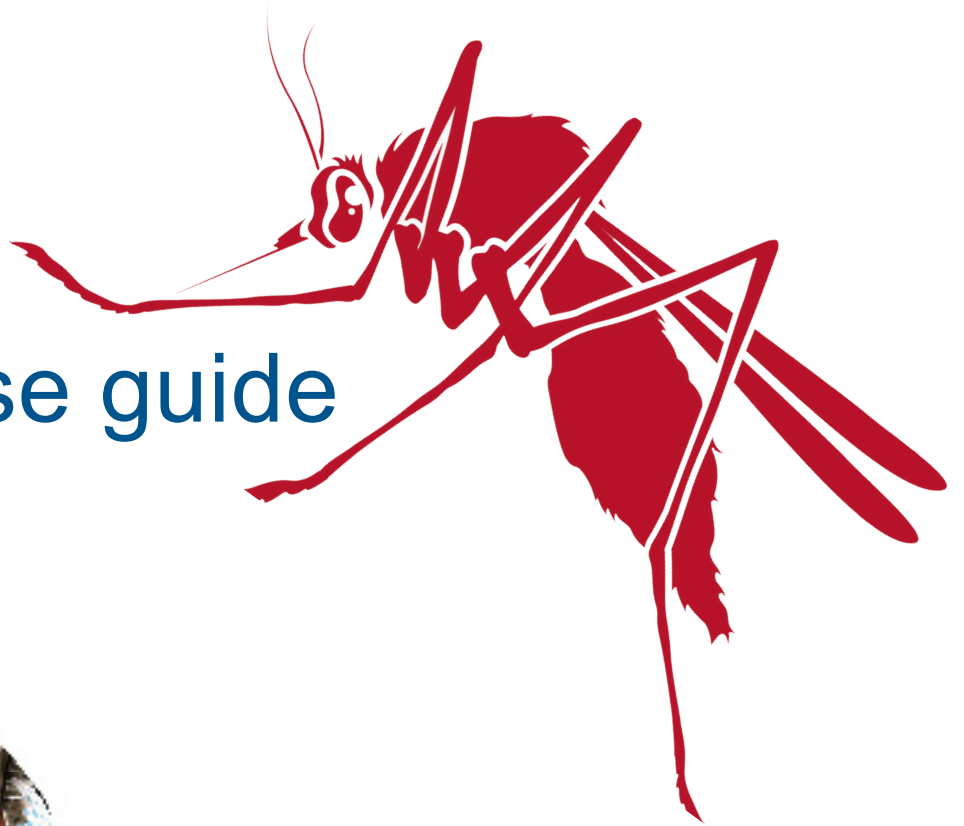


Zika virus and emerging
mosquito - borne diseases:

The European emergency risk
communication challenge

A response guide



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Atif Kukaswadia, PhD, Queen's University, Kingston, Ontario, Canada
Ljubica Latinovic, Risk Communication and Social Engagement Consultant, Mexico City, Mexico
Olivier Martin, Crisis Communication Advisor, MoH, France
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Lessons learned and gaps: How this guide can help

This manual and the associated app are designed to assist public health authorities in the World Health Organization (WHO) European Region¹ communicate in response to possible outbreaks of the Zika virus, and other mosquito-borne diseases (MBDs). The main objective of this guide is to enable European countries **to learn from the experience** of other regions on how to communicate about Zika and **apply these lessons** to the European context. The guide takes a closer look at recent experience from the Americas and illustrates how this can inform countries in Europe on **risk communication preparedness and response to Zika**. Much of the preparedness and response advice on Zika can also be applied to other MBD threats. This guide also aims to support countries in the strengthening of their national risk communication preparedness and response to MBDs in general.

Countries in the Region are diverse and the Zika/MBD outbreaks they may face could vary in size, complexity, cultural context, socioeconomic reality and preparedness and response capacity. As a result, the guide cannot offer a “one-size-fits-all” solution. It can, however, offer practical ideas and options for countries as they reinforce their preparedness.

Zika virus: A new emergency risk communication challenge

The Zika virus emerged on the international public health radar in 2016 when the WHO declared it a public health emergency of international concern (PHEIC).

A large outbreak of Zika started in Brazil in early 2015 and soon spread to nearly every country in the Americas and Caribbean; reaching as far north as the US State of Florida. However, it was the discovery by Brazilian scientists of a link between Zika infection in pregnancy and microcephaly (i.e. babies born with much smaller brains and heads than that of an average, healthy child) that caused WHO to declare it a PHEIC.

Heartbreaking photos of newborns and infants with microcephaly shocked the world. Over the subsequent weeks and months, Zika evolved into one of the most complex emergency risk communication (ERC) challenges of recent years. Among its most difficult characteristics:

- **Pregnant women and their unborn children** are likely most at-risk. This prompted an intense emotional response.
- **Massive uncertainty**, as so little was known about the disease and its short and long term risks.
- **Broad based complacency** around required vector control measures was at play, as many communities had grown accustomed to mosquito-based threats while others had rarely experienced them.



Photo credit: WHO

¹ The WHO European Region comprises 53 countries stretching from the Atlantic Ocean to the Pacific, with a population of nearly 900 million people. See the list of countries at: www.euro.who.int/en/countries.

Europe's opportunity to prepare

The European Region today has some areas with mosquitoes capable of spreading Zika. We have also seen imported cases of Zika virus infection in people arriving from other continents. But the virus has never become established and started an outbreak in Europe. The Region is, therefore, facing something of a unique challenge:

- Most public health officials and professionals in Europe **have no experience of responding to a Zika virus outbreak.**
- European populations have not encountered the Zika virus before, and so **have no natural immunity to it.**

Strengthening preparedness against other MBDs

The Zika virus is only the most recent and high-profile mosquito-borne threat facing Europe.

- A localised outbreak of chikungunya happened in the district of Ravenna, northeastern Italy in 2007 with over 200 cases. The Ravenna outbreak showed that the chikungunya virus could be spread by the *Aedes albopictus* mosquito (also known as the Asian tiger mosquito) in a European context.
- Meanwhile, West Nile virus (WNV) is endemic in Balkan countries. Upsurges of WNV cases have, on occasion, been cause for concern: for example, the outbreak around Thessaloniki, Greece in 2010.
- There has been a resurgence of dengue in the Region, after an absence of over 50 years. There have been several clusters of locally transmitted dengue in Europe in recent years and one large outbreak. This happened on the Portuguese Island of Madeira in 2012 and early 2013 resulting in more than 2000 cases.
- In 2015, the WHO European Region became the first in the world to achieve interruption of indigenous malaria transmission and, in 2016, to be declared malaria-free. While extraordinary, this achievement is fragile. The Region is subject to continual importation of cases from other regions with endemic malaria, which makes the threat of re-establishment of transmission real.

Gaps and challenges addressed in this guide

If and when Zika or another MBD threat does emerge, risk communication will be a core public health tool for any response. Effective risk communication is broadly understood to be often our first line of defence in managing a risk.

A substantial library of materials, tools, and planning guides already exists both in relation to Zika and other MBD threats. The Zika risk communication materials from the Americas are particularly relevant, and links to key documents are included in this guide. Nonetheless, the WHO Regional Technical Consultation on Zika virus held in Lisbon in June 2016 identified a number of gaps and challenges specific to the European context.

Following interviews with key experts across Europe, this guide seeks to address three sets of challenges identified at the above-mentioned meeting:

Challenge 1: Will Zika and related complications be an issue in my country?

