ECOM Symposium

Stockholm, 10 November 2015
Welcome and introduction to the ECOM project

Jan Hendrik Richardus MD, PhD
Project co-ordinator

Erasmus University MC Rotterdam, the Netherlands
ECOM

CWP 1: Co-ordination, management and consortium meetings
- Meeting 1
- Meeting 2
- Meeting 3
- Meeting 4
- Final Congress

WP1: Dealing with the H1N1 pandemic: epidemiology, risk communication and human behaviour

WP2: Media and social media content analysis of the H1N1 pandemic

WP3: Behavioural analysis, audience segmentation & service analysis, a social marketing approach

WP4: Vaccination knowledge, attitudes, risk perception & vaccination non-response

WP5: Acceptance of preventive measures: Discrete Choice Experiments (DCE)

WP6: Vaccine-resistant group analysis

WP7: Integration of key findings from WP 1-6: assessment of critical factors, groups, and media

WP8: Testing effective behavioural intervention and communication strategies tailored to different target audiences of future epidemic outbreaks, as well as to service providers

WP9: Building of (web application) tools, such as public opinion surveillance and personal risk assessment tool

CWP 2: Consultation group meetings:
- Meeting 1
- Meeting 2
- Meeting 3
- Meeting 4
Afternoon programme

13:45 – 14:00  Introduction to the ECOM Project
14:00 – 15:10  Main findings and implications from the ECOM project
15:10 – 16:00  Presentation of the ‘Tool-Box’
15:10 – 15:20  Video illustrating the developed risk-communication tools
15:20 – 15:55  ‘Hands-on Workshop’ to get acquainted with the tools;
               3 rounds of 10 minutes
16:00 – 16:15  Keynote speech: Prof. Karl Ekdahl
16:15 – 17:05  Panel Discussion
17:05 – 17:15  Closing Remarks
17:15 – 18.00  Drinks
Stepping into the spotlight
WP1: Time-dependent influences of epidemiology and risk communication on human behaviour

Hamburg University of Applied Sciences

Ralf Reintjes - MD, MSc(P.H.), MSc(Epi.), PhD
Professor Epidemiology and Public Health Surveillance
ECOM Project - Workpackage 1 leader

Amena Almes Ahmad – MD, MPH
Senior Researcher

Master Health Science Students: Annika Wulff, Rasmus Cloes, Verena Kessler

In collaboration with WP2 & WP4
Aims

1. Time-Series Analysis
   - epidemic curve
   - key events, pandemic control measure
   - media attention
   - vaccine uptake, perceived risk

2. Semi-Structured Expert Interviews
   - perception about official action & public reaction
   - receiving and disseminating information
   - improving future risk communication
1. Time-Series Analysis

Data were plotted along a (weekly) time-line April 2009 - March 2010

2. Semi-Structured Experts Interviews

Interviews: 25
EU Countries: 8
Levels:
Macro: 7
Meso: 10
Micro: 8
Epidemiology, key events and media attention during the A/H1N1 pandemic in Germany
Epidemiology, key events and media attention during the A/H1N1 pandemic
Findings & Suggestions

1. Time-Series Analysis

- Media spotlights key events
- 🆙 Rising number of cases 🆙 Public interest
- Low A/H1N1 vaccine coverage
- Increased vaccine uptake in first 4 to 6 weeks
- Low risk perception

**Suggestion**

- Use the media spotlight – it is a crucial time for risk communication
- Start of vaccination campaign – is a crucial time for risk communication
Findings & Suggestions

2. Semi-Structured Interviews

- Limited feedback from healthcare staff
- Limited contact to media representatives
- Importance of first statement
- Influence of prominent individuals
- Influence of health care support staff
- Key events: may trigger vaccine demand

Suggestions

- Establish a two-way feedback-loop between healthcare staff and management
- Establish cooperative relations with relevant media representatives
- Engage with healthcare support staff / respond to their concerns
- Pro-actively address loud and prominent voices
WP2. Media and social media content analysis of the H1N1 pandemic

