



TECHNICAL REPORT

Public health stakeholders' perceived status of health communication activities for the prevention and control of communicable diseases across the EU and EEA/EFTA countries

ECDC TECHNICAL REPORT

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**Clínica
Universidad
de Navarra**



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Abbreviations

AIDS	Acquired immune deficiency syndrome
BBV	Blood borne virus
ECDC	European Centre for Disease Prevention and Control
EEA	European Economic Area
EFTA	European Free Trade Association
EU	European Union
GP	General Practitioner
HIV	Human immunodeficiency virus
HPRC	Health Promotion Research Centre
INPES	National Institute for Prevention and Health Education
NGO	Non-Governmental Organisation
NUIG	National University of Ireland Galway
SARS	Severe acute respiratory syndrome
STI	Sexually transmitted infections
TB	Tuberculosis
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNESCO	United Nations Educational Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
US CDC	United States Centers for Disease Control and Prevention
WHO	World Health Organization

Executive summary

Health communication activities to inform and influence individual and community decisions are increasingly being used to support the prevention and control of communicable diseases. Research shows that properly designed media campaigns can have a significant positive impact on health-related attitudes, beliefs, and behaviour. However, the extent and nature of the use of health communication activities for the prevention and control of communicable diseases across Europe is currently unknown.

To address this knowledge gap, the European Centre for Disease Prevention and Control (ECDC) commissioned a Research Consortium of universities to map current use and application of health communication activities, and to identify perceived needs for efficacious use of health communication, in particular in relation to the prevention and control of communicable diseases across the European Union (EU) and European Economic Area (EEA)/European Free Trade Association (EFTA) countries.

The purpose of this report is to present the findings from the mapping exercise and needs assessment gathered across the 30 EU and EEA/EFTA countries. The information is derived from data collection via telephone interviews and an e-survey, as well as an expert consultation. Questions sought to identify and map the following: what is currently being done in health communication; how are activities used; who is involved; which specific disease groups are being addressed; what are the key target audiences and the channels used to reach them; what education and training programmes for health communication are available; and how health communication activities are being evaluated. Furthermore, the data collection also identified priority areas to improve health communication in the EU and the perceived needs of public health bodies in order to be able to practice health communication effectively.

The report presents the methodology used for the data collection followed by the aggregated information gathered. The discussion considers some of the main results and observations from the data collected and assesses their relevance and implication in relation to published literature, best practice and areas for improvement. The report's annexes include specific health communication plans and policies identified by study participants, as well as examples of health communication initiatives for the prevention and control of communicable diseases. Specific health communication education and training courses identified by participants are also included, as well as identified stakeholder organisations in the area of health communication and communicable diseases.

Key findings

Results from the data collection show that health communication activities and examples were most commonly identified for areas such as influenza, HIV/AIDS and vaccine preventable diseases. The predominant types of health communication identified were aimed at general health or crisis communication, as well as health advocacy. Less commonly used types of health communication were social marketing and health literacy, although overall there appeared to be a lack of clarity and understanding with regard to several types of health communication. The level of activity in the use of health communication varies considerably between disease groups and between countries. Key target audiences for health communication activities identified were health professionals, the general public, patient/risk groups, mainstream media and policymakers. Key stakeholders in the development and delivery of health communication activities were health care staff and public sector organisations.

A number of gaps can be identified from the collected data. There appears to be a fragmented responsibility for health communication at national levels, and planning of health communication activities is not perceived as being well-structured. There is also a discernible knowledge gap regarding education and training for health communication.

The data collection indicates that respondents are most familiar with process and implementation evaluation while outcome, impact and cost effectiveness evaluation are used less frequently. However, without strong impact or outcome evaluation it is impossible to know if a campaign activity achieved its goals. Economic evaluations help to indicate the most efficient way to use resources and are becoming increasingly important for policymakers in order to determine how best to distribute the budget.

In addition, the lack of a consistent and shared glossary for all relevant concepts and competencies within the remit of health communication and communicable diseases was identified.

A number of priority areas were identified by participants in the data collection. These included: strengthening collaboration across the EU; prioritising education, training, research and evaluation for health communication; and developing an online interactive resources/platform for sharing health communication information and resources.

Key suggested actions

The report outlines a number of suggested recommendations for future research and action in order to support health communication capacity in the prevention and control of communicable diseases across the EU region:

- Develop research capacity in health communication in the EU region. Potential priority areas include: health literacy, health advocacy, social marketing, new technologies for disseminating health communication messages, systematic use of evidence and evaluation in informing practice.
- Enhance collaboration, partnerships and professional networks among those working in the area of health communication and communicable diseases in the region.
- Increase awareness and provision of health communication education and training for communicable diseases across the EU.
- Develop a shared online interactive health communication resource/platform for the prevention and control of communicable diseases.
- Establish a common, consistent and shared glossary for all relevant concepts and competencies within the remit of health communication for the prevention and control of communicable disease.
- Provide guidance for best practice in order to build the evidence base for health communication activities.
- Prioritise awareness of communicable disease issues across the EU.

Introduction

Communicable diseases remain a significant public health threat in Europe, particularly in light of the emergence of new diseases (e.g. chikungunya), and the re-emergence of diseases that were previously shown to have stabilised at relatively low levels in the population (e.g. measles and meningitis). In addition, the dynamic and synergistic nature of socio-economic, environmental and behavioural factors, coupled with increasing international travel and migration, only serve to foster and increase the spread of communicable diseases in new and sometimes unanticipated ways; for example the AH1N1 influenza pandemic in 2009.

Addressing issues of prevention and control of communicable diseases is complicated by the complex multifaceted European setting, with the EU and EEA/EFTA incorporating 30 countries and 25 official languages. Today, a communicable disease outbreak in one country immediately becomes a European and global concern. These trends highlight the need for more sophisticated and integrated approaches to improving public health practice.

Health communication is defined as 'the study and use of communication strategies to inform and influence individual and community decisions that enhance health' [1]. Health Communication is recognised as a necessary element of efforts to improve personal and public health [2], a view which is supported by a growing body of evidence. For example, properly designed media campaigns can have significant positive impacts on health-related attitudes, beliefs, and behaviour [3-5]. In addition, a recent meta-analysis of 72 interventions on HIV showed that media interventions successfully promoted condom use [6]. As a result, health communication activities are increasingly being used to contribute to the prevention and control of communicable diseases. However, the extent and nature of the use of these activities for communicable diseases across Europe is currently unknown.

Established in 2005, the European Centre for Disease Prevention and Control (ECDC) is a European Union agency with a mandate to strengthen Europe's defences against communicable diseases 'through identifying, assessing and communicating current and emerging threats to human health posed by communicable diseases.'¹ In order to achieve this mission, ECDC has incorporated health communication as a target area in its multiannual strategic programme 2007–2013 [1]. It has established a Communication Knowledge Group (initially denominated Knowledge and Resource Centre on Health Communication) in the Public Health Development Section. The three objectives in this area of work are to:

- provide current and evidence-based scientific advice on health communication, with a particular focus on communicable diseases in the European Region
- facilitate the process of sharing effective practice and lessons learned between public health professionals in both EU Member States and EEA/EFTA countries
- promote and facilitate health communication support for EU Member States and EEA/EFTA public health professionals [7].

In 2009, in order to support the health communication capacities of Member States, ECDC commissioned a Research Consortium of universities to identify and map health communication activities, particularly those in relation to the prevention and control of communicable diseases across the EU and EEA/EFTA countries. This project is overseen by the Public Health Development Section, Communication Knowledge Group, heretofore referred to as ECDC.²

The Research Consortium is comprised of the Health Promotion Research Centre at the National University of Ireland Galway, which is the lead coordinating centre, the Institute for Social Marketing, University of Stirling, Scotland and the University of Navarra Clinic, Pamplona, Spain. The duration of this project is three years and work commenced in December 2009.

The overall aim of the project is to systematically map and share information on current health communication activities in the EU and EEA/EFTA states in the promotion of health, focusing on the control and prevention of communicable disease. The four specific objectives for the project are as follows:

¹ Regulation (EC) No 851/2004 of the European Parliament and of the Council of 21 april 2004 establishing a European Centre for disease prevention and control. Available at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32004R0851:EN:HTML>

² Call for proposals title/code: Establishing a Program for Dissemination of Evidence Based Health Communication Activities and Innovations on Communicable Diseases for Country Support in the EU and EEA/EFTA, 2009-12, Framework Partnership Agreement Grant/2009/007, European Centre for Disease Prevention and Control. Available at http://ecdc.europa.eu/en/aboutus/calls/Lists/Calls%20for%20grants/ECDC_DispForm.aspx?List=4c63c1a8%2D2f97%2D4be0%2Ddbd0a%2D14d7ef6c37b6&ID=938&RootFolder=%2Fen%2Faboutus%2Fcalls%2FLists%2FCalls%20for%20grants

Objective 1

To collect information on the status of implementation of health communication activities, focusing on communicable diseases in the EU and EFTA countries and building on previous surveys conducted at the national level. Information on web-based activities and contents will be collected where available.

Objective 2

To make available summary information and examples of national public health information campaigns and public literacy programmes on communicable diseases from the EU and EFTA countries, including information on assessments and evaluations performed at both national and sub-national levels.

Objective 3

To bring together national EU public health associations, academic experts and practitioners interested in health communication research focusing on communicable diseases via expert meetings, seminars and online forums.

Objective 4

To develop a set of tools for the dissemination of health communication projects, activities and evidence in order to promote good practice and innovation focusing on communicable diseases.

In order to meet these objectives, this three-year project is comprised of many different elements divided into two sections; a synthesis of current evidence through a series of reviews (four literature reviews, two systematic reviews, and three evidence reviews), and primary information gathering through a mapping exercise of the current use and application of health communication, as well as identification of perceived needs for efficacious use of health communication (telephone interviews, e-survey and a group interview consultation).

The purpose of this report is to present the findings from the mapping exercise and needs assessment gathered through primary data collection across 30 EU/EEA/EFTA countries, thus addressing all the above objectives, with the exception of objective four. It is anticipated that this report will inform objective four of the study.

Firstly this report presents the methodology used to identify health communication activities and the perceived priorities of national public health bodies involved in health communication activities for the prevention and control of communicable diseases in the EU and EEA/EFTA countries. This is followed by the aggregated information gathered through an e-survey, telephone interviews and consultations with national experts from across the EU/EEA/EFTA countries. A brief discussion of the findings, their implications and suggestions for future actions for ECDC is provided.

Methodology

Overall, a mixed method design was used in this study. Two methods of data collection, telephone interviews and an e-survey, were undertaken to identify and map health communication activities, specifically in relation to the prevention and control of communicable diseases across EU/EEA/EFTA countries, thus meeting objective one and two of the project.

In addition, an expert consultation was undertaken via a group interview process in order to identify the perceived needs of national public health bodies involved in health communications activities for communicable diseases in EU and EEA/EFTA countries, subsequently meeting objective three of the project. This section of the report outlines the three methods of data collection used in this study.

E-survey

Design

In conjunction with ECDC and the project's Scientific Advisory Panel, the Research Consortium developed a quantitative cross-sectional study. The questionnaire developed was informed by formats used in previous ECDC surveys and piloted and adapted through a process of three drafts before finalisation.

Sample

The initial sampling frame for the e-survey consisted of ECDC Competent Bodies (CB) Directors for each of the 30 EU/EEA/EFTA countries, provided by ECDC. In some countries the initial contacts passed the e-survey on to others to complete and consequently an element of snowball sampling was utilised. The aim was to collect a minimum of one completed e-survey per country (see appendix 2 for the list of participating countries). However, due to the nature of snowball sampling it was acknowledged that more than one e-survey may be completed from each jurisdiction as appropriate, in order to take into account federal administration within countries, for example the United Kingdom. In the process a total of sixty five e-surveys were returned from thirty countries (see table 1 in the results section to see the number of participants by country).

Data collection

Data collection was done through a questionnaire developed for the study. Following piloting, the final e-survey questionnaire consisted of twenty two questions and covered domains such as: respondent details and country; health communication areas; national health plans and health communication; planning; stakeholders and partners on health communication; capacity building; evaluation of health communication; sustainability; health communication examples and general comments. Please see appendix 3 and 4 to view the final e-survey questionnaire and participant invitation letter. In addition, a glossary of terms handout (see Glossary of Terms) was developed in conjunction with ECDC and the Research Consortium.

The e-survey was disseminated to all participants in electronic format using the online dissemination tool SurveyMonkey³, as well as in Word format via email to facilitate accessibility. Supporting documentation was developed and adapted in order to streamline and co-ordinate the e-survey data collection within the Research Consortium. These documents included guidelines for managing the sample, for follow-up and for use of SurveyMonkey. Data collection was undertaken between October and December 2010.

Analysis

Once all e-survey responses (including manual Word responses and additional data received via email or phone) were collated in SurveyMonkey, filters were set up to reorganise the data and to facilitate the analysis. The e-survey data was analysed and presented in two separate formats; initially by country and subsequently aggregated across the 30 EU/EEA/EFTA countries.

³ www.surveymonkey.com

Country data: responses specific to each country

Data for each country was exported from SurveyMonkey into a Microsoft Excel spreadsheet and analysed using a basic descriptive methodology. In order to ensure consistency in the analysis and reporting process for these results among the different components of the Research Consortium, guidelines with regard to the wording to be used were developed based on the number of respondents to each question. Additionally a country profile template was developed which consisted of headings that corresponded to the e-survey questions. This provided the framework for presenting the e-survey results. Quality checks were undertaken on fifteen randomly selected country e-survey results (five from each of the three Research Consortium centres) through exchange and review by Research Consortium members.

The Research Consortium, in conjunction with ECDC took the decision to include e-survey responses from the pilot study in this report. Four countries were identified to participate in the pilot study: Ireland, Poland, Spain and the United Kingdom.

Aggregated data: all responses across the 30 EU/EEA/EFTA countries

All the e-survey participant responses across the EU were exported into Microsoft Excel where charts were created in order to display these aggregated results for each of the e-survey questions. The aggregated e-survey results are presented in the results section of this report.

Management

Management of the sample, data collection and analysis of the e-survey was divided among the Research Consortium, with each of the three centres taking responsibility for ten countries (see appendix 1 to view the division of work).

Telephone interviews

Design

A descriptive qualitative design was used [8]. Semi-structured telephone interviews were undertaken with a supplemental sample of key informants in each of the 30 EU/EEA/EFTA countries in order to obtain more in-depth information on health communication activities across the EU.

Sample

The Health Promotion Research Centre (HPRC) compiled a sample of key informants in relation to health communication and public health for each of the 30 EU/EEA/EFTA countries. These key informants were identified using an internet and database review, working relationships, and drawing on the e-survey snowball sample. The criteria for selection included roles held within key organisations, for example, ministries of health and authors of published literature in the broad areas of health communication and public health, for example, crisis communication and communicable diseases.

These key informants were invited to participate in a telephone interview as part of this study. Where possible, and depending on the size of the country, it was envisaged that two or three telephone interviews would be conducted in each of the 30 countries (see appendix 2 for list of countries). The supplemental sample for the telephone interviews across the 30 EU/EEA/EFTA countries consisted of 128 contacts (80 priority and 48 additional contacts if required). The final sample size was 44 participants (see table 1 in results section to see the number of participants by country).

Data collection

The Research Consortium in conjunction with ECDC developed and piloted a semi-structured telephone interview protocol. The final interview protocol comprised of fifteen questions and covered the following domains: respondent's role and expertise; level of health communication activity; how health communication activities are used and who is involved in health communication activities at national and international levels; education and training in health communication; and evaluation and future developments of health communication activities. Please see appendix 5 and 6 to view the final telephone interview protocol and participant invitation letter. In addition, a glossary of terms handout (see Glossary of Terms) was developed in conjunction with ECDC and the Research Consortium.

Following consultation between ECDC and the Research Consortium, supporting documentation was developed and adopted to streamline and co-ordinate telephone interview data collection within the Research Consortium. These documents included guidelines for managing the sample and follow-up, and a protocol for analysis. The telephone interviews were conducted between October 2010 and March 2011.

Analysis

The telephone interviews were audio recorded and transcribed verbatim with the permission of the participant. One participant did not wish to be recorded and in that case notes were taken instead. Once transcribed, the data was analysed by country using thematic analysis. Where there was more than one response per country, the data was amalgamated prior to this process. Due to the qualitative nature of the data, each country's transcripts and key findings were reviewed for accuracy by a different Research Consortium centre. In addition, a country profile template was developed which consisted of headings that corresponded to the telephone interview questions, thus assisting partners in formatting and presenting the telephone interview results consistently.

The telephone interview data was analysed and presented in two separate formats: by country, and aggregated across the 30 EU/EEA/EFTA countries. Some key findings from these telephone interview results for each country are presented in a separate document. Key findings from these telephone interview results aggregated across the EU are presented in the results section of this report.

Management

Management of the sample, data collection and analysis for the telephone interviews was divided among the Research Consortium, with each of the three centres taking responsibility for ten countries (please see appendix 1 to view the division of work).

Expert consultation

Design

A descriptive qualitative design was used [8]. A group interview was undertaken with key public health stakeholders from various EU/EEA/EFTA countries in order to identify their perceived priorities in relation to their use of health communication for the prevention and control of communicable diseases.

Sample

The sampling frame for the group interview consisted of mostly ECDC Competent Bodies (CB) Directors from various EU/EEA/EFTA countries and other delegates attending the meeting of the Competent Bodies for communication at the Ministry of National Resources in Budapest on 21st March 2011. A total of 25 participants from 15 countries took part in the consultation. Please see table 3 in the results section of this report for countries represented (by organisation and number of participants).

Data collection

In conjunction with ECDC and the Research Consortium, a group interview protocol and a glossary of terms handout (see Glossary of Terms) were developed with questions drawn from the earlier e-survey findings.

The group interview protocol consisted of nine questions and covered domains such as health communication, examples, gaps, barriers, priorities, capacity and needs with regard to communicable diseases. Please see appendix 7 to view the group interview protocol. Two experienced researchers conducted the group interview, which lasted approximately 90 minutes. As an introduction to the project, a brief outline of activities to date with some preliminary findings was presented to provide context for the data collection activity.

Analysis

The group interview was audio recorded and transcribed verbatim with the permission of the participants. Once transcribed, the data was analysed using thematic analysis. Key findings from this expert consultation are presented in the results section of this report.

Management

Management of the sample, data collection and analysis for the expert consultation was the responsibility of Health Promotion Research Centre (HPRC) and the Project Coordinating Centre at National University of Ireland, Galway.

Triangulation: integration of the e-survey and telephone interview data

Due to the mixed method approach used in this study to identify and map health communication activities across the EU region, a triangulation technique was employed. Therefore, similar key points from across the e-survey and telephone interview data were integrated and noted in the results section of this report.

Results

This section of the report presents an overview of the main findings in two sections. Firstly, the aggregated findings from the e-survey and telephone interviews across 30 EU/EEA/EFTA countries are presented. This is followed by the results from the expert consultation at the meeting of the Competent Bodies for communication at the Ministry of National Resources in Budapest on March 21 2011.

Aggregated e-survey and telephone interviews results

Below are the findings for the e-survey and telephone interviews, aggregated across 30 EU/EEA/EFTA countries. The results identify and map the following: what is currently being done in health communication; how health communication activities are used; who is involved in health communication; capacity building in health communication; and evaluation, planning, sustainability and future developments of health communication activities for communicable diseases.

Respondent details

Number of participants

Representation in the mapping of health communication activities for the prevention and control of communicable diseases from every EU/EEA/EFTA country was achieved through information collected from a total of 109 respondents across 30 countries between October 2010 and March 2011. A total of 65 participants completed the e-survey and 44 participated in the telephone interviews.

In the e-survey, since some participants passed it on for others to complete, some countries returned up to four completed surveys. In addition, at least one person per country was interviewed with the intention of exploring the same topic areas in more depth. Due to the sampling approach used, it is not possible to determine definitive percentage response rates.

Table 1: Data collection: number of participants (in alphabetical order by country) and type of data collection

Data Collection (Number of participants by country and type of data collection)		
Country	E-Survey	Telephone Interviews
Austria	3	2
Belgium	2	1
Bulgaria	1	2
Cyprus	2	1
Czech Republic	1	1
Denmark	1	1
Estonia	1	1
Finland	1	2
France	1	3
Germany	1	1
Greece	1	1
Hungary	1	2
Iceland	1	1

Data Collection (Number of participants by country and type of data collection)		
Ireland	1 & 3 (pilot)	3
Italy	4	1
Latvia	2	1
Liechtenstein	0*	1
Lithuania	1	1
Luxembourg	2	1
Malta	2	2
Netherlands	3	1
Norway	2	3
Poland	2 & 2 (pilot)	2
Portugal	1	1
Romania	4	1
Slovakia	3	1
Slovenia	1	1
Spain	1 & 5 (pilot)	1
Sweden	2	1
United Kingdom, England	2 (Pilot)	1
United Kingdom, Northern Ireland	1 & 1 (Pilot)	-
United Kingdom, Scotland	3 (Pilot)	-
United Kingdom, Wales	-	2
Total	49 16 (pilot study)	44

**Liechtenstein, as one of the smallest countries by population, has only one health communication expert in communicable diseases who participated in a telephone interview rather than taking the e-survey.*

Participants' identified areas of expertise

Across the two data collection channels (e-survey and telephone), the majority of participants stated that they had expertise in: communication, infectious disease, public health, epidemiology, communicable diseases and medicine. Other areas of identified expertise included: pneumology, health protection, international relations, mental health, health education, mass media, microbiology, immunisation, crisis, HIV/AIDS, tuberculosis, evaluation, toxicology, influenza, environmental health, antibiotic resistance, social marketing, social media, health technology assessment, and policy and health promotion. Please see table 2 below for participants' identified area of expertise by frequency and type of data collection.

Table 2: Participants identified area of expertise by frequency and type of data collection

Identified Expertise	Frequency	Data Collection Type
Communication	23	8 e-survey & 15 interviews
Infectious diseases	20	10 e-survey & 10 interviews
Public Health	19	13 e-survey & 6 interviews
Epidemiology	14	9 e-survey & 5 interviews
Communicable disease	8	5 e-survey & 3 interviews
Medicine	8	2 e-survey & 6 interviews
Health promotion	5	2 e-survey & 3 interviews
International relations	4	E-survey
Vaccination/Immunisation	4	2 e-survey & 2 interviews
Crisis Management/Prevention	3	3 Interviews
HIV/AIDS & Sexually transmitted diseases	3	1 e-survey & 2 interviews
Tuberculosis	2	1 e-survey & 1 interviews
Health threats/Security	2	Interviews
Evaluation	2	Interviews
Influenza	2	Interviews
Environmental health	2	Interviews
Antibiotic resistance	2	Interviews
Policy	2	1 e-survey & 1 interview
Health information	1	Interviews
Respiratory infections	1	Interviews
Social media	1	Interviews
Social marketing	1	Interviews
Health technology assessment	1	Interviews
Health protection	1	E-survey
Microbiology	1	E-survey
Pneumology	1	E-survey
Mass media	1	E-survey
Toxicology	1	E-survey
Mental health	1	E-survey
International health	1	Interviews

Please note: some of the participants had expertise in more than one area.

Participant organisations

The majority of respondents that participated in the e-survey and telephone interviews were from national public health institutes and ministries of health. Other identified organisations included specific research and academic institutes with expertise in various health topics, hospitals and health boards. Please see appendix 8 to view all the participant organisations by country and data collection type.

Current work in health communication across the EU/EEA/EFTA countries

Structure and financing of health communication

The question of what is currently being done in health communication across the EU/EEA/EFTA countries was only asked in the telephone interview data collection. Please see appendix 5 to view the telephone interview protocol (Q.2). A summary of the key findings across the 30 EU/EEA/EFTA countries is presented below.

Structure of health communication for communicable diseases

Many references were made to the fact that countries have complex political and administrative systems. Each Member State has unique cultural and language aspects. For example, Belgium with three official languages and their federal structure incorporating Flanders and Wallonia. Thus responsibility for health communication in the field of communicable disease is distributed differently between the national (government) and local (local authority) level. For example, it was cited that Greece has one national centre for communicable disease and public health and 13 public health departments at the local level.

It would appear that participants were aware of public health structures that deal with communicable diseases at a national and regional level within their country and that they have a clear remit. However, their function regarding health communication was not as clearly delineated. For example, it was highlighted that the National Institute for Prevention and Health Education (INPES) in France has approximately eight communication officers, all of whom have particular responsibilities, which include communication. Other participants cited that health communication was not a major part of their remit. The various levels and types of communication examples provided also reinforce this point. For example, some participants cited the use of leaflets while others mentioned online interactive social media campaigns.

Participants pointed out the existence of many organisations involved in the delivery of health communication and whilst efforts are made to streamline messages, currently they all have autonomy.

Finance of health communication

Participants stated that health communication activities for communicable disease are mainly funded by national governments, and these funds can be distributed directly or indirectly via national institutions and/or specific diseases programmes. However, it was also acknowledged that there are no specific national budgets for health communication but instead some monies may be allocated from a national health budget and/or government programmes. Many participants, particularly from smaller countries and new EU countries, stated that they had limited finance and resources to undertake health communication activities outside of crisis communication.

