ASIA-EUROPE FOUNDATION

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EUROPEAN CENTRE FOR DISEASE PREVENTION AND CONTROL

How Can We Be Better Prepared for the Next Global Health Threat?

Planning and Implementing Emergency Risk Communication

WORKSHOP REPORT

7–8 SEPTEMBER 2016 | STOCKHOLM, SWEDEN

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Together with about 750 partner organisations ASEF has run more than 700 projects, mainly conferences, seminars and workshops. Over 20,000 Asians and Europeans have actively participated in its activities and it has reached much wider audiences through its networks, web-portals, publications, exhibitions and lectures.

For more information, please visit www.asef.org

The **European Centre for Disease Prevention and Control (ECDC)** was established in 2005. It is an EU agency aimed at strengthening Europe's defences against infectious diseases. It is seated in Stockholm, Sweden.

According to the Article 3 of the Founding Regulation, ECDC's mission is to identify, assess and communicate current and emerging threats to human health posed by infectious diseases.

In order to achieve this mission, ECDC works in partnership with national health protection bodies across Europe to strengthen and develop continent-wide disease surveillance and early warning systems. By working with experts throughout Europe, ECDC pools Europe's health knowledge to develop authoritative scientific opinions about the risks posed by current and emerging infectious diseases.

For more information, please visit www.ecdc.europa.eu

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[1] The Asia-Europe Meeting (ASEM) is an intergovernmental forum for dialogue and cooperation established in 1996 to deepen relations between Asia and Europe, which addresses political, economic and socio-cultural issues of common concern. ASEM brings together 53 Partners: Australia, Austria, Bangladesh, Belgium, Brunei Darussalam, Bulgaria, Cambodia, China, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, India, Indonesia, Ireland, Italy, Japan, Kazakhstan, Korea, the Lao PDR, Latvia, Lithuania, Luxembourg, Malaysia, Malta, Mongolia, Myanmar, the Netherlands, New Zealand, Norway, Pakistan, the Philippines, Poland, Portugal, Romania, the Russian Federation, Singapore, Slovakia, Slovenia, Spain, Sweden, Switzerland, Thailand, the United Kingdom, and Viet Nam plus the ASEAN Secretariat and the European Union.

Joint ECDC & ASEF Workshop

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Introduction

Communicating Risk Is So Often Our Biggest Challenge. Why Aren't We Better Prepared?

From the severe acute respiratory syndrome (SARS) outbreak in 2003 to the Ebola epidemic of 2014–2015, one thing that always seems to go wrong in health emergencies is how national authorities communicate about it. In particular, how they communicate about the risk that the emergency poses to the people affected by it. Lessons learned and exercises conducted after these events almost always contain a recommendation along the lines of *"We need to become better at risk communication"*.

But practically speaking, how can national public health authorities make sure this actually happens? *A logical place to start is with preparedness planning.*

The Asia-Europe Foundation (ASEF) and the European Centre for Disease Prevention and Control (ECDC) collaborated and staged an emergency risk communication workshop on 7–8 September 2016. They convened this event in Stockholm, inviting 60 public health officials and experts from across the Asian and European regions.

It was a diverse and multi-disciplinary group, some of whom were preparedness planners, others professional communicators and others responsible for public health training in their respective countries. The goal was to review best practice in the areas of emergency preparedness and risk communication in order to develop practical answers to the question, *"How do you incorporate emergency risk communication into your public health preparedness plan?"*. This is a report that outlines and expounds on their findings.

Declarations of Interest

ECDC-funded workshop participants were asked to submit declarations of interests (DoIs) in accordance with the rules on expert consultations in the ECDC Independence Policy. A review of these declarations did not reveal any conflicts of interest.

ASEF-funded workshop participants were not asked to provide this information as ASEF does not have an equivalent policy in operation.

Official Welcome

Foreword by
Ms Sayaka UEDA
First Secretary
Embassy of Japan in Sweden

Since 2009, the Government of Japan has funded the Asia-Europe Meeting (ASEM) Initiative for the Rapid Containment of Pandemic Influenza. This Initiative has two key components: an ASEM stockpile of antivirals and personal protection equipment; and the ASEF Public Health Network. This Network aims to support the strengthening of ASEM Partners' capacities for managing public health emergencies. Risk communication is one of the core capacities countries need in order to respond to these emergencies. When done well, risk communication empowers people to protect their health and also helps minimise economic and social disruption.

That is why, since 2013, the ASEF Public Health Network with financial support from the Government of Japan has organised three expert workshops on emergency risk communication. The first was held in Bali, Indonesia, the second was held in Oslo, Norway and the third in Langkawi, Malaysia. I am delighted that the fourth ASEF risk communication workshop was held in Stockholm, in partnership with ECDC, in September 2016. Distinguished participants from across Asia and Europe, as well as from key international organisations, took part in two days of lively and productive discussion. In this meeting report you will find many valuable insights and conclusions on how emergency risk communication preparedness can be strengthened.

Foreword by
Dr Andrea AMMON
Acting Director, European Centre
for Disease Prevention and Control (ECDC)

From the SARS outbreak of 2003 through to the Ebola epidemic of 2014–2015 the need to do better at emergency risk communication has featured in the lessons learned exercise following every major public health emergency. But most of the risk communication lessons learned from Ebola in 2014–2015 are the same as those from SARS in 2003, and indeed the 2009 influenza pandemic and the emergence of Middle East respiratory syndrome coronavirus (MERS-CoV). So, it seems we are not actually learning these lessons. Following Ebola, countries around the world have pledged to fully implement and strengthen their core capacities for detecting and responding to health threats under the International Health Regulations (IHR 2005).

Emergency risk communication (ERC) is one of these IHR core capacities. How to incorporate ERC into public health emergency preparedness is therefore a topic of vital importance to all countries in Europe and Asia, as it is something they are all committed to doing. ERC preparedness is an area where not enough work has been done. Often in the past it has been overlooked. But now we are coming to recognise that successful ERC requires capacities, competencies, skills and practice. This means practicing, conducting exercises and learning how to improve our ERC during times of peace. As the American President John Fitzgerald Kennedy once said "The time to fix the roof is when the sun is shining". The Joint ECDC and ASEF Workshop held in Stockholm in September 2016 is a first step towards fixing that roof. My hope is that it will inspire us to take further steps.

Opening Speeches: European & Asian Public Health Cooperation

Promoting Public Health Dialogue Between Asia & Europe: The ASEF Public Health Network

Ms Sunkyoung LEE, Acting Director, Political & Economic Department, ASEF

The Asia-Europe Foundation (ASEF) is the only permanently established institution of the Asia-Europe Meeting (ASEM) process. ASEM brings together 53 Asian and European governments and regional bodies for an annual summit. On the Asian side its partners are the 10 ASEAN countries plus the ASEAN Secretariat, China, Japan, Korea, Mongolia, Bangladesh, India, Pakistan, Australia, New Zealand, the Russian Federation and Kazakhstan. On the European partners are the European Union (EU) and its 28 Member States plus Norway and Switzerland. The ASEM process started in 1996 and ASEF was founded the following year (1997).

ASEF is an inter-governmental not-for-profit organisation with a mandate to:

- Promote better understanding between Asians & Europeans
- Enable exchanges between people, institutions & organisations of Asia & Europe
- Organise & implement projects in Asia & Europe

The key objectives of the ASEF Public Health Network since its inception in 2009 have been to support the strengthening of ASEM Partners' capacity for managing public health emergencies, and to provide a platform for dialogue between health and non-health sectors in Asia and Europe. In pursuit of these objectives, the Network had established a multi-sectoral Advisory Group with the following members:

- ASEAN Risk Communication Resource Centre (RCRC)
- ASEAN Secretariat (ASEC)
- European Centre for Disease Prevention and Control (ECDC)
- European Commission – Directorate-General for Health and Food Safety (DG SANTE)
- International Organization for Migration (IOM)
- International Federation of Red Cross and Red Crescent Societies (IFRC)
- Ministry of Foreign Affairs, Japan
- WHO Regional Office for Europe (EURO)
- WHO Western Pacific Regional Office (WPRO)

Ms Lee noted with great pleasure that the 2016 workshop marked a new milestone in the cooperation between ASEF and ECDC. This was the first-ever ECDC and ASEF joint project.

ASEF Risk Communication Workshops

Turning to the background of the Joint Workshop on Risk Communication, Ms Lee recalled that between 2010 and 2013 ASEF organised a series of workshops to strengthen multi-sectorial pandemic preparedness and response under the project *Asia-Europe Foundation — Accurate Scenarios Active Preparedness (ASEF-ASAP).* Among the recommendations developed from these workshops, strengthening risk communications emerged as a common thread across all sectors. Ms Lee gave an overview of the risk communication workshops ASEF has organised since 2013:

Year	2013	2014	2015	2016
Workshop Topic	Role of Social Media	What to Learn from Real-life Events	Bridging the National Mechanism with Healthcare Workers	Planning & Implementing Emergency Risk Communication
Date, Venue	June 2013, Bali, Indonesia	October 2014, Oslo, Norway	September 2015, Langkawi, Malaysia	September 2016, Stockholm, Sweden
Partner	Coordinating Ministry for People's Welfare of Indonesia	Research Council of Norway	Ministry of Health, Malaysia	ECDC
Case Studies	E. coli incident in Germany Japan's triple disaster (tsunami, earthquake, nuclear meltdown)	2011 Christchurch earthquake SARS, H5N1, H1N1 in Singapore 2014 Ebola outbreak in West Africa	MERS-CoV in Korea & Thailand Earthquake in Nepal EVD outbreak in West Africa 2011 Christchurch earthquake	MERS-CoV outbreak in Korea 2012 Dengue Fever outbreak on the Island of Madeira

Critical Pillars of ERC

Ms Lee ended by reminding participants of the outcomes from the 2015 Workshop in Langkawi, Malaysia. This had brought together 48 health professionals from some 23 different countries and organisations across Asia and Europe. The objectives of the Langkawi Workshop were to:

- Identify the core elements that facilitate and/or hinder reflecting the voices from healthcare workers in national risk communications strategies
- Develop recommendations for strengthening national risk communication strategies that incorporate needs from both national authorities and healthcare workers

The workshop examined 4 key pillars of emergency risk communication (ERC), linking each to one of the case studies:

Risk management transparency *MERS-CoV in Thailand and Korea*	**Communication coordination during emergencies & other high risk event** *Earthquake in Nepal*
Dialogue with those affected & involved on the front lines *Ebola in West Africa*	**Monitoring & evaluation on risk communication performance during emergencies & other high risk event** *Christchurch earthquake*

Theory to Practice — From the WHAT to the HOW

Based on their two days of discussion, participants in the Langkawi Workshop came up with the following conclusions and recommendations:

Risk Management Transparency
- Rapid approval of warnings & advisories
- Adherence to decision-making principles

Communication Coordination
- Identification/engagement of focal points
- Communication coordination structure
- Sharing risk communication messages & strategies during a serious public health event

Listening & Dialogue
- Gathering/processing the views and perceptions of individuals, partners & communities affected
- Adapting communication strategies based on findings
- Reflecting community perspectives back into emergency management decision-making

Communication Evaluation
- Establishing clear risk communication objectives
- Monitoring system (e.g. media/social media)
- Integration into preparedness strategies

The Langkawi Workshop had produced an ambitious agenda of **WHAT** needed to be done to incorporate emergency risk communication into preparedness. This was now 12 months ago, but Ms Lee hoped that much or all of the agenda was still valid. However, the aim of the 2016 Stockholm Workshop was to go a step further than Langkawi and produce advice on **HOW** to incorporate emergency risk communication into preparedness. She wished participants a productive workshop.

Emergency Risk Communication As an Integral Part of Public Health Preparedness: The Role of ECDC

Prof. Karl EKDAHL, Head of Public Health Capacity and Communication Unit, ECDC

Professor Ekdahl welcomed participants to Stockholm and gave a particular welcome to colleagues coming from Asia. He started his speech by giving an introduction to the European Union (EU) and its role in public health emergency preparedness.

United in Diversity

The EU brings together 28 Member States and over 500 million citizens. There is huge diversity among and within the Member States. Countries range in population from 81.2 million inhabitants to just over 400,000. The average Gross Domestic Product (GDP) per person in the EU is EUR 28,700 but GDP per person ranges from EUR 6,100 in the poorest Member State to EUR 91,600 in the richest. There is a similar variation in the percentage of GDP spent on healthcare, which varies from 6% to 11%. The EU has 24 official languages and is a patchwork of diverse cultures. In short, the EU is as its official motto say “United in Diversity”.

Health problems and health threats are unevenly distributed across the EU – as are public health capacities and capabilities. Recent economic difficulties have affected all Member States, though some have been more affected than others. Despite all this, microbes in the EU – like elsewhere in the world – do not respect borders. EU Member States are all members of WHO and have all committed to fulfil the preparedness requirements of the 2005 International Health Regulations.

Emergency Preparedness Mandate

On top of this, in 2013 the EU and its Member States adopted Decision 1082/2013 on cooperation against serious cross-border health threats.