Celine Klemm\textsuperscript{a}, Enny Das\textsuperscript{b}, Tilo Hartmann\textsuperscript{a}

\textsuperscript{a} Department of Communication Science, VU University, Amsterdam, The Netherlands

\textsuperscript{b} Department of Communication and Information Science, Radboud University, Nijmegen, The Netherlands
Understanding mass media systems in an outbreak situation

**Journalists**
- Professional roles
- Production routines
- Time pressure

**Content**
- Sources
- Threat/coping info
- Emotionalization

**Effects**
- Fear
- Risk perceptions
- Coping intentions

**Interviews**

**Content analysis**

**Experiments**

Intended and unintended effects
Findings: News content

doi:10.1080/13669877.2014.923029

- No clear evidence that media as a whole intentionally dramatize epidemics
- Emphasis risk over prevention
- Dramatization seems mostly driven by the pure amount of coverage
# Findings: Journalists’ Roles


<table>
<thead>
<tr>
<th>Mobilizing health prevention</th>
<th>Informing the public</th>
</tr>
</thead>
<tbody>
<tr>
<td>“You need to give people right information that they can take precautions, they know if they need to take a vaccine or anything. You have a big role there. [...] So it’s maybe compared to many of our stories, it’s more of a news story where really what we tell affects people’s actions.” (medical reporter)</td>
<td>“New information, all the information you can gather in let’s say, eight hours, twelve hours, what it usually takes in one day. [...] That is what counts.” (editor)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Contextual analysis</th>
<th>Emotion management</th>
</tr>
</thead>
<tbody>
<tr>
<td>“It’s not always enough just to give the facts because people also need explanation and analysis ‘what should I think about that?’” (science reporter)</td>
<td>“It’s a national task of the authorities to calm the big audience. But in a way, we are in the same boat, I think (laughing)” (general reporter)</td>
</tr>
</tbody>
</table>
Findings: News effects

Klemm, C., Hartmann, T., & Das, E. (in preparation). Reactant to emotionalized reporting? An experimental examination of the impact of emotionalized reporting about an epidemic on people’s risk perception and reactance.

- Emotionalizing reporting may increase risk perception, and fear

- But emotionalizing coverage (or coverage of pandemic per se) may also trigger reactance = perception of “dramatization”, which diminishes this effect
Implications

• Use the media spotlight to establish channels independent of the mainstream media to reach audiences when attention has moved on.

• Maintain good contacts with specialist reporters, who are better equipped for reporting and have leverage within news organisations, but also build trusting relations to general reporters before crises times.

• Sensationalism or dramatization necessary/unnecessary concern!? It increases risk perceptions to an extent but audiences‘ may also ‘correct‘ for it if too dramatic.
To vaccinate or not to vaccinate; that is the question
WP4: Vaccination knowledge, attitudes, risk perception & vaccination non-response

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Marloes Bults¹

Jan Hendrik Richardus¹,²

¹. Municipal Public Health Service Rotterdam-Rijnmond, the Netherlands

². Erasmus MC, University Medical Center Rotterdam, the Netherlands
Aims

1. To systematically review studies into risk perception and vaccination acceptance among the general population during the H1N1 pandemic.
2. To review studies on vaccination acceptance of H1N1 and seasonal flu, and reasons for (non) compliance, among health care workers.
3. To identify knowledge, attitudes, risk perception, information needs, and reasons for (non) compliance for seasonal/pandemic influenza in 4 European countries.
4. To develop and evaluate a protocol for outbreak managers to identify the urgency and level of risk communication (_tool demonstration)
Methods I

- Systematic review risk perception studies H1N1 general population
- Compilation of 8 reviews on health care workers vaccination for seasonal/pandemic flu, covering 118 different studies
Findings I

Review risk perception General population, H1N1:

- Perceived vulnerability **increased** over time, whereas perceived severity, anxiety, self-efficacy, and vaccination intention **decreased**
- Improved **hygienic practice** and **social distancing** were practiced mostly
- High vaccination willingness, **low actual rates**