Due to competing priorities, European countries struggle with the following issues as they relate to Zika preparedness and response planning:

- low urgency and lack of planning
- lack of political buy-in
- limited resources available
- low public risk perception
- lack of advice on sexual and reproductive health

Challenge 2: Managing and communicating uncertainty related to Zika makes it a challenge to:

- establish and maintain trust
- determine risk and appropriate prevention measures
- convey consistent public health messages

Challenge 3: Low risk perception. This particular challenge may be due to a host of factors, some of which are:

- lack of direct experience and knowledge of the disease as well as the knowledge, attitudes and practices (KAP) within the affected community that could be barriers to infection control
- lack of effort in raising awareness, which include key prevention measures so those affected know how to protect themselves
- limited access to resources in order to increase awareness and raising the profile of Zika through various channels

In relation to **Challenge 1**, it is hoped that this guide will serve as a catalyst for countries to engage in preparedness and response planning for Zika and other MBDs. A community engagement approach is proposed for reaching at-risk populations, including those who feel a lack of urgency about Zika. Advice is given on how to plan and respond with only limited resources.

There is advice on communicating uncertainty (**Challenge 2**) and a draft Zika opinion survey tool to help gather information on knowledge, attitudes, practices (KAP) and risk perceptions (**Challenge 3**).



Photo credit: US CDC

Part 1 of the guide explores the identified gaps in greater detail.

Part 2 gives practical guidance on planning and preparedness towards the development of Zika and other MBD ERC plans consistent with the broader emergency response model put forward by the WHO Regional Office for Europe.

WHO Zika/MBD emergency risk communication app



An app has been developed in parallel with this guide. Its focus is on the tools, checklists and surveys presented in the document. Interactive and easily accessible, such a tool may prove invaluable on the front lines of the response at country level.

Part 1: What to expect – the complex communication challenges of Zika/MBD outbreaks

1.1 Zika virus and the threat to Europe – the basics

1.1.1 What we know, what we don't know and how to keep up-to-date

Zika is a mosquito-borne flavivirus from the same virus family as dengue, WNV and yellow fever.

What we know

- The virus is spread through the bite of infected *Aedes* species mosquitoes - *Aedes aegypti* and *Aedes albopictus*.
- People with Zika virus disease can have symptoms including mild fever, skin rash, conjunctivitis, muscle and joint pain, malaise or headache. These symptoms normally last for 2-7 days.
- There is no specific treatment or vaccine currently available for Zika virus infection.
- Many people who get infected with Zika virus show no symptoms at all.
- Zika virus infection can sometimes be sexually transmitted.
- Since 2016, there has been scientific consensus that Zika virus is a cause of microcephaly (babies born with much smaller brains and heads than is normal or healthy) and Guillain-Barré syndrome (GBS). Other possible neurological complications are also being investigated.

Zika virus infection in humans has been seen since the 1950s in east Africa and since the 1960s in parts of Asia. It typically caused only mild illness and was not viewed as a significant threat. The emerging evidence of Zika complications, such as microcephaly, caused WHO to declare it a PHEIC in 2016. Much of the uncertainty and concerns surrounding Zika virus infection are linked to related complications and their risks. The fact that those infected are, at times, asymptomatic and that the virus can be sexually transmitted and is known to cause microcephaly are key issues that cause the most public health concern.



Photo credit: WHO/ David Spitz

What we don't know

- How high is the risk that a woman infected with Zika virus during pregnancy will have a baby with microcephaly?
- What factors influence this risk?
- What other disorders might children of Zika-infected women experience? How common will these be?
- How high is the risk of sexual transmission of Zika virus?
- How long after infection does Zika virus remain in a person's body fluids?
- How long after infection is a man capable of transmitting Zika virus to his partner?
- How high is the risk of Zika virus being transmitted via blood transfusions; or via breast milk?

In 2016, WHO defined a Zika research agenda² to address these and other gaps in scientific knowledge. It may, nonetheless, take some time before we can answer these questions with a good degree of certainty. Some questions, we may never be able to answer with certainty.

Key advice

- ✓ **WHO's interim guidance on Zika risk communication (March 2016):** An excellent starting point for developing messages and materials. See www.who.int/csr/resources/publications/zika/risk-communication/en/
- ✓ **Latest WHO information on Zika:** A source of up-to-date resources, situation reports, technical and communication materials. See www.who.int/emergencies/zika-virus/en/

1.1.2 The threat of a Zika outbreak in Europe

Up until 2014, the Americas, like Europe today, had never had an outbreak of Zika virus. By the end of 2016, nearly every country in the Americas had experienced outbreaks. We know in general terms how it started. Many areas of Brazil have populations of *Aedes aegypti* mosquitoes capable of transmitting the Zika virus. People from all over the world visit Brazil each year for business or tourism and likewise Brazilians also travel. In the second half of 2015, one or more people infected with Zika in Brazil, or in another part of the Americas or of the world must have been bitten by local *Aedes aegypti* mosquitoes. The mosquitoes became infected and began spreading the virus to more people, who then infected more mosquitoes and so on.

² www.who.int/reproductivehealth/zika/zika-virus-research-agenda/en/

Like Brazil and the Americas, the European Region is highly connected to the rest of the world. Since 2016, thousands of imported cases of Zika have been identified in European countries. While differences in geography, climate and ecology mean there are fewer areas of Europe with mosquitoes capable of spreading the virus, the Region is still vulnerable to Zika.

According to the WHO Regional Office for Europe Interim Risk Assessment of 2016,³ - two areas of Europe - the Island of Madeira, Portugal and parts of the Black Sea coast – have a high likelihood of Zika virus outbreaks during the late spring and summer months. This is due to the presence of *Aedes aegypti* mosquitoes. A further 18 areas of Europe were assessed as being at moderate likelihood of outbreaks due to the presence of *Aedes albopictus* mosquitoes. These areas cover much of southern Europe and the Balkans.⁴

While some countries in the European Region have mosquito surveillance systems, **mosquito surveillance is not conducted across the whole Region**, so the current maps may not give a full picture of the areas with a likelihood of Zika outbreaks.

Based on evidence from the Risk Assessment, there is a risk of spread of Zika virus disease in the European Region and this risk varies from country to country. The report contains a series of actions that WHO recommends for countries, especially those with high and moderate likelihood of local Zika virus transmission, to prevent or rapidly contain a Zika virus disease outbreak.



Photo credit: US CDC

³ www.euro.who.int/__data/assets/pdf_file/0003/309981/Zika-Virus-Technical-report.pdf?ua=1

⁴ *Aedes aegypti* is currently reported in some areas of the Black Sea coast of Georgia, the Russian Federation and Turkey. For details of the location of these areas see the *Aedes aegypti* mosquito map on the European Centre for Disease Prevention and Control (ECDC) website - ecdc.europa.eu/en/healthtopics/vectors/vector-maps/Pages/VBORNET_maps.aspx

1.1.3 Emergency risk communication (ERC)

The Zika experience in the Americas offers crucial intelligence on what health authorities might expect if the disease were to emerge in their jurisdiction. The following is adapted for the European context from material produced by the Pan American Health Organization (PAHO).

- **Dealing with uncertainty:** There will be a time-lapse between reports of the first suspected case of Zika-linked microcephaly and the first confirmed case diagnosis of microcephaly is not always easy. The longer this period, the more speculation will occur in the media and among the public.
- **Increase in information demand:** There could be a massive demand for information from the public, media, other health authorities, partners, regulatory entities, and other groups.
- **Social media exposure:** Social media activity may exponentially increase the pressure and demand for information. Social media rumours and misinformation will likely fill gaps in communication by health authorities.
- **Rumour management:** Incomplete and incorrect information and rumours about Zika will emerge among the population and people may adopt measures based on such information.
- **Managing evolving information:** Public health guidance and recommendations may change as more is learned about the outbreak and scientific knowledge about Zika virus and its complications evolve.

1.1.4 Some questions to expect during a Zika outbreak

- Can I protect myself and my family from being infected by the Zika virus? What is the risk for my community?
- Are antiviral or other treatments available? Is there a vaccine? Can the infection be transmitted by blood or sexual contact? Can it be transmitted from mother to child?
- How does the Zika virus affect pregnant women and fetuses? What are the recommendations for pregnant women in areas where the Zika virus is present?
- What are the consequences for babies born with microcephaly and other Zika-related complications?
- What is GBS? How does the Zika virus infection trigger GBS? What are some of the consequences of this disease? For example, what are some of the symptoms and treatments?
- What are the authorities doing at airports, ports and land borders to prevent the introduction and spread of Zika?

