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Continuous Training for Medical Professionals: The case for health communication and disaster preparedness training

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- *The role of continuous training for medical professionals.*
- *Health communication training in medical education – the importance for communities and patients.*

Thomas V. Robertso.

- *The Role of Training for Disasters and Public Health Emergencies.*

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SUMMARY

This issue of the ASSET paper series, titled **Continuous Training for Medical Professionals: The case for health communication and disaster preparedness training**, is dedicated to the discussion of training needs and advantages for health professionals. Continuous training has been proven to benefit health professionals and many countries have adopted schemes for its regular implementation. Health communication training is a pivotal skill for medical and nursing personnel, however, it is frequently overlooked in undergraduate training. The second paper in this issue makes the case for strong health communication skills for all health professionals. Finally, the last paper in this issue identifies key training objectives for public health emergencies (PHE) stakeholder groups, to enable effective, collaborative preparedness and response to disasters and PHEs.

Continuous Training for Medical Professionals: The case for health communication and disaster preparedness training

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The role of continuous training for medical professionals

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Medical research, knowledge and technology advances are rapidly making the continuous training of medical doctors a professional duty rather than a need. Continuous training goes beyond a medical professional's medical school education, and can not only help update medical knowledge and research but also prepare him/her to acquire additional management, communication, and leadership skills.

Medical professionals who fail to keep up with new technology and treatment advances and are not aware of recent research may potentially influence patient outcomes. After all, while not every medical advance proves to be a significant improvement, most new technologies can be life changing, and therefore medical professionals must receive education on the latest advancements and medical techniques. This is the reason why patient lobbies in many countries are requesting stricter procedures for medical exams and recertification processes.

New surgical operative techniques that use robotics, cameras or 3D-printing techniques

require different approach and different skills, while at the same time they have emerged as minimally invasive techniques, which allow easier recovery and, eventually, less use of health care resources. By receiving continuous education, medical professionals will be able to guarantee that their patients receive all possible options for care and treatment. A 2007 study also showed that receiving professional health care education can improve a patient's quality of life. [1]



Health professionals that receive continuous medical education are able to best serve their patients and offer the highest quality of care available. The World Health Organization (WHO) highlights that "In order to provide the best patient care, health professionals should invest in educational opportunities that give them up to date knowledge and skills". [2]

One aspect of training, however, that is frequently overlooked, is training in communication skills. Medical schools currently include an undergraduate course in patient communication, but continuous medical training may provide the opportunity to health care professionals to develop and update skills, which are necessary for medical practice but are not afforded the necessary attention during medical school education such as training in communication skills or public health preparedness.

The benefit of continuous education for medical professionals is twofold. It benefits not only their medical aptitude and knowledge, but also ensures that a patient receives the best care possible.



This 7th issue of the ASSET paper series will focus on health communication training for health care professionals and the Role of Training for Disasters and Public Health Emergency Preparedness, presenting two issues and making the case for the need to constantly maintain skills in these two areas by health professionals.

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Health communication training in medical education – the importance for patients and communities

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Abstract

One of the most important skills a doctor must have is being able to effectively communicate with their patients. However, health communication training is not a priority during medical education, which can later prove detrimental to a patient's quality of care. Therefore, this paper analyzes the need for health communication training in medical education, notes instances of previous training programs, and offers suggestions for ways to improve health communication training.

1. Introduction

For those working in the health and medicine fields, health communication, or being able to effectively communicate medical information to a patient, is one of the most crucial skills one must acquire in order to be successful in presenting accurate diagnoses and providing optimal care to patients. The NYU School of Medicine writes that "a doctor's most important

skill is the ability to communicate with patients" [1].

Health communication gained recognition as an integral part of public health in the USA Healthy People's 2010 objectives where it was seen to have relevance for all aspects of health and well-being, including disease prevention, health promotion and quality of life [2, 3].

According to the US strategy Healthy People 2010, health communication includes the study and use of communication strategies to inform and influence individual and community decisions that enhance health [4]. It actually connects the fields of communication and health and is increasingly viewed as a sine qua non part of every effort aimed at improving individual or public health [2-9].