Other additional sources of funding cited included: international organisations such as ECDC, World Health Organization, United Nations Children's Fund (UNICEF), European Commission (mainly during crisis situations); Global Fund; social health insurance systems; non-governmental organisations (NGOs); national health services; grants, lotteries and international donor funding.

There were mixed responses regarding funding from private and commercial sectors either directly or indirectly. Some participants indicated that their country has tight controls which make it difficult for them to be involved whilst others stated that they finance some or many health communication activities. The involvement of pharmaceutical companies was frequently cited, most commonly in the area of vaccinations and specifically in relation to sponsorship of activities and events.

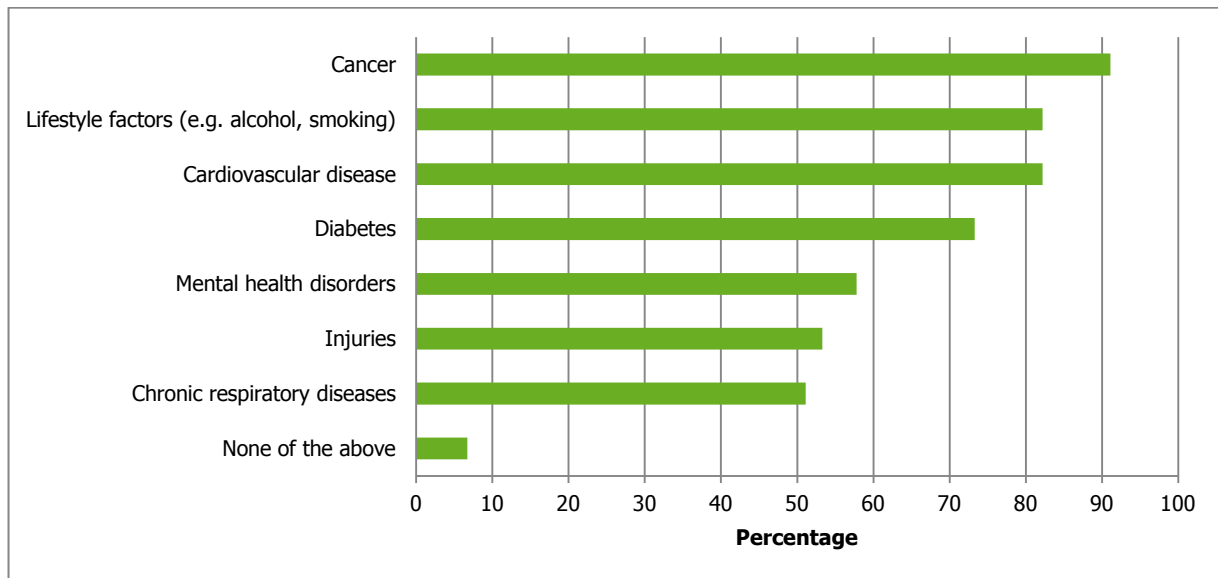
Health communication areas

E-survey

Non-communicable disease

In order to provide the context for health communication, participants were asked whether these activities were used for non-communicable diseases in their country. This question was only asked in the e-survey and the findings are presented below:

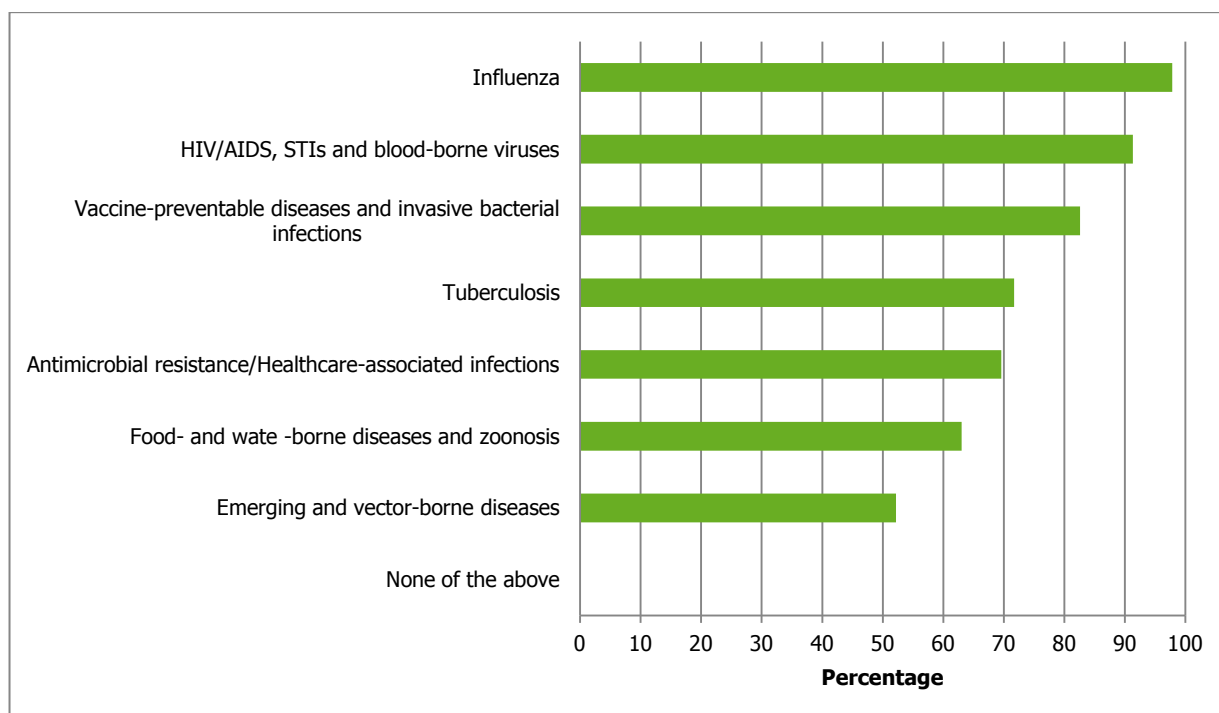
Figure 1: Non-communicable disease groups where health communication is used



In relation to non-communicable diseases, the above figure indicates that health communication is used most often for cancer, lifestyle factors (e.g. alcohol and smoking) and cardiovascular disease. Participants also reported that health communication is used least in relation to chronic respiratory diseases and injuries.

Communicable disease

Using ECDC's categorisation of communicable diseases, a similar question was asked of participants in relation to communicable disease groups. The results aggregated across the EU Member States are presented in the figure below:

Figure 2: Communicable disease groups where health communication is used

The above figure indicates that across the EU region, health communication in relation to communicable diseases is used most often for influenza and HIV/AIDS, sexually transmitted infections and blood-borne viruses (BBV), and that these three areas were the only ones cited by over 80% of respondents. Health communication is said to be used the least frequently for emerging and vector borne diseases.

Telephone interviews

This question was also asked in the telephone interviews. A summary of the key findings across the thirty EU/EEA/EFTA countries is presented below.

A few participants felt that health communication is mostly used for non-communicable diseases rather than communicable diseases. In addition, some participants felt that they address all the below communicable disease types in different ways and with different frequency. Overall, participants expressed that they use health communication for the following communicable diseases.

HIV/AIDS, sexually transmitted infections (STI) blood-borne virus (BBV)

Most of the communication cited by participants was around HIV/AIDS and influenza. Many participants stated that their country undertakes various activities in this area such as campaigns (promoting condom use), and they tended to have a national programme. It was felt that communication was mostly targeted at specific groups e.g. homosexuals and drug users rather than the general public. Human Papillomavirus (HPV) was also cited as a topic.

Influenza

The majority of participants felt that communication on influenza was a priority issue due to the influenza H1N1 pandemic at the time of data collection. Communication included campaigns to promote vaccinations and hygiene measures, while print, broadcast, online and media channels were also cited. Participants reported that influenza communication was targeted at the general public and risk groups such as pregnant women and people suffering from chronic illnesses.

Vaccine -preventable diseases and invasive bacterial infections

Many participants stated that their country has a vaccination schedule and/or immunisation programme, however a few participants also questioned whether vaccinations should be compulsory or voluntary across the EU. Overall, it was acknowledged that vaccinations are a priority area for the future due to increasing anti-vaccination activity. It was also acknowledged by some participants that the pharmaceutical industry is actively involved in this area, in for example the financial sponsorship of activities and events.

Antimicrobial resistance/healthcare -associated infections

Many participants stated that this has recently become a priority area and cited ECDC's European Antibiotic Awareness Day campaign as evidence of this.

Tuberculosis

Participants stated that they mostly communicate with immigrants on this issue. Working with NGOs to inform the public about preventative measures and training for health professionals in this area was also cited in the process.

Food- and water-borne diseases and zoonosis

A few participants stated that their country communicates information on food preparation and safety and drinking water if there is an issue.

Emerging and vector borne diseases

Some participants across Member States mentioned communication on diseases such as severe acute respiratory syndrome (SARS), asian tiger mosquito, Q fever, chikungunya fever, dengue fever and West Nile virus.

Triangulation commentary

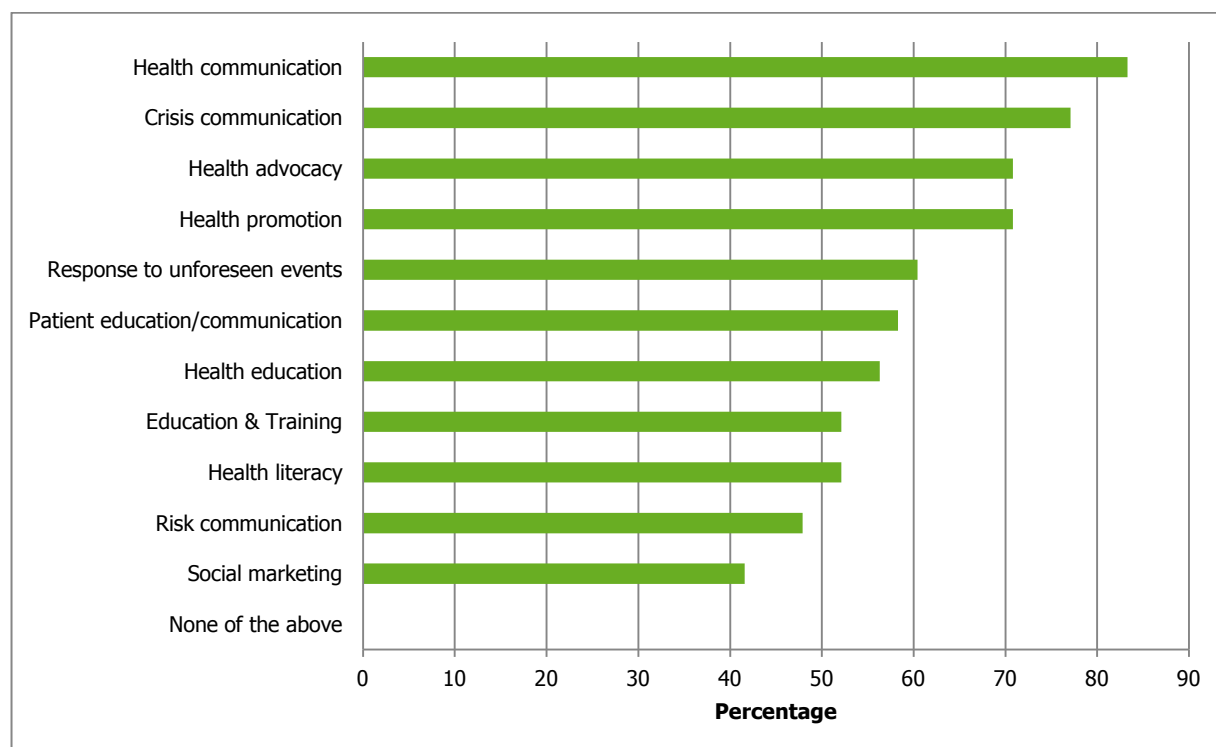
From the e-survey and interviews (identified examples and discussions of health communication activities), it would appear that health communication across the EU is used most often for the following communicable diseases groups: Influenza, HIV/AIDS, STIs, blood-borne virus (BBV), vaccine preventable diseases and invasive bacterial infections. The data also indicates that health communication is employed less often in relation to food and waterborne diseases and zoonosis, and emerging and vector borne diseases.

Types of health communication

E-survey

Various types of communication can be used in health communication activity and figure 3 shows those types identified by participants. Please see appendix 3 to view the e-survey questionnaire (Q.5) and to review definitions used and provided to participants during data collection with regard to types of health communication.

Figure 3: Types of health communication



In relation to the types of health communication used for the prevention and control of communicable diseases, the above figure indicates that health communication, crisis communication, health advocacy and health promotion are used most often, whilst risk communication and social marketing are employed the least, cited by less than 50% of respondents. Please see the glossary of terms to review definitions used and provided to participants during data collection with regard to types of health communication.

Telephone interviews

This question was also asked in the telephone interviews. Please see appendix 5 to view the telephone interview protocol (Q.5). A summary of the key findings across the 30 EU/EEA/EFTA countries are presented below.

A few of the participants expressed difficulty in categorising health communication activities as it was felt that activities don't always fall neatly/explicitly into the categories provided. It was also noted that not all of these types of communication are used for one event, but rather combinations of them. With regard to types of health communication used for communicable diseases, the participants cited the following points below.

Health communication

Many of the participants outlined various activities including: campaigns (especially around the influenza pandemic); online communication with the public via websites; press releases and communication with the media; updating epidemiological data of diseases; consensus building sessions with stakeholders; and communicating with specialised organisations/societies.

Health education

Activities cited by some participants included: peer education activities that empower communities most at risk and those that are marginalised; public health campaigns; health education in schools and colleges; and awareness events.

Health promotion

A few participants cited that there is a dedicated unit for health promotion activities (including promoting healthy lifestyles).

Patient education/communication

Some participants stated that self-help support groups, NGOs, hospices and patient organisations are involved in the dissemination of information to individuals around specific diseases with HIV being frequently mentioned.

Health literacy

Activities as cited by some of the participants included: adapting material into different languages; developing a training scheme for journalists to improve the quality of health reporting; setting up call centres to handle queries during epidemics; developing tailored materials to meet target group needs; disseminating information in a variety of formats and piloting information with different groups of the population. Some countries noted that health literacy is an emerging issue.

Risk communication

The majority of the participants acknowledged that risk communication is only used in exceptional circumstances when there is a specific problem that is causing anxiety to the public, for example, during the influenza pandemic. Activities cited included national campaigns and special reports to improve vaccination uptake. Only one participant outlined that they undertake risk assessment and develop communication accordingly.

Social marketing

The majority of participants stated that they were unfamiliar with the term, did not use social marketing or used it in a limited way (mostly in the pharmaceutical and private sectors). However, a few participants also stated that social marketing strategies may be used more in the future.

Crisis communication

Examples provided mostly centred on the influenza pandemic. Other examples cited were adverse effects following immunisation and disasters such as floods and fires. Some participants stated that crisis communication was the only form of communication used in their country. A few participants stated that some patient NGOs engage in crisis communication, such as when targeting messages at infected drug users.

Health advocacy

Health advocacy was acknowledged as an underdeveloped area of health communication. Many of the examples of health advocacy cited were with regard to lobbying policymakers in order to promote policies and regulations for communicable diseases, especially in the area of immunisation and new vaccines.

Triangulation commentary

Results from both the e-survey and interviews indicate that social marketing is the least commonly used form of communication, with regard to health communication and communicable diseases across the EU Member States, whilst health and crisis communication are used most often.

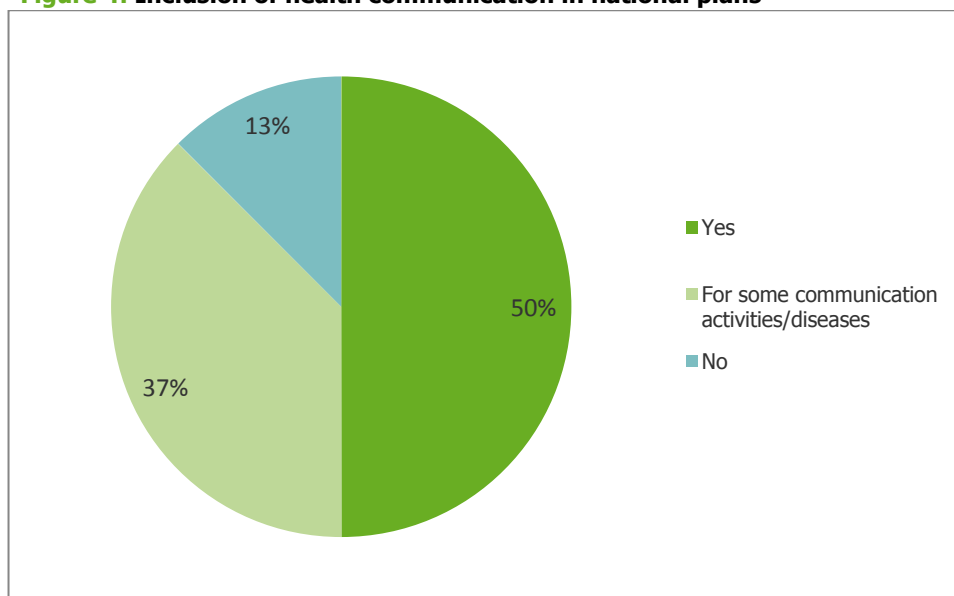
National health plans and policies for health communication

E-survey

Inclusion of health communication in national plans

Participants were asked if health communication activities for communicable diseases were included in national health plans and/or policies. The results are shown in Figure 4 below.

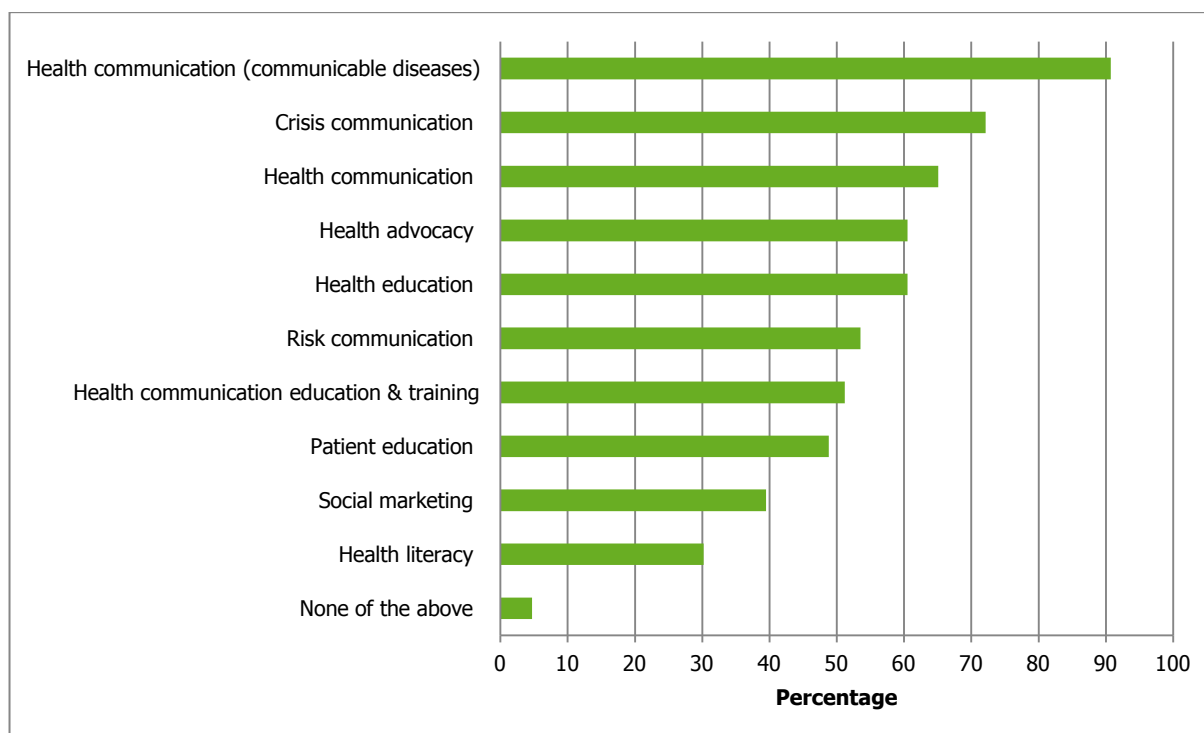
Figure 4: Inclusion of health communication in national plans



Only half the respondents felt that health communication activities for communicable diseases were included in national plans, whilst 13% stated definitively that they were not included in plans.

Types of health communication in national plans

Participants were also asked what types of health communication were addressed if health communication activities for communicable diseases were included in national health plans. Please see appendix 3 to view the e-survey question (Q.7) and to review definitions used and provided to participants during data collection with regard to types of health communication.

Figure 5: Types of health communication in national plans

The above figure indicates that over 90% of respondents said that health communication is included in national plans, while health literacy and social marketing are the least common techniques, cited by less than 40% of those surveyed.

Telephone interviews

A similar question was asked in the telephone interviews regarding the provision of health communication policies for communicable diseases. Please see appendix 5 to view the telephone interview protocol (Q.3). No specific question was asked in the interviews regarding the inclusion of different types of health communication in national plans. A summary of the key findings across the 30 EU/EEA/EFTA countries is presented below.

Some participants acknowledged that the existence of national plans and policies is dependent on their current government's priorities and thus not all countries were doing the same thing at the same time (with the exception of awareness days and crisis communication). The majority of participants stated that their country has no specific policy for health communication and communicable disease. However, they did acknowledge that health communication may be addressed in some capacity within other national health plans, programmes or policies.

Types of plans/policies cited as containing elements of health communication included: specific communicable diseases programmes including surveillance for influenza, HIV/AIDS, tuberculosis and national health plans. In addition, the influenza preparedness plan was frequently cited.

Some participants also acknowledged that there are many organisations involved in the delivery of health communication and some have their own internal communication plans which include, 'strategies around media, publications and disseminating information'. Please see appendix 9 for a full list of policies and programmes cited by the participants.

Whilst participants stated that different communication approaches are required for different issues, they also identified general principles which they felt should be applied to all communication plans. These included 'transparency, responsibilities, coordination and consistency of information and guidelines for pandemic situations'.

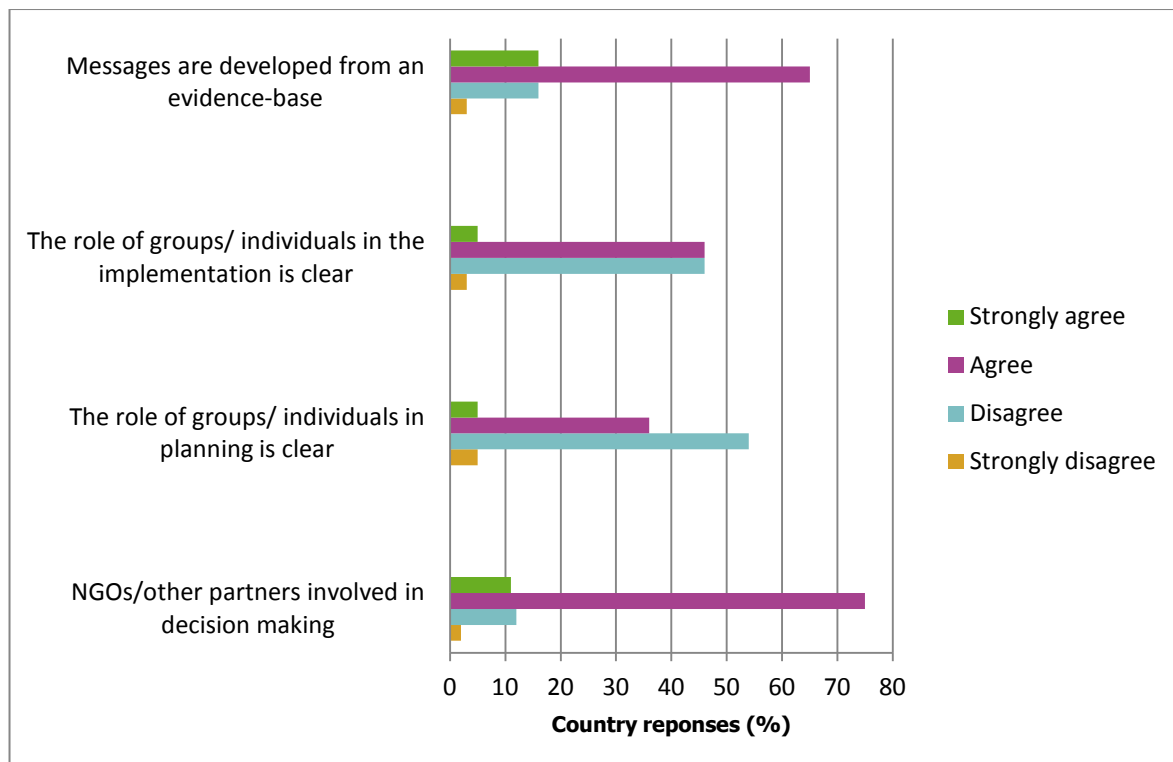
The current use of health communication activities across the EU/EEA/EFTA countries

Planning of health communication activities

E-survey

The question of how health communication activities are currently used across the EU/EEA/EFTA countries was only asked in the e-survey. A number of statements were presented to participants accompanied by a Lickert-type scale to indicate level of agreement in relation to aspects of planning. These are presented in the figure below.

