The Vaccine Safety Net is a World Health Organization (WHO) initiative that aims to improve global dissemination of balanced evidence-based vaccine safety information via the internet. Through the VSN, WHO identifies websites that provide information on vaccine safety and evaluates them against good information practices criteria established by the Global Advisory Committee on Vaccine Safety (GACVS). Institutions whose websites meet the criteria are invited to participate in the VSN, and are added to the WHO list of vaccine safety websites meeting good information practices criteria.

Information regarding the Vaccine Safety Net, including the GACVS criteria and a list of VSN members can be accessed at: http://www.who.int/vaccine_safety/initiative/communication/network/vaccine_safety_websites/en/

The VSN Newsletter is a new publication that aims to disseminate news and information regarding the VSN, foster communication and synergy among VSN members, and promote good information practices for websites providing information on vaccine safety.

The newsletter will be published in English, on a quarterly basis and can be accessed at: http://www.who.int/vaccine_safety/initiative/communication/network/vaccine_safety_websites/en/index3.html

Ten years of VSN: progress and plans for the future

At the end of 2004, the VSN hosted 19 websites in four languages, and its global reach extended to two of the six WHO regions. A decade later, the VSN has grown to include 35 members with websites in 10 languages. VSN’s global reach now extends to three WHO regions: Region of the Americas, Western Pacific Region, and the European Region.

VSN’s diverse membership includes Ministries of Health, academic institutions, government agencies, professional associations and non-governmental organizations.

Despite WHO’s best efforts, growth of the VSN has remained slow. This is primarily due to budget constraints which limit the hiring of qualified experts to identify and evaluate candidate websites in new languages; and the fact that despite exhaustive searches, there are no eligible websites in some languages and/or regions.

WHO recognizes the need to revitalize, update and expand the VSN to ensure that it remains relevant and current. To this end, WHO took several important steps in 2014:

- Conducted an internal assessment of the VSN project and identified areas that need to be strengthened.
- Updated and expanded the content on the VSN webpages to increase transparency regarding the VSN evaluation and re-evaluation processes.
- Updated the VSN webpages to include information about each participating website in its original language. This effort was undertaken with the kind assistance of VSN members who prepared the translations on a voluntary basis.
- Published the first edition of the VSN Newsletter, a new WHO publication dedicated to disseminating news and information regarding the VSN, and promoting good information practices for websites providing information on vaccine safety.
- Partnered with colleagues in China, India and the Americas region to identify and review promising websites for the VSN.
- Initiated the process of reviewing and updating the GACVS criteria for good information practices.

VSN has programmed a variety of new and ongoing activities for 2015.

- Continue publication of the quarterly VSN Newsletter.
- Conduct a web-based survey to determine information needs of VSN members and identify ways that WHO can provide support.
- Develop a two-year strategic plan and budget to continue expanding and updating the VSN.
- Continue to expand the VSN to include new languages and geographical representation.
- Conduct an analysis of emerging standards and trends, such as mobile platforms and social networks, to help determine whether the VSN should include these new information sharing technologies.
- Finalize the revision of the GACVS criteria for good information practices.

Key focus areas for VSN in 2015 include fostering a stronger sense of community among our members and mapping the needs of members in order to collectively identify ways to address them.

WHO is committed to strengthening communication with VSN members and will provide additional details and updates on this work via the VSN Newsletter and the VSN webpages.

The VSN and its membership collectively enhance global access to balanced evidence-based vaccine safety information, but despite progress in this area, misinformation continues to proliferate on the internet. Consequently the VSN remains an important part of the WHO vaccine safety team’s portfolio of activities.
VSN news

Revision of GACVS criteria for assessing websites with vaccine safety content

Prior to the initiation of the VSN project in 2004, the GACVS researched and approved a set of criteria for good information practices for vaccine safety websites. WHO evaluates websites against these criteria and provides a list of resources in multiple languages.

In light of the rapid growth of the internet throughout the past ten years, and the development of multiple new information sharing technologies, GACVS deemed it important to review the current criteria for good information practices to ensure that they remain evidence-based, relevant, current and comprehensive. Accordingly, an international working group evaluated and revised the criteria from September to December 2014.

