

Training manual on

WORKPLACE PANDEMIC PREPAREDNESS

(A training manual for identifying, assessing, preventing and controlling the risks of pandemics in the workplace)



Ministry of Health



Prevention Pays

Contents

Table of Contents	i
List of Acronyms	iii
Preface	iv
Acknowledgement	v

MODULE

1

INTRODUCTION

Background	2
Why the Pandemic Preparedness Training Manual	5
Who May Use the Manual	5
Methodology	5
Objectives	6
Learning Outcomes	6
Structure of the Manual	6

MODULE

2

PANDEMIC PREPAREDNESS AND RESPONSE

Overview	10
Session 1: Pandemic Influenza	10
Session 2: Meningococcal meningitis	22
Session 3: Cholera	26
Session 4: Yellow Fever	30
Topic Summary	33
Reference	34



MODULE

3

PERSONAL HYGIENE

Overview **36**
Session 1: Task Description **37**
Session 2: Chain of Contamination **37**
Session 3: Mapping Hygiene Problems **38**
Session 4: Hand Washing **38**
Session 5: Other Protective Measures **39**

MODULE

4

RISK COMMUNICATION

Overview **42**
Session 1: Foundations of Risk Communication **44**
Session 2: Principles and Ethical Considerations **51**
Session 3: Key Lessons in Pandemic Communication **52**
Session 4: Guidance on Dealing with Facts and Information **52**
Topic Summary **53**
Reference **54**

MODULE

5

DEVELOPMENT OF BUSINESS CONTINUITY PLANS

Overview **56**
Glossary **60**
Annexes **63**

List of Acronyms

EWP	Employee Wellbeing Programme
GHS	Ghana Health Service
GIZ	Gesellschaft für Internationale Zusammenarbeit
IHR	International Health Regulations
MoH	Ministry of Health
NADMO	National Disaster Management Organisation
NGOs	Non-Governmental Organisations
ORS	Oral Rehydration Salt
PPPs	Public-Private-Partnerships
PPTM	Pandemic Preparedness Training Manual
PTA	Parent Teacher Association
SARS	Severe Acute Respiratory Syndrome
SMART	Specific, Measureable, Attainable, Realistic, Time-bound
TNA	Training Needs Assessment
ToT	Training of Trainers
WASH	Water, Sanitation and Hygiene
WHO	World Health Organization





Preface

The sudden occurrence of a disaster/emergency may plunge large numbers of people within communities into helplessness and could create confusion, disorder and chaos, loss of human lives and extensive property damage.

A disaster may occur at any time and place and most frequently strikes without warning. It suddenly thrusts upon response agencies many varied and unusual responsibilities that demand a lot more resources than are available. These include search and rescue, safe removal and transportation of the injured to proper medical facilities, treatment of the injured, identifying and disposing of the dead, searching for missing persons, counseling, communication of the event and outcome to the population, property security, provision of relief, etc.

Institutions both public and private are not exempt from one form of disaster or another. The impact on workers, their dependants, loss in investment capital and infrastructure and in severe situations, total shut down of companies are some of the few reasons why the National Disaster Management Organisation with support from Gesellschaft für Internationale Zusammenarbeit (GIZ) is providing support to corporate bodies to develop and build capacity for preparedness, emergency response and timely recovery from a disaster.

This training manual has been developed for both medical and non-medical personnel who may be called upon to lead emergency response, (eg epidemic outbreak, etc), ensure effective containment while work continues and essential goods and services continue to be supplied

The manual provides insight into some of the local epidemics experienced in Ghana such as Cholera, Cerebrospinal meningitis (CSM) and Influenza(s), the causes, signs and symptoms and preventive measures with a view to increasing knowledge among management, staff and their families as well as immediate communities within which they work.

We hope that users of this manual will find it useful and beneficial for trainings and discussions within their institutions.

Dr. Holger Till

Team Leader, GIZ ReCHT

Kofi Portuphy

National Coordinator, NADMO

Acknowledgement

We wish to express our heartfelt gratitude to the following institutions and individuals who contributed towards the successful development of this training manual.

Rev. Dr. Nii Amoo-Darku, *(Member, Council of State and Chairman, National Platform on Disaster Risk Reduction and Climate Change Adaptation)*

Mr. Kofi Portuphy, *(National Coordinator, NADMO)*

Dr. Holger Till, *(Team Leader, GIZ ReCHT)*

Dr. George Amofah, *(Former Deputy Director General, Ghana Health Service)*

Dr. William Ampofo, *(Noguchi Memorial Institute for Medical Research)*

Dr. Philip Amoo, *(Head of Public Health Unit, Korle-Bu Teaching Hospital)*

Special acknowledgements also go to the staff and representatives of the following institutions for editing and validation:

Doctors and Nurses of Public Health Unit, Korle-Bu Teaching Hospital

Ghana Revenue Authority

National Disaster Management Organization

Ghana Police Service

Ghana Prisons Service

UT Bank

Newmont Gold, Ghana Limited

Ghana Urban Water Limited

Ghana Water Company Limited

Authors of the Manual

Kingsley Kwadwo Asare Pereko, *(Council Member, Ghana Red Cross Society and Lecturer, Uni. of Cape Coast, SMS, Dept. Community Medicine)*

Jacob Setorglo, *(Lecturer, Uni. of Cape Coast, SMS, Dept. Biochemistry)*

John Eliasu Mahama, *(Coordinator, Peoples Health Movement Ghana)*

PREPAREDNESS

FOR DISEASE OUTBREAK STARTS WITH YOU!

COVER **YOUR** COUGH



Put your used tissue in the waste basket

Cover your mouth and nose with a tissue/handkerchief when you Cough or Sneeze.

or

Cough or Sneeze into your elbow, not your hands.



WASH **YOUR** HANDS

after Coughing or Sneezing



Wash hands with soap under running water for at least 20 seconds

or

Clean with alcohol-based hand sanitizer



For more information call **NADMO** on **TEL:** 233-30-2762593 / 2780221
LOCATION: Plot 3, Brigade, East Kanda P. O. Box CT 3994, Cantonments, Accra
EMAIL: nadmo@live.com **WEBSITE:** www.nadmo.gov.gh



Module One

Introduction

Background

Considering the potential impact of pandemics on a country's resources and human population, the importance of educating and preparing the populace on pandemics is critical. The high numbers of pandemics recorded globally over the past two to three decades call for urgency of programmes to address the situation. It is against this background that National Disaster Management Organization (NADMO), with financial support from GIZ, has developed this manual to contribute to pandemic preparedness in Ghana. The manual is in line with key national and international public health priorities.


In 2005 the World Health Organisation (WHO) in considering the growth in international travel and trade and the emergence or re-emergence of international disease threats and other public health risks – substantially revised and adopted the International Health Regulations (IHR). The IHR 2005 entered into force on 15 June 2007. The IHRs were originally developed in 1969 to replace the International Sanitary Regulations of 1951 which dealt mainly with six quarantinable diseases (plague, cholera, yellow fever, small-pox, typhus, relapsing fever). IHR 1969 were amended in 1973 and 1981, primarily to reduce the number of covered diseases from six to three (yellow fever, plague and cholera) and to mark the global eradication of small pox.

The purpose and scope of the IHR (2005) are “to prevent, protect against, control and provide a public health response to the international spread of disease in ways that are commensurate with and restricted to public health risks, and which avoid unnecessary interference with international traffic and trade”. The IHRs (2005) are not limited to specific diseases in their application (as the Regulations are intended to maintain their relevance and applicability for many years to come).

However, this manual is limited in scope to cover the following diseases / events of pandemic importance to Ghana (in line with the priorities set out in Ghana's Health Sector Medium Plan 2010-2013):

1. Pandemic Influenza
2. Cholera



- 
3. Yellow fever
 4. Meningococcal disease

IHR (2005) makes provisions for “any event of potential international public health concern, including those of unknown causes or sources and those involving other events or diseases” to be prioritized using the IHR (2005) algorithm, the decision instrument (see Annex 1).

A rapid assessment undertaken in May 2012 by the team of consultants with the aim of gathering staff and stakeholders' views on workplace pandemic preparedness provided further guidance on the development of the contents of this manual. The assessment provided an opportunity for heads and staff of institutions to share their thoughts on what is needed to ensure institutional safety, health and support during pandemics.

The assessment was a cross sectional study of heads of institutions and the general staff of selected organizations in the Greater Accra Region. The criteria for the selection of the organizations were based on the institutions of interest to NADMO & GIZ. The institutions selected included the security agencies, private and public institutions. The organizations visited were the Police, Prisons, Ghana Health Service (GHS), Disease Surveillance Department, Customs Exercise and Preventive Service (CEPS), Ghana Urban Water Limited, UT Bank, Port Health, Ghana Civil Aviation Authority, Ghana Airport Company, limited Newmont Ghana. Ten organizations were targeted for the assessment with a sample estimate of 20 heads of institutions and 30 general staff.

The data collection method was basically a key informant interview using an interview guide. Data on respondents' background, general knowledge on organizations, preventive and control measures, business continuity plan and the expectations of a pandemic preparedness manual were collected. Data analysis was by context analysis.

Overall:

- Fourteen (14) heads of institutions (one female) and 5 general staff (two females) responded to the assessment.
- The heads had a mean of 18.3 (SD7.2) years working experience in a range of 6 to 30 years.
- The staff strength of the respondent organizations ranged from 12 to 7,300.
- The general staff had an average of 8 years working experience in a range of 2 to 29 years. All the general staff that responded have had tertiary education.

The common potential pandemics envisaged by their respondents to affect the organizations were Influenza H5N1 and H1N, (Bird flu and swine flu), Cholera, TB, Measles, Skin rashes, Anthrax, Severe Acute Respiratory Syndrome (SARS), and Small pox.

Responding to possible ways that pandemics could affect their organization, the

respondents enumerated the following:

- Pandemics could affect the manpower needs and service delivery.
- Pandemics could bring extra work burden on the institution, especially those that work directly on emergencies.
- Pandemics could increase the cost of health care with its resultant financial burden.
- Possible staff and staff family morbidity could lead to loss of productive work to seeking health care or caring for sick relations.
- Production companies are likely to incur losses through possible product contamination and limitations to exporting goods and services.
- Security concerns were raised by the security agencies as a possible effect of pandemics on the organization. Prisons for example, who have limited staff to manage the large numbers of prisoners in the country's prisons, would have a hard time in managing the prisons in the event of losing staff during pandemics.
- Pressure on management was also identified as a possible effect of pandemics on the organization.

On the issue of organizational preparedness, some respondents admitted that although some preparedness plans have been implemented such as the formation of pandemic preparedness teams, staff awareness creation on pandemic preparedness, this has been on a low key. They expressed the challenges of financial constraint and the lack of regular training and inadequacy of regular risk reduction activities. Six of the eleven heads indicated that there is some documentation on pandemic control measures at the workplaces, whilst five indicated they have no such documentation.

The respondents indicated the need for having a Workplace Pandemic Preparedness Manual that would provide guidance and a basic package of essential actions to have in place to prevent and mitigate the effects of pandemics. They were of the view that it will be an important document for creating awareness, serve as a guide for staff training and also serve as a reference for staff who want to read more on pandemics. They indicated that it must be tailored to the organization or company's needs.

Respondents' expectations regarding the scope of such a manual is for it to provide some description of pandemics, historic facts about pandemics, the effects of pandemics on organizations, possible types of pandemics in Ghana, causes of pandemics, signs and symptoms and ways organizations could manage a pandemic.



Why the Pandemic Training Manual

This training manual is designed to help institutions / organizations prepare for and mitigate the impacts of pandemics. To sustain operational continuity throughout the onset of a pandemic, employees must understand not only the health issues, but also the possible disruptions of essential services of the organization's workflow.

Ghana recognizes the continuing threat of epidemics to the country. Therefore, the Ghana Health Sector Medium Term Development Plan 2010-2013 prioritized three actions to address the situation:

- i. Improve community based surveillance,
- ii. Improve epidemic response and
- iii. Improve monitoring of 'control and elimination' measures and activities

As part of its mandate to manage disasters and develop the capacity of communities to respond effectively to disasters and improve their livelihood, the National Disaster Management Organization (NADMO), with support from the German International Cooperation agency (GIZ) is targeting employees as key actors in pandemic preparedness. In Ghana, the Employee Well-being Program (EWP) of GIZ identified three diseases of pandemic importance: cholera, yellow fever and Meningococcal meningitis and this training manual is aligned with focus on the "Health Module" of the EWP manual.

