaign which is likely to provoke unreasonable reactions. So we should just make the vaccine available to midwives, as we did with the tetanus vaccine. This should be done together with Expanded Program on Immunization (EPI). So that when the woman shows up for ante-natal care, and the midwife is counselling her, the midwife can give her the H1N1 vaccine at the same time she is getting tetanus and other vaccines. If we do it this way there will be no reluctance."

Female doctor, 48 years old:

“I don’t think there will be any special problems with pregnant women, because they are already accustomed to receiving tetanus vaccine. So you can tie in TT vaccine (tetanus immunization) that pregnant women receive twice during their pregnancy with the H1N1 influenza vaccine, there won’t be any problems. Because even if we got out looking for pregnant women in the neighbourhoods, we are not likely to get them all. And the reality in Malian society is that during early pregnancy, women are secretive about it in the communities.”

Nurse, 49 years old:

“It’s difficult to answer this question since we don’t know the impact of the vaccine on pregnancy. First we should train the gynecologists, then get out the message through the religious leaders, who are listened to widely within the population – do the awareness raising in the mosques.”

Nurse, 55 years old:

“No idea.”

### **Question 12:**

“What information do you think that pregnant women and their families would need about H1N1 vaccination, so that they feel disposed to participate in the campaign?”

### **Answers to 12:**

The answers below indicate that the information required by pregnant women and their families for pregnant women to be vaccinated would include: information about the disease in general, how the vaccine would prevent infection by the H1N1 virus, and the impact of the vaccine on pregnancy.

Medical assistant, 51 years old:

“Well, there are counselling programs for pregnant women, that is to say, they come in twice of thrice a week to exchange views about different vaccines. In order to pass information on to the families of the pregnant women, there should be an awareness campaign on television, on the radio, and even through posters. The messages disseminated should include a focus on modes of transmission of the disease, modes of prevention ... especially the importance of prevention.”

Medical assistant, 39 years old:

“Well, I think if midwives are trained , in short, as health workers ... if they are trained so they can in turn provide information to pregnant women, I think there will be no problem. Even if vaccination will be done during a special campaign. I believe we must first explain the disease and its effects on health. In other words pregnant women should be well informed about the

disease and its effects on the mother and the fetus. If that happens, there won't be any problem in relation to vaccination.”

Midwife, 47 years old:

“In my opinion, pregnant women and their families will particularly need information on all the effects of the vaccine, including on their health in general and their pregnancy in particular. If they understand these things there will be no problem. People, including me, really need information.”

Midwife, 56 years old:

“If the pregnant women are informed about the vaccine and its effects, I see no problem. It's like other vaccines.”

Male doctor, 38 years old:

“They need to know what the impact of H1N1 influenza is on their health, on the health of their children and that of their families.”

Female doctor, 48 years old:

“We only need to persuade them that the vaccine will protect them against serious illness.”

Nurse, 49 years old:

“On the side effects and the impact on the fetus.”

Nurse, 55 years old:

“As you see I myself have no information.”

### **Question 13:**

“Do you think pregnant women or their families might have any reasons for not accepting this new vaccine? If so, in your opinion, what would these concerns be?”

### **Answers to 13:**

The respondents think that the bad rumours circulating about vaccines being a way to impose family planning on women might be reasons that would prevent pregnant women and their families from getting vaccinated. So a broad awareness campaign through media and community leaders would be essential.

Medical assistant, 51 years old:



“As I said before, there are people who have some funny ideas in their heads. So there will always be people who are dubious about everything and believe nothing. do not even believe. And as I’ve said, when you’re around the TV set hearing information, there will be people who say, ‘No, this is a European disease, this is not an African disease’. So people who think like that may be reluctant to get vaccinated or to think that others should be vaccinated.”

Medical assistant, 39 years old:

“I don’t get it! If the information is well transmitted, if the awareness raising goes well, there won’t be any problem. It’s like any vaccination, for example, the tetanus vaccination, do pregnant women have problems with that? There’s no problem. It’s the same thing as with tetanus or any other vaccine.”