Throughout the revision process, the working group focused on 6 key factors:

- reducing and consolidating the criteria;
- revisiting the wording for clarity/currency;
- revisiting the categories of criteria;
- determining feasibility of implementation by websites;
- identifying crucial criteria that must be met before websites are permitted to join the VSN; and
- recognition of emerging standards and trends such as mobile platforms and social networks.

The criteria revision was an agenda item at the GACVS December 2014 meeting. The GACVS reviewed a draft set of revised criteria; discussion focused on issues of particular sensitivity, including websites’ editorial policies and transparency of sponsorship.

Overall, the draft revised criteria were well received, and GACVS provided the working group with helpful feedback. The working group will make the recommended changes and prepare a final set of revised criteria to be presented at the Committee’s June 2015 meeting. The working group will also develop a detailed guidance document, intended to serve as a supplement to the list of criteria, which will provide website owners with detailed instructions and examples of how to meet each criterion. Once endorsed by GACVS, the revised criteria and the guidance document will be posted on the WHO VSN webpages.

WHO will provide three months notice before the new criteria go into effect.

The GACVS meeting report in the Weekly Epidemiological Record (WER) No. 4, 2015 contains a summary of the VSN presentation. This issue of the WER can be accessed at: http://www.who.int/wer/2015/wer9004.pdf

Web metric monitoring among VSN members

WHO is currently exploring the feasibility of developing a common approach for VSN members to collect, and share with WHO for aggregation, a set of web metrics. These metrics would have a number of useful applications, including informing on the behaviors and information needs of website users.

Web metrics (or analytics) is the measurement, collection, analysis and reporting of web data for purposes of understanding and optimizing web usage and improving website effectiveness. They include data collected anonymously as users visit a website such as how long they visit the site, which pages they visit, and how long they stay on a page.

A global view of the performance of web information resources could assist participating VSN members to develop data driven vaccine safety communication strategies. This project will directly benefit VSN members, and will also inform WHO and the global health community on vaccine safety information trends allowing stakeholders to tailor their vaccine safety communication strategies for the benefit of all.

As a first step, WHO plans to survey VSN members to gather information on their current use of analytics. An email containing instructions and a link to the brief web-based survey will be sent to each VSN focal point in March 2015.

If you would like additional information regarding the proposed web metric monitoring project, please contact gvs@who.int

Publications section added to the VSN Newsletter

Based on feedback from readers, WHO has added a “publications” section to the ‘VSN member digest’. VSN members are encouraged to submit a brief summary of relevant publications published within the past year.
VSN member digest

The VSN member digest contains submissions by VSN members. The authors alone are responsible for the views expressed in this section, and they do not necessarily represent the views or policies of the World Health Organization.

VSN members are invited to contribute news items and articles for inclusion in the April 2015 edition of the newsletter. Instructions for submitting articles can be accessed at: http://www.who.int/vaccine_safety/initiative/communication/network/vaccine_safety_websites/en/index3.html

Publications

New parent guide to immunization set for release in Canada

Contributed by: Elizabeth Moreau, Director, Communications & Public Education, Canadian Paediatric Society

The Canadian Paediatric Society is releasing a new and updated edition of its popular parents’ guide to vaccination, Your Child’s Best Shot. Since it was first published, the book has been a staple reference for health professionals who counsel parents and caregivers about immunization. It’s the only comprehensive Canadian reference written specifically for parents.

The 4th edition, scheduled for release in February 2015, has been overhauled to better reflect parents’ concerns about immunization and includes:

- A new chapter mapping the routine vaccines for every age and stage of life.
- A new chapter on immunizing children and youth with chronic conditions or who are immunocompromised.
- A more direct focus on common parental concerns, with current information to help health professionals address vaccine hesitancy.
- Up-to-date vaccine schedules and information on foreign travel.
- Information on vaccine side effects, both expected and uncommon.

The book is an ideal addition to private practices, hospital and community libraries, public health units, community health centres, and nursing stations.