This manual will contribute to strengthening key personnel and institutions for pandemic preparedness and business continuity planning in order to ensure increased knowledge and compliance to preventive behaviour among staff as well as control the spread of pandemics in the event of an outbreak.

Who May Use the Manual

This manual is designed to be used as a training guide for institutional focal persons and peer / health and safety officers within institutions. The focal persons and peer educators will oversee implementation of pandemic preparedness activities at the institutional level and serve as liaison with the health sector and communities they work in.

It is intended to be a primary resource and guideline in downstream training by other institutions that work with NADMO to bring about the attitude and behaviour change necessary for pandemic preparedness.

Methodology

The manual outlines a participatory curriculum design model based on the principles of adult experiential learning. The underlying principle of this approach is that much of the content will come from the participants and the training/workshop will serve as a

framework for drawing out their experiences. Participants and facilitators will commit themselves to engage in a process of mutual teaching and learning. The emphasis is on practical application and the development of strategies for action. In addition, continued reflection and evaluation are central to the learning process.

Objectives

The purpose of the training manual on pandemic preparedness is to equip staff of organizations to adequately prevent or contain an epidemic or pandemic, thereby ensuring the continuation of essential functions.

Specific Objectives:

- Increase knowledge and compliance of staff on preventive behaviour at work places.
- To control the spread of epidemics and pandemics in the event of outbreaks at work places.
- Establish guidelines for the development of continuity plans at work places.
- Increase hygiene practices at work places.

Learning Outcomes

At the end of the workshop, participants should be able to:

- Use a basic instructional design model to plan and develop effective pandemic preparedness training for institutional focal persons and peer educators.
- Identify appropriate evaluation methods and processes for their pandemic preparedness training.
- Facilitate pandemic preparedness training more effectively.
- Develop business continuity plans for their workplaces.
- Identify follow up activities to the training for furthering their pandemic preparedness work.

Structure of the Manual

The manual is divided into five modules, each building on the other. It provides comprehensive guidance for pandemic preparedness training. The content of each module comprises the key aims, objectives, methods, materials and description of sessions for training participants. A brief description of the modules is provided below:



Module 1

Introduction serves to welcome the participants and situate the relevance of this workshop in building their capacity as pandemic educators. Participants begin by reviewing their expectations and resources for the workshop and reflecting on how they can work effectively as a group. They explore principles of adult learning and participant-centred methodology and examine the application of these principles in the area of pandemic preparedness education. Participants also reflect on their personal capacity in the prevention and mitigation of pandemics.

Training and facilitation is meant to equip participants with the skills of designing a model for a pandemic training session for their specific target group. The aim of this module is to have participants develop a model for training that they will actually use in their work. Participants will begin the process by first reviewing the steps involved in designing a training session and then outline the main elements of the training session on pandemic preparedness for their respective target audience.

Module 2

Pandemic Preparedness: this module covers key concepts of pandemics; signs and symptoms, assumptions on the impact of pandemics, the mode of transmission, vulnerability, prevention and control measures within the organization, communicating pandemics and draws attention to the labour laws on health.

Module 3

Pandemic Risk Communication. The aim of this module is to equip organizational focal persons and peer educators with the skills to strengthen the conduct of the pandemic risk communication and enable them to provide deliberate, authoritative and timely information at the workplace and community in all aspects of the public health emergency or disaster. The training will help the participants to address communications issues and also procedures for the rapid identification of potentially harmful situations and the methods on how to communicate and respond to these situations quickly and effectively.

Module 4

Personal Hygiene describes the principles and procedures for effective personal hygiene (i.e. hand washing, personal cleanliness, etc.) to result in the sanitary and safe workplace and community.

Module 5

Development of Business Continuity Plans. This modules will guide participants to develop business continuity plans to ensure that organizations continue to do business until a recovery from a pandemic is accomplished. The planning would ensure that the organizations maintain contact with employees critical to the running of the business is guaranteed, essential equipment and documents necessary for operations are available and external contacts are maintained. In the long term, this would help reduce transmission of the diseases, reduce cases, hospitalizations and deaths.



ARE YOU PREPARED

FOR DISEASE OUTBREAKS?

Do your part and be the **Responsible** one.



Personal Health

- Exercise regularly
- Eat a balanced diet meal
- Rest well and drink a lot of water
- Eat lots of fruits and vegetables
- If unwell, seek medical attention

Social Responsibility

- Report any suspicious disease outbreak immediately to the nearest health facility
- Keep the environment clean
- Be a responsible community member

Personal Hygiene

- Wash hands with soap and running water regularly
- Cough or sneeze into your elbow or tissue and dispose appropriately

Social Distancing

- Avoid crowded places during outbreaks
- Avoid or cancel unnecessary gatherings during outbreaks
- Avoid physical contact during outbreaks

For more information call **NADMO** on **TEL: 233-30-2762593 / 2780221**

Plot 3. Brigade, East Kanda
P. O. Box CT 3994,
Cantonments, Accra

EMAIL: nadmo@live.com
WEBSITE: www.nadmo.gov.gh



Module Two

Pandemic Preparedness and Response

This module consists of four sessions to cover the four priority diseases of pandemic importance to Ghana (see general introduction).

The sessions are:

Session 1: Pandemic Influenza

Session 2: Meningococcal meningitis

Session 3: Cholera

Session 4: Yellow Fever

Session 1: Pandemic Influenza

Overview of session:

The session covers key concepts of pandemic influenza, signs and symptoms, assumptions on the impact of pandemics, the mode of transmission, vulnerability, prevention and control measures within the organization, communicating pandemics and drawing attention to the labour laws on health.

Learning objectives:

At the end of the lessons participants should be able to:

1. Define pandemic influenza.
2. Identify pandemic influenza signs and symptoms.
3. Describe the mode of transmission.
4. Identify ways of preventing and managing the disease.
5. Discuss ways of communicating the pandemic.
6. Discuss what organizations could do in preparing for pandemics.
7. Identify the labour law on health and safety in the workplace in relation to pandemics.



Introduction of Pandemic Influenza

Influenza is caused by a virus that primarily attacks the upper respiratory tract: the nose, throat and sometimes the lungs. Infection usually lasts for about one week. A pandemic, is an epidemic of infectious disease that affects all regions of the world.

Recent pandemics include the Bird flu and swine flu. With the increase of global transport and urbanization, the spread of pandemics is easily facilitated. It has become important therefore to look out for possible pandemics and combat them at source.

Three conditions must be met before a pandemic begins, they are: type of infectious agent that has not previously circulated in humans must emerge (itself a rare event), this infectious agent must be capable of causing disease in humans and the infectious agent must be capable of being passed easily among humans.

- There must be emergency of disease new to a population.
- Causative “Agent” can infect humans causing serious illness.
- Agents spread early and sustainably among humans within the shortest period of time, thereby affecting a large populations globally.

An influenza pandemic therefore occurs when a new form of the influenza virus starts spreading. Because it is a new virus, people have no resistance to it and it spreads easily from person to person worldwide.

History has it that Influenza pandemics have typically occurred every 10-50 years with varying severity and impact and experts believe it is only a matter of time that another one strikes. Previous influenza pandemics have led to widespread disease and death. Three major influenza pandemics that occurred in the 20th Century were the Spanish flu (H1N1) in 1918-1919 which claimed 20-50million young adults lives, the Asian flu (H2N2) in the late 1950s (1957-1958) which claimed 1-4million children lives and the Hong Kong Flu (H3N2) in the late 1960s (1968-1969)which claimed 1-4million lives. Other influenza pandemics found in animal species that could pose potential risk to humans in the 21st Century is the Avian influenza (H5N1).

Pandemic Influenza H1N1 2009 is a highly contagious acute respiratory disease caused by Influenza type A subtype H1N1 virus that is new to humans. The virus can spread easily from person to person and can cause many people to be sick within a short period and possibly earth. Ghana detected its first case of H1N1 in 2009. A total of 38 confirmed cases with no death were recorded that year.

The world is currently watching the Avian influenza (H5N1) which is predicted to have a great pandemic potential. The virus in first demonstrated its ability to infect humans in 1997 after causing disease outbreaks in poultry, in Hong Kong and China. The virus since its widespread re-emergence in 2003-2004, has resulted in millions of poultry infections and over four hundred human cases. Ghana in 2007 detected the first case in poultry birds.



Pandemic Influenza(s) according to WHO are unpredictable but recurring event that can have severe consequences on human health and economic wellbeing worldwide. A pandemic could greatly affect the health care sectors and cause major social and economic disruption. It's potential effect on the nation's work force could pose significant challenge on the delivery of essential services.

This could also greatly affect normal trade and travel activities. It is feared that the burden of influenza pandemic will overwhelmingly impact on the developing world, where public health systems are weak and resources for preparedness have to compete with other pressing priorities. An influenza pandemic can cause major disruption to companies. It is therefore vital for companies to make early and thorough preparations for a severe pandemic.

The Ghana Labour Law (Act 651 of 2003), section XV on Occupational Health, Safety and Environment implores all employers to ensure that every worker employed by him or her works under satisfactory, safe and healthy conditions. Employees are required by law to follow the instructions issued by their employer concerning safety at work and health-protection measures.

The purpose of the workplace pandemic manual is to minimize the risk of infection and to maintain organizations or companies' ability to operate in the wave of a pandemic.

Assumptions on the impact of influenza pandemic

WHO predicts a pandemic wave will presumably take between 3 months to spread globally and could affect an entire country within 2 to 3 weeks. Travel and trade will increase the danger of the new influenza virus spreading rapidly and globally.

Pandemics may occur in several waves (2-3 waves) with each wave lasting about 12 weeks depending on adequacy of contingency measures adopted. However, it is not possible to predict the interval period between the waves of influenza outbreak. Most people are at risk of infection, but not all will be infected and not all people who are infected will become ill.

Countries like France, United States and the Switzerland have estimated that during a pandemic wave, 25 % of the workforce will fall ill and be off work. This is expected to drop to probably 10%, a fortnight after the peak of the pandemic. However, global absenteeism may be higher as some workers will stay at home to care for ill family members. Businesses should probably plan for about 40% rate of absenteeism for a fortnight after peak of the pandemic.



Signs and symptoms of Pandemic Influenza

The signs and symptoms of pandemic influenza are similar to those of regular influenza. It could be sudden or more severe. They may include:

- Sudden illness
- Feeling unwell
- Fever
- Cough
- Shortness of breath
- Chills
- Runny nose
- Sore throat
- Tiredness
- Loss of appetite
- Vomiting
- Diarrhoea and
- Body aches

How does Pandemic Influenza Spread?

Influenza viruses are spread from person to person mostly through coughing, sneezing and spitting by an infected person. One could also get infected by touching surfaces or holding objects contaminated with influenza viruses (e.g. hands, door handles, handkerchiefs, tissue paper) and then touching their own eyes, mouth or nose.

Vulnerable Groups

While some are of the view that it is not yet known who will be most at risk to pandemic Influenza, experts on pandemic Influenza are of the view that the risk group for any human Influenza are the same as people at high risk to severe illness from seasonal influenza. The groups identified are:

- Children under 5 years.
- Persons aged 65 years and above.
- Children and adolescents (younger than 18 years) who are receiving long-term aspirin therapy and who might be at risk for experiencing Reyes Syndrome after influenza virus infection.
- Pregnant women.
- Adults and children who have asthma, chronic pulmonary, cardiovascular, hepatic, hematological, neurologic, neuromuscular, or metabolic disorders such as diabetes.
- Adults and children who have immunosuppression.
(including immunosuppressant caused by medications or by HIV)
- Residents of nursing homes and other chronic-care facilities.

In the work place, people whose functions may put them at greater risk of infection include:

- People in close contact with customers (e.g. cashiers, counter staff)
- People working on public transport (e.g. bus drivers, taxi drivers)
- Safety personnel who come into contact with people
- Cleaning staff
- People working in waste disposal
- Others

The United States Department of Labour Occupational Safety and Health Administration has divided workplaces and work operations into 4 risk zones, according to employees occupational exposure to pandemic influenza. They are:

The very high exposure risk which includes:

- i. Health care employees (doctors, nurses, dentist, etc) or staff performing cough stimulating procedures on known or suspected Influenza patients
- ii. Health care or laboratory personnel collecting or handing specimens from known or suspected Influenza patients

The High Exposure Risk

1. Health care delivery and support staff exposed to known or suspected Influenza patients (doctors, nurses and other hospital staff who work in the wards).
2. Medical transport of known suspected Influenza patients in enclosed vehicle (emergency medical technicians).
3. Persons who perform autopsy on known or suspected patients (e.g. morgue or mortuary employees).