Figure 6: Rating of health communication statements by countries for communicable diseases



The majority (75%) of e-survey respondents agreed that NGOs and other partners are involved in the process of decision making for health communication activities, whilst 65% agreed that health communication messages are delivered from an evidence base in the prevention and control of communicable diseases.

However, the majority of participants disagreed (54%) that the role of groups and individuals in planning from policy to practice is clearly described and understood, whilst 92% of participants who expressed a clear view were evenly split on whether or not they felt that the role of groups and individuals in the implementation of health communication activities is clearly described and understood.

Channels of communication

Telephone interviews

This question was only asked in the telephone interviews. Please see appendix 5 to view the interview protocol (Q6). The following channels were specifically mentioned with regard to their use in health communication and communicable diseases:

Online channels

Participants reported the following: email and online databases (used particularly among health professionals); interactive websites (especially for background information, surveillance and campaigns); and e-forums and direct mailing lists (mostly targeting health professionals).

The majority of participants stated that whilst they do not widely use social media such as Facebook and Twitter to disseminate information, they are exploring the potential of using such channels and envisage them being used more and more in the future. The use of these channels by the United Kingdom and Sweden during the influenza crisis was specifically mentioned. However, some potential difficulties with regard to using social media effectively were also cited. One respondent gave the example, 'it will not reach certain audiences such as the Roma population' while another asked 'what is the most appropriate way to use them i.e. as part of a campaign or to answer specific questions?'

Broadcast media

Television and radio were frequently cited as having been used extensively for health communication and communicable diseases. Participants outlined that they are used in the following ways: as part of a public health campaign (specifically during a crisis e.g. promoting vaccinations during the influenza pandemic), interviews and discussions with government officials and experts and news updates. The use of short films was also mentioned, in particular with regard to influenza and hand hygiene. However, it was also acknowledged that this channel is expensive, not commonly used and most often deployed by NGOs.

Other electronic/digital media

Telephones were frequently cited, for example hotlines or help lines dedicated to certain topics. The majority of participants referred to mobile phones as a potential channel for communication in the future, particularly during a crisis and for the purpose of directing the public toward specific services. Some participants stated that SMS messages are not currently used in health communication and that mobile phones are only used in emergency situations, such as a need to contact people at short notice (mostly health professionals).

Many participants stated that CD-ROMs and DVDs were expensive and inaccessible, thus they were not used. However, some participants acknowledged that the pharmaceutical industry sometimes produce these items and use them to target health professionals.

Print media

Many participants stated that the following print media are used extensively in health communication: newspapers (particularly advertisements, editorials and incident reports), leaflets, booklets, posters and brochures (used extensively in health clinics/offices, however a few participants expressed doubt with regard to their effectiveness), press releases and specialised journals (mostly scientific and targeted at health professionals, scientists and researchers e.g. Eurosurveillance).

Action orientated

The majority of participants stated that action-orientated channels (role-play and games) are rarely used and when they were it was mostly by NGOs and dependent on the target group and topic. Some instances where they were used included: when working with high risk groups, for example the Roma community; during the influenza pandemic; HIV/AIDS (picture novels with stories about different people affected by the disease); in the education of health professionals; and focusing on drug misuse and sexual health with teenagers.

Face-to-face communication

The majority of participants stated that face-to-face communication is usually targeted at health professionals via conferences/seminars and presentations and training. Press conferences were also mentioned, where the public, through journalists, can ask health questions directly to experts.

Events

Many participants stated that they have various focused events (national and local) around specific topics which usually draw media attention as well as press releases, conferences and discussions. Specific awareness days cited included; European Immunisation Week; HIV/AIDS Awareness Day; European Antibiotic Awareness Day; Hand Hygiene Day; World Tuberculosis Day and World Health Day. It was noted that the main channel of communication used to target journalists is via press releases and/or press conferences.

Health communication examples

E-survey and telephone interviews

Participants were asked to provide examples of health communication activities from their country in both the e-survey and telephone interviews. Please see appendix 3 to view the e-survey questionnaire (Q19 & 20) and appendix 5 to view the telephone interview protocol (Q7 & 8).

Most website links provided by participants were towards relevant organisations signposting health communication activities, rather than specific examples of health communication. Many of the health communication examples and links provided by participants were focused on the topic areas of influenza, HIV/AIDS, tuberculosis and vaccinations. The two most frequent examples were the ECDC European Antibiotic Awareness Day campaign and the WHO Hand Hygiene Campaign. Other cited examples ranged from a poster or pamphlet to television clips and social media campaigns across the EU Member States.

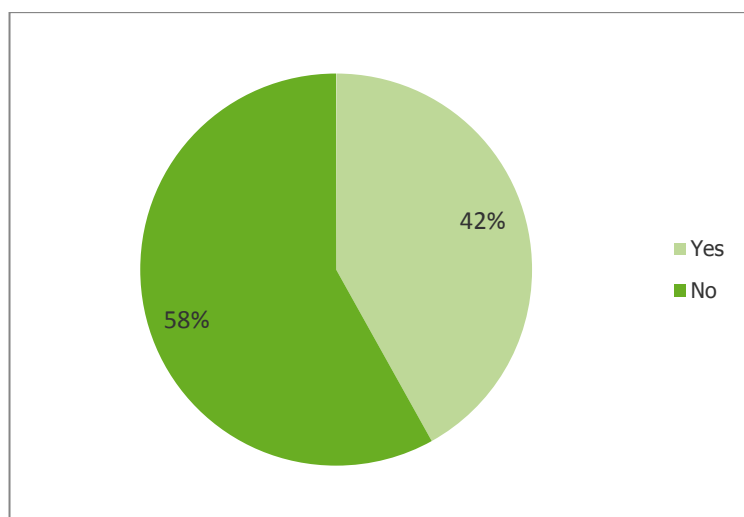
Many other health awareness days were cited including: World AIDS day, Rare Diseases Day (EURORDIS), World Health Day, Antimicrobial Resistance Day, European Immunisation Week and National Immunisation Days. Please see appendix 10 to view all the identified examples and links to health communication activities in the prevention and control of communicable diseases.

Cross country use of health communication activities

E-survey

Participants were asked if health communication activities used in their country had originally been developed in another country.

Figure 7: Health communication activities developed in one country and used in another



The above figure indicates that the majority of e-survey participants (58%) do not use health communication activities that have been developed in another country.

Telephone interviews

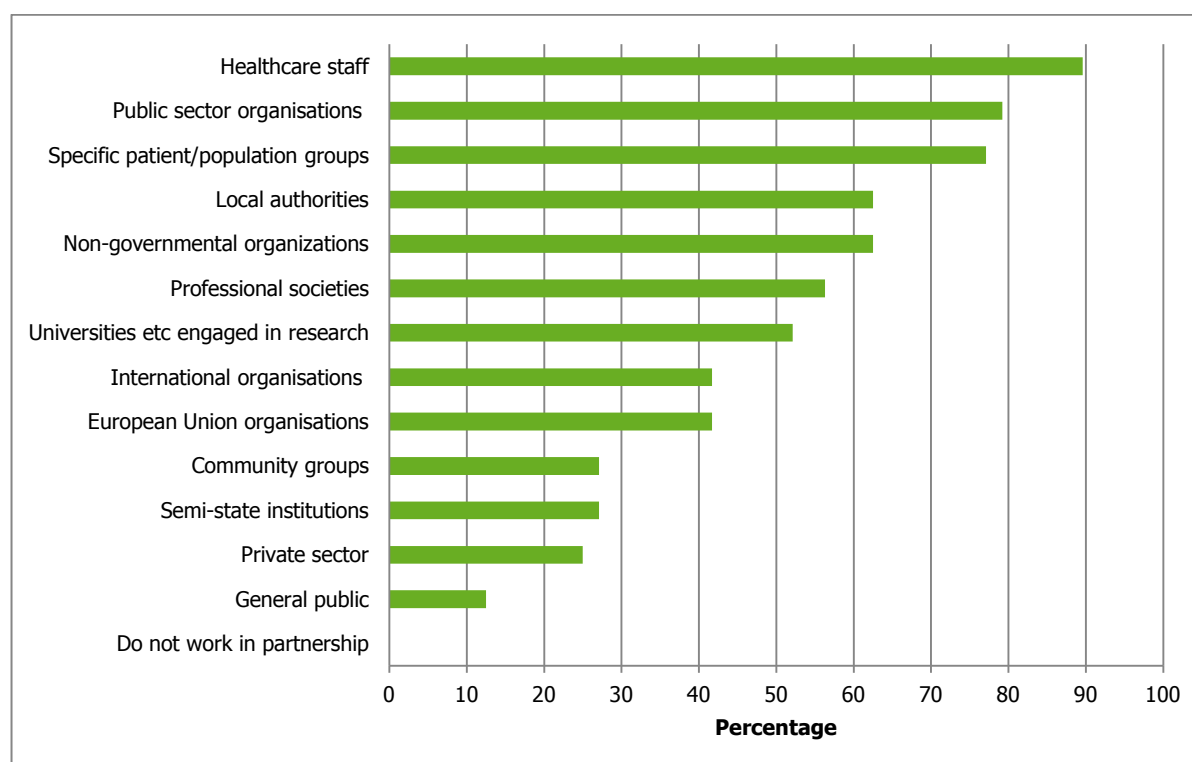
Participants stated that they currently review experiences, resources, materials, use of new media (e.g. how Facebook was used during the pandemic in Sweden) and best practice from other countries and ECDC/WHO in order to use them in their own countries or adapt them accordingly. It was also noted that when reviewing other countries' experiences and resources they look to those countries that they perceive are: similar in context to them, share the same communicable diseases issues, or share the same language, as this makes the results easier to adapt to their own situation.

Stakeholders and partners involved in health communication in EU/EEA/EFTA countries

E-survey

E-survey participants were asked to identify groups and organisations involved in the development and delivery of health communication activities. Identified stakeholders are presented below:

Figure 8: Stakeholders involved in health communication activities



The above figure indicates that healthcare staff, public sector organisations and specific patient/population groups are most often involved in the development and delivery of health communication activities for the prevention and control of communicable diseases. The private sector, the general public, semi-state institutions and community groups were least commonly identified as having involvement in the process, with all four sectors cited by less than 30% of respondents.

Telephone interviews

The same question was asked in the telephone interviews. Overall, the participants cited the following stakeholders:

- public sector (national institutes and centres)
- healthcare staff (nurses, pharmacists, doctors and infectious disease experts)
- universities engaged in research (and for training purposes)
- NGOs (national and international around various communicable diseases)
- professional societies (doctors, specialists, nurses and psychologists)
- politicians (Ministries and work with them specifically when lobbying government)
- general public and local authorities
- European and International organisations (WHO, ECDC, UNICEF - during outbreaks)
- community groups (used to reach minorities and special marginal groups)
- private sector (manufacturers of vaccinations)
- specific patient risk groups (work with them to get information on their disease)
- semi-state institutions.

Other stakeholders mentioned by a few of the participants included: international associations, trade unions, pharmacists and the media. Some participants also acknowledged that they do not work with the following as much as they would like and would be interested in collaborating more with them in the future: healthcare staff, general

public, European and international organisations, community groups, professional societies, local authorities and specific patient groups. Many of the participants also noted that the type of stakeholders involved would be dependent on the type of disease and the expertise available to them within their own organisation.

Triangulation commentary

Results from both sets of data collection indicate that healthcare staff and public sector organisations are key stakeholders involved in the development and delivery of health communication activities for communicable diseases.

Stakeholder organisations

In both the e-survey and telephone interviews, participants were asked to identify organisations that are sources of evidence i.e. provide examples of good practice in health communication, partnership organisations and potential future collaborations. Please see appendix 3 to view the e-survey questionnaire (Q10, 12 & 13) and appendix 5 to view the telephone interview protocol (Q10a & Q11).

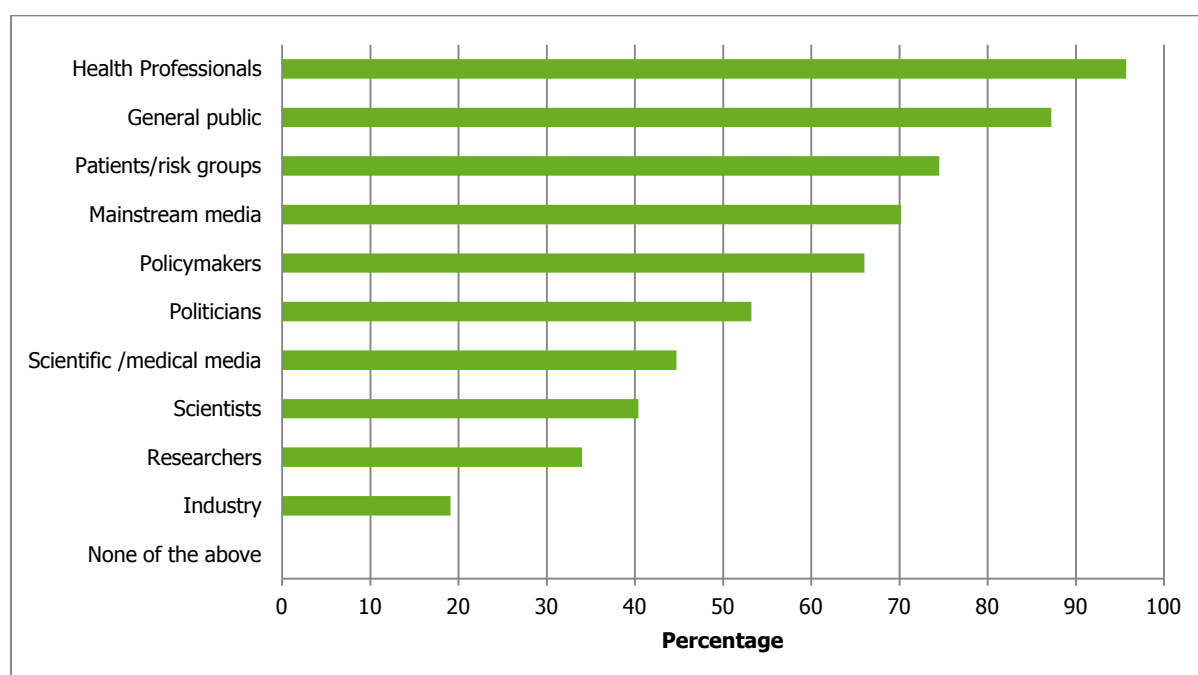
Many of the stakeholder organisations cited by e-survey and interview participants were national public health institutes, ministries of health, specific research and academic institutes, national health boards, hospitals, insurance organisations, medical societies and associations, NGOs and European and International organisations. ECDC and WHO were cited most frequently across the EU region. Please see appendix 12 to view all the identified stakeholder organisations.

Target audiences for health communication

E-survey

Participants were asked about target audiences for health communication activities in relation to communicable diseases. Target audiences identified by participants are presented in figure 9.

Figure 9: Target audience for health communication activities



The above figure indicates that the main target audiences for health communication activities are health professionals, followed by the general public and patient risk groups. Scientists, researchers and particularly industry, with less than 20% citation, were identified least frequently by respondents.

Telephone interviews

The same question was also addressed in the telephone interviews. Participants stated that target groups for health communication activities are dependent on the issue, organisation's function and/or type of information being disseminated (e.g. public or scientific level).

The majority of participants felt that health communication activities were targeted at health professionals (including General Practitioners', medical associations and expert committees), the general public (mostly campaigns), patient/risk groups (e.g. young girls - HPV vaccination campaign; pregnant women - influenza vaccination; immigrants, homosexuals, sex workers - HIV/AIDS), and the media and policymakers.

All participants acknowledged the importance of policymakers with regard to health communication activities and specifically in the areas of policy development and priorities. Some felt that they target them specifically by including them in networks, expert groups, advocacy and targeting reports towards them. However, others stated that there are no specific activities targeting policymakers as they feel they should be communicating and working with them all the time as part of their general public health remit.

Most participants identified the mainstream media rather than the medical media as a target group for health communication activities. It would appear from the responses of participants that Member States place a different emphasis on the importance of targeting the media and specifically journalists for health communication activities. Identified activities in which the media are targeted included: specific training for journalists, e.g. actions to raise health literacy among themselves and the public; health awareness days via conferences and press releases; and journalists sometimes participating in education and information programmes for the general public, for example on the H1N1 virus. Scientists, researchers, politicians (due to their influence on policymakers and public opinion) and industry (specifically the pharmaceutical industry with regard to making HIV treatment affordable and sponsoring of health promotion events) were also identified as target groups, but to a lesser extent.

Triangulation commentary

The majority of participants in both the e-survey and telephone interviews stated that health professionals, the general public, patient/risk groups, mainstream media and policymakers were the key target audiences for health communication activities around communicable diseases in the EU.

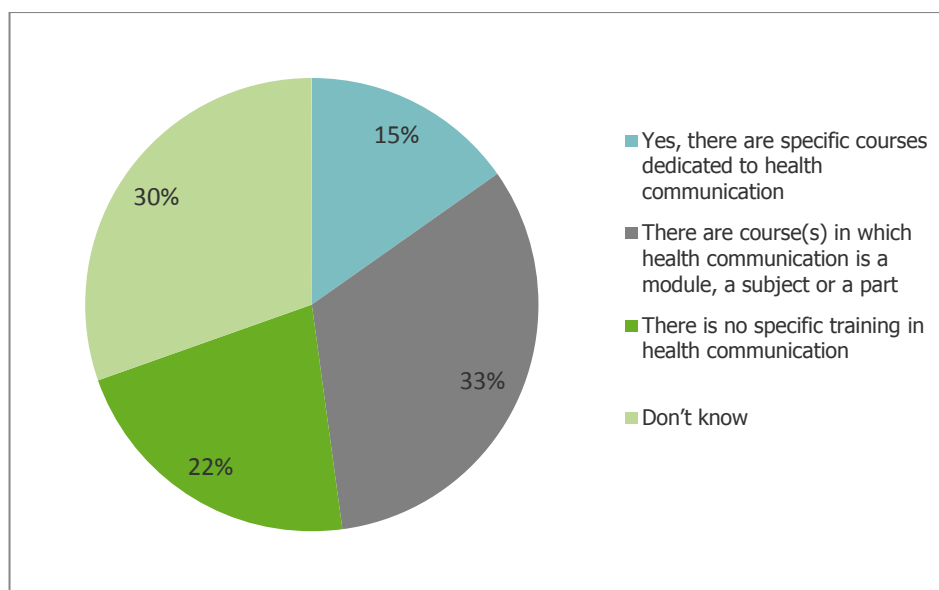
Capacity building for health communication across the EU/EEA/EFTA countries

Education and training in health communication

E-survey

Participants were asked to identify education and training programmes in health communication within their country. The findings are presented in figure 10 below:

Figure 10: Health communication education programmes



The above figure highlights the disparity of opinion among the e-survey participants with regard to the provision of education and training programmes for health communication. Only 15% indicated that there are specific courses for health communication, whilst 33% felt that there are courses in which health communication is a module. Crucially 30% did not know the answer to the question in their jurisdiction and 22% stated there was no specific education and training opportunities for health communication in the prevention and control of communicable diseases.

Telephone interviews

The same question was also asked in the telephone interviews. Education and training for health communication and communicable disease was identified by participants as an area that is neither advanced nor innovative and thus in need of further development. There was a lack of consensus regarding the provision of education and training courses in health communication across Member States, with some participants indicating that they did not know if there were courses available while others stated that there were none. Of those that indicated that such courses and programmes did exist within their jurisdiction, the majority indicated that health communication was a module of a broader course rather than a specific course.

Universities, private colleges, public health and medical schools were mentioned as the main providers of health communication education and training. Types of undergraduate and postgraduate courses that participants suggested as containing elements of health communication included: health promotion, medicine and nursing, public health, communication sciences, public relations and journalism and communication. Specific module areas mentioned as being addressed included: health management, health communication, mass media and healthcare, health planning and policy, health evaluation and health education.

Other providers of health communication training that were cited by some participants included the government and relevant associations, networks, health units and institutes. Participants indicated that this training was targeted at health professionals and formed part of continuous professional development or internal training. Types of training mentioned included: annual emergency and crisis training, health communication, media, interpersonal and patient communication, including working with marginal groups such as train the trainers. A few participants mentioned health communication training provided by international organisations such as ECDC and WHO. Specific

training around communication during an outbreak was cited. Please see appendix 11 for specific providers and courses mentioned by country.

Triangulation commentary

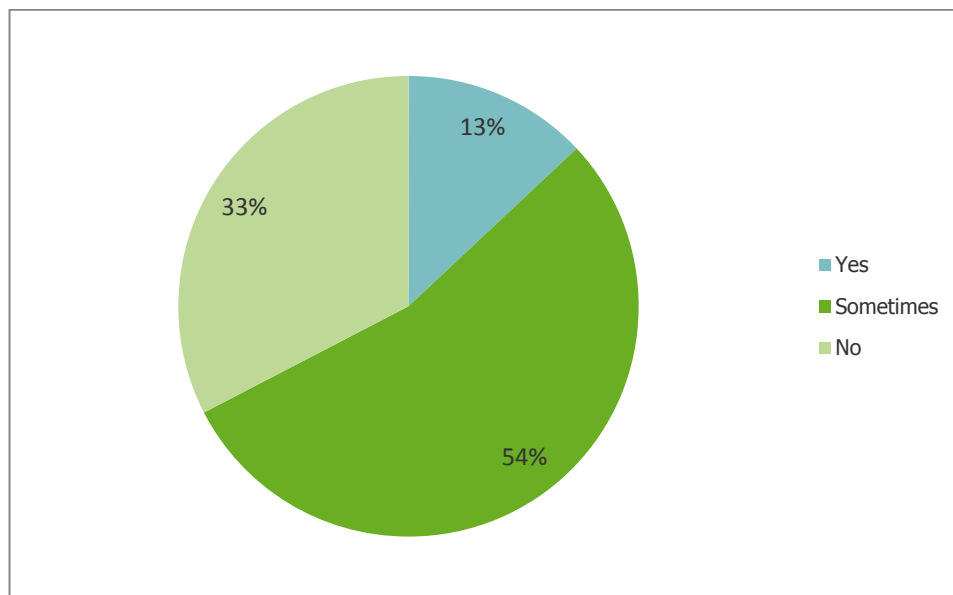
Overall, participants felt that education and training for health communication in the prevention and control of communicable diseases is currently underdeveloped across Member States. There were conflicting views among respondents regarding the current level of provision and providers of education and training courses in health communication across Member States, with very few participants identifying dedicated health communication courses.

Evaluation of health communication across EU/EEA/EFTA countries

E-survey

The question of whether health communication activities were evaluated in their jurisdiction was only asked in the e-survey. The responses are presented in Figure 11.

Figure 11: Evaluation of health communication activities



The above figure clearly indicates that the majority of health communication activities are only sometimes (54%) evaluated. Nearly three times as many respondents felt that activities were never evaluated as opposed to those that felt they were.

Telephone interviews

Although the question of whether health communication activities were evaluated in their jurisdiction was not specifically asked in the telephone interviews, many participants still addressed this issue. Please see the summary findings below.

The majority of participants acknowledged that evaluation of health communication activities is an area that is underdeveloped and needs to be improved. Overall, there were differing views among participants regarding whether or not health communication activities were evaluated. The majority of participants stated that their country 'sometimes' evaluates health communication activities when they have the resources to do so. One third of participants stated that there are no evaluations of health communication activities and communicable diseases in their country. A suggested reason cited for this was lack of resources and expertise. One respondent stated 'the majority of personnel working in this area are physicians and not specialists in evaluation'. Finally, only a few participants explicitly stated that their country evaluates health communication activities for communicable disease.