Your Child’s Best Shot is edited by Dr. Dorothy Moore, a paediatric infectious diseases specialist at the Montreal Children’s Hospital. It was peer reviewed by members of the Canadian Paediatric Society’s Infectious Diseases and Immunization Committee. The original edition, released in 1997, was written by Dr. Ronald Gold, former Head of the Division of Infectious Diseases at the Hospital for Sick Children in Toronto.

The book is also published in French as Les vaccins: Avoir la piqure pour la santé de votre enfant.

For more information or to order, visit https://bookstore.cps.ca/stock/details/your-childs-best-shot-a-parents-guide-to-vaccination-4th-edition or email vaccination@cps.ca

Role of social networks in the dissemination of information on vaccination: the case of the Spanish Association of Vaccinology


Contributed by: Guillermo Mena, César Velasco, Alberto L. García-Basteiro, Saúl Barrales, Juan Bravo-Acuña, Manuel Merino-Molina, José-María Bayas, María-José Álvarez-Pasquín, Spanish Association of Vaccinology

The use of social networks brings a new dimension to the science of health communication because it is a means used by professionals, patients and any internet user, allowing infinite interactions between the actors involved. Since October 2011, the AEV has maintained active accounts on Facebook and Twitter, disseminating information from www.vacunas.org (news, technical specifications, immunization schedules, courses and congresses) as well as other information extracted from the press and evidence-based bibliography. In 2014 we performed a literature review with the objectives of presenting the available evidence on the use of social networks for health purposes in Spain, evaluating the use of social networks in the area of vaccinology, and comparing the progress of the AEV profiles in Facebook and Twitter. We learned that information about the uses, benefits and limitations of social networks for health communication among the general public, patients and professionals in the field of vaccination is still limited. Although social networks are communica-
tion tools widely used in Spain, recent data showed there is still a low use of these channels for health issues. After two years of activity, there are more AEV Twitter followers than Facebook followers. AEV Twitter followers had a more professional profile than Facebook followers. Furthermore Twitter’s viral reach was greater. For its part, Facebook had a positive aspect: information shows no character limit, so that the display of the content published is straightforward. We concluded that the use of either network should vary in relation to the strategies of dissemination, promotion, or investigation arising, stressing that the results of this study apply specifically to Spain so further investigation would be necessary to determine the role of social networks in other countries/regions of the world.


**Campaigns and initiatives**

**Paediatric Active Enhanced Disease Surveillance (PAEDS)**

*Contributed by:* Donna Armstrong, Editing and Publications Officer, National Centre for Immunisation Research & Surveillance and Kristine Macartney, Deputy Director, Government Programs, National Centre for Immunisation Research & Surveillance

Paediatric Active Enhanced Disease Surveillance (PAEDS) was established in 2007 by the National Centre for Immunisation Research and Surveillance (NCIRS), together with the Australian Paediatric Surveillance Unit. PAEDS conducts active hospital based surveillance for adverse events following immunization and vaccine preventable diseases, and was founded on the Canadian Immunization Monitoring Program ACTive (IMPACT) model. It involves a network of clinicians and public health researchers in five Australian tertiary paediatric hospitals. Conditions under surveillance include intussusception, febrile seizures, acute flaccid paralysis, varicella and herpes zoster, pertussis, influenza and encephalitis.


Since 2013, PAEDS has been conducting active surveillance of febrile seizures with a focus on a potential association with measles, mumps, rubella and varicella (MMRV) vaccine. MMRV was added to the Australian National Immunisation Program from July 2013 as the second dose of measles-containing vaccine at 18 months of age, following measles, mumps and rubella vaccine (MMR) given at age 12 months.

Children with vaccine and non-vaccine proximate febrile seizures identified through PAEDS will also be enrolled into a National Health and Medical Research Council study led by NCIRS examining long-term developmental outcomes and genetic susceptibility to seizures.

Results of PAEDS surveillance of intussusception and febrile seizures were presented at the recent Public Health Association of Australia National Immunisation Conference: [http://www.phaa.net.au/14thNationalImmunisationConference.php](http://www.ph aa.net.au/14thNationalImmunisationConference.php) The use of active surveillance in vaccine pharmacovigilance was also discussed in a plenary session presented by Associate Professor Kristine Macartney from NCIRS.