Medium Exposure Risk

Employees with frequent contact with the general population, such as schools, high population density work environments, and some high volume retail.


Lower Exposure Risk (Caution)

Employees who have minimal occupational contact with the general public and other Co-workers, (office employees)

Preventing the spread of infection

Preventing the spread of infection must be a collective responsibility of individuals and the organization.





The most important non medical measures that have been found relevant to curbing the spread of infection are:

- Personal hygiene.
- Keeping a safe distance.
- Use of personal protection measures if there is an increased risk of infection.
- Knowing understanding how to behave when one has influenza or suspects to have influenza.

At the individual level, there could be infected and non-infected persons, an infected person is the one who has contracted the disease.

The infected persons must do well to observe the following:

- Cover mouth and nose with a piece of cloth or tissue paper when sneezing or coughing. The used tissue should be properly disposed of while the cloth should be washed with soap, dried and replaced as often as required.
- Wear a mask when in contact with others.
- Keep handkerchief or other materials used by the sick person for wiping nose or mouth away from other's use.
- Cover mouth and nose with palm in the absence of cloth or tissue paper and ensure that the hand used does not contaminate surfaces (such as door handles, tables etc) used by others.
- Always wash hands with soap and water especially after sneezing or coughing and after touching surfaces used by others to prevent droplet contamination.
- Stay at home when sick and limit contact with others as much as possible. If sick, stay home for 7 days after your symptoms begin or until you have been symptom free for 24hrs, or if symptoms of severe infection occurs in which case you have to report immediately to hospital.
- Seek immediate treatment if infection is suspected, if symptoms occur or when advised by a health worker.

Non infected person could minimize the risk of exposure by observing the following:

- Regular washing of hands with soap and water.
- Hand rubbing with alcohol where available.
- Keep a distance of at least one step (one meter) from the infected person to avoid coming into contact with the influenza droplets.
- Avoid public gatherings.
- If contact with a sick person or with potentially infected surface or object occurs, those involved must not touch their eyes, nose or mouth with unwashed hands.
- Avoid close contact with sick persons, refrain from hand shaking, kissing or hugging during an outbreak.
- Use face mask in accordance with guidelines provided by health authorities when caring for the sick.
- It is advisable to be physically active, drink plenty of fluids, eat well, reduce stress and have enough sleep.

In an organization or company

The following recommendations have been proposed by the Swiss extra-parliamentary "Working Group Influenza".

Recommendations for working in the organization or company

Personal contact:

- Whenever possible, handle daily business by telephone, Internet (e-mail) or video conference even if the people involved are in the same building.
- Avoid all non-critical travel and meetings. Cancel meetings, workshops, training activities, etc.
- Provide information and take orders by telephone, e-mail or fax.
- Lock outside doors.
- Do not shake hands.

Internal mail:

- Incoming mail should be distributed by one delegated person (with provision for deputisation) and not collected from a central office by various people.
- Outgoing mail should be deposited in a designated place with no personal contact.
- The person charged with distributing internal mail should wash their hands with soap every hour.

Face-to-face discussions with other people (if they are unavoidable):

- Keep the meeting as short as possible.
- Use a large meeting room and maintain a distance of at least 1 metre between the people taking part.
- Avoid direct contact, do not shake hands.
- Consider holding the meeting outdoors.

Gatherings of people in the workplace:

- Stop using fixed times for starting and finishing work at the company.
- Organise handovers so that they do not overlap.
- Avoid using lifts wherever possible.
- Close cafeterias and staff restaurants.

Public transport:

- Walk or cycle to work whenever possible. Avoid using own vehicles as chaotic traffic conditions are likely
- Continue using public transport; the recommendations issued by the authorities and the transport operators should be observed





Physical protective measures

Physical protective measures can provide additional protection for employees who are at increased risk of infection, e.g. because they come into frequent contact with other people, against becoming infected with the influenza virus. However, physical protection measures cannot provide 100 % protection even if they are used correctly. Staff must be instructed in the correct use of additional protective measures as they will otherwise not be effective. Protective material must be disposed of in such a way that the surroundings are not contaminated and cleaning staff are not exposed to additional risk.

The additional physical protective measures that can be used include:

- Wearing face masks.
- Wearing gloves and, where appropriate, safety glasses.
- Erecting sheets of Plexiglas or impermeable plastic between customers and staff.

Environmental hygiene

The maintenance of environmental hygiene in the work place during a pandemic before, during and after a pandemic is of great importance.

Ventilation / air-conditioning

- Rooms should be aired regularly by opening windows and doors.
- Ventilation systems do not need to be switched off during a pandemic.

Cleaning

Rooms should be cleaned regularly before and during pandemic. It is sufficient to clean surfaces and wash-able floors with detergent products. It is not necessary to disinfect them. Surfaces which are touched frequently by the public and staff (e.g. shop counters, keypads on cash dispensers, etc.) should be identified and cleaned more often.

Communication

General information about risk communication during pandemics are covered in Module 5 of this document. Regarding influenza, employees should be informed about:

- The impact of an influenza pandemic
- Measures that apply to personal behaviour and to operations in the company
- Places within the company from which information can be obtained and the relevant telephone numbers
- Changes and developments as the influenza pandemic progresses

The company's customers and suppliers must also be informed about any changes that affect them, (e.g. changes to ordering or supply procedures).

When to communicate

It is up to the management of a company to decide when to communicate the preparations for a possible influenza pandemic. It can, however, be advantageous to explain to employees at an early stage what interventions are planned should an influenza pandemic develop and how individuals can protect themselves against infection with the influenza virus.

Who needs to be informed

Information must be provided to all employees. The recommended interventions also apply to their families.

Managing Pandemic Influenza

Antivirals Oseltamivir (Tamiflu) a medicine used for managing infection with virus, can be used to treat the disease. Antiviral medicine work better if started soon after getting sick (within two days of appearance of symptoms). Patients on antiviral treatment usually recover fully and no resistance to recommended medicine is recorded. Attention is however needed for managing patients with complications.

Organizational aspects in preparing for a pandemic

The need to put in place contingency measure before, during and after a pandemic is important for the existence and progress of every organization.

The key issues an organization or company must consider in its preparations are:

- i. The formation of a pandemic team or crises team that would plan, prepare and procure materials in the wake of a pandemic.
- ii. Access and provide update of pandemic phase to employees (WHO, 2008).
- iii. Assessment of internal structures which starts with a detailed analysis of the functions within the organization/company.
- iv. Plan for the reorganization of work processes when there is high absenteeism in the wake of a crises. This will entail planning for interventions that may be implemented in order to maintain the most important functions in a company.
- v. Assessment of the external functions would be necessary since the organization/company is in most cases dependent on external suppliers and customers; planning must also include an analysis of these suppliers and customers.
- vi. The recognition of the Labour laws in the environment which the organization or company operates.
- vii. Providing support for infected staff and family.





Ghana Labour Law, Act 651 (2003)

The following sections of the Ghana Labour Law, Act 651 of 2003 raises relevant issues that could guide employers and employees conditions to meet in the wake of a pandemic.

General health and safety Conditions

Section 118 (1) of Act 651 states that it is the duty of an employer to ensure that every worker employed by him or her works under satisfactory, safe and healthy conditions.

Exposure to imminent hazards

Section 119 (1): When a worker finds himself or herself in any situation at the workplace which she or he has reasonable cause to believe presents an imminent and serious danger to his or her life, safety or health, the worker shall immediately report this fact to his or her immediate supervisor and remove himself or herself from the situation.

Clause (2): An employer shall not dismiss or terminate the employment of a worker or withhold any remuneration of a worker who has removed himself or herself from a work situation which the worker has reason to believe presents imminent and serious danger to his or her life, safety or health.

Clause (3): An employer shall not require a worker to return to work in circumstances where there is a continuing imminent and serious danger to the life, safety or health of the worker.

Employer to report occupational accidents and diseases

Section 120 states that an employer is required to report as soon as practicable; and not later than seven days from the date of the occurrence to the appropriate government agency, occupational accidents and diseases which occur in the workplace.

Topic Summary

- An influenza pandemic occurs when a new form of influenza virus starts spreading. Because it is a new virus, people have no resistance to it: it is capable of spreading easily from person to person worldwide.
- An influenza pandemic can cause major damage to companies. It is therefore vital for companies to make early and thorough preparations for a pandemic.
- WHO predicts a pandemic wave will take about 3 months to spread globally and could affect an entire country within 2 to 3 weeks.
- The signs and symptoms of pandemic influenza are similar to those of regular influenza. It could be sudden and more severe.
- Influenza viruses are spread from person to person mostly through coughing, sneezing and spitting by an infected person. One could also get infected by touching surfaces or holding objects contaminated with influenza viruses.
- The most important non medical measures that has been found relevant to curbing the spread of infection are:
 - i. Personal hygiene.
 - ii. Keeping a safe distance.
 - iii. Use of personal protective measures if there is an increased risk of infection.
 - iv. Understanding how to behave when you have influenza or suspect you might have influenza.
- It can be advantageous to explain to employees at an early stage what interventions are planned should an influenza pandemic develop and how individuals can protect themselves against infection with the influenza virus.
- The need to put in place contingency measures before, during and after a pandemic is important for the existence and progress of every organization.
- The Ghana Labour Law (Act 651) of 2003 provide relevant guide to employers and employees on maintaining a healthy and safe occupational environment.



References

Abayie, H. (2009, August 07). www.modernghana.com/news. Retrieved July 29, 2012, from <http://www.modernghana.com/news/231643/1/swine-flu-hits-ghana.html>

AED. (2009). Social Mobilization and Behaviour Change Communication for Pandemic Influenza Response Planning Guidance.

AI.COMM Project. (2009). Drawing attention to Pandemic Influenza through Advocacy. Washington DC.

Extra-parliamentary "Working Group Influenza, Switzerland federal office of Public Health. (2007, November 23). <http://www.bag.admin.ch/pandemie>. Retrieved July 20, 2012, from <http://www.bag.admin.ch>:
<http://www.bag.admin.ch/influenza/01120/01134/03058/04319/index.html?lang=en>

Ghana labour commission. (2005, September 24). <http://www.nlcghana.org>. Retrieved July 13, 2012, from <http://www.nlcghana.org>:
<http://www.nlcghana.org/nlc/privatecontent/document/LABOURACT2003.pdf>

Hills-Evans, S. B. (2009). Pandemic Influenza, Preparation and Response: A Citizen's Guide. Innovative Support to Emergencies Diseases and Disaster (InSTEDD).

International Federation of Red Cross and Red Crescent (IFRC). (2009). Responding to Influenza Pandemic (H1N1), Basic Guide to National Societies, Your best defense is You. Geneva.

Kawakami, Tsuyoshi. (2009). Protecting your Employees and Business from Pandemic Human Influenza. Action for small size and Business Enterprise. Geneva: ILO publications.

Pandemic Preparedness and Response Initiative (H2H). (2009). Facilitators Guide Pandemic Influenza: Community Planning and Response Curriculum for Community Responders,Volunteers and Staff.

RJF Agencies. (2009, september). Preparing Workplace of H1N1 Influenza. Minneapolis, USA. Retrieved July 20, 2012, from <http://www.slideshare.net/mulfingerj/workplacepandemic>

US Department of State, Occupation Safety and Health Administration (OSHA). (2009, July 27). Guidance on Preparing Workplaces for and Influenza Pandemics. Retrieved from www.osha.gov:
<http://www.osha.gov/Publications/OSHA3327pandemic.pdf>

WHO. (2005). Hand Outbreak Communication. WHO Handbook for journalist: Influenza pandemic, Update December 2005. Geneva: World Health Organization.

WHO. (2008). Rapid Containment of Pandemic Influenza, Facilitators Guide. Geneva: WHO.

WHO. (2009). Pandemic Influenza Preparedness and Response. A WHO Guidance Document. France: WHO.

Session 2: Meningococcal meningitis

Overview of session:

The session gives a brief on meningitis, the mode of transmission, signs and symptoms, the impact of the epidemic, prevention and outbreak response measures.

