



CRISIS & EMERGENCY RISK COMMUNICATION

Six Principles for OSH Professionals

By Matt Law

WHILE MANY OSH PROFESSIONALS likely grow weary of discussing matters related to the COVID-19 pandemic, this public health crisis made more apparent than ever before the obligation of OSH professionals to provide subject matter expertise and effective risk communication practices to all organizations. The newly presented hazard was microscopic, only

KEY TAKEAWAYS

- Crisis and emergency risk communication (CERC) is an evidence-based framework that OSH professionals can use for successful risk communication to mitigate harm to people, property and the environment.
- OSH professionals must introspectively reflect on lessons learned from previous emergencies and evaluate how circumstances inform the outcomes of risk communication.
- Misinformation is not a new phenomenon, but it is a challenge that can be anticipated and addressed through timely, credible and transparent information provided by OSH professionals.
- OSH professionals play a critical role in the preparation and execution of CERC in the workplace for all emergencies, including serious injuries and fatalities, extreme weather events and infectious disease outbreaks.

visible through symptomatic response, and a change of pace from the more easily seen, and arguably more easily managed, occupational hazards such as working at elevated heights or confined spaces. As the primary source of information related to occupational risk management in many organizations, OSH professionals found themselves in a position of needing to communicate risk and manage organizational processes to mitigate harm to people and property, even as the hazard and potential risks were largely unknown (Loon, 2020).

However, the concept of risk communication during crises and emergencies is not new, and OSH professionals can do well to use evidence-based frameworks such as the crisis and emergency risk communication (CERC) framework presented by the CDC (2018a) to better prepare for effective risk communication practices in any emergency in which they find themselves. The CERC framework helps create communication plans that establish who will speak and to whom they will speak, and ensure that communication is timely, credible and promotes appropriate action (CDC, 2018b). The aftermath of the COVID-19 pandemic presents a unique opportunity for OSH professionals

to reflect on lessons learned, identify gaps in current risk communication processes and establish plans for organizational success in the future.

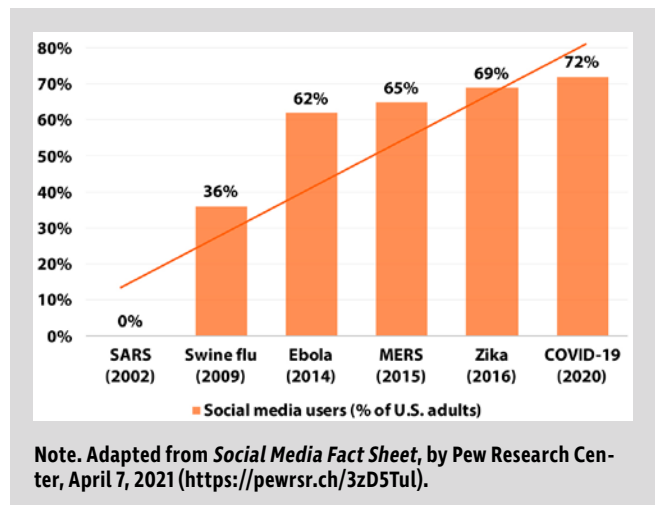
Old Concepts, New Circumstances

The provision of risk communication and the inevitable response to it has never existed in a vacuum and is by no means a new concept. In fact, as of this writing, the last complete revision to the CDC’s CERC framework took place in 2014, and the last update to the web page where it is housed was in 2018 (CDC, 2018a). While the COVID-19 pandemic highlighted prominent challenges in risk communication including the role of social media, the promulgation of misinformation and the importance of addressing psychological and mental health in an emergency, the evidence-based measures needed to address these challenges existed years before the pandemic began (CDC, 2014, 2019; Lu, 2020; Pain & Lanius, 2020; Siegmund, 2020). However, the scale of the impact of the COVID-19 pandemic, the recognition of OSH professionals as subject matter experts (SMEs) in hazard identification and their aspiration to reduce risk, and the increased adoption of social media use have presented new circumstances in which the CERC framework is operationalized and underscored its relevance to safety professionals (Loon, 2020; Siegmund, 2020). Although the principles of risk communication during emergencies may not change, the evolution of circumstances, whether individual, environmental, organizational or societal, demand proper preparation and continuous adaptation by the OSH professional.