Health communication can contribute to all aspects of disease prevention and health promotion and is relevant in a number of contexts, including:

- Health professional-patient relations
 - Individuals' exposure to, search for, and use of health information
 - Individuals' adherence to clinical recommendations and regimens
 - The construction of public health messages and campaigns
 - The dissemination of individual and population health risk information (risk communication)
 - Images of health in the mass media and the culture at large
 - The education of consumers about how to gain access to the public health and health care systems, and
 - The development of telehealth applications.
- The Centers for Disease Control and Prevention (CDC) and the National Cancer Institute have defined health communication as the study and use of communication strategies to inform and influence individual decisions that enhance health [5].



The H-Com project (Health Communication for Health Care professionals - <http://h-com.eu>) is a European co-funded project in the framework of Erasmus+, on the issue of health communication [10]. Work for this project showed that health communication training in medical schools differs across the EU. In some countries such as the UK and Germany medical students are extensively taught communication skills as opposed to countries such as Greece, Cyprus and Poland where health communication is only barely taught during graduate and postgraduate medical education. Lack of health communication training can lead to subpar care for patients and over time, erodes the trust and relationship between medical professionals and the communities they serve. Moreover, ineffective health communication can lower the satisfaction a patient displays towards their health provider, inhibits compliance with treatment plans, and causes detrimental lifestyle changes [1].

While it may be simple to argue that to solve this problem, medical education programs need to simply bolster their health communication training, truly improving health communication will require a multifaceted approach, as there are also many barriers that negatively impact effective health communication. At the health care system level, a patient's confusion about their test results and the procedure costs may inhibit a doctor's ability to explain their treatment plans comprehensively. At a cultural level, a community's traditions, fatalistic beliefs, or opinion of the medical system may also harm effective health communication. And lastly, at an individual patient level, their inherent lack of medical knowledge, denial of risk, or concerns about the procedure may skew their judgment and detract from a doctor's ability to provide the best care and communicate health risks properly [11].

Eventually, these barriers that obstruct effective health communication can lead to greater medical risks related to lack of information, lowered knowledge sharing among patients and communities, and decreased professional respect for medical professionals, which would further fray the doctor-patient relationship and most likely reduce the quality of care received by patients [13]. A 2001 study showed that approximately 20% of Massachusetts state employees voluntarily left their primary care physician because of a poor doctor-patient relationship, which was most likely eroded because of ineffective health communication. In the study's conclusions, the authors write that "medical practices and health plans cannot afford to ignore that the essence of medical care involves the interaction of one human being with another" [14]. This reminds us that health communication is an incredibly crucial social skill that cannot be ignored in the medical context.

Another example can be found in a 1999 study conducted at the University of Kansas, School of Medicine in Kansas City, where the study found that while the participating physicians believed that 89% of their patients understood the potential side effects of their medications, only 57% of the patients understood the risks communicated to them by their doctors. This unequal information transfer suggests ineffective health communication, which not only leads to decreased quality of care, but also serves as a deciding factor in many malpractice suits [15].

2. Methodology

In order to identify and formulate potential methods of improving health communication training, we conducted a comprehensive document analysis and literature review looking at several main areas of interest. First, we



grouped together relevant literature regarding the lack of proper health communication training, and the barriers that inhibit effective health communication. Second, we looked at potential studies that were carried out with the intention to improve health communication training, and analyzed their strengths and weaknesses. Thirdly, we analyzed other reviews and papers that identify possible improvements to health communication training. Finally, based on our review of all the literature collected, we were able to formulate our own opinions regarding health communication training, and original suggestions regarding ways to improve health communication.

3. Results and Discussion

3.1 The need for health communication training

There have already been numerous studies that emphasize the need for health communication training in many medical disciplines. With regards to mental health services in pediatric primary care, a 2013 paper urges the need for health communication education because “the burden that primary care physicians associate with treating mental health problems, the lack of mental health training and treatment skills among primary care physicians, and the fragmentation of primary care and specialty mental health services” can impair a physician’s ability to prescribe the correct treatment [16]. Moreover, in a delivery room setting, effective and efficient handoff communication, or communicating patient information from one health care professional to another, is very important in ensuring positive patient outcomes [17]. Additionally, effective health communication is also important regarding blood transfusion procedures, as it can aid an

individual’s willingness to consent to blood donations, and the risks and benefits of undergoing blood transfer procedures [18].

A 2002 study [19] described the need for improving health communication skills quite plainly, by noting that:

- Doctors with good communication skills identify patients’ problems more accurately.
- Their patients adjust better psychologically and are more satisfied with their care.
- Doctors with good communication skills have greater job satisfaction and less work stress.