Review Health care workers: determinants vaccination non-compliance:

- **not feeling at risk** (healthy, professional exposure, not a high risk group)
- low perceived severity; concerns safety/side effects; doubts efficacy
- **inconvenient** vaccination delivery / not getting around to it
- being a **nurse, female, young, lower salary, single, healthy**
Methods II

- Internet survey among representative internet panels in UK, Sweden, Poland, Spain (500 respondents per country)

- Mild vs. medium vs. severe pandemic influenza scenario:
  - illness: 1% - 10% - 30%
  - deaths per 10 million inhabitants:
    40 - 1,000 - 25,000

- => ESCAIDE oral presentation Thursday at 17.15,
  Parallel session 14: Vaccine Preventable Diseases II
Findings II

General population UK, Sweden, Spain, Poland; 3 pandemic flu scenarios

- Good hygiene and social distancing are considered more effective than vaccination => lower intention for vaccination than hygiene/distancing
- 59% willing to be vaccinated in worst pandemic scenario (UK highest 71%, Spain 64%, Poland 58%, Sweden lowest 43%)
- Sweden: lowest risk perception, perceived efficacy of preventive measures, and intention to perform these measures
- Mild vs. intermediate vs. severe pandemic scenario: hardly any influence on risk perception and intention
- Confidence in government actions during flu pandemic: No/little confidence: Sweden 21%, UK 28%, Spain 36%, Poland 42%
Main reasons declining flu vaccination

- Little is known about side-effects
- Doubt that vaccine protects
- Afraid of serious side-effects
- Benefits do not outweigh advantages
- Little/no confidence in government
- I am never sick

[Bar chart showing reasons for declining flu vaccination across different countries]

UK
Sweden
Spain
Poland
Implications

- **Monitor** public perceptions and misconceptions **continuously**
- Educate health care workers on **their role** in influenza transmission and prevention
- Combine it with strategies like **improved access** to vaccination, the use of incentives/disincentives, use of role-models
- Educate the public that influenza **vaccination** by is far **more effective** than good hygiene / social distancing
- Countries differ much in risk perception, so **tailor risk communication** to the specific circumstances/experience of each country
WP5. Acceptance of Vaccinations in Pandemic Outbreaks across Europe: a Discrete Choice Experiment

- Esther W. de Bekker-Grob, PhD
- Ida J. Korfage, PhD
- Domino Determann, MD, PhD-candidate

1. Department of Public Health
   Erasmus MC, University Medical Center Rotterdam, the Netherlands

2. Department of Quality of Care and Health Economics
   National Institute for Public Health and the Environment, the Netherlands
Aims

- To obtain insights in the attributes that influence pandemic vaccination preferences of the general population of four different European countries;

- To assess which trade-offs are made between these attributes by means of a discrete choice experiment;

- To investigate whether trade-offs differ within and between the populations of different countries;

- To calculate the expected uptake of several vaccination programmes for several pandemic scenarios; and

- To develop tools: 1) How to design your own discrete choice experiment on pandemic vaccinations, and 2) Calculator to estimate vaccination uptake.
Findings I: focus group study

- Both disease characteristics and vaccination programme characteristics influence willingness to get vaccinated in case of a new pandemic;

- Except for those who belong to a risk group, the level of susceptibility was low;

- Previous vaccination experiences play a key role in willingness to get vaccinated in case of a new pandemic;

- The general public does not think it is possible that a vaccine against a new pandemic can ever be totally safe.
Findings II: discrete choice experiment

- Severe pandemic: vaccine effectiveness key characteristic in all countries;
- Respondents were more sensitive to advice against compared to advice in favour of vaccination;
- The advice of physicians strongly affects vaccine preferences in Sweden, in contrast to Poland and Spain, where the advice of (international) health authorities was more important;
- Seriousness of a pandemic influences vaccination uptake dramatically;
- Irrespective of pandemic scenario or vaccination programme characteristics, expected vaccine uptake was lowest in Swedish sample.
**Attributes**

<table>
<thead>
<tr>
<th>Attribute</th>
<th>No vaccination</th>
<th>Vaccination A</th>
<th>Vaccination B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Susceptibility to the disease</td>
<td>50 out of 1,000 people will get sick</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Severity of the disease</td>
<td>25% of all sick people will get severe symptoms</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Pandemic scenario**

You can choose the following 3 options, what do you choose?