Midwife, 47 years old:

“If the information isn’t well transmitted, people will ask questions about the vaccine. For example during the vaccination campaign against tetanus, we were confronted with difficulties, because people thought it had something to do with family planning being imposed on these women.”

Midwife, 56 years old:

“This goes back to my previous answer: if [the vaccine] is not accessible, for example, because of cost, this could lead to reluctance. So to address the concerns of families, the vaccine must be free, and there should be awareness raising before the vaccination begins.”

Male doctor, 38 years old:

“Yes, negative rumours can stop them from getting vaccinated. Because in reality we have to think that the intellectual level of the population is very low. This is what makes people mix up vaccination and family planning. Every time they ask us the question about what the vaccination is for. And where it comes from. Have you looked at it under a microscope to make sure it’s made up of what it is said to be made up of? Etc.”

Female doctor, 48 years old:

“Yes, because there are always rumours going around, like this is for family planning rather than being for protection against disease.”

Nurse, 49 years old:

“If they have enough information, the problem will not arise.”

Nurse, 55 years old:

“I have no idea at this time.”

**Question 14 :**

“As a health care provider, how could you respond to these concerns? (Probe: Would you give them the vaccine anyway? Reassure them that the vaccine is safe? Let them leave without getting vaccinated?)”

**Answers to 14:**

The respondents believed that overall they need to be trained on this vaccine, what it is, how to administer it, what its side effects are, so they can be sufficiently equipped to be able to convince pregnant women to accept it when health care providers offer it to them.

Medical assistant, 51 years old:

“As a health care provider, I will make them understand that prevention is better than cure. And besides, vaccinations are always welcome, we do not invent vaccine to do evil. With respect to side effects, I even told one particular man that the same medication used to cure can kill. But yet the manufacturer developed it to cure people. to heal. So different people have different reactions to the same product.”

Medical assistant, 39 years old:

“Well, I'm going to provide information. I'm going to educate them, through, for example, IEC techniques, so they can understand. IEC mean information, education, communication. In other words, before starting the vaccinations, hosting a chat session first to inform the women about the disease, so they know what H1N1 influenza is and what its side effects are. Then at that point they will agree to be vaccinated.”

Midwife, 47 years old:

“Before the antenatal or gynaecological consultation here, we usually start first talking with the people, raising their awareness. And thanks to this awareness raising, there's no problem.”

Midwife, 56 years old:

“A broad awareness-raising campaign has its advantages. Then during the vaccination sessions, we can provide information on the impact of the vaccine on pregnancy to provide further reassurance.”

Male doctor, 38 years old:

“We have only awareness raising to respond to these concerns, to make them understand. And if there is still reluctance we involve the community, which will then intervene to get acceptance by the individual.”

Female doctor, 48 years old:

“It has to do only with raising people’s awareness, with explaining the true version.”

Nurse, 49 years old:

"I also need information in order to convince people. But in case they are reticent, I get their contact information, let them go and contact them later.”

Nurse, 55 years old:

“First I need information.”

**Question 15:**

“What type of information would you like to receive during training that would help you to respond to parents’ concerns?”

**Answers to 15:**

Everyone expressed a desire for information on the symptoms of the disease, more detailed information, on its side effects, on its cost.

Medical assistant, 51 years old:

“I would like to know if this vaccine has side effect and also how long its protection lasts. How often and how many times should a person be vaccinated? When? For example, if once a year or so or every six months? This is information that I need personally to educate people about the effectiveness of the vaccine.”

Medical assistant, 39 years old:

"Well, as I have said, I must receive training on the disease. For example where I am now if I am asked to know what causes this disease? To say the consequences, I do not know the disease as such. So I would like to have information about the symptoms of the disease the vaccine knowing the disease itself to cope with the concerns of pregnant women and their families. I also need information on vaccine efficacy, side effects and so its strength. ... "

Midwife, 47 years old:

“First, would like to understand this disease better. Next, I would need information on the effectiveness of the vaccine and its side effects.”