Moreover, a 2008 study found that by analyzing thousands of patient cases, there was a significant positive relationship between overall patient satisfaction and the overall ratings of attendings’ communication behaviors, which indicates that doctor-patient communication is important in not only maintaining care but improving it [20]. All in all, a review of the current literature reveals that in any medical discipline, effective health communication is a crucial component of ensuring high quality patient care and beneficial treatment.

3.2 The successes of previous health communication training programs

Additionally, there have already been several well-documented studies that analyze the effectiveness of health communication training programs during a medical education. A study conducted at three US medical schools, New York University, University of Massachusetts, and Case Western Reserve University, showed



that taking a communication skills class improved the students' overall competence as well as their ability to build relationships with their patients, which are crucial to ensuring positive patient outcomes. The core skills taught included determining the reasons for the patient's visit, eliciting and understanding the patient's perspective, sharing information and providing education, negotiating and agreeing on a plan, and achieving closure, all skills that target aspects of health communication [21]. Another example of a program that focused on health communication is documented in a study that tested a program that taught medical students at Thomas Jefferson University about electronic medical record related communication. The study determined that this training program improved the medical students' empathic engagement in patient care, history-taking skills, and communication skills, as judged by their faculty and mentors. The success of this communication program shows that health communication training benefits both the health professionals and the patients [22].

There are also studies that show that providing a health communication training program after medical school can have a beneficial impact for patients. For example, a health communication training program tailored for medical assistants in pediatric primary care demonstrated that the communication training was associated with improvements in parents' perceptions of care and their willingness to discuss mental health concerns, which shows that even a brief communication skills training program can improve a patient's quality of care and their attitude toward health professionals [16]. In Scotland, an educational intervention targeting clinicians that focused on communication improved the clinicians' ability to adapt their communication when tensions arose, and aided

them in being more explicit when communicating health information, which overall improved patient care [23].

3.3. Suggestions to improve health communication training programs

In 1999, the Kalamazoo consensus statement, a coherent set of essential elements in physician-patient communication was devised by 21 leaders and representatives from major medical education and professional organizations. The statement provides seven essential sets of communication tasks:

- (1) build the doctor-patient relationship;
- (2) open the discussion;
- (3) gather information;
- (4) understand the patient's perspective;
- (5) share information;
- (6) reach agreement on problems and plans; and
- (7) provide closure [24].

Moreover, another aspect that health communication training programs should focus on is teaching how to change the content of conversations when a patient is feeling uncomfortable, as this would have greater value in enabling shared understanding and also improve the doctor-patient relationship, as suggested by a 2017 study [25]. Therefore, we believe that any effective health communication training program must at its very least address ways to reinforce and improve upon these seven skills and tasks.

Additionally, instead of just teaching these communication skills in a classroom setting, we suggest that allowing the medical students or



health professionals to test their newly acquired skills in a real-world setting will probably be the most effective and most efficient way of achieving immediate progress with regards to communicating with patients and communities. A 2002 study in Germany showed that medical students prefer to exercise their communication skills with real patients and that this may be the most effective way of teaching communication skills [26].

Moreover, if a hospital would like to further reinforce their health professionals' communication skills, there are many communication training programs available. For example, the Institute for Healthcare Communication's Intensive Communication Skills Program is designed to provide practicing clinicians with specific guidance using evidence-based communication skills that contribute to enhancing their ability to accurately diagnose patients and encourage them to adhere to their treatment plans, which in turn not only improve patient satisfaction and care but also their own job satisfaction [27]. In addition, if one would like a more brief and simple communication guideline, a 2017 study recommends following these two protocols:

situation-background-assessment-recommendation or

acknowledge-introduce-duration-explain-thank,

two methods of communication that can also improve patient safety, care and satisfaction [28].

Moreover, the H Com project (<http://h-com.eu>) reviewed barriers and facilitators of health communication as well as training needs among health care professionals. [10] As indicated by the project's research findings health communication has a positive effect on

treatment outcomes, adherence to treatment, hospital admission rates and patient satisfaction. Health communication training for doctors and nurses should emphasize empathy and provide practical training especially regarding patients from hard to reach populations.

In addition, research showed that most EU countries have short consultation sessions hence training in time management is important for both nurses and doctors. Training should focus on how to obtain and deliver the important information within a short time frame and which questions need to be asked and answered to ensure adequate understanding of the treatment protocol.