Learning objectives:

At the end of the lessons participants should be able to:

1. Describe Meningococcal meningitis.
2. Explain the mode of transmission.
3. Identify the signs and symptoms.
4. Discuss ways of preventing and communicating the epidemics.

Ghana is named among the countries along the meningitis belt stretching across the Sub-Saharan Africa from Senegal to Ethiopia. Outbreaks are therefore expected anywhere along the belt most especially during the drier months. The Northern and Upper Regions of Ghana have been recording periodic outbreaks and few of such cases have been found in the Ashanti Region and some Southern Regions of the country.

Meningococcal meningitis is a bacteria form of meningitis, a serious infection of the meninges that affect the brain membrane. It can course severe brain damage and is fatal in 50% of cases if untreated. Meningitis are commonly caused by viral infection that usually get better without treatment.

However, bacterial meningitis infections, if urgent treatment is not sought, could be fatal or could lead to brain damage. *Neissera meningitidis* have been found with a potential for large epidemics. The average incubation is 4 days but takes between two (2) to ten (10) days. Children who are not vaccinated and displaced populations are most at risk. Meningitis may also be caused by Chemical irritations, Drug allergies, Fungi and Tumors.

Meningitis just like any other epidemics could have adverse effect on organizations or company activities. This could be greatly felt in the low workforce turnouts and productivity.

Transmission

The bacteria is spread from person to person through droplets of respiratory or throat secretions of carriers. The transmission is facilitated by prolong close contact with infected persons (carriers). Kissing, sneezing or coughing on someone and living in close proximity to infected person facilitates the spread of the disease.



Symptoms

The most common symptoms are stiff neck, high fever, sensitivity to light, confusion, headaches and vomiting. The symptoms start with sudden high fever and one of the following: neck stiffness, changed consciousness and sometimes rash. Early treatment could cure 90% of cases and prevent deaths. Meningitis if untreated could lead to nervous system damage and death.

Prevention

Meningitis could be prevented by:

- Mass vaccination of all children.
- Rapid identification of suspected cases.
- Health promotion.
- Referral of sick people to health facilities as soon as possible for proper medical treatment.

Outbreak response

In an outbreak situation the following activities must be carried out:

- Mass vaccination campaign by health authorities.
- Rapid detection of suspected cases
- Referrals of suspected cases to health facilities
- Social mobilization to get children vaccinated in the community
- Health promotion and
- Observation of respiratory etiquettes (such as covering of nose and mouth when sneezing or coughing).

In an organization or company

The most important non medical measures that has been found relevant to curbing the spread of infection are:

- Personal hygiene.
- Keep a safe distance.
- Use personal protection measures if there is an increased risk of infection.
- Understanding how to behave when you have meningitis or suspect you might have meningitis.
- Prevention measures are not different from any other respiratory infection.

Communication

General information about risk communication during pandemics are covered in Module 5 of this document. With regards to Meningitis, employees should be informed about:

- The impact of meningitis epidemic.
- Measures that apply to personal behaviour and to operations in the company.
- Places within the company from which information can be obtained and the relevant telephone numbers.
- Changes and developments as the meningitis epidemics progresses.
- The company's customers and suppliers must also be informed about any changes that affect them (e.g. changes to ordering or supply procedures).

When to communicate

It is up to the management of a company to decide when to communicate the preparations for a possible meningitis epidemic. It can, however, be advantageous to explain to employees at an early stage what interventions are planned should a meningitis epidemic develop and how individuals can protect themselves against infection with meningitis.

Who needs to be informed

Information must be provided to all employees. The recommended interventions also apply to their families.

Topic Summary

- Ghana is named among the countries along the meningitis belt stretching across the Sub-Saharan Africa from Senegal to Ethiopia.
- Meningococcal is a bacteria form of meningitis, a serious infection of the meninges that affect the brain membrane. It can course severe brain damage and is fatal in 50% of cases if untreated.
- The bacteria is spread from person to person through droplets from respiratory or throat secretions of carriers.
- The most common symptoms are stiff neck, high fever, sensitivity to light, confusion, headaches and vomiting.
- Observing good respiratory etiquettes, avoiding close and long contact with infected persons, getting vaccination and seeking early treatment are important ways of preventing the spread of infection.





References

A.D.A.M. (2010, September 15). PubmedHealth. Retrieved May 20, 2012, from www.ncbi.nih.gov/pubmedHealth: www.ncbi.nih.gov/pubmedhealth/PMH00017/?report

CDC. (2012, March 15). Centre for Disease Control and Prevention. Retrieved July 10, 2012, from <http://www.cdc.gov>: <http://www.cdc.gov/meningitis/index.html>

RAL. (2009). RAL Meningitis in Ghana. Retrieved 06 05, 2012, from www.ral.ucar.edu/project: www.ral.ucar.edu/project/ghana

Razonable R.R. (2012, June 26). Medscape Drug disease and procedure reference . Retrieved July 15, 2012, from <http://emedicine.medscape.com>: <http://emedicine.medscape.com/article/232915-overview>

Travel Doctor TMVC. (2008, December 01). Modernghana.com. Retrieved July 12, 2012, from www.modernghana.com: <http://www.modernghana.com/news/192712/1/meningitis-in-ghana.html>

WHO. (2011). www.who.int. Retrieved June 30, 2012, from WHO Meningococcal Meningitis:

Session 3: Cholera

Overview of session:

The session discusses cholera, the signs and symptoms, mode of transmission, prevention and control measures and treatment of cholera. It also highlights general outbreak response within the organization.

Learning objectives:

At the end of the lessons participants should be able to:

1. Describe cholera.
2. Identify the signs and symptoms.
3. Explain the mode of transmission.
4. Identify ways of preventing and managing the disease.
5. Discuss outbreak response.

The threat of cholera remains a global issue of public health concern. According to WHO, globally, an estimated 3 – 5 million cholera cases and 10,000 – 120,000 deaths are recorded annually. The disease is common to countries where access to safe water and adequate sanitation is rear. Most developing countries including Ghana have faced cholera outbreak or the treat of cholera epidemic.


Cholera is an acute infectious disease caused by a bacterium (*Vibrio cholerae*) that produces watery diarrhoea which can rapidly lead to dehydration and death if left untreated within hours. It has a short incubation period of two hours to five days. People with low immunity (malnourished children, people living with HIV, pregnant and lactating women and the elderly) are most vulnerable and risk dying when infected.

In the likely event of an epidemic, cholera could have a great toll on the health, labour force and possible social and economic implications. Absenteeism is one unavoidable impact of such epidemics on every organization/company. One might be absent due to ill health or the illness of a close relation who needs care.

Signs and symptoms

Cholera is an extremely virulent disease. It affects both adults and children and can kill within hours. Most people (about 75%) affected by the disease do not develop the symptoms although, the bacteria remains in their faeces (for 7-14days) and can spread the disease.

Among the persons who develop the symptoms, 80% have mild to moderate symptoms whiles, 20% develop acute watery diarrhoea with severe dehydration.



The signs and symptoms are:

- Vomiting
- Copious, fishy smelly diarrhoea (rice water stool)
- Rapid heart beat
- Loss of skin elasticity
- Dry mucus membrane
- Low blood pressure
- Thirst
- Muscle cramps
- Rapid breathing and dizziness
- Restlessness/ irritability (especially in Children)
- In severe cases, death

Mode of transmission

Cholera is transmitted through drinking contaminated water and eating contaminated food.

Prevention and control

Cholera could be controlled through several methods based on prevention, preparedness and response, along with efficient surveillance system.

At the community level, the provision of safe drinking water, good sanitation practice, (good latrine or defaecation facilities), hand washing facilities and food safety measures are key to preventing diseases such as cholera.

Individuals could avoid Cholera by observing good hygiene practices (such as washing hands with soap and clean water) and environmental sanitation, avoiding areas and people with cholera, drinking only safe drinking water and eating clean and well cooked food.

Treatment

About 80% of cholera cases could be easily treated successfully by prompt administration of Oral Rehydration Salt (UNICEF/WHO ORS standard sachet) and Iron tablets. Intravenous fluids and antibiotics are recommended for severely dehydrated patients. WHO recommends the setting up of Cholera Treatment Centres (CTC) among the affected population.

Outbreak Response

During an outbreak, it is important to prevent deaths by ensuring access to treatment and prevention of the spread of infection through the provision of safe water, proper sanitation, rapid burial of dead victims, oral rehydration, health education on hygiene (hand washing), safe food handling practices and breastfeeding promotion.

In an organization or company

The measures to contain the situation in the work place include:

- Ensuring adequate sanitary facilities are provided for employees and people who access the services of the organization or company.
- Keeping sanitary facilities and working environment clean at all times.
- Providing clean water and soap for hand washing at every sanitary facility in the organization.
- Educational materials must be clearly posted for staff on what to do in the event of an epidemic.

Communication

General information about risk communication during pandemics are covered in Module 5 of this document. Regarding cholera, employees should be informed about:

- The impact of cholera epidemic.
- Measures that apply to personal behaviour and to operations in the company places within the company from which information can be obtained and the relevant telephone numbers.
- Changes and developments as the cholera epidemic progresses.
- The company's customers and suppliers must also be informed about any changes that affect them (e.g. changes to ordering or supply procedures).

When to communicate

It is up to the management of a company to decide when to communicate the preparations for possible epidemics. It can, however, be advantageous to explain to employees at an early stage what interventions are planned should a cholera epidemic develop and how individuals can protect themselves against infection with cholera.

Who needs to be informed?

Information must be provided to all employees. The recommended interventions also apply to their families.

Topic Summary

- The threat of cholera remains a global issue of public health concern.
- In the likely event of an epidemic, cholera could have a great toll on the health, labour force and possible social and economic implications.
- Among the persons who develop the symptoms, 80% have mild to moderate symptoms, while 20% develop acute watery diarrhoea with severe dehydration.
- Cholera is transmitted through drinking of contaminated water and eating of contaminated food.
- Prompt administration of ORS in Iron (Fe) tablets could help treat cholera and prevent death.
- Maintaining good hygiene practice such as washing hands with soap and clean water after using the toilet, before eating or cooking and after attending to infected patients could help prevent infection.
- Eat clean and well cooked food.
- Drink only safe drinking water.
- Keep your environment clean at all times.

References

A.D.A.M. (2010, May 25). www.ncbi.nlm.nih.gov/pubmedhealth. Retrieved July 20, 2012, from pubmedhealth: www.ncbi.nlm.nih.gov/pubmedhealth/PMH0001348/

Ayiku, C. (2007, January 01). <http://www.modernghana.com>. Retrieved July 28, 2012, from <http://www.modernghana.com/lifestyle/32/16/cholera-control-in-ghana.html>

Charles Patrick Davis. (2012, May 5). Cholera Symptoms,Cause and Treatment. Retrieved July 1, 2012, from MedicineNet: www.medicinenet.com/cholera/page2.htm

WHO. (2011, August). Cholera Fact Sheet N*107. Retrieved May 05, 2012, from www.who.int/mediacentre: www.who.int/mediacentre/factsheets/fs107/en/index.html

WHO. (2006). Global Task Force on Cholera Control, Oral Cholera Vaccine Use in Complex Emergencies What Next? Geneva: World Health Organization.

WHO. (2008). Prevention and Control of Cholera Outbreak: WHO Policy Recommendations. Geneva: WHO.

Session 4: Yellow Fever

Overview of session:

The session highlights some key issues on yellow fever, the mode of transmission, signs and symptoms, vulnerability, prevention and control measures.

Learning objectives:

At the end of the lessons participants should be able to:

- Describe yellow fever.
- Explain the mode of transmission.
- Identify the signs and symptom.
- Identify ways of preventing and controlling the disease.


Yellow fever continues to plague the world and it is one of the diseases on WHO epidemic alert. They warn of a greater risk of international spread now than before as a result of the much advance means of travel compared to early years where the disease was localized to sea port areas.

It is feared that the virus could spread quickly and cause epidemics in areas with high density of vectors and non-immune populations of which Africa is ranked high among such areas. About two-thirds of African Countries with an estimated population of 610 million people among which more than 219 million people live in urban settings are now considered at risk of yellow fever.