Links to WHO frequently asked questions (FAQs) documents and fact sheets on Zika virus, GBS and microcephaly:

- www.who.int/features/qa/zika/en/
- www.who.int/features/qa/zika-safe-blood/en/
- www.who.int/mediacentre/factsheets/guillain-barre-syndrome/en/
- www.who.int/mediacentre/factsheets/microcephaly/en/

Link to WHO Regional Office for Europe Risk Assessment and related documents

- www.euro.who.int/en/health-topics/emergencies/zika-virus/news/news/2016/05/who-calls-on-countries-to-prepare-as-zika-virus-expected-to-spread-in-europe-in-late-spring-and-summer

You can also check WHO's Zika virus emergency page for the very latest information:

- www.who.int/csr/disease/zika/en/

1.1.5 Other MBD threats to Europe

Mosquito-borne diseases are those spread by the bite of an infected mosquito. Diseases that are spread to people by mosquitoes include chikungunya, dengue, malaria, West Nile virus (WNV) and the Zika virus.

We have seen that the possibility of Zika virus outbreaks is linked to the presence of *Aedes aegypti* and *Aedes albopictus* mosquitoes in parts of Europe.⁶ These mosquitoes are also capable of spreading other diseases. Most notably: dengue and chikungunya. Another mosquito-transmitted virus in Europe is WNV. Mosquitoes of the genus *Culex* are generally considered the principal vectors of WNV. Malaria is transmitted by *Anopheles* mosquitoes and in 2016 the European Region was declared malaria-free.

Experience from the Pacific, notably the French Island of Réunion, and the Americas in recent years shows that these diseases can cause large, rapid outbreaks when they arrive in a new area. These can put severe pressure on health services and cause public concern. A small outbreak of one of these diseases in a European country may cause some concern among the public and the media.

⁶ Ibid. (footnote, pg. 8)

Dengue

Dengue is a mosquito-borne viral infection. It can cause a severe flu-like illness and, sometimes, a potentially lethal complication called severe dengue. World-wide, new cases of dengue have increased 30-fold over the last 50 years. An estimated 50-100 million infections occur annually in over 100 endemic countries.

As a result, dengue is second only to malaria as the febrile illness causing the most hospitalization in Europe after returning from abroad. European countries see thousands of imported cases each year. Locally transmitted dengue cases in Croatia, France and Portugal since 2010 have shown that transmission is possible in different areas of continental Europe where *Aedes albopictus* or *Aedes aegypti* are present. There has also been one large outbreak, with over 2,000 cases. This was on the Island of Madeira, Portugal in 2012 – 2013 with the virus being spread by *Aedes aegypti* mosquitoes.

Severe dengue is a potentially lethal complication of dengue infection. So far, there is neither specific treatment nor a vaccine. However, early diagnosis and adequate management can reduce fatalities. Public health authorities need to strengthen prevention, preparedness and control of the disease and improve communication on the best ways to control mosquitoes.

Chikungunya

Chikungunya is another viral disease spread by *Aedes* mosquitoes. Its symptoms are typically sudden onset of a high fever and joint pains, particularly affecting the hands, wrists, ankles and feet. Most people recover from chikungunya after a few days. Some have no more than mild symptoms. However, in a few cases joint pains from chikungunya persist for weeks, months or even longer. There are no specific antiviral drugs and no commercial vaccine.

In recent decades, the *Aedes* mosquitoes carrying chikungunya have spread to the European Region. In 2007, an outbreak was reported for the first time in Italy. The presence of natural and man-made containers that serve as mosquito breeding sites around human habitations is a significant risk factor for chikungunya.

Vector control and risk communication are needed to tackle the spread of the disease. Tourists are at-risk of infection when travelling to Africa, Asia, the Caribbean and the Indian subcontinent.



West Nile virus

West Nile virus (WNV) is a mosquito-borne infectious disease, transmitted to humans through the bite of an infected mosquito, usually of the genus *Culex*. Human WNV infection has been described in Europe since 1950. WNV is endemic in Europe with an increasing number of outbreaks. The virus has been reported in temperate areas of the European Region, presenting a potential threat to public health. WNV cases have been documented in about 20 countries of the Region since 2000. The most favourable period during which WNV affects humans is July–October, with a peak in August and September.

While 80% of those infected with WNV show no symptoms, in 20% of cases the virus will develop into West Nile Fever (WNF), a febrile, influenza-like illness with symptoms similar to those of dengue. Mortality is usually rare, occurring mainly in elderly patients and recovery is complete. There is no specific treatment for WNF other than relieving the symptoms. Currently, there is no human vaccine against WNV and prevention of the illness in humans is based on mosquito control. WNV infection through blood transfusions and organ transplants have been reported in a very small number of cases.



Photo credit: WHO

Malaria

Malaria is a life-threatening disease caused by parasites (genus *Plasmodium*) that are transmitted to people through the bites of infected mosquitoes (genus: *Anopheles*). In 2016, the European Region was the first in the world to be declared malaria-free after achieving interruption of indigenous malaria transmission in 2015. The number of indigenous malaria cases dropped from 90 712 in 1995 to zero cases. This achievement was made possible through a combination of strong political commitment, heightened detection and surveillance of malaria cases, integrated strategies for mosquito control with community involvement, cross-border collaboration and communication to people at-risk.

The achievement of zero indigenous malaria cases in the European Region is extraordinary but fragile. The Region is prone to continual importation of cases from endemic regions, with the threat of re-establishment of transmission. Maintaining zero cases in the Region will require sustained political commitment, resources and constant vigilance. Any new cases of the disease must be promptly identified and treated. Countries at-risk of malaria reintroduction are strengthening their efforts to protect their populations from the risk of re-exposure to the disease.



Photo credit: WHO

Links to fact sheets on vector-borne diseases in Europe

- www.euro.who.int/en/about-us/whd/past-themes-of-world-health-day/2014-vector-borne-diseases/fact-sheets-world-health-day-2014-vector-borne-diseases

Malaria-free Europe

- www.euro.who.int/en/media-centre/sections/press-releases/2016/04/from-over-90-000-cases-to-zero-in-two-decades-the-european-region-is-malaria-free

Links to WHO FAQs documents and fact sheets on chikungunya, dengue and WNV

- www.who.int/denguecontrol/disease/en/
- www.who.int/denguecontrol/faq/en/
- www.who.int/ith/diseases/chikungunya/en/
- www.who.int/features/qa/63/en/
- www.who.int/features/qa/co-infection-mosquitos/en/
- www.who.int/mediacentre/factsheets/fs354/en/

For the very latest FAQ documents from WHO check:

- www.who.int/features/qa/en/

1.2 Emergency risk communication – the basics

When outbreaks happen, the key objective of WHO and national health authorities is to **protect people's health**.

The WHO recently published a Strategic Communication Framework (<http://www.who.int/about/what-we-do/strategic-communications-framework/en/>).