Figure 1 illustrates the adoption of social media by adults in the U.S. during recent pandemics, highlighting the change over time in how information, despite the level of risk, spreads more quickly now than ever before. Social media is not inherently an encumbrance to emergency risk communication as it can serve as a vehicle for executing timely and actionable information to proper audiences (Lu, 2020; Siegmund, 2020). However, as observable during the COVID-19 pandemic, misinformation spreads just as quickly as accurate and pertinent information (CDC, 2014; Lu, 2020). While every emergency that OSH professionals face may not be on the scale of a global pandemic, they must understand that misinformation, no matter the situation, is a predictable hurdle to effective risk communication (CDC, 2014). As SMEs who may be closest to the evidential risk of the emergency, OSH professionals must remain transparent, objective and empathetic, and remain focused on mitigating risk to those under their purview.

The responsibility of technical experts to effectively communicate risk during emergencies is not new, either. For example, following a 6.3 magnitude earthquake that killed 309 people in L’Aquila, Italy in 2009, six seismologists and a former government official were sentenced to 6 years in prison on multiple counts of manslaughter for ineffective risk communication (BBC, 2012; Herovic et al., 2020). These scientists were accused of providing incorrect and incomplete information regarding the smaller tremors leading up to the earthquake (BBC, 2012). While the sentences were later overturned, this incident exemplifies how risk is often difficult

FIGURE 1
SOCIAL MEDIA USERS
DURING RECENT PANDEMICS

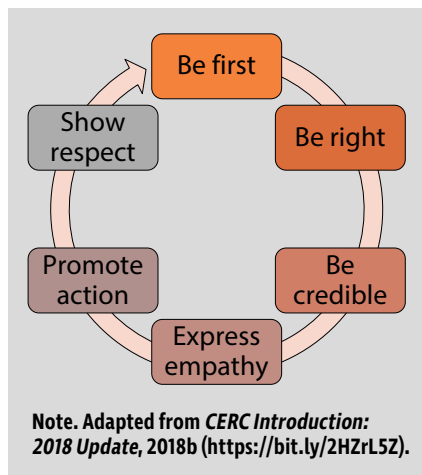


to interpret, how technical experts often perceive risk differently than their constituents, and how risk communication must be tailored to each intended audience (Duhaime-Ross, 2014; Herovic et al., 2020). Additionally, OSH professionals can likely relate to the findings of Herovic et al. (2020), in which those who need risk education and training the most, such as workers and organizational leaders, are less receptive to that type of information during “quiet periods,” that is, the gaps in time when incidents are not occurring and the probability is perceived as low. The aftermath of the 2009 earthquake in L’Aquila demonstrates the need for OSH professionals to be proactive, preventive, and relevant in their risk communication and further necessitates the use of evidence-based frameworks for planning information dissemination in emergency situations.

Applying the Six Principles of CERC

With the recognition that an OSH professional’s role should almost solely be the prevention of, not the response to, crises and emergencies, proper planning can prevent further harm to people, property and the environment when such incidents occur. Effective, timely and relevant risk communication from SMEs can save lives, especially as full-scale emergency response efforts can take time to develop and deploy (CDC, 2018b). At the core of the CERC framework are six principles that OSH professionals can use to reflect on lessons learned from previous crises and emergencies while effectively planning for risk communication in the future (Figure 2; CDC, 2018b). While OSH professionals may not find themselves as the face of a response effort, their subject matter expertise is essential to helping their organizations identify potential hazards and implement appropriate controls using effective communication (CDC, 2018b; Loon, 2020).

FIGURE 2
SIX PRINCIPLES OF CERC



Therefore, it is critical for OSH professionals to apply these six principles of CERC to remain accurate, credible and timely in their risk communication.

Be First

Although it may take time to mount full response efforts when disaster strikes, organizations need information immediately to respond appropriately. In situations such as serious injuries and fatalities, extreme weather events, environmental or property damage, or even infectious disease outbreaks, OSH professionals are well positioned to be the source of immediate subject matter expertise even if the situation is not fully understood. In an emergency, whoever provides the first source of information often becomes the preferred resource for subsequent information (CDC, 2018b).

When it comes to occupational hazards, risk assessments, surveillance, and even mental health and psychological safety, OSH professionals must garner the knowledge and skills necessary to be at the forefront of information dissemination to both frontline workers and organizational leadership (Loon, 2020). Prevention of the misinterpretation of risk hinges on SMEs providing timely and accurate risk communication.

Be Right

When crises and emergencies occur, the complete set of facts surrounding these situations is rarely known. For OSH professionals, information gaps present two clear objectives. First, thorough investigations must be performed to determine root causes and corrective actions. Second, while establishing their position as the first to present the information relevant to their subject matter expertise, OSH professionals must accurately present what is known, what is not known and the processes in place to fill any knowledge gaps (CDC, 2018b). Transparency in the dissemination of information establishes credibility and helps prevent the origination of misinformation that could impede risk mitigation efforts (CDC, 2018b; Loon, 2020; Lu, 2020). Accuracy in communication as well as transparency regarding lack of information and potential inaccuracies are critical to the maintenance of OSH professionals' credibility.