Midwife, 56 years old:

“We need information about the side effects of the vaccine, its effectiveness, and whether it’s free or not.”

Male doctor, 38 years old:

“The information that we need to be better equipped to meet the challenges and to respond to difficulties we might have on the ground would be more detailed information on the effects A Influenza might have on a pregnant woman. Also to have more information the side effects of the vaccine. Because these are the kinds of information that can reassure people.”

Female doctor, 48 years old:

“Background knowledge about the disease itself! Because this is a disease that I’m not familiar with at all. I have no idea how serious it is! Nor about how it spreads! Even as a doctor I have only a general idea of how it is transmitted, because it’s a viral disease. I also want more information about it. I need this information in my role as support doctor to the EPI.”

Nurse, 49 years old:

“I have to know for sure that the vaccine will do more good than harm, more details on how long it is effective, and whether it can prevent diseases other than H1N1.”

Nurse, 55 years old:

“First I need a minimum of information on this disease.”

## **Discussion guide for stakeholders**

The moderator introduces the discussion with a short script that briefly describes H1N1 influenza and the Ministry of Health's (MOH) plans for H1N1 vaccination.

“My name is Mamadou Camara and this is Philip Sedlak. We are working with the MOH to help prepare for a vaccination campaign against the new H1N1 influenza, sometimes called pandemic flu or swine flu. The month in which the campaign will take place will soon be announced. To help with the planning and to ensure that the views and concerns of key people are heard, we would like to ask some questions to get an idea of what you think of this MOH proposal.

Your viewpoints are very important and we greatly appreciate your willingness to spend some time talking with us. The discussion shouldn't take more than about half an hour.

As you are probably well aware, during the past six months or so, a new H1N1 influenza has sickened people in more than 100 countries around the world and there is concern that it could become more dangerous over time. Evidence shows that pregnant women are one of the highest risk groups for H1N1 influenza. Health care providers are also at elevated risk because of their potential exposure while caring for sick people.

There is now a safe and effective vaccine against H1N1 influenza but it is in limited supply globally. The MOH has received a quantity of this vaccine and is planning a one-time only H1N1 influenza vaccination campaign of pregnant women in areas of the country considered to be at highest risk. Prior to this, the MOH will also vaccinate health workers in these same areas so that they are protected and so that they can continue to care for patients. The time for this campaign will be announced soon.

This vaccine is safe and only a single dose is effective in adults. It will be given by intramuscular injection in the upper arm. The side effects of the vaccine are some pain with a little swelling and redness at the injection site for a day or two. But studies have demonstrated the vaccine is effective and safe, including during all stages of pregnancy. It is already being used in other countries to vaccinate pregnant women and health care providers.

At this time, the MOH would like to find out if key stakeholders have any particular concerns with the H1N1 influenza vaccination. If so, then the MOH would like to address these concerns during the planning period. This is why we would like to ask you some questions. Shall we begin?”

### **Question 1:**

Could you please tell us what you have heard about H1N1 influenza (“pandemic flu”), both around the world and in this region? What risks do you think it poses to people in this country?

### **Answers to 1:**

All four respondents said they had heard of H1N1 influenza either from colleagues and internal meetings with their organization or through radio and television. They all saw it as a dangerous disease, representing an imminent threat to Mali. They cited three reasons, discussed below.

Official working with national H1N1 management:

According to this official, H1N1 is a new form of influenza that emerged in March 2009 and has claimed many victims in Mexico. The official also said that the sub-region is now under threat, with many cases having been detected in Côte d'Ivoire and Cape Verde. This person believes that Mali is at high risk because of its proximity to Côte d'Ivoire, mostly because of the high level of migration between the two countries. This person also believes that Mali is at risk for H1N1 influenza because of the high level of uncontrolled traffic across its land or air borders.