This sets out WHO's view on best practice in communication, including during health emergencies. Health communication should strive to be:

- **Accessible**
- **Actionable**
- **Credible and Trusted**
- **Relevant**
- **Timely**
- **Understandable**



Applying these principles to Zika would mean, for example:

- **communicating openly and honestly** about the likelihood of Zika outbreaks in your own country;
- **being as transparent and timely as possible** (while respecting patients' privacy) if and when health authorities investigate possible Zika cases, suspected cases of microcephaly, GBS or other complications linked to Zika; as well as possible Zika transmission in Europe;
- **coordinating communication with partners** in relevant sectors (e.g. agriculture, economy, environment, tourism);
- **communicating what the authorities know, what they don't know and what they are doing** to find out about Zika and its complications;
- **communicating proactively about sexual transmission** of Zika and the threat Zika can pose to unborn babies;
- **making information available and accessible** on contraception and medical termination of pregnancy to women at-risk;
- **engaging proactively with affected communities** to understand what their concerns and perceptions of the risk are;
- **engaging with health care workers** to detect Zika symptoms and communicate with at-risk/affected communities
- **consistently mentioning what people can do to protect** themselves from Zika virus infection, through effective channels and understandable languages

Applying these principles to other MBDs would mean, for example:

- **being transparent** about the potential for *Aedes* mosquitoes to spread diseases such as dengue and chikungunya in parts of Europe;
- **being transparent when investigating** suspected cases and transmission;
- **being transparent about the potential seriousness** of the diseases;
- **engaging proactively with affected communities** to understand what their concerns and perceptions of the risk are;
- **consistently mentioning what people can do to protect themselves** from MBD infections, through effective channels and understandable languages

Key advice: core capacities needed for effective emergency risk communication (ERC)

ERC identifies four key capacities that public health authorities need to put in place. These are valid for preparedness for ERC on Zika virus, and indeed any other health threat a country may face.

Ensure transparency and announce early for a real or potential threat: Elements of this could include: have an agreed ERC policy and procedures in place that support transparency and early announcement; ensure that the ERC function is represented in management meetings; provide training on ERC for key staff.

Coordinate public communication: Elements of this could include: identify spokespeople and train them in ERC; identify and train an ERC team to support spokespeople; have policy and procedures for ERC coordination agreed with key partners and agencies across government; develop strong partnerships with stakeholders in the wider health community.

Listen through two-way communication: Elements of this could include: put in place systems and resources for regular (at least daily) monitoring of mainstream media and social media; develop systems for gathering feedback and listening for rumours in at-risk populations (e.g. via formative research); put a system in place for the ERC team to review feedback and act on it.

Select effective channels and engage trusted influencers: Elements of this could include: have an ERC team in place with the skills and capacity to select channels based on those that targeted audiences use, including via influencers.

More advice on preparedness planning is given in Part 2 (page 28) of this guide.

1.3 Emergency risk communication – challenges posed by Zika

Should the Zika virus emerge in the European Region, authorities can build from the experience in the Americas, but should also expect the unexpected – both in terms of the actual threat from the disease and reactions to it.

1.3.1 Challenge 1: Uncertainty and how to manage it

Public health authorities understandably struggle with uncertainty. Higher levels of uncertainty tend to be correlated with weaker guidance and more diverse and contradictory expert opinion. Higher uncertainty is also more threatening to many public sector management norms – built around a solid evidence base for decision-making. Without a solid evidence base many authorities choose to delay or limit communication until the uncertainty is eliminated. The problem is, in most cases, it never is, and unofficial information will be circulating already, feeding rumours, speculations and unanswered questions.

Similarly, we know that uncertainty relating to issues affecting the health of our loved ones or ourselves often produces higher levels of mental distress, even a sense of hopelessness. Research confirms what most of us know from personal experience, it's the “not knowing” which can feel unbearable.

Nonetheless, research and field experience point to the fact that health authorities need to be transparent if they want to maintain the trust of their population. Building and maintaining trust is at the heart of effective ERC, as guidance from trusted authorities is more likely to be followed. So, if health authorities want the public and stakeholders to make informed decisions and adopt protective behaviours concerning Zika virus, they must be transparent about the uncertainties that surround Zika and its complications.



Photo credit: WHO

Recommendations on managing uncertainty around Zika

- **Say what you know and what you don't know:** Explain what is known but also what is not known or could quickly change (e.g. describe what is known based on experience in the Americas but distinguish that from the European Region, which has different environments, demographics, culture and capacity compared to the Americas). There is also huge diversity within the European Region. We cannot assume an outbreak will evolve here in the same way as in the Americas.
- **Explain what actions are being taken:** Detail what is being done to try and get answers (e.g. investigation of cases, laboratory tests to confirm the threat, validation of response measures by national and international experts).
- **Qualify recommendations:** Avoid definitive, black and white characterizations – but also encourage citizens to stay informed. A sample recommendation could be, “Even though the outbreak is only confirmed in village A at present, we are advising anyone living in or visiting the whole of region B to protect themselves from mosquito bites and notify their health centre if they develop a fever. We ask people to stay informed by listening to the local radio news or visiting our website.”.
- **Expect uncertainty to last longer than you think:** You cannot avoid talking about it. Some areas of uncertainty around Zika might endure for years to come. Meanwhile, if health authorities want to retain trust and credibility with their population they will need to address concerns about Zika transparently, as and when they arise.
- **Remember to announce early and be transparent:** If health authorities suspect a Zika outbreak might have started, or that a child has been born with Zika-related microcephaly, they should communicate about it even before they have final confirmation. If they delay, and the information leaks via unofficial channels, this will damage trust in the authorities.
- **Make a clear distinction between Zika complications and infections:** Zika infection is a mild, short-term illness for most people, while Zika complication may result in GBS and/or microcephaly. Only a small subset of people, including unborn babies, infected with Zika will develop complications. Unfortunately, we cannot yet predict who they are going to be.



Photo credit: WHO/ David Spitz

1.3.2 Challenge 2: Different segments of a population may react differently

Experience from Zika outbreaks in the Americas suggests there may be different reactions in different segments of the population:

1. Some people will be **upset and concerned**. A lot of these will be the people at high-risk (i.e. pregnant women and their partners, or couples trying to conceive children). They are likely to actively seek advice and information. Pregnant women in particular may wish to be tested to see if they have been exposed to Zika. This group is likely to act on messages about protecting themselves from bites and eliminating mosquito breeding sites around their homes.
2. In contrast, another section of the population may receive information about the outbreak but be **unconcerned and uninterested** of the threat from Zika. This group may be used to living with mosquitoes and unbothered about being bitten. They are likely to ignore messages about eliminating mosquito breeding sites around their homes.
3. It is possible that some communities may be **unaware of the threat** from Zika. This may be because they are geographically isolated (e.g. nomadic or remote communities, or otherwise socially, culturally, or linguistically hard-to-reach).

It is a mistake to believe the reaction you see from group 1 is representative of the whole population. You may need to keep talking about the risk of Zika or other MBDs longer than feels comfortable in order to reach groups 2 and 3. You may also need to consider specific ERC initiatives to directly target groups 2 and 3. These will likely use some of the techniques outlined under Challenge 4 (page 21) on engaging communities.

1.3.3 Challenge 3: Vaccines, sex, insecticide and other difficult issues

The role of vaccines

- Researchers are developing a vaccine against Zika. At the time of writing, this vaccine has not been through clinical trials.
- The Zika vaccine is unlikely to be commercially available for several years, even if the initial clinical trials are successful.
- National health authorities and their policy-makers are likely to closely scrutinize the cost-benefit of running Zika vaccination programmes, even when a vaccine becomes available.
- Balance is needed between new vaccine and vaccine safety communications.



Photo credit: US CDC

Sexual transmission

- Cultural and religious sensitivities in some communities can be barriers to talking about prevention of sexual transmission of Zika.
- The recommended control measures, such as condom use or abstinence, may similarly confront community norms and beliefs that are barriers to behavioural change.
- Communication about specific cases must always respect the privacy of the people involved. This is especially so in cases involving sexual transmission.
- Community engagement and communication through influencers are key.



Photo credit: WHO/ David Spitz

The perception of the insecticide risk

- Often, communities find it reassuring to see public authorities spraying to kill mosquitoes. It is a visible sign that control efforts are underway. But mosquito control is most effective when it is comprehensive, sustained and engages communities.
- Some communities or individuals may be concerned about health and environmental risks of spraying by the authorities.
- WHO recommends that people use insect repellent sprays containing the chemical diethyltoluamide (DEET) to protect themselves from mosquito bites.
- Some people may be concerned about the safety of spraying themselves, or their children with DEET. These people may include pregnant women. They may prefer to use products containing “natural insect repellent” (e.g. oil of lemon eucalyptus) even if these may be less effective.