Other important aspects which training should consider are cultural competency especially in view of the very diverse cultural environment in Europe as well as understanding and adequately addressing and responding to the needs of patients with low health literacy.

Finally, the literature showed that in the last years there is a need to address the plethora of medical information accessible to the public through the internet. Health care professionals need to respond positively to information seeking behaviors of their patients and adequately advise to address misconceptions.

4. Conclusions

After demonstrating that health communication training programs are needed to ensure positive patient outcomes, we reviewed previous health communication training programs to identify their strengths and see how these training programs were successful in improving patient care. Then, by building upon previous studies that highlighted potential areas of improvement



for these health communication programs, we offered our own suggestions regarding ways to improve health communication training.

Teaching health communication during a medical education is crucial to ensuring that patients receive the highest quality of care. However, health communication can also be taught to practicing clinicians and is not and should not be just limited to a medical school context. Health communication should be a skill that is ubiquitous across all health professions, as it is an important skill that improves patient care, safety, and satisfaction.

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The Role of Training for Disasters and Public Health Emergency Preparedness

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Abstract

Disasters and public health emergencies (PHEs) involve, engage, and affect a wide range of households, businesses, government agencies, and other stakeholders. Effective training program can enable competencies across all stakeholder groups participating in PHEs, including the competencies required for effective collaboration. This paper identifies key training objectives for PHE stakeholder groups, to enable effective, collaborative preparedness and response to disasters and PHEs.

1. Introduction

Disasters and public health emergencies (PHEs) involve, engage, and affect a wide range of households, businesses, government agencies, and other stakeholders [1]. Experience with modern PHEs such as the 2009 H1N1 pandemic has shown that successfully dealing with PHEs involves not only informed and effective action within each stakeholder group, but also competence in managing the complex interactions between stakeholder groups [2]. An effective training program must therefore enable competencies across all stakeholder groups participating in PHEs, including the competencies required for effective collaboration. This paper identifies key training objectives for PHE stakeholder groups, to enable effective, collaborative preparedness and response to disasters and PHEs.

2. Methodology

This paper identifies training objectives through literature review, and by drawing upon three years of research undertaken on the EU program Action plan on SiS related issues in Epidemics and Total pandemics (ASSET) [3]. The overall objective of the ASSET project is to contribute to incorporating Science-in-Society issues into the system of Research and Innovation related to pandemic or epidemic preparedness. This will be done by:

- exploring and mapping SiS-related issues in global pandemics
- developing a partnership with complementary perspectives, knowledge and experiences to address effectively scientific and societal challenges raised by pandemics and associated crisis management
- developing a participatory and inclusive strategy to succeed.

3. Results

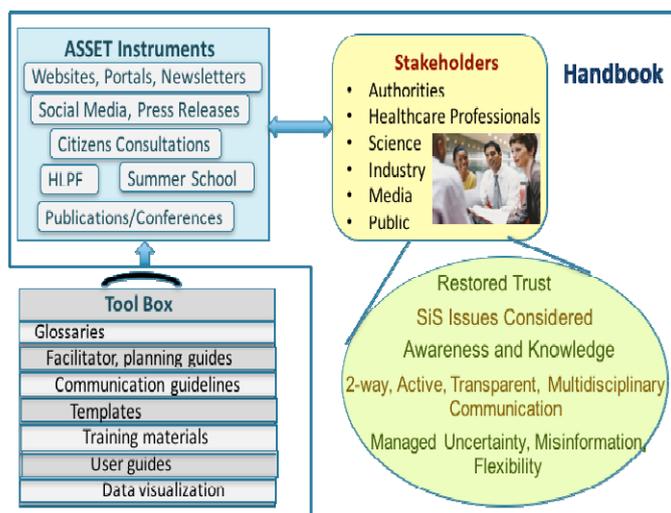
The ASSET Action Plan Handbook [4] has identified six stakeholder groups associated with disaster and PHE preparedness:

1. International, national, and local organizations and authorities
2. Healthcare professionals
3. Scientific community
4. Industry
5. Media
6. General public.

Each of these stakeholder groups plays a role in disaster and PHE preparedness, and each faces special challenges associated with collaboration in the modern social context. The premise of this paper is that providing training to each of these stakeholder groups to address these challenges can improve disaster and PHE preparedness.