The EU Decision applies to biological, chemical and environmental threats, as well as to infectious disease outbreaks. Its objectives are to:

- Ensure adequate level of preparedness planning for all types of serious cross border health threats across the EU
- Include provisions for joint procurement of medical countermeasures
- Provide for risk assessment and risk management for serious cross border health threats from chemical, biological and environmental origin
- Coordinate EU-wide response and avoid duplication with other instruments at EU and international level (e.g. IHR)

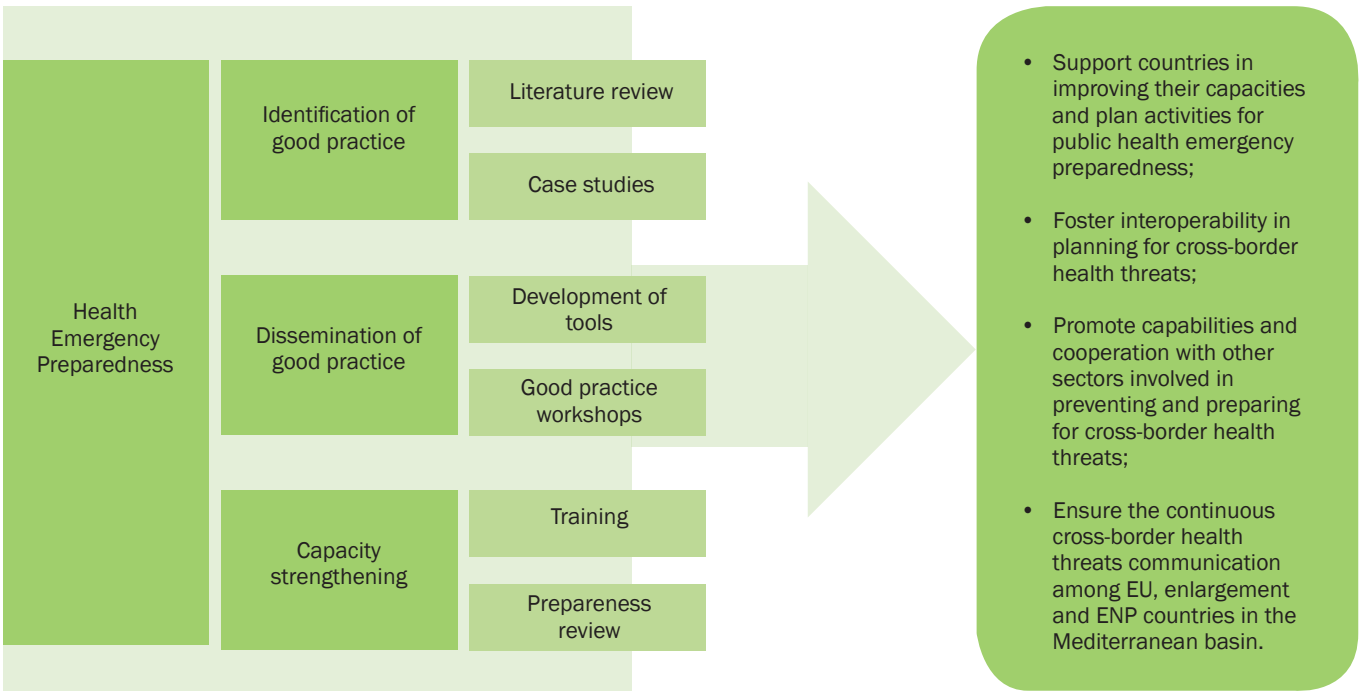
In the area of preparedness and response planning the EU Decision requires:

- Core capacity standards for preparedness and response planning at national level in accordance with IHR
- Measures and arrangements with other sectors ensuring interoperability
    - coordination structures in place for cross-sectoral incidents;
    - emergency operations centres (crisis centres);
- Business continuity plans
- Sharing of National Preparedness Plan and any major revisions to these plans

Supporting the Member States and the European Commission in implementing the EU Decision is a top priority for ECDC. Within Prof. Ekdahl's unit there is a section, led by Dr Massimo CIOTTI, dedicated to supporting Member States in meeting their preparedness obligations under the Decision. Prof. Ekdahl showed a slide summarising the work of this section. This is reproduced below.

ECDC Country Preparedness Support

Supporting countries in implementing Decision 1082



SOURCE : ECDC

ERC as an Integral Part of Preparedness Planning

Prof. Ekdahl stated the view that emergency risk communication (ERC) is a key component of public health emergency preparedness (PHEP). There is a significant communication component in all public health emergencies. Indeed, the experience of frontline public health professionals who deal with these emergencies is that "in the heat of action 10% is science and 90% is communication". This had certainly been Prof. Ekdahl's experience as a frontline professional going back to the SARS outbreak in 2003.

The 2009 to 2010 H1N1 influenza pandemic had provided further lessons to learn on ERC. Most public health professionals do not have a communication background, so they cannot just rely on their instinct. They need specialist training in ERC and they need support from ERC experts. ERC needs the same (or more) attention in the preparedness cycle as other components.

A new challenge that requires particular attention is the changes in the way people access information and communicate to each other using social media. This was highlighted in the 2009-2010 pandemic. The communications landscape has become much more diverse, with bloggers, vloggers, Twitterers, citizen journalists and online activist networks emerging as important influencers and message amplifiers.

Often the messages these new influencers choose to amplify are ones that underpin scepticism toward the authorities. Social media favours two-way interactive communication but this is difficult for authorities to cope with, both in terms of culture and the resources needed to do it.

With all of this in mind, Prof. Ekdahl outlined the aim of the Joint ECDC and ASEF Workshop:

> *"To strengthen the link between emergency risk communication (ERC) and Public Health Emergency Planning (PHEP) underlining the importance of integrating ERC into a PHEP plan. The workshop will further seek to identify the competencies needed to secure the implementation of ERC within a preparedness plan and see what capacities and capabilities are required to ensure these skills."*

He noted that the details objectives of the workshop were to:

- Recognise the complexity and the role of ERC before, during and after public health emergencies.
- Understand the PHE Preparedness cycle and the integral part ERC plays in a PHE preparedness plan.
- Identify the components needed in a PHE preparedness plan to ensure coordinated, coherent and consistent ERC.
- Identify the competencies required to secure the implementation of ERC, as defined in a preparedness plan; and subsequently how to build capacities and capabilities for this.
- Draw recommendations and conclusions on actions needed in order to be prepared for future public health events and ERC around these.

Building from Past Experience

The first day of the workshop would concentrate on setting the scene, with expert presentations, and reflecting on strengths and challenges in emergency risk communication. There will be case studies to stimulate discussion on what has gone well, and what has gone less well in the past. Then on the second day participants will discuss how to strengthen ERC, focussing on how to integrate it into preparedness planning.

The **outcome** ECDC and ASEF are hoping from the workshop is a set of non-binding conclusions from the participants on how to move forward in the future to further strengthen an integral PHE preparedness plan that includes ERC (including the capacities and capabilities to be well prepared to do ERC).

Prof. Ekdahl ended by saying he was delighted to be co-hosting the first ever Joint ECDC and ASEF Workshop. He was also delighted that this workshop involves all three sections of his unit: the Communication Section, the Public Health Training Section and the Country Preparedness Support Section. All three of these areas need to work together if ERC is to be incorporated into an integrated PHE Preparedness Plan. He looked forward with excitement and expectation to the outcome of the workshop.

Session 1:
Theory & Setting the Scene

On Day 1 of the workshop participants heard two keynote presentations on the current "state of the art" in analysis and theory. Dr Christopher NELSON, Senior Political Scientist and Professor of Policy Analysis at RAND Corporation spoke about Public Health Preparedness as Scalable Learning while Dr Gaya GAMHEWAGE of the World Health Organization spoke about Preparing Countries for Risk Communication and Other Social Science Interventions. Participants were asked to use both presentations as inputs for the task given to them that morning: noting down their view on the key risk communication preparedness challenges.

Public Health Preparedness As Scalable Learning

Presentation by Dr Christopher NELSON, Senior Political Scientist and Professor of Policy Analysis, RAND Corporation / Pardee-RAND Graduate School

Dr Nelson addressed two key themes in his presentation:

1. What is preparedness and what are its key components?
2. Preparedness as scalable learning

Defining preparedness is challenging because large-scale public health emergencies are (fortunately) rare, and the contexts within which they happen are diverse. The population at risk and the stakeholders that need to be involved in the response can vary considerably from emergency to emergency.
When talking about the "public health system", this comprises the rich eco-system of different organisations, particularly in a country such as the US where state- and local-level organisations play a central role in public health and civil protection. The same also holds for the EU, where Member States hold sovereignty.

Notwithstanding all of this, Dr Nelson offered the following definition of **preparedness:**

> *"Public health emergency preparedness (PHEP) is the capability of the public health and health care systems, communities, and individuals, to prevent, protect against, quickly respond to, and recover from health emergencies, particularly those whose scale, timing, or unpredictability threatens to* ***overwhelm routine capabilities.***
> *Preparedness involves a coordinated and continuous process of planning and implementation that relies on measuring performance and taking corrective action."*[1]

He emphasised that emergencies are determined by their consequences rather than their causes. The key identifying feature of an emergency is that it threatens to overwhelm the routine capabilities of a public health system. The wide variety of threats and vulnerabilities that might overwhelm systems, however, creates uncertainty about how best to prepare. This insight has driven the trend towards an "all-hazards" preparedness planning, which focuses on building flexible adaptable capabilities (and supporting capacities) in addition to focusing on plans for specific known incidents. The key goal of these plans is to focus on the ability to rapidly scale up the public health system's capabilities, while also managing the uncertainty. Uncertainty being another key feature of most emergencies, particularly in their initial stages.

Other features of best practice in preparedness emphasised by Dr Nelson included giving sufficient priority to the recovery stage.

- The goal of emergency response is not just that people survive the emergency, but that their communities can thrive and prosper again afterwards.

[1] Nelson C., Lurie N., Wasserman J., Zakowski S.. 2007. Conceptualizing and Defining Public Health Emergency Preparedness. American Journal of Public Health. Supplement 1, 2007, Vol 97, No. S1.

He also emphasised the importance of prevention efforts, in terms of measures to minimise hazards and mitigate communities' vulnerabilities. Investing in these can reduce the size of the response needed.

Dr Nelson drew attention to the difference between capabilities and capacities.

- **Preparedness capacities** are the resources the public health system can draw on during an emergency, for example; infrastructure; policies and plans; knowledgeable and trained staff.
- **Response capabilities** are what the public health system is actually able to do to identify, characterize, and respond to emergencies.

This distinction is key for Dr Nelson as "It doesn't matter how many resources you have. If you don't know how to use them they will never be enough."

One of the major challenges for public health emergency preparedness is that, by their nature, preparedness plans are developed by a small group of people: a few preparedness experts and the senior management of their organisations. However, if and when an emergency happens, a large number of people will be needed to implement it. If they have no knowledge of the plan, then most likely it will fail. Dr Nelson quoted "You don't have a strategy unless it is in the heads, hearts, and hands of every person in the organization".[2]

Effective Preparedness Planning

One of the most effective ways of getting a preparedness plan into the "heads, hearts and hands" of staff across an organisation is to run drills and simulation exercises. These also help to test and improve the plan. But the big barrier to running exercises is that they can be extremely time-consuming and expensive. Indeed, the more staff members are involved and the more aspects of the plan tested in the exercise, the more expensive it will be. Large scale simulation exercises are not only expensive, they are also very visible to an organisation's partners and stakeholders. The temptation therefore is always to play it safe: large scale exercises rarely test a plan to breaking point (which is where a lot of the most useful learning is).

The difficulties, and limitations, inherent in running large simulation exercises – combined with the all hazards generic preparedness approach – had led Dr Nelson to start analysing the "building blocks" of preparedness. He started looking for common elements within preparedness that are important across different situations and contexts. This led Dr Nelson to the concept of **Preparedness as Scalable Learning**.

The Preparedness Cycle

Dr Nelson presented a logic model of public health emergency preparedness he had developed with M. Soto and E. Savoia and which had been discussed with ECDC and its network of National Focal Points for Preparedness. This demonstrated the linkages between capacities, response capabilities and the objectives aimed for. He then explained how the system level competencies identified in the logic model could be used to define individual level knowledge, skills and abilities for staff members working in the public health system. This in turn could be used to design training, drills and evidence gathering to strengthen specific capabilities.

Scalable learning can be used for both forward looking and **backward looking improvement to preparedness**. Most public health organisations conduct lessons learned exercises after major emergencies. These emergencies test a broad range of capabilities but, happen quite rarely. The public health system can greatly expand its possibilities for backward looking learning by expanding the scope of the incidents it analyses.

Less severe incidents may test only a few capabilities, but they happen much more frequently. Nelson, Stoto and others have worked with partner organisations to develop the idea of a Critical Incidents Registry. This is a database of incident reports filed by public health agencies that responded to a critical incident. The objective is firstly to drive improvements to preparedness by organisations conducting careful post-event analysis of their own events.

[2] Meyer-Looze C. L.. 2015. "Creating a Cycle of Continuous Improvement through Instructional Rounds." International Journal of Educational Leadership Preparation, Vol 10, No. 1, pp. 29–45, April 2015.

Having this information in a database shared by several organisations facilitates cross-case analyses to identify contexts and mechanisms that determine success. This helps build a robust evidence base on the root causes of success, or failure, during critical incidents, and for the preparedness actions needed to support a successful response.

Turning to **forward looking improvement to preparedness** Dr Nelson gave a number of examples of how logic models could be used to identify "drillable chunks" of preparedness and to build user friendly flexible tools for improving capabilities. For example, he showed how the capability for emergency distribution of anti-viral drugs in an influenza pandemic could be broken into a number of "building blocks" such as "Call down staff", "Assemble staff", "Train staff", "Operate warehouse", "Dispense medication".

These can be analysed individually and metrics developed for each "building block". Drills and exercises can then be developed to test the blocks individually or in combination. He also illustrated how IT-based tools can be used to reduce the investment of time and money needed to run such drills and exercises. A number of these tools are available for free on the RAND Corporation's website and elsewhere.

The Importance of Testing in Preparedness

A final area explored by Dr Nelson was how smaller scale, lower profile emergency simulation exercises could be used to test the most difficult aspects of preparedness. For example, low burden drills could be conducted without advance notice to deal with the issue of surprise (i.e. emergencies tend to happen at inconvenient and unexpected times). Drills and exercises could also be devised to test other difficult things such as collective decision making under conditions of uncertainty.

Dr Nelson ended his presentation with shared links to a number of the tools he had referenced:

- New Tools for Assessing State and Local Capabilities for Countermeasure Delivery. http://www.rand.org/pubs/technical_reports/TR665.html
- Hospital Surge Evaluation Tool: A software-based tool designed to help hospitals evaluate their level of preparedness for mass casualty incidents. http://www.phe.gov/Preparedness/planning/hpp/surge/Pages/default.aspx
- Health Care Coalition Surge Evaluation Tool: A tool designed to help Health Care Coalitions identify gaps in response readiness. http://www.phe.gov/Preparedness/planning/hpp/Pages/coaltion-tool.aspx
- Measuring Crisis Decision Making for Public Health Emergencies. http://www.rand.org/pubs/technical_reports/TR712.html
- The RSS-POD Supply Chain Management Game: An Exercise for Improving the Inventory Management and Distribution of Medical Countermeasures. http://www.rand.org/pubs/working_papers/WR661.html
- Decision-Making Modules for the RSS-POD Supply Management Game: A Game-Based Assessment of Crisis Decision Making During Inventory Management and Distribution of Medical Countermeasures. http://www.rand.org/pubs/working_papers/WR692.html

Biography of Dr Christopher NELSON

Christopher Nelson PhD is Senior Political Scientist at the RAND Corporation and Professor of Policy Analysis at the Pardee-RAND Graduate School. He has over 20 years of experience as a policy analyst and evaluator, particularly in the areas of public health, safety and education. His work has contributed to the US National Health Security Strategy and federal programme guidance to the US states, and has appeared in peer-reviewed journals, technical reports, briefings, and practitioner oriented tools.

Previously, he was founding director of the RAND Center for Health and Safety in the Workplace, Associate Director of Research in RAND's Pittsburgh office, served on the faculty of Carnegie Mellon University and held research staff positions at Western Michigan University and the Illinois General Assembly. Nelson holds a BA summa cum laude from the University of Minnesota and an MA and PhD from the University of North Carolina at Chapel Hill.

Preparing Countries for Risk Communication & Other Social Science Interventions

Presentation by Dr Gaya GAMHEWAGE, Infectious Hazard Management Department, World Health Organization

Dr Gaya Gamhewage started her presentation by outlining three key ideas:

1. The 21st century poses new and fast-moving challenges for the practice of Emergency Risk Communication (ERC) and other social science interventions (SSI). **This means that lessons learned from previous emergencies alone cannot fully guide our ERC response in future emergencies**.

