



VACCINE SAFETY COMMUNICATION IN THE DIGITAL AGE

2018 MEETING REPORT



World Health
Organization

WHO/MVP/EMP/SAV/2019.02

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2018 MEETING REPORT

4-5 June 2018

**Les Pensieres Center for Global
Health**

Veyrier-du-Lac, France



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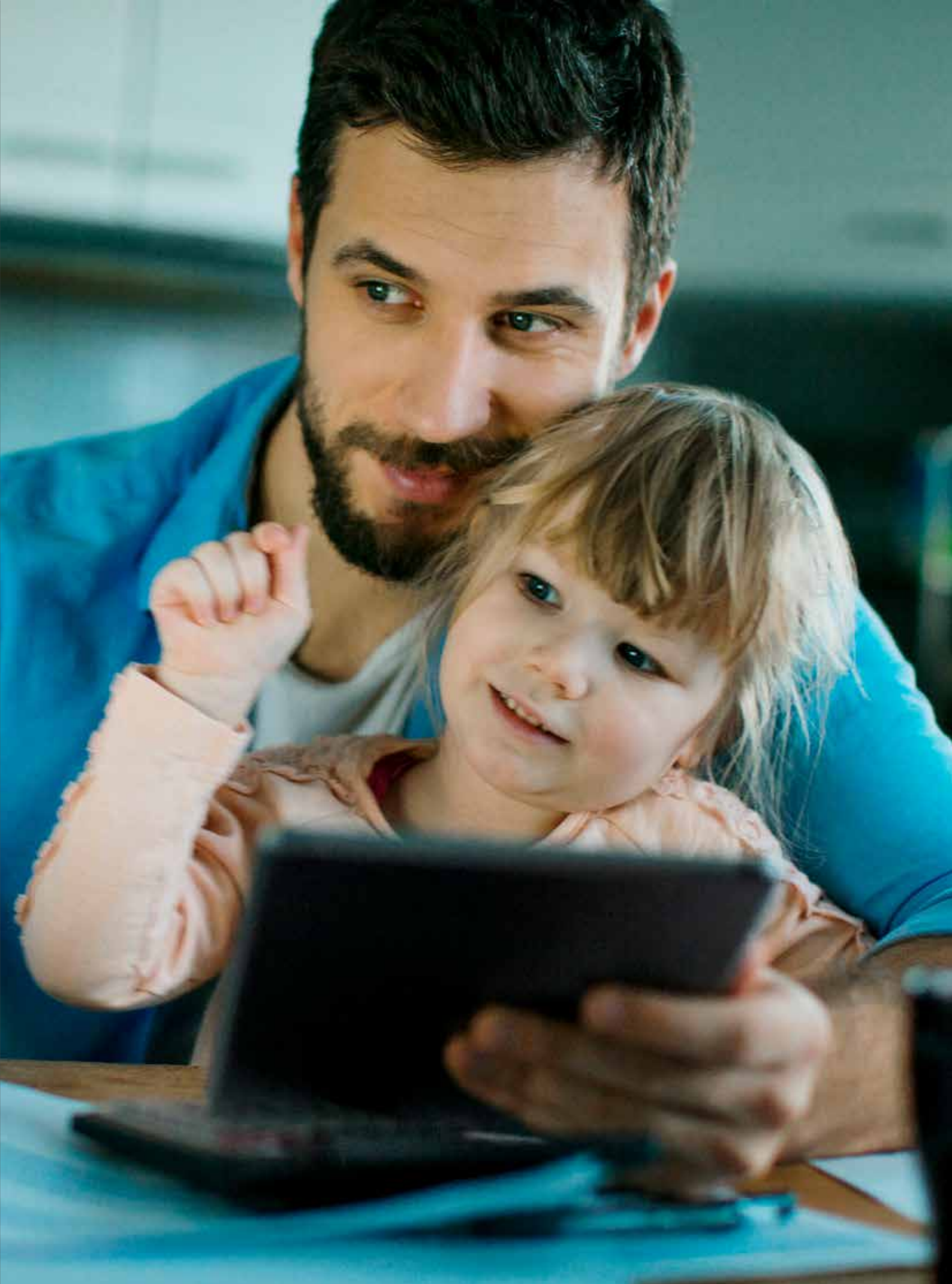
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- the Vaccine Safety Net members and stakeholders.

Executive summary

The second face-to-face meeting of the Vaccine Safety Net (VSN) was held on 4–5 June 2018 in Veyrier-du-Lac, France. It brought together 89 participants, including 60 VSN representatives from 27 countries in all six WHO regions (3 from Africa, 19 from the Americas, 1 from the Eastern Mediterranean, 33 from Europe, 1 from South-East Asia and 4 from the Western Pacific).

Members of the VSN were invited to discuss approaches, strategies and challenges in managing digital information and communications on vaccine safety in a credible way.

Network members and selected stakeholders discussed strategies to address Internet users' information needs, reviewed ways to communicate the safety of vaccine through digital and social media and debated the pertinence of addressing controversies and vaccine hesitancy in the digital sphere.

Participants were invited to think “outside the box” and find new ideas to sustain confidence in vaccines on the web. The digital world makes it possible to reach millions of people with strategic information. It also offers the possibility of directing tailored messages that address the interests and sensitivity of specific audiences.

The meeting documented important progress in the Network, in terms of both size and diversity and also the range of activities. The VSN is breaking new ground by taking advantage of the diverse skills of its members. Digital campaigns, web analytics and social media listening are likely to enhance the impact of the Network. New initiatives have been launched to address vaccine hesitancy that have taught us valuable lessons.

A long list of actionable items was retained. They range from broadening the VSN membership to selective communication strategies and include expansion, development of new tools and refinement of existing ones, establishment of new activities and training.



Expansion of the VSN will comprise enhancement of VSN members' participation in Network activities and VSN engagement with external partners, improving the visibility of and access to vaccine safety communication messages and materials and fostering more communication activities, such as scaling up website and social media activities. The criteria for prioritizing activities include their demonstrated effectiveness or great potential.

VSN will foster more visible advocacy for vaccine safety communication with tools that include a repository of examples of vaccine safety communication and evidence, and guidance and resources will be provided for delivering tailored or customized information to address the specific questions and concerns of individual health care providers and others (e.g. mobile phone apps and frequently asked questions (FAQs) with standardized responses).

New activities will include regular webinars and dissemination of digital newsletters and toolkits for using available and new communication resources and effective practices. These will include risk communication guidance and resources for responding to vaccine safety events. Materials and training for health care workers and experts in communicating with parents and to respond to incorrect information and false claims will also be developed.

WHO, VSN members and partners will work together to implement the activities recommended during the meeting, guided by a 2-year (mid-2018 to mid-2020) plan.

INTRODUCTION





Meeting recommendations and potential next steps:

- Continue to expand VSN membership to include vaccine safety-related websites from more countries.
- Continue to strengthen collaboration between the VSN, the European Centre for Disease Prevention and Control and others.
- Obtain website and social media analytics data to gauge the use and effectiveness of website and social media activities and inform communication strategies.
- Use web analytics and metrics for evaluating and thus strengthening VSN websites.
- Devote resources to evaluating websites and social media, including identifying effective strategies and assessing the return on investments.
- Increase the visibility, quality and content of vaccine safety information by seeking investment to strengthen VSN websites.
- Improve the visibility of VSN websites by search engine optimization (SEO) strategies and effective use of keywords and meta-tagging.
- Incorporate the latest advances in website and social media communication.
- Conduct a global survey of website users to increase understanding of Google Analytics data. Add standard questions on website use to annual attitudinal surveys conducted in many places.
- Use social listening to identify and understand posts about vaccines and vaccination in social media, to learn what topics are being discussed, what information is being shared and whether it is accurate.
- Use open-access Twitter data for research on the prevalence and content of various types of news and information.
- Put negative comments and posts into context and perspective, as much of the information that is posted or available is not viewed by many people, and postings and their content do not necessarily have an effect.

- Recognize that misinformation, fake news and alternative information and content often have greater distribution or spread on social media, and conspiracy theories, particularly those that appeal to the hearts and emotions of users, often live longer on social media than science news and generate more comments.
- Recognize that the leading or most common topics posted and shared on social media are those that involve politics, urban legends, business, terrorism, war, science and technology, entertainment and natural disasters.
- Recognize that issues of vaccine safety, vaccines and vaccination recommendations are often difficult to understand or complicated for politicians and citizens, who may not have extensive medical and scientific knowledge.
- Conduct research and obtain tips, tools and resources for using the potential of website and social media analytics for identifying emerging issues, understanding concerns and sentiments about vaccines and guiding communication responses.
- Understand which are the best communication approaches for addressing concerns raised by those opposed to vaccines or recommended vaccinations and for effectively communicating about vaccine safety and benefits, which should not deny the occurrence of adverse events after vaccination but should be appropriate and responsive.
- Call attention to the need for community engagement in addressing vaccine hesitancy and for vaccine safety-related communication.
- Avoid making assumptions about the problems or their causes in addressing low vaccination coverage, but, rather, use a step-wise process, starting with a situation analysis, then targeted behavioural research to understand barriers and enablers of vaccination acceptance.
- Use the many helpful resources for vaccine communication or acceptance, such as the WHO Tailoring Immunization Programme, which has helped in identifying the core reasons for low vaccination demand and coverage.
- Listen to stakeholders and members of targeted populations and obtain feedback on vaccine safety communication, which, to be effective, must involve interaction, engagement and listening and not just delivery of information and messages.