<table>
<thead>
<tr>
<th>Attributes</th>
<th>No vaccination</th>
<th>Vaccination A</th>
<th>Vaccination B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effectiveness of vaccine</td>
<td>n.a.</td>
<td>30%</td>
<td>70%</td>
</tr>
<tr>
<td>Safety of the vaccine</td>
<td>No side effects</td>
<td>Unknown, but expected to be safe</td>
<td>Unknown, no experience yet</td>
</tr>
<tr>
<td>Advice about the vaccine</td>
<td>n.a.</td>
<td>Recommended by your doctor</td>
<td>Recommended by family and friends</td>
</tr>
<tr>
<td>Media coverage about the vaccine</td>
<td>n.a.</td>
<td>Radio, newspapers and television positive</td>
<td>Blogs, Twitter and social network sites positive</td>
</tr>
<tr>
<td>Out-of-pocket costs</td>
<td>0 euro</td>
<td>50 euros</td>
<td>100 euros</td>
</tr>
</tbody>
</table>

What do you choose for yourself? (please tick one box only)

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**Alternative s**

**Attribute levels**
Implications

- Our findings may facilitate responses to future influenza pandemics with different levels of seriousness;

- The availability of an effective pandemic vaccine is of paramount importance to reach certain coverage levels;

- Responsible authorities should align with other important stakeholders in the country and communicate in a coordinated manner.
The rose in the vineyard
WP6. Undervaccinated Groups

Nelly Fournet, EPIET trainee and Liesbeth Mollema, EPI/RIVM, the Netherlands

Collaborators who contributed to the report (alphabetical order):

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Jeff French, Strategic Social Marketing, United Kingdom
Irene Harmsen, Epidemiology and Surveillance Unit, RIVM, the Netherlands
Manuela Ivone Cunha, Instituto de Ciências Sociais - Universidade do Minho, CRIA, Portugal
Frederic Keck, Sociology and anthropology department - CNRS, France
Aileen Kitching, Immunisation Department, CIDSC, Public Health England, United Kingdom
Ria Reis, Sociology and anthropology department from the University of Amsterdam, NL
Helma Ruijs, Preparedness and Response Unit, RIVM, the Netherlands
Edith Smith, Persuasive communication Department - University of Amsterdam
Jim van Steenbergen, Preparedness and Response Unit, RIVM, the Netherlands
Paula Valente, Direcção-Geral da Saúde, Portugal
Marius Wamsiedel, Romani CRISS, Romania
Piotr Wysocki, European Centre for Disease Prevention and Control (ECDC) Sweden
Aims

• **Aim 1**
  Identify and describe Under Vaccinated Groups in Europe

• **Aim 2**
  Develop evidence-based Communication and Behaviour Influence Tactics for UVGs
  ...that can be used effectively by health professionals and agencies throughout Europe, in the framework of countries own NIP, and in case of major epidemic outbreaks of VPDs.
Methods

- **Method 1. Literature search** for
  - outbreak reports among UVG
  - vaccination uptake, participation, and serprevalence studies among UVG
  - perception and belief studies among UVG

- **Method 2.** After selecting three EU countries (Romania, Portugal, Netherlands)
  - identification of existing research groups studying UVGs
  - bringing them together to collect and combine findings
  - analyse and report on findings for groups and determinants

- **Method 3.**
  - Selection of determinants for (non)vaccination
  - Defining Performance objectives
  - Drafting Potential Communication and Behavioural Influence Tactics
• In three countries we identified 6 groups:
  1. Anthroposophists, 2. Orthodox Protestant Denominations,
  3. Anti-Vaccination Societies, 4. Roma community,
  5. The ‘Macrobiotics’ and 6. The ‘Critical citizens’