2. That said, there are valuable **lessons to be learnt** from recent emergencies that can direct, at least in part, future preparedness planning, as long as we can adapt them to the context of a new emergency.

3. Integrating ERC and SSI into national preparedness must:
   - take an **evidence-based and systems approach**
   - **involve all of government and key stakeholders** across sectors
   - be matched with **human and financial resources**
   - evolve from technical expertise to include **social and operational aspects**

No resources, No power

She emphasised the importance of commitment to ERC being backed up with resources. This is crucial to integrating ERC into emergency response. Put simply: "No money means no power, no credibility [within the response team] and therefore no ERC"

Dr Gamhewage gave the following definition of Emergency Risk Communication (ERC):

> *"The real-time **exchange** of information, advice and opinions between **experts or officials and people** who face the threat (from a hazard) to their survival, health or economic or social well-being;*
>
> *ERC can be distinguished from the day-to-day corporate communications of government organisations by its purpose. This is that everyone at risk is able to take **informed decisions to mitigate** the effects of the threat (hazard) – such as a disease outbreak – and take protective and preventive measures and minimize economic, social and political loss."*

The guiding principles of best practice in ERC are:

1. Create and maintain **trust**
2. Acknowledge and **communicate uncertainty**
3. **Coordinate at all levels**
4. **Be transparent and fast** with the first announcement of the emergency and all subsequent communications
5. **Be proactive** in public communication
6. **Involve and engage those affected** – don't just try to tell them what to do!
7. Use integrated approaches, social science research and **approaches to understand perceptions, barriers and enablers**
8. **Build national and local capacity**, support national ownership

ERC is a multi-disciplinary field that uses a mix of tactics and approaches. These include:

1. Public communication
2. Media communication
3. Social media
4. Mass awareness initiatives
5. Developing information education and communication (IEC) materials
6. **Health promotion**
7. **Social mobilization**
8. **Community engagement**
9. **Interpersonal communication**
10. Reputation management and institutional communications
11. Internal communication
12. Stakeholder communication and political advocacy
13. Partner engagement
14. Political communication

The Importance of Community Engagement

Dr Gamhewage emphasised the particular importance of the approaches that involve engaging with at risk communities and individuals to understand their perceptions, values and concerns (approaches 6 to 9 above). This is at the heart of ERC and the key to success. These are also areas where social science has a key role to play.

The terminology used to talk about ERC has changed over the past few decades. During the last century WHO used terms like “social mobilisation”, “outbreak communication” and “medical anthropology”. Along the way it has also used “Pandemic communication” and C4D (Communication for Development).

However, more important than the changes in terminology are the profound changes in the context within with ERC operates. During the 1918-1920 Influenza Pandemic the focus was the fight against the virus that was killing large numbers of people. By the SARS outbreak of 2003 the focus of the communications effort had switched to personal protection and minimising the economic and social disruption SARS was causing.

By 2016 the communications context has shifted yet again, not least driven by the huge growth of social media. Trust in health authorities has declined, while apathy and rumours have increased. There are massive and rapid movements of populations, vectors moving to new areas, widespread political instability and a highly visible anti-vaccine lobby – not to mention the possibility of “Black Swan” or previously unknown events that confound all our planning and predictions. All of this means that **ERC strategies that worked in the past cannot fully guide our response to future emergencies, but need to be adapted quickly to meet emerging events, stations and contexts**.

Learning from the Past Informs Our Future

That said, there are still **ERC lessons that can be learned from past emergencies**. Dr Gamhewage reviewed the ERC approaches taken in six 21st century epidemics: SARS in 2003; human cases of H5N1 avian influenza and communication on the subject of pandemic influenza in the period 2004–2009; Middle East Respiratory Syndrome Coronavirus (MERS-CoV) from 2012 onward; the 2014–2015 Ebola epidemic in West Africa; communication about Zika virus and microcephaly from 2015 onwards; and the ongoing Yellow Fever outbreak in Angola and the Democratic Republic of Congo.

Dr Gamhewage argued there were clear lessons to learn about the approach to ERC that does **not** work. This is what she termed as the “bio-medical approach”. Public health experts and medical doctors in the response team often identify actions people can take to protect themselves from the risk and tell the communicators to push out messages about them, without sufficient regard for the risk perceptions or social context of at-risk populations.

Dr Gamhewage gave several examples of this, such as communicators being asked to push out a message on hand washing to a community in Africa where hardly anyone had access to running water. Another example was the preparedness plan WHO had used during the 2009-2010 influenza pandemic. The plan contained phases linked to the epidemiological spread of a newly emerged influenza virus. However, the media and the public perceived the phases as relating to the severity of the disease. This led to a perception that WHO was exaggerating the threat posed by the H1N1 pandemic virus, and resulted in the subsequent reduction of trust in WHO by some stakeholders.

However, the most visible negative consequences of the "bio-medical" approach were in the 2014-2015 Ebola outbreak in West Africa. Communicators were told to put out messages like "Ebola kills" and "there is no cure for Ebola". These were correct from a bio-medical point of view, but proved counter-productive to the response strategy of trying to get infected people to go to Ebola treatment centres.

People thought "well if I am going to die, I'd rather die at home with my family". Even worse, though, was the failure of responders to build trust with the affected communities and understand key beliefs such as their funeral rituals. Doggedly pushing messages without engaging these communities led to distrust, resistance and even some deadly attacks on responders. The most challenging part of all this was that the affected countries were full of medical anthropologists conducting research in these communities. However, the researchers did not have the ability or training to share the knowledge they gathered with the leaders of the response, and the leaders of the response did not sufficiently use the researchers as a systematic resource.

"Learning Forward"

WHO is beginning to learn from these failures. Angola and the Democratic Republic of Congo are currently experiencing the largest Yellow Fever outbreak for many decades, which has led to a global shortage of Yellow Fever vaccine. From a bio-medical point of view, encouraging the local population to take steps to stop mosquitos breeding around their houses was considered a good outbreak control option. However, the dire conditions in the slums of Luanda and Kinshasa made it almost impossible to control the day-biting vector mosquito. WHO, together with key stakeholders and affected governments, therefore pursued a strategy of using a fractional dose vaccine so that more people could be vaccinated using the limited stock of vaccines. This helped stop the outbreak and Risk Communication and Community Engagement (RCCE) efforts were focussed on getting communities to come forward to be vaccinated.

Meanwhile in WHO's response to the Zika and microcephaly emergency risk communications is the biggest area of investment: it accounts for over 50% of the response budget. This was also the first time, WHO pushed a strategy of running Knowledge, Attitudes and Practices (KAP) studies to better understand how to address the threat of Zika and to inform response activities.

Financial & Human Resources Must Support ERC Efforts

This brought Dr Gamhewage back to her key message: no money, no power, no credibility, no emergency risk communication (ERC). Countries and international organisations need to recognise ERC as a key tool for responding to emergencies and saving lives. Indeed, this is the preparedness model they should be following when they implement to International Health Regulations (IHR) in their countries as ERC is one of the core capacities the Regulations require countries to have in place.

WHO now has a programme of Joint External Evaluations to better assess real capacities within countries for ERC. The assessment tool for ERC capacity under the IHR looks at five elements:

1. Risk communication systems (strategies, plans, structures, resources etc.)
2. Internal & partner communication and coordination
3. Public communication
4. Community engagement with affected communities
5. Dynamic listening & rumour management

A review 2015 of ERC capacity done in WHO's Eastern Mediterranean Region looking at capacity to communicate about Ebola showed that most countries were quite some way from having all these elements in place. The new focus in WHO and among member countries on IHR implementation should help drive the integration of ERC into preparedness. The risk communication component of WHO's Pandemic Influenza Preparedness framework is also contributing to this. In the period 2012-2016 WHO is working on pandemic ERC with 40 priority countries across the world.

Integration of ERC in Preparedness

The main players in integrating ERC in preparedness will be governmments and their main partners and stakeholders. Countries need to take an evidence based and systems approach to developing their ERC capacity and capabilities. They need to access and make use of the social science knowledge and interventions that already exist. In future epidemics those academics already in the field need to be brought into the response and share their knowledge. As well as this though, countries also need to invest in social science. They need to establish mechanism for listening to their communities' concerns and beliefs and for understanding their values: all of these factors will affect how the communities take expert advice during disease outbreaks and emergencies.

For example, they need to run, or fund, more KAP studies in their communities in times of peace, and be ready to run mini-KAP studies during emergencies to measure the impact of their ERC. They need to invest in media monitoring and social media monitoring. And they need to routinely gather feedback from response teams and partner agencies.

Dr Gamhewage finished by outlining the support WHO can give countries in developing their ERC capacity and capabilities. WHO is developing its first ever formal guidelines on ERC. These will be developed using the same evidence based approach as all other technical guidelines from WHO. She expected that WHO will publish its ERC Guidelines in mid-2017. WHO has developed an epidemic App to support outbreak response teams. It is developing a MOOC (massive online open course) platform for outbreak training and learning as well as real-time updates on ongoing emergencies. Looking at more operational measures, WHO is now developing ERC strategies for all major outbreaks it is involved in and can mobilise resources to provide some surge capacity to affected countries, for example via WHO's Emergency Communications Network. In the area of social science interventions, WHO has developed a resource pack to help countries conduct KAP studies. It is investing in specialised training for anthropologists and other social scientists. And one of Dr Gamhewage's major new projects in WHO's Emergencies Programme is developing a network of social science experts who can offer support in future emergencies.

She left participants with these **final thoughts** summarising her thoughts on ERC and public health preparedness.

1. Anticipate future trends and needs; use but don't depend only on past experience.
2. ERC is not an add on – it's a public health intervention in its own right: carve out space in the incident management system (IMS), show leadership by developing strategy and budget, managing the ERC operations.
3. Big emergencies by definition exceed existing capacity – establish expert deployment networks and surge capacity
4. Issue global/national ERC strategy and tools to support countries/localities
5. Leverage on-going emergencies to build future capacity for ERC

Biography of Dr Gaya GAMHEWAGE

Dr Gaya Gamhewage heads Interventions and Guidance teams in the Infectious Hazard Management Department of WHO's Health Emergencies programme. She is responsible for transforming science and policy on disease outbreaks into action on the ground for emergency response, for social science and risk communication during outbreaks and for global mechanisms for vaccine stockpiles that can be used in emergencies. Training and risk communication are seen as two ways to get science into action. Dr Gamhewage has 15 years of experience in WHO including humanitarian response capacity building, being Head of Corporate Communications and Head of Risk Communications.

She is currently also responsible for supporting governments across the world build sustainable risk communications capacity as required by the International Health Regulations (2005), the Pandemic Influenza Preparedness Framework and for integrating risk communication in all outbreak response work. In 2015 alone, she and her team trained 1,500 experts from 122 countries in risk communication in the past year.

She is also leading the development of WHO's first-ever evidence-based guideline on emergency risk communication and has published several articles on the practice of risk communication in the 21st century. She also has experience on academia, ministry of health, international NGOs and community-based organizations.

For the international response to the Ebola Virus disease (EVD) outbreak in West Africa 2014-2015, Dr Gamhewage was assigned to coordinate all Ebola-related training for the international response under UN Mission for Ebola Emergency Response (UNMEER). She leads risk communication and community engagement work at global level for WHO's responses to Zika and Yellow Fever. She currently serves on the WHO Guideline Review Committee.

A medical doctor by training, Dr Gamhewage holds an Executive Master in International Negotiation and Policy-Making by the Graduate Institute of International and Development Studies of Geneva and has several qualifications in conflict management, negotiation, and in initiatives such as UNICEF's Children as Zones of Peace and WHO's Health as Bridge for Peace.

Session 2:
Case Studies – Reflecting on Past Health Emergencies

Risk Communication Lesson from the 2015 Middle East Respiratory Syndrome Coronavirus (MERS-CoV) Outbreak in Korea

Presentation by Dr Kisoo PARK, Spokesperson, Korea Centers for Disease Control and Prevention, Republic of Korea

Dr Park began by giving an overview of the areas he proposed to cover in his presentation:

- **What happened** in the Republic of Korea (ROK)
- **Why we should pay attention** to risk communication
- **Transparency** of Information
- **What ROK did** during the 2015 MERS-CoV outbreak
- What we have **learned**
- What we are **doing now**

Film Imitating Real Life

He started his presentation by showing clips from three disaster movies about new viruses causing high impact epidemics. The first was the Hollywood movie Contagion from 2011. The second two were Korean films, Flu and Train to Busan, released in 2013 and 2016 respectively, both portraying disaster and disruption from epidemics.

The audience for these movies in Korea had grown exponentially. Only a few percent of the Korean population went to see Contagion, while around 20% of the population had gone to see the 2016 movie. Public fear and anxiety

about emerging infectious diseases causing major epidemics is something that communicators need to be aware of and acknowledge.

We should also acknowledge that there is some rational basis for this fear. The 21st century is highly interconnected throughout the world. There are about 93,000 flights every single day linking every country in the world. These days a health threat anywhere real does have the potential to be a health threat everywhere.

Korea's first case of Middle East respiratory syndrome coronavirus (MERS-CoV) was reported on 20 May 2015. This was an elderly man who became ill on 11 May after returning from a business trip to Saudi Arabia. In the Korean health system, patients need to be referred to hospital from a primary healthcare doctor. However, it can be "too easy" for patients to get such referral as almost no primary care physicians would reject making a referral when they are asked to do so by a patient. In other words, three level of health care delivery system in Korea is not working in a way it's supposed to. This is one of the reasons why it is quite common for patients to do "doctor shopping" and "hospital shopping". The patient had therefore visited several healthcare facilities before being diagnosed with MERS-CoV. In addition, the Korean culture of family members and friends visiting patients in hospital wards tends to spread disease among contacts. These factors led to several other patients as well as people visiting relatives in hospital being infected. Soon we had 14 cases of MERS-CoV. Case number 14 was special, as we now know that this person seems to have been a "super-spreader" who managed to infect many other people. Soon, Korea had 38 cases, and then another super-spreader. The practice of patients "doctor shopping" and "hospital shopping" helped spread the outbreak around several healthcare facilities.

The Birth of the Largest MERS-CoV Outbreak

Staff in the hospitals had no information about MERS-CoV and how it spread at the early stage of MERS-CoV outbreak, so cases often spend hours sitting in crowded waiting rooms where they infected other people. Family is very important in Korea and when someone is ill all the family goes to see them together. This meant that there were often large numbers of visitors in the hospital in close proximity to the infected people, and this led to more cases of MERS-CoV. By the end of the outbreak in summer 2015 South Korea had a total of 186 cases of MERS-CoV, of whom 38 died. This was the largest MERS-CoV outbreak ever documented outside the Middle East.

Dr Park was Deputy Spokesman in the Ministry of Health & Welfare (MOHW) during the 2015 outbreak. His overall assessment of how the Ministry communicated about the outbreak was stark: "we got everything wrong". In effect, the Ministry did not recognise the validity of the WHO and US CDC guidelines on emergency risk communication, let alone follow those guidelines. The Korean authorities delayed disclosing the list of the MERS-CoV affected medical facilities for about 18 days after the outbreak, which eroded public trust and let rumours fill the minds of the public thus making them anxious. When the Ministry did communicate, it either over-promised or over-reassured people.