Introducing the WHO Vaccine Safety Net

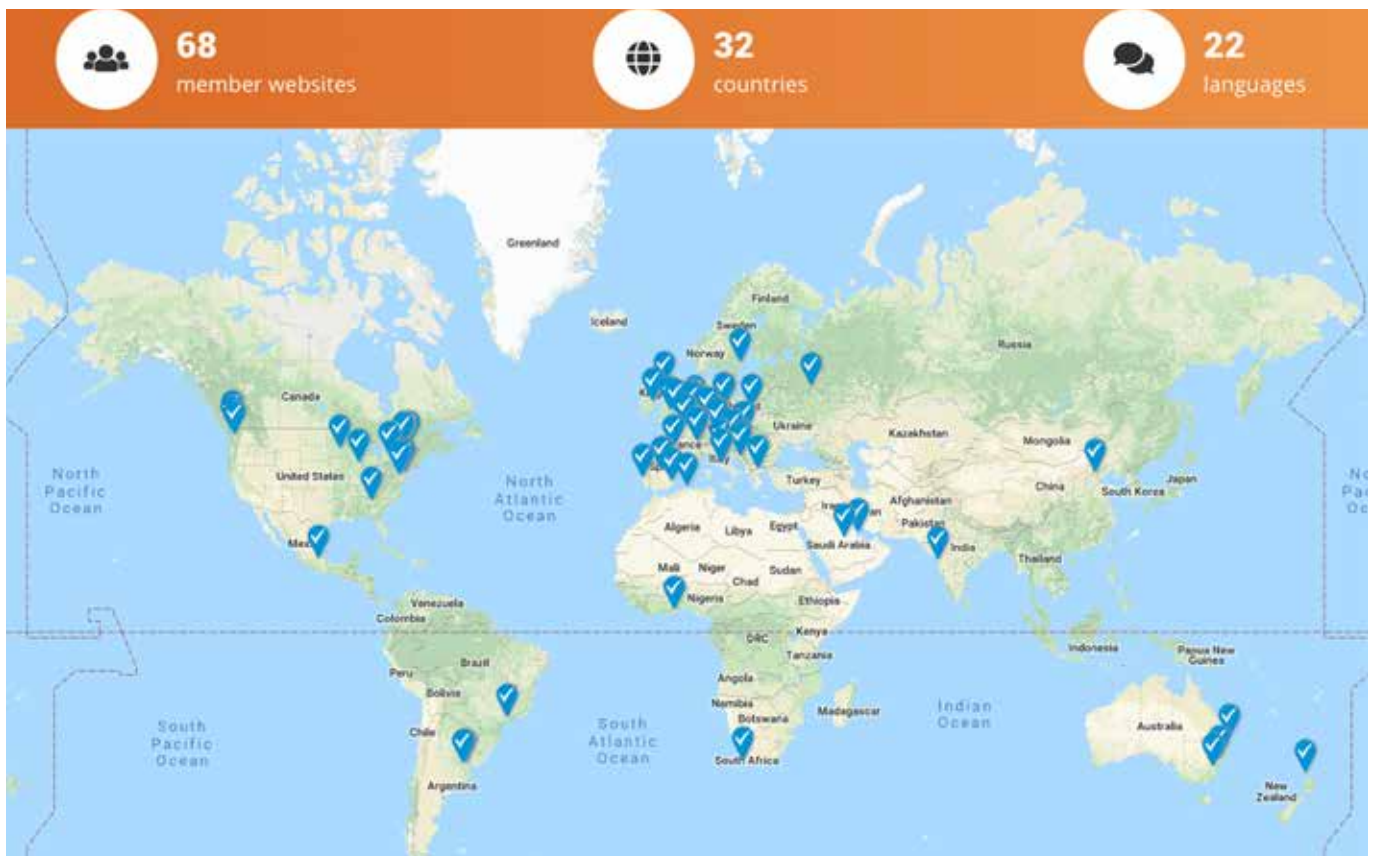


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Background

The Vaccine Safety Net (VSN) was established in 2003 to counterbalance websites that provide unbalanced, misleading and alarming information on vaccine safety. The goal was to create a global network of websites, assessed by WHO, that would provide trustworthy information on vaccine safety. Websites that were part of the VSN would follow the Global Advisory Committee on Vaccine Safety criteria for good information practices. The VSN strives to ensure that reliable, understandable, evidence-based information on the safety of vaccines is available on the web to be readily found by all.

The VSN fosters collaboration and partnerships to increase the visibility and effectiveness of members' websites and social media use, to increase VSN membership globally and to advance members' ability to use websites and social media to communicate the safety and value of vaccines and vaccination recommendations.



Figures as of Jan 2019

Recent developments

Since the VSN meeting in November 2016, 16 new members have joined the Network. At the time of the meeting in June 2018, the Network comprised 58 websites in 28 countries in all six WHO regions. Together, these websites provide vaccine safety information in 16 languages.

In addition, 28 candidate websites have been evaluated. Twelve are implementing their recommendations, 11 have requested additional time, and 6 have left the graduating process. Two additional websites have asked to join.

Network activities

WHO serves as the VSN Secretariat and, as such, is responsible for:

- development and implementation of the VSN visual identity, including cross-linking to improve the Google ranking of VSN member websites;
- management of the VSN portal, which hosts the Vaccine Safety Communications e-library and provides a search engine for all members' websites; and
- management of a multi-language roster of scientific reviewers who assist in evaluating websites.

WHO is also active in several projects with VSN members:

- web analytics research;
- planned user opinion survey;
- planned social media evaluation, starting with a call for proposals to develop evaluation criteria for good information practices on social media; and
- academic collaborations in digital research, including vaccine safety information and communication.

Web analytics project

The goal of the web analytics project is to collect, manage, analyse and interpret web analytics data to formulate and propose to WHO and VSN members information and insights that can guide vaccine safety information and communication strategies. The project was first implemented in May 2017, with the first report produced in November 2017. Currently 30 VSN websites contribute data to this project, and additional participants are being sought. (More information on the project is provided in Part 2 of this report).

Visual identity

The VSN visual identity not only promotes the VSN and its members but also signals to visitors that the member websites meet the criteria for good information practices established by the Global Advisory Committee on Vaccine Safety. The VSN visual identity is owned solely by WHO and can be used only by organizations the websites of which have been verified by WHO as meeting those criteria.





VSN portal

The portal (www.vaccinesafetynet.org) serves as the Network's hub on the Internet. It consists of a public component and a members-only area. The public component facilitates access to reliable information on vaccine safety on members' websites searched with an optimized search engine. It also presents and promotes the VSN. The members-only area supports VSN members and their work and facilitates and encourages collaboration among VSN members and stakeholders.

A media monitoring tool (MEDISYS) has been integrated into the public section of the portal, which provides the latest news and resources generated by VSN members in real time. Use of the MEDISYS streams to monitor open online vaccine safety information and the VSN portal for global testing of vaccine safety information and communication is being considered.

Looking ahead

The VSN has many opportunities to move forward. Strengths and opportunities include commitment, expertise, technical knowledge and leadership on vaccine safety and vaccine safety communication; community-building and knowledge-sharing; mutual promotion and increased visibility by cross-linking; opportunities for worldwide coordination and collaboration on vaccine safety communication and information strategies; global outreach; innovation; research; and mutual support.

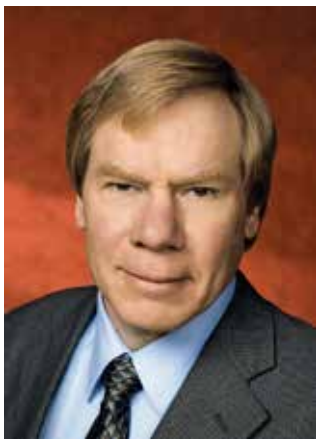
1.

VACCINE SAFETY COMMUNICATION IN A HYPER-CONNECTED, POLARIZED WORLD





Considerations for vaccine safety communication in the digital world



*Professor Glen J. Nowak
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States of America*

Since the VSN was formed in 2003, websites and social media have become two of the most widely used platforms for providing and disseminating a wide array of health-related content, including information, guidance and recommendations about vaccines. Today, it is essential that public health organizations and institutions, nongovernmental organizations and government health agencies understand and effectively use websites and social media to provide balanced, reliable, understandable, science-based vaccine and vaccination information to a wide range of audiences. These audiences include the public, people who should receive recommended vaccines, parents and caregivers of young children and the health care providers who provide recommendations on vaccination and administer recommended vaccines.