Further information and contact details are available from the new PAEDS web site: [www.paeds.edu.au](http://www.paeds.edu.au)

**Tools and applications that facilitate dissemination of web-based vaccine safety information**

**Just the Vax: New Vaccine Trivia Game**

*Contributed by:* Charlotte A Moser, Assistant Director, Vaccine Education Center at The Children’s Hospital of Philadelphia

Do you like trivia? Most of us do, and the Vaccine Education Center at The Children’s Hospital of Philadelphia is hoping this love of trivia will be another way to educate people about vaccines and vaccine safety.

*Just the Vax* is a new vaccine trivia game for use on mobile and desktop devices. The multiple choice game provides players with an opportunity to answer 10 questions per round from one of four categories:

- Vaccine safety
- Vaccines
- Diseases
- Famous/historical figures

After players choose an answer, they are not only told if their choice was correct, but they also see supplemental information. Rounds are scored, and players can compare their score with the average score of other players. Categories each contain more than fifty questions randomly presented during the 10-question rounds.
Sample question

Which of the following has been found to NOT be a cause of autism?

A. Vaccines  
B. Rubella  
C. Thalidomide  
D. Genetics

The correct answer is A. Supplementary information: Multiple well-controlled, scientific studies have found no link between vaccines and autism. However, natural rubella infection during pregnancy, thalidomide (a medicine previously used for morning sickness) and genetics have all been shown to potentially cause autism.

Addressing vaccine safety

Many of us spend our days trying to figure out how to make parents more comfortable with vaccinating their children, particularly those concerned about vaccine safety. Most of this education is done in settings, such as the provider’s office, and, indeed, this exchange between the trusted provider and the parent is likely the most important. However, parents discuss vaccines in less formal settings with family and friends, and everyone has some predisposition to vaccine information whether it be favorable or not.

The goal of the Just the Vax game is to present vaccine safety information in a relaxed setting and in a fun format to remove some of the emotion typically associated with vaccines while still presenting facts that inform and educate. In addition to appealing to the public’s tendency to enjoy trivia, the hope is that the game will also provide healthcare professionals with another tool to use in clinical settings.

Using the game in professional settings

Providers and immunization advocates can leverage the content in a variety of ways:

▪ Post questions on announcement boards, in newsletters and on websites
▪ Use the questions as a distraction during vaccination
▪ Hold patient or staff contests
▪ Measure staff knowledge in a fun way
▪ Add one or more questions to your on-hold phone messages
▪ Use questions on reminder postcards and emails

While many questions relate to U.S. recommendations and vaccines, not all are U.S.-specific. We are always looking for additional questions: vacinfo@email.chop.edu.

The game can be accessed at http://vaccine.chop.edu/trivia.

WHO tools and resources

Global Manual on Surveillance of Adverse Events Following Immunization

Available at: http://www.who.int/vaccine_safety/publications/GLOBAL_MANUAL_SURVEILANCE_AEFI.pdf?ua=1

Monitoring of adverse events following immunization (AEFI) is an essential strategy for ensuring the safety of vaccines. This new manual provides guidance on setting-up AEFI surveillance systems with standardized methodologies and tools. It addresses the investigation of AEFI, how to analyze surveillance data, causality assessment and how to respond to serious AEFI, including communication. It also includes a description of the most common vaccine reactions, and provides links to the most recent references in vaccine pharmacovigilance.
Vaccination of pregnant women may provide important benefits to mother, infant or both. WHO already recommends the use of several vaccines during pregnancy and some very promising new ones are in the pipeline. However, addressing the safety of immunization during pregnancy faces many challenges. This includes in particular the limited data available about safety in pregnant women, theoretical concerns about fetal risk, manufacturers’ liability concerns and methodological issues in assessing vaccine safety. To address this, GACVS established a new sub-group in 2011. This report presents an overview of the relevant literature on safety data in this important group.

Standard WHO AEFI investigation form to aid AEFI investigation

Available at: http://www.who.int/vaccine_safety/initiative/investigation/AEFI_Investigation_form_2Dec14.pdf

Investigation of serious AEFI is required to determine the cause and implement follow-up actions. A thorough systematic process helps identify preventable AEFI such as immunization errors and also ascertain coincidental events. Prompt and explicit action is important to maintain public confidence in immunization programmes. The Standard WHO AEFI investigation form is a tool that accompanies the WHO causality assessment methodology.