Through Adversity Comes Clarity

For example, at the start of the outbreak the Ministry repeatedly tried to reassure people by saying that no third generation infection had taken place, with the implication the outbreak would soon be over. The Ministry also insisted that people could only be infected if they were within 2 metres of an infected person. Both these messages were invalidated as the outbreak continued. The Ministry used too much scientific jargon in its messages: this alienated people. The Ministry then failed to show any empathy for victims of the outbreak: this outraged the Korean public. People started to criticise and ridicule the Ministry on social media. Dr Park gave the example of an extract taken from materials the public health authorities had prepared for Koreans travelling to the Middle East. This had a cartoon man with a camel and advice on avoiding contact with camels, including not drinking camel milk. Of course, people rarely see camels let alone drink their milk in Korea. This was circulated out of context on social media with accompanying sarcastic comments like *"I am not going to commute on camel"* and *"There is no camel on the road, thanks to government command"*.

The public anxiety and loss of trust in the public health authorities meant that MERS-CoV was a major media story in Korea, and indeed internationally, for many weeks. The media briefings that the Ministry gave everyday became long, tense meetings. The longest one took 92 minutes, and more than a dozen lasted an hour or more. People in other countries perceived that a health emergency was taking place in Korea. Suddenly Chinese tourists did not want to go on shopping trips to Seoul and other Korean cities, including Jeju Island where no MERS-CoV case was confirmed.

One of the worst errors the Ministry made was that it refused to name the hospitals where MERS-CoV infection had taken place, or where MERS-CoV cases were being treated, for more than two weeks. The Ministry said it did not want to stigmatise the hospitals and the staff that worked in them. The result of this policy, though, was to increase public anxiety and decrease trust of Korean health authorities. Most of the MERS-CoV cases were in fact all in Seoul and its surroundings. But because of the lack of information, people in towns hundreds of kilometres from Seoul were worried about going to their local hospitals and concerned about whether it was safe for their children to go to school.

At the outbreak's peak, thousands of schools and kindergartens were temporarily closed and many public events were cancelled or suspended. The number of foreign tourists decreased by 41% compared with the same month of the previous year. Economists estimate that lost economic activity and lost tourism revenues cost Korea USD 10 billion, which is roughly equivalent to 0.1% of the country's Gross Domestic Product. The huge economic and social cost of getting the risk communication wrong during the MERS-CoV outbreak has driven a lot of reform since 2015.

Lessons Learnt from the MERS-CoV Outbreak

Dr Park summarised the lessons learned as follows:

- Improving citizen and media trust in the public health authorities is crucial, because loss of trust curbs good communication which encourages citizen's informed decision making and positive behaviour change.
- Communication should not be from a government centric point of view, but rather should centre on the information needs and concerns of people affected or at risk.
- Citizens' right to know as means of disease control and a prevention measure should be given very high importance.

On this last point, Dr Park pointed out that citizens have a constitutional "right to know" in Korea, and this is one of the basis of a democratic society. Citizens also have the right to know the list of the MERS affected hospitals in order to protect their health and that of their families.

Actions taken as a result of these lessons include:

- Revising laws and regulation related to information disclosure
- Information sharing on real-time basis with media and medical facilities using a variety of online applications and tools such as messaging service
- Setting up an Emergency Operations Centre & Communication Office within KCDC and practicing KCDC's emergency plans with many exercises in terms of risk communication
- Cooperate with a Risk Communication Advisory Team of 12 members under the Communication Office in KCDC

The Importance of Effective Risk Communications

Dr Park pointed out that before the MERS-CoV outbreak KCDC itself did not have any communicators at all: it communicated via colleagues in the MOHW.

Dr Park outlined the approach to risk communication his team in KCDC had taken during some recent infectious disease events in Korea. There has been significant public concern about Zika virus and imported cases of this infection. A lot of Koreans returning from Zika affected countries have been tested for the virus, and in a handful of cases they have been found to be infected. KCDC has been quick in releasing information about confirmed Zika cases, including the name of the hospital where the case has been treated. KCDC has also been sending a weekly text message to journalists giving them information on cases under investigation. In a recent tuberculosis (TB) outbreak centred on a hospital, KCDC disclosed the name of the hospital, and even in a Legionnaires' Disease outbreak centred on a motel KCDC named the motel as a way of disease control and a prevention measure.

KCDC is active on social media, putting out a lot of information on online platforms. It also has a Call Centre that people throughout Korea can call to ask for information and advice for issues related to all kind of diseases. The Call Centre and the feedback via social media provide a lot of information to KCDC's Communication's Office about what the public are worried about and what their information needs are.

Dr Park ended by summarising the new approach: KCDC now puts every effort into disseminating the right information to the right people at the right time via the right channel. The KCDC has adopted the same mission statement for its communication as the US CDC: be first, be right, be credible.

Biography of Dr Kisoo PARK

Dr Kisoo Park completed his education with Master of Graduate Journalism and Broadcasting from the Graduate School of Journalism & Mass Communication, Yonsei University in Aug 2009. He gained his PhD from the Department of Journalism and Communication, Graduate School of Kwangwoon University in February 2009 and ABD, from the Department of Public Health, College of Medicine, Korea University in February 2015.

Dr Park is currently the spokesperson of Centers for Disease Control and Prevention, Korea and an Adjunct Professor in the Department of Health Policy and Management, Korea University. Prior to his current roles, he was the Deputy Spokesperson of MOHW, Korea from 2011 to 2015.

Risk Communication Lesson during the 2012 Dengue Fever Outbreak on the Island of Madeira, Portugal

Presentation by of Ms Ana Clara Vieira Mendoncae SILVA, Vice President, Institute of Health and Social Affairs of Autonomous Region of Madeira

The Aedes aegypti mosquito, which is capable of carrying a range of diseases including Dengue fever, has been present in Madeira since 2005. The Madeira islands are several hundred kilometres south-west of mainland Portugal and have a climate well suited to Aedes aegypti, so this mosquito population has become quite widespread. Madeira has transport connections by boat and by aeroplane to a number of countries where Dengue fever is endemic and it has some densely populated urban areas. In short, since 2005 there were all the elements in place to make a Dengue outbreak on the island of Madeira possible.

Monitoring the Threat

For several years the public health authorities have conducted surveillance of Aedes aegypti mosquitoes using ovitraps (egg traps) in various locations around the Island of Madeira. These traps enable the authorities assess the number of eggs the mosquitoes are producing each week. Monitoring this enables the health authorities to know the mosquitoes' breeding cycle. The observed result, alongside these years, revealed also an increase in mosquitos' density in low density areas, and it helped identify new areas of infestation as well. The peak of the breeding cycle, when the number of mosquitoes is at its highest, is the highest risk period for mosquito borne disease outbreaks. In Madeira this peak is normally between August and November. The public health authorities in Madeira each year ask health professionals in the region to be particularly vigilant for imported cases of Dengue fever in people returning to Madeira from Dengue affected parts of the world. Identifying imported cases and then taking steps to make sure they are not bitten by mosquitoes is one of the keys to preventing a Dengue outbreak. In 2010 the public health authorities started handing out information and advice on Dengue to travellers arriving at the airport in Madeira. They even conducted entry screening on travellers arriving from Caracas that year as Venezuela was having a big Dengue fever epidemic.

Dengue Outbreak Response

Despite all these prevention efforts, in August 2012 a Dengue fever outbreak happened. The Aedes aegypti mosquito breeding season started earlier, lasted longer and reached a particularly high peak that year. The outbreak lasted for 23 weeks (it did not end until the 9th week of 2013) and there were over 2,000 probable cases of Dengue Fever. As is typical with Dengue outbreaks, the cases were heavily concentrated in urban areas with Funchal, the Island's largest city, being particularly badly affected.

The Institute of Health and Social Affairs established a command and control structure to respond to the outbreak. Emphasis was put on early detection of new Dengue fever cases so that steps could be taken to prevent more transmission. The Institute used a geographical information system to map the Dengue fever cases and see where they were in relation to places having high concentrations of Aedes aegypti mosquitoes and their breeding sites. This enabled the response team to identify a number of high risk urban areas where there was a concentration of Dengue cases and Aedes aegypti breeding sites. Responders went door to door in these areas to alert people to the risk and to help them get rid of mosquito breeding sites around their houses.

In parallel to this, the public health authorities conducted a health education / social mobilisation campaign on vector control targeting the whole population. This involved creating EIC (education, information, communication) in paper format and online, raising awareness with programmes on Madeira regional TV and radio and even running radio spots. The message to the local population focused in particular on how to eliminate mosquito breeding sites around their homes. People were alerted that Aedes aegypti can breed in small amounts of standing water, such as water in the bottom of a plant pot or water gathered in a tyre left outside. The authorities also produced materials in five languages to alert tourists and visitors arriving in Madeira about Dengue Fever and how to protect themselves from it.

Since the 2012-2013 Dengue Fever outbreak the Institute has intensified its efforts to prepare against mosquito borne disease outbreaks. A central pillar of this preparedness has been working on preparedness at local level in municipalities and parishes around Madeira. The public health system has put in place a system of syndromic surveillance with the aim of getting early warning of future imported cases of Dengue or Chikungunya. In 2016, with Zika and microcephaly emerging as a concern, this system is being used to alert the public health authorities to any cases of pregnant women with symptoms of mosquito borne disease.

Stakeholders & Partners Play Major Roles

Working with partners and motivating them to take part in preparedness is central to Madeira's strategy.

Front-line health professionals are essential partners. They are the people most likely to spot the first cases of Dengue, Chikungunya or Zika if there is a new outbreak. Evidence from the scientific literature, though, suggests that it often takes about 50-100 confirmed cases of a new disease before it receives sufficient attention from frontline doctors to be reported to the public health system. Madeira's Institute of Health and Social Affairs has therefore been conducting annual training on mosquito borne diseases for frontline health professionals, staff in health centres and laboratory technicians. It has also conducted training for school teachers about the risks these diseases pose, and how people can reduce the risk of outbreaks by eliminating mosquito breeding sites around their homes. The teachers then educate their pupils about this.

Every year the Institute conducts a major awareness raising campaign ahead of the start of the mosquito breeding season. In the years immediately following the 2012 Dengue outbreak it was easy to attract attention from the media and partner organisations. As the memory of 2012 fades, though, attracting attention becomes more difficult. This means it is important to come up with a new angle every year.

Ms Silva ended by outlining some of the communication lessons she had learned from the 2012 outbreak and the years following it.

She endorsed the need to collaborate and cooperate with the media in a transparent way: be transparent about what you know, what you are doing and also what you don't know (but are trying to find out). She endorsed the need to communicate via multiple channels, including social media. Information needs to be accessible to your audience, for example by using Infographics. And it is absolutely key to work with partners across government (for example, the port, airport and transport authorities), in the private sector (e.g. hotels, tour operators and chambers of commerce) and most of all community level organisations. For example, Ms Silva said that local Scout troops and volunteers associated to other stakeholders, including the parish councils, had played an important role in the vector control campaign in 2012 and they continue to be an important partner in preparing for future outbreaks.

Biography of Ms Ana Clara Vieira Mendoncae SILVA

Ms Ana Clara Vieira Mendoncae Silva, MPH, is currently a PhD student in Public Health: Politics, Management and Health Administration in Universidade Nova de Lisboa (UNL) – Escola Nacional de Saúde Pública (ENSP). She finished her post graduate degree on Methods and Technics in Qualitative and Quantitative Health Research in 2010 from Escola Nacional de Saúde Pública, Universidade Nova de Lisboa.

From 2006-2008, she was the Director of the Department for Health Promotion and Health Education in the Regional Directorate of Planning and Public Health, Autonomous region of Madeira. Currently, she is the Vice President of the Board in the Institute of Health Administration and Social Affairs, IP-RAM since 2008.

Session 3:
Identifying The Key Challenges in ERC Preparedness

At the beginning of the Workshop all participants were given an input sheet with the following challenge on it:

Based on the presentations, case studies, and your own experience, please identify the key risk communication preparedness challenges.

The sheet contained space for each participant to note up to four key ERC preparedness challenges. They were asked to note their thoughts on this sheet during the theory presentations and case study sessions on Day 1 of the workshop, and to use the sheet as an input for the discussions in the working groups at the end of Day 1.

Training Methodology, Objectives & Strategy Development

For the working group session the 60 participants were divided into 9 groups, each with between 6 and 8 members. Working groups were chaired by co-facilitators, 8 of whom were ECDC staff members and one of whom was an ASEF staff member. In each working group, as far as possible, 50% of participants were from Asia and 50% were from Europe. Groups were also balanced in terms of the professional background of the participants: each contained preparedness planners, communicators and experts in public health training / capacity building.

The objective of each working group was to reach a collective view among its members as to what the two or three most important ERC preparedness challenges are. Each group was given one Group Input sheet on which to report these challenges.

All participants were told at the beginning of this exercise that the Facilitators would use the input from the working group to identify four or five key ERC preparedness challenges to discuss on Day 2 of the workshop. Day 2 would focus on developing strategies for how to overcome these challenges, so participants were asked to focus on the key challenges where it might be useful to focus the collective brainpower of the workshop.

The Group input sheets were analysed by the lead Facilitators (John RAINFORD, Ben DUNCAN, and Christine "Tiffany" COOL) during the evening of the first day. Seven strategic themes were identified from an analysis of the groups' input: **Community Engagement; Monitoring and Evaluation; Uncertainty Management; Inter-agency coordination / coordination with partners; ERC Integration in Preparedness Cycle; the Political Interface; Resources**. The Facilitators decided that the maximum number of challenges the workshop should aim to analyse on Day 2 was six. Their decision was to delete "Inter-agency coordination" from the list. The challenge of coordination had been analysed in a significant number of other meetings, whereas the others had not.

The six challenges chosen for discussion by working groups on Day 2 were therefore:

1. **Resources**
2. **Monitoring and Evaluation**
3. **Community Engagement**
4. **Uncertainty Management**
5. **ERC Integration in Preparedness Cycle**
6. **The Political Interface**

How To Address The Key Challenges in ERC Preparedness

Session Introduction: What are the Challenges and How do We Address Them?

The lead facilitator, John RAINFORD of The Warning Project, summarised the themes touched on during the theory and case study sessions on Day 1. He then reminded participants of the workshop's objective: **to strengthen the link between emergency risk communication (ERC) and public health emergency (PHE) preparedness planning.**

Mr Rainford reminded participants of the PHE preparedness cycle they had discussed on Day 1 and posed the question "what is the real health emergency challenge?"

He told the story of the old European saying "as likely as a black swan". This was a widely used aphorism in ancient and medieval times when people had only ever seen European swans, which are all white. As European travellers started to explore the rest of the world they eventually found that, in Australia, black swans really did exist. The saying then had to be changed.