For effective use of websites and social media to communicate the safety and value of vaccines, it is important to consider the following:

- Have or take a communications perspective. Given the large numbers of people who use websites and social media, and the interest that computer scientists and engineers have in processing the large databases with website and social media usage data, it is important to remember that communication considerations and principles should guide our efforts.
- Define key terms and concepts, particularly the term “social media”, which can include or refer to a wide range of different platforms, including Twitter, Facebook, Instagram, SnapChat, LinkedIn, YouTube, WhatsApp and direct messaging. Each of these has a different primary purpose and reaches somewhat different audiences or users, and access to user data varies widely, particularly publicly available data. Many data analyses



of “social media data” are limited to publicly available Twitter data and thus provide an incomplete or misleading picture of the data in the broader digital and social media.

- Context and perspective are important. While there are tens of millions of website and social media users globally, that does not mean that many people see or use an agency’s website or social media communication. Each day, 500 million tweets are sent (about 6000 per second). Worldwide, Facebook has 2.2 billion monthly active users, and 510 000 comments are posted every 60 seconds. Daily, about 4.75 billion pieces of content are shared. It is important to keep this information in mind when considering the likely impact of a single tweet or Facebook posting.
- Identify and know the purpose and objectives of your communication when using websites and social media to post, share or provide vaccine information, including vaccine safety. Two questions to be asked in planning are: “What does success look like?” and “What are you trying to achieve, with whom?” In vaccine safety, those are sometimes difficult questions to answer, but vaccine safety communications must maintain, establish and build trust and confidence in recommended vaccines and vaccinations.
- Remember the characteristics of effective vaccine and health-related communications. The most effective characteristics, including for information provided on websites or through social media platforms, include empathy, caring and authenticity. People who should receive



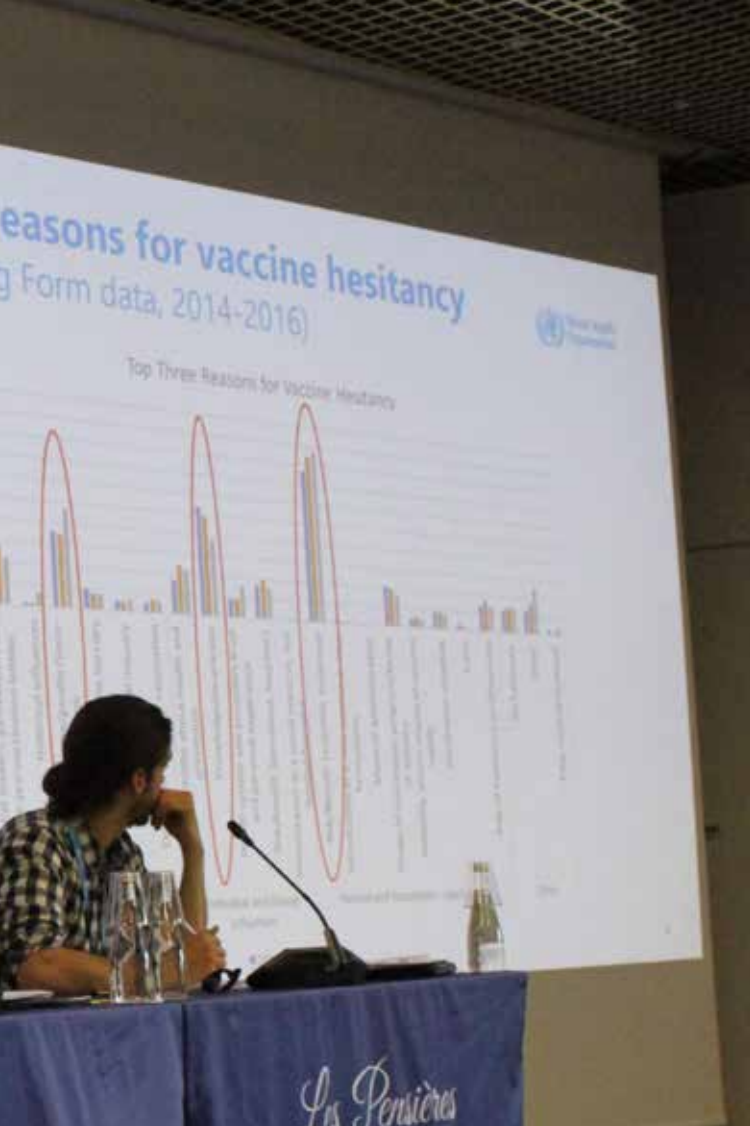
recommended vaccines and parents and caregivers who make vaccination decisions for children want to know that public health agencies and health care providers care about them as individuals and are communicating the facts. Highlighting shared values and tailoring messages to their specific concerns and needs is often essential for building trust and for communication to succeed.

- Use websites and social media platforms proactively and positively. Social media analytics evaluate social media content. While it can be helpful to know the content and distribution of negative, inaccurate or misleading information, it is also important (and perhaps more important) to use websites and social media to highlight the value, benefits and safety of recommended vaccines. We should also

examine how we can use website and social media data proactively to gauge the effects and effectiveness of our digital media communication. In addition, we should identify and learn from the successes of others in using websites and social media to achieve positive outcomes. Ultimately, databases should not be analysed because they are available but because they can provide information that increases our understanding of what fosters vaccine confidence and acceptance and that provides insights that we can use to guide communication and education.



Diagnosing and addressing vaccine hesitancy



Ms Lisa Menning, Technical Officer, Immunization Policies and Strategies, World Health Organization, Geneva, Switzerland

Data on global vaccine hesitancy are collected annually on the WHO/UNICEF Joint Reporting Form. The form includes two indicators on this topic. The first is “Reasons for vaccine hesitancy”, with two questions: the three main reasons for hesitancy in 2016, and whether it is based on an assessment or is an opinion. The second indicator is “Percentage of countries that have assessed the level of hesitancy at national or sub-national level”, with questions on whether an assessment has been made at national or sub-national level in the past 5 years, and, if so, the type and year, with any references.

An increasing number of countries indicate vaccine hesitancy, although this may also reflect increasing familiarity with the concept. Only about a third of countries, however, are con-

ducting assessments to determine the reasons. Currently, the main reasons given for hesitancy are related to knowledge and awareness, perceptions of risks and benefit and those related to religion, culture, gender and socio-economic status. There are differences by country income level, as perceptions of risks and benefit are the primary reason behind hesitancy in high-income countries and knowledge and awareness more prevalent in low-income countries.

In general, there are still no good data on whether hesitancy is increasing. Hesitancy has always existed, and today’s information environment may be making it more visible. In addition, while social media are helpful for reflecting sentiments, chatter isn’t necessarily correlated to population or community-level hesitancy. Many factors aside from hesitancy are responsible for disease outbreaks today, including past programme weaknesses, barriers to vaccine access, alterations in the epidemiology of vaccine-preventable diseases, safety scares and events and population movement. There is therefore insufficient evidence to conclude that global vaccine refusal and delays are due to hesitancy.

No single strategy can overcome hesitancy in all populations. Strategies improve vaccine uptake in specific settings, and strategies and messaging should be evidence-informed and locally tested. Much of the available evidence is from studies in high-income countries. Insights from social and behavioural science can inform the design and evaluation of interventions to target hesitancy. WHO’s Tailoring Immunization Programmes has been widely used in the European Region to address hesitancy. It is a structured, adaptable, participatory programme for targeting under-vaccinated or hesitant populations and is based on a theoretical behavioural model for the design of research methods, identify interventions and conduct monitoring and evaluation.

Transnational digital movements and their impacts on vaccine confidence

Dr Heidi Larson (video presentation), Head, Vaccines Programmes and Policies Group, London School of Hygiene and Tropical Medicine, United Kingdom

Rumours about vaccine safety have an impact on public health. Although they have clearly existed for a long time and travelled before social media existed, social media greatly facilitate the speed and scope of their dissemination today.

Vaccine hesitancy affects vaccine acceptance, and the effect is greater in some places than others. We need to know the causes and to identify and understand the factors that fuel them. We have learnt that distrust, anger and beliefs – that is, emotions – often play a role in how people react and respond to vaccines. Images can be used to provoke anxiety and fear. We also know that vaccines have become part of political platforms in many places. In addition, old issues are leaping into new media, including measles, mumps and rubella vaccine and autism in WhatsApp and Facebook, in both high- and low-income countries.

We have also seen more anxiety-related adverse events after vaccination, such as human papillomavirus (HPV) vaccination. Vaccine confidence can be maintained or restored, but concerns and emerging threats must be identified rapidly and the response should include not only scientific information but also empathy and resonate messages, such as “Together, we can beat cervical cancer”.