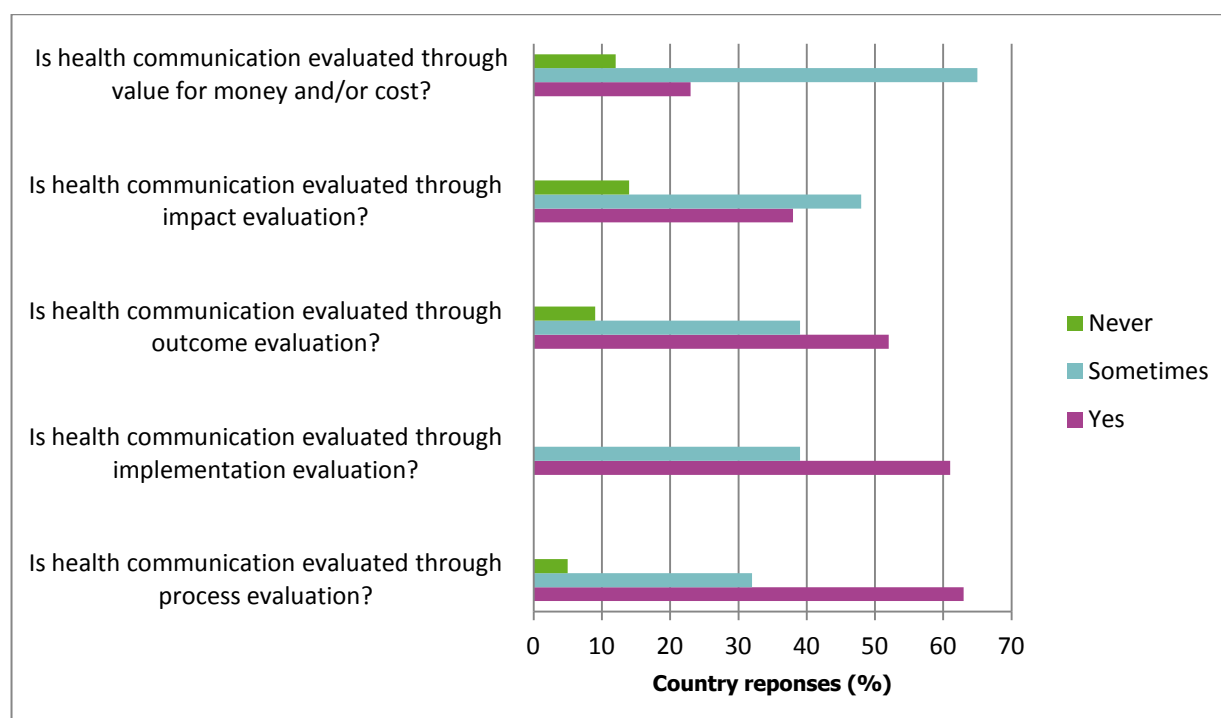
Respondents that participated in the telephone interviews were asked about organisations that they look to as sources of evidence (see appendix 12 for an overview of specific organisations mentioned). Frequently cited international sources of evidence included: Cochrane Collaboration; United States Centers for Disease Control and Prevention (CDC), European Commission; ECDC; WHO; Joint United Nations Programme on HIV/AIDS (UNAIDS); and United Nations Educational, Scientific and Cultural Organization (UNESCO). Some participants also mentioned that they look to universities, ministries of health and public health agencies across the EU for evidence to inform health communication activities for communicable diseases.

Types of evaluation

E-survey

Participants were also asked if they use evaluation tools and if so, which type do they use. Please see appendix 3 to view the e-survey protocol (Q16) and to review definitions used and provided to participants during data collection with regard to types of evaluations. The types of evaluations used in health communication for communicable diseases are presented in the figure below.

Figure 12: Types of evaluation used to evaluate health communication by countries



The majority of e-survey participants indicated that process, implementation and outcome evaluation are undertaken most often whilst the predominant view regarding cost effectiveness and impact evaluation was that they are sometimes performed. Implementation evaluation was most common, with over 60% of respondents stating that it is used, while all other respondents said it was "sometimes" used.

Telephone interviews

The same question was also asked in the telephone interviews. Please see appendix 5 to view the telephone interview protocol (Q13). Due to participants citing there are gaps in the area of evaluation, only a few examples of different types of evaluations were provided.

Many of the references to types of evaluations carried out were in the following areas: influenza (vaccination uptake, technologies, logistics and risk groups, decision making process and what can be learned for the future); uptake of immunisations; surveillance of diseases (number of cases and internal evaluations around data compliance); and campaigns and website visitor statistics. Other types of evaluations mentioned by some participants were: health technology assessments and knowledge, attitudes and practices (KAP) studies.

Outcome evaluations were most often cited by participants, with particular reference to the outcome of campaigns and specifically around the influenza pandemic (vaccine coverage and public knowledge). It was also noted by a few participants that these evaluations tend to focus on knowledge and attitudes rather than behavioural change. Process evaluation was also cited by some participants with regard to the pandemic influenza plan (how it was developed and carried out). In addition, implementation, impact and cost effectiveness evaluations were all cited by a few participants.

Triangulation commentary

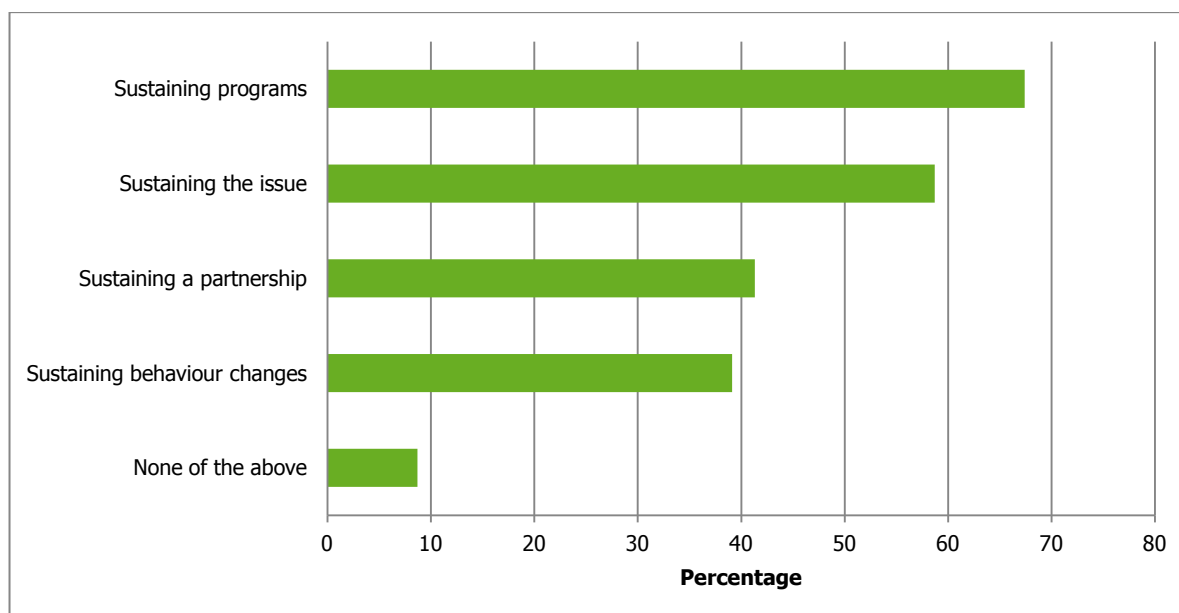
There were differences between the e-survey and interview participants regarding the evaluation of health communication activities. It was felt that the majority of activities were only 'sometimes' evaluated. 'No' evaluations was the second most common viewpoint, with only a few participants suggesting that activities were specifically evaluated. With regard to types of evaluations used, the majority of participants across the EU Member States listed outcome and process evaluation as the most common.

Sustainability of health communication activities across the EU/EEA/EFTA countries

E-survey

The question of the sustainability of health communication activities across EU/EEA/EFTA countries was only asked in the e-survey. Please see appendix 3 to view the e-survey questionnaire (Q18) and to review definitions used and provided to participants during data collection with regard to sustainability. Participants were asked if their countries try to sustain the following health communication activities: programmes, issues, partnerships or behavioural changes. Please see findings below in figure 13.

Figure 13: Sustainability on health communication activity



The above figure indicates that the majority of countries try to sustain programmes, for example by integrating health communication activities such as a support groups into existing organisation/s who agree to take responsibility for the programme over the long term. Sustaining behaviour changes was ranked lowest i.e. building skills, creating physical structures, and changing the social environment so that it supports healthy behaviour through health communication for communicable diseases. Sustaining partnerships was also listed by less than half of respondents.

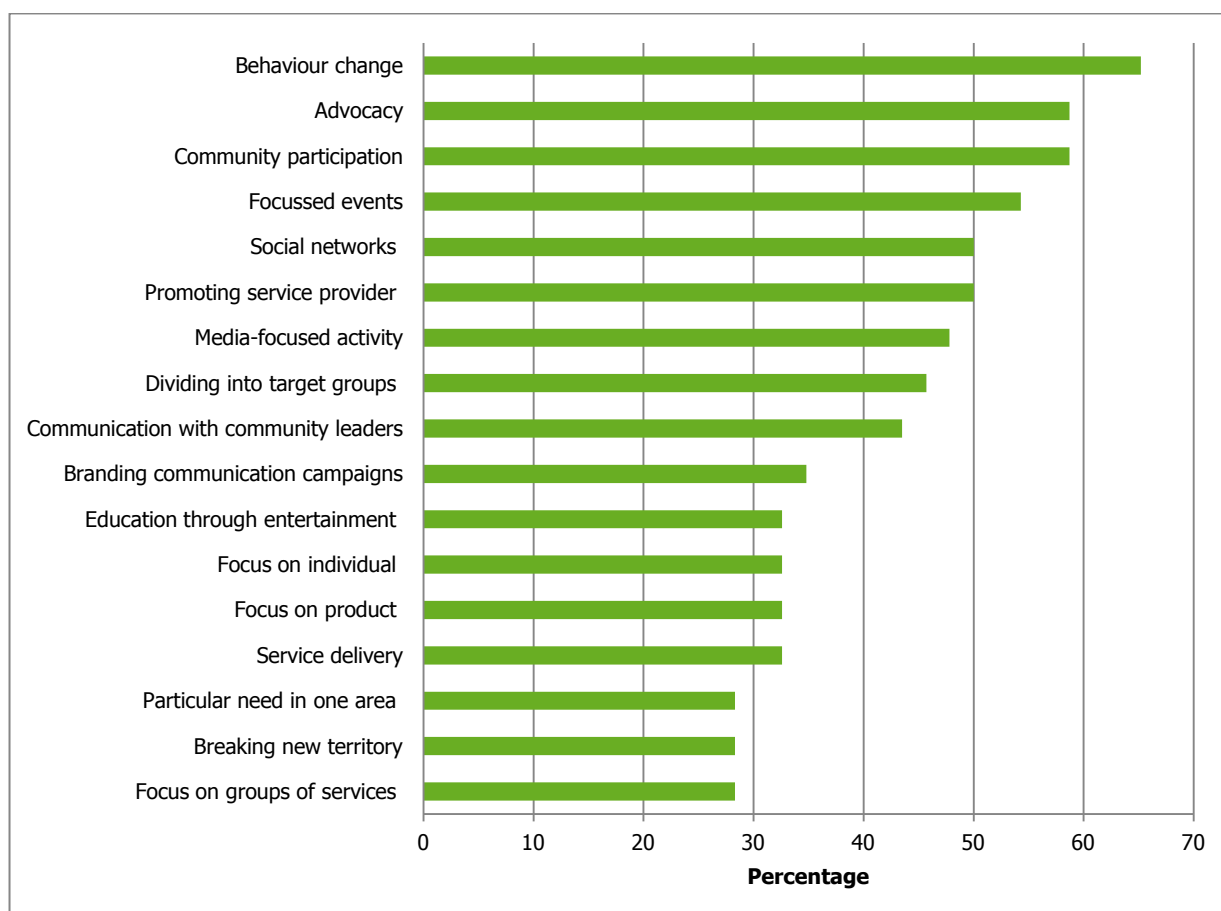
Future developments of health communication activities across the EU/EEA/EFTA countries

Priorities for health communication

E-survey

Participants were asked to identify priority areas to improve health communication in the EU. Please see appendix 3 to view the e-survey questionnaire (Q17) and to review definitions used and provided to participants during data collection with regard to priority areas for health communication. The results are presented in the figure below:

Figure 14: Priority areas for improvement



The above figure indicates that behavioural change i.e. altering people's current behaviour to desired behaviour, for example from poor quality hand washing practices to good hand washing practices, is the highest ranked priority area for health communication. Advocacy, community participation, and focused events were the other aspects with a clear majority of respondents ranking them as a priority. The focus on groups of services, breaking new territory, and concentrating on particular localised needs were the lowest ranked priority areas.

Telephone interviews

Participants in the telephone interviews were asked a similar question regarding what they think the priorities should be to improve health communication in the EU. Please see appendix 5 to view the telephone interview protocol (Q14). The summary key findings are presented below:

Key Points

Strengthen collaboration between EU/EEAEFTA countries with regard to health communication and communicable diseases

- Strengthen EU communications, partnerships and networking among those responsible for health communication and communicable disease. It was felt that by doing this there would be a coordinated platform where health professionals could share experiences, ideas, information, training, and resource materials, thus improving dissemination of knowledge of health communication in EU/EEA/EFTA countries.
- In addition, it was felt that this unity of expertise, incorporating policymakers and scientists, could help determine EU-wide national policies and priorities for health communication activities.
- Reference was also made to developing better relationships with the media across EU/EEA/ EFTA countries in order to ensure that the public are accurately informed rather than alarmed about health communication issues.

Increase awareness and provision of health communication education and training for communicable diseases across the EU

- Need to ensure that health professionals, whose remit includes any element of health communication and communicable diseases, are aware and have access to relevant education and training in order to ensure they have sufficient skills and knowledge to plan, implement and evaluate evidence-based health communication activities.
- It was noted that this training may be within a university setting (undergraduate and master's level) and/or through continuous professional development (CPD) within relevant professional national or international organisations. In addition, it was felt that public health experts do not necessarily have the expertise in health communications thus communication/media experts should undertake this responsibility.

Conduct evaluations of health communication activities for communicable diseases across EU Member States

- More effective evaluation of health communication activities for communicable diseases in order to ensure an evidence-based approach should be used in the future across the EU. It was noted that future evaluations should assess the process, impact, outcome and cost effectiveness.

Facilitate parallel universal and country specific approaches to health communication and communicable diseases across the EU

- Participants felt that whilst it is important to increase communication and partnerships among EU Member States, it was also acknowledged that a universal approach for all health communication activities and issues would not work, as each country is a different environment with different issues. Thus, in parallel, a country- specific approach is also needed to tackle this complex issue. Noted differences between countries mentioned included availability of resources; size and political structure; language and cultural context; and country-specific communicable disease issues and priorities.
- Some of the smaller Member States expressed concern that due to their limited resources, they cannot undertake all EU recommendations and thus can only effectively communicate on a small number of issues which tend to be crisis-driven. For example, during the influenza pandemic, health communication resources were diverted from other issues.
- Some of the young democratic countries also expressed difficulty with interpreting recommendations from EU organisations. They were not sure if the recommendations were mandatory and needed to be implemented or simply advisory.

Develop shared health communication resources

- The development of a shared database resource/interactive website for all health communication activities across all the EU/EEA/EFTA was suggested. It was noted that this should include the various interventions available, examples, evaluations, toolkits, training available and information on new tools such as social media, which should be easily accessible by health professionals and the general public.
- It was also suggested that European guidelines of good practice for the use of health communication should be created and shared among Member States.

Increase participation of the general public and target groups in the development and delivery of health communication activities

- Increasing the participation of the general public and target groups in the development and delivery of health communication campaigns, specifically in determining their needs and how best they would like the information delivered was cited. It was mentioned that currently there is a lot of information coming from the private sector and industry, information which is much more sophisticated than public health messages.

- Possible channels of communication to explore further to facilitate direct communication between health professionals and target groups included: social media, national and international events such as seminars, conferences and topic awareness days.

Agenda setting: prioritising communicable diseases across the EU

- Participants reported that it was essential to increase efforts so that communicable diseases are a priority and on the agenda of all national and international organisations, funders and policymakers across the EU. At the moment it was felt non-communicable diseases were more of a priority with regard to investment and programmes implemented.

Secure additional funding and increase accessibility of health communication materials

- International organisations such as ECDC and WHO should translate their materials into all Member State languages or provide funding and support to countries to translate the materials themselves. This would involve disseminating materials three to four weeks in advance of campaigns in order to allow sufficient time for this process to be undertaken.

Triangulation commentary

The importance of advocacy and prioritising communicable diseases across Europe, and increasing the participation of the community and target groups in health communication activities were shared priorities across the e-survey and telephone interviews, with the views of respondents across both media echoing each other.

Expert consultation results

This section of the report presents the results from an expert consultation at the meeting of the Competent Bodies for communication at the Ministry of National resources, Budapest, on March 21 2011. This group interview was undertaken with key public health stakeholders from various EU/EEA/EFTA countries in order to identify their perceived priorities in relation to their use of health communication for the prevention and control of communicable diseases.

The results below highlight the experts' expressed views in relation to: the effective use of health communication for communicable diseases prevention and control; differences between using health communication techniques for non-communicable and communicable disease; and identified knowledge gaps in relation to the use of health communication for communicable disease. The results also include suggestions on how ECDC can enhance capacity and support countries in their health communication activities.

Table 3: Countries represented at the consultation (by organisations and number of participants)

Country	Institution	Number of Participants
Austria	Federal Ministry of Health	1
Belgium	FPS Health	1
	University Hospital of Antwerp	1
Czech Republic	Ministry of Health	1
Finland	National Institute for Health and Welfare	1
France	Ministry of Health	1
Germany	Federal Centre for Health Education	1
	Robert Koch Institute	1
Ireland	National University of Ireland Galway	2 (Facilitators)
Italy	Ministry of Health	1
Lithuania	Centre for Communicable Diseases and AIDS	1
Norway	Norwegian Institute of Public Health	1
Portugal	Directorate General of Health	1
Slovakia	Public Health Authority of the Slovak Republic	1
Slovenia	National Institute of Public Health	1
Sweden	National Board of Health and Welfare	1
United Kingdom	World Health Communication Associates	1 (Moderator)
	Health Protection Agency	2
	Strategic Social Marketing	1
ECDC	Representatives	4
WHO	Representative	1
European Commission and other agencies	Representatives	2
Total: 25 participants across 15 countries		

Please note: There were no representatives for the following fifteen countries at the meeting of the Competent Bodies for communication on March 21 2011 and thus they were not represented at the expert consultation: Bulgaria; Cyprus; Denmark; Estonia; Greece; Hungary; Iceland; Latvia; Liechtenstein; Luxembourg; Malta; Poland; Romania; Spain and the Netherlands.

Public health bodies perceived priorities in order to be able to use health communication effectively for communicable disease

Money

There was a lack of consensus as to whether money was the top priority with regard to health communication. Whilst finance is needed, it was also highlighted that sometimes the use of existing funds is more the issue, leading to the points listed below being mentioned as other significant priorities.

Partnerships

All health communicators from the various government ministries and professional networks need to work together in order to avoid misunderstandings and to potentially share ideas, information, activities and resources. In addition, it was suggested that communicators 'need to work on their skills as communicators rather than their expertise in specific areas such as influenza'.

Partnerships between communication and technical experts in the relevant areas, and policy makers need to be developed in order to ensure that there is a common understanding of what needs to be achieved. In some cases, this could be finding out what they want to say and identifying their target audience.

Involvement from the beginning

Communication should be incorporated into all strategies and policies from the beginning in order to maximise influence as it was currently highlighted that 'the experts only seek their involvement when there is a crisis'.

Evaluation

There is a need to evaluate and assess the impact, if any, of health communication campaigns. For example, reference was made to social media campaigns, which had many visitors and followers but did not result in its aim of positive behaviour change.

Education and training

The following key points were raised:

- More health communication education and training is needed, basic health education training or journalistic training was not considered sufficient.
- Dealing with the media and professional coaching with spokespersons prior to crisis situations in order to avoid confusion at press conferences was identified.
- It was acknowledged that among the communications experts at the Budapest meeting, only a few people were academically or professionally trained in health communication.

Designation of diseases

Participants stated that 'communicable and non-communicable diseases may not be the most useful designation as there are a lot of non-communicable diseases that are caused by infectious agents'.

Social media

Participants debated the positive and negative aspects of using social media for health communication purposes.

Positive aspects

- Social media is an additional channel capable of reaching a specific target audience.
- Social media is a cheap research tool capable of gathering instant information on the people we are trying to reach i.e. those already using social media. However, it was noted that there is a need to review this information for quality, in terms of auditing discussions in chat rooms and bloggers etc (see identified examples in appendix 10).
- Social media is democratic because it is about people talking to each other rather than messages being controlled. The example given was through the influence of so-called media moguls.
- Participants noted that with the emergence of social media, there is an opportunity for communicators to shift from indirect (traditional mass media) to direct communication (mostly social media) and to tailor information to specific audiences. The blogging example (appendix 10) presented by WHO also shows the potential for indirect communication via social media.

Negative Aspects

- There is increasing competition with regard to communicating with the public, all the more so due to the emergence of social media. However, it was noted by one of the participants that whilst there are many more channels delivering health communication, research during the influenza pandemic showed that people felt that health professionals, i.e. doctors and pharmacists, were the most credible source of health information and the media/social media were ranked lowest.
- Participants highlighted that the foundation for future health communication was not the emergence of new technologies and media such as Facebook but rather ensuring that there is a strongly linked professional network of communicators and experts within countries and across all Member States.
- Social media is not a panacea as it will not reach some audiences such as the Roma population.

Differences between using health communication techniques for communicable disease and non-communicable diseases

- Participants stated that campaigns and strategies for non-communicable diseases were perceived as being more comprehensive than those for communicable diseases 'which are usually only leaflets/posters and not tied into the strategy of alleviating the disease'.
- 'Within non-communicable disease, there are many corporate interests such as the alcohol and tobacco industry'. Subsequently health communicators perform a lot of counter-marketing, an issue which is not as prevalent for communicable disease. Thus the same driving force behind development of health communication activities for communicable diseases does not exist. 'There is a huge charitable sector behind non-communicable diseases, such as cancer, especially in the United Kingdom'. According to a participant, research shows that people in the United Kingdom are more afraid of cancer than tuberculosis (TB), which is not as widespread. One consequence of this is that communicable diseases communications have less funding and subsequently attract less media attention.
- Every country has to some degree a fundamental split between public health promotion and public health protection. Public health protection tends to be very specific and dominated by bio-medical personnel who are less likely to have a communications background. Public health promotion tends to involve more communicators and public health specialists working on lifestyle challenges.
- Participants felt that experience, information and best practice is not shared across communicable and non-communicable disease promotions. For example, within the non-communicable diseases sector there is much work being done around behavioural determinant mapping, a concept which is apparently unheard of in the field of communicable disease.
- There is a lack of information sharing internationally. For example, a participant identified that African and Asian countries have invested a lot of resources into segmenting and profiling populations and responding to them with communications specifically around HIV/AIDS and malaria.

Identified knowledge gaps in relation to the use of health communication for the prevention and control of communicable disease:

- Health professionals are one of the main groups of health communicators and need a better understanding of how they can use the media as a source of health communication.
- There exists a need to learn more about target audiences such as their behaviour, perceptions and needs, in order to adapt health communication accordingly.
- Greater investment is needed in formative research around behavioural and communication profiling of target groups in order to determine what channels of communication should be used and which are the most effective or appropriate to a particular audience.
- Many stakeholders have different political priorities on the same issues at a national and European level, making it a difficult politicised environment to work within.
- A lot of health campaigns are carried out but many on communicable diseases are only undertaken during a crisis.

Participant suggestions for ECDC to enhance capacity and support countries in their health communication activities

Education and training

- Offer health communication training to Member States.
- Develop guidelines on how to use social media, particularly blogs in health communication and collate summaries of peoples' experiences using it.
- It was acknowledged that some of the 30 EU and EEA/EFTA Member States currently have no capacity in health communication. However, it was felt that ECDC should encourage Member States to recognise 'that an informed individual is not necessarily a behaviourally responsive one i.e. knowledge does not predict action'.

Coordination, planning and development

- It was suggested that instead of ECDC asking Member States if they have a communication plan as such, they could ask what kind of activities they plan on doing and what resources are they using to implement these activities.
- Assist in the development of national health communication strategies and plans.
- It was suggested that ECDC should undertake a coordinator role during all crisis situations. For example, during the influenza epidemic they took on a coordinating role and communicated what all the Member States were doing, thus allowing all the health organisations and experts to concentrate their efforts in dealing with the situation.

Facilitate partnerships

- Create an up to date open directory of key people working in the relevant areas (health communication and health protection) in all Member States in order to facilitate networking.
- Facilitate face-to-face and electronic engagement opportunities in order to share, discuss and reflect on information and approaches. ECDC envisaged that the reorganisation of the Competent Bodies will make future communication easier and more transparent.
- Facilitate partnership workings between Member States, public health and medical experts.

A shared health communication resource

- Have a shared online interactive resource/website that contains information, best practice cases, press releases, situation reports and a facility for communicators to share experiences, ideas and seek advice 24 hours a day.
- Collate examples of best practice, which should include all campaign materials; communication concepts, toolkits and supporting documentation. Participants expressed that they would like to have more input into ECDC initiatives for International Awareness Days. It was suggested that ECDC could develop a proposal of activities and ideas for the campaigns and send to Member States for comment.
- During major European crisis situations, for example the influenza pandemic, it was suggested that ECDC should provide the data, surveillance, risk assessment and communication messages to all Member States in order to ensure consistency and avoid possible risks or problems.

Developing priorities and competencies

- Consult with all the Member States in order to determine their own unique priorities e.g. some countries have issues with certain diseases that may not be relevant for other countries. In addition, it was noted that 'there should be more transparency with regard to ECDC priorities'.
- ECDC and specifically the Communication Knowledge Group should have an assessment role examining what types of communication and campaigns work best across Europe. However, it was noted that providing this information alone is not enough and tools are needed to ensure Member States apply this evidence in their own communication efforts.
- In consultation, Member States need to explore what core competencies are required for communicators. This was perceived as essential for communicators in general, but also in order to determine gaps in personal skills. Participants highlighted that 'communication should be seen as a competency cutting across public health'.

Health communication examples

Please see appendix (10) for identified health communication examples.

Key points

- Stronger partnerships among health communicators and technical experts across the EU are needed.
- A strongly linked professional network of communicators and experts within countries and across all Member States should be developed.
- More education and training around health communication and specifically around the use of the media and new technologies should be provided.
- Research and evaluation needs to be a priority for the future in order to build the evidence base for health communication and communicable disease.
- Develop a shared online interactive health communication resource.