Two of the products produced by the ASSET program are the Action Plan Handbook and the ASSET Tool Box, as illustrated in the Fig. 1 that follows.

Fig. 1. ASSET Action Plan Handbook and Tool Box



The Handbook and Tool Box are examples of tools and methods developed by European Union programs to support stakeholder groups in dealing with disaster and PHEs. Stakeholder training will play an important role in making such tools and methods available to improve response to disaster and PHEs.

International, National, and Local Organizations and Authorities

This group includes governing health authorities such as the World Health Organization (WHO) and Ministers of Health; organizations involved in scientific and communications issues, such as

ECDC, CDC, US National Institutes of Health; local health units; charities and NGOs; and the broader range of non-health organizations and authorities that can play a role in disasters and PHEs, such as UNICEF, OECD, and IATA.

Challenges

The two primary challenges faced by this group, as identified by ASSET, are

- Loss of trust by those outside these organizations
- Lack of attention to participatory governance [5], gender [6], and ethics [7] issues.

Official communication during disasters and PHEs can be especially challenging [8]. One difficulty is dealing with uncertainty. For example, during the 2013 Ebola outbreak, trust in officials was eroded when various organizations offered widely differing predictions of the impact of the outbreak [9]. Some of the published Ebola predictions are compared with officially recorded number of cases in Fig.2 that follows.

Fig. 2. Comparison of predictions and actual case numbers from the 2013-2015 Ebola outbreak

	Prediction	Actual
Number of Cases	– “a few hundred” – “1.4M”	29,000
Peak in Guinea Cases	– “peak has passed” (Aug)	Guinea cases Aug – 30/week Dec – 150/week
US Cases	– “quite possibly every major city will see at least a handful of cases”	Four total cases in US

Key Training Objectives

Training of this stakeholder group can address the loss of trust challenge by raising awareness of the factors that erode trust, and by providing



tools to support building trust. Examples include case studies to illustrate the cost/benefit of transparent communication, and training in communicating uncertain or unwelcome information transparently. Training in policies and behaviors to avoid conflicts of interest would also address this challenge.

Raising awareness is also key to increased consideration of participatory governance, and gender and ethics issues. While some individuals in this stakeholder group may be directed by policies to insure attention to these issues, others are in a position to shape these policies, and almost all are required to make local interpretations. In this situation, training can be invaluable in broadening one's understanding of the diverse needs of the individuals to be served.

Training in the use of tools developed by programs such EU's Effective Communication in Outbreak Management for Europe (ECOM) program [10] can be valuable for this stakeholder group. Tools developed by ECOM include questionnaires, checklists, and planning guides for risk communication.

Healthcare Professionals Group

a) Challenges

The challenges identified by ASSET for this group include:

- Lack of knowledge in the field of influenza pandemics.
- Complacency, hesitancy, or refusal of vaccination.
- Lack of communication and counselling competence.
- Under-evaluation of the positive impact of changes in daily behavior (e.g., frequent hand-washing) on the spread of influenza.

b) Key Training Objectives

Training can clearly address these challenges. Easiest to address are lack of knowledge and building competence. Changing attitudes, e.g., toward vaccination, may be more difficult, and requires training that builds trust as well as knowledge.

Training of healthcare professionals can be supported through the use of tools such as the ASSET Tool Box, e.g. Checklist – Awareness of Healthcare Workers for Influenza Vaccination [11]. Another program, European Training for Health Professionals on Rapid Response to Health Threats (ETHREAT), provides additional resources [12].

Scientific Community

a) Challenges

The challenges identified by ASSET for this group include:

- Scarce cooperation among different branches of science in preparedness and response to epidemics and pandemics
- Scarce understanding of attitudes and barriers of people and professionals to vaccination with influenza vaccines.