Vaccine Committee of the European Health Parliament: curating trustworthy digital information online

Mr Michele Calabro (remotely), Policy and Communications Manager, Vaccine Committee of the European Health Parliament, Belgium

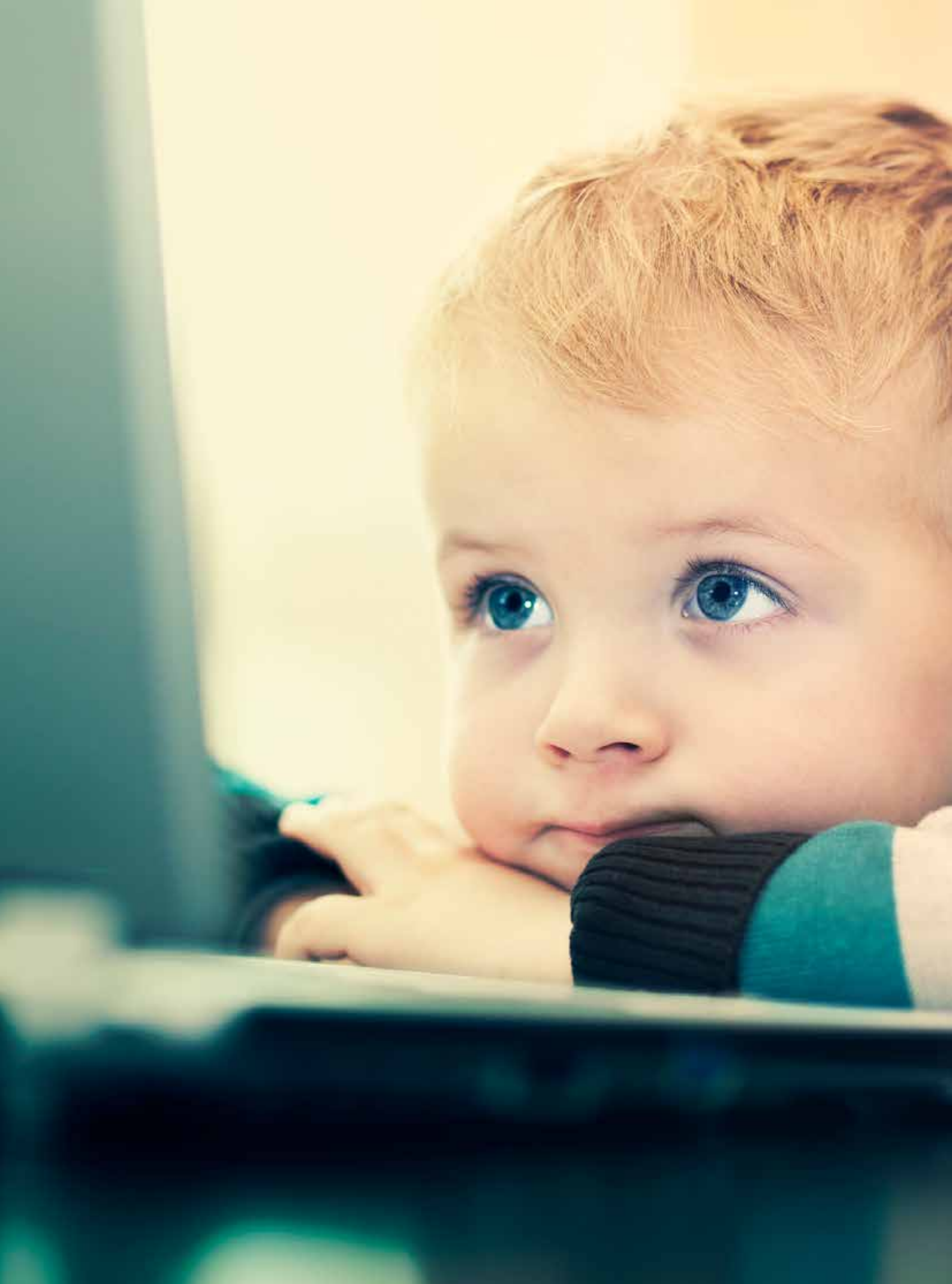
The European Health Parliament (EHP) consists of 55 young professionals and students whose goal is to shape the future of health care in Europe. The EHP meets and shares ideas with European Union officials, members of the European Parliament, nongovernmental organizations, media and the public to develop health policy recommendations, which are then shared with policy-makers and the health care community in 28 European Union countries. The ultimate goal of EHP is to propose policies for consideration by the European Commission and national governments as potential legislative proposals.

Vaccines are a current EHP focus because there have been outbreaks of vaccine-preventable diseases in Europe, there is growing vaccine hesitancy, and the European Commission has called for further action in the field of vaccination. The vaccine hesitancy project involves a European task force for curating trustworthy

content related to vaccines and vaccination online, including citing the VSN as an important point of reference. Specifically, the EHP has recommended:

- the creation of a co-funded task force formed by European Union institutions, WHO, the European Centre for Disease Prevention and Control, Member States, social media and Internet companies;
- collaboration between the European Union and VSN; and
- recognition of the VSN as a European Union “officially supported and adopted trust mark” for vaccine-related information online.

The full text of the EHP recommendations is available at: <http://www.healthparliament.eu/knowledge-best-vaccine-promoting-improving-vaccination-ratesacross-eu/>



Stakeholders' meeting on vaccine safety communications

Dr Patrick Zuber, Group Lead for Vaccine Safety, Safety and Vigilance, World Health Organization, Geneva, Switzerland

Between 12 and 13 September 2017, a strategic consultation on vaccine safety communication was held with international vaccine safety experts and communication and social media specialists from several European and North American countries in UNICEF headquarters in New York City. The aims of the meeting were to

- receive updates on achievements from partners involved in vaccine safety communication;
- identify gaps in the management of vaccine safety communication;
- explore new opportunities for using information platforms; and
- plan strategic action to promote effective vaccine safety communication.

In the discussion on the VSN, participants recognized that one of its strengths is the opportunity for members in all parts of the world to share experiences, particularly on vaccine hesitancy. Three possible VSN roles were identified: use of the VSN portal and e-library as a global repository of resources; linkage and coordina-

tion of partners; and use as a channel for dissemination of the latest evidence and information on vaccine safety.

Participants identified five areas on vaccine safety communication in which investment is required:

- development of a vaccine safety communication framework, with common or likely vaccine safety communication scenarios and common principles to address specific situations;
- creation of common messaging for global partners to use in communicating vaccine safety;
- development of tools, including an e-library, for sharing communication resources;
- development of quality standards for planning and implementing vaccine safety communication; and
- greater partner collaboration and coordination on vaccine safety issues and opportunities.

2.

EXPERIENCES AND STRATEGIES TO ADDRESS INFORMATION NEEDS





Poland: experience in communicating about safety of vaccines



Dr Ewa Augustynowicz, Head, Laboratory of Sera and Vaccines Evaluation, National Institute of Public Health (representing the VSN member website Szczepienia.info)

Szczepienia.info was created in October 2007 and is administered by the National Institute of Public Health–National Institute of Hygiene. The Institute has a 100-year tradition and, since its inception, has been strongly associated with vaccination in Poland. The name of the website means “immunization information”, and it provides accurate,

up-to-date, evidence-based information on vaccines and vaccination practices related to the Polish vaccination schedule. The website is designed for the general public, parents and health care professionals. Its strength is an advisory board composed of renowned experts in the field of vaccinology, including experts from the Polish Society of Vaccinologists.

There has been an increase in vaccine hesitancy among parents in Poland, which has contributed to a decrease in measles vaccination coverage.

Poland still uses whole-cell pertussis vaccine containing thimerosal, and thus questions are raised about excipients, especially thimerosal. A survey carried out for the website with 500 paediatricians indicated that the greatest problems in Poland are negative attitudes of parents to vaccination and lack of educational materials on the Internet to which doctors could refer patients.

In 2017, a project was undertaken to update and refresh the website. The updates included new navigation tools, an extensive glossary and much new information on vaccines and vaccination recommendations. The redesigned website also includes the ability to check vaccination calendars, infographics and recordings of short statements from vaccination experts. The website is now more visually attractive, easier to navigate, has more engaging and shareable content and new sections (including in English).

There are currently 140 000 visits per month to the website. The website also receives 800–1000 questions per year from parents and physicians, the most common topics being on obligatory vaccination, freedom to make decisions about vaccination and the composition of vaccines. The questions are answered by medical consultants.

Challenges for the website include:

- finding resources and external funding to support the website and social media use;
- continued collaboration with the Polish Society of Vaccinologists;
- developing collaboration with young, enthusiastic physicians;
- better adaptation of the language to various audiences; and
- better communication with those who have doubts about vaccines and vaccination.

There are also challenges in using social media channels, including when, how and how often to respond to critics who post negative comments. Szczepienia.info is hoping to achieve closer collaboration with VSN, including linking pages to make the website more readily available and visible on the Internet and providing infographics and other materials.