Discussion

This section of the report considers some of the main results and observations from the data collected, and discusses their relevance and implications in relation to published literature, best practice and areas for improvement.

The different political and administrative structures among the various EU/EEA/EFTA countries have given rise to a situation where responsibility for health communication is fragmented and falls with different ministries or organisations in each country. It is apparent from the data that there are many inconsistencies between the responses from participants within countries. These inconsistencies suggest that there is no shared national profile of health communication activities in at least some countries, specifically with regard to those activities aimed at the prevention and control of communicable diseases by people involved in this area of work.

While health communication may not have a high profile in the prevention and control of communicable disease, it was reported by participants working in the majority of countries that reference to health communication did feature in some form in national level health programmes, policy and/or plans, suggesting at least some commitment to this type of intervention at a national level. Participants stated that funding mainly originated from the central national government directly or indirectly but that there was usually no specific health communication budget. Participants, particularly those from smaller or newer EU countries, stated that this often resulted in limited health communication activity taking place, or only in crisis situations.

The implications of these findings are that health communication for the prevention and control of communicable diseases does not feature on the agenda for some countries and many Member States possess limited ability to quickly find or share the information they need. This results in a difficult and complex environment for ECDC to support health communication capacity across EU/EEA/EFTA countries. Preparedness and response to health threats related to communicable diseases could be strengthened by enhanced collaborative working.

It would appear from the e-survey data that health communication is slightly more commonly used for initiatives on communicable disease prevention than for non-communicable diseases. However, some participants in the telephone interviews and the consultation felt that non-communicable diseases were more commonly the centre of health communication messages and cited reasons to support this.

Furthermore, in relation to communicable and non-communicable disease, some consultation participants felt that experience, information and best practice is not shared across the two disease areas. For example, the concept of behavioural determinant mapping was outlined as being used effectively for non-communicable disease communication but is apparently not commonly used in communicable disease promotion. Since expertise and capacity in health communication activities developed in the context of non-communicable diseases are likely to be, in some part at least, transferable, research of shared features and techniques between communicable and non-communicable disease initiatives aimed at disease prevention and control should be explored in the future.

Health communication activities were most commonly identified in the areas of influenza, HIV/AIDS and vaccine preventable disease. This was further supported by the health communication activity examples provided by participants. However, whilst health communication activities are most prominent in these three communicable disease areas, the effectiveness of their use remains uncertain. For example, vaccinations have been proven to be the most effective intervention against influenza and other diseases [9]. Yet despite this evidence, there is a wide variation in uptake rates among different European countries for the influenza vaccination, while overall vaccination coverage is low across the EU [10]. This raises a critical question regarding the effectiveness and appropriateness of current health communication techniques for the prevention and control of communicable diseases while reinforcing the importance of evaluation, which the findings from this study have indicated is lacking.

The predominant types of health communication used for communicable disease, as identified in the e-survey data, were general health communication, crisis communication and health advocacy. Similar trends were reflected in national plans and policies. However, a recent review, which examined international evidence on advocacy initiatives for communicable diseases, indicates that the current evidence base is underdeveloped and at a nascent stage [11]. The implication of this is that whilst health advocacy is currently said to be frequently used, there is a lack of evaluation to date to justify its efficacious use.

The reliance on the use of crisis communication indicates that a more proactive approach is needed and possible retrospective and descriptive analysis of previous crises, for example, the influenza pandemic, should be undertaken in order to inform future actions. To date, several countries and European organisations such as WHO and ECDC have already performed evaluations of the response to the H1N1 2009 pandemic [12] [13]. Lessons learned from this experience in relation to health communication should be shared to inform proactive planning for future similar events.

The data also revealed that social marketing and health literacy were ranked lowest amongst types of health communication used. When this was explored further in the telephone interviews, some respondents did not have a

clear understanding of the concepts whilst others cited them as potential options for the future. A recent review of interventions for improving health literacy exposed gaps in the evidence concerning which interventions are most effective in improving health literacy, particularly with regard to communicable disease and studies in Europe. The review also identified a lack of research involving disadvantaged or hard to reach groups [14]. Overall, there appeared to be a lack of clarity and understanding with regard to several types of health communication and many found it difficult to categorise their activities explicitly under any one of the subheadings offered.

That some capacity in the use of health communications is present in Europe is also demonstrated in the reported use of health communication strategies for the prevention and control of communicable diseases, which is supported by examples of activities provided by participants. However, the level of activity varies considerably between disease groups and between countries. The majority of examples provided were in the areas of HIV/AIDS and influenza, taking the form of campaigns, national events or awareness days.

The two most frequently cited campaigns were the ECDC Antibiotic Awareness Campaign and the WHO Hand Hygiene Campaign. Participants indicated that the awareness days were a good channel through which they could communicate with a wide range of audiences, simultaneously attracting considerable media attention and thus focusing on the particular cause in question at the same time in most countries across the EU. The advantages of these awareness days were magnified for smaller countries that do not possess the resources to undertake large scale activities of their own. This aspect was highlighted with regard to the ECDC European Antibiotic Awareness Campaign, which provided the necessary supporting resources and guidance in all relevant languages.

The e-survey identified that few countries (42%) use health communication activities developed in another country. However, in the interviews it was also acknowledged that other countries' resources and experiences were reviewed and examined. Participants usually looked to examine countries similar in context to their own, particularly with regard to language and communicable disease issues. Nevertheless, the notion of sharing experiences of development, implementation and evaluation of health communication activities for communicable disease between countries should be further explored and developed.

In relation to the planning of health communication activities, 81% of e-survey participants either agreed or strongly agreed that messages used were developed from an evidence base. However, when the role of evidence was explored further in the telephone interviews, actual practice is less clear. Few telephone interviewees identified sources of evidence used to inform activities. Therefore, it is not possible for conclusions to be drawn based on this data without knowing in each case what participants meant by evidence: peer reviewed research or epidemiological data, for example. Further exploration outside of this study is needed in order to determine what evidence means to those working in the area and to establish if the evidence base is sufficiently strong to underpin health communication activities for the prevention and control of communicable disease, or if it exists at all.

The e-survey data also indicates that the planning of health communication activities is not perceived as well-structured (the role of groups and individuals in planning and implementation is generally unclear), and that NGOs are key stakeholders in the process of planning health communication activities. Other groups and organisations were identified as participating in the development of health communication activities and these have been listed by country. Results from both strands of data collection point to health care staff and public sector organisations as key stakeholders in the development and delivery of health communication activities, which corresponds to some extent with the identified target audiences.

The exceptions to this trend were the general public and community groups, which were ranked low (tenth and thirteenth out of thirteen) as stakeholders involved in the development of health communication activities, despite being identified as the second most important target audience in the e-survey. Considering the importance of audience segmentation and formative research for effective communication campaigns [15], this lack of dialogue and participation may cause a disconnect where the message is not always effectively tailored to the intended audience. This was supported in the consultation as participants stated that greater investment is needed in formative research around behavioural and communication profiling of target groups, in order to determine what channels of communication should be used and which are the most effective or appropriate to a particular audience.

It would appear from the data that there was an anomaly with regard to the importance and role of policymakers, media and private industry as key stakeholders in the development and delivery of health communication activities and as target audiences across the EU. For example, policymakers were identified as a key target audience in the e-survey but in the interviews, few participants felt that liaising with policymakers was essential in their job and did not cite them as a target audience. This area may need further clarification in the future. One possible approach would be to develop a stakeholder management strategy for carrying out effective communication, incorporating best practice in collaborating with NGOs, policymakers, mainstream media and private industry.

The channels of communication used in the examples provided cover the gamut of potential channels through both print and electronic media, including social media. These identified examples require further exploration in order to determine the most effective channels for health communication messages to reach particular target audiences and influence positive behaviour change. This may be usefully carried out through grouping the examples by communicable disease group, rather than by country of origin.

Some participants in the interviews and consultation cited that they did not currently use social media channels often but expressed interest in doing so more frequently in the future. In the consultation process participants outlined advantages and disadvantages of using social media. Overall, they were seen as potentially useful channels, provided the optimal way to use these channels effectively was determined through evaluation. Mobile phones were also mentioned as potential future channel, especially during a crisis.

The majority of respondents in both the e-survey and telephone interviews stated that health communication activities were only “sometimes” evaluated. This was broadly similar to the results of the consultation. Some consultation attendees and telephone interviewees cited a lack of expertise and a lack of resources as possible reasons for this lack of evaluation.

Only a few health communication examples (mostly around influenza) were provided in the interviews and consultation when referencing types of evaluation used. These identified examples require further exploration, which would enable more detail to be gathered on the approaches, design and outcomes of evaluations undertaken to date. Further exploration could also potentially identify experts with experience in the evaluation of health communication, which would in turn help to facilitate the development of more shared information.

The types of evaluation reported in the data collection indicate that across the EU/EFTA/EEA countries there is experience in a range of evaluation approaches, including process, implementation, impact, outcome and cost effectiveness evaluation. The e-survey data, supported by the telephone interviews, indicates that respondents are most familiar with process and implementation evaluation while outcome, impact and cost effectiveness evaluation are used less frequently. Without strong impact or outcome evaluation, it is impossible to know if a campaign activity achieved its goals, such as increasing knowledge, fostering positive attitudes, changing risky behaviour or all of the above.

Some 65% of e-survey participants stated that they sometimes carry out cost effectiveness evaluations, while 12% stated that they never do. Economic evaluations help to indicate the most efficient way to use resources and are becoming increasingly important for policymakers, health communication planners and analysts in order to determine how best to distribute their budget among various health communication activities. The literature indicates that relatively few economic evaluations have been conducted on health communication interventions [16], highlighting a lack of knowledge in this field. This may be a potential area to focus attention on in the future.

Overall, across all data collection types, there appears to be a knowledge gap around evaluation among those working in the area. This extends to the different types of evaluations of health communication activities for the prevention and control of communicable diseases and thus is an area that needs development.

One capacity building endeavour is education and training. Many e-survey participants did not know if education and training in health communication, either as a stand-alone education programme or a component (e.g. a module) of a course, was available in their country. Furthermore, at the consultation only a few respondents stated that they had specialist training in health communication. This requires further exploration as it may be that education programmes are available but people are unaware of their existence.

Overall, across the EU/EFTA/EEA region, all the data indicates that there is a discernible knowledge gap regarding education and training in health communication for the prevention and control of communicable diseases, which needs to be addressed in the future. In the consultation, participants specifically identified a need for training in social media and public relations in order to be prepared for dealing with the media in crisis situations. This point once again highlights the centrality of crisis communication to health communication activities.

Participants expressed their own view of priority issues in the interviews and consultation, many of which were similar and included the following: strengthening collaboration across the EU; prioritising education, training, research and evaluation for health communication; and developing an online interactive resources/platform for sharing health communication information and resources. Many of these priorities have informed the recommendations outlined in the next section of this report.

Study limitations

In considering the findings of the present study, it is important to highlight its possible limitations. Firstly, the sample for the e-survey and interviews was reliant on a national listing of relevant experts which was provided by ECDC. Due to changing roles and the use of snowball sampling it was difficult to trace personnel. This resulted in a delay before commencing data collection. Secondly, the sample size is small and thus it is difficult to generalise results. Thirdly, the data is reliant on self-reporting, which may lead to questions regarding reliability, validity and social desirability bias. Various elements of the data collection process were divided out among different research consortium partners, which could threaten the consistency and quality of the data, however quality checks were put in place to mitigate this limitation.

Recommendations

This section outlines a number of suggested recommendations for future research and action in order to support health communication capacity in the prevention and control of communicable diseases across the EU region. The recommendations encompass the main priority areas identified by interview and consultation with participants, and address gaps that emerged throughout the data collection process. The recommendations are grouped and presented under the headings of key research recommendations and general recommendations.

Key research recommendations

The importance of developing research capacity in health communication in the EU region emerges from the study findings. Potential priority areas of future research are outlined that should be developed in order to build the evidence base for health communication in the prevention and control of communicable disease:

1. Health literacy
2. Health advocacy
3. Social marketing
4. New technologies for disseminating health communication messages
 - including specifically social media and mobile phones.
5. The systematic use of evidence and evaluation in informing practice, including
 - addressing formative, process, impact, outcome and cost-effectiveness evaluations of health communication activities
 - exploring and determining a shared understanding of 'best evidence' and how it can be used routinely to inform policy and practice
 - development of guidelines for assessing the effectiveness of health communication approaches against indicators of success.

Strengthening research capacity in these areas would help clarify the conceptual understanding of different health communication approaches and determine their effectiveness and limitations in practice in the European context. The findings underscore the importance of developing a European evidence base on effective practice, through strengthening research capacity and supporting the sharing and dissemination of practice examples and case studies that have been rigorously evaluated and are considered best practice. The findings from the literature reviews conducted as part of the current ECDC funded project on translating health communications will help inform these developments.

General recommendations

- Enhance collaboration, partnerships and professional networks among those working in the area of health communication and communicable disease within countries and across all Member States, including the development of a stakeholder management strategy. ECDC could assist in facilitating collaboration through online or face-to-face dialogue.
- Increase awareness and provision of health communication education and training for communicable diseases across the EU. Future training opportunities should specifically include the use of social media and new technologies and evaluation and public relations. ECDC could increase awareness and provide training opportunities to develop skills and competencies for health communication across the EU.
- Develop a shared online interactive health communication resource/platform for the prevention and control of communicable disease. Include sharing resources and best practice on health communication campaigns and activities. ECDC could provide and facilitate the pooling of knowledge and exchange of good practice on health communications.
- Establish a common, consistent and shared glossary for all relevant concepts and competencies within the remit of health communication for the prevention and control of communicable disease. This proposed glossary should specifically clarify and define the various different types of health communication and evaluations available. ECDC could develop a glossary for health communication within their scope.
- Provide guidance for best practice in order to build the evidence base for health communication activities in the prevention and control of communicable diseases across EU Member States.
- Agenda setting: prioritising awareness of communicable disease issues across the EU.

Two possible approaches to address many of the above recommendations include the development of a shared online platform and a health communication strategy, which ECDC should consider undertaking.

An online interactive and shared platform, specifically for health communication in the prevention and control of communicable disease, would facilitate ECDC, EU health communicators and all relevant key stakeholders to share their ideas, experiences, training opportunities, resources (including examples), research and guidelines for

evidence-based practice. In addition, a sustainable platform would assist in the creation of an online and up-to-date directory of key personnel involved in health communication within countries and across the EU, thus promoting collaboration and networking.

An EU evidence based health communication strategy would provide strategic direction for health communication in the prevention and control of communicable disease. It would outline and clarify key concepts, approaches, competencies and best practices for health communication. Such a strategy would provide a consistent framework within which future health communication activity could be planned, implemented and evaluated across the EU/EEA/EFTA countries.

Conclusion

The findings presented in this report are based on aggregated data collected from across the EU/EEA/EFTA countries and provides an overview of health communication activities in Europe including perceived strengths and weaknesses. However, the aggregated findings mask to some degree the differences that are apparent if the data are considered on a country by country basis. There is great variability between countries in the range and level of health communication activities undertaken, and in the reported levels of capacity and resources to develop, effectively use, and evaluate health communication in the prevention and control of communicable diseases. These different country contexts must be taken into account in the strategic development of health communication capacity for the prevention and control of communicable disease across the European region.

References

1. European Centre for Disease Prevention and Control [Internet] Stockholm 2007. ECDC Strategic Multi-Annual Programme 2007–2013. Public health activities, disease-specific programmes and multilateral partnerships. Available from: http://ecdc.europa.eu/en/aboutus/Key%20Documents/07-13_KD_Strategic_multiannual_programme.pdf
2. U.S. Department of Health and Human Services. [Internet] Washington, DC. 2010. Office of Disease Prevention and Health Promotion. Healthy People 2010, Final Review. Available from: http://www.cdc.gov/nchs/healthy_people/hp2010/hp2010_final_review.htm. Accessed [18th October 2011].
3. Derzon, JH., Lipsey, MW., A meta-analysis of the effectiveness of mass-communication for changing substance-use knowledge, attitudes, and behaviour. In: Crano, WD., Burgoon, M., Oscamp, S., Eds. Mass Media and Drug Prevention: Classic and Contemporary Theories and Research.: Lawrence Erlbaum Associate Publishers; 2002, pp. 231–258.
4. Flora, JA., Maccoby, N., Farquhar, JW., Communication campaigns to prevent cardiovascular disease: the Stanford community studies. In: Rice, RE., Atkins, CK., Eds. Public communication campaigns. 2nd ed. Newbury Park. CA Sage, 1989; pp. 233–252.
5. Zastowny, TR., Adams, EH., Black, GS., Lawton, KB., Wilder, AL., Socio demographic and attitudinal correlates of alcohol and other drug use among children and adolescents: Analysis of a large-scale attitude tracking study. Journal of Psychoactive Drugs. 1993; 25(3):223–237.
6. Snyder, L., Johnston, BT., Huedo-Medina, T., LaCroix, JM., Smoak, N D., Cistulli, M., Effectiveness of Media Interventions to Prevent HIV, 1986–2006: A Meta-Analysis. Paper presented at: The annual meeting of the International Communication Association; 2009 May 21; Marriott, Chicago, IL. Available from http://www.allacademic.com/meta/p300969_index.html
7. European Centre for Disease Prevention and Control. [Internet] Stockholm 2009. ECDC Health Communication Strategy 2010–2013. Available from: http://ecdc.europa.eu/en/aboutus/Key%20Documents/0911_KD_ECDC_Health_Communication_Strategy_2010_013.pdf
8. Polit, DF., Beck, CT., Essentials of Nursing Research; Appraising Evidence for Research Practice. 7th ed. Philadelphia: Wolters Kluwer Health/Lippincott Williams & Wilkins; 2010. Chapter 10, Qualitative Designs and Approaches; p.273.
9. World Health Organization.[Internet] 2005 Global Immunization Vision and Strategy 2006–2015. WHO Department of Immunization, Vaccines and Biologicals and UNICEF Programme Division, Health Section. Available from: <http://www.who.int/immunization/givs/en/index.html> Accessed [26 October 2011].
10. European Centre for Disease Prevention and Control. [Internet] 2011 Stockholm. Meeting Report; Understanding the behavioural aspects and the role of health communication in mitigating the impact of seasonal influenza. 20–21 January 2011. Available from: http://ecdc.europa.eu/en/publications/Publications/Forms/ECDC_DispForm.aspx?ID=733
11. D'Eath, M., Barry, M., Sixsmith, J., A rapid evidence review on health advocacy interventions aimed at communicable diseases in Europe. Stockholm; ECDC, 2011. In Press.
12. WHO Regional Office for Europe. [Internet] Pandemic (H1N1) 2009 INT EH European Region 2011 [cited 10 October 2011]. Available from: <http://www.euro.who.int/en/what-we-do/health-topics/communicable-diseases/influenza/pandemic-h1n1-2009>
13. European Centre for Disease Prevention and Control. [Internet] 2010 Stockholm. The 2009 A(H1N1) pandemic in Europe . A review of the experience. Available from: http://ecdc.europa.eu/en/publications/Publications/Forms/ECDC_DispForm.aspx?ID=575
14. D'Eath, M., Barry, M., Sixsmith, J., A Rapid Evidence Review of Interventions for Improving Health Literacy. Stockholm; ECDC, 2011. In Press.
15. Noar, SM., Palmgreen, P., Chabot, M., Dobransky, N., Zimmerman, RS., A 10-year Systematic Review of HIV/AIDS Mass Communication Campaigns: Have We Made Progress? Journal of Health Communication. 2009;14(1): 15–42.
16. Frick, KD., Cost effectiveness studies of behaviour change communication campaigns: assessing the state of the science and how to move the field forward. Journal of Health Communication. 2006; 11:s2, 163–173.

Glossary of terms used in this research

Health communication

Use/development of communication activities to inform and influence individual and community decisions that enhance health.

Health education

Planning combinations of learning experiences designed to enable and reinforce voluntary health behaviour in individuals, groups, or communities.

Health literacy

Ensuring that individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions.

Health promotion

Planning a combination of educational, political, regulatory, and organisational supports for actions and conditions for healthy living of individuals, groups, or communities.

Patient education/communication

Informing individuals with health conditions to help them get the most out of recovery and treatment, and understand alternative approaches.

Risk communication

Engaging communities in discussions about environmental and other health risks and about approaches to deal with them.

Social marketing

Applying marketing ideas to program development, implementation, and evaluation to promote healthy behaviours or reduce risky ones.

Crisis communication

Providing information that allows an individual, stakeholders, or an entire community to make the best possible decisions during a crisis emergency about their well-being.

Health advocacy

Communicating with policymakers and decision-makers to promote policies, regulations, and programmes to bring about change.

Process evaluation

Investigates the process of delivering the program or technology, including alternative delivery procedures.

Implementation evaluation

Monitors the fidelity of the program or technology delivery.

Outcome evaluation

Investigates whether the program or technology caused demonstrable effects on specifically defined target outcomes.

Impact evaluation

Assess the overall or net effects (intended or unintended) of the program or technology as a whole.

Cost effectiveness evaluation

Value for money.

Sustaining the issue

We keep awareness of the issue of health communication for communicable diseases high on the agenda of all stakeholders including the public, community partners and decision makers.

Sustaining behaviour changes

We build skills, create physical structures, and change the social environment so that it supports healthy behaviour through health communication for communicable diseases.

Sustaining programmes

We integrate through health communication for communicable diseases activities (e.g. an awareness campaign, a support group, or educational sessions) into existing organization/s who agree to take responsibility for the program over the long term.

Sustaining a partnership

We develop productive working relationships and take full advantage of the benefits of using health communication for communicable diseases with a wide range of stakeholders.

Online channels

e.g. Websites and interactive sites, mailing lists, e-Forums, online action campaigns, email, online databases, social networks, etc.

Broadcast media channels

e.g. Television, radio and film.

Other electronic/digital channels

e.g. CD ROMs', DVD, telephone and mobile phones.

Direct marketing channels

e.g. Postal mail and email.

Print media

e.g. Newspaper advertisements, editorials, articles, leaflets, brochures, billboards (display boards), books, magazines, press release, etc.

Action oriented channels

e.g. Role-play, theatre, songs, storytelling, games, etc.

Face-to-face channels

e.g. Presentation, trainings, clinical settings, conferences, etc.

Events

National or community events e.g. HIV/AIDS Awareness Day and health promotion events.

Appendix 1: Responsibility and division of data collection amongst the Research Consortium (by countries)

Research Consortium		
Health Promotion Research Centre (NUIG), Ireland	University of Stirling, Scotland United Kingdom	University of Navarra Spain
Austria	Belgium	Czech Republic
France	Cyprus	Estonia
Portugal	Denmark	Greece
Norway	Germany	Hungary
Romania	Malta	Latvia
Finland	the Netherlands	Lithuania
Bulgaria	Sweden	Luxembourg
Poland	Iceland	Slovakia
Liechtenstein	Italy	Slovenia

Appendix 2: Participating countries

1. Austria
2. Belgium
3. Bulgaria
4. Cyprus
5. Czech Republic
6. Denmark
7. Estonia
8. Finland
9. France
10. Germany
11. Greece
12. Hungary
13. Iceland
14. Ireland
15. Italy
16. Latvia
17. Liechtenstein
18. Lithuania
19. Luxembourg
20. Malta
21. Netherlands
22. Norway
23. Poland
24. Portugal
25. Romania
26. Slovakia
27. Slovenia
28. Spain
29. Sweden
30. United Kingdom

Appendix 3: E-survey questionnaire

Survey Questionnaire Health Communication ECDC	
1	Please give us some details about yourself.
	Name
	Job title
	Area of expertise
	Organisation
	Telephone no.
	Email address
2	Country you are working in: (drop down list of countries)
Health Communication Areas	
3	To the best of your knowledge is health communication used in the following specific communicable disease groups in your country? You can choose more than one group:
	Tuberculosis
	Food and water borne diseases and zoonosis
	Influenza
	Emerging and vector borne diseases
	HIV/AIDS, STI and blood-borne viruses
	Vaccine preventable diseases and invasive bacterial infections
	Antimicrobial resistance/health care associated infections
	None of the above
	Comment / Other (please specify)
4	To the best of your knowledge is health communication used in the following NON-communicable disease groups in your country? You can choose more than one group:
	Cardiovascular disease
	Cancer
	Diabetes
	Chronic respiratory diseases
	Mental health disorders
	Injuries

	Lifestyle factors (e.g. smoking, alcohol)
	None of the above
	Comment / Other (please specify)
5	To the best of your knowledge, in your country which of the following areas of health communication are used for communicable diseases? You can choose more than one area:
	Plan and develop communication efforts in response to unforeseen events.
	Use /develop communication activities to inform and influence individual and community decisions that enhance health (health communication)
	Plan combinations of learning experiences designed to enable and reinforce voluntary health behaviour in individuals, groups, or communities (health education)
	Ensure that individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions (health literacy)
	Plan a combination of educational, political, regulatory, and organisational supports for actions and conditions for healthy living of individuals, groups, or communities (health promotion)
	Inform individuals with health conditions to help them get the most out of recovery and treatment, and understand alternative approaches (patient education/communication)
	Engage communities in discussions about environmental and other health risks and about approaches to deal with them (risk communication)
	Apply marketing ideas to program development, implementation, and evaluation to promote healthy behaviours or reduce risky ones (social marketing)
	Provide information that allows an individual, stakeholders, or an entire community to make the best possible decisions during a crisis emergency about their well being (crisis communication)
	Communicate with policymakers and decision-makers to promote policies, regulations, and programs to bring about change (health advocacy)
	Health communication education & training
	None of the above
	Other (please specify) / Comment

National Health Plans and Health Communication	
6	To the best of your knowledge, are communication activities for communicable diseases included in the national health plan / programme / policy of your country?
	Yes
	Yes, for some communication activities/diseases
	No (skip to question 8)
	Comment
7	To the best of your knowledge which of the following areas is reflected in the national health plan/programme/policy in your country? You can choose more than one option.
	Health communication (use/develop communication activities to inform and influence individual and community decisions that enhance health)
	Health communication for prevention and control of communicable diseases
	Crisis communication (provide information that allows an individual, stakeholders, or an entire community to make the best possible decisions during a crisis emergency about their well being)
	Health education (plan combinations of learning experiences designed to enable, and reinforce voluntary health behaviour in individuals, groups, or communities)
	Health literacy (ensure that individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions)
	Patient education (inform individuals with health conditions to help them get the most out of recovery and treatment, and understand alternative approaches)
	Risk communication (engage communities in discussions about environmental and other health risks and about approaches to deal with them)
	Social marketing (apply marketing ideas to program development, implementation, and evaluation to promote healthy behaviours or reduce risky ones)
	Health advocacy (communicate with policymakers and decision-makers to promote policies, regulations, and programs to bring about change)
	Health communication education & training
	None of the above health communication areas are reflected in the national health plan /programme/policy in my country
	Other (please specify) / Comment

Planning	
8	Please rate the following statements regarding health communication activities for communicable diseases according to the situation in your country. Answer options: Strongly disagree, Disagree, Agree, Strongly agree, Don't know
	There are non-government stakeholders/partners (NGOs, local authorities, interest groups) involved in the process of decision making
	The role of groups and individuals in planning from policy to practice is clearly described and understood.
	The role of groups and individuals in the implementation of communication activities is clearly described in the planning process and understood by those involved.
	Messages are developed from an evidence based health communication policy or Strategy
9	In your experience, who are the target audience for health communication activities in relation to communicable diseases in your country? You can choose more than one option.
	Polymakers
	General public
	Specific patients/risk groups
	Health professionals
	Scientists
	Researchers
	Politicians
	Industry
	Mainstream media
	Specialist scientific medical media
	None of the above
	Other (please specify)/Comment
10	Please name any organisations that provide examples of good practice in health communication for the prevention and control of communicable diseases in your country.