• UVG’s
  - share determinants for (non)vaccination and
  - have group specific determinants

• UVG’s share determinants for (non)vaccination with the
  general public
# Findings II
## Determinants and Performance Objectives Matrix

Table 2. Determinants and performance objectives matrix

<table>
<thead>
<tr>
<th>Performance objectives UVGs:</th>
<th>Perceived severity of the disease and its possible complications</th>
<th>Vaccine safety</th>
<th>Vaccine Effectiveness</th>
<th>Attitude of HCWs</th>
<th>Trust government and Health authorities</th>
</tr>
</thead>
</table>
| Have all the information they need | - Provide complete data on the severity of the disease, its transmission, its symptoms... and possible complications (with examples)  
- Make sure it is understandable for all (literacy, language) | - Provide complete data on how the vaccine was made, list of components, clinical-trials and all tests that were done, side effects  
- Make sure UVGs understand risk and benefits | - Provide complete data on all studies that were done on vaccinated vs. non vaccinated  
- Make sure UVGs understand the effectiveness of both preventive action and treatments | - Make sure UVGs feel confident to have discussion with HCWs  
- Ensure HCWs have the tools they need (ECDC toolkit) and know how to communicate with different groups | - Demonstrate transparency in various steps of the vaccine: introduction into schedule, procurement etc. (Pharmaceutical contracts, components of the vaccine...) |
| Making a well-considered/informed decision (vaccination or not) | - Interpret, compare and verify whether the UVGs have all info they need to make the decision re severity.  
- Make sure UVGs have enough information  
- Make sure UVGs know the advantages > disadvantages of the disease | - Interpret, compare and verify whether they have all info they need to make the decision re safety.  
- Ensure UVGs are confident and have enough information  
- Ensure UVGs are aware of advantages > disadvantages | - Interpret, compare and verify whether they have all info they need to make the decision re effectiveness.  
- Are confident having enough information  
- Aware of advantages > disadvantages | - HCWs are aware of UVGs and their beliefs  
- HCWs know how to identify UVGs and their beliefs  
- HCWs have access to communication tools | - Demonstrate that there is government integrity in communication related to severity, safety and effectiveness of vaccines |
| Get the vaccination | - Make sure UVGs have enough information on severity of the disease  
- Provide information on where to get the vaccine, what the costs are, how many shots are needed ... | - Ensure UVGs are confident having enough information on vaccine safety | - Ensure UVGs are confident having enough information on VE | - Having a positive attitude toward vaccination and be able to communicate about vaccination with confidence | - Taking the vaccine is the best thing to do, no other conflicts of interest |
## Findings II “SMART”
Determinants and Performance Objectives Matrix