Brazil: Strategies and actions for valuing immunization



Dr Isabella Ballalai, President, and Dr Ricardo Machado, Communication Advisor, Brazilian Immunization Society, Brazil

In response to suboptimal vaccination coverage, a large measles outbreak in 2013–2015 and evidence that vaccine hesitancy prevents many parents from choosing vaccination in Brazil, the Brazilian Immunization Society began in 2015 not only to invest in communication with doctors and health professionals but also to provide vaccine information to the general public. Two campaigns were undertaken to increase coverage. The tagline of the first public campaign was “Vaccines protect everyone”, and

the campaign included a website for families (www.familia.sbim.org.br), an online encyclopaedia on vaccines and videos of interviews with people affected by serious infections that could have been avoided by vaccination.

A second “Wave against cancer” campaign to promote vaccination against HPV infection led to an increase in positive mentions of the HPV vaccine on social media, more favourable news about the vaccine and increased HPV vaccination coverage.

Lessons learned through these campaigns concluded that it is very important:

- *to inform the public about vaccine-preventable diseases;*
- *to have a structured national immunization programme;*
- *to provide coherent information from opinion-makers;*
- *to inform health care professionals about the importance of vaccines for their patients and contraindications for certain conditions;*
- *to help health care professionals to respond effectively to the questions and concerns of their patients; and*
- *to create opportunities for interaction.*

Smart shared electronic vaccination records



Professor Jean Louis Koeck, Founder, MesVaccins.net, France

The aim of [MesVaccins.net](https://mesvaccins.net) is to contribute to large-scale customization, harmonization and validation of vaccine-related information provided to the public, either directly or by health care professionals. For health care professionals, the site provides information to help them advocate for vaccination and support their clients' vaccine decision-making. For the public, the site provides personalized information on vaccination.

[MesVaccins.net](https://mesvaccins.net) uses a rule-based vaccination decision-support system that displays a personalized vaccine diagnosis coupled with a reminder or recall system. The rules are written

by vaccinology professionals, and any relevant information (e.g. new recommendation, change in the summary of product characteristics, vaccine shortage, outbreak) is added within 48 hours.

Journalists and news media can access the information and have cited the site as an objective source.

Telling the vaccine story: Using science to influence healthy social media conversations

*Ms Lucie Marisa Bucci (remotely), Senior Manager,
Immunize Canada, Public Health Association, Canada*

The primary objective of Immunize Canada's communication strategy is to start healthy social media conversations to promote vaccination and vaccine safety based on scientific evidence. A secondary objective is to link back to [Immunize Canada's website](#).

The general approach is to use multiple social media (for example, Twitter, Facebook, Instagram, YouTube, Storify) and traditional media platforms (for example, online magazines, sponsored ads) to create a continuity of parallel stories and narratives from experts and evidence-based knowledge. Implementation typically requires teams of experts (for reviews and interviews),

social media consultants (to broker placements and social media marketing), creative designers (for promotion), writers (storytellers) and a network (cross-promotion). Once stories have been posted, social media conversations are monitored as part of data collection and evaluation.

Immunize Canada continually assesses ways to refine the strategy. Web analytics data are used to evaluate the success of social media efforts, including whether positive social media conversations translate into action.

Communicating about vaccine safety on social media



Mr Gary Finnegan, Editor, Vaccines Today, Belgium

Vaccines Today (www.vaccinestoday.eu) is an online platform that provides an interactive forum for informed debate on issues around vaccination and also a source of reliable information. The target audience is the general public and others with an interest in vaccination. It currently has 1.3 million users. Since 2012, it has worked to inspire the public to become vaccine advocates.

Vaccines Today shares the content of a wide range of partners. The “playbook” is: going where the audience is and engaging them; communication and networking with the passion of a nongovernmental organization; applying the rules of journalism to find interesting stories

and tell them clearly; identifying and reviewing what works and acting accordingly; earning credibility by being straightforward; and taking part in coalitions.

There is no single answer to “What works?” *Vaccines Today* has found that informational content and story-telling are the types of content that work best. Social media are much better than websites for engagement and have a stronger potential influence on beliefs and behaviour. Twitter is also used to drive people to the *Vaccines Today* website and articles and to engage with new audiences.

WHO social media engagement on immunization and vaccine safety



Mr Dante Licona Estevez, Technical Officer, New Media, World Health Organization, Geneva, Switzerland

Content developed or posted on social media must be “shareable”. The questions to ask oneself are “Will other people want to share this information with people in their social network?”, “Would I actually share this content myself?” and “Is this relevant for a larger audience?” Most of the content posted or distributed on social media is not shared. It is difficult to achieve over 350 shares on Facebook; only 1% of content does so. Facebook and Google are the primary Internet traffic, but Facebook is in decline, in part because it does not allow users to go to other platforms. CrowdTangle (<http://www.crowdtangle.com/>)

provides helpful information on what is happening in social media.

Share-ability:

Would I actually share this content myself?

Is this relevant for a larger audience?

HPV Vaccination Alliance digital strategies



Ms Yvonne Morrissey, Communications Manager, Health Service Executive, National Immunisation Office, Ireland

Ireland's Health Service Executive National Immunisation Office HPV vaccination programme began in 2010 with HPV4 (Gardasil). Soon after HPV vaccination was recommended, concerned parent groups formed, and local and national media ran stories that raised concern about the safety of the vaccine and serious side-effects.

The Office organized comprehensive communication and education to highlight that “the HPV vaccine protects against cervical cancer”. The work began with identification of stakeholders, including cancer prevention organizations, the Department of Education, teachers' associations and medical societies. Facts about HPV and HPV vaccine were also provided to teachers' unions, principals' associations, national parents' councils and teachers. Education and communication include videos on HPV and cervical cancer and a revamped website (www.hpv.ie). Training of health professionals was also done, including meetings, e-learning, fact sheets, articles in journals, training days and two national conferences. An alliance of health care and other supportive organizations was formed: the HPV Vaccination Alliance. In March 2018, new work was launched, including #ProtectOurFuture and a YouTube video “Don't be swayed by rumours”. Communication also includes the personal stories of cervical cancer survivors.

HPV vaccine uptake has increased but remains below the 2013–2014 peak, which was near 90%.

Communications strategy and experience of anti-vaccine groups/sentiment and the maintenance of immunization programmes



Ms Cherstyn Hurley, Immunisation Publications Manager, Public Health England, United Kingdom

Public Health England uses a wide range of approaches to reach people in the United Kingdom with vaccine-related information. In England, vaccination programme activities have been increasing as the schedules have become longer and more complex. Information is provided in both hard copies and digitally. One of the challenges of efficient digital delivery of information is that it often precludes use of visuals, highly graphical information, videos

and other materials that work well or better for poorly literate populations. Optimizing the content for mobile users typically means removing all rich visual content.

Reaching younger generations is often challenging. They use many different digital media and platforms and often create the content they use and share. They tend not to watch television or news and are also moving away from Facebook and Twitter, which they see as having content for their parents. Social media communication must therefore be easy to use, share and upload.

Much has been learnt about vaccine-related communication. People who are opposed to vaccination or who are hesitant often listen to someone they hold in high regard. Myths and misinformation are often best addressed by health professionals, particularly if they are equipped with readily available, user-tested resources and trained in communication about vaccines. Focusing on positive messages is much more effective than “myth-busting”.

Fighting misinformation on social media: A paradigm of collaborative practice to address vaccine hesitancy through Facebook



Mr Diamantis Klimentidis, Owner and Chief Editor, and Ms Stavroula Charisi, Senior Clinical Pharmacist, Clinicalpharmacist.gr

About 1 year ago, *Clinical Pharmacist* helped create and run a Facebook group called “The truth about vaccines”, with founding members from the allied health professions. The Facebook group uses science to respond to vaccine-related queries with evidence-based information. The group now has 7500 members and is the second largest found with the keyword “vaccines” on Greek Facebook.

The group has been successful for three reasons: zero tolerance of hate speech, defamation, insults and promotional activities; members respond as health professionals, not as parents; and, although myth-busting may be effective in a limited context, the provision of evidence-based information and highlighting

positive messages has been more effective. Fighting misinformation through Facebook is a front-line activity that requires thought and time.

This experience led to the following recommendations:

- Health care professionals in different disciplines should work as a team to share information and interact on health issues such as vaccines and vaccination.
- Multidisciplinary approaches are most effective.
- Health care professionals must practise what they preach, such as being vaccinated against influenza.

Engaging with vaccine-hesitant web users and vaccine deniers: Blog comments and official rebuttals



Dr Helen Petousis-Harris (remotely), Immunisation Advisory Centre, University of Auckland, New Zealand

The Immunisation Advisory Centre at the University of Auckland provides advice and communication on vaccination and training and education of vaccinators. It provides science-based information and particularly clinical support for nurses. A personal science-based blog called “Diplomatic Immunity” is used to provide vaccine safety information to fellow scientists, vaccine proponents and the engaged public. As of 2017, Diplomatic Immunity had had 72 426 page views and 486 comments.

Vaccine misinformation generation and dissemination today fall into from three main categories: predatory publications, fake experts and independent films and documentaries. As a result, there are frequently scientifically complex, new vaccine communication issues.