Stakeholders and Partners on Health Communication	
11	Which groups/organisations are involved in the development and delivery of health communication activities in your country ? Please click on more than one option if relevant.
	Specific patient/population groups
	Healthcare staff
	Universities etc engaged in research
	Public sector organisations or agencies
	Semi-state institutions
	Private sector
	General public
	Non-governmental organizations
	European Union organisations
	International organisations or agencies
	Local authorities
	Professional societies
	Community groups
	Other (please specify) / Comment
12	Can you name any organisations you or your colleagues have worked in partnership or collaborated with in the last 5 years in health communication activities for communicable diseases in your country? Please write the name/s of organisation/s in the box below.
13	Can you suggest partners/collaborators in health communication activities for communicable diseases that you or your colleagues may be interested in working with in the future? Please write the name/s of organisation/s in the box below.
Capacity Building Health Communication	
14	Are you aware of any education and training programmes to develop leadership, planning, management and/or evaluation in health communication in your country?
	Yes, there are specific courses dedicated to health communication
	There are course(s) in which health communication is a module, a subject or a part.
	There is no specific training in health communication
	Don't know
	Other (please specify)/Recommend a source of information/Comment

Evaluation of Health Communication	
15	To the best of your knowledge, are health communication activities evaluated in your country?
	Yes
	Sometimes
	No (skip to question 17)
	Comment
16	To the best of your knowledge, are health communication activities for communicable diseases in your country evaluated through the following? You can click on more than one option. Yes/sometimes/never
	Investigates the process of delivering the program or technology, including alternative delivery procedures (Process evaluation)
	Monitor the fidelity of the program or technology delivery (Implementation evaluation)
	Investigate whether the program or technology caused demonstrable effects on specifically defined target outcomes (Outcome evaluation)
	Assess the overall or net effects , intended or unintended , of the program or technology as a whole (impact evaluation)
	Value for money and/or cost-effectiveness
	None of the above
	Other (please specify) / Comment
17	What do you consider a priority to improve health communication in the EU? Click all that apply.
	Service delivery
	Switching people's current behaviour to desired behaviour e.g. from poor quality hand-washing practices to good hand-washing practices
	Focus on product e.g. promoting condoms as optimal method
	Dividing the population into target groups e.g. men, women, children, adults, older people
	Focus on groups of services e.g. essential health services package
	Branding of public health communication campaigns
	Events at certain periods of time e.g. national immunisation days
	Media-focused: that is using media as focal point of programme e.g. community radio
	Community participation or mobilisation
	Advocacy: that is promoting policies, regulations and programmes e.g. vaccination programmes

	Focus on the individual e.g. counselling, personal service
	Breaking new territory: a new concept to people who are not practicing alternative behaviour e.g. introduction of new screening programmes
	Particular need in one area e.g. national, regional, local
	Education through entertainment e.g. HIV/AIDS awareness through theatre
	Promoting service provider e.g. public announcements about vaccination through public health department
	Social networks e.g. facebook
	Direct communication to community leaders/public(s)
	Other (please specify) Comment
Sustainability of Health Communication Activities	
18	Please click on the statement/s relevant to the health communication activities in your country. You can click on more than one option.
	We keep awareness of the issue of health communication for communicable diseases high on the agenda of all stakeholders including the public, community partners and decision makers (Sustaining the issue)
	We build skills, create physical structures, and change the social environment so that it supports healthy behaviours through health communication for communicable diseases (Sustaining behaviour changes)
	We integrate through health communication for communicable diseases activities (e.g. an awareness campaign, a support group, or educational sessions) into existing organization/s who agree to take responsibility for the program over the long term (Sustaining programs)
	We develop productive working relationships and take full advantage of the benefits of using health communication for communicable diseases with a wide range of stakeholders (Sustaining a partnership)
	None of the above
	Other (please specify) / Recommend a source of information / Comment

Health Communication Examples	
19	Please give us examples of health communication activities or provide internet links to examples carried out in your country related to control and prevention of communicable diseases.
20	Are you aware of any health communication activities used in your country that were originally developed in another country?
	Yes
	No
	If yes, please give examples / Comment
General	
21	Please add any further comment.
22	Please give names and contact details of colleagues whom we could contact to provide us with more information about health communication activities in your country. Please note that as a respondent you take responsibility for getting permission to share that person's information.

Appendix 4: E-survey invitation letter



Dear Colleague,

As you are aware health communication activities to inform and influence individual and community decisions are increasingly being used to support the prevention and control of communicable diseases globally. The extent and nature of the use of health communication activities for the prevention and control of communicable diseases across Europe is currently unknown. The European Centre for Disease Prevention and Control (ECDC) in Stockholm has commissioned a Consortium of universities to identify and map health communication activities, particularly those in relation to the prevention and control of communicable diseases across the EU Member States and EEA/EFTA countries. (Call for proposals title/code: Establishing A Program for Dissemination of Evidence Based Health Communication Activities and Innovations on Communicable Diseases for Country Support in the EU and EEA/EFTA, 2009-12, Framework Partnership Agreement Grant/2009/007, European Centre for Disease Prevention and Control).

You have been identified as a senior expert in your field in the prevention and control of communicable diseases. We would value your contribution to this project through completing the e-survey. You do not have to be a communication expert to fill in the questions. The information you provide, along with that of all other EU Member States, will be collated and made available in the form of a report.

We would appreciate it if you could return the completed questionnaire to us by **Friday 5 November 2010**.

SOME PRACTICAL DETAILS:

The survey is online and is also provided to you in word format (attached) for your convenience, so that you may, print and review the questions asked, before completing the online questionnaire.

Please click on the following link (or copy and paste it in your browser's address bar) to access the survey.

Link: <http://www.surveymonkey.com/s/YQQG637>

In undertaking the online survey you can go back to previous pages in the survey and update existing responses until the survey is finished or until you have exited the survey. After the survey is finished, you will not be able to re-enter the survey. Please note that you must click the 'next' button to save the page if you need to go to the previous page.

If you have any queries or require more information about any aspect of the survey you can contact: Priscilla Doyle of the Health Promotion Research Centre, NUI Galway, Ireland. (email and telephone number were provided)

Yours sincerely,

Dr Jane Sixsmith

Health Promotion Research Centre

National University of Ireland, Galway, Ireland

Data Protection Notice

In accordance with Article 11 and 12 of Regulation (EC) No 45/2001 of the European Parliament and of the Council on personal data protection, survey respondents are informed of the following:

- a) this survey will be carried out by the Health Promotion Research Centre on behalf, and under the responsibility and control of, Karl Ekdahl, Head of the Communication and Country Cooperation Unit of the European Centre for Disease Prevention and Control;
- b) purpose of the survey is health communication in the EU Member States and EEA / EFTA countries;
- c) your name and contact details have been provided to the controller by the Country Cooperation Section of ECDC;
- d) any information which you provide in the context of this survey, and which can be related to you (hereinafter 'your personal data'), will be made accessible to staff of the controller and of the Health Promotion Research Centre who will be handling the survey;
- e) your responses to the survey questions are voluntary;
- f) you have the right to access your personal data, at any time free of charge, and, if needed, have them corrected – you may exercise these rights by addressing a request to the controller.

Appendix 5: Telephone interview protocol

Aim: To identify health communication activities, particularly those in relation to the prevention and control of communicable diseases across the EU/ EFTA countries.

Respondent details

1. What is your role and area of expertise in the organisation in which you are currently working?

What is currently being done in health communication at national and organisational level

2. How are health communication activities currently financed in your country? (through national government or administration, international agencies, national or international grants, private/commercial companies, etc. ?)
3. Is there a specific policy for health communication in your country?
 - a. If yes, does it address communicable diseases?
 - b. If no, is health communications for communicable diseases addressed in any other policy/plan/programme at a national level?
 - c. If you do not know, who could we contact?
4. For what specific groups of diseases is health communication used in your country? (See list 1 and please give specific examples)
5. Regarding communicable diseases, what types of health communication are currently used in your country? (See list 2 and please give specific examples)
 - a. Which of these types of health communication are reflected in the national health plan/programme/policy in your country?

How are health communication activities used at national and organisational level

6. What channels of communication are used in your country for health communication activities? (see list three and please give specific examples)
7. Regarding communicable diseases, what health communication activities are carried out by your organisation? Please give specific examples (including internet links etc)?
8. What health communication activities currently used in your country were developed or adapted from those used in another country?

Who is involved in health communication activities at national and organisational level

9. Please indicate the main target groups for health communication activities in your country? (See list 4 and please give specific examples)
10. Does your organisation work with any other groups/organisations in the development and delivery of health communication activities? (See list 5 and please give specific examples).
 - (a) Can you suggest any partners/collaborators with whom you or your colleagues may be interested in working with in the future?
11. Which organisations do you look to for evidence to inform activities for health communications for communicable diseases in your organisation? Please give specific examples.

Education & training in health communication activities

12. What education and training programmes for health communication are available in your country, with regard to leadership development, planning, management and/or evaluation? Please give specific examples.

Evaluation of health communication activities

13. What evaluations of health communication activities for communicable diseases have been carried out in your country? (see list 6 and please give specific examples)

Future Developments of health communication activities

14. What do you consider a priority to improve health communication in the EU/EFTA countries?
15. Please suggest colleagues who might help us identify health communications at a national level for communicable diseases? (name, organisation, email, telephone)

The interviewer will read through the items on each list and where possible the participants should give specific examples.

List 1

- Tuberculosis
- Food and waterborne diseases and zoonosis
- Influenza
- Emerging and vector borne diseases
- HIV/AIDS, sexually transmitted infections (STI), blood-borne virus (BBV) vaccine preventable diseases and invasive bacterial infections antimicrobial resistance/healthcare associated infections
- Other

List 2: Explanation of types of health communication:

- **Health communication:** Use/development of communication activities to inform and influence individual and community decisions that enhance health
- **Health education:** Planning combinations of learning experiences designed to enable and reinforce voluntary health behaviour in individuals, groups, or communities
- **Health literacy:** Ensuring that individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions
- **Health promotion:** Planning a combination of educational, political, regulatory, and organisational supports for actions and conditions for healthy living of individuals, groups, or communities
- **Patient education/communication:** Informing individuals with health conditions to help them get the most out of recovery and treatment, and understand alternative approaches
- **Risk Communication:** Engaging communities in discussions about environmental and other health risks and about approaches to deal with them
- **Social marketing:** Applying marketing ideas to program development, implementation, and evaluation to promote healthy behaviours or reduce risky ones
- **Crisis communication:** Providing information that allows an individual, stakeholders, or an entire community to make the best possible decisions during a crisis emergency about their well being
- **Health advocacy:** Communicating with policymakers and decision-makers to promote policies, regulations, and programmes to bring about change
- **Health communication education & training**

List 3: Channels of communication

- Online Channels (e.g. websites and interactive sites, mailing lists, e-forums, online action campaigns, email, online databases, social networks, etc.)
- Broadcast media (television, radio, film)
- Other electronic/digital (e.g. CDRoms, DVD, telephone, mobile phone)
- Direct marketing (postal mail, email)
- Print media (e.g., newspaper advertisements/editorials/articles, leaflets /brochures,
- Billboards (display boards), books /magazines, press release, etc.)
- Action oriented (e.g. role-play, theatre, songs, storytelling, games, etc.)
- Face-to-face (e.g. presentation, trainings, clinical settings, conferences, etc.)
- Events (national events e.g. HIV/AIDS Awareness Day, community wide events, specific groups, health promotional events, etc.)

List 4: Target groups/audience

- General public
- Specific patient/risk groups
- Policymakers
- Health professionals
- Scientists
- Researchers
- Politicians
- Industry
- Mainstream media
- Specialist scientific /medical media

List 5: Key stakeholders

- General public
- Politicians
- Specific patient/population groups
- Healthcare staff
- Universities etc engaged in research
- Public sector organisations or agencies
- Semi-state institutions
- Private sector
- Non-governmental organizations
- European Union organisations
- International organisations or agencies
- Local authorities
- Professional societies
- Community groups
- We do not work in partnership or collaborate with other stakeholders
- Other (please specify)/Comment

List 6: Types of evaluations

- **Process evaluation** - investigates the process of delivering the program or technology, including alternative delivery procedures.
- **Implementation evaluation** - monitors the fidelity of the program or technology delivery.
- **Outcome evaluation** - investigates whether the program or technology caused demonstrable effects on specifically defined target outcomes.
- **Impact evaluation** - assess the overall or net effects (intended or unintended) of the program or technology as a whole.
- **Cost effectiveness** (value for money)

Appendix 6: Telephone interview invitation letter



Dear Colleague,

As you are aware health communication activities to inform and influence individual and community decisions are increasingly being used to support the prevention and control of communicable diseases globally. The extent and nature of the use of health communication activities for the prevention and control of communicable diseases across Europe is currently unknown. The European Centre for Disease Prevention and Control (ECDC) in Stockholm has commissioned a Consortium of universities to identify and map health communication activities, particularly those in relation to the prevention and control of communicable diseases across the EU/ EFTA countries. (Call for proposals title/code: Establishing A Program for Dissemination of Evidence Based Health Communication Activities and Innovations on Communicable Diseases for Country Support in the EU and EEA/EFTA, 2009-12, Framework Partnership Agreement Grant/2009/007, European Centre for Disease Prevention and Control).

You have been identified as a key informant in health communication, including the prevention and control of communicable diseases within your country. Therefore we would like to invite you to participate in a telephone interview, which can be scheduled at your convenience, will last approximately 35-40 minutes and will be audio-recorded.

You do not have to be a communication expert to participate in the telephone interview; however we would value your contribution to this project. Please find attached a copy of the interview protocol, so that you may print and review the questions, before participating in the telephone interview. Confidentiality and anonymity will be ensured and no link will be made between any organisation, individual and the data. The information you provide, along with that of all other Member States, will be collated and made available in the form of a report.

We hope that you will be happy to take part in this research by participating in a telephone interview. To confirm your acceptance, nominate an alternate, or if you have any queries or require more information about any aspect of the project, please contact:

Priscilla Doyle of the Health Promotion Research Centre, NUI Galway, Ireland. (email and telephone number were provided)

We would appreciate it if you could respond to us by Friday 4th February 2011. Yours sincerely,

Dr Jane Sixsmith

Health Promotion Research Centre National University of Ireland, Galway Ireland

Appendix 7: Group interview consultation protocol

- 1. Give examples of the use of health communication for the prevention and control of communicable disease?
- 2. What do public health bodies need in order to be able to use health communication effectively in the control and prevention of communicable disease?
 - At policy level
 - At practice level
 - In terms of research
 - IT support
- 3. Are there any differences between using health communication techniques for the prevention and control of non-communicable and communicable diseases?
 - Behaviour change
 - Enhancing health outcomes.
- 4. What are the barriers to the use of health communication for the control and prevention of communicable disease? (*Note:* this question was not asked in the group interview).
- 5. What informs your Health communication knowledge? Where do you get information?
- 6. What are the main knowledge gaps in relation to the use of health communication for the prevention and control of communicable disease from your perspective? (*Note:* this question was asked in the group interview but there was no response).
 - Communication skills / techniques
 - Evidence of effectiveness
 - Information sources
 - Sharing of best practice
 - Evaluation
 - Use of new media / social media platforms
- 7. From your perspective, what are the main priorities in enhancing the capacity for health communication in your country? (*Note:* this question not asked in the group interview).
- 8. Particularly what can ECDC do to enhance the capacity and support the countries in their health communication activities?
- 9. Have you had a chance to use ECDC publications, toolkits and other communication materials in practice? What ECDC resources do you use in practice? (*Note:* this question not asked in the group interview).

Appendix 8: Participant organisations by country and data collection type

During the e-survey and telephone interviews, the participants outlined the organisations that they currently work for and these are presented in the table below.

Country & Data Type	Identified Organisations
Austria E-survey	Federal Ministry of Health Permanent Mission of Austria to the office of UN Centre for Public Health - Institute of Social Medicine, Medical University of Vienna The Austrian Agency for Health and Food Safety (AGES)
Interviews	Federal Ministry of Health Institute of Public Health, Medical Decision Making and Health Technology Assessment at the University for Health Sciences, Medical Informatics & Technology
Belgium E-survey	Federal Public Service of Health Flemish Agency for Care and Health
Interviews	Scientific Institute of Public Health
Bulgaria (Both)	Ministry of Health (x3)
Cyprus E-survey	Ministry of Health
Czech Republic (Both)	National Institute of Public Health (x2)
Denmark E-survey	Danish National Board of Health
Interviews	Roskilde University (Communications)
Estonia E-survey	National Institute for Health Development Estonia
Interviews	National Health Board
Finland (Both) Interviews	National Institute for Health & Welfare -THL (x2) Ministry of Social Affairs and Health
France (Both) Interviews	French National Institute for Prevention and Health Education (INPES) (x2) Ministry of Health French Institute of Health Promotion
Germany E-survey	Federal Centre for Health Education, BZgA
Interviews	Institute for Quality and Efficiency in Health Care (IQWiG) - Health Information Department
Greece (Both)	Hellenic Centre for Disease Control and Prevention (x2)
Hungary (Both) Interviews	National Public Health & Medical Officer Service Office of the Chief Medical Officer (x2) Ministry of National Resources (public health issues and programmes)
Iceland E-survey	Centre for Health Security and Communicable Diseases, Directorate of Health
Interviews	Landspítali University Hospital & University of Iceland (x1)
Ireland E-survey	Health Protection Surveillance Centre (HPSC) Health Service Executive x3 (pilot study)
Interviews	University College Cork (General Practice) Health Service Executive (x2)
Italy E-survey	Istituto Superiore di Sanità National Centre for Epidemiology, Surveillance and Health Promotion Italian National Institute for Infectious Diseases Ministry of Health
Interviews	Department of Hygiene and Public Health at the University of Perugia
Latvia E-survey	Riga Stradins University x2 (Infectious Disease)
Interviews	Ministry of Health (Health Communication)
Liechtenstein Interviews	The Federal Office of Public Health in Switzerland
Lithuania (Both)	Centre for Communicable Diseases and AIDS (x2)
Luxembourg E-survey	Direction de la Santé
(Both)	Laboratoire National de Santé (x2)
Malta E-survey	Ministry for Health, the Elderly and Community Care x2 (Public Health Regulation) & (Health Promotion and Disease Prevention)
Interviews	Ministry for Health, the Elderly and Community Care x2 (Health Information & Research) & (Infectious Disease Prevention and Control)

Country & Data Type	Identified Organisations
Netherlands E-survey Interviews	ZonMw RIVM Ministry of Health, Welfare and Sport Wageningen University (Health Communication)
Norway E-survey Interviews	Norwegian Institute of Public Health x2 University of Bergen (Health Promotion and Development) Norwegian Directorate of Health (Communications) Norwegian Institute of Public Health (Information and Communications)
Poland E-survey Interviews	National Medicines Institute School of Public Health, Medical University for Postgraduate Education Ministry of Health Institute of Public Health
Portugal E-survey Interviews	National Health Institute Directorate General of Health
Romania E-survey Interviews	National School of Public Health, Management and Medical Postgraduate Education, Bucharest NIRDMI "Cantacuzino" National Institute for Infectious Disease National Institute of Public Health Centre for Health Policy and Public Health, Institute for Social Research, Faculty of Political, Administrative and Communication Sciences, Babeş-Bolyai University Cluj-Napoca.
Slovakia E-survey Interviews	Jessenius Faculty of Medicine Comenius University Martin Public Health Authority of the Slovak Republic (x2) Regional Authority of Public Health Banská Bystrica (Epidemiology)
Slovenia E-survey Interviews	University Clinic of Respiratory and Allergic Diseases National Institute of Public Health (includes Public Health Laboratory)
Spain E-survey Interviews	Conselleria de Sanitat. Gobierno Autonomo Valencia University of Almería (Faculty of Health Sciences) & Spanish Association for Health Communication (x1)
Sweden E-survey Interviews	National Board of Health and Welfare Swedish National Institute of Public Health Swedish Institute for Infectious Disease Control
United Kingdom E-survey Interviews	Public Health Agency, Northern Ireland Health Protection Agency (Infections) Public Health Wales (Communications) Welsh Assembly Government (Public Health and Communicable Diseases)

Appendix 9: Specific health communication plans and policies identified by participants

These examples of health communication plans and policies presented in the table below were identified by the interviewee participants in this study. Therefore, this list is not exhaustive and neither ECDC nor the Research Consortium endorses its accuracy or any of the plans/policies provided. In addition, the web addresses provided may have changed after the study was completed

Country	Identified Plans and policies
Czech Republic	<ul style="list-style-type: none"> • Patient safety program http://www.mzcr.cz/dokumenty/ministerstvo-zdravotnictvi-se-zameruje-na-bezpecnost-pacientu-predstavuje-akcni-plan-kvality-%20a-bezpecnosti-zdravotni-pece-na-obdobi_3444_1.html • Action plan for the national antibiotic program http://www.szu.cz/tema/prevence/narodni-antibioticky-program
Bulgaria	<ul style="list-style-type: none"> • Programme for surveillance of communicable diseases • National programme for the prevention of HIV and sexually transmitted infections 2008-2015 • National programme for prevention and control of tuberculosis 2007–2011
Ireland	<ul style="list-style-type: none"> • The national strategies for AMR (Strategy for the control of Antimicrobial Resistance in Ireland (SARI, 2001) http://www.hpsc.ie/hpsc/ • HCAI ("Say No to Infection" 2007)
Poland	<ul style="list-style-type: none"> • National health programme/ public health strategy for 2007-2015

Please Note: Respondents that participated in the pilot e-survey study from Ireland, Poland, Spain and United Kingdom were not asked to specify their organisation and thus with the exception of Ireland, it is not possible to include that information here.

Appendix 10: Identified health communication examples for the prevention and control of communicable disease

The health communication examples presented in the table below were identified by the participants in this study during the e-survey and telephone interviews. Therefore, this list is not exhaustive and neither ECDC nor the Research Consortium endorses its accuracy or any of the examples provided. In addition, the web addresses provided may have changed after the study was completed.