Globally, an estimated 200,000 cases and 30,000 deaths of yellow fever are recorded per annum. According to WHO, the disease is endemic in 45 tropical countries in Africa (32) and Latin America (13) with an estimated population of 900 million people at risk. West Africa between 2001 and 2004 has experienced 5 urban epidemics involving Abidjan (La Cote d'Ivoire), Dakar and Touba (Senegal), Conakry (Guinea) and Bobo Diolasso (Burkina Faso).

Ghana was among the countries named with yellow fever cases in 2004. The country however recorded no death that year. In 2012, the Ministry of Health raised an outbreak alert in three districts of the Upper East and Brong Ahafo Regions. A total of three confirmed cases and two deaths were recorded. Experts estimate that in an epidemic the disease can affect 20% of the population and more than 50% case fatalities could be recorded in an unvaccinated population.

An epidemic of yellow fever could have social and economic implications. Organizations are likely to lose productive staff in the event of an epidemic which could adversely affect the progress of the organization or disrupt smooth business operations in the absence of adequate response planning.



Yellow fever is an acute haemorrhagic fever caused by a virus (arbovirus) transmitted by an infected mosquito. Infection causes a wide spectrum of the disease from mild symptoms to severe illness and death. The “yellow” in the name is explained by the jaundice that affects some patients resulting in the yellow colouration of the eye and skin. History has it that the disease dates 400 years back. Earlier epidemics were recorded in the 17th and 19th centuries in port cities in North America and Europe.

Mode of transmission

Yellow fever virus is spread through the bite of an infected mosquito. Mosquitoes that transmit yellow fever are found to bite during the day. Different species of *Aedes* and *Haemagogus* mosquitoes could transmit the virus but the closest due to its adaptive nature to man's environment is the *Aedes aegypti*. The other mosquitoes are forest canopy dwellers and could only thrive in the forest. These vectors transmit the virus in three ways which are from monkey to monkey, monkey to humans and human to human. The variability hence describes the 3 types of transmission cycle. The three transmission cycles are:

1. **Sylvatic (or Jungle) yellow fever** which affect mostly persons who work in the rain forest. The disease is mostly transmitted from infected mosquitoes to monkeys and then carried from infected monkeys by mosquitoes to humans who frequent the forest occasionally.
2. **Intermediate yellow fever:** This is caused by semi domestic mosquitoes that breed in the wild and in households that infect both monkeys and humans. Small scale epidemics occur in humid and semi humid areas of Africa where there is increased contact between humans and infected mosquitoes
3. **Urban Yellow fever:** Infected mosquitoes transmit virus from person to person. Large scale epidemics could occur in situation where infected people introduce virus to densely populated areas with high numbers of non-immune people and high *Aedes* mosquitoes.

Signs and Symptoms

Yellow fever can occur in two phases (the acute and toxic) which is marked by different signs and symptoms. The disease is difficult to diagnose in the early stages as it shares common signs and symptoms with severe malaria, viral hepatitis, dengue haemorrhagic fever and other haemorrhagic fevers. The virus has an incubation period of 3-6 days once contracted.

The acute phase is marked by fever, muscle pains with prominent backache, headache, shivers, red eyes, loss of appetite, nausea and vomiting. Most patients improve and symptoms disappear after 3-4 days.

However 15% of patients enter the second more toxic phase within 24hours of initial symptoms. The phase is characterised by high fever, deterioration of body systems, jaundice, (yellow colouration of skin or white particles around the eyes), abdominal pains, vomiting, bleeding in mouth, eyes, nose or stomach and deterioration of kidney functions. Half the patients who enter the toxic phase die within 10 to 14 days and the rest recover without significant damage to organs.

Populations at risk

- People who are not vaccinated.
- Non immune persons whose work demand going to the forest.
- Non immune travellers to high risk areas.

Prevention and control

Yellow fever could be prevented by

- Vaccination
- Vector control
- Use of insect repellent
- Wearing clothes that cover most of the body
- Staying in well protected areas
- Destruction of breeding sites and
- Health promotion.

Vaccination which spans 10 years is done at designated centres and organizations must ensure that their staff take the vaccine most especially for international travelling and staff going to the forest area. Vaccination is recommended for persons aged nine (9) months through 59years living or travelling to high risk areas. Laboratory persons and or persons who work with the virus must take the vaccination. Persons who receive the vaccine must not donate blood within 14 days to avoid the risk of transmission.

Following the high morbidity and case fatality, organizations are advised to plan ahead of any eventualities.





Topic Summary

- Yellow fever continues to plague the world and is one of the diseases on WHO epidemic alert.
- It is feared that the virus could spread quickly and cause epidemics in areas with high density of vectors and non-immune populations of which Africa is ranked high among such areas.
- Yellow fever is an acute haemorrhagic fever caused by a virus (arbovirus) transmitted by an infected mosquito.
- The virus has three transmission cycles, monkey to monkey, monkey to person and person to person.
- Organizations are likely to lose productive staff in the event of an epidemic which could adversely affect the progress of the organization or disrupt smooth business operations in the absence of adequate response planning.
- Population at risk are the unvaccinated population.
- Prevention is by vaccination.

References

Bosowski MT. (2011, September 15). emedicine, medscape. Retrieved July 30, 2012, from www.emedicine.medscape.com/article/232244:
<http://www.emedicine.medscape.com/article/232244-overview>

CDC. (2012). Infectious disease related to travels. In M. G. Staples, 2012 Yellow Book Travelers Health. Atlanta, GA: Centre for Disease Control and Prevention.

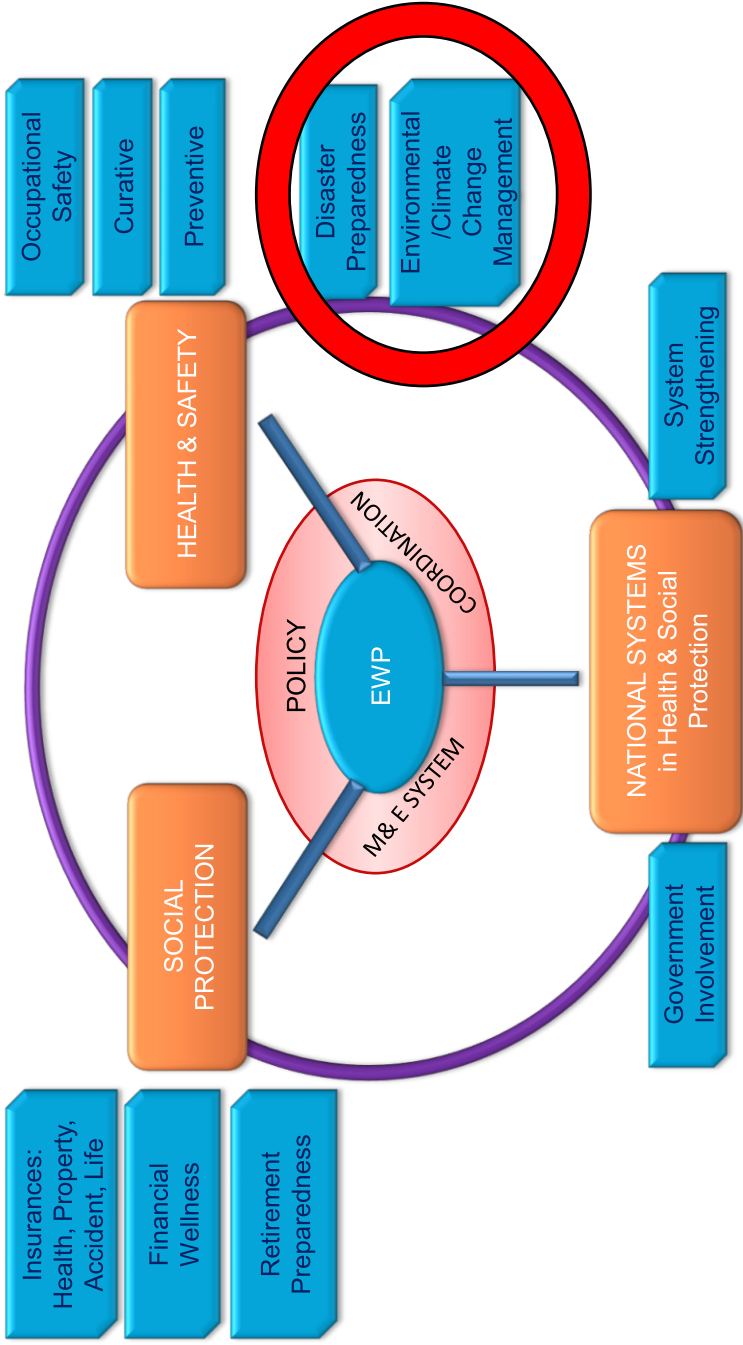
WHO. (2011, January). who media centre Global Alert and Response. Retrieved July 31, 2012, from www.who.int: www.who.int/csr/disease/yellowfever/en/index.html

WHO. (2008). Yellow Fever, Investigation of Yellow Fever Epidemics in Africa, Field Guide. Geneva: WHO.

WHO. (2010). Yellow Fever. Surveillance of Adverse Event following Immunisation Against Yellow Fever. Geneva: WHO.



Employee Wellbeing Programme



Module Three

PERSONAL HYGIENE

Overview

In the first part of this module, participants were introduced to their role as institutional focal persons in respect of pandemic preparedness. They also learn about the chain of contamination and how to conduct mapping of hygiene problems at the institutional and community level.

The second part then moves onto learning about the hygiene promotion skills and protective actions at the organizational and individual level.

The module provides participants with the principles and reasons for effective personal hygiene; explains when and how to apply proper hand washing techniques; design a system for employees and visitors to notify the organization of any symptoms of illness and injury that may preclude them from working in direct contact with food; as well as other protective measures including sneezing and coughing. The module comprises the following sessions:

Session 1: Task Description (45min)

Session 2: Chain of Contamination (F-Diagram) (945min)

Session 3: Mapping Hygiene Problems (60min)

Session 4: Hand washing

Session 5: Other Protective Measures (30min)



Session 1: Task Description

Aim:

This session is designed to ensure that staff at workplace understand their role in promoting hygiene promotion during emergencies.

Objectives

By the end of the session participants will be able to:

- Explain the purpose and key tasks they can undertake to promote workplace sanitation.
- Describe the chain of contamination.
- Describe how to network with key institutions to share experiences and for support.

Session 2: Chain of Contamination

Aim

This session is designed to ensure that participants understand the different ways through which diarrhoea is acquired / spread.

Objectives

By the end of the session participants will be able to describe how diarrhoea can be acquired and how to break the chain of contamination

Key Learning Points:

- Diarrhoea is generally caused by eating food or drinking water that is contaminated with human faeces.
- Babies and infants may suffer from diarrhoea after being fed by someone with dirty hands or having put dirty objects into their mouths.
- The 'F Diagram' handout shows the ways that diarrhoea germs mainly reach people including via fingers, flies (insects), fields and fluids, food or directly into the mouth.
- The barriers to stop the transmission of diarrhoea germs include hand washing with soap or ash, the safe disposal of faeces and drinking clean water.

Session 3: Mapping Hygiene Problems

Aim

This session is designed to ensure that participants are able to identify hygiene related problems in their organization / community.

Objectives

By the end of the session participants will be able to:

- Describe the hygiene risks present in their own organizations / communities / environment.
- List the actions they can take to reduce health and hygiene risks.
- Explain what they can do to influence / mobilise people to take action to address those hygiene risks.

Key Learning Points:

- Mapping is one way to stimulate discussion about hygiene issues.
- This session is used both to get the community health workers thinking about their own situation and also about how they might use this method with community groups as a means to mobilise others.
- The training of the community health workers must be grounded in reality and they must also make sure that they refer to the actual situation that people are dealing with when working in the community.

Session 4: Hand Washing

Aim

To learn about how to wash hands properly and how dirty hands can transmit germs.

Objectives

By the end of this session, the participants will be able to:

- 1 Demonstrate how to properly wash their hands.
- 2 Know how to wash hands in an area where water is scarce.
- 3 Identify four key moments for hand washing.
- 4 Describe local conditions regarding hand washing and begin thinking about what they have learned and planning how to apply it when they're working with their own audiences.
- 5 Demonstrate how much time and water it takes to wash hands well.
- 6 Describe several ways to overcome water scarcity in order to achieve "ideal" hand washing.

Outline:

- How to wash our hands
- When to wash our hands
- How much water does it take to wash your hands well?
- Building a tippy tap and
- Hand washing synthesis.