The content of personal science blogs can be designed to be individual, credible, organic, flexible and timely. Science blogs are designed to help scientists, health care providers and communicators refute myths rather than for parents or vaccine-hesitant people. This approach can be more timely and responsive than an official rebuttal, which may take 4 months to draft and clear.

A number of lessons have been learnt in refuting myths. You must be quick and timely in refuting or correcting vaccine misinformation; be relevant; be polite, but not too polite; and recognize that you cannot please all the people all the time.

Pseudo-science published in peer-reviewed journals. How can or should we respond?



Alex Vorsters, post-doctoral researcher, HPV Prevention and Control Board, Belgium

One of the activities of the HPV Prevention and Control Board (www.hpvboard.org) is responding to pseudo-science articles in peer-reviewed journals. Among other successes, in May 2018, *Scientific Reports* was convinced to retract an article because the experimental design did not support the objectives of the study. Unfortunately, at the time of the retraction, the article had been tweeted 1101 times and cited six or seven times. Pseudo-science is not new,

but, as developments in Colombia and Japan illustrate, the impact on HPV vaccination and coverage appears to be greater than for other vaccines. Succeeding in withdrawal of a published paper is a long process, and it would be difficult to respond to all pseudoscience manuscripts. Not responding, however, may reduce public trust and the impact of “true” scientific manuscripts.





How public-private partnerships can serve prevention, protection and promotion of immunization goals for knowledge mobilization and citizen agency

Mr Craig Thompson, Immunization Director, Mr Ian Roe, Content Strategist, Ms Shannon Turner, Executive Director, Public Health Association of British Columbia, Canada, representing the I Boost Immunity website

In response to the increase in vaccine misinformation on the Internet, ImmunizeBC has developed a strategic framework to address concerns and promote vaccination. The development included a pro-immunization website that merged traditional communication methods with viral health promotion. It was also designed to put a face to ImmunizeBC in a collection of anecdotes and stories, including from survivors of vaccine-preventable diseases.

The “[I Boost Immunity](#)” online game has a quiz and reward structure, users earning vaccines for others as a “win-win” for population health. “[Kids Boost Immunity](#)” was developed 2 years after the success of “I Boost Immunity” and is based in the concept of “educate local and vaccinate global”, with children helping children.

The Public Health Association of British Columbia (PHABC) provides administrative

coordination of funds and programme management. The initiative sits outside of Government and therefore has greater flexibility with respect to design and content. The Immunizations Promotions Committee includes representatives from the Ministry of Health, regional health authorities, the Pharmacist Association of British Columbia, the British Columbia Centre for Disease Control and the PHABC. Interest in the programme is now national, and the PHABC coordinates the national programme.

The PHABC is a not-for-profit society with over 60 years’ experience of public health advocacy and programme development. It works in collaboration with the health authorities and other advocacy and health organizations. It runs a number of provincial programmes, provides policy and advocacy advice to Government and works with a range of partners, including vaccine providers.

Equipping young people from the age of 10 with Media and Information Literacy (MIL) skills to distinguish real from false information

Ms Rose Marie Farinella (video presentation), Teacher, Taininges, France

This project provides all pupils with the skills to distinguish real from false news on the Internet and on social networks. It is conducted for 10-year-old pupils in the fourth year of primary school in a French village. The first step is to increase pupils' understanding of true information. Pupils observe the differences between advertising and editorials and explore the different media and the profession of journalists. To understand the difficulty of transcribing complex reality, the children learn the notions of objectivity and subjectivity through improvisations and learn the importance of the difference between opinions and facts. In the second step, the pupils become "web detectives", working to distinguish truth from falsehood. In their investigations, they learn how search engines work, dissect information (who, what, where, when, why, how an event took place), and go back to their source by locating who wrote the article, on which site, when.

They are taught to ask questions:

Is the website reliable?

- Is it a serious information site, a parody site or a site that they should doubt because it sometimes shares hoaxes?

Then they learn a strategy for taking information from several reliable media and discarding those from untrustworthy media. The pupils learn not only the importance of sources but also the importance of contextualizing texts and images. For each fake news item identified, they consider why it was spread. To make people laugh? Out of negligence? To obtain clicks? For advertising? To convince? Or to harm people?

They spend time thinking about how to deal with hateful and racist content, what it means to be an e-citizen and how to reconcile cyber-citizenship and freedom of expression.

Educating the next generation of parents



Dr Paul Offit (remotely), Director, and Ms Charlotte Moser (remotely), Assistant Director, Vaccine Education Center, The Children's Hospital of Philadelphia, United States of America

The Vaccine Education Center at the Children's Hospital of Philadelphia has developed vaccine education materials for use by primary-, middle- and high-school students and teachers. The programme, the Vaccine Makers Project, provides free materials and resources to educate students about the immune system, diseases and vaccines. The goals of the project are to offer inspirational stories of scientific successes, provide free, high-quality educational resources on vaccines and immunization, immunize future parents against misconceptions about vaccine safety and equip students to evaluate vaccine information sources critically.

The resources are designed to provide teachers and students with readily understandable materials and videos on vaccine-related concepts, such as how a virus attacks a cell or how vaccines provide protection from viruses.

Other videos feature interviews with people who survived vaccine-preventable diseases. The materials also cover vaccine safety. In high school, students work in small groups to study topics related to vaccine safety, using WHO criteria to evaluate the scientific basis for concern about vaccine safety. Other materials are used to teach students the criteria for the credibility of website content.

All the classroom materials can be accessed at VaccineMakers.org.

The videos are also available on YouTube (youtube.com/vaccinemakersproject) and Vimeo (vimeo.com/channels/vaccinemakersproject).

Additional vaccine education resources can be found at vaccine.chop.edu.

Responding to anti-vaccine lobby's lawyers – initiatives and tools

Professor Stanley Plotkin (remotely), Emeritus Professor, University of Pennsylvania, United States of America

A recent experience of providing expert testimony related to vaccines in the United States underlined the importance of experts being well prepared. Government agencies, non-governmental organizations and professional medical societies should consider providing appropriate training to physicians and other medical experts to enable them to give expert testimony or serve as experts in vaccine-related legal contests. They should be prepared to address a wide range of questions, including on safety and the importance of the recommended childhood vaccines. Training should include familiarizing experts with information on the safety of specific vaccines.

Many initiatives should be undertaken to help experts answer questions about the safety and value of vaccines in legal contests. These include establishing libraries of references that support the safety of vaccines and adjuvants; encouraging vaccine manufacturers to include safety data in the package; persuading foundations that support health work to address vaccine hesitancy; identifying people to serve as safety experts; and conducting studies to better address questions and concerns.



To talk better about vaccines, let's talk less about vaccines



Professor Alberto Tozzi, Epidemiologist and Chief Innovation Officer, Bambino Gesù Children's Hospital, Italy Leader of the VSN Web Analytics project

Health decision-making, including that for vaccines, is often based on a formula such as: ideology + social identity + trust + knowledge = judgement, knowledge playing a smaller role than the other elements. Positive communication is essential and should be used more by people involved in vaccination communication. Too often, public health proponents of vaccination tell sad or boring stories, rather than the positive stories used in commercial markets. Commercial marketers, such as those for airlines, use imaginative, creative communications and engagement approaches. We should look at what others are doing to communicate more positively about the value and safety of vaccines. Positive (emotional) content is more likely to be shared than negative content.

Too often, public health and proponents of vaccination tell sad or boring stories, rather than the positive stories used in commercial markets.

3.

**REVIEW EXISTING
AND GENERATE
NEW EVIDENCE FOR
VACCINE SAFETY
COMMUNICATION IN
THE DIGITAL SPHERE**



Website analytics and the VSN web analytics project



Professor Alberto Tozzi, Epidemiologist and Chief Innovation Officer, Leader of the VSN Web Analytics project, Dr Francesco Gesualdo, Researcher, and Dr Francesco Marino, Researcher, Bambino Gesù Paediatric Hospital, Italy; and Dr Jas Mantero, Public Health Consultant, Italy

The Internet has become an important source of information on vaccine safety, and website owners usually monitor website analytics to better tailor the content of their website to their target audience(s). As a network with a common objective, VSN could enhance information on vaccine safety on the web by examining web analytics data from across the Network and providing advice after analysis of aggregated data.

In May 2017, the Multifactorial and Complex Diseases Research Area, Predictive and Preventive Medicine Research Unit of the Bambino Gesù Paediatric Hospital was mandated by WHO to

use VSN members' websites web analytics to collect, manage, analyse, interpret, formulate and propose to WHO and VSN members data-driven vaccine safety information and communication strategies.

The two goals of the project are to improve the visibility of vaccine information and to increase access to information that addresses people's specific information needs. As web analytics data cover nearly all the member websites and all regions of the globe, strategies and content can be developed to increase the engagement of website visitors and increase the duration of visits to VSN websites and web pages.