Travel advice on Zika:

In April 2017, WHO announced a new system for categorizing countries affected, or potentially affected, by the Zika virus. WHO has issued no general restrictions on travel to any of the countries or areas affected by the Zika virus. However, WHO does advise pregnant women not to travel to Zika-affected areas in categories 1 and 2 in its new country classification table. You can find this table, and detailed advice at: www.who.int/csr/disease/zika/information-for-travelers/en/

...and other MBDs

WHO's International Travel and Health website contains the latest information on all MBDs, and other health threats, around the world. It also contains advice to travellers on how to protect their health. www.who.int/ith/en/

Ensuring that citizens adhere to guidance

- Is it realistic to advise people to wear long-sleeved shirts and long trousers to avoid mosquito bites, particularly in warm weather? There is evidence that people don't follow this advice.⁷
- If you advise people to sleep under bed nets, are these available? Are they affordable?

⁷ In a US opinion poll about Zika virus conducted in March 2016, only 22% of respondents who had heard about Zika reported having worn long-sleeved shirts and long trousers to avoid infection risk; and only 10% reported having changed travel plans. <http://apnorc.org/projects/Pages/HTML%20Reports/the-zika-virus-americans-awareness-and-opinions-of-the-us-response.aspx#effects>

1.3.4 Challenge 4: Vulnerable populations – engaging communities

One of the key aspects of engaging communities is listening to them about their fears and concerns and assessing their level of awareness, understanding and perceptions of the disease. It is important to design community engagement strategies that take into account the social, political, cultural, religious and moral factors that affect community members' perception of risk, and how willing they are to change their behaviours.

"Vulnerable populations" is a broad term. In the case of Zika, these could include sub-populations that may:

- have lower **health literacy rates** than the general population;
- be a **transient ethnic minority** with higher levels of mistrust of the government;
- **speak a different language** than the general population;
- have **specific socioeconomic challenges preventing them from making key behavioural changes** – such as the removal of standing water or bed net use;
- have **cultural realities** that may be in conflict with some recommended practices, such as safe sex precautions

The reality across the European Region is that the specific characteristics and challenges faced by different vulnerable populations in different countries will vary significantly.



Photo credit: WHO/David Spitz

1.4 Key steps in community engagement

Step 1: Clarify your purpose and/or goal

Step 2: Map the community to help answer key questions, including:

- ☐ What kind of community is it – what are its beliefs, practices, culture, and language?
- ☐ Is it a hard-to-reach or mobile population?
- ☐ Is it underserved by the health system?
- ☐ Is it rural or urban?
- ☐ Who are the key influencers in the community?
- ☐ What is the demographic make-up of the community?

Step 3: Conduct a community-based awareness and perceptions study, including:

- ☐ Levels of community awareness of the disease, including whether people know its causes, symptoms, and how to prevent it;
- ☐ The main sources of information about the disease;
- ☐ Common misconceptions about transmission and prevention;
- ☐ Any preventative strategies people are practicing, either knowingly or unknowingly;
- ☐ Whether or not community members think prevention is relevant to them;
- ☐ The level of threat people feel, and if it varies from one community to another.

Step 4: Complete a Community Engagement Plan:

- ☐ What structures to use – Consider existing structures (i.e. village committees, village health teams, community mobilisers, volunteers, mother-to-mother groups, opinion leaders).
- ☐ Communication channels - Find out where your target audiences are going for trusted information (i.e. national radio, local radio, the town crier, social gatherings, health care workers, television, informational materials/leaflets given out in local clinics or doctors' offices).
- ☐ Messaging – Preventative or reactive? Fear-based or reassuring? High-level or detailed?
- ☐ Partners and stakeholders - Which people or organizations are key to engaging with this community?

Step 5: Implement the community engagement plan:

- ☐ Establish a defined communication coordination body.
- ☐ Ensure there are described “rules of the game” within the body (i.e. when to engage, how to share intelligence and strategies, use of common templates and tools, and some kind of dispute resolution mechanism).
- ☐ Make sure there is an evaluation model endorsed by leadership within the community that holds people accountable.

Key advice on community engagement for prevention and control of Zika:

WHO, the United Nations Children's Fund (UNICEF), and the International Federation of Red Cross and Red Crescent Societies produced a guidance and resource package on this subject during the 2016 outbreak in the Americas. It is available in English and Spanish at:

www.who.int/csr/resources/publications/zika/community-engagement/en/

1.5 Challenges with outbreaks of dengue or chikungunya

As *Aedes* mosquitoes are present in several areas of Europe, the risk of dengue or chikungunya transmission exists. A large outbreak over a wide area, or in a heavily populated city, would cause significant public concern. Challenges facing health authorities would include:

- **Uncertainty:** Experience of dengue and chikungunya in the European Region is limited. There is a foundation of experience predicting how the outbreak would evolve, but limited understanding as to how populations would react.
- **At-risk populations:** As with Zika, some communities-at-risk may be unreceptive to public health messages and difficult to motivate to take action.
- **Chemicals, spraying and repellent:** Same issues as with Zika (see page 20).
- **Vaccines:** There is a recently developed vaccine against dengue. It only has regulatory approval in a few countries. In a major outbreak, you could anticipate public and political discussion on whether or not to use this vaccine.
- **Blood transfusions:** Anticipate concern on whether or not they represent a risk for MBD spread.
- **Blame game:** Be prepared to answer difficult questions, such as "Why weren't the authorities able to prevent this outbreak?".

1.6 Sample draft questionnaire

Here is a sample of a draft community questionnaire on Zika awareness and perceptions among European populations. These types of questionnaires are a quick and inexpensive way to gain a snapshot of a community's awareness and perceptions about Zika and other MBDs. This can then be used to plan engagement and awareness-raising activities. The sample questionnaire can be delivered face-to-face using the app associated with this guide or a paper survey, or over the telephone. The tool is only a guide and questions should be adapted to suit the particular country context and language.

Ethical consent	
<p>Explain issues of consent to the respondent using the following script:</p> <p>The purpose of this study is to find out what communities know and understand about Zika to inform more relevant communications. The information you give is entirely voluntary. If you do not want to answer questions, that is okay. You can choose to stop the interview at any time. If you don't want to answer a particular question, you can ask to move to the next question. Your name or identity will not be connected to any of the answers you provide. Do you want to take part in this survey?</p>	
Information	
<p>1 Which of the following diseases have you heard of? (select all that apply)</p>	<p>1.1 Chikungunya 1.2 Dengue 1.3 Zika 1.4 Malaria 1.5 West Nile virus</p>
<p>2 What source of information about health and wellness do you use the most?</p>	<p>2.1 Newspapers 2.2 Television news 2.3 Radio 2.4 Health hotline 2.5 Health brochures/pamphlets 2.6 Internet/social media</p> <p>Other (fill in) _____ _____ _____ _____</p>
<p>3 What source of information about health and wellness do you trust the most?</p>	<p>3.1 Health authorities 3.2 International organization (i.e. WHO) 3.3 Health provider (e.g. doctor or nurse) 3.4 Religious or spiritual leader 3.5 Friends and relatives 3.6 Community groups (e.g. mother's group, cooperatives)</p>