The US scholar, writer and former Wall Street trader Nassim Nicholas Taleb popularised the term black swan events to describe high-profile, hard-to-predict, and rare events that are beyond the realm of normal expectations in history, science, finance, and technology. Mr Rainford argued that we have seen a number of "black swan" emergencies in recent years:

- **9/11**: The terrorist attack on the Twin Towers in New York on 11 September 2001. This was such an extreme and unexpected event that if you had predicted it in advance no one would have believed you.
- **Fukushima**: The Fukushima Dai-Ichi nuclear power plant was designed to cope with power outages and natural disasters. However, when it was hit by a major earthquake, a tsunami and a total and prolonged power outage in rapid succession its safety systems were overwhelmed.
- **Titanic**: The Titanic was built as the unsinkable ship. Its designers were so confident about this that they thought it didn't need lifeboats for all the passengers. It then hit an iceberg and sank on its maiden voyage.
- **2009 Pandemic**: In the mid-2000s WHO and national preparedness planners were convinced that a highly pathogenic form of avian influenza, H5N1, was likely to mutate into a deadly human influenza virus. No one planned for the scenario that a novel influenza virus could cross from animals to humans but actually produce only a mild pandemic – which is what happened with the H1N1 pandemic in 2009.

In view of all of this, it could be that the next emergency that hits us is one that proves the planning assumptions in our PHE preparedness plan utterly wrong.

Mr Rainford posed the question:

> *Immediately following a traumatic event, what is the most common reaction: Flight?; Fight? or; Freeze?*

Result of vote:

- Flight 38%
- Fight 30%
- Freeze 32%

Participants were asked to vote on this question using audience response devices (ARDs). There was a roughly even distribution of opinion between the three options, with just over a third of participants believing that "flight" was the most likely reaction and just under a third going for the other two options ("fight" or "freeze").

John Rainford revealed that research based on the experience of crews that have had to evacuate passengers from ferries and cruise ships shows that people's reaction to traumatic events varies.

Around 10-15% of people remain relative calm and have unimpaired judgement / decision making. In another 10-15% of people the traumatic event provokes counterproductive behaviour, adding to danger. However, the vast majority of people (around 75%) "freeze": they are stunned and bewildered with impaired judgement and decision making.

Crew members on ships report having to carry passengers to the lifeboats because they had just "frozen". The shipping companies' assumption that people would follow the instructions given to them and follow the clearly marked routes towards the life boats proved to be wrong! They have now changed their plans to take account of how people really behave in these situations.

John Rainford then posed a second question to participants:

During an emergency, are normal inter/intra organisational tensions and rivalries suspended?

Result of vote:

- True 29%
- False 71%

The majority of participants voted that the proposition is false. Several shared person experiences from emergencies to justify this choice. Mr Rainford revealed that the participant's vote is in line with research findings. These show that strategic behaviour is common during emergencies. Existing bureaucratic tensions remain in play, and this is explained by some of the key characteristic of emergencies. Many different agencies and partners are involved. They continue to have divergent interests, but are obliged to share ownership of and influence over the emergency.

The third question Mr Rainford asked participants to vote on was:

Do organisations prepare for worst case scenarios?

Result of vote:

- Yes 38%
- No 62%

A majority of participants picked "No". Again the participants' collective view was in line with research findings. These show that crisis contingency planning and exercises are generally not a priority for senior officials and policy makers. This is because success in their world is based on finding opportunities to do things that have a visible impact and produce positive publicity. Contingency management is not the road to glory. To make the situation even worse, policy makers and senior officials often misinterpret or ignore signs of impending danger.

The final two questions that Mr Rainford asked were linked:

In your experience during emergencies, how important is the communication of risk to a successful response?

Result of vote:

- No importance 0%
- Limited importance 2%
- Relative importance 13%
- High Importance 44%
- Top importance 42%

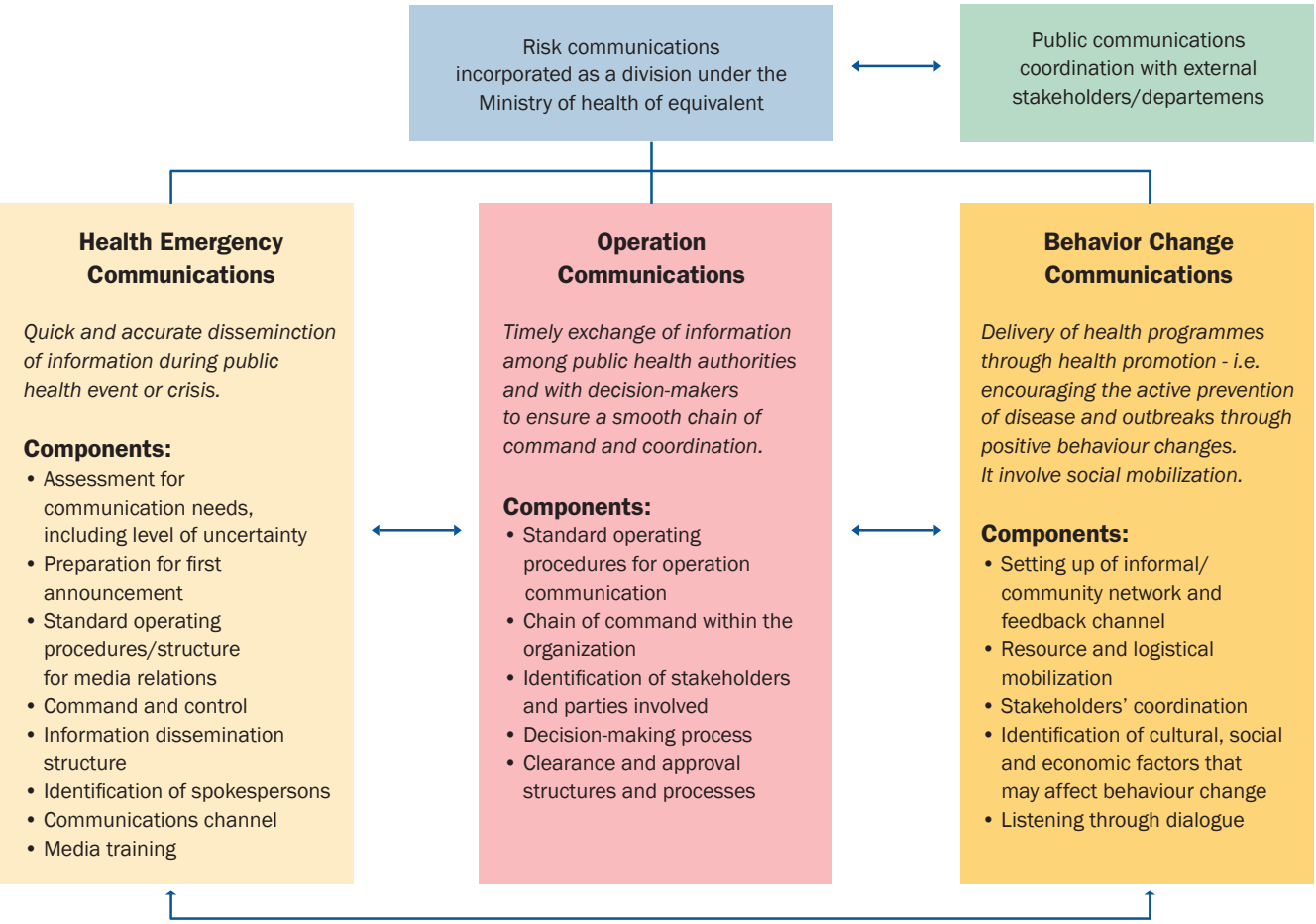
In your experience in emergency preparedness, when allocating resources (money, time, expertise) how important is emergency risk communication?

- No importance 2%
- Limited importance 43%
- Relative importance 32%
- High importance 15%
- Top importance 9%

This disparity between the high importance of emergency risk communication (ERC) during an emergency and its low priority during the planning stage is at the heart of the ERC preparedness challenge. John Rainford quoted what Gaya Gamhewage had said during her presentation on Day 1 *"No money, now power, no credibility, no ERC"*.

Mr Rainford ended his overview of the ERC preparedness challenge by showing a logic model from WHO as to how ERC ought to work within the public health system.

Mandate for Risk Communications



SOURCE: WORLD HEALTH ORGANIZATION

Good ERC involves coordinating internally with all the government bodies involved in the emergency.Preparedness for this involves having systems and Standard Operating Procedures integrating ERC into the overall response in place ahead of the emergency. ERC also involves health emergency communication and behaviour change communication. These are specialised areas, so preparedness involves ensuring skilled staff are trained and available.

Session 4:
Scenario-Based Discussion in Working Groups

Mr Rainford of The Warning Project presented the 6 challenges to be discussed during the session:

1. **Resources**
2. **Monitoring and Evaluation**
3. **Community Engagement**
4. **Uncertainty Management**
5. **ERC Integration in Preparedness Cycle**
6. **The Political Interface**

He reminded participants that these were what had been extracted from the Group Input sheets produced by the working groups on Day 1, which had discussed the key challenged.

Participants were divided into the same working groups as on Day 1 (each containing a geographical and professional balance) with the same Co-Facilitators. There were two rounds of working group discussions during the morning, so each group had the opportunity to discuss two challenges.

Zika Scenario-based Working Group Activities

John Rainford told participants at the start of the working group session that they would be given a scenario about a public health emergency. The purpose of the scenario was to act as a "thinking tool" to stimulate discussion on ERC preparedness, and how to address the specific challenge the group had been given.

The scenario was as follows:

> *Since being declared a Public Health Emergency of International Concern in February 2016, the real and potential threat of the Zika virus has continued to be a high profile issue in international media coverage.*
>
> *Brazil and neighbouring South American countries have been the focus of concern, but all that changed last week.*
>
> *A highly unusual and massive cluster of Zika linked microcephaly cases in newborns and also neurological conditions in adults were discovered in the fictional country of "EurAsiaLand".*
>
> *Beyond the obvious concern over the human suffering, experts tracking the threat are most worried that EurAsiaLand was supposedly not at risk of a Zika outbreak as it does not typically have the aedes aegypti mosquito.*
>
> *Speculation among some experts tracking the situation is that a range of mosquitos are now able to transmit the virus putting countries across the Asian / European regions at risk. But others speculate that the virus may now be transmissible through other means, for example, directly through infected water.*
>
> *Your nation shares a border with EurAsiaLand, there is on-going free movement of people, goods and presumably mosquitos.*

Although key aspects of the source, nature, and full extent of the threat remain highly uncertainty you are charged with preparing for the potential spread of the problem, specifically considering what emergency risk communication steps can be taken now to help manage through a potential crisis.

You've been assigned a particular emergency risk communication challenge to concentrate on, your recommendations will help inform an integrated strategy to help deal with whatever might occur.

You need to make decisions based only on ***what is known*** *so far:*

1. *Unusual and massive cluster of microcephaly/ neurological illness in EurAsiaLand*
2. *Country does not have aedes aegypti*
3. *Experts: other mosquitos now carry the Zika threat?*
4. *Other experts: it may not be vector based risk, maybe water?*
5. *Your nation shares a border with EurAsiaLand*
6. *You are charged with recommending emergency risk communication preparedness options*
7. *You have to focus on your challenge, feed into the overall strategy*

The task of each group was to propose practical and concrete preparedness strategies and actions in relation to their challenge. He advised participants to "take your hat off" during the scenario based discussions: make full use of your experience and expertise, but remember you are not acting as a representative of your organisation in the group.

There was a short reporting back session in plenary at the end of the morning and groups also filled in Group Input sheets providing more detailed feedback.

During the lunch break of Day 2 the lead Facilitation team synthesised the groups' ideas into a series of propositions to be debated and voted on during the afternoon.

Session 5: Conclusions

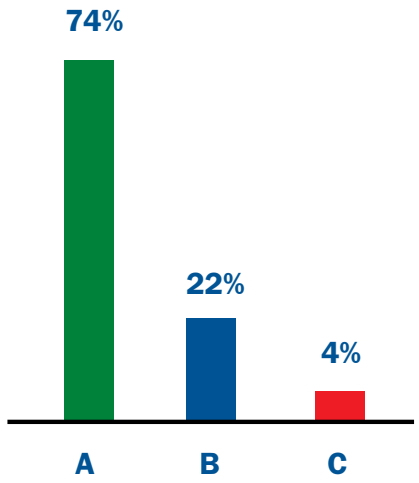
Challenge 1: Resources

[Scenario] *Your communication team is very small. Team members are already over worked. There is no way they can take on a major new set of activities.*

The current preparedness strategy for the EurAsiaLand Zika threat introduces a set of new, and potentially extreme resource demands.

- *You are charged with recommending emergency risk communication preparedness options*
- *You have to focus on your challenge and feed into the overall strategy*

Operational strategies to address the challenge:



Preparedness Strategy 1: Establish internal ERC surge capacity as part of preparedness planning

A. Endorse

B. Debate

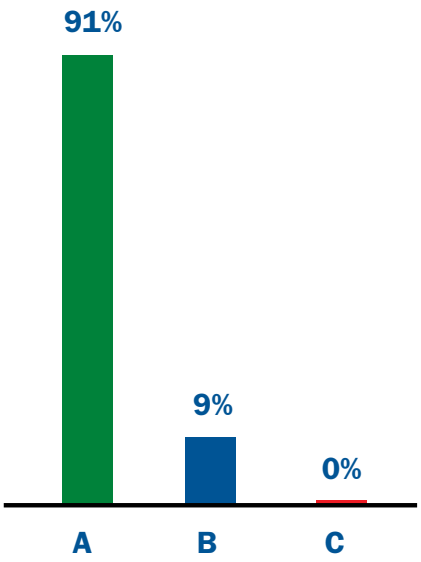
C. Reject

In the context of any emergency, the demands on time, energy and staffing increase exponentially. The bigger the emergency the more "hands on deck" are required. Any organisation managing a complex emergency should, ideally, have a plan for surge capacity in place that they can draw from during the acute phase of any emergency.

During the debate on this proposal participants emphasised the importance of having a plan to generate ERC surge capacity as part of the overall preparedness plan. This capacity could be produced, for example, by re-assigning staff from across the organisation into ERC functions.

Discussion on operational steps to take:

- **Establish a process/system to mount internal/organisational emergency risk communications surge capacity** and ensure this process is part of the overall preparedness and response strategy (e.g. reassigning existing staff while awaiting surge capacity)
- **Create a roster of ERC experts that your organisation can pull from during an emergency** — as part of a stand by support agreements with partner organisations, use this roster to deploy external experts and have them working on site at your organisation's premises within 48-72 hours. Ensure that their CVs, contact info timeframe of availability are included in that roster, as well as any special discipline within the context of ERC (i.e. social anthropologist, media communications, social mobilization expert, etc.). Also make sure that their vaccinations, medical and security clearances as well as passport pages are on file to ensure ease of deployment.
- **Develop TORs for the various ERC functions so that reassigned staff** who may not necessarily be communications experts are aware of their role and responsibility as part of surge capacity.
- **Develop and disseminate an incident management organogram** — which reflects the different roles and functions within the incident management team so that the assigned ERC staff understands the reporting chain.