Specifically, web analytics data can be used to identify: countries in which access to vaccine safety information is lacking; SEO strategies to increase visibility; the age ranges and other demographics that require more attention; and the media formats most appropriate for the devices people use to access vaccine safety information.

It is envisioned that VSN will provide a model for digital strategies to promote not only vaccines but health more generally. The first VSN Google Analytics scripts were used in a pilot test on three websites in October 2017. These were extended to 18 VSN websites in November 2017, and, in December 2017, VSN launched vsnanalytics.org, which presents collected information on geographics, demographics and metrics.

The project began with 200 000 sessions in the database and now has over 1.2 million. The data accumulated so far indicate that, although the VSN network websites have global reach, they are not accessed equally from all countries. Some VSN websites are used extensively in the countries in which they reside (e.g. Canada, Italy, Spain), while others attract visitors from other countries. Two thirds of the website users are female, and most users are aged 18–44 years.

The websites are accessed primarily on desktop computers and mobiles, with slightly higher mobile access in developing countries.

MEDISYS is an open automatic information monitoring web tool used to monitor online media.

The European Commission developed MEDISYS in order to follow public health reporting through a triggering method based on pre-defined multilingual definitions.

The tool screens online information every 10 minutes from approximately 3000 medical sites, media, blogs and other open-source sites in 70 languages and displays the results on an interface for over 200 health-related topics, including vaccines.

MEDISYS has been used to create an alert on vaccine-related information published on the VSN websites on the VSN portal to provide a real-time overview of the latest posts (e.g. new developments or information documents).

In order to improve this function, the project team is analysing each VSN site for content and structure to better understand how information is being provided. The tool can also be used to screen information on the overall web on vaccine-preventable diseases and vaccine safety to identify media interest by country. This function may allow VSN members to react promptly to media stories or content with targeted communication.

To improve this MEDISYS capacity, the team is reviewing all related multilingual alternatives for each vaccine-preventable disease and for vaccine safety and the list of media sources screened by the tool for each country. The results of this work are included in the VSN web analytics project monthly reports.



Recommendations for strengthening the VSN web analytics strategy and project:

The goal of the analytics project is to combine information from several sources in real time to guide actions (e.g. find signals that are actionable). Currently, VSN member websites and social media are better able to reach people who accept vaccines, while it is important to better reach those who are vaccine hesitant. The following immediate steps and eventual outcomes are being considered for the project.

- **Data comparison:** Data from VSN websites should be compared with similar data from other health websites.
- **Accessibility:** To understand which websites and webpages are accessed in different countries, collection of such information on a large scale, including which pages drive traffic to VSN websites, would be automated to identify the most popular vaccine-related website content.
- **Source of information:** Determining the global information flow on the Internet, including how and where vaccine safety issues start and how they are disseminated, is difficult, because of the volume of Internet content and website use. While it is usually not possible to determine what is behind individual search enquiries, the emerging field of info-epidemiology investigates patterns of information flow across the Internet.
- **Search engine optimization (SEO):** Guidance and insights on effective keywords, meta-data and tagging to increase the visibility of vaccine safety information would be helpful for determining the phrases, terms and words that parents use to find vaccine safety information and the user experience. It will be important to understand how Google Search works and to use SEO strategies to increase visibility.







Dynamics and the effects of fake news on social networks

Professor Alberto Tozzi, Epidemiologist and Chief Innovation Officer, Leader of the VSN Web Analytics project, Bambino Gesù Paediatric Hospital, Italy

A study in which “scientific” news was compared with “alternative” news found that alternative news was more popular and generated more comments from viewers in social media. While there is much interest in “fake” news, especially on Facebook and Twitter, relatively little is known about why this type of information is more attractive or effective than scientific news in terms of being shared and trusted. Politics and urban legends are among the most widely shared and distributed types of stories.

Polarization fosters the fake news phenomenon, as do website and social media platforms that enable individuals to post comments. It is not clear how much effort should be expended in countering fake news or false information; however, it would be helpful to understand the dynamics of the diffusion of fake news and of other types of news and information.

Real-time media monitoring for human papillomavirus vaccines at the European Medicines Agency – a real support for communication preparedness



Dr Priya Bahri, Principal Scientific Administrator, European Medicines Agency, United Kingdom

Vaccine safety communication is presented from a regulatory perspective, with an overview of work undertaken by the Accelerated Development of Vaccine Benefit–Risk Collaboration in Europe, with a focus on guidance on developing communication strategies. The guidance comprises four steps: (1) define the goals and objectives of the strategy; (2) map the stakeholders; (3) prepare the content and core components, including for specific audiences; and (4) plan implementation and monitoring.

Listening is essential: before we communicate,

we should listen. Global online news on HPV vaccines was monitored between September and December 2015, especially in media on medicinal products, and the media content was analysed in an inductive approach, with interpretation of explicit and implicit content, connotations and underlying assumptions. This resulted in 12 themes and 50 underlying questions. Monitoring confirmed that all public concerns about adverse events associated with HPV vaccine would be covered by the ongoing European Union review; that specific information needs could be addressed proac-

tively in a public statement on the outcome of the European Union review; that the tone of the public statement should be altered, with respectful acknowledgement of the health status of patients with the conditions associated with adverse events after HPV vaccination; and that the European Medicines Agency was able to respond immediately to queries from journalists in a broadcasted press conference and by telephone or e-mail, as all the queries had been predicted by media monitoring, and comprehensive responses had been prepared. This also helped management in preparing for an invitation to the Danish Parliament.

Prospective real-time media monitoring could therefore form a useful part of regular surveillance for medicines of high public interest, and future development of efficient media monitoring strategies for this purpose is recommended. Regulatory bodies need systems and processes

to generate and assess evidence proactively and continuously; to integrate risk assessment and communication; to proactively prepare up-to-date communication content; and to establish and interact with national, regional and global stakeholder networks.

The Guide to Vaccine Safety Communication of the Council for International Organizations of Medical Sciences was written to fill a gap in guidance on communication for regulators worldwide, including in low-resource settings and WHO's Global Vaccine Safety Initiative. The Guide recommends a systems approach, with defined functions and skilled people who can efficiently and strategically conduct vaccine safety communication in collaboration with stakeholders. It also provides a template for vaccine safety communication plans.

Listening is essential – before we communicate, we should listen.

Exploring approaches for social media listening



Dr Susan Mackay, Consultant, Gavi, the Vaccine Alliance, Switzerland

The Gavi Secretariat is working on projects related to vaccine hesitancy and lack of confidence, including determining how best to respond to misinformation. These have provided two insights. Twitter has been the lead medium for communication of vaccine hesitancy, and there has been a steady growth in vaccine-related conversations online. Typically, social media postings increase around key events involving vaccines, such as a measles outbreak. Measles, polio and HPV vaccines are among those most often mentioned in social media.

Rapid government and partner responses to significant vaccine-related events are important, especially for those that might have a negative effect on public beliefs and behaviour. Newer social media listening tools and platforms offer better dashboards for summarizing information for rapid operational use. Machine learning, or artificial intelligence, has promise for more rapidly identifying vaccine concerns and issues discussed in social media.



4.

CONCLUSIONS



Many ideas, recommendations and possibilities were identified in the presentations and discussions at the meeting. A number of themes emerged with regard to the VSN, vaccine safety communication, using websites and social media to provide information on the safety and benefits of vaccines and the challenges faced in digital vaccine safety communication.

Immunization programmes should provide information on vaccines and vaccination proactively and in ways that are friendly to the audience, and resources should be provided to support such efforts by websites and social media.

Health care providers are the most important channel for communication on vaccines for most parents. They must therefore have rapid, easy access to resources, materials and messages that equip them with the knowledge and skills they need to communicate effectively with parents. Websites and social media can help to achieve this.

Evidence and indicators should be generated of the value and effectiveness of digital communication to back current and future investment. Measures of the success of digital communication on vaccine safety might include greater vaccination coverage, greater acceptance by parents and providers of recommended vacci-

nations, better understanding by parents and providers about vaccines and vaccination recommendations and greater visibility on search engines of information on vaccine safety. More should be learnt about how visitors use websites that provide reliable information on vaccine safety.

Practical website, social media and software applications are needed to improve understanding, confidence and trust in vaccines, including current and emerging technologies to automate, target or tailor messages and materials on vaccine safety.

The programmes and websites represented at the meeting are only a small proportion of the information on vaccines available online. Efforts must continue to expand the Network and for VSN to determine how best to make vaccine safety information visible and easily available. VSN member websites and web pages should be made more visible in widely used search engines.

Some countries have issued guidance or recommendations on when and how to respond to negative comments on social media. A VSN guidance document might be helpful to many VSN members.





Characteristics of effective vaccine safety communication

Communication is not just information and message delivery, it includes interaction, engagement and listening to the people in the groups and communities targeted for education about vaccines and vaccination recommendations and also to stakeholders involved in the work.