Country	Health communication examples
Austria	<ul style="list-style-type: none"> Folder on food borne pregnancy related infections Folder on rabies in bats TB vaccination campaign AGES website 'Gesundheit' website Ministry of Health website e.g. specific zoonosis brochure and also provide information for food borne infections
Belgium	<ul style="list-style-type: none"> www.vaccinatieweek.be http://www.zorg-en-gezondheid.be/vaccinatie.aspx
Bulgaria	<ul style="list-style-type: none"> UN AIDS www.unaids.org/en WHO www.who.int/en/ ECDC European Immunisation week HIV/AIDS day Promote condom use via a video clip which is on the AIDS programme website
Cyprus	<ul style="list-style-type: none"> Participation in TV and Radio programmes on health Newspaper articles on specific health topics Health education in schools through school health services
Czech Republic	<ul style="list-style-type: none"> National Antibiotic Program www.szu.cz/tema/prevence/narodni-antibioticky-proprogram EARS-Net (European antimicrobial Resistance Surveillance Network) www.szu.cz/earsnet/ ECDC http://ecdc.europa.eu World Health Organisation www.who.int/en/ CDC www.cdc.gov/ A Patient Safety Program www.mzcr.cz/dokumenty/ministerstvo-zdravotnictvi-se-zameruje-na-bezpecnost-pacientu-predstavuje-akcni-plan-kvality-a-bezpecnosti-zdravotni-pece-na-obdobi-3444-1.html European Antibiotic Awareness Day http://ecdc.europa.eu/en/EAAD/Pages/Home.aspx/
Denmark	<ul style="list-style-type: none"> Influenza-Campaign: www.sst.dk/Sundhed%20og%20forebyggelse/Influenza/BeskytDi g.aspx Anti-Smoking Campaign in Denmark www.sst.dk/Sundhed%20og%20forebyggelse/Tobak.aspx Tuberculosis communication for Somali immigrants
Estonia	<ul style="list-style-type: none"> Health Board www.terviseamet.ee/en/information/about-hb.html Influenza-Campaign: www.gripivastu.ee Immunisation www.vaktsineeri.ee ECDC http://ecdc.europa.eu Reduce alcohol consumption: www.alkoinfo.ee Healthy food advice: www.toitumine.ee and http://www.nutridata.ee/andmekogu/index.action HIV/AIDS prevention: www.hiv.ee Drug abuse: (www.narko.ee) National Institute for Health Development www.tai.ee Health promotion: www.terviseinfo.ee Smoke Free Class competition www.smokefreeclass.info/
Finland	<ul style="list-style-type: none"> Swine flu campaign www.thl.fi Various AIDS campaigns Health communication activities from UNICEF www.unicef.org/ Monthly epidemics news to health care professionals approx once a month www.ktl.fi/portal/14917 Recommendations, operating procedures and reports of infectious diseases to health care professionals www.thl.fi/infektiotaudit Finnish Tuberculosis Control Programme Finnish Food safety Authority (Evira) www.evira.fi/portal/en/ Virtual zoonosis centre www.zoonosikeskus.fi Neuvolan rokotusopas - a leaflet to inform parents about vaccinations: www.ktl.fi/attachments/neuvolan_rokotusopas.pdf Influenza pandemic 2009 -YLE had a promotional short film about hand hygiene www.thl.fi/fi_FI/web/fi/ah1n1v/materiaalipankki World health days e.g. World Tuberculosis day, World Health Day, Hand Hygiene Day, European Antibiotic Awareness Day and World AIDS Day

Country	Health communication examples
France	<ul style="list-style-type: none"> • <i>Examples of websites:</i> <ul style="list-style-type: none"> – www.tabac-info-service.fr/ : online coaching (previously developed in other countries) – www.onsexprime.fr/ : sexual health for young people (inspired from a Canadian experience) – The health prevention site for foreigners in France www.lasantepourtous.com • <i>Examples of TV campaigns:</i> <ul style="list-style-type: none"> – To promote hand washing: www.youtube.com/user/InpesWeb#p/u/8/6XUUW3h0Y8o . • <i>Examples of Leaflets:</i> <ul style="list-style-type: none"> – 'Fiches conseil' nutrition recommendations: www.mangerbouger.fr/espace-info/outils-d-information/les-fiches-conseils.html • National Health Insurance: www.ameli.fr/ • Presentation of the antibiotics campaign (in relation with antimicrobial resistance) www.ameli-sante.fr/angine/quest-ce-que-langine/angine-virale-et-bacterienne-a-streptocoque.html • www.sante.public.lu/fr/campagnes/sida/index.html • Cold or Flu? Take care, not antibiotics!" European Antibiotic Awareness Day2010: www.sante.public.lu/fr/campagnes/antibiotiques/2010/campagne-antibiotiques/index.html • Health at Work Day • Vaccination Week • Annual HIV/AIDS and STDs prevention campaigns
Germany	<ul style="list-style-type: none"> • Federal centre for health education www.bzga.de • HIV/AIDS prevention www.gib-aids-keine-chance.de • HIV/AIDS prevention www.machsmit.de • HIV/AIDS www.welt-aids-tag.de • Influenza information www.bzga.de/schweinegrippe • Portal for women's health www.frauengesundheitsportal.de • Web portal for respiratory diseases www.rki.de • HIV/AIDS http://aidshilfe.de/ • Prevention of HIV and other sexually transmitted diseases www.iwwit.de (DAH campaign: Ich weiß was ich tue [I know what to do]) • Media Doctor www.medien-doktor.de/ • Independent Scientific Institute investigates the benefits and harms of medical interventions for patients www.igwiq.de
Greece	<ul style="list-style-type: none"> • H1N1 2009 - www.keelpno.gr • West Nile Virus outbreak: www.ecodev.gr/userfiles/file/pdf/Danis_WNV_Greece2011.pdf • WHO "Clean Hands" campaign • HIV/AIDS awareness day
Hungary	<ul style="list-style-type: none"> • National Center for Epidemiology www.oek.hu • Office of Chief Medical Officer of State of National Public Health and Medical Offices Service (OCMO of NPHMOS) www.antsz.hu • The National Institute for Health Development www.oefi.hu/english.htm • Research Institute for Public Education www.oki.hu • National Institute for Food and Nutrition Science www.oeti.hu • Influenza prevention www.jarvany.hu • Information to the public around vaccinations • HIV programme and awareness day • Non-smoking day
Iceland	<ul style="list-style-type: none"> • An electronic newsletter published by the Directorate of Health www.landlaeknir.is • Influenza H1N1 information from the Chief Epidemiologist www.influensa.is/?PageID=1437 . • ECDC materials for European Antibiotic Awareness Day • HIV/AIDS Awareness Day

Country	Health communication examples
Ireland	<ul style="list-style-type: none"> • Irish Health Protection Surveillance Centre www.hpsc.ie • HSE www.hse.ie • Irish National Immunisation office www.immunisation.ie • Health Protection Agency (HPA) in the UK www.hpa.org.uk/ • General practice education programme on prudent antibiotic prescribing (based on local surveillance and data feedback through GP tutor groups) • Public information campaign on prudent antibiotic use (linked to ECDC European Antibiotic Awareness Day) www.hse.ie/eng/services/healthpromotion/AntibioticAwareness/ • HSE "Have You Cleaned Your Hands" public information campaign www.hse.ie/eng/services/news/2008_Archive/Jan_2008/Have_you_cleaned_your_hands_today.html • e-learning programme for healthcare workers on prevention of healthcare associated infections (in development) • Strategy for the Control of Antimicrobial Resistance in Ireland (SARI) www.hpsc.ie/hpsc/AZ/MicrobiologyAntimicrobialResistance/StrategyforthecontrolofAntimicrobialResistanceinIrelandSARI/ • US Centre for Disease Control and Prevention – www.cdc.gov • National public health institutes in other European countries • Health Promotion Academic Units • World Health Organisation – www.who.int • Pandemic TV clip from the UK • Information leaflets and explanatory documents for public and healthcare professionals on specific types of healthcare associated infections and antimicrobial resistant pathogens available at www.hpsc.ie • H1N1 review of communications on a national level but also on an international review of risk perception • Immunisation programmes in schools • Community talks on water contamination with lead and cryptosporidium • Media involvement during a recent look back exercise • HIV Awareness Day
Italy	<ul style="list-style-type: none"> • MOH website www.salute.gov.it/servizio/campagna.jsp?idarc=9 • www.nuovainfluenza.salute.gov.it/nuovainfluenza.jsp • www.fermailvirus.it/ • http://www.iss.it/ • National Centre for Epidemiology, Surveillance and Health Promotion www.epicentro.iss.it • Rare Diseases Day EUORDIS www.eurordis.org/content/rare-disease-day-2011 • European Antibiotic Awareness Day promoted by ECDC http://ecdc.europa.eu/en/EAAD/Pages/Home.aspx/ • European Network for Workplace Health Promotion www.enwhp.org/ • Gaining Health launched by the Italian MoH in 2007
Latvia	<ul style="list-style-type: none"> • Centre of Infectology of Latvia www.lic.gov.lv
Liechtenstein	<ul style="list-style-type: none"> • Office for Public Health Liechtenstein www.ag.llv.li - has a section on influenza and specific risk groups
Lithuania	<ul style="list-style-type: none"> • A document which outlines the Lithuania's experience over the last 15 years of AIDS www.sauliuscaplinskas.lt/books/15%20years%20with%20aids.pdf • Vaccination campaign against diphtheria • HELP project www.inj.com/connect/caring/corporate-giving/preventing-disease/hiv-aids-portfolio/europe/health-workers - an educational program for healthcare workers in relation to HIV/AIDS • Pandemic flu outbreak
Luxembourg	<ul style="list-style-type: none"> • Halte à la grippe A (H1N1, 2009) www.grippe.public.lu/publications/index.html • Hand Hygiene Campaign « Proper Hänn sinn secher Hänn » www.sante.public.lu/fr/catalogue-publications/maladies-traitements/infections-nosocomiales/index.html • Sexual health education in schools (special information classes and distribution of a detailed guidebook "Le guide de la santé sexuelle et affective des jeunes" to all pupils) • Annual HIV/AIDS and STDs prevention campaigns www.sante.public.lu/fr/campagnes/sida/index.html • Cold or Flu? Take care, not antibiotics! European Antibiotic Awareness Day 2010: www.sante.public.lu/fr/campagnes/antibiotiques/2010/campagne-antibiotiques/index.html • Food safety communication whenever there's a problem www.securite-alimentaire.public.lu/ • Health literacy e.g. national health portal www.sante.lu

Country	Health communication examples
Malta	<ul style="list-style-type: none"> • Communication with health professionals about infectious diseases is usually by email and there is an online portal for health professionals called Synapse www.thesynapse.net/ • Health Promotion and Disease Prevention Directorate Posters/flyers https://ehealth.gov.mt/HealthPortal/health_promotion/introduction.aspx • Influenza prevention campaign • Influenza vaccination campaigns • Sexual health promotion • Media conferences • Tuberculosis in migrant populations. • Food Safety week in October • Asian tiger mosquito (<i>Aedes albopictus</i>), a vector for diseases such as Chikungunya fever, Dengue fever and West Nile Virus, communication activities around the issue. • Antimicrobial resistance with activities for ECDC European Antibiotic Awareness Day • The Department of Health Promotion and Disease Surveillance www.health.gov.mt/ has a website and a presence on the social networking site Facebook • WHO hand washing poster • ECDC materials
Netherlands	<ul style="list-style-type: none"> • Web page for influenza A www.griep pandemie.nl • Government information about Q fever www.qkoortsinnederland.nl • National vaccination program www.rvp.nl • Web page with information about the annual flu shot for risk population www.rivm.nl/griep prik • Searchable database of health promotion and preventative interventions in the Netherlands www.loketgezondleven.nl/algemeen/english/ • Toolkit for public communication http://toolkits.loketgezondleven.nl/
Norway	<ul style="list-style-type: none"> • http://www.fhi.no/eway/?pid=238 • Food and waterborne diseases and zoonosis (the Norwegian Institute of Public Health and the Norwegian Food Safety Authority http://www.regjeringen.no/nb/dep/hod/dep/underliggende-etater/mattilsynet.html?id=279765) • Norwegian Institute of Public Health – www.fhi.no : communication on influenza i.e. posters/leaflets • Awareness days e.g. HIV/AIDS & European Antibiotic Awareness Day
Poland	<ul style="list-style-type: none"> • National Day for Immunisation www.ogolnopoliskidzienszczepien.pl • Pneumococcal Invasive Disease www.pneumokoki.pl • Influenza education www.influenza.pl • HPV prevention www.hpv.pl • Awareness days, conferences, workshops and media
Portugal	<ul style="list-style-type: none"> • National Program for Tuberculosis Control - "Programa Nacional de Luta Contra a Tuberculose www.antdr.org/html/00_main.htm • National Program for the Prevention and Control of HIV / AIDS - "Programa Nacional de Prevenção e Controlo da infeção pelo VIH/sida" Liga Portuguesa Contra a SIDA http://www.ligacontrasida.org .
Romania	<ul style="list-style-type: none"> • HPV Vaccination www.informarehpv.ro • HIV Awareness www.cnlas.ro • Sanitation Ministry www.ms.ro • National Department of Health www.insp.gov.ro • National Campaign against AIDS • Tuberculosis prevention • Flu prevention
Slovakia	<ul style="list-style-type: none"> • Vaccine-preventable diseases: www.sprievodcaockovanim.sk • Epidemiological information system of the Slovak Republic - communicable disease: www.epis.sk • National Vaccination Day/Week, • Public Health Authority of Slovak republic http://www.uvzsr.sk/en/ • National Registry of Diseases • WHO project "Healthy Town" • Slovak Epidemiological and Vaccinological Society www.sls.sk/
Slovenia	<ul style="list-style-type: none"> • Institute of Public Health www.ivz.si

Country	Health communication examples
Spain	<ul style="list-style-type: none"> Government campaigns from 2005 to 2010 are at: <ul style="list-style-type: none"> http://www.msps.es/campannas/campanas2005.htm http://www.msps.es/campannas/campanas06/home.htm Drugs www.msps.es/campannas/campanas06/drogas.htm www.msps.es/campannas/campanas07/home.htm Sexual health http://www.msps.es/campannas/campanas07/Ssexualjovenes.htm http://www.msps.es/campannas/campanas08/home.htm HIV awareness day: http://www.msps.es/campannas/campanas10/diaSida10.htm Government information on influenza H1N1: http://www.informaciongripe.es/ HIV prevention: <ul style="list-style-type: none"> www.preservativoentubolsillo.es www.ponteunamedalla.es European Antibiotic Awareness Day promoted by ECDC http://ecdc.europa.eu/en/EAAD/Pages/Home.aspx/ Ministry of Health of the Canary Islands-DVD from Andalucia for HIV prevention (could not provide a link but sent a link to a similar campaign in Canarias with a CD Room) http://www2.gobiernodecanarias.org/ TBC Research Unit of Barcelona www.aspb.es/uitb
Sweden	<ul style="list-style-type: none"> For Chlamydia and HIV campaigns http://hivportalen.se/Sidor/inenglish.aspx Television campaigns about vaccination, hepatitis, HPV and influenza
UK England	<ul style="list-style-type: none"> TBC web page www.thetruthabouttb.org/ Health Protection Agency www.hpa.org.uk/ProductsServices/InfectiousDiseases/ServicesActivities/NationalKnowledgeServiceTB/ResourcesDevelopedByNK_STBAndTBAlert/ NHS Hepatitis C webpage www.nhs.uk/hepc VIH webpage www.tht.org.uk/ African HIV Policy Network www.ahpn.org/ Information on sexual health www.fpa.org.uk/Homepage Information on sexual health and contraception www.brook.org.uk/index.php MRSA screening videos www.youtube.com/results?search_query=MRSA+screening Department of Health webpage to reduce healthcare associated infections www.clean-safe-care.nhs.uk/index.php?pid=0 Patients leaflets on MRSA screening www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_098307 NHS information about MRSA www.nhs.uk/conditions/MRSA/Pages/Introduction.aspx European Antibiotic Awareness Day www.hse.ie/eng/services/healthpromotion/AntibioticAwareness NHS information about infection by clostridium difficile www.nhs.uk/conditions/Clostridium-difficile/Pages/Introduction.aspx NHS information about the antibiotic awareness day www.nhs.uk/arc Department of Health information about antibiotic resistance www.dh.gov.uk/antibiotics Press releases Information leaflets www.publichealth.hscni.net/news/get-vaccinated-against-flu%E2%80%A6it%E2%80%99s-not-too-late www.publichealth.hscni.net/news/hiv-and-stis-%E2%80%93-still-challenge-northern-ireland WHO 5 moments for hand hygiene www.who.int/gpsc/5may/background/5moments/en
Scotland	<ul style="list-style-type: none"> Cervical cancer and Human Papilloma Virus (HPV) Immunisation website. www.fightcervicalcancer.org.uk/ Health Protection Agency www.hpa.org.uk/ Health Protection Scotland www.hps.scot.nhs.uk/ Department of Health information about immunisation against infectious diseases www.dh.gov.uk/en/PublicHealth/Healthprotection/Immunisation/Greenbook/DH_4097254 Resources for pandemic flu information www.direct.gov.uk/en/groups/dg_digitalassets/@dg/@en/documents/digitalasset/dg_178842.htm C Card Glasgow www.sandyford.org/media/48286/west%20glasgow%20chcp%20c%20card%20sites.pdf Webpage for health care professional to advice travelling public www.travax.nhs.uk/ Travel health information www.fitfortravel.nhs.uk/home.aspx CDC's 5 Moments for Hand Hygiene www.cdc.gov/handhygiene/training.html Information for hepatitis C in Scotland www.hepcscotland.co.uk/
Wales	<ul style="list-style-type: none"> A programme to raise awareness of hydatid disease in Mid- Wales, targeting farmers A blood borne virus campaign that particularly focuses on hepatitis C Influenza vaccination campaign HPV vaccine campaign European Antibiotic Awareness Day promoted by ECDC http://ecdc.europa.eu/en/EAAD/Pages/Home.aspx/ Activities to increase Measles, Mumps and Rubella uptake i.e. DVD's Healthy Schools Cooking Bus programme Immunisation conferences

Health communication examples identified during the consultation

These examples below were identified by the participants during the consultation. Therefore, this list is not exhaustive and neither ECDC nor the Research Consortium endorses its accuracy or any of the examples provided.

Influenza

- The utilisation of social media e.g. Facebook as a health communication tool during the influenza pandemic. Upon evaluation it was determined that the use of Facebook pages was unsuccessful but was favourably reported in the media as it was felt that campaign organisers were trying to engage with different target audiences.
- A hand washing and coughing campaign relating to the influenza pandemic and seasonal flu.
- A vaccination and flu initiative targeted at a section of the general public with low health literacy, involving health professionals creating online questions and answers around vaccination and flu.
- Call centres to deal with queries relating to the pandemic.
- A campaign for the flu vaccination was presented on television and incorporated various press conferences.
- A campaign during the pandemic making a nurse on Facebook available to answer queries regarding influenza.
- A campaign where medical students used their own personal Facebook pages to counteract scepticism regarding the influenza vaccine.
- An organisation's Facebook group during the flu pandemic was not successful until they added the flu commissioner's face to the group rather than the organisation logo.

Tuberculosis (TB)

As the majority of TB cases in the UK are acquired in the Indian sub continent or Africa, a TB campaign was developed to target this hard-to-reach group. A two hour interactive programme on TB was broadcast on an Islamic channel in an attempt to reach this audience.

Hygiene

- Hygiene intervention that encouraged people to clean their hands before going into hospital wards. Various information-based approaches were used but a physical solution was deemed more successful. Communication was deemed insufficient as an approach in isolation but formed part of the solution.
- A poster initiative that highlighted the hygiene and safety implications for patients when health professionals wear nail varnish.
- A hand hygiene campaign within hospitals that highlighted the hygiene and safety implications for patients when health professionals do not wash their hands resulted in an increase in compliance with procedures among doctors and nurses.

HIV/Aids and sexually transmitted diseases

- Social media (mostly Facebook) was used as a platform for people with HIV/Aids to share their stories with the general public as part of a HIV/Aids campaign. The initiative highlighted the message that HIV/Aids can affect anyone. The communication spread on Facebook and more people visited the www.worldaidsday.de website looking for additional information.
- The public health programme coordinated by the European Commission for communicable diseases co-finances many projects involving a minimum of ten Member States e.g. a project preventing sexually transmitted diseases to sex workers.

Antibiotic resistance

A national template for antibiotic guidance was developed so that GPs and local medicine managers could adapt it to their needs.

World Health Organization example

WHO provided an example that shows how social media can offer a platform for exchange, and communicate with healthcare workers and other hard-to-reach groups. A WHO team over a three month period mapped health bloggers over the European region in both the Russian and English language and ranked the top 25 by criteria such as quality and content. WHO is now leveraging these bloggers for two reasons.

- To reach the anti-vaccination lobby, by using non-traditional channels. It was noted that some of the bloggers have thirty two million hits a month, which is ten times more than WHO, thus reaching a larger audience.
- They are equipping the bloggers that are already in dialogue with anti-vaccination lobbyists with raw data and facts so that they can make more informed arguments in favour of vaccination.

Another benefit of this initiative is that they are conversing with healthcare workers and assisting them in finding solutions to their own problems. This is a powerful channel because it implies something called 'community solution efficacy'. In addition it was felt that healthcare workers can frame the message much better than anyone at WHO because they understand how the message needs to be packaged, perhaps because in many cases, they are from the same culture.

Appendix 11: Specific health communication education and training courses identified by participants

The specific health communication education and training courses presented in the table below were identified by the participants in this study for some of the countries during the e-survey and telephone interviews. Therefore, this list is not exhaustive and neither ECDC nor the Research Consortium endorses its accuracy or any of the courses provided. In addition, the web addresses provided may have changed after the study was completed.

Country	Specific Education and Training Courses
Czech Republic	<ul style="list-style-type: none"> Advance Healthcare Management Institute brokers information between researchers and policymakers: http://www.advanceinstitute.cz/ Academy of Health care Management http://www.ahcm.cz/ State organisation for post-gradual education www.ipvz.cz have epidemiological courses.
Denmark	<ul style="list-style-type: none"> Roskilde University www.ruc.dk/en/ (health promotion programmes & Department of communication) Aarhus University www.au.dk/en/ (health promotion programmes) University of Copenhagen http://www.ku.dk/english/ (International health - mostly concerned with developing countries)
Estonia	<ul style="list-style-type: none"> The Health Board organises training courses on communicable disease (epidemiology) www.terviseamet.ee/en/information/about-hb.html The medical training colleges and the University medical school run training courses on public health http://www.ut.ee/en/studies/degrees-in-estonian/medicine-studies
Finland	<ul style="list-style-type: none"> Tampere University www.uta.fi/english/ : training courses in communication, mass media and healthcare
France	<ul style="list-style-type: none"> The Ecole des Hautes Etudes en Santé Publique (EHESP) www.sciencespo.fr/spf/diplomantes/gestion_sante/index.php INPES www.inpes.sante.fr/ A public establishment with a dual role of education and research into public health and social welfare www.ehesp.fr/
Germany	<ul style="list-style-type: none"> Robert Koch Institute www.rki.de/EN/Home/homepagenode.html Federal Centre for Health Education www.bzga.de
Greece	<ul style="list-style-type: none"> Public health school www.nsph.gr/
Iceland	<ul style="list-style-type: none"> University of Iceland www.hi.is/en/introduction Reykjavik University http://en.ru.is/
Ireland	<ul style="list-style-type: none"> University College Dublin www.ucd.ie (part of health promotion and public health courses) HPSC www.hpsc.ie/hpsc/default.aspx (health protection training)
Italy	<ul style="list-style-type: none"> University of Perugia http://www.unistrapg.it/en/university
Latvia	<ul style="list-style-type: none"> Riga Stradins University www.rsu.lv/
Netherlands	<ul style="list-style-type: none"> Wageningen University http://www.wur.nl/uk/, Maastricht University www.maastrichtuniversity.nl/web/show/id=349069/langid42 Free University in Amsterdam http://www.vu.nl/en/ Rotterdam University www.eur.nl/english/ (health programme management)
Slovakia	<ul style="list-style-type: none"> Bratislava University www.szu.sk : media faculty Slovak University http://eng.szu.sk/index.php?&menu=202 (faculty of public health)
Slovenia	<ul style="list-style-type: none"> University of Ljubljana www.uni-lj.si
Spain	<ul style="list-style-type: none"> University of Malaga http://www.uma.es/ (Master Degree on Health Communication) The Spanish Association for Health Communication www.aecs.es
ECDC/WHO	<ul style="list-style-type: none"> How to communicate with the public regarding an outbreak.

Please Note: Countries that did not give specific example included: Austria, Belgium, Bulgaria, Cyprus, Hungary, Liechtenstein, Lithuania, Luxembourg, Malta, Norway, Poland, Portugal, Romania and Sweden.

Appendix 12: Identified stakeholder organisations

Identified stakeholder organisations are presented in the table below. These include national and international organisations that participants identified as sources of evidence, i.e. provide examples of good practice in health communication, partnership organisations and potential future collaborations in the area of health communication and communicable disease.

Note: The organisations mentioned in the table below are derived from the respondents that participated in the e-survey and telephone interviews. This list is not exhaustive and neither ECDC nor the Research Consortium endorses its accuracy or any of the organisations mentioned. In addition, web addresses may have changed since the report was completed.