How to Wash Hands

1. To wash, wet hands with running water.
2. Rub your hands with the soap or ash for about 30 seconds, about the time it would take to sing the Happy Birthday song.
3. Clean between the fingers, under your fingernails, and up to your wrists to help control germs.
4. It is the soap or ash combined with the scrubbing action that helps dislodge and remove germs.
5. Rinse your hands well with running water (pour from a jug or tap).
6. Dry them in the air to avoid recontamination on a dirty towel.

When to Wash Hands:

- After visiting the toilet or washroom
- Before eating
- Before cooking or handling food
- Before feeding a child or breastfeeding and
- After cleaning a baby.

Session 5: Other Protective Measures

Aim

To equip participants with the knowledge about other protective measures to protect against pandemics.

Objectives

By the end of this session, the participants will be able to:

1. Identify physical protection methods in the event of a pandemic.
2. Identify four key moments for hand washing.

Key Learning Points

1. Physical protective measures

Description provided under Pandemic Influenza in Module Three.

People in functions with an increased risk of infection include, but is not limited to:

- People in close contact with customers (e.g. cashiers, counter staff)
- People working on public transport (e.g. bus drivers, taxi drivers)
- Safety personnel who come into contact with people
- Cleaning staff
- People working with waste disposal and
- Others.

The additional physical protective measures that can be used include:

- Wearing face masks.
- Wearing gloves and, where appropriate, safety glasses.
- Erecting sheets of Plexiglass or impermeable plastic between customers and staff.

Face masks

Since the risk of becoming infected during a pandemic is not equally great everywhere (and depends on the type of pandemic), it is not generally recommended to wear a face mask. This measure is, however, worthwhile in situations in which an increased risk of the influenza virus can be transmitted; (e.g. in gatherings of people, during contact with customers, etc.) cannot be avoided. The exact situations in which face masks should be used cannot be defined until the pandemic virus and its specific transmission properties are known. If an influenza pandemic occurs, the Ghana Health Service will provide information about the situations in which it is advisable to wear a face mask. It is recommended to follow the official recommendations.

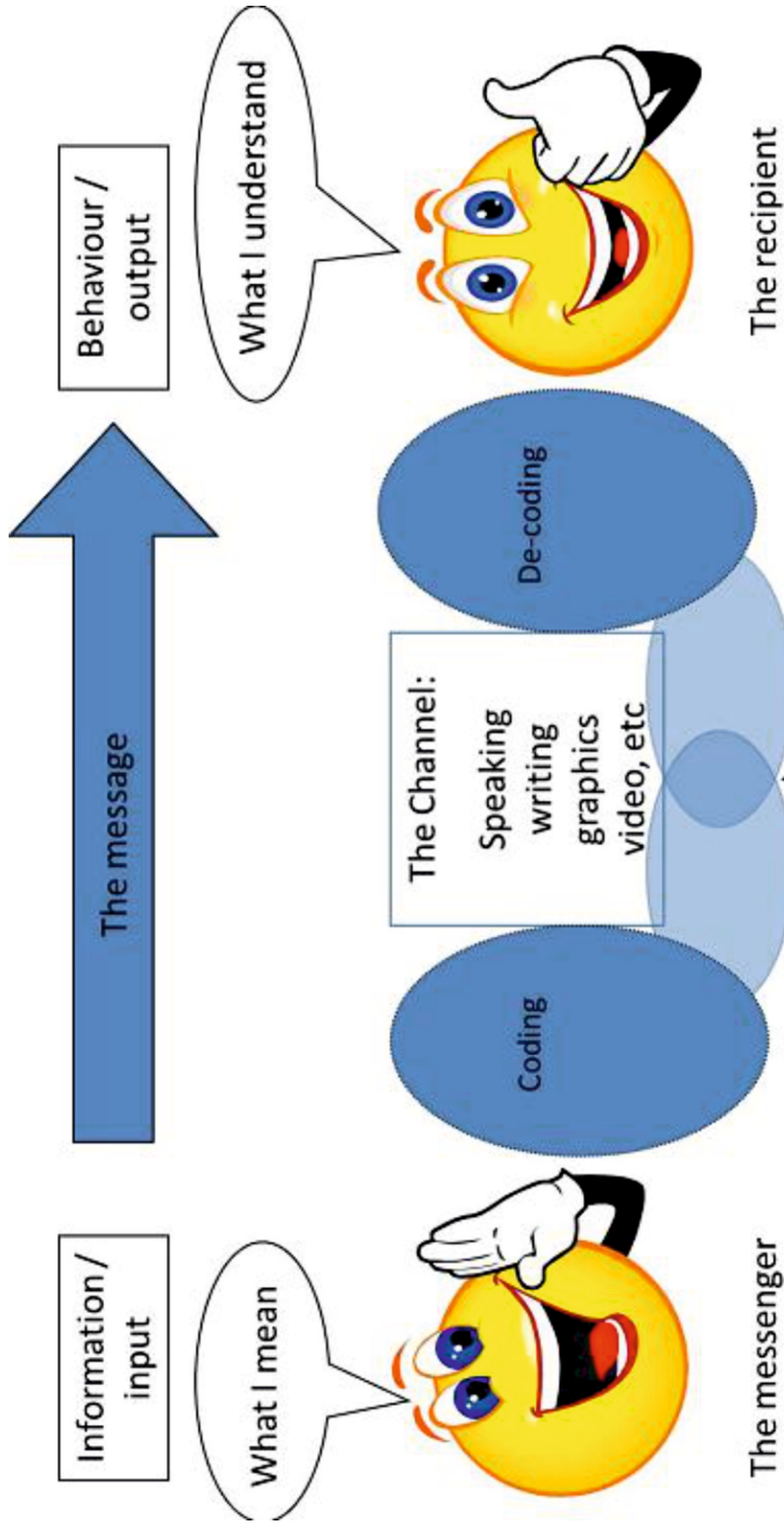
If a company would nonetheless like to issue face masks to all its employees, and not just those specifically exposed to a risk of infection, it should inform the employees about the situations in which the masks should be worn (e.g. on buses), how they should be donned, and when they should be changed.

Masks are only effective if they are used correctly and in conjunction with the other recommended hygiene measures, particularly hand washing.

2. Environmental hygiene

Protective environmental measures include ventilation and cleaning. Description provided under Pandemic Influenza in Module Three.





Information /
input

What I mean

The message

Behaviour /
output

What I understand



The messenger



Coding

The Channel:
Speaking
writing
graphics
video, etc

De-coding

At least some code in common



The recipient

Module Four

Risk Communication

Overview

The aim of the module is to equip organizational focal persons and peer educators with the skills to strengthen the conduct of risk communication and enable them provide deliberate, authoritative and timely information at the workplace and community in all aspects of the public health emergency or disaster. The training will help the participants to address communication issues and also procedures for the rapid identification of potentially harmful situations, and the methods on how to communicate and respond to these situations quickly and effectively.

Objectives:

By the end of this module, the participants are expected to:

1. Understand what communication is.
2. Understand types and modes of communication.
3. Appreciate the importance of risk communication as part of their responsibilities as peer educators and focal persons.
4. Understand the concepts of risk communication in health emergencies.
5. Develop risk communication plans.
6. Acquire skills in crafting and delivering risk communication messages to various members of the public (including staff) the media.
7. Monitor effects of risk communication activities.

Concepts of Communication

- Communication: the imparting or exchanging of information by speaking, writing or using some other medium (*The Oxford Dictionary of English*).
- “The main purpose of communication is persuasion, that is, the attempt of the speaker to bring others to his point of view.” (*Aristotle*).
- “Communication is the mental process in which a transmitter and a receiver interact in order to exchange ideas, knowledge, experiences and feelings, which are transmitted by means of a code, a message, and an appropriate channel”. (*De la Torre Zermefio y Hernández*).



Types of Communication

Downwards Communication: Highly Directive, from Senior to subordinates, to assign duties, give instructions, to inform to offer feed back, approval to highlight problems etc.

Upwards Communications: It is non directive in nature from down below, to give feedback, to inform about progress/problems, seeking approvals.

Lateral or Horizontal Communication: Among colleagues, peers at same level for information level for information sharing for coordination, to save time.

Modes of Communication

There are a number of commonly accepted divisions or layers of communication.

- **Intra Personal:** Communication one has with oneself, thoughts, daydreaming.
- **Inter Personal:** Communication one has with another person.
- **Group:** Communication one has with a group of people (group discussion, party).
- **Organizational:** Communication within or between organizations (newsletters, memos).
- **National:** Communication within or between nations (trade, war).
- **Global:** Communication on a global scale that affects all people on the planet (greenhouse effect).

Characteristics of Effective Communications

Effective communication requires the *sender* to:

- Know the subject well.
- Be interested in the subject.
- Know the audience members and establish a rapport with them.
- Speak at the level of the receiver.
- Choose an appropriate communication channel..

The *channel* should be:

- Appropriate.
- Affordable.
- Appealing.

The *receiver* should:

- Be aware, interested, and willing to accept the message.
- Listen attentively.
- Understand the value of the message.
- Provide feedback

Session 1: Foundations of Risk Communication

Definition of Risk Communication

“Risk communication is an *interactive process for the exchange* of information and opinions among individuals, groups, and institutions. It is a dialogue in which *multiple messages* are discussed.” (National Research Council, 1989).

“These messages do not refer only to the *nature of the risk*, but also to the *concerns, opinions or reactions* of individuals to risk messages and to legal and institutional arrangements for risk management.” (National Research Council, 1989).

It is important because

- No message is effective if the public you want to reach does not listen to it.
- Different publics can respond better to the information depending on how they receive it.

Introduction to the Concept of Risk Communication

WHO defines risk communication as the range of communication capacities required through the preparedness, response, and recovery phases of a serious public health event to encourage informed decision-making, positive behavior change, and the maintenance of trust. Risk communication is an essential part of any comprehensive response to protect public health in the event of a pandemic.


The role of risk communication is to instruct, inform, and motivate persons to adopt appropriate self-protective behavior, update risk information, and dispel rumors. Ideally, pandemic communication maximizes the public's capacity to act as an effective partner by encouraging prevention, promoting containment, and fostering resilience and recovery.

However, the public's response to communication is affected by existing psychological, social, cultural, health, and socioeconomic factors – and each of these factors affect how individuals will interpret messages, as well as their willingness and ability to act in a timely manner.

Moreover, communication processes can prepare the public to adapt to changing circumstances or uncertainty during an emerging pandemic, educate public health planners about existing vulnerabilities and resources that affect pandemic risk for specific populations, create dialogue between potentially affected populations and risk managers, and foster an environment of mutual trust. Preparedness strategies must consider what may be asked and expected of individuals at all stages of a pandemic to guide communication planning.

A pandemic may require minimally disruptive recommendations (such as hand washing) but other actions may be more difficult, evoke strong emotions, or fuel controversy (such as quarantines or school and public facility closures). In addition,





disturbing information may need to be conveyed without harming public cooperation, and reducing negative consequences relies heavily on gaining cooperation from diverse entities.

To guide communication planning, preparedness strategies must define what may be expected of individuals at all stages of a pandemic. Educating the public on high risk situations like pandemic disease outbreaks can prompt appropriate public responses to contain these health crises. Risk must be communicated to the public with discretion to avoid triggering mass panics or causing misinformation.

Communicating in a crisis is different

- In a serious crisis, all affected people . . .
 - ✦ Take in information differently
 - ✦ Process information differently
 - ✦ Act on information differently
- In a catastrophic event: communication is different.
- Be first, be right, be credible.

Types of Risk Communication

Sandman (Public Health Risk Communication, 2007) identifies four types of risk communication on the basis of public perceptions of the hazard caused by the risk and on the degree to which the public is outraged about the risk:

- 1 For **low-outrage, high-hazard** scenarios such as ongoing environmental degradation, risk communication is akin to public relations or health education: Audience engagement must be forced.
- 2 Stakeholder relations occur in **medium-hazard, medium-outrage** conditions such as local environmental threats to families and households.
- 3 A third type of risk communication involves a **low-impact hazard** that makes people upset. In this type of risk communication, the goal is to discredit the source of the risk information and reassure the public.
- 4 Finally, we have crisis risk communication, where the **hazard is high as people's emotional response** or outrage about it. For this type of scenario crisis risk communication must be timely, accurate, direct and relevant and it must also reassure and give people hope.