The official said that the Malian government has taken steps to address the danger. These include the training of staff at the airport and creating a structure of care at the Service de l'infectiologie at the Point G Hospital in Bamako.

Imam from a Bamako mosque, 34 years old:

"I learned that the avian H1N1 is a deadly disease that spreads easily by wind. It represents a danger for the inhabitants of Mali in general and our imams in particular because of their frequent contact with large gatherings of people."

Press representative, 53 years old:

"I follow the news a lot ... [H1N1] was revealed suddenly by the press. I thought it was someone who had contracted it from pigs ... but Mali's MOH has not yet a case in this country. Nevertheless precautions should be taken to prevent it. People have been claiming that they have the flu, but it remains to be seen if this is the same flu with which we are already familiar."

Chief of a Bamako quartier, 73 years old:

"I have heard of swine flu and bird flu, but I can't say much about flu in general. I did hear on RFI [Radio France Internationale] that Saudi Arabia took numerous precautions to protect pilgrims in Mecca from contracting this disease."

**Question 2:**

What have you heard about the H1N1 influenza vaccine? (Probe on efficacy and safety, availability.)

**Responses to 2:**

The responses to this question differed. Two out of four of them have no information about the influenza vaccine. The two others who have heard of it either have a spotty picture of it or are completely lacking in reliable information.

Official working with national H1N1 management:

He said he had no information on the H1N1 influenza vaccine. He also said that Mali has yet to receive word on preparations for this from international bodies, such as the WHO.

Imam from a Bamako mosque, 34 years old:

"Yes, I have learned from health workers that they have been trained to develop a vaccine that will soon be available. It can protect against H1N1 influenza and even colds."

Press representative, 53 years old:

"To my knowledge there has not yet been any vaccination campaign against H1N1. It is also something people are often asking about."

Chief of a Bamako quartier, 73 years old:

"I do not know anything about this vaccine. "

**Question 3:**

What do you think will be the benefits of this vaccine, given how the MOH plans to use it in conducting a campaign to immunize health workers and pregnant women in certain parts of the country?

**Responses to 3:**

All four respondents agreed that the groups vaccinated should be in the order of health workers first, then pregnant women, then others. They remarked that health workers are usually placed in first position. They believed that pregnant women should be vaccinated first as well, since they represent two persons, although the mother's vaccine will provide no protection to the fetus – the vaccine does not pass the fetal wall. One remarked that publicizing the results of these interviews could possibly reveal the government plan – he did not comment on how this would be a problem.

Official working with national H1N1 management:

The official said that the government is about to develop a vaccination plan with the intention to immunize at least 95 % of the population through three action strategies:

1. Fixed: vaccinate people closest to health centers.
2. Mobile: deploy vaccination teams to places >15 km. away from health centres.
3. Outreach: deploy teams of vaccination motorcycles to the villages or neighborhoods located approximately <15 km. from the local health center.

He said that the government would also prioritize people already weakened by chronic diseases like diabetes and sickle cell anemia as well as travelers.

Imam from a Bamako mosque, 34 years old:

"It will protect the woman and her child. Health workers should be immunized first because the general population will approach them first and because it is the health workers who will be exposed to the sick and have to treat them."

Press representative, 53 years old:

"Pregnant women are really two persons, so the vaccine will protect women and their unborn children at the same time [this is a commonly held belief about ALL vaccinations]. And health workers because they are in contact with a lot of people, including the sick"

Chief of a Bamako quartier, 73 years old:

"The advantage is the same as other vaccines such as yellow fever. And it is reasonable to say that vaccinations should start with health workers, or as we say, 'Charity begins at home'. Health workers are also important because they are the front line. An additional benefit to pregnant women is that the unborn child is protected as well [as noted above, a commonly held belief]."

#### **Question 4:**

Do you have any concerns about this vaccination campaign for health workers and pregnant women in specific parts of the country? If so, what are they?