Preparedness Strategy 2: Conduct partner resource mapping to identify potential support

A. Endorse

B. Debate

C. Reject

Participants emphasised the importance of understanding capacity and resources that may be available from partner organisations. Mapping capacity both inside and outside your organisation gives a full picture of the staff and resources that could be deployed to support ERC activities in an emergency.

Discussion on operational steps to take:

- **Understand your organisation's stand-by partner agreements or bilateral partner agreements and ensure ERC is part of the disciplines listed:** As well as having these external stand-by agreements, there should also be a mechanism within your organisation to get these external experts security cleared and accredited with access passed etc. to enable them to work at your premises.
- **Understand all existing response networks at your disposal that could potentially supply ERC surge capacity/ expertise, internally or externally:** Networks like the Global Alert and Response Network (GOARN) have a list of disciplines including ERC on hand and readily deployable upon request.

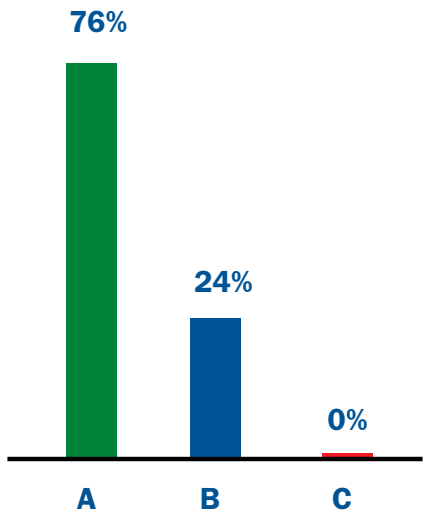
Challenge 2: Monitoring & Evaluation

[Scenario] *The EurAsiaLand situation is generating massive pressure to launch a pre-emptive emergency risk communication strategy, but there is no monitoring and evaluation plan in place and there is concern that any efforts would be ill-informed and potentially ineffective.*

Senior management is arguing that existing media monitoring will be sufficient but experts in the monitoring and evaluation field are arguing for a more comprehensive model linked directly to operational objectives and risk perception monitoring.

- *You are charged with recommending emergency risk communication preparedness options*
- *You have to focus on your challenge and feed into the overall strategy*

Operational strategies to address the challenge:



Preparedness Strategy 1:
Focus on low cost/resource monitoring & evaluation option, eg. interviews

A. Endorse

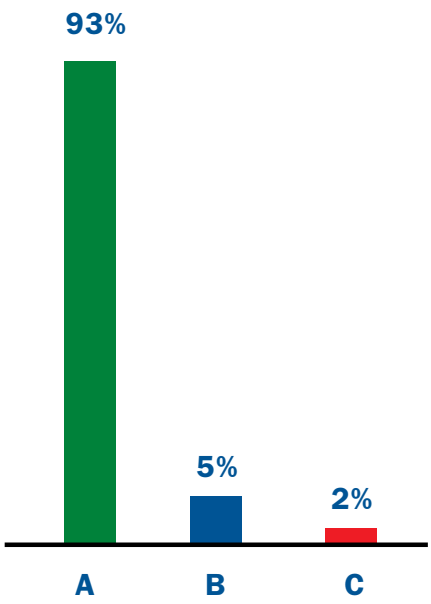
B. Debate

C. Reject

Participants believed that running these low cost surveys should be written into the PHE preparedness plan. The importance of segmenting different audiences in such surveys was mentioned and agreed on. There was also a discussion about how to develop a generic monitoring & evaluation survey that could be adapted for all hazards or threats, and the related theme of running a regular survey that could be adapted with additional questions during a specific emergency.

Discussion on operational steps to take:

- **Develop a low cost survey and ensure its integration into the PHE preparedness plan:** Surveys should be conducted in times of peace to establish baseline data, and points for comparison during an emergency. Having baseline data can also help in planning for targets or triggers for specific ERC actions during an emergency.
- **Pre-plan or draft an M&E template applicable to all-hazards approach to response:** Establish baseline points that allow you to monitoring through the whole ERC response process so you understand when you've reached specific targets/triggers. Immediately outlining your key performance indicators (KPIs) before an event ensures that you have a "baseline" from which to gauge the effectiveness of your ERC public health strategies interventions.
- **Segment the different target audiences and develop a strategy on how to reach them:** More detail and focus on target audience so you are able to address their diverse needs for information.



Preparedness Strategy 2: Access existing systems (eg. media monitoring, call centres) for intelligence/data

A. Endorse

B. Debate

C. Reject

There was very wide support for the proposal of making use of existing data sources for the purposes of monitoring & evaluation. This was seen as being, potentially, a quick win.

Discussion on operational steps to take:

- **Add questions to existing surveillance systems, surveys or instruments in the field:** As part of a field response/emergency/outbreak investigation team you can ask to include a few ERC-related questions which would allow you to identify any barriers to infection control
- **Use the systems you have at your disposal to gather intel and data:** It is helpful for you to understand all the systems and strategies at play in an emergency, if there is a way to gather intel and information to help you develop your ERC public health interventions/response using these existing sources of information then that is a good thing.

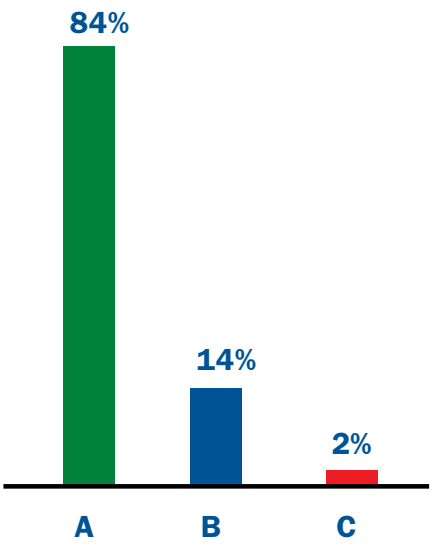
Challenge 3: Community Engagement

*[**Scenario**] The potential threat is knocking at your door. You have begun distributing public health messages that aim to empower people and communities that are at risk of this potential health threat, yet there is an ethnic community in EurAsiaLand that is not following the advice and guidance given.*

Opinion within the organisation is that this small community is not significant. And the unofficial position is that it (i.e. the organisation) should not spend resources concentrating on this small community. A consultant medical anthropologist hired by your organisation says otherwise, he feels that this community is important.

- *You are charged with recommending emergency risk communication preparedness options*
- *You have to focus on your challenge and feed into the overall emergency response strategy*

Operational strategies to address the challenge:



Preparedness Strategy 1: Integrate community engagement expertise into ERC preparedness

A. Endorse

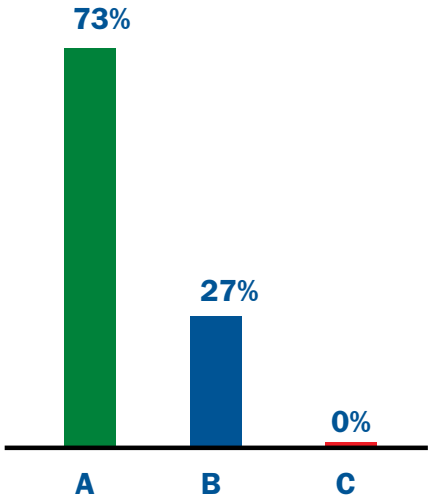
B. Debate

C. Reject

Participants recognised that this may involve establishing networks of social science experts who could be called on during public health emergencies. Establishing partnerships during times of peace with organisations that have this social science capacity (e.g. universities, think tanks, civil society organisations) would be a useful preparedness action.

Discussion on operational steps to take:

- **Ensure qualitative anthropology is included as well a process to decipher/interpret and operationally apply this data in the field/response:** Having access to critical anthropological data is useful only if it is easily digestible and applied to the actual response. Lengthy and highly technical research findings published long after the event are of no use in guiding the response. To have an impact, short operational conclusions need to be extracted from the research and shared with the response team during the emergency.
- **Involve health promotion professionals working within health authorities:** These experts and their partners can be an excellent resource for conducting community engagement. Links between health promotion and PHE preparedness should be nurtured.
- **Nurture links and relationships with specialised networks of experts**: Anthropologists are another specific community of experts that ERC preparedness should nurture links with as well as other partnerships and modalities of how we can work with various ERC related disciplines and expertise.



Preparedness Strategy 2: Conduct influence mapping and Knowledge, Attitudes and Practices (KAP) study, in vulnerable communities

A. Endorse

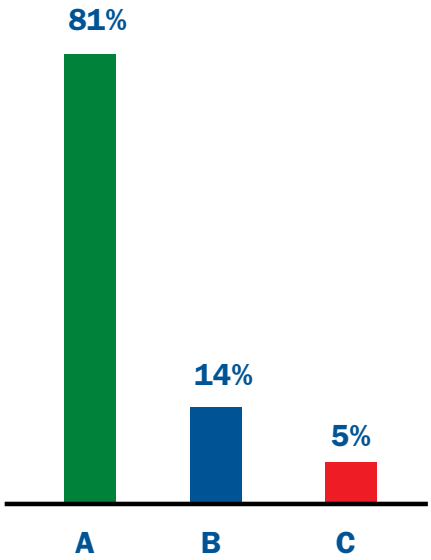
B. Debate

C. Reject

There was some debate as to whether this proposal should be limited just to KAP studies and influence mapping.

Discussion on operational steps to take:

- **Ensure that you also identify the key influencers in an affected community:** Along with conducting your KAP study, ensure that you also note who your potential "amplifiers" are (i.e. persons of influence or leadership within an affected community whom people already trust). In an emergency it is difficult to build trust rapidly so you must rely on people who already have it.



Preparedness Strategy 3: Integrate community engagement expertise into ERC along with knowledge translation tools

A. Endorse

B. Debate

C. Reject

Discussion on operational steps to take:

- **Develop tools that enable anthropological findings and distil these findings:** Knowledge translation tools that integrate community engagement expertise into ERC in such a way that they contribute and enhance any ERC intervention
- **Ensure that not only the ERC experts may be able to use the results of anthropologists:** Anthropologists involved in an emergency need to be trained to adapt their methodology (anthropology) to emergencies in order to deliver more operationally inclined data/intel that is useful and practical to the overall emergency response.

Challenge 4: Uncertainty Management

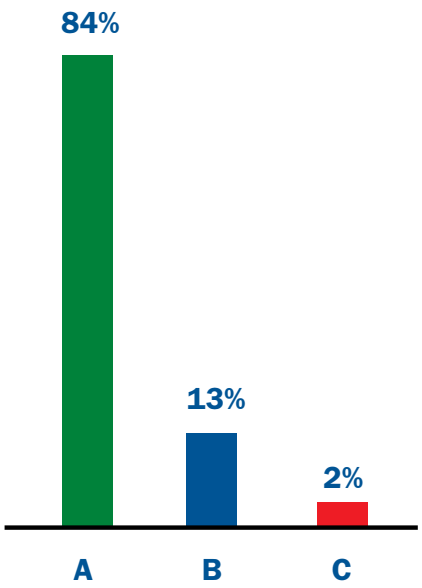
[Scenario] *With international attention focused on the EurAsiaLand threat, there is building pressure for increased communication on the situation. Media, stakeholders, the public and partners are clamouring for comment but within the organisation, the unofficial position is to not speak to any unconfirmed detail.*

The source and nature of what seems to be an evolving threat is still highly uncertain and no organisational expert is willing to risk their reputation and their career in making a public mistake.

But the bigger issue: the growing information vacuum is being filled by rumour, misinformation, and outright lies.

- *You are charged with recommending emergency risk communication preparedness options*
- *You have to focus on your challenge and feed into the overall strategy*

Operational strategies to address the challenge:



Preparedness Strategy 1: Integration of risk perception assessments into preparedness planning

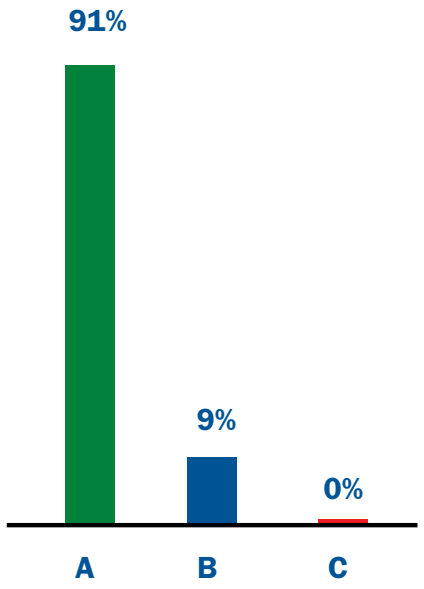
A. Endorse

B. Debate

C. Reject

Discussion on operational steps to take:

- **Ensure that risk perception assessments are included in the risk assessment:** That way any ERC public health interventions developed are targeted and tailored to those at-risk groups.As far as possible, risk perception assessments should look at different audience segments. It was agreed that knowledge of their risk perception could guide the development of messaging targeting specific stakeholders or communities.



Preparedness Strategy 2: Spokesperson training on communicating uncertainty

A. Endorse

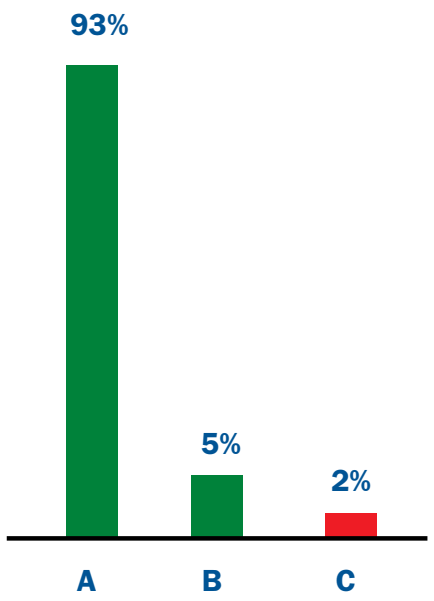
B. Debate

C. Reject

Discussion on operational steps to take:

Develop or at least have access to spokesperson training: Ensure that the training focuses on these specific aspects:

- How to convey credibility
- How to make politicians understand you and how to sensitize them to what is needed of them in the response
- Show the strategic advantage of addressing uncertainty
- Training on effective use of social media in emergencies (as it is a good gauge for successfully communicating uncertainty)
- Training for both medical and non-medical spokesperson to deal with the overwhelming volume of demand in an emergency



Preparedness Strategy 3: Develop ERC messaging which includes uncertainties

A. Endorse

B. Debate

C. Reject

Discussion on operational steps to take:

- **Develop criteria for standard ERC messaging that addresses uncertainty:** Include information about what you know, what you don't know, and the positive actions being taken. Be able to qualify and quantify uncertainty in the development of the messages.
- **Be prepared to explain to leadership why uncertainty management cannot be ignored:** In some instances politicians are anxious about addressing uncertainty. They are, more often than not, comfortable speaking when all the information is complete. Use evidence-based research findings or case studies to illustrate the importance and benefit of acknowledging and communicating about uncertainty.