**Table 3. The determinants and performance objectives matrix (SMART matrix)**

<table>
<thead>
<tr>
<th>Performance objectives UVGs:</th>
<th>Determinants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived severity of the disease and its possible complications</td>
<td>IPH provides existing data (by literature review, reports on all studies that were done) on:</td>
</tr>
<tr>
<td></td>
<td>- severity of the disease</td>
</tr>
<tr>
<td></td>
<td>- symptoms</td>
</tr>
<tr>
<td></td>
<td>- possible complications</td>
</tr>
<tr>
<td></td>
<td>- differentiated disease and complication risk by age and high risk groups</td>
</tr>
<tr>
<td></td>
<td>90% of individuals of the UVGs have access to the information</td>
</tr>
<tr>
<td></td>
<td>As soon as possible and at least weekly update during the outbreak</td>
</tr>
<tr>
<td>Have all the information they need</td>
<td>Cell 1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Performance objectives UVGs:</th>
<th>Determinants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vaccine safety</td>
<td>IPH provides existing data (literature review, reports on all studies that were done on VE (VE in % for various age groups)</td>
</tr>
<tr>
<td></td>
<td>90% of individuals of the UVGs have access to the information</td>
</tr>
<tr>
<td></td>
<td>As soon as possible, but at least at start of vaccination, at least monthly update during the outbreak.</td>
</tr>
<tr>
<td></td>
<td>Cell 2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Performance objectives UVGs:</th>
<th>Determinants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vaccine Effectiveness</td>
<td>IPH provides existing data (literature review, reports on all studies that were done on VE (VE in % for various age groups)</td>
</tr>
<tr>
<td></td>
<td>90% of individuals of the UVGs have access to the information</td>
</tr>
<tr>
<td></td>
<td>As soon as possible, but at least at start of vaccination, at least monthly update during the outbreak.</td>
</tr>
<tr>
<td></td>
<td>Cell 3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Performance objectives UVGs:</th>
<th>Determinants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude of HCWs</td>
<td>HCW (involved in vaccination) know the beliefs of the different UVGs (IPH should provide data on beliefs and how to communicate with these groups)</td>
</tr>
<tr>
<td></td>
<td>HCWs use each individual healthcare consultation as an opportunity to discuss vaccination concerns with people from UVGs who do not vaccinate.</td>
</tr>
<tr>
<td></td>
<td>Before and during the outbreak.</td>
</tr>
<tr>
<td></td>
<td>Cell 4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Performance objectives UVGs:</th>
<th>Determinants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trust government and Health authorities</td>
<td>IPH starts and maintains a relationship with (leader) members from UVGs</td>
</tr>
<tr>
<td></td>
<td>Government and health authorities show transparency in all steps of the vaccine development &amp; procurement:</td>
</tr>
<tr>
<td></td>
<td>- pharmaceutical contracts</td>
</tr>
<tr>
<td></td>
<td>- Components of the vaccine</td>
</tr>
<tr>
<td></td>
<td>- give all available information of the epidemiology of the disease (number of cases, mortality rates).</td>
</tr>
<tr>
<td></td>
<td>Before and at least weekly update during the outbreak and also after the outbreak.</td>
</tr>
<tr>
<td></td>
<td>Cell 5...</td>
</tr>
</tbody>
</table>
Performance objective: Ensure parents have all the information they need
Perceived severity of the disease and its possible complications

Communication tactics:
- Use traditional mass media to explain to the public: Symptoms Severity, Transmission
- Have senior scientists ready to answer questions and provide guidance.
- Use digital media to both provide official information and to act as a method of tracking online concerns and issues that may need a response.
- Set up press and web-based communication channels.
- Develop and promote, using all forms of media, a national Q&A service for people with concerns about severity and risks.
Implications
“be happy with the rose provided”

- UVG’s can act as sentinel for early warning of circulation of VPD
- UVG’s can act as sentinel for early warning of determinants for non-vaccination
- THUS ..... in interpandemic periods.....
  - get in contact with your under vaccinated groups
  - liaise with key persons from these groups
  - set up communication channels
Influencing behaviour is not for dummies
WP(3) Social Marketing analysis of vaccination behaviour, audience segmentation, and service delivery

Team:

Professor Jeff French
Anne Willis BA
Dr Peter Duncan
Adam Crosier Msc BSC
Dominick McVey. Msc BA
Dr Thomas French
Andrew Willis BA, MA
Dr Alison Thorpe
Aims

1. Guidance on using behavioural influencing approaches including incentives and disincentives

2. Analyse current vaccination promotion service delivery in different European countries from a customer perspective.

3. Prototype audience segmentation model.

4. Assess and develop behavioural goals that can act provide impact metrics for different phases of a pandemic influence programmes.
Output:

6 Reports
and
23 tools
and
checklists
Findings I

1. The behaviour challenges associated with pandemic events highlight the limits of conventional communication approaches.

2. Multiple systemic interventions are more successful at influencing behaviour.

3. Humans are not entirely rational when making health choices and this understanding needs to be reflected in pandemic programmes.

4. Behavioural models & theory together with planning models strengthen pandemic communication and behavioural programmes.