Knowledge	
4 What causes Zika? (select all that apply)	4.1 Contaminated food and water 4.2 Vaccines 4.3 Mosquito bites 4.4 Sexual Intercourse 4.5 Virus 4.6 Bacterial Infection 4.7 I don't know
5 What are the symptoms of a Zika infection? (select all that apply)	5.1 Cough 5.2 Chest pain 5.3 Fever 5.4 Joint Pain 5.5 Diarrhoea 5.6 Vomiting 5.7 Haemorrhage/bleeding 5.8 I don't know
6 Does everyone who contracts Zika show symptoms?	6.1 Yes 6.2 No 6.3 I don't know
7 What groups are most at-risk of getting a Zika infection? (select all that apply)	7.1 Children 7.2 Women 7.3 Pregnant women 7.4 Men 7.5 Elderly people 7.6 Infants 7.7 Migrants from non-European countries 7.8 Travellers 7.9 Everyone has the same risk 7.10 I don't know
8 Why is Zika especially dangerous for pregnant women?	8.1 They have weakened immune systems 8.2 Zika can cause miscarriage 8.3 Zika can cause developmental delays in children 8.4 Zika can cause stillbirth 8.5 Zika can cause microcephaly 8.6 I don't know

Prevention

<p>9 What are the best methods to prevent Zika? (select all that apply)</p>	<p>9.1 Use insect repellent with DEET 9.2 Clear and cover standing water 9.3 Spray pesticides 9.4 Use a condom during sexual intercourse 9.5 Abstain from sexual intercourse 9.6 Avoid contaminated foods 9.7 Drink clean water 9.8 Wear long-sleeved shirts and trousers 9.9 Use all-natural insect repellent 9.10 I don't know</p>
<p>10 Have you and your family taken any measures to prevent diseases carried by mosquitoes?</p>	<p>10.1 Yes 10.2 No</p>
<p>10a If no, why not? (select all that apply)</p>	<p>10a.1 My community is not at-risk 10a.2 I don't know what measures to take 10a.3 I don't think it is a problem in European countries 10a.4 You can't prevent Zika and other diseases from mosquitoes 10a.5 Other (fill in)</p>
<p>10b If yes, what actions have you taken? (select all that apply)</p>	<p>10b.1 Emptied and scrubbed water sources 10b.2 Covered all water sources 10b.3 Removed all standing water from pots and planters 10b.4 Used mosquito repellent 10b.5 Used condoms during sexual intercourse 10b.6 Delayed pregnancy 10b.7 Lit mosquito coils 10b.8 Other (fill in)</p>

Risk perception

11 What is the risk you will get Zika in the next 6 months?

- 11.1 High risk
- 11.2 Medium risk
- 11.3 Low risk
- 11.4 No risk

12 If you do get Zika, how dangerous is it to your health?

- 12.1 Very dangerous
- 12.2 Somewhat dangerous
- 12.3 Not very dangerous
- 12.4 Not at all dangerous

Demographics

Location (city, town, village, district)
Gender

Female, male

Language

Age

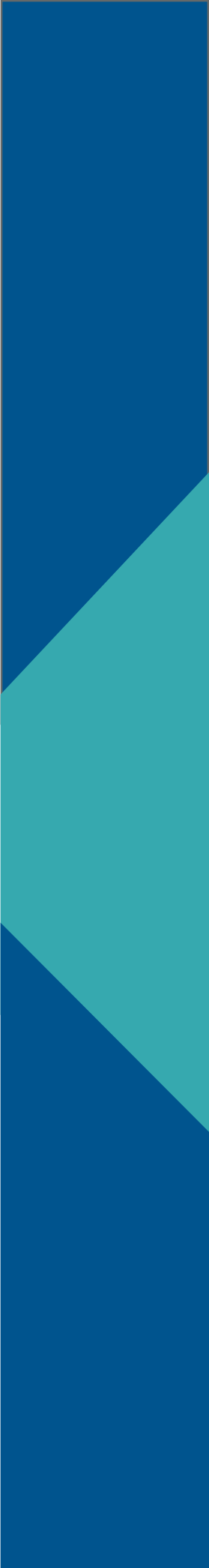
18–24
25–39
40–59
60–79
80+

Highest level of education completed

Primary school
Secondary school
Vocational college
Bachelor degree
Postgraduate degree

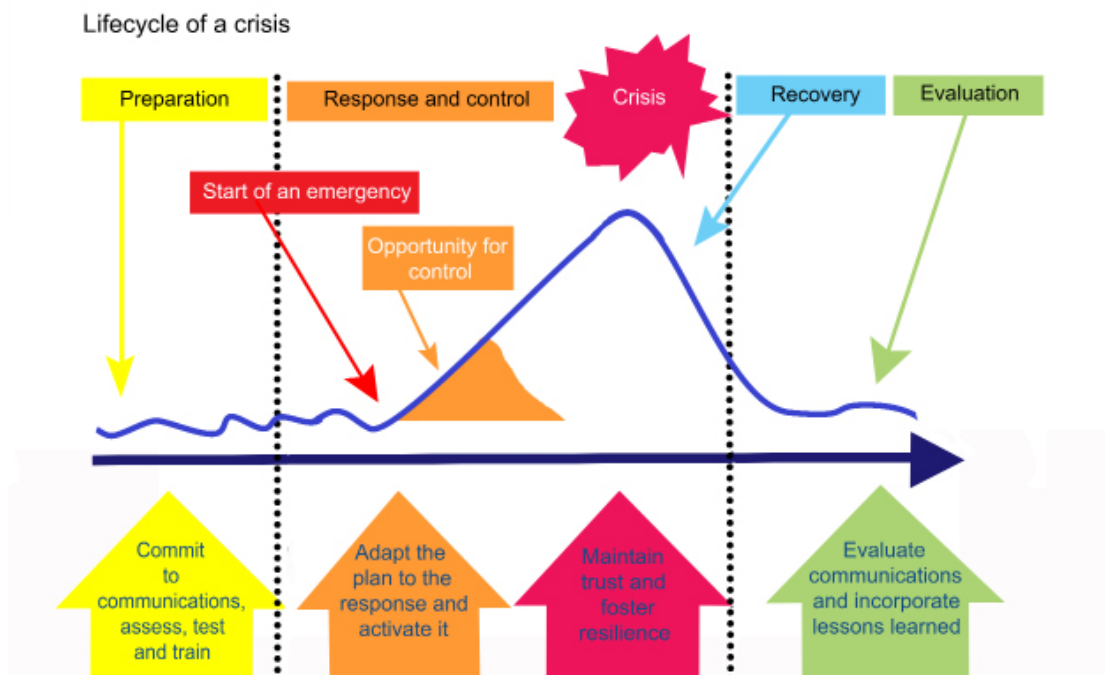
Employment

Average monthly household income (€) _____



Part 2: Building a Zika/MBD emergency risk communication plan

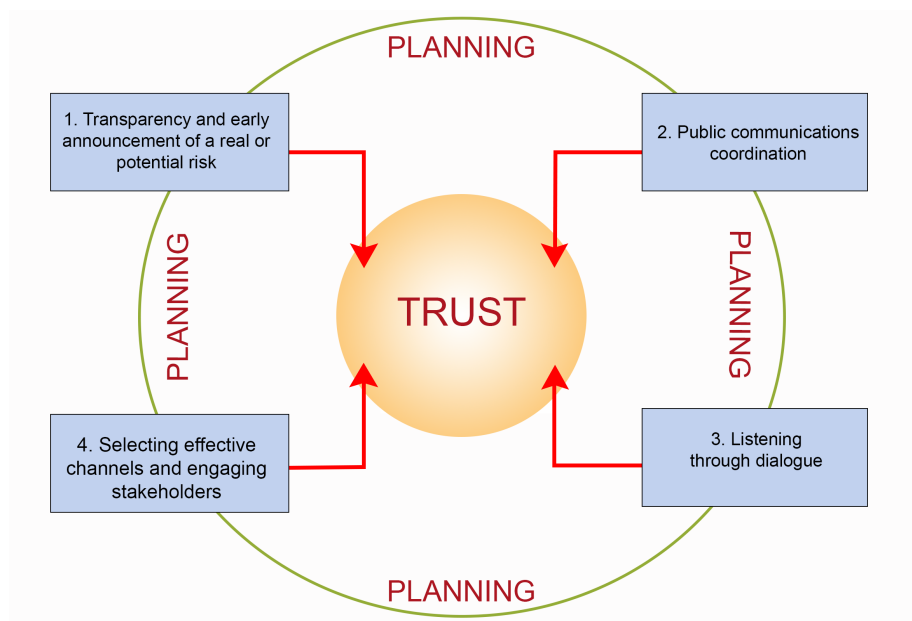
2.1 National ERC plans and how they relate to Zika preparedness



The above model of the different phases of an emergency is one used by the WHO Regional Office for Europe in developing all-hazards national ERC plans. Considering different scenarios that national authorities may confront during a Zika or other MBD outbreak can help in developing or further strengthening these plans, where they exist.