#### **Answers to 4:**

One respondent expressed regrets that there was no reliable information on the disease yet, even though people fear that it is getting closer and closer. The others said that they had no specific concerns about how the campaign would affect either pregnant women or health workers.

Official working with national H1N1 management:

He stated that his first concern was that, given the magnitude of the problem, health officials have received relatively little information.

Imam from a Bamako mosque, 34 years old:

"Health workers cannot refuse. With respect to pregnant women and their families we, as religious figures, give information, as we are accustomed to do during baptisms and funerals, people will not be able to resist."

Press representative, 53 years old:



"I'm not worried if the products are of the same standard as in Europe. Product quality is very important to me."

Chief of a Bamako quartier, 73 years old:

"We have had so much experience with fighting disease through efforts like this that major concerns cannot arise. For example, diseases like polio and measles have been eradicated or are being eradicated through vaccinations right here in Mali."

### **Question 5**

Do you think that health care providers (doctors, nurses, and others) will accept this vaccine? What reasons, if any, do you think health care providers would have for not getting vaccinated with it?

### **Answers to 5:**

The majority of those questioned here believe that consent from health workers will be almost automatic. Respondents saw no reason why health care providers would be reluctant to participate.

Official working with national H1N1 management:

He believes that even though the vaccination is not compulsory, if the government agrees to introduce the H1N1 vaccine, health workers will not have too many choices. On the other hand, he said, during one of their meetings, there were health workers who were thinking about refusing to be vaccinated, because many of their French counterparts have refused to be vaccinated.

Imam from a Bamako mosque, 34 years old:

"If they are well informed about the disease there's no way they will refuse. Nothing will prevent them from accepting – don't worry about them."

Press representative, 53 years old:

"I have no doubts."

Chief of a Bamako quartier, 73 years old:

"There's no way we can envision health care providers resisting being vaccinated."

### **Question 6:**

Do you think that pregnant women will accept getting H1N1 influenza vaccinations? What reasons, if any, do you think they or their families would have for not getting vaccinated?

### **Answers to 6:**

The four respondents thought that a continuing lack of information could be a handicap for this target group, so a wide awareness campaign among the population in general and especially among the illiterate should precede the vaccinations.

#### Official working with national H1N1 management:

“Acceptability of the vaccine by this group will depend on how aware they are and how well-informed they are about it.”

#### Imam from a Bamako quartier mosque, 34 years old:

“Often, it is the illiterate who oppose these kinds of things, but this is only because they lack information.”

#### Press representative, 53 years old:

“Because of the lack of information, there should be a good awareness-raising campaign to inform pregnant women and their families about this vaccine and its relationship to pregnancy.”

#### Chief of a Bamako quartier, 73 years old:

“Because people have confidence in health workers, the vaccinations are not likely to be refused. But everything depends on people having the right information, so there should be strong communication links between the pregnant women, and people in general, and the health workers.”

### **Question 7:**

What types of information do you think pregnant women and their families would need about H1N1 influenza vaccination so that they would be willing to participate in the campaign? From whom should they hear this information--who or what are the most trusted and convincing sources of information for them about vaccination?

### **Answers to 7:**

All the answers given highlighted the need to inform pregnant women and their families about the disease, the vaccine and its side effects. Respondents believed that awareness raising should be a combination radio and television, along with interpersonal communication through community leaders such as imams, neighbourhood leaders, and so on.

#### Official working with national H1N1 management:

He believed that health workers need information on the vaccine, its side effects, dosage, etc. For pregnant women and their families to participate in the vaccination campaign, a lot of radio,

television and interpersonal community contact would be necessary. He believed that the health education effort should concentrate on providing the facts about the disease, its prevention and treatment, etc.

Imam from a Bamako quartier mosque, 34 years old:

“As I already mentioned, as religious leaders, we're committed to providing information to people in mosques during baptisms about the vaccine. I don't think many will be reluctant to participate. And the Head of State should intervene to raise awareness, then district heads, then family heads. It might help if teams of awareness raisers pass through the neighbourhoods and sensitize individual households.”