Challenge 5: ERC Integrations in the preparedness cycle

*[**Scenario**] You have heard that there have been preparedness and response meetings on-going. You have also heard that colleagues in these meetings have been discussing the various public health interventions to address this potential threat. You have not been included in any of these planning meetings thus far.*

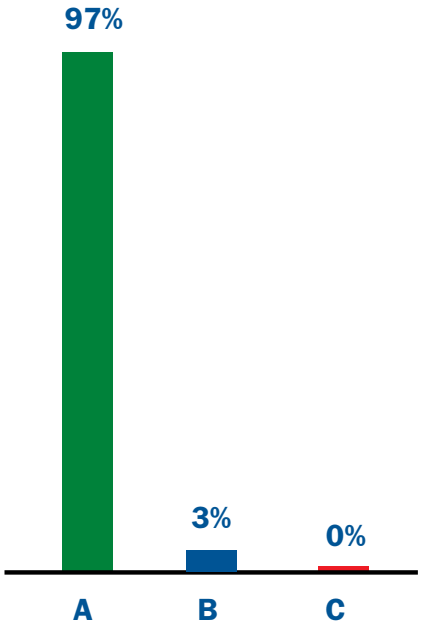
You managed to receive a copy of the risk assessment and the outline of response strategies to address this potential threat, though emergency risk communication (ERC) response strategies listed, you see that it is not in a substantive/important way, a lot of key ERC response strategies are missing.

Operational strategies to address the challenge:

In debating the first proposal participants emphasised the importance of developing a clear definition of ERC roles and responsibilities, including functions and accountability. There was consensus that ERC should be represented in the emergency management team at every phase of the PHE preparedness cycle.

There was unanimous support for the proposition that ERC should be part of the emergency preparedness strategy. Participants stressed that this included allocating sufficient budget and human resources to ERC.

Participants agreed that risk perception assessments should systematically be conducted and considered in risk assessments made during the preparedness cycle.



Preparedness Strategy 1:
Ensure ERC role is represented at all times on the emergency preparedness team

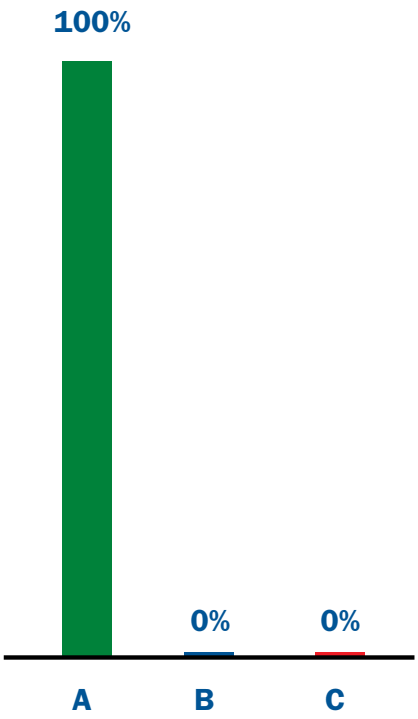
A. Endorse

B. Debate

C. Reject

Discussion on operational steps to take:

- **Ensure that the ERC role is represented on the emergency preparedness and response team:** Develop a clear definition or ERC roles and responsibilities (including functions and accountability) and ensure its representation in every phase of the cycle (i.e. before, during and after the event).



Preparedness Strategy 2: Ensure ERC is part of the emergency preparedness strategy

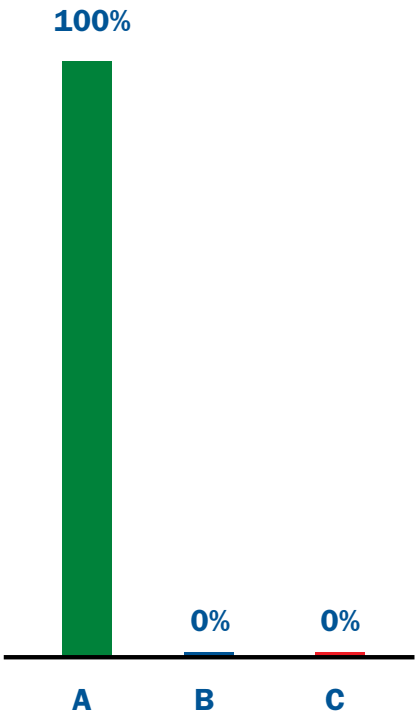
A. Endorse

B. Debate

C. Reject

Discussion on operational steps to take:

- **Ensure ERC strategy includes a proper allocation and budget:** Sufficient resources are needed to carry out and hire people to carry out any outlined ERC public health intervention and activity. Ensure that you are able to secure this and that it is reflected in the overall emergency preparedness planning function.



Preparedness Strategy 3: Ensure that operational communication between organisations includes ERC component

A. Endorse

B. Debate

C. Reject

Discussion on operational steps to take:

- **Ensure that you have a seat at the emergency response table:** This will allow you to ensure that any and all operational communication includes an ERC component as needed.

Challenge 6: The Political Interface

*[**Scenario**] Your boss has just had her weekly meeting with the Minister of Health. She tells you that the Minister did not want to talk about the Zika situation in EurAsiaLand. Each time your boss tried to talk about Zika the Minister would change the subject.*

Eventually, the third time your boss raised Zika, the Minister said "Let's not waste our time on that. It's just a lot of panic stirred up by enemies of the government in EurAsiaLand".

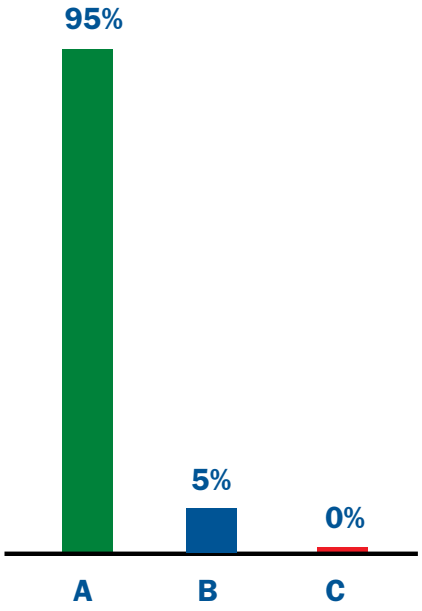
Your country happens to be at a critical stage in the negotiation of a trade deal with EurAsiaLand. It is clear that the Minister does not want to say or do anything that might upset the government there.

- *You are charged with recommending emergency risk communication preparedness options*
- *You have to focus on your challenge and feed into the overall strategy*

Operational strategies to address the challenge:

Participants agreed the most effective way for officials responsible for ERC to engage with Ministers and their officials is to demonstrate the advantage for the Minister in conducting effective ERC. Risk perception surveys, which are a form of public opinion research, are one effective way of making the case. Analysis of the policy and political consequences of ERC strategies followed in emergencies in other countries can also be persuasive. For example, the loss of public trust and negative impact on the economy (estimated at USD 10 billion) in South Korea in 2015 due to ineffective ERC about the MERS-CoV outbreak (see Dr Park's case study about this outbreak). This evidence about the high economic cost of getting ERC wrong is a powerful argument to the political level for following the principles of good practice.

There was a quite lengthy discussion on how to communicate with stakeholders and international partners when the political interface is not going well. For example, in a situation where the minister of health is denying the seriousness of a health threat, against the advice of the response team, should health officials try to mobilise WHO or local NGOs to "lobby" the minister to change position? There was strong opposition to this approach. Participants felt officials have a duty of loyalty to their political level. The aim of health officials responsible for ERC should be to work with the Minister and his / her staff so that the Minister is part of the solution.



Preparedness Strategy 1:
Explain consequences of poor ERC to Minister and staff, using case study evidence

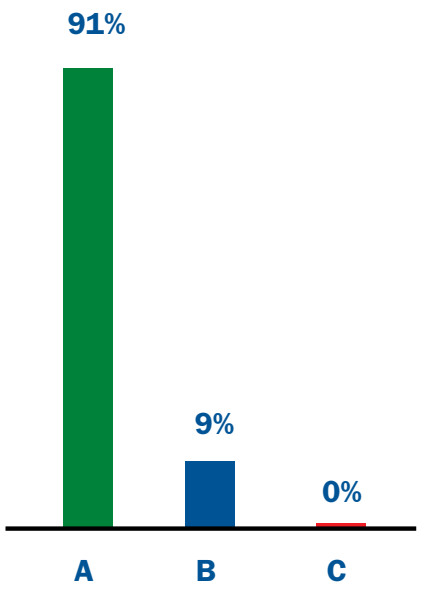
A. Endorse

B. Debate

C. Reject

Discussion on operational steps to take:

- **Use evidence-based data and case study research:** To get the Minister's attention using the positive and negative outcomes that are possible. For example, presenting evidence of the high economic cost of ERC going wrong during the MERS-CoV outbreak in Korea (see Dr Park's case study)
- **Build relationships with politicians in times of peace:** Spend time to gain the trust, see them as part of the solution. Speak their language and build their trust and most of all speak to politician's concerns (e.g. putting trade deals at risk).



Preparedness Strategy 2: Present risk perception analysis to the Minister and staff

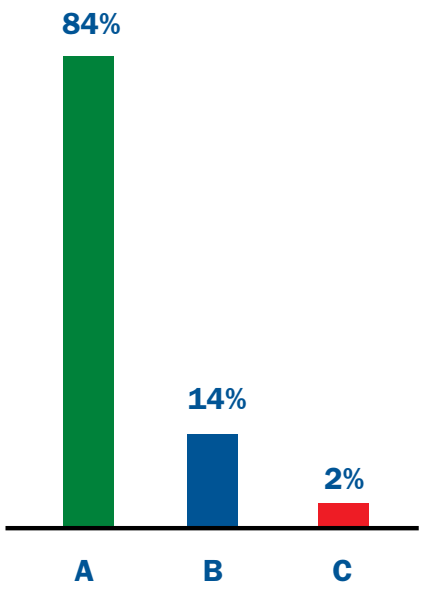
A. Endorse

B. Debate

C. Reject

Discussion on operational steps to take:

- **Speak to key politicians about current risk perception amongst the various stakeholders:** Address operational perception of the authorities (e.g. pregnant women saying vaccine caused miscarriage or abortion) and also address the potential reputational risk to the Ministry and or government when concerns go unaddressed.



Preparedness Strategy 3: Ensure channels for communication and debate between Minister and stake-holders (e.g. WHO, health experts, civil society) are kept open

A. Endorse

B. Debate

C. Reject

Discussion on operational steps to take:

- **Use the various stakeholder concerns as part of your strategy to engage the politicians:** Open additional channels of information for the political leadership via stakeholder (e.g. WHO, health experts, civil society), formulate strategies based on the cultural make up or traditions of your area and environment and think about political leadership as part of the solution rather than the problem.

This was the end of group discussions and interactive voting session of this workshop. Ideas that surfaced from these discussions and votings are set out in this report, which aims to be circulated to a wider audience in the public health community so that they can take them into consideration when planning and designing relevant projects or activities.

Concluding remarks

Chadia WANNOUS of the **United Nations Office for Disaster Risk Reduction (UNISDR)** was invited to make some concluding remarks.

Dr Wannous congratulated ASEF and ECDC for hosting such a stimulating and productive workshop. She then focused on putting emergency risk communication preparedness into the context of the UN's Sendai Framework for Disaster Risk Reduction. Agreed in Sendai, Japan in 2015 this is a 15-year, voluntary, non-binding agreement which recognises the primary role national governments in reducing disaster risks while also stating that responsibility should be shared with local government, the private sector and other stakeholders. Its aim is for a substantial reduction of disaster risk and losses in lives, livelihoods and health. It also aims to substantially reduce the loss of economic, physical, social, cultural and environmental assets. Dr Wannous pointed out that health is therefore a key element of the Framework, being referenced as one of the primary outcomes aimed for.

Health is also referenced in four out of the seven global targets that the Sendai Framework sets and throughout the text of the Framework. Dr Wannous stated that the scope of "disasters" under the Sendai Framework has been expanded beyond natural hazards to include biological hazards such as epidemics and pandemics. These are now key area of focus for disaster risk management.

The four priorities for action under the Framework are:

1. Understanding disaster risk
2. Strengthening disaster risk governance to manage disaster risk
3. Investing in disaster risk reduction for resilience
4. Enhancing disaster preparedness for effective response and to "Build Back Better" in recovery, rehabilitation and reconstruction

Dr Wannous pointed out that the discussion on emergency risk communication preparedness at the ECDC and ASEF workshop was relevant to all four areas.

The Sendai conference included working sessions on *Reducing the Risk of Epidemics and Pandemics and Disaster Risk Management for Healthy Societies.* The Framework states that to implement its health elements, it is necessary to *"enhance cooperation between health authorities and other relevant stakeholders to strengthen country capacity for disaster risk management for health, and to stimulate public and private investment in disaster risk prevention including in health facilities and other life-saving and harm-reducing measures."*

An international conference to discuss how to implement the health components of the Sendai Framework was organised in March 2016 in collaboration with the Government of Thailand and WHO. The conference outcome is "principles" for implementation that emphasise the integration of health into disaster risk management and vice versa incorporating risk reduction concepts into health care and how to achieve this through multi-stakholders and all-hazards approach.

Dr Wannous's role at UNISDR is supporting the signatories of the Framework in implementing its health aspects, including supporting this enhanced cooperation between health authorities and other stakeholders.

Dr Wannous ended her remarks by urging the health sector participants in the workshop to get involved in the Sendai implementation process.

Biography of Dr Chadia WANNOUS

Dr Chadia Wannous is a Senior Advisor at the UN Office for Disaster Risk Reduction (UNISDR), coordinating stakeholders' contribution to the implementation of the health components of the Sendai Framework for Disaster Risk Reduction and supporting the Science and Technology Secretariat. Prior to this Dr Wannous served as a Senior Policy Advisor to the UN Secretary General Special Envoy on Ebola outbreak response in West Africa and to the UN System Pandemic Influenza Coordinator.

Chadia is a public health professional with PhD in International Health and Development with twenty years of work experience around the world in pandemics preparedness and response, strategic planning and strengthening of partnerships and alliances to optimize global health initiatives and efforts.

Workshop Closure & Future Direction

Dr Andrea AMMON of **ECDC** explained how ECDC would build on the work done during the previous two days. ECDC has a number of projects that have already been started or are expected to start soon. These include:

- A project on community engagement in preparedness. As a first step ECDC is launching a review of existing practices to understand what is already being done.
- The development of guidance on the decision-making process in policy-making, so as to strengthen the interface between the public health experts and the policy makers.
- The launch of activities to integrate emergency risk communication into national preparedness plans, in close dialogue with EU Member States.
- Strengthening country-targeted partnerships for emergency risk communication and preparedness under the new International Health Regulations framework, in close collaboration with partners at the WHO Regional Office for Europe.