The phases above can also be used along with the principles of WHO's Strategic Communication Framework to develop ERC preparedness for Zika virus, and other MBDs. These principles, and the four core capacities needed for effective ERC, are discussed in Part 1 (page 14-15) of this guide.

If you would like to go further in developing your capacity, the Risk Communication section of WHO's Joint External Evaluation (JEE) tool gives a checklist of what you need to have in place. This is available at: <http://apps.who.int/iris/handle/10665/204368> on pages 68–76.



Conducting ERC preparedness with limited resources:

In many countries, preparedness seems complex and resource intensive - there may be only one or two staff members involved in building ERC capacity - however, it does not need to be. Indeed, it can be an opportunity to avert preventable damage.

Objectives during the initial stages of planning should be to get policy-makers to:

- **Acknowledge** the importance of ERC in a public health response;
- **Commit** to WHO's principles of good practice in ERC;
- **Ensure** the ERC function is represented when preparedness and response decisions are made;
- **Invest** resources (i.e. human and monetary) in ERC preparedness and response.

Some tips for keeping the ERC preparedness process simple:

- **Ensure an ERC section is included in the emergency response plan.** While a multi-hazard and multi-sectoral ERC action plan ensures relevant action; it is more practical to have an ERC section embedded in the overall emergency response plan.
- **Remember, you don't need to do it all yourself.** Officials and experts across your organization may become involved in ERC during an emergency. Partners and stakeholders can also be a key resource for reaching your audiences, and gathering feedback from them.
- **Don't "reinvent the wheel" when you don't need to.** Build your emergency procedures and systems on how you do your work on a day-to-day basis.
- **See if a local university, non-governmental organization (NGO), or civil society group such as the Red Cross/Red Crescent can help you carry out a survey or develop focus groups** to gather your audience's knowledge, attitudes, beliefs, and risk perceptions about Zika (see survey tool on page 24 of this guide). Results from these will help inform and target your strategy and messages. Developing a partnership with the public health authority can be interesting enough to these organizations that they do the work for free or at a low cost.

2.1.1 Preparation phase

The preparation phase is the period before an outbreak happens.

Goals, actions and challenges

Goals

- Establish a Zika ERC preparedness group.
- Develop knowledge/evidence about the threat and the attitude of at-risk populations to it.
- Develop an ERC strategy on Zika (see guidance in Part 1, page 14-15).
- Ensure capacities for effective ERC are in place (see page 15 on the four core capacities and suggested actions).

Actions

Transparency

- Secure senior management support across government for messages and strategy.
- Develop clearance and release procedures.

Coordination

- Invite key actors/stakeholders across government (e.g. officials responsible for mosquito control, Ministry of Tourism, Ministry of Agriculture, as well as the health sector) to join or engage with the Zika ERC group. This should include health sector colleagues responsible for reproductive health.
- Develop and agree a work plan on Zika ERC.
- Hold regular meetings of the Zika ERC preparedness group to allocate tasks and check on progress.
- Build consensus in the Zika ERC group on messages and strategy.

Listening

- Identify key vulnerable communities. Are any of them hard-to-reach? If so, what are the barriers? (e.g. language, education, access to health care).
- Conduct surveys and/or focus groups on vulnerable and at-risk populations' knowledge, attitudes, practices, and risk-perceptions about Zika (see tool in Part 1, page 24 of this guide).
- Share findings with the ERC preparedness group and use them as input for strategy development.

Effective channels and trusted influencers

- Develop key messages on Zika, its complications and all aspects of prevention, including contraception/reproductive health, based on the evidence gathered and the overall Zika response plan.
- Identify effective channels and influencers for targeted dissemination.

Maintaining and further strengthening your preparedness

- Hold a small crisis simulation exercise⁸ to test ERC coordination in a Zika/MBD outbreak.
- Consider running an annual information campaign to raise awareness of the risks of Zika/MBDs.
- Consider making social mobilization against mosquitoes – getting rid of breeding sites around homes – part of the campaign. Again, this is an opportunity to rehearse and improve ERC ahead of an outbreak.

Challenges

- The Ministry of Tourism and economic operators may oppose proactive communication about Zika virus fearing that it will have a negative impact on business.
- Some religious leaders, politicians and community leaders may object to or hinder communication about sexual transmission, or advice on using condoms.
- Discussion of reproductive health and termination of pregnancy is highly sensitive for some cultural/religious communities.

⁸ For a manual on how to plan and organize emergency simulation exercises see <http://ecdc.europa.eu/en/publications/Publications/Simulation-exercise-manual.pdf>

2.1.2 Initial response

This is the most critical phase of the response, because it sets the tone for effective risk communication.

Goals, actions and challenges

Goals

- Establish and/or maintain trust and credibility by announcing early and being transparent.
- Understand the risk perception of the Zika/MBD outbreak among the public and key audiences (i.e. health-care workers, vulnerable and at-risk communities, pregnant women) -if it's a Zika outbreak.
- Make informed choices on the risk communication approach: Are the communities at-risk upset and concerned, or unconcerned and uninterested?
- Initiate cross government coordination via the Zika ERC group.

Actions

- Analyse reaction to the announcement of the outbreak in traditional media (i.e. television, newspapers, radio) and social media in the following 24 hours.
- Make an honest assessment of the level of media/social media interest. If the outbreak announcement has been largely ignored or eclipsed by other news, the level of public concern is probably too low.
- Consider conducting focus groups/interviews to test awareness of the outbreak, your key messages and risk perception of the Zika virus among key target audiences (see survey tool on page 24 of this guide).
- Convene the Zika ERC group, share your analysis, message and strategy and build consensus on them.

Challenges

- The political interface: the Minister of Health or Chief Medical Officer may come under pressure from the Minister of Tourism, and the Minister of Economy, etc. to downplay the outbreak or give false reassurance.
- How do you communicate uncertainty and reach different audiences? (see Section 1.3 on page 16)
- What do you tell people to do if they are sick? Go to a clinic or self-care? This needs to be discussed and coordinated with the wider response team to strike the right balance between rapidly identifying new cases and not overwhelming the health system.

2.1.3 Crisis response and control

This is the peak of the crisis and of the response, when you reinforce the actions initiated in previous phases.

Goals, actions and challenges

Goals

- Leverage partnerships to support and sustain an effective Zika ERC response.
- Engage with affected communities.
- Review key messages and use of channels in light of feedback from listening, studies and focus groups.

Actions

- Continue to coordinate and liaise with intersectoral partners via the Zika ERC group: ensure consistency of messages.
- Conduct further studies and/or focus groups on knowledge, attitudes, practices and risk perceptions among vulnerable and at-risk populations.
- Undertake community engagement with most-affected communities in order to:
 - understand perceptions, beliefs and barriers to adopting protective behaviours;
 - support social mobilization against breeding sites.
- Encourage and support Zika ERC by partners – e.g. civil society, business groups – and listen to their feedback.
- Use insights from studies, focus groups, community engagement, health care workers and partners to adapt and improve the ERC strategy; conduct rumour monitoring and address rumours of concern quickly.