Country	Identified stakeholder organisations
Austria	<ul style="list-style-type: none"> • Austrian Agency for Health and Food Safety (AGES) http://www.ages.at/ages/ueber-uns/english-what-is-ages/ • Hauptverband der sozialversicherungsträger (Austrian Social Insurance) www.sozialversicherung.at • GOEG -Austrian Health Institute • Austrian Society for Public Health www.oeph.at • Statistics Austria www.statistik.at/web_en/statistics/index.html • Federal Ministry of Health www.bmg.gv.at • Institute of Public Health at the University for Health Sciences, Medical Informatics & Technology www.umi.at • Gesundheit Austria www.gesundheit.gv.at/Portal.Node/ghp/public • AIDS-Hilfe www.aids.at/index.php?id=13 • Medical universities • Institute for Quality Insurance • Austrian Agency for Quality Assurance www.aqa.ac.at • World Health Organisation www.who.int/en/ • ECDC www.ecdc.europa.eu
Belgium	<ul style="list-style-type: none"> • VIGEZ www.vigez.be/ • Sensoa www.sensoa.be/ • Kind en Gezin (Child and Family) www.kindengezin.be/ • WIV (Scientific Institute of Public Health) www.iph.fgov.be/index.asp?Lang=EN • Public Health and Surveillance at the Belgian Scientific Institute for Public Health www.iph.fgov.be/index.asp?Lang=EN • Epidemiology Unit, Department of Public Health and Surveillance at the Belgian Scientific Institute for Public Health www.iph.fgov.be/index.asp?Lang=EN • ECDC www.ecdc.europa.eu • VRGT (Flemish Lung and Tuberculosis Association) • Federal Government (health department) • Universities
Bulgaria	<ul style="list-style-type: none"> • World Health Organisation www.who.int/en/ • UNICEF www.unicef.ie/ • Institute of Medicine • Rotary International www.rotary.bg/en/ • Ministry of Health (including Directorate of Public Health) www.mh.government.bg/ • US Agency for International Development www.usaid.gov/ • National Centre for Infectious and Parasitic Diseases www.ncipd.org/en/ • The International Health Care and Health Insurance Institute www.zdrave.net • UN AIDS www.unaids.org/en/ • ECDC www.ecdc.europa.eu • www.zdravenmediator.net • National centres of specialists for specific diseases. • Private sector • Medical universities in Bulgaria • Global Fund www.theglobalfund.org/en/ • NGOs (topic specific)
Cyprus	<ul style="list-style-type: none"> • Family Planning www.cyfamplan.org/ • Red Cross www.redcross.org.cy/ • Cyprus Scouts www.cyprusscouts.org/default.asp?id=271 • The Unit for Surveillance and Control of Communicable Diseases at the Ministry of Health, Cyprus www.moh.gov.cy/

Country	Identified stakeholder organisations
Czech Republic	<ul style="list-style-type: none"> Professional Society EU Organizations Universities World Health Organisation www.who.int/en/ ECDC www.ecdc.europa.eu CDC www.cdc.gov/ Advance Healthcare Management Institute http://www.advanceinstitute.cz/ Academy of Health care Management http://www.ahcm.cz/ State organisation for post-graduate education http://www.ipvz.cz/ Regional & National Public Health Authorities Ministry of Health www.mzcr.cz/ National Institute of Public Health http://www.szu.cz/ State Veterinary Administration www.svscr.cz/?lng=en&cat=0 Czech Medical Association www.cls.cz/english-info National Reference Centre www.nrc.cz/en
Denmark	<ul style="list-style-type: none"> World Health Organisation www.who.int/en/ Danish National Board of Health www.sst.dk/English.aspx National Centre of Health Promotion www.sst.dk/English/Health_promotion.aspx Ministry of Interior and Health http://www.sum.dk/ Public Danish Healthcare Services https://www.sundhed.dk/service/english/ Roskilde University - Department of Communication www.ruc.dk/en/ Aarhus University www.au.dk/en/ Danish Family Planning Association www.sexogsamfund.dk/Default.aspx?AreaID=13 University of Copenhagen - International Health
Estonia	<ul style="list-style-type: none"> University of Tartu www.ut.ee/en Estonian Network of PLWH www.ehpv.ee/eng/index.php?nid=1 Estonian Temperance Union http://www.ave.ee/ Estonian Cancer Society www.cancer.ee/?op=body&id=15&cid Institute for Health Development Estonia www.tai.ee/?lang=en Health Board of Estonia www.terviseamet.ee ECDC www.ecdc.europa.eu National Institute for Health Development http://www.tai.ee/?lang=en Ministry of Social Affairs http://www.sm.ee/eng.html Public health agencies NGOs (Topic specific) Professional Societies <ul style="list-style-type: none"> European Society for Quality in Family Practice www.equip.ch/flx/about_equip/ Estonian Society of family doctors http://www.perearstiselts.ee/ Health Promotion Union of Estonia www.tervis.ee Private Sector (including doctors)
Finland	<ul style="list-style-type: none"> The Family Federation www.vaestoliitto.fi/in_english/ Finnish National Institute for Health and Welfare (THL) www.thl.fi/en_US/web/en Ministry of Social Affairs and Health www.stm.fi/en/frontpage Finnish Lung Health Association www.filha.fi/in_english/ Finnish Centre for Health Promotion www.tekry.fi Finnish Institute of Occupational Health www.ttl.fi/en/Pages/default.aspx Tampere University www.uta.fi/english/ HIV Foundation / Finnish AIDS Council www.aidstukikeskus.fi/site/ UNICEF www.unicef.org/ National Public Health Institute www.ktl.fi/portal/14917 Finnish Food safety Authority (Evira) www.evira.fi/portal/en/ Virtual zoonosis centre www.zoonoosikeskus.fi Non Governmental Organisations Finnish Hospital Districts Trade unions and pharmacists' organisations

Country	Identified stakeholder organisations
France	<ul style="list-style-type: none"> • French Institute for Public Health Surveillance www.invs.sante.fr/ • French National Cancer Institute www.e-cancer.fr/ • Act Up Paris www.actupparis.org/ • Aides www.aides.org • French National Institute for Prevention and Health Education (INPES) www.inpes.sante.fr/ • Ministry of Health http://www.sante.gouv.fr/ • World Health Organisation www.who.int/en/ • ECDC www.ecdc.europa.eu • The Ecole des Hautes Etudes en Santé Publique (EHESP) www.sciencespo.fr/spf/diplomantes/gestion_sante/index.php • UN AIDS www.unaids.org/en/ • The European Commission's Directorate General for Health and Consumer Policy http://ec.europa.eu/dgs/health_consumer/index_en.htm • The Quebec National Institute of Health www.inspq.qc.ca/english/default.asp • National Health Insurance www.ameli.fr/ • French Institute of Health Promotion • Health Professional Colleges and French NGOs • French National Health Service • EU and International Organisations
Germany	<ul style="list-style-type: none"> • Deutsche AIDS Hilfe www.aidsilfe.de/ • UNAIDS www.unaids.org/en/ • ECDC www.ecdc.europa.eu/en/Pages/home.aspx • GTZ www.gtz.de/en/index2.htm • Robert Koch Institute www.rki.de/ • Federal Ministry of Health www.bmg.bund.de/ • Association of Physicians www.bundesaerztekammer.de/ • Federal States (Laender) • Institute for Quality and Efficiency in Health Care (IQWiG) - Health Information Department www.iqwig.de/index.2.en.html?random=8894ec • Bundesinstitut für Risikobewertung (BfR) www.bfr.bund.de/cd/template/index_en • Federal Centre for Health Education www.bzga.de • WHO www.who.int/en/ • Independent Scientific Institute www.iqwig.de
Greece	<ul style="list-style-type: none"> • National School of Public Health www.nsph.gr/ • ECDC http://ecdc.europa.eu • Hellenic Centre for Disease Control and Prevention www.keelpno.gr • Ministry of Health and Social Solidarity www.yyka.gov.gr • Department of Hygiene and Epidemiology at the University of Ioannina School of Medicine http://users.uoi.gr/ • University of Athens (Centre for health research) UOA http://healthpromotion.med.uoa.gr/center_for_health_services_research/info.htm • WHO www.who.int/en/ • DG5: Directorate General (DG) 5 a division of the European Commission http://ec.europa.eu/social/home.jsp • Professional societies (medical doctors, infectious diseases specialists) • Community groups, NGOs and local authorities • European Food Safety Authority (EFSA) • Public Health Institutes across Europe • Schools of Medicine in various Universities in Greece • European consortium of Public Health Institutes
Hungary	<ul style="list-style-type: none"> • National Center for Epidemiology www.oek.hu • Office of Chief Medical Officer of State of National Public Health and Medical Offices Service (OCMO of NPHMOS) www.antsz.hu • The National Institute for Health Development www.oefi.hu/english.htm • Research Institute for Public Education www.oki.hu • National Institute for Food and Nutrition Science www.oeti.hu • National Institute for Environmental Health www.uniphe.eu • ECDC http://ecdc.europa.eu/en/Pages/home.aspx • WHO www.who.int/en/ • Ministry of Health http://www.eum.hu/about-us/the-ministry/ministry-of-health • www.jarvany.hu • Professional medical colleges • Patient associations: heart disease, cancer etc.
Iceland	<ul style="list-style-type: none"> • Directorate of Health - Centre for Health Security and Communicable Diseases www.landlaeknir.is • The University of Iceland - Medical Faculty www.hi.is/en/introduction • Reykjavik University http://en.ru.is/ • The Icelandic Food and Veterinary Authority www.mast.is/index.aspx?GroupId=1258 • The Environmental Agency of Iceland http://english.ust.is/ • Department of Civil Protection of the National Commissioner of Police • Landspítali University Hospital - Department of Clinical Microbiology www.lsh.is/English • www.influenza.is • Ministry of Welfare http://eng.velferdarraduneyti.is/ • Ministry of Fisheries and Agriculture http://eng.sjavarutvegsraduneyti.is/ • Ministry for the Environment http://eng.umhverfisraduneyti.is/

Country	Identified stakeholder organisations
Ireland	<ul style="list-style-type: none"> Irish Health Protection Surveillance Centre www.hpsc.ie Irish National Immunisation office www.immunisation.ie Vaccination information on pandemic leaflets Environmental Protection Agency www.epa.ie/ Irish College of General Practitioners www.icgp.ie/ Department of General Practice in University College Dublin www.ucd.ie ECDC www.ecdc.europa.eu UK Health Protection Agency www.hpa.org.uk US Centre for Disease Control and Prevention www.cdc.gov Safe Food www.safefood.eu Department of Health and Children www.dohc.ie Environmental Protection Agency www.epa.ie Health Services Executive Communications division www.hse.ie World Health Organisation www.who.int Cochrane Collaboration www.cochrane.org National public health institutes in other European countries Health Promotion Academic Units Vaccination information on pandemic leaflets (sic) Universities engaged in research
Italy	<ul style="list-style-type: none"> WHO www.who.int/en/ ECDC www.ecdc.europa.eu/en/Pages/home.aspx ANLAIDS www.anlaids.org/web/index.php?pag=84 LILA www.lila.it/english.htm Policlinico Agostino Gemelli www.policlinicogemelli.it/area/ European Food Safety Authority EFSA www.efsa.europa.eu/ Ospedale Bambino Gesù www.ospedalebambinogesu.it/ Federazione Italiana Medici di Medicina Generale www.fimmg.org/home Società Italiana di Medici di Medicina Generale www.simg.it/ Ministry of Health/ Ministero della Salute www.salute.gov.it/ Italian National Institute for Infectious Diseases www.inmi.it/ Istituto Superiore di Sanità www.iss.it/chis/?lang=2 National Centre for Epidemiology, Surveillance and Health Promotion www.epicentro.iss.it Department of Hygiene and Public Health at the University of Perugia www.unipg.it/~dipigmed/welcome_e.htm Agenzia Italiana del Farmaco (www.agenziafarmaco.gov.it/en) European Network for Workplace Health Promotion www.enwhp.org/ Scientific organisations e.g. paediatricians, general practitioners, public health Italian Presidency of the Council of Ministers
Latvia	<ul style="list-style-type: none"> The Ministry of Health (health communication unit) www.vm.gov.lv/index.php?setlang=en Society for Paediatric infectious diseases of Latvia Association of Infectologists of Latvia The Centre of Infectology www.lic.gov.lv World Health Organisation www.who.int/en/ The Health Inspectorate www.sva.gov.lv/en Health Economic Centre http://vec.gov.lv/en Professional Organisations and NGOs Riga Stradins University www.rsu.lv/eng/
Liechtenstein	<ul style="list-style-type: none"> The Federal Office of Public Health in Switzerland www.bag.admin.ch/index.html?lang=en Office for Public Health Liechtenstein www.ag.llv.li
Lithuania	<ul style="list-style-type: none"> Centre for Communicable Diseases and AIDS http://www.ulac.lt/index_en.php The Institute of Hygiene http://sena.sam.lt/en/main/sveikatos_apsauga/sveikatos_moksiai ECDC http://ecdc.europa.eu/ World Health Organisation (WHO) www.who.int/en/ UNAIDS www.unaids.org/en/ UNESCO www.unesco.org/new/en/unesco/ World Health Organization www.who.int/en/ The Institute for Tuberculosis Prevention. At local level the public health bureaux in municipalities are responsible for health education Healthcare institutions Hospitals /out-patient clinics
Luxembourg	<ul style="list-style-type: none"> Laboratoire National de Santé http://www.lns.public.lu/ Conseil Supérieur d'Hygiène www.sante.public.lu/fr/systeme_sante/acteurs/ministere-sante/conseil-hygiene/index.html Direction de la Santé www.sante.public.lu/fr/index.html CRP-Santé www.crp-sante.lu Aidsberatung de la Croix-Rouge, Planning Familial www.planningfamilial.lu The French Institute for Public Health Surveillance www.invs.sante.fr/presentations/edito_en.htm The Health Protection Agency www.hpa.org.uk ECDC http://ecdc.europa.eu/ Public Health Research Centre www.crp-sante.lu/ Food safety communication whenever there's a problem www.securite-alimentaire.public.lu/

Country	Identified stakeholder organisations
Malta	<ul style="list-style-type: none"> Malta Medical Students' Association, Education Division http://mmsa.org.mt/ Health Promotion and Disease Prevention Directorate https://ehealth.gov.mt/HealthPortal/health_promotion/introduction.aspx European Centre for Disease Prevention and Control (ECDC) http://www.ecdc.europa.eu/en/Pages/home.aspx Directorate-General for Health and Consumers http://ec.europa.eu/dgs/health_consumer/index_en.htm The Department of Health Promotion and Disease Surveillance www.health.gov.mt/dsu/dsu/aboutus.htm World Health Organization (WHO) www.who.int/en/ National agency against drug and alcohol abuse (SEDQA) http://www.sedqa.gov.mt/
Netherlands	<ul style="list-style-type: none"> Ministry of Health, Welfare and Sport http://english.minvws.nl/en/ ZonMw www.zonmw.nl/en/ A wide range of health professionals (doctors, nurses, hygienists) Ministry of Public Health http://english.minvws.nl/en/ The National Institute for Public Health and the Environment (RIVM) www.rivm.nl/en/ KNCV Tuberculosis Foundation www.kncvtbc.nl/Site/Professional.aspx SANL (STI-AIDS Netherlands) www.soaaids.nl/english/international_activities Schorer www.schorer.nl/16/about-schorer/ Wageningen University http://www.wur.nl/uk/ Hepatitis stichting www.hepatitis.nl/ Maastricht University http://www.maastrichtuniversity.nl/web/show/id=349069/langid=42 Free University in Amsterdam http://www.vu.nl/en/ SOA/AIDS Netherlands www.soaaids.nl/english Toolkit for public communication http://toolkits.loketgezondleven.nl/ Regional public health services
Norway	<ul style="list-style-type: none"> Norwegian Medicines Agency www.legemiddelverket.no/ Cancer Registry www.kreftregisteret.no/en/ Norwegian Institute of Public Health www.fhi.no/eway/?pid=238 The Directorate for Emergency Communication (DNK) www.dinkom.no/default.asp?pub=0&sub=48&lab=uk Norwegian Institute of Public Health www.fhi.no/eway/?pid=238 Directorate of Health www.regjeringen.no/en/dep/hod.html?id=421 Norwegian Food Safety Authority http://www.regjeringen.no/nb/dep/hod/dep/underliggende-etater/mattilsynet.html?id=279765 Norwegian Knowledge Centre for the Health Services (provide reports) www.kunnskapssenteret.no/home Norwegian Health Technology Assessment http://gateway.nlm.nih.gov/MeetingAbstracts/ma?f=103140663.html ECDC http://www.ecdc.europa.eu/en/ European Commission http://ec.europa.eu/index_en.htm Patients' organisations but this will differ from disease to disease Health professionals' organisations during the pandemic
Poland	<ul style="list-style-type: none"> National Medicines Institute www.il.waw.pl/english.html School of Public Health. Medical University for Postgraduate Education State Sanitary Inspectorate, www.gis.gov.pl Polish Society of Family Medicine www.ptmr.edu.pl/ Ministry of Health www.mz.gov.pl/wwwmzold/index?ml=en WHO www.who.int/en/ ECDC www.ecdc.europa.eu/en/Pages/home.aspx UNICEF www.unicef.ie/ EURO STAT http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home/ EURACT http://www.euract.org/index.php?folder_id=17&article_id=245 EQUIP (WONCA) www.equip.ch/flx/national_pages/ The National Institute of Public Health http://www.pzh.gov.pl/page/?L=1 Reference Centres for Invasive Bacterial Disease and Antimicrobial Resistance Institute for Tuberculosis and Pulmonology Polish Society for Medical Hygiene Polish Society for Vaccinology Non-governmental patient's organisations Health care professional NGOs
Portugal	<ul style="list-style-type: none"> Portuguese National Health Institute www.insa.pt/sites/INSA/English/AboutUs/Pages/default.aspx The Office of the Directorate General of Health www.dgs.pt/ Associação Nacional de Tuberculose e Doenças Respiratórias www.antdr.org/html/00_main.htm Liga Portuguesa Contra a SIDA www.ligacontrasida.org/ WHO www.who.int/en/ ECDC www.ecdc.europa.eu/en/Pages/home.aspx

Country	Identified stakeholder organisations
Romania	<ul style="list-style-type: none"> • National Institute for Infectious Disease http://www.mateibals.ro/ • NIRDMI "Cantacuzino" www.cantacuzino.ro/en/ • National School of Public Health, Management and Medical Postgraduate Education, Bucharest • National Institute of Public Health www.ispb.ro/ • Babes-Bolyai University http://www.healthpolicy.ro/ • ECDC www.ecdc.europa.eu • World Health Organisation www.who.int • National Institute of Drug Abuse (USA) www.nida.nih.gov/nidahome.html • Romanian Association against AIDS http://swannet.org/en/node/14 • United Nations Population Fund www.unfpa.org • UNICEF www.unicef.org • Health Aid Romania www.healthaiduk.org • Romanian Angel Appeal www.raa.ro • United States Agency for International Development www.usaid.gov • Romanian Family Health Initiative www.romania.jsi.com • Romanian Harm Reduction Network www.rhrn.ro/index.php?l=en&t=50 • National Institute of Statistics www.insse.ro/cms/rw/pages/index.en.do • European Cancer Patient Coalition (ECPC) www.ecpc-online.org/about-ecpc.html • Global Fund www.theglobalfund.org/en • Public Health Department www.pub-health-iasi.ro/ • Save the Children Romania www.savethechildren.net/romania_en/index.html • Sanitation Ministry www.ms.ro • National Department of Health www.insp.gov.ro • Society of Health Education & Health Promotion (UK) • Local Health Authorities • Patient Associations • USAID • Romanian Family Health Initiative http://romania.jsi.com/
Slovakia	<ul style="list-style-type: none"> • Public Health Authority of the Slovak Republic http://www.uvzs.sk/en/ • Jessenius Faculty of Medicine Comenius University Martin • http://eng.ifmed.uniba.sk/index.php?zobraz=ehhtml&idmenu=1&iddata=36 • Regional Public Health Authorities http://www.vzbb.sk/eng/raph/about.php • Ministry of Health http://www.health.gov.sk/ • Slovak University at the faculty of public health http://eng.szu.sk/index.php?&menu=202 • Regional Authority of Public Health Banska Bystrica (Epidemiology) www.vzbb.sk • Slovak Epidemiological and Vaccinological Society www.sls.sk/ • Bratislava University - media faculty http://www.szu.sk/ • National Institute of Public Health • Regional Public Health Authorities
Slovenia	<ul style="list-style-type: none"> • University Clinic of Respiratory and Allergic Diseases http://www.klinika-golnik.si/en/ • Ministry of Health www.mz.gov.si/en/ • Ministry of Agriculture www.mkgp.gov.si/en/ • Health Inspectorate www.zi.gov.si/en/ • Medical Association, Preventive Medicine Society www.spm.si/ • The Paediatric Society www.zzp.si • Institute of Public Health http://www.ivz.si/ • University of Ljubljana www.uni-lj.si • ECDC www.ecdc.europa.eu • World Health Organisation www.who.int • National Institutes from former Yugoslavia and the Balkans • EFTA countries

Country	Identified stakeholder organisations
Spain	<ul style="list-style-type: none"> Ministry of Health http://www.msps.es/ Conselleria de Sanitat Gobierno Autonomo Valencia http://www.san.gva.es/ WHO http://www.who.int/en/ ECDC http://www.ecdc.europa.eu/en/Pages/home.aspx HISPANOSIDA www.globalquilt.org/Spain.htm STOP AIDS www.stopaids.org/ CHECKPOINTEURO STAT http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home/ Regional Health Services from all Spanish Regions SEPAR www.separ.es/ TB Alliance www.tballiance.org/home/home.php Generalitat de Catalunya www.gencat.cat/salut/depsalut/html/es/Du51/index.html OSAKIDETZA www.osakidetza.euskadi.net/v19-oskhome/es/ Asociación Nacional de Informadores de la Salud www.anisalud.com Spanish Association for Health Communication http://www.aecs.es/ National Primary Healthcare Physicians Association www.semergen.es/semergen/ University of Almería http://www.ual.es/ National Observatory for Health Communication www.portalcomunicacion.com/ocs/esp/index.asp University of Malaga http://www.uma.es/ CDC http://www.cdc.gov/ Sociedad Española de Enfermedades Infecciosas y Microbiología Clinica SEIMC www.seimc.org/inicio/index.asp British Association For Sexual Health And HIV BASHH www.bashh.org/ The International Union against Sexually Transmitted Infections IUSTI www.iusti.org/ The Health Protection Agency HPA www.hpa.org.uk/
Sweden	<ul style="list-style-type: none"> Swedish National Institute of Public Health http://www.fhi.se/en/ Swedish National Institute of Infectious Disease Control www.smittskyddsinstitutet.se/in-english/ Swedish National Board of Health and Welfare www.socialstyrelsen.se/english
United Kingdom England	<ul style="list-style-type: none"> TB Alert www.tbalert.org/ Department of Health www.dh.gov.uk/en/index.htm National Health Service www.nhs.uk/Pages/HomePage.aspx Hepatitis C Trust www.hepcctrust.org.uk/ Royal College of General Practitioners www.rcgp.org.uk/ Royal College of Nursing www.rcn.org.uk/ Terrence Higgins Trust www.tht.org.uk/ African Health Policy Network www.ahpn.org/ FPA www.fpa.org.uk/ Brook www.brook.org.uk/ Non-governmental organisations NHS Institute for Innovation and Improvement www.institute.nhs.uk/ Health Protection Agency www.hpa.org.uk/ National Patient Safety Agency www.npsa.nhs.uk/ European Centre for Disease Prevention and Control www.ecdc.europa.eu/en/Pages/home.aspx Patient groups such as C.diff support and Patients Association www.patients-association.com/ The Government Communications Network www.civilservice.gov.uk/my-civil-service/networks/professional/gcn.aspx World Health Organization www.who.int/en/ GP surgeries Schools National Health Service local organisations
Northern Ireland	<ul style="list-style-type: none"> Public Health Agency, Northern Ireland www.publichealth.hscni.net/ Pavee Point http://paveepoint.ie/ The Rainbow Project www.rainbow-project.org/ Department of Health, Social Services and Public Safety (DHSSPS) www.dhsspsni.gov.uk/ World Health Organization www.who.int/en/ Food Standards Agency NI www.publichealth.hscni.net/
Scotland	<ul style="list-style-type: none"> Health Protection Scotland www.hps.scot.nhs.uk/ Health Protection Agency www.hpa.org.uk/ European Centre for Disease Prevention and Control www.ecdc.europa.eu/en/Pages/home.aspx World Health Organization www.who.int/en/ Centers for Disease Control and Prevention www.cdc.gov/ Local Authorities Unions Emergency Services Health Boards Politicians/Government Media Transport Voluntary Sector including charities (e.g. TB Alert www.tbalert.org/ , HIV charities) NHS Health Scotland www.healthscotland.com/

Country	Identified stakeholder organisations
Wales	<ul style="list-style-type: none"> • Public Health/Health Protection Wales http://www.wales.nhs.uk/sitesplus/888/ • Welsh Assembly Government http://wales.gov.uk/?skip=1&lang=en • European Centre for Disease Prevention and Control http://www.ecdc.europa.eu/en/Pages/home.aspx • Centre for Disease Control and Prevention http://www.cdc.gov/ • World Health Organization http://www.who.int/en/ • Health Protection Agency http://www.hpa.org.uk/ • Joint Committee on Vaccination and Immunisation http://www.dh.gov.uk/ab/JCVI/DH_094786 • Health Protection Scotland http://www.hps.scot.nhs.uk/ • Public Health Agency Northern Ireland http://www.publichealth.hscni.net/ • Cochrane Collaboration http://www.cochrane.org/ • Health Boards