Ms Sunkyoung LEE of **ASEF** also congratulated the participants for their achievement in the past two days, and shared some potential ideas for ASEF Public Health Network's continuous plan to contribute to capacity-building for emergency risk communication. A format could be workshop or training at regional or national level. In order to address the pressing issues in emergency risk communication as well as engage multi-sectoral stakeholders in its future plan, ASEF will stay in touch with the workshop participants.

Both thanked participants for their contributions and hard work. They jointly closed the workshop.

Annexes

Annex 1: Final Programme

	DAY 0: Tuesday, 6 September 2016
19:00 - 19:30	**Welcome Reception to the joint ECDC & ASEF workshop** Courtyard Stockholm Kungsholmen 2nd floor lobby *Light canapés and beverages*
	DAY 1: Wednesday, 7 September 2016
	Theme: Emergency Risk Communication – Exploring the Challenge
08:30 – 09:00	Registration (2nd floor, Plenary hall lobby)
09:00 – 09:30	**Official Welcome** Ms Sayaka UEDA, First Secretary, Embassy of Japan in Sweden Dr Andrea AMMON, Acting Director, ECDC Chair: Dr Massimo CIOTTI, Deputy Head of Unit Public Health Capacity and Communication, ECDC
09:30 – 10:00	**Opening Speech by Co-organisers** Ms Sunkyoung LEE, Acting Director, Political & Economic Department, ASEF Prof. Karl EKDAHL, Head of Public Health Capacity and Communication Unit, ECDC
10:00 – 12:30	**Session I: Theory & Setting the Scene Moderators: Mr John RAINFORD and Mr Ben DUNCAN, The Warning Project (TWP)**
10:00 – 11:00	**Keynote Speech 1:** Public Health Preparedness as Learning: The Challenges of Polyarchy Prof. Christopher NELSON, Senior Political Scientist, RAND Corporation
11:00 – 11:30	**Coffee break**
11:30 – 12:30	**Keynote Speech 2: Emergency Risk Communication: Building Capacities and Capabilities** Dr Gaya M. GAMHEWAGE, Medical Officer, World Health Organisation (WHO)
12:30 – 13:30	**Lunch break**
13:30 – 15:30	**Session 2: Case Studies: Reflecting on Past Health Emergencies Moderators: Mr John RAINFORD and Mr Ben DUNCAN, TWP**
13:30 – 14:30	**Case study 1: Asia** – Risk Communication Lessons during the Middle East respiratory syndrome coronavirus (MERS-CoV) Outbreak in South Korea Dr Kisoo PARK, Spokesperson, Korea Centers for Disease Control and Prevention (KCDC)
14:30 – 15:30	**Case study 2: Europe** – Risk Communication Lessons during the 2012 Dengue Fever Outbreak on the Island of Madeira, Portugal Ms Ana Clara Vieira Mendocae SILVA, Vice President, Institute of Health and Social Affairs of Autonomous Region of Madeira

15:30 – 16:00	**Coffee break**
16:00 – 17:50	**Session 3: Identifying the Key Challenges in Emergency Risk Communication Preparedness** **Moderators: Mr John RAINFORD and Mr Ben DUNCAN, TWP**
16:00 – 16:10	**Ice-breaker and Division of Participants into Groups** Ms Christine Tiffany COOL, TWP
16:10 – 17:00	**Working Group Discussions on Key Challenges**
17:00 – 17:40	**Feedback to Plenary from Working Groups**
17:40 –17:50	**Wrap-up of Day 1**
19:30	**Welcome Dinner** (2nd floor, Plenary hall, Courtyard Stockholm Kungsholmen)
	DAY 2: Thursday, 8 September 2016
	Theme: How to Plan and Implement Emergency Risk Communication
08:30 – 09:00	**Registration**
09:00 – 09:45	**The Challenges and How to address them** Mr John RAINFORD, TWP
09:45 – 12:45	**Session 4 – Scenario-based Group Discussions Moderators: Mr John RAINFORD and Mr Ben DUNCAN, TWP**
09:45 – 10:45	**First Round of Scenario-based Group Discussions**
11:15 – 12:15	Second Round of Scenario-based Group Discussions
12:15 – 12:45	**Wrap-up of Scenario-based Group Discussions** Mr John RAINFORD and Mr Ben DUNCAN, TWP
12:45 – 14:00	**Lunch break**
14:00 – 16:15	**Session 5: Conclusions Moderators: Mr John RAINFORD and Mr Ben DUNCAN, TWP**
14:00 – 15:15	**Defining Solutions** Mr John RAINFORD and Mr Ben DUNCAN, TWP
15:15 – 16:00	**Coffee break**
16:00 – 17:00	**Plenary Debate** Mr John RAINFORD and Mr Ben DUNCAN, TWP
17:00 – 17:20	**Closing Remarks** Dr Chadia WANNOUS, Senior Advisor, UN Office for Disaster Risk Reduction (UNISDR) Dr Andrea AMMON, Acting Director, ECDC Ms Sunkyoung LEE, Acting Director, Political & Economic Department, ASEF

Annex 2: List of Participants

Name	Designation	Organisation	Country
Ms Tammy ALLEN	Public Health Lecturer	College of Public Health, Medical and Veterinary Sciences, James Cook University	Australia
Ms Fatima PEREIRA	Secretary	European Federation of Nurses Associations	Belgium
Mr Jan EYCKMANS	Head of Communications & Spokesperson	Federal Public Service Health	Belgium
Dr Fathi ALIKHAN	Medical Officer, Public Health Services	Ministry of Health	Brunei Darussalam
Ms Siti Khadizah BAKRI	Health Education Officer, Health Promotion Centre, Public Health Service	Ministry of Health	Brunei Darussalam
Dr Ly SOVANN	Director, Department of Communicable Disease Control	Ministry of Health	Cambodia
Dr Teng SREY	Deputy-Director, Department of Communicable Disease Control	Ministry of Health	Cambodia
Dr Yanping ZHANG	Deputy Director, Pubic Health Emergency Center	Chinese Centre for Disease Control and Prevention (China CDC)	China
Ms Cristiana SALVI	Communications Officer	World Health Organisation for Europe (WHO-Euro)	Denmark
Dr Markku KUUSI	Senior Medical Officer, Head of Unit	National Institute for Health and Welfare	Finland
Mr Marko LÄHTEENMÄKI	Communications Manager	National Institute for Health and Welfare	Finland
Dr Delphine ANTOINE	Coordinator of Scientific Training	French National Public Health Agency	France
Dr Patrick BRASSEUR	Chief of the Information and Communication Department	General Directorate for Health	France
Dr Günter PFAFF	Vice-President, Section Infectious Disease Control/ Head, Competence Centre for Health Protection	European Public Health Association (EUPHA)/ Public Health of Baden-Wurttemberg	Germany

Name	Designation	Organisation	Country
Dr Katharina ALPERS	Head of Postgraduate Training of Applied Epidemiology	Robert Koch Institute	Germany
Dr Ute REXROTH	Infectious Disease Epidemiologist	Robert Koch Institute	Germany
Dr Sotirios TSIODRAS	Associate Professor, Medicine-Infectious Diseases	University of Athens Medical School	Greece
Dr Meghana V. ARURU	Associate Professor	Indian Institute of Public Health, Public Health Foundation of India (PHFI)	India
Dr Ritola TASMAYA	Secretary General	Red Cross Society	Indonesia
Mr Maurice KELLY	Communications Manager	Health Protection Surveillance Centre	Ireland
Dr Nobuhiko OKABE	Director General	Kawasaki City Institute for Public health	Japan
Dr Yasuyuki KATO	Chief, Division of Preparedness and Emerging Infections, Disease Control and Prevention Centre	National Institute for Health and Welfare	Japan
Dr Kisoo PARK	Spokesperson, office of communication	Korea Centers for Disease Control and Prevention (KCDC)	Korea
Prof Dr Sang-il LEE	Professor	Department of Preventive Medicine, College of Medicine, University of Ulsan	Korea
Dr Rattanaxay PHETSOUVANH	Deputy Director General, Department of Communicable Disease Control	Ministry of Health	Lao PDR
Mr Tom DE SMEDT	Communication officer	European Commission (DG-SANTE)	Luxembourg
Dr Rosemawati ARIFFIN	Principal Assistant Director	Ministry of Health	Malaysia
Dr Sha'ari B. NGADIMAN	Deputy Director, Disease Control	Ministry of Health	Malaysia
Dr Tanya MELILLO	Head of Infectious Disease Prevention and Control Unit	Superintendence of Public Health	Malta
Ms Sarantuya ALTANSUKH	Journalist	Mongolian National Broadcaster	Mongolia

Name	Designation	Organisation	Country
Dr Urtnasan CHOIROG	Press officer, National Centre for Communicable Diseases	Ministry of Health	Mongolia
Dr Daniel H. DE VRIES	Assistant Professor, Anthropology of Health	Department of Anthropology, University of Amsterdam	Netherlands
Dr Darren HUNT	Fellow, Public Health Medicine Specialist	New Zealand College of Public Health Medicine	New Zealand
Ms Erina MARWICK	Senior Media Advisor	Ministry of Health	New Zealand
Ms Christina ROLFHEIM-BYE	Communication Director	Norwegian National Institute of Public Health	Norway
Dr Karin NYGÅRD	Senior Advisor	Norwegian National Institute of Public Health	Norway
Ms Maryam KHALID	Institutional Development Specialist	Government of Punjab, Lahore	Pakistan
Ms Kathleen SOLIS	C4D Specialist	UNICEF Philippines country office	Philippines
Ms Maria Monina M. FLORES	Executive Director	Corporate Network for Disaster Response (CNDR)	Philippines
Dr Rosario PAMINTUAN	Section Head, Regional Epidemiology Surveillance Unit	Department of Health	Philippines
Ms Ana Clara Vieira Mendoncae SILVA	Vice President	Institute of Health and Social Affairs of the Autonomous Region of Madeira	Portugal
Dr Henrique BARROS	Professor	University of Porto	Portugal
Dr Paulo NOGUEIRA	Director	Directorate of Health Information and Analysis	Portugal
Mr Angel Manuel SUAREZ IGLESIAS	Deputy Director of Citizen Affairs	Ministry of Health, Social Services and Equality	Spain
Dr Silvia HERRERA-LEON	Head of Reference Laboratory of Food- and Waterborne Bacterial Diseases	Institute of Health Carlos III, National Centre for Microbiology	Spain
Dr John KINSMAN	Associate Professor	Umeå University	Sweden

Name	Designation	Organisation	Country
Dr Chadia WANNOUS	Senior Advisor	United Nations Office for Disaster Risk Reduction (UNISDR)	Switzerland
Dr Gaya GAMHEWAGE	Medical Officer	World Health Organisation, Geneva (WHO headquarter)	Switzerland
Mr Frederick John ABO	Program Manager, Public Health	Asian Disaster Preparedness Centre (ADPC)	Thailand
Dr Pahurat K TAISUWAN	Vice Director, Bureau of Risk Communication and Health Behaviour Development, Department of Disease Control,	Ministry of Public Health	Thailand
Dr Woraya LUANG-ON	Director, Bureau of Emerging Infectious Diseases, Department of Disease Control	Ministry of Public Health	Thailand
Dr Samantha BRACEBRIDGE	Field Epidemiology Training Programme Director	Public Health England (PHE)	United Kingdom
Dr Christopher NELSON	Senior Political Scientist, Professor of Policy Analysis	RAND Corporation/Pardee-RAND Graduate School	United States of America
Dr Elena SAVOIA	Deputy Director, Preparedness and Emergency Response, Research, Evaluation and Practice Program	HARVARD T.H. Chan School of Public Health	United States of America
Dr Dinh Anh NGUYEN	Director General, Health Communication and Reward Department	Ministry of Health	Viet Nam

Annex 3:
Organisers, Support Staff, Facilitators & Co-facilitators

Name	Designation	Organisation
Ms Sunkyoung LEE	Acting Director, Political and Economic Department	Asia-Europe Foundation (ASEF)
Ms Riko KIMOTO	Project Exective, Political and Economic Department	Asia-Europe Foundation (ASEF)
Ms Ayesha ISKANDER	Project Officer, Political and Economic Department	Asia-Europe Foundation (ASEF)
Dr Andrea AMMON	Acting Director	European Centre for Disease Prevention and Control (ECDC)
Dr Karl EKDAHL	Head of Unit, Public Health Capacity and Communication	European Centre for Disease Prevention and Control (ECDC)
Dr Massimo CIOTTI	Head of Section, Country Preparedness Support	European Centre for Disease Prevention and Control (ECDC)
Ms Signe RIRDANCE	Acting Head of Communication Support	European Centre for Disease Prevention and Control (ECDC)
Dr Carmen VARELA SANTOS	Acting Head of Section Public Health Training, Acting Head of ECDC Fellowship Programme & Leader Training Network Strengthening Group	European Centre for Disease Prevention and Control (ECDC)
Dr Birgitta DE JONG	Senior Expert Respiratory Diseases / Group Leader EU Preparedness	European Centre for Disease Prevention and Control (ECDC)
Dr Emma WILTSHIRE	Expert Public Health Preparedness	European Centre for Disease Prevention and Control (ECDC)
Dr Teija KORHONEN	Junior Scientific Expert Country Preparedness	European Centre for Disease Prevention and Control (ECDC)
Ms Lara PAYNE HALLSTRÖM	Expert EU Preparedness	European Centre for Disease Prevention and Control (ECDC)
Mr Nabil SAFRANY	International Relations Officer	European Centre for Disease Prevention and Control (ECDC)

Name	Designation	Organisation
Ms Marybelle STRYK	Acting Group Leader Web and Social Media	European Centre for Disease Prevention and Control (ECDC)
Ms Svetla TSOLOVA	Senior Expert Monitoring and Evaluation	European Centre for Disease Prevention and Control (ECDC)
Dr Graham FRASER	Senior Expert Health Systems and Preparedness	European Centre for Disease Prevention and Control (ECDC)
Mr John RAINFORD	Director	The Warning Project
Mr Ben DUNCAN	Director for Europe	The Warning Project
Ms Christine “Tiff” DOMINGO-COOL	Director for USA	The Warning Project
Ms Maaike DROOGERS	Country Preparedness Support Team Member	European Centre for Disease Prevention and Control (ECDC)
Dr Laura ESPINOSA	Junior Scientific Expert Country Preparedness	European Centre for Disease Prevention and Control (ECDC)
Ms Chelsea GILES-HANSEN	Junior Scientific Expert	European Centre for Disease Prevention and Control (ECDC)
Ms Barbora KINROSS	Scientific Officer Public Health Capacity	European Centre for Disease Prevention and Control (ECDC)
Ms Judit TAKACS	Seconded National Expert	European Centre for Disease Prevention and Control
Ms Andrea WÜRZ	Expert Communication Capacity Support	European Centre for Disease Prevention and Control (ECDC)
Ms Andrea NILSSON	Communication Specialist Press and Media	European Centre for Disease Prevention and Control

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