In the ASSET Roadmap to Open and Responsible Research and Innovation in Pandemics, communication skills were also emphasized:

“The mutual understanding between research and public health professionals and civil society representatives is fundamental for PPI. As a consequence, both previously-trained biomedical scientists and public/patients ought to be in a way so that their communication skill and ability of mutual interaction may be



substantially enhanced. As far as professionals are concerned, a new and extremely important dimension to

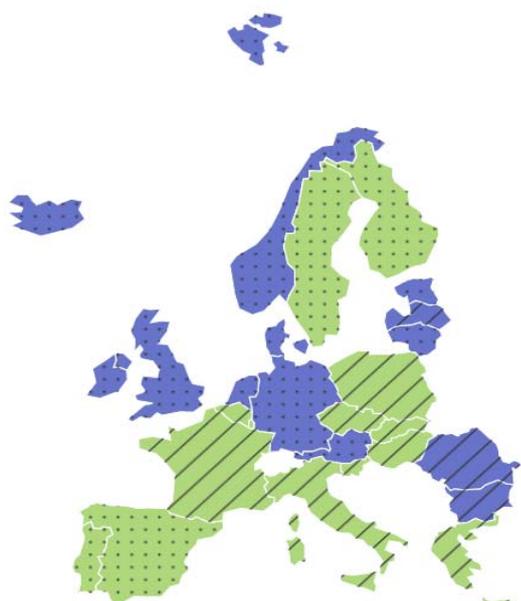
scientific communication has to be learned: the ability to speak to (and to be understood by) a far larger audience.” [13]

b) Key Training Objectives

The highly-specialized training of people in the science community needs to be supplemented by training that allows communication gaps to be bridged between specialties, and between specialists and non-specialists.

The challenge of communicating scientific data to the general public and other non-specialized communities can be facilitated through the use of Data Visualization [14]. For example, this tool has been used to compare rates of polio immunization in all EU/EAA countries, with and without mandatory vaccinations.

Fig. 3. Data Visualization Example: Polio vaccination coverage in EU/EEA [Purple-below average EU, Green-above average EU, Dots-vaccination not mandatory, Lines-vaccination mandatory]



Industry

a) Challenges

ASSET found that the R&D sectors of the pharma industry share most of the same cooperation and communications challenges as the Scientific Community. The commercial and production sectors of industry face challenges with trust, public participation, and sensitivity to gender and ethics, similar to the first stakeholder group, International, National, and Local Organizations and Authorities.

b) Key Training Objectives

The training objectives for this group include the communications and awareness training objectives identified above for the Science Community and International, National, and Local Organizations and Authorities.

Media

a) Challenges

ASSET found the following challenges for Media:

- New rules of journalistic communication, e.g., not just sensational items.
- Underestimation of the role of web 2.0 and especially of social networks.

Journalists reporting on health can influence health-related behaviors of patients, clinicians and policy makers. However, as research also shows, the lack of specialized training and understanding of complex scientific subjects can result in inaccurate reporting posing a risk of creating false ideas and negatively influencing policy makers. In a recent survey, only 18% of



the journalists had specialized training. Only 6.4% reported that a majority of their readers change health behaviors based on their reporting. [15]

b) Key Training Objectives

These challenges can be addressed by training at both strategic and tactical levels. At the strategic level, training can address the role media play in effective response to disaster and PHEs, e.g., how to source news and what to report. At the tactical end, training in the importance and effective use of social media is essential.

The EU project Health Reporting Training (HeaRT) project has developed training specifically for health Journalists [16].

General Public

a) Challenges

ASSET identified two key challenges associated with the General Public's response:

- Lack of awareness of the risk of pandemic.
- Vaccine hesitancy and refusal.

A study of public risk perception during the 2013 Ebola outbreak illustrated that public perception is not simply based upon knowledge versus ignorance, but a more nuanced interpretation by the public of what science, events, studies, expert opinion, and common sense have to say [17].

b) Key Training Objectives

Disasters and PHEs are not part of the day-to-day life of the general public, and relatively few will seek specialized training. The challenges identified above will be addressed largely through public information campaigns, and

training of professionals that come into contact with the general public.

There are two types of disaster and PHE-related training that will engage limited but important groups of the general public. One type of training is community response training, such as that offered worldwide for Community Emergency Response Teams (CERT) [18].

The second type of training for the general public is part of participatory governance. This training is part of deliberative polling [19], which has been successfully used in the ASSET program's Citizen Consultations [20]. This training is short term, and dedicated to informing the public about key issues, in immediate preparation for participation in opinion polls and deliberative discussions.

Discussion

Effective response to disasters and Public Health Emergencies requires informed, collaborative action across stakeholder groups. Training within each stakeholder group can promote a realistic, science-based understanding of the situation faced, and build skills needed for effective communication and collaboration. This training can be developed by drawing upon a range of existing resources, including tools and training materials developed by EU programs such as ASSET, ECOM, HeaRT, and ETHREAT.

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