Crisis conditions combine unexpectedness, high levels of threat, an aroused or stressed population, and media looking for breaking news stories, all of which create a communication environment that is inherently high risk and unstable.

Risks of miscommunication in a crisis risk communication scenario are high and the communication process must contain elements of trust, credibility, honesty,

transparency and accountability for the sources of information. Lack of trust and credibility can doom risk communication efforts.

In numerous case studies in crisis risk communication events, audiences have misinterpreted messages, warnings have failed, false rumors have been generated, multiple sources have given inconsistent information, populations have not been reassured, and the media has sensationalized the story. However, crisis risk communication is essential for saving lives, assisting in search-and-rescue efforts and ultimately plays a major role in disaster and crisis mitigation efforts.

Planned Risk Communication

Almost all planned risk communication whether in response to new scientific findings, ongoing investigations, or unplanned emergency events occur in organizational contexts. Planned risk communications are typically embedded in institutional cultures with specific agenda and take place in the context of processes of risk assessment, risk intervention or management and risk evaluation.

In a non-crisis scenario, the risk communication component is dependent on these other risk management activities that inform what is said, when it is said and to whom it is said. In a crisis, the demand for information can overwhelm the ability of the system to deliver it.

Crisis risk communication must combine exigency with health communication basics to reflect the redefined role that public health plays in the twenty-first century: emergency responder. As this role is reclaimed by public health, crisis risk communication will play an increasing part in helping populations cope with natural and man-made disasters that have both physical and mental health impacts.

5 organizational concerns -- you need to . . .

1. Execute response and recovery efforts
2. Decrease illness, injury, and deaths
3. Avoid misallocation of limited resources
4. Reduce rumors surrounding recovery
5. Avoid wasting resources

5 communication failures that kill operational success

1. Mixed messages from multiple experts
2. Information released late
3. Paternalistic attitudes
4. Not countering rumors and myths in real-time
5. Public power struggles and confusion



5 communication steps that boost operational success

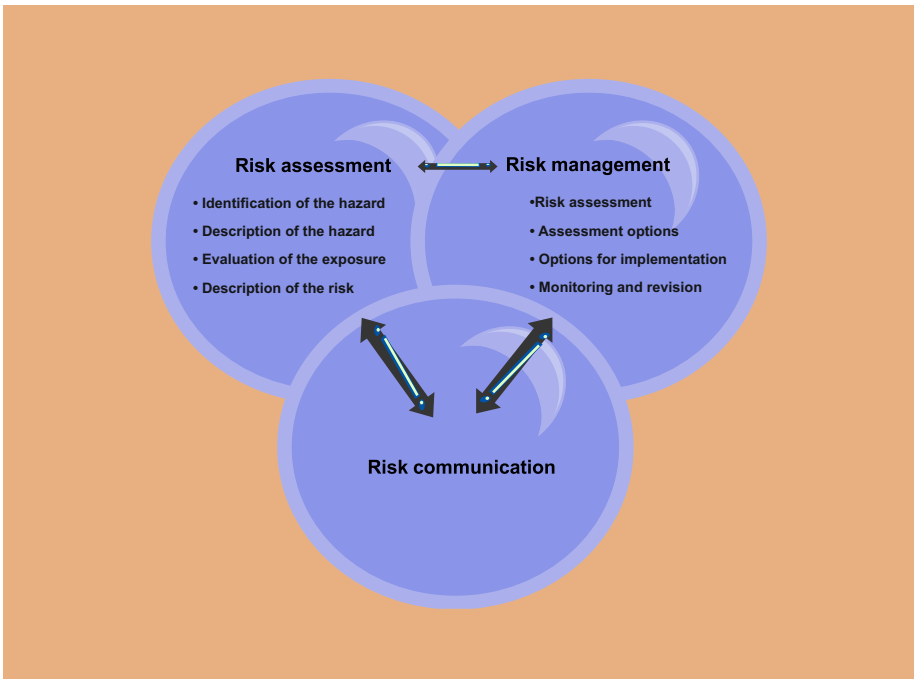
1. Execute a solid communication plan
2. Be the first source for information
3. Express empathy early
4. Show competence and expertise
5. Remain honest and open

The STARCC Principle

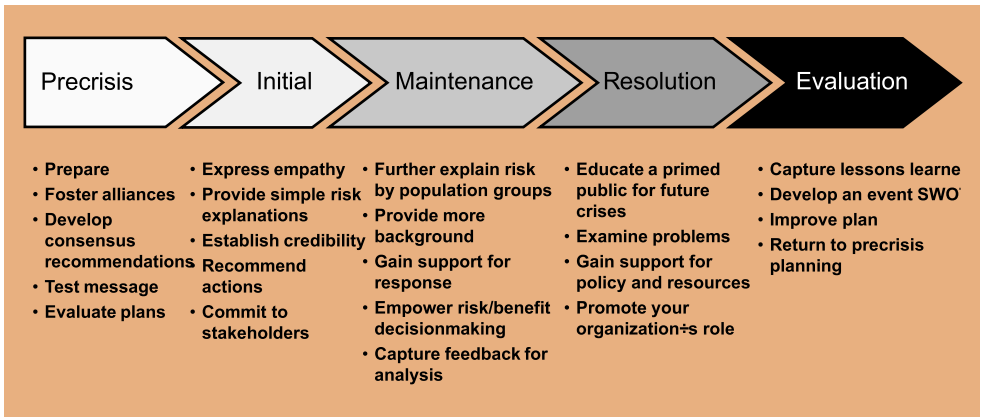
Your public messages in a crisis must be:

- Simple
- Timely
- Accurate
- Relevant
- Credible
- Consistent

Framework for Risk Analysis



Crisis Communication Lifecycle



Effective Health Risk Communication

- Determines the community's concerns and responds to them.
- Reduces the tension between the community and personnel of the agency/institution.
- Explains the health risk information more effectively to the communities

Why is Health Risk Communication Important?

- It gives the opportunity to communicate health risks in a planned way, while at the same time being sensitive to the needs of the community.
- It incorporates the community into the process of risk management.
- It helps to build trust and alleviates fear and outrage.

Risk = Hazard + Outrage

It follows that:

- Mitigating **Risk** = Mitigating **Hazard** + Mitigating **Outrage**

Risk Management is thus a two-fold task.

- When **Outrage is high** and **Hazard is low**, managing **Outrage is a major task**. This is common. A common mistake of governments and industries is to mitigate Hazard while under-attending to Outrage.
- When **both Hazard and Outrage** are present, **mitigate both**.
- **Mitigating Hazard does not mitigate Outrage**. Reducing Outrage usually has little to do with mitigating technical risks.

The “DO”s of Risk Communication

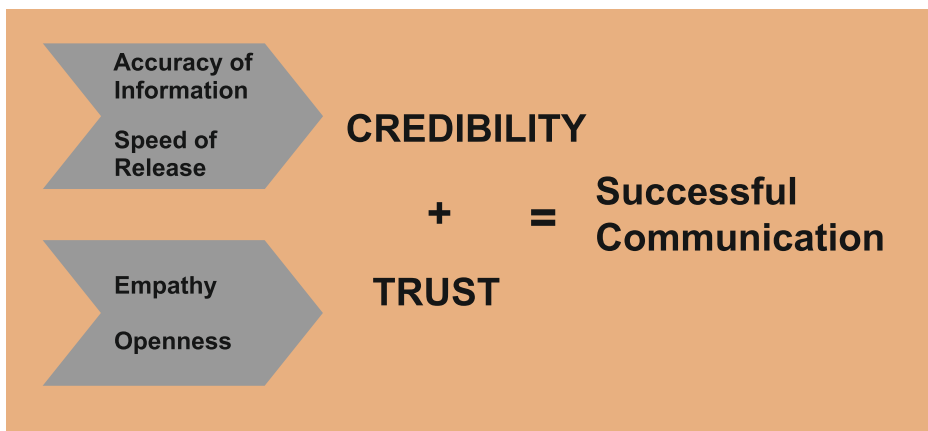
- Evaluate and improve your communication habits.
- Share the communication responsibility.
- Be attentive and concentrate.
- Grasp the significance of what people are telling you.

- Observe all the non-verbal signals.
- Adopt an accepting attitude.
- Express understanding and comprehension.
- Listen to yourself

The Seven Cardinal Rules of Risk Communication

1. Accept the public as cooperating partner
2. Listen to the public
3. Be honest and flexible when listening to the opinions of others
4. Coordinate and cooperate with other agencies/ groups that have credibility
5. Meet the needs of the media
6. Speak clearly and with empathy
7. Plan carefully and assess the activities

Basis of Effective Communication



Planning Risk Communication

Why is it necessary to plan Risk Communication?

- Because the planning is the basis of the Risk Communication process.
- Because the lack of planning can lead to an erroneous program which will cause problems in the community.

Steps

- Seek sources of information.
- Form a communication team.
- Build trust in the target public.
- Develop the communication plan.
- Establish audience priorities.

Characteristics of messages that are easy to understand

- Written in clear, simple language.
- Presented in an easy-to-understand format.
- Visually attractive.
- Logically organized.
- Understood at first reading

Write material that is easy to understand

- Identify your audience and determine what you need to say.
- Select a suitable format, for example, a question-and-answer format.
- Satisfy the needs of your public by organizing your ideas.
- Speak to the reader directly.
- Check the tone of the document.
- Use short sentences.
- Use singular pronouns.
- Use the present tense.
- Use the active voice.



Session 2: Principles and Ethical Considerations

First, Do No Harm

The cardinal rule of risk communication is the same as that for emergency medicine: first do no harm. A threatening or actual crisis often poses a volatile equation of public action and reaction. This destabilized information environment makes it very important that you give thought to what it is you are about to say before making any public comment as shown in the box below:

Crisis + heightened public emotions + limited access to facts + rumor, gossip, speculation, assumption and inference = an unstable information environment.

Ease public concern

Organizational focal persons and other officials must identify and dispel rumors and false public beliefs regarding the disease. Officials must openly acknowledge uncertainty in a risk situation, and help the target audiences understand what is known and not known about the disease. For example, if the risk is low, say, “the risk to the public is low”.

Ethical risk communication involves transmitting information that is technically correct. Do not manipulate information to gain support for policies and official actions.

Provide Timely and Transparent information, with guidance on how to respond

The timely and transparent transmission of accurate information, along with practical guidance on how a person can protect himself and others from the disease, can galvanise public trust and build confidence.

For instance by informing the public to take the following precautions:

- If possibly exposed, contact physician.
- If symptoms occur contact physician.
- Note possible symptoms in others.
- Discuss the purpose of Risk Communication.
- Describe how communities perceive risk.
- Explain the ways to earn/lose Trust and Credibility.
- Explain when to release information.
- Discuss the principles in Risk Communication.
- Explain the Ethical Considerations in Risk Communication.

Ensure Coordination and Harmonisation


There must be coordination amongst organizations and healthcare professionals involved in health communication to make sure health messages conveyed through a variety of media to the public including posters, brochures, fact sheets, media kits, and the news, to the public are consistent in order to avoid confusion.

Session 3: Key Lessons in Pandemic Communication

- Partnerships at the global, national and local levels are important to achieve a comprehensive, multi-sector communication response. Although potentially difficult, strong partner coordination allows public health authorities to utilize the communications capacity and credibility of other organizations to disseminate public health advice, to better understand the situation, and ultimately, limit an outbreak's spread.
- Continue to test and revise existing communication strategies. Social mobilization and behavior change components should be strengthened, particularly at the organizational and community level. Repeat risk communication training for organizational spokespersons and media to minimize loss of capacity due to staff turnover and complacency.
- The development of effective guidelines and recommendations for behavior change communication requires multi-disciplinary, multi-sector analysis, and dialogue. Each organization must analyze local social, cultural, and economic data to develop locally feasible and meaningful behavior change strategies. And future behavioural research must include the non-health, multi-sector components of preparedness.

Session 4: Guidance on Dealing with Facts and Information

- Be sure of your facts.
- Be able to cite sources and key statistics, making sure they add meaningful support to your message (this could be three key statistics or thirty, but be careful not to overwhelm your message with statistics).
- Have information available in fact sheets and other concise informational documents specifically prepared for the media's use.
- Familiarize yourself with information and opinions that are contrary to your points and positions and be able to answer the questions they raise.