Challenges

- The political interface: The Minister of Health may be criticized for the fact that the outbreak is occurring, and be asked questions such as, "Why couldn't the government prevent this?, Why isn't the outbreak under control yet?".
- Maintaining consistent and coordinated communications with partners and stakeholders; communicating uncertainty and reaching different audiences.
- What do you tell pregnant women to do if they are sick with Zika-related symptoms? Go to a clinic or self-care? Is the health system able to cope with all the cases it is seeing now?

2.1.4 Recovery and evaluation

Critical, yet under-prioritized, are the recovery and evaluation phases of the response where risk communication activities are assessed to provide feedback, keep track of achievements, and modify interventions.

Goals and actions

Goals

- Use lessons learned to further improve the national ERC plan and, if needed, further invest in four core ERC capacities (see box on page 15).

Actions

- Look for lessons learned on some of the specific Zika ERC issues:
 - coordination with mosquito control agencies, Ministry of Tourism, economic interests
 - communicating about sexual transmission, Zika complications and reproductive health
 - communicating effectively with specific target audiences, such as pregnant women
 - communicating uncertainty
 - using ERC to prevent future Zika or MBD outbreaks, or other health emergencies
- Use the opportunity to get agreement on holding an annual information campaign on MBDs, including social mobilization for mosquito control.

2.2 Recognizing early signs of a potential Zika emergency

This section explores some potential scenarios for a Zika outbreak in a European country. However, we acknowledge that the nature of health emergencies is often more surprising than any proposed scenario.

Scenario 1: A potential Zika outbreak is identified early

A typical start would be that national public health authorities become aware of one or more **suspected** cases of Zika in people with no recent travel history.

Key uncertainties

- Are the people really infected with Zika/MBD? Might their symptoms be caused by another disease, such as influenza?
- Might there be some confusion or mistake about their travel history?
- Is this a Zika/MBD outbreak or a false alarm?

Possible barriers and complications

- Delays with laboratory tests
- Leaks to the media, or false rumours
- Delays with information being passed from front-line investigators to national authorities
- It could take several days to get confirmation that a) this is Zika and b) the cases were infected by local mosquitoes.

The next stage

- You have a confirmed cluster of 6, 7, 8 or even 12 locally infected cases of Zika in a town or village.
- The public health authorities ask doctors and other front-line health workers in the area to look out for further cases.
- Out of anxiety, people see their doctors for non-Zika symptoms.
- Doctors start testing anyone with a fever for Zika/MBD.
- Soon you have dozens or even hundreds of “suspected cases” of Zika/MBD.

Key uncertainties

- Is the small cluster of cases likely to evolve into a much larger outbreak?
- How many (if any) of the “suspected cases” really have Zika/MBD?

Possible barriers and complications

- Regional/national laboratories are overwhelmed by the sudden spike in demand for Zika/MBD tests.
- Local/regional public health capacity is under strain.
- Delays occur – maybe of several days – in getting laboratory results, investigating new cases and communicating information to the national level.

Scenario 2: A Zika outbreak is identified late

This is the nightmare scenario: Local transmission of Zika virus starts in an area of Europe but is not recognized until many people have been infected and cases of microcephaly appear. This would suggest either a change in the behaviour of Zika (e.g. it spreads in largely asymptomatic form) or a failure of public health surveillance. Given the work WHO has done to raise awareness of Zika virus in Europe, this should be unlikely. However, given that Zika is usually a mild illness, with symptoms that can be caused by other pathogens (i.e. rash, fever, muscle aches), it is not entirely impossible.

- An unexpected cluster of 2 or 3 microcephaly cases in babies is detected in a district, town or city in Europe.
- Investigation of the cases reveals that the babies' mothers had been infected with Zika.
- None of the mothers has a history of travel to a Zika-endemic country.
- There are *Aedes* mosquitoes in the district, town, city.

Key uncertainties

- How many more people in the district, town, city have been infected with Zika? How many are pregnant women?
- Have people in other areas of the country also been infected with Zika virus? How many of them are pregnant women?
- How big is the outbreak, and is transmission continuing? When will it end?
- Will we see more Zika infection-related complications? How many?

Challenges and complications

- Uncertainties around sexual transmission of Zika and the risk of Zika-related complications (see pages 7 and 16 of this guide).
- Huge anxiety among pregnant women and their partners. This may lead to huge demand for information, overwhelming demand for Zika testing and advice on reproductive health. It may also lead to outrage among affected women and their communities.
- Cultural and religious sensitivities around sex, condoms and reproductive health.
- Blame game: "Why did authorities take so long to identify that Zika transmission was taking place?", "Why did the government not do more to prevent and control the outbreak?"

Checklist – Are you ready for a Zika outbreak?

- Have you established a Zika emergency risk communication (ERC) preparedness group? Does it include key colleagues from across the health sector (e.g. reproductive health) and across government (e.g. colleagues responsible for mosquito control, tourism, agriculture and economy) ?
- Have you agreed on a work plan for your Zika ERC group? Is it meeting regularly to allocate tasks and monitor progress?
- Have you identified the populations/communities most at-risk from a Zika outbreak in your country? Are any of them hard-to-reach?
- Have you conducted studies/focus groups on the knowledge, attitudes, perceptions and beliefs about Zika virus and health-seeking behaviours (e.g. trusted channels and sources) in these communities?
- Have you developed a Zika ERC strategy, based on the evidence you have gathered? Does the strategy emphasize the importance of transparency to maintain trust in the health authorities?
- Does it commit the authorities to announcing early if a Zika outbreak is suspected? Have you agreed it with the Zika ERC preparedness group? Has your strategy got senior management support across relevant government departments and agencies?
- Have you addressed the four core capacities for effective ERC in your Zika ERC strategy? These are the capacities to:
 - Ensure transparency and announce early for a real or potential threat
 - Coordinate public communication
 - Listen through two-way communication
 - Select effective channels and engage trusted influencers
- Is there an incident management system (or a standardized approach to dealing with serious threats to the population) in place in your authority? Do you know what your place and role in it would be in an emergency? What are the lines of communication and clearance? Is communications part of planning and outreach, from the onset? If not, how can you integrate your Zika ERC strategy with the incident management system?
- Have you identified the key experts and managers in your organization who would lead the response to an outbreak of Zika? Would they be spokespeople? Would they need media training?
- Have you identified key stakeholders in wider society (e.g. Red Cross/Red Crescent, community groups, business leaders, religious leaders)? Do you know how to rapidly contact them in an emergency? Do you know how to contact members of your Zika ERC group in an emergency?
- Have you developed draft key messages about Zika that could be rapidly shared and deployed in an emergency?
- Do you have local champions/partners to engage communities?
- Have you tested your Zika/MBD messages and materials in communities at-risk?
- Have you established social media channels and communities, prior to an emergency? Do you have procedures and people in place to rapidly build an emergency website/page?
- Have you conducted awareness raising for frontline health professionals on Zika/MBD signs and symptoms, so that cases can be identified and reported early?
- Have you organized an annual social mobilization campaign to eliminate mosquito breeding sites in communities at-risk from Zika/MBDs?
- Have you organized an emergency simulation exercise to test your Zika ERC strategy? Have you gathered lessons learned from the exercise? Have you applied these lessons to further improve your Zika ERC preparedness?

For more information on the minimum core capacities on ERC refer to the JEE tool: International Health Regulations (2005): <http://apps.who.int/iris/handle/10665/204368>



The WHO Regional Office for Europe

The World Health Organization (WHO) is a specialized agency of the United Nations created in 1948 with the primary responsibility for international health matters and public health. The WHO Regional Office for Europe is one of six regional offices throughout the world, each with its own programme geared to the particular health conditions of the countries it serves.

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World Health Organization Regional Office for Europe
UN City, Marmorvej 51, DK-2100 Copenhagen Ø, Denmark
Tel.: +45 45 33 70 00 Fax: +45 45 33 70 01
E-mail: contact@euro.who.int