Causality assessment of an adverse event following immunization (AEFI)

User manual for the revised WHO AEFI causality assessment classification

Available at: http://www.who.int/vaccine_safety/publications/aevi_manual.pdf?ua=1

Serious or unexpected adverse events can rarely manifest following immunization, and it is important for health care providers as well as public health officials to assess and try to determine if there is a causal relationship with the administration of one or more vaccines. The fact that one was vaccinated within a reasonable time period of the occurrence of an event does not automatically suggest that the vaccine(s) caused or contributed to the event. Many challenges are involved in deciding whether an adverse event is actually caused by vaccination.

The Global Advisory Committee for Vaccine Safety (GACVS) commissioned a group of experts from GACVS, Advisory Committee on Causality Assessment (ACCA), Vaccine Adverse Event Surveillance & Communication of the European Union (EU/VAESCO), Clinical Immunization Safety Assessment (CISA) and the Council for International...
Organizations of Medical Sciences (CIOMS) to review the WHO AEFI causality assessment methodology and aide-memoire previously published, and to develop a systematic and user-friendly method to assist in reviewing and interpreting data, and to assess causality after individual AEFIs. Several prototypes were developed and tested by the group and the final revised WHO approach was piloted in four middle-income countries in the South East Asia Region and reviewed by the GACVS before it was approved for distribution.

The Global Advisory Committee for Vaccine Safety (GACVS) commissioned a group of experts to review the previously published WHO Adverse Event Following Immunization (AEFI) causality assessment methodology and aide-memoire, and to develop a standardized and user-friendly tool to assist health care personnel in the processing and interpretation of data on individual events, and to assess the causality after AEFIs. Accordingly a WHO prototype was developed based on definitions and the concepts from the “Definition and Application of Terms for Vaccine Pharmacovigilance - Report of CIOMS/WHO Working Group on Vaccine Pharmacovigilance”. This was reviewed by the GACVS before being approved for field-testing, adoption and distribution.

In July 2013, “Causality assessment of an adverse event following immunization (AEFI), User manual for the revised WHO classification” was published and is currently available online*. This aide-memoire is a synopsis of the revised methodology that complements the user manual and replaces the previous aide-memoire. The aide-memoire and the worksheet provides the assessor an outline of the new causality assessment process to collect essential information during AEFI investigation and enable the classification of individual AEFI cases in a standardized, consistent and transparent manner.

This manual incorporates the recent definitions and terms recommended by the CIOMS/WHO Working Group on Vaccine Pharmacovigilance. It also takes into account the needs of emerging countries to address challenges in collecting essential information during AEFI investigation and classification of AEFI cases in a standardized and transparent manner. Effort has also been made to make the method simple, practical and “hands on” to guide assessors in deciding causality through the application of logic and their experience for arriving at the best conclusion with available evidence.

**Causality assessment of an adverse event following immunization (AEFI)**

User manual for the revised WHO classification

This manual incorporates the recent definitions and terms recommended by the CIOMS/WHO Working Group on Vaccine Pharmacovigilance. It also takes into account the needs of emerging countries to address challenges in collecting essential information during AEFI investigation and classification of AEFI cases in a standardized and transparent manner. Effort has also been made to make the method simple, practical and “hands on” to guide assessors in deciding causality through the application of logic and their experience for arriving at the best conclusion with available evidence.

Adverse event following immunization

Aide-Mémoire on causality assessment

Available at: [http://www.who.int/vaccine_safety/publications/AEFI_aide_memoire.pdf?ua=1](http://www.who.int/vaccine_safety/publications/AEFI_aide_memoire.pdf?ua=1)

Serious illnesses or even deaths may rarely occur after childhood vaccinations. Public health programs are faced with great challenges to establish if the events presenting after the administration of a vaccine are due to other conditions, and hence a coincidental presentation, rather than caused by the administered vaccines.