Seven Key Risk Communication Concepts

- 1 When health risks are uncertain, as likely will be the case during an influenza pandemic, people need information about what is known and unknown, and interim guidance to formulate decisions to help protect their health and the health of others.
- 2 An influenza pandemic will generate immediate, intense, and sustained demand for information from the public, healthcare providers, policy makers, and the news media. Healthcare workers and public health staff may need training in media relations and public health communications.
- 3 Timely and transparent dissemination of accurate, science-based information about pandemic influenza and the progress of the response can build public trust and confidence, particularly when such communication efforts are guided by established principles of risk communication.
- 4 Coordination of message development and release of information among national, regional and district health officials is critical to help avoid confusion that can undermine public trust, raise fear and anxiety and impede response measures.
- 5 Guidance to community members about how to protect themselves and their family and colleagues is an essential component of crisis management.
- 6 Information to public audiences should be technically correct and sufficiently complete to encourage support of policies and official actions without seeming patronizing to the public.
- 7 Information presented during an influenza pandemic should minimize speculation and avoid over-interpretation of data, overly confident assessments of investigations and control measures, and critical comments related to other jurisdictions.

Source: (PAHO, 2009)

References

U.S. Department of Health and Human Services, 2002 Communicating in a Crisis: Risk Communication Guidelines for Public Officials

Website: <http://www.uniteforsight.org/health-communication-course/module7>

Pan American Health Organization (PAHO) 2009, Creating a Communication Strategy for Pandemic Influenza

Swiss Federal Department of Home Affairs FDHA, 2007. Pandemic Plan Manual for workplace preparedness

AFANET 2011: Risk Communication planning and Action Guide, FHI 360

Workshop on Risk Communication, Student Manual, US Environmental Protection Agency, Office of Planning Monitoring and Evaluation





INFORMED | READY | TOGETHER

Module Five

Development of Business Continuity Plans

Overview

This module will guide participants to develop business continuity plans to ensure that organizations continue to do business until a recovery from a pandemic is accomplished.

The planning would ensure that the organizations maintain contact with employees critical to the running of the business essential equipment and documents necessary for operations are available and external contacts are maintained. In the long term, this would help reduce transmission of the disease, reduce cases, hospitalizations and deaths.

Aim:

To have in place business continuity plans that will ensure that businesses / organizations run fully in the event of a pandemic.

Objectives

1. To identify risks posed by a pandemic to business continuity.
2. Analyse risks posed by pandemic to different business entities.
3. Develop strategies to mitigate the impact of pandemic on business goals.
4. Ensure that businesses have the capacity to operate during the outbreak of pandemics.
5. Communicate effectively with unions and shareholders during the event of pandemic.
6. Ensure and provide for succession planning with clear lines of authority.



Introduction

Realizing the importance of business continuity planning as a means to respond to pandemics in particular, and to crises in general, the ILO compiled a manual business continuity planning to guide work places in the development of a tailor-made preparedness plan. The manual outlines four broad actions needed to be taken into consideration in the development of business continuity plans:

- Risk analysis,
- Risk reduction,
- Response actions for preparedness,
- Communication

Short to Long-Term Planning

It is not possible to predict how long a pandemic will last. There could be more than one wave of infection during a pandemic period. Each wave could typically last about eight weeks. Businesses should plan for up to 50% staff absences for periods of about two weeks at the height of a pandemic wave and lower levels of staff absences for the few weeks on either side of the peak.

To ensure business continuity in a pandemic, short-term planning, with a health focus is necessary. Succession planning (in the event of staff deaths or long-term disability during the pandemic) and back up planning is also essential. Emergency management and overall national recovery is greatly facilitated if essential services are available without significant interruption.

Continuity planning for a pandemic should include:

- Identification of essential business activities (and the core people and skills to keep them running), and ensuring that these are backed-up with alternative arrangements
- Mitigation of business/economic disruptions, including possible shortages of supplies and
- Minimizing illness in workers and customers.

Influenza Manager

When planning for a pandemic, it is a good idea to identify one or more people in your organization who will be responsible for workplace health and safety. Some of the tasks the “Influenza Manager” may perform include:

- Setting up a system to monitor staff who are ill or suspected to be ill in the event of a pandemic, including contacting staff who are unexpectedly absent from work; to find out if their physician has been notified of their illness? Have “contact” issues been addressed? Is someone able to care for them?
- Setting up a process to facilitate/encourage the return of staff to work once they are better or at the end of a quarantine period;

- Ensuring that your workplace has adequate supplies of tissues, medical and hand hygiene products, cleaning supplies and masks for people who become ill at work.
- It may be difficult to purchase these products once a pandemic begins.
- Below is a table that provides summary guidance as to how a business might proceed as different stages of a pandemic are reached.

Stage	Strategy	Alert Code	Suggested Actions for Businesses
1	Plan for it (Planning)	White (information / advisory)	Review business continuity plans: <ul style="list-style-type: none"> • Identify essential services (including contractors), facilities / plants, other production inputs. • Plan for up to 50% staff absences for periods of 2-3 weeks at the height of the pandemic, and lower levels of staff absences for a few weeks on either side of the pandemic. • Assess core staff and skill requirement needs and ensure essential positions are backed-up by an alternative staff member. • Identify ways to increase “social distancing” in the workplace, reduce movement, etc. • Consider organizational policies to encourage the sick to stay at home and enable staff to work from home. • Identify ways to minimize illness among staff and customers, and consider how essential messages (e.g. handwashing) can be communicated with staff. • Identify needs for personal protective equipment (PPE) and cleaning equipment, check air conditioning. Purchase additional contingency supplies.



2	Keep it out (Border Management)	Red (Activation)	<ul style="list-style-type: none"> ▪ Alert staff to change in pandemic status ▪ Activate staff overseas restrictions ▪ Review / test essential business continuity measures
3	Stamp it out (Cluster control)		<ul style="list-style-type: none"> ▪ Alert staff to change in the pandemic status. ▪ Activate essential business continuity measures.
4	Manage it (Pandemic Management)		<ul style="list-style-type: none"> ▪ Activate measures to minimize introduction and / or spread of infection in work place (post notices, social distancing, managing ill staff members, workplace cleaning, etc.). ▪ Communicate with staff to promote confidence in the workplace. ▪ Activate contact tracing where staff become ill at work during Cluster Control phase. ▪ Activate process for recovered/well.
5	Recover from it (Recovery)	Green (Stand down)	<ul style="list-style-type: none"> ▪ Manage return to business as normal

Further information on Business Continuity Plan (BCP) could be sourced from the NADMO/GIZ BCP manual developed for Ghana Revenue Authority in 2010. The manual provided in-depth information on BCP in Ghana's context.

GLOSSARY

ACTIVITY: Learning tasks designed to teach a set of content, which lead to achieving the objectives of the program. One of the trainer's roles is to design activities and to be available as a resource while the learners carry out the activities.

ALLERGIES: An abnormal reaction of the body to a previously encountered foreign substance (allergen) introduced by inhalation, ingestion, injection or skin contact, often manifested by itchy eyes, runny nose, wheezing, skin rash or diarrhoea.

BRAINSTORMING: A basic and highly popular tool for group problem solving. The purpose of using brainstorming is to generate ideas or to seek solutions to both theoretical and practical problems. They require a problem to be analyzed and then solutions to be developed. Brainstorming encourages and requires a high degree of participation and it stimulates those involved to maximum creativity. During a brainstorming session, only ideas are recorded; no explanations are required and no interventions are judged or rejected at this stage. In a subsequent stage, responses are categorized and analyzed; ideas are then combined, adapted or rejected.

BRIEFING: A brief, cursory and introductory overview of a single topic. The purpose is to introduce the audience to some basic concepts with respect to a given subject.

BUZZ GROUP: A small group that works on an assigned task. Example: Sub-groups of four to six individuals are asked to take about five minutes to discuss a particular issue or question raised by the resource person, then share it with the audience.

CASE STUDY: A technique designed to give a group training in solving problems and making decisions. A case study is a written description of a hypothetical situation that is used for analysis and discussion. Case studies should be based on credible and realistic scenarios which are not too complex and which focus on two or three main issues. Case studies are useful when discussing common problems in a typical situation. They also provide a safe opportunity to develop problem-solving skills, and to promote group discussion and group problem-solving skills. The scenario for a case study can be presented to participants for consideration, in its entirety, or "fed" to them sequentially as a developing situation to which they have to respond.


CONTAGIOUS DISEASE: An infectious disease that is spread through contact with infected individuals; also called communicable disease. Contact with the bodily secretions of such individuals, or with objects that they have contaminated, can also spread this kind of disease.

CONTENT: The concepts or ideas being taught and learned. These can be the knowledge, skills or attitudes that need to be developed through the training.

DEBRIEFING: Also termed "sharing" or "reporting," debriefing is the final phase of an experiential activity. At this stage the trainer aids the participants to report back and interpret what was learned from the game, exercise, role-play or other activity.

DEMONSTRATION: A presentation of a method for doing something. A demonstration is useful for teaching a specific skill or technique or to model a step-by-step approach.





ENERGIZER: Activities designed to pep up the group after significant periods of inactivity, fatigue, or plain dullness.

EPIDEMIC: A widespread occurrence of a disease

EVALUATION: The purpose of an evaluation is to assess training outcomes. It provides a way to measure how much was accomplished during a training session and to examine how the design of teaching can be changed in the future, often using evaluation instruments and reports.

EXPERIENTIAL LEARNING: A method that allows the learner to learn from experience; synonymous with discovery learning.

FACILITATOR: A trainer who functions in a way that allows participants to assume responsibility for their own learning.

FEEDBACK: Data received from or given to one or more participants concerning one's behaviour, attitudes and relationships in the training situation.

FOCUS GROUP: A group of individuals who are convened to express their opinions, attitudes or reactions to a particular program, activity or product.

GOAL: The general change that organizations or individuals expect to see as a result of education and training.

GROUP DISCUSSION: Mutual exchange of ideas and opinions by members of small groups (8 to 20) on a problem or issue of common concern. The purpose of using group discussions is to develop understanding.

HAEMORRHAGIC FEVER: Any of a group of viral infection, including dengue, Ebola virus infection and yellow fever, that occur primarily in tropical climates, are usually transmitted to humans by arthropods, rodents and are characterized by high fever, internal bleeding, hypotension and eventual shock

ICEBREAKER: Structured, content-free training activity designed to relax participants, get them acquainted with one another, and energize them.

INFECTIOUS AGENT: an agent capable of causing an infection

INFECTIOUS DISEASE: A disease caused by microorganisms or other agents, such as a bacterium, virus or fungus that enters the body of an organism.

IRRITATIONS: the bringing of a bodily part or organ to an abnormally excited or sensitive condition

MENINGES: The three membranes covering the brain and the spinal cord

OBJECTIVE: Objectives are set for the learning session in order to delineate exactly what learners will achieve. Objectives are specific and immediate, unlike goals, which are general and long-term. Objectives are usually defined as being behavioural objectives because they can be demonstrated and they affect the behaviour of the learner. Action verbs are used for objectives. Example: By the end of this training, participants will have designed teaching materials.

PANDEMIC: A pandemic is an epidemic of infectious disease that affects all regions of the world. Recent pandemics include the Bird flu and swine flu. With the increase of global transport and urbanization, the spreading of pandemics is easily facilitated. It has become important therefore to look out for possible pandemics and combat them at source.

PATIENT: A person under medical care or treatment.

REFLECTION: The purpose of using reflection is to help participants ponder and analyze new information and develop their ideas about a topic.

SIMULATION: A simulation is an enactment of a real-life situation. Simulations allow learners to experience decision-making in “real” situations without worrying about the consequences of their decisions. Simulations also provide a way to apply knowledge, develop skills, and examine attitudes in the context of an everyday situation.

SPECIES: Is regarded as the basic category of biological classification, composed of related individuals that resemble one another, are able to breed among themselves, but are not able to breed with members of another species.

TUMOUR: An uncontrolled, abnormal, circumscribed growth of cells in any animal or plant tissue.

UPPER RESPIRATORY TRACT: The nose and throat and trachea.

VACCINATION: The act of inoculating the body with vaccine.

VECTOR: An insect or other organism that transmit a pathogenic fungus, virus and bacterium, etc.

VIRUS: An ultramicroscopic (20-300nm in diameter), metabolically inert, infectious agent that replicate only within the cells of living hosts, mainly bacteria, plants and animals.



Annex