5. It is not sufficient to consider an individual’s voluntary behaviour change in isolation from social and environmental factors.
Findings II

1. Poor and confused objective setting

2. Lack of audience research to inform communications strategies.

3. Limited understanding & use of segmentation. No use and little understanding of customer journey mapping.

4. Limited use of behaviour theory and health promotion planning models.

5. Internet-based communication perceived to be problematic and under-developed, but Oppositional/anti-vaccine groups much more effective in using social media/blogosphere.

The ECOM Work Programme 3
Toolbox Compendium

Checklists, Reminders and Guides for planning and evaluating a more effective and efficient pandemic behavioural and communication programme

List of tools in the compendium

1. Go Perm, Mummers of Principles that Influence Behaviour
2. Behavioural Economics Principles Assessment Questions Checklist
3. Key Information, Features and Advantages
4. Guide to modelling at and SMART objectives
5. Process of potential ways to measure behaviour and behaviour change
6. Checklist for planning a Behavioural Change Initiative
7. Checklist for Assessing Strengths for a Behavioural Intervention
8. Checklist for an Informed, Evidence-based Communication and Behavioural Change Programme
9. How to Communicate and Digital Media Checklist
10. Checklist for Designing Information Programmes
11. Checklist for Designing Information Programmes
12. The Communication Matrix
13. The Behaviour Change Plan
14. The Intervention Matrix Tool
15. Open Analytic Guide to Behaviour Models and Theories of Behavioural Change
16. Principles for Developing interventions informed by theory and models of Behaviour Change
17. A Guide to Segmentation
18. How to market a customer journey map
20. Social marketing planning template

OK, LET'S GO
ECOM Methods

1. Systematic literature reviews
2. Interviews with key practitioner, policy and political informants
3. Policy reviews
4. Case study visits and meetings in three European countries, Italy, Hungary and the UK.
Implications

1. *Existing programmes focus on rational decision making and the transmission of scientific advice.*

**Implication:** Develop interventions that also focus on non-rational decision making and behavioural influence factors.

2. *There is poor programme planning, objective setting and evaluation*

**Implication:**
Develop pandemic preparation planning guidance and tools that promote ‘Comprehensive’ strategic planning driven by SMART behavioural objectives.

3. *Health communication & marketing is seen as a second order activity delivered by staff without sufficient authority to influence the total response effort.*

**Implication**
Strengthen the resource base and organisational positioning of health communication and marketing staff.
ECOM

WP 8: Testing effective behavioural intervention and communication strategies

Angie Fagerlin, University of Michigan and VA Ann Arbor

Aaron Scherer, University of Michigan

Enny Das, Radboud University Nijmegen

Megan Knaus, University of Michigan

Brian Zikmund-Fisher, University of Michigan
Aims

• Aim 1: To determine effective communication strategies across European countries.

• Aim 2: To determine whether effective communication strategies differs across participant characteristics across European countries.

• Countries surveyed
  • Netherlands
  • Germany
  • UK

• Countries to be surveyed
  • Poland, Hungary or Czech Republic
  • Spain, Italy
  • Sweden, Denmark
Methods: 5 Internet Based Studies

- Study 1: What factors of a pandemic most influence participants’ knowledge, risk perceptions, and behavioral intentions? (Conducted in Netherlands)

- Study 2: What is the best way to graphically communicate numerical information? (Conducted in UK)

- Study 3: Can including stories about affected patients influence participants’ knowledge, risk perceptions, and behavioral intentions? (Conducted in Germany)

- Study 4: How does the language used to describe influenza and vaccines influence participants’ knowledge, risk perceptions, and behavioral intentions? (Conducted in UK)
  - Flu label (H1N3 influenza vs. Horse flu vs. Yarraman flu)
  - Vaccine: Technological vs. Natural, vs. None
  - Vaccine mechanism: Nasal spray vs Shot

- Study 5: Can the use of metaphors influence participants’ knowledge, risk perceptions, and behavioral intentions? (Conducted in UK)
  - Weed vs. Army vs. No metaphor
Findings: Studies 1-2

Study 1 (Factors of virus):
• To encourage vaccinations, the most important piece of information to emphasize (of those we tested) is the severity of the average case of influenza.