*Please refer to the web page for the full text.*
Spotlight on the Immunization Action Coalition

Mary Quirk
Website Content Manager

In order to underscore the diversity of the VSN and recognize each member’s efforts to provide users with high quality information on vaccine safety, the VSN Newsletter will highlight a different member in each edition. This month VSN shines the spotlight on the Immunization Action Coalition (IAC), a member since 2004.

Founded in 1990, the Immunization Action Coalition (IAC), a U.S.-based non-profit organization, has become a nationally respected and relied-upon source of communication and coordination around immunization education and action. Since its founding, IAC has worked in partnership with the U.S. Centers for Disease Control and Prevention (CDC) to provide immunization education materials to healthcare professionals, patients, vaccine advocates, the media, and others. In addition, state and federal agencies that formulate immunization policy have come to rely on IAC for analysis and expertise.

Website for Healthcare Professionals:
www.immunize.org
Launched in 1994, www.immunize.org was one of the earliest websites devoted to immunization. The website makes available more than 4,000 web pages dedicated to educating healthcare professionals and the public about vaccines and vaccine-preventable diseases.

Website for Parents and the Public:
www.vaccineinformation.org
Developed in consultation with CDC, and launched in 2002, the website for the general public presents straightforward information about vaccine-preventable diseases and their vaccines.

During a recent question and answer session with the VSN team, IAC Director Deborah Wexler, provided insight into IAC’s visitor profile, new features that enhance user experience, and top requests from users in terms of technical support.

How many users access your sites each year, and what are the most frequently visited sections?

Website for Healthcare Professionals serves more than 20,000 visitors per day and more than 7.1 million visitors this year. In the past two months, users downloaded 5.7 million ready to copy (PDF) documents from the website, including approximately 2.4 million Vaccine Information Statements and their translations.

Most frequently visited sections include: Ask the Experts, Clinic Resources, State Vaccination Laws, CDC Schedules, IAC Handouts, and Vaccine Information Statements.

Website for Parents and the Public currently serves more than 5,500 visitors per day and more than 1.9 million visitors this year.

Most frequently visited sections on vaccineinformation.org include: Personal Testimonies, Photos of Vaccine-Preventable Diseases, and Trusted Sources of Vaccine Information.

Describe some of the newest features added to your websites to enhance user experience.

In June 2014, IAC debuted a new weekly feature on immunize.org called “Ask the Experts—Question of the Week.” It can be accessed on the immunize.org home page and at www.immunize.org/askexperts/govw.asp. Each week, IAC highlights a new, topical, or important-to-repeat question and answer (Q&A) in its electronic newsletter, IAC Express. This new feature is a cooperative venture between IAC and the CDC.

The newest feature on IAC’s website for parents and the public is a searchable video library of more than 175 immunization-related video clips, which includes a video player. It can be accessed at www.vaccineinformation.org/videos.

What are the top requests from users in terms of technical support?

Following the redesign of our websites, the need for technical support has declined significantly. Prior to the redesign, users frequently needed help finding particular content on our >4,000 page website. While IAC still fields this type of question, a more frequently asked technical question from visitors is “How do I access the most current version of a Vaccine Information Statement or other IAC publication?” The difficulty often is due to the presence of cached web pages or PDF documents on their browsers, and we offer advice on how to clear their website visit history and “refresh” their browsers.

Has IAC received any recent awards or distinctions?

In December 2013, IAC received CDC’s National Center for Immunization and Respiratory Diseases Award for Excellence in Partnership. More recently, CDC recognized IAC with a Certificate of Appreciation for its multiple efforts to inform people about seasonal influenza and influenza vaccination.

From the initial website evaluation by the World Health Organization in 2004 to its most recent evaluation in 2014, IAC’s websites have met the VSN’s good information practices criteria.

Are there any additional aspects of your websites that you would like to highlight?

immunization action coalition

www.immunize.org

The number of visitors to IAC’s main website continues to grow every year, including the number of visitors from outside the United States. International users make up 15% of total annual visits to IAC’s healthcare professionals website, and 33% of total annual visits to the website for parents and the public. The majority of these visits originate from Australia, Canada, India, the Philippines, and the United Kingdom.