Press representative, 53 years old:

“They especially need to know about the vaccine and its side effects, along with the effects of the vaccine on the fetus. The message should be powerful, passed through community radio, the imams, neighbourhood leaders ... in short, all community leaders, including griots (through their association), the Traditional Communicators' Network.”

Chief of a Bamako quartier, 73 years old:

“We'll just tell people that after receiving vaccinations against diseases like polio, measles, etc.. they must also be vaccinated against H1N1 influenza. To do so, we should pass information through mosques, markets, and other places. I think that for the vaccination operation to be successful, mobilization should start at a fixed point. consider If the chief is to make a pitch, it would be better to do this through a rally in a public place is better. Because door-to-door vaccination campaigns are not really that effective. In other words no enthusiasm is generated. These are the kinds of issues that donors must take into account.”

### **Question 8:**

How could health care providers, such as doctors and nurses, respond to the concerns that pregnant women and their families might raise?

### **Answers to 8:**

There is some consistency in the answers given by the four respondents. They generally believe that health workers need to reassure pregnant women and their families about the side effects of the vaccine and dispel rumors, such as the rumor that vaccination against a particular disease might result in sterilization.

Official working with national H1N1 management:

“In my opinion, it is necessary to reassure pregnant women about side effects and to dispel rumours and misconceptions about the vaccine.”

Imam from a Bamako quartier mosque, 34 years old:

“On this point I think that health workers need only be patient, friendly and well-informed in order to better respond to any concerns of pregnant women and their families.”

Press representative, 53 years old:

“I think that midwives especially need to reassure pregnant women about the vaccine and its side effects – and also to reassure them that it will not make them sterile.”

Chief of a Bamako quartier, 73 years old:

“That a person shows up for a vaccination is an indication that she has no concerns. If trust has been created and if the woman has been made knowledgeable about the vaccine, there should be no problem.”

### **Question 9:**

What are the best ways to prepare health care providers to be able to respond to the concerns of pregnant women and their families? (Probe: Training? Supervision? Brief technical materials? Seminars or newsletters from professional associations? )

### **Answers to 9:**

Most of the answers given by participants in relation to this question put emphasis on the need to train health workers on the disease's impact on the health of the pregnant woman and the side effects of the vaccine.

Official working with national H1N1 management:

He believed that a cascade training for health workers should be set up. National trainers would train staff at the regional level, and these people would in turn local agents, etc. During these trainings health workers should receive information about the vaccine and its delivery systems, ways of conservation and so on. In addition to Beyond health workers, he thought that civil society, political leaders, administrative authorities, and so on could also play an important role in mobilizing the population.

Imam from a Bamako quartier mosque, 34 years old:

“They must only be trained on the consequences of the vaccine on people's health.”

Press representative, 53 years old:

“Health workers should be trained in educational methodology so that they may be able to convince pregnant women and their families about correct health behaviour.”

Chief of a Bamako quartier, 73 years old:

“I cannot say anything about this. I think that the administration of health facilities is better placed to give advice about these things. Still, all I can say that health workers often work under difficult circumstances and they often have problems getting paid for their work.”

**Question 10:**

Do you have any other comments or points that you would like to make? If not, thank you for your time and attention.

**Answers to 10:**

Quant aux commentaires, les enquêtés n’avaient plus rien à dire à l’exception de deux phrases bien timides.

Official working with national H1N1 management:

The official expressed regret that up to now there has not been much information on the vaccine. But this person would prefer that the vaccine be made available at an affordable cost (if not free) for developing countries.

Imam from a Bamako mosque, 34 years old:

“The most important thing is that the vaccine be available as quickly as possible. And if you are sure that the vaccine is ready, I am available to begin publicizing this immediately.”

<http://h1n1vax.aed.org/>