• Neither quickness of spread nor severity of the most severe case influenced vaccinations. Similar findings for other health behavior intentions.

• Risk perceptions were most influenced by spread of disease, followed by severity of the average case of influenza.

Study 2 (Graphical communication of risk):
• The best graphical representation of risk is heat map, worst graphic is dot map.
Best and Worst Graphical Representation of Risk
Findings Studies 3

Study 3 (Use of stories):

• People were less worried about getting sick if told other people were vaccinated.

  • Belief in herd immunity to protect them
Findings Studies 4-5

Study 4 (Language)
• Flu label:
  • People in the horse flu condition perceived the flu as less of a threat, less likely to spread, and less severe than participants in the H11N3 and/or Yarraman flu conditions.
  • H11N3 had least impact on people’s likelihood to read about the pandemic, think about or talk to others about the pandemic in order to protect one self.
  • No effect on preference for vaccination use.

• No effects of natural vs. technological language or vaccine mechanism

Study 5 (Metaphors)
• No main effect of metaphor use or type

• The weed metaphor works best for people high in naturalist orientation

• Army metaphor works best for people high in aversion to war and for people high in naturalist orientation
Individual Characteristics

Measures typically included in all studies
- Literacy
- Trust
- Minimizer/maximizer
- Be-the-one

Results
- No consistent finding across every study.
- Study 1 (severity of cases): Higher literacy individuals were more influenced by the average case information.
- Study 4 (language study):
  - Those higher in literacy were more likely to get vaccinated when called H11N3 influenza and when natural language is used.
- Study 5 (metaphor study):
  - Those higher in literacy were more likely to get vaccinated when received weed metaphor.
Implications

- Information to focus on in communicating to the public:
  - Severity of AVERAGE case (not most severe case)
  - Need to better communicate about herd immunity
- Even though dot maps look cool, they are the least trusted and least effective methods to communicate risk information. Heat maps were more effective.
- More technical language (e.g., H1N1) may not be the most effective method of communicating about a infectious disease to the public.
- The risk message we tested seem to work equally well (or equally poorly) across audiences (but many more analyses need to be done before can say with certainty)
It takes two to tango
The current reality

Public health institutes and officials:

- bombard health care workers with an overload of information
- ignore feedback from local health care staff
- provide inconsistent messages in the media
- use the media insufficiently
- maintain a non-transparent decision process for control measures

Consequence:
Decreased population acceptance of proposed measures
It takes two to tango

Public health authorities have a tendency to rely on one-way communication.

Our advice:

1. Local and national public health authorities should prepare for meaningful communication with front line health care staff and the media, and adjust the communication messages, strategies and policies accordingly.

2. Invest in new and effective communication systems and technologies, which help minimising information overload and burden on the limited time in crisis situations.
A new reality

- Action is taken **ahead of time** through the development and maintenance of productive communication channels and partnerships. Thus optimal use is made of the spotlight moment when media attention for threatening outbreaks is at its height.

- There will be ongoing and evolving knowledge on sentiments regarding vaccination in the population and divergent opinions would not be seen as threats but as **opportunities** for timely strengthening of public health responses during pandemics.

- Communication of interventions requiring behavioural changes are handled at the **highest** policy level with sufficient means to convey coordinated, trustworthy and consistent messages and plans of action.

- Full use is made of a **modern** system of online and interactive communication channels to support professionals at all levels to do their job effectively and help them through the forest of information overload.
Tool box demonstration

1. Tools to assess disease characteristics and risk perception of the public (checklists, standard questionnaire) - Hélène

2. Tools to estimate vaccination uptake and quantifying vaccination preferences (online calculator, guideline how to perform a DCE) - Domino

3. Tools to review your preparedness: Identify your options, Set up your plan, Specify objectives (Cost-Value Matrix, STELa tool, Behavioural Goals) - Jeff

4. Journey through a flu pandemic (infographic poster) - Amena

5. Personal Information & Life Assistant (prototype smartphone-App) - Andreas