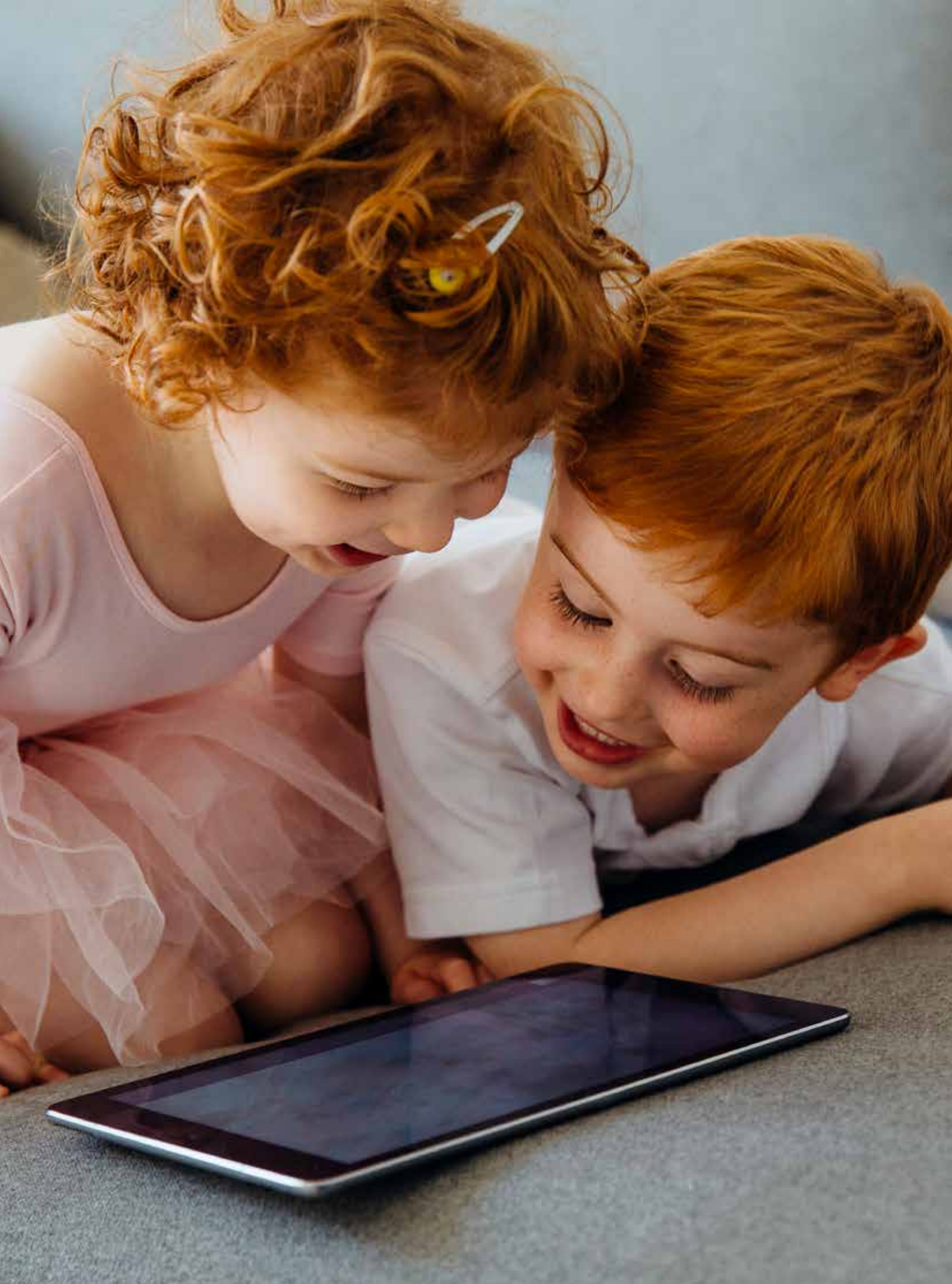
The effectiveness of both traditional and digital vaccine information and campaigns will be increased by engagement with health care provider organizations, use of spokespeople to whom people can relate, communication research to identify effective messages and assess potential materials and content directed towards the intended audience.

Medical and scientific facts are important but often not enough. In many situations

and settings, values, emotions and illustrative personal stories often influence health decisions.

Most people and parents or caregivers rely on health care providers for vaccine information and guidance. Therefore, health care providers should be assisted in communication and education on vaccines, including safety.

Communication with people, parents, health care providers and stakeholders should be in the language and channels they use, with positive messages (e.g. that highlight the safety and benefits of vaccines) that acknowledge their needs, values, goals and priorities.



Using websites and social media to provide vaccine information

To counteract persistent efforts by vaccination sceptics on the Internet and social media, effective, visible communication of the value, benefits and safety of recommended vaccines and vaccinations is critically important.

In today's digital world, immunization programmes and communications about vaccine safety must reach people quickly, and health professionals, vaccination advocates and scientists must know that relevant messages and materials exist and be able to reach them quickly and easily.

Digital media such as websites, social media and mobile phone apps are important tools for communicating about vaccines and vaccination because they can provide personalized or tailored messages and answers to questions.

Information on social media must be shareable, and this concept should guide social media communication.

Social listening can provide helpful information for vaccine communication programmes, although care must be taken to identify signals that merit action and to determine how best to respond.

Many immunization programmes, including in government agencies, need more, sustained resources for websites and social media for creating and refreshing content, adding visuals, interactivity, new digital platforms and content for mobile phone platforms and for research to evaluate effectiveness.

Timely, informative web and social media metrics, analytics and research (including qualitative research) are necessary to measure and increase the effectiveness and value of websites and social media. The information should include how people use VSN websites, whether visits and clicks are associated with more positive attitudes, intentions and behaviour towards vaccines and whether social media platforms improve knowledge, confidence and acceptance of vaccines.

More information and understanding are needed on the motives and reasons of parents, caregivers and others for using digital information sources rather than their health care provider and how people use websites and social media that provide vaccine information.



VSN roadmap 2019–2020

Building on the insights and ideas from the meeting, the VSN is expected to:

- broaden its membership, particularly with websites in Africa, Central and South America and Asia;
- increase participation of VSN members, including in evaluating VSN websites and involvement in the VSN web analytics project, in a website user survey and in a concept note for a global digital vaccine safety communication campaign;
- create a VSN member taskforce on tips, experience-sharing and effective practices, potential topics being the share-ability of content, responding to false claims about vaccine safety and refuting bad science;
- extend engagement with external partners, including the European Centre for Disease Prevention and Control, the European Health Parliament and other networks and organizations involved in vaccine-related communication;
- improve the visibility of and access to vaccine safety messages and materials, promote greater use of the VSN portal and VSN e-resource library, and increase awareness and use of website and social media resources and guidelines (e.g. SEO guidelines);
- increase communication activities, including scaling up website and social media activities that are effective or hold promise; greater, more visible efforts to address the vaccine and vaccination information needs of parents, caregivers, the public, health care providers and policy-makers; and more vaccine safety communication programmes and websites to apply the lessons learnt at the meeting; and
- increase the visibility of advocacy for vaccine safety communication.

Given the reliance of the public, parents, health care providers and journalists on websites for information on vaccines and vaccination and the use of social media to disseminate information on vaccine safety, websites and social media that provide access to reliable, understandable, scientific information are essential. Immunization programmes should make the case for continued, greater, sustained investment in responsive, visible, audience-centred, proactive vaccine communications. They should engage major foundations and others who invest in public health to support and participate in such efforts, including case examples and evidence of the effectiveness, impact or return on investment and spending of website and social media. Publication of an article on the VSN and its work in a scientific journal would also help increase awareness.

Participants identified potential next steps or investments to be considered by the VSN.

- Provide guidance and resources for delivering tailored or customized information on the questions and concerns of individual health care providers and other people (e.g. mobile phone apps, FAQs with standardized responses).
- Provide webinars and/or digital newsletters or toolkits to foster use of available and new communication resources and effective practices, including guidance and resources on risk communication for responding to vaccine safety events.
- Provide materials and/or training for health care workers and experts in communicating with parents and responding to incorrect information and false claims.

Furthermore, the VSN is expected to:

- continue to provide leadership in the use of websites, social media, analytics and metrics for communicating about vaccine safety, including fostering positive perceptions and conversations about vaccines;
- define the principles for including new VSN websites, issue guidelines on SEO for VSN websites, provide assistance in SEO through video conferences or webinars, foster analytics standards and facilitate use of website and social media analytics data;
- broaden and diversify the VSN membership so that it better reflects all the experiences, challenges and work in vaccine safety communication and addressing vaccine safety;
- continue and increase its work in highlighting and sharing information on vaccines and social media data and analytics;
- continue and increase partnerships and collaboration among VSN members, including on web and social media analytics, qualitative research on VSN websites, research on digital communication (including building vaccine confidence and reducing vaccine hesitancy) and testing new and innovative digital communication ideas and approaches; and
- achieve more engagement in vaccine safety communication from young professionals, students, foundations and health and medical experts.



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4-5 June 2018, Les Pensieres Center for Global Health
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