Be Credible

In keeping with the theme of credibility, OSH professionals and SMEs should never compromise on honesty and truthfulness in risk communication during emergencies (CDC, 2018b). Effective risk communication requires evidence-based consultation that is free from speculation or subjective opinion (CDC, 2018b; Loon, 2020). Objectivity and credibility throughout the response to crises establish trust between the OSH professional and everyone receiving information from them (CDC, 2018b). Any risk communication originating from the OSH professional should promote trust and build rapport for long-term effectiveness, and OSH professionals should strive to only present credible information that helps prevent further harm to those with whom they work.

Express Empathy

OSH professionals must be able to communicate effectively with diverse audiences in times of crisis. For OSH professionals to lead and influence workers and management during

crises, even without official authority, they must develop emotional intelligence by increasing self-awareness of their own emotions related to the situation and empathizing with the perspectives, experiences and emotions of their audience (Çayak & Eskici, 2021). As shown in Figure 3, empathy in leadership is perhaps one of the most needed components of communication, despite the immediacy of the situation (Mäkipää, 2019). However, crises and emergencies create

both physical and emotional harm on top of existing stressors, and risk communication must incorporate empathy for the feelings, challenges and suffering experienced by workers and leadership alike (CDC, 2018b, 2019). Risk communication must transparently acknowledge the uncertainties associated with crises and emergencies, and OSH professionals must help promote mental

and emotional well-being by providing complete information with empathy so their audience feels they have agency to take meaningful action to reduce risk to themselves and others (CDC, 2019).

Promote Action

Those affected by crises and emergencies will continually look for something meaningful to do to cope with the challenges associated with the situation. Information that is not actionable gives way for audiences to process communication in counterproductive ways, including oversimplification, disregard of advice, receiving additional information from sources that are not credible and even clinging to the first source of information regardless of accuracy (CDC, 2019). OSH professionals should be familiar with the concept that risk reduction is not achievable solely through their own efforts; it requires cooperation and action from others (Law, 2020). To achieve full literacy in their own health and well-being, recipients of risk communication need information that is not only accessible and understandable, but also applicable to reducing their own risk (Duplaga, 2022). Workers and leadership need actionable information to maintain a sense of control over their own situation and to help calm anxiety associated with crises (CDC, 2019).

Show Respect

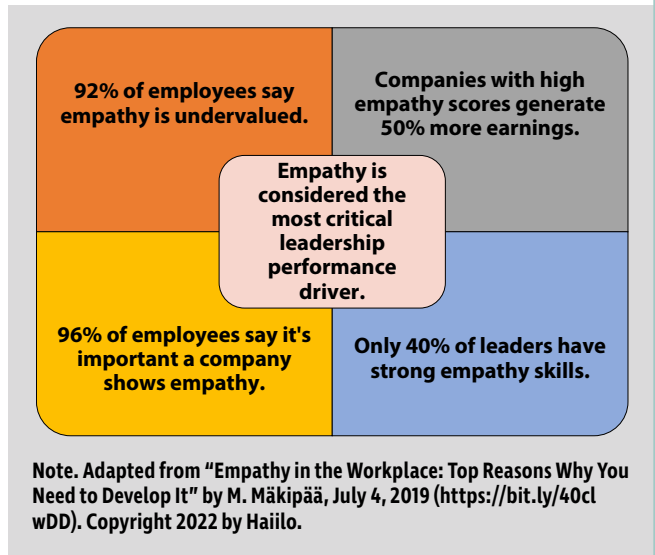
The final principle of CERC requires that risk communication be respectful to those affected by the emergency and those involved in the response. As a key component of effective communication, the demonstration of respect helps promote cooperation and rapport among OSH professionals, workers and leadership (CDC, 2018b; Law, 2020). The SMEs who provide critical information for risk reduction during a crisis should be careful to not portray authoritarian or paternalistic attitudes, and they should refrain from participating in adversarial, volatile conversations (CDC, 2014; Law, 2020). Respectful communication is crucial to maintaining trust, rapport and credibility with the intended audience to ensure the perpetuation of effective risk management activities during an emergency.

Combating Misinformation

Perhaps one of the most prominent discussions spurred from the COVID-19 pandemic has been about how to prevent and dispel misinformation that is contradictory to risk management efforts. Although the vehicles for the spread of misinformation

Prevention of the misinterpretation of risk hinges on SMEs providing timely and accurate risk communication.

FIGURE 3
EMPATHY IN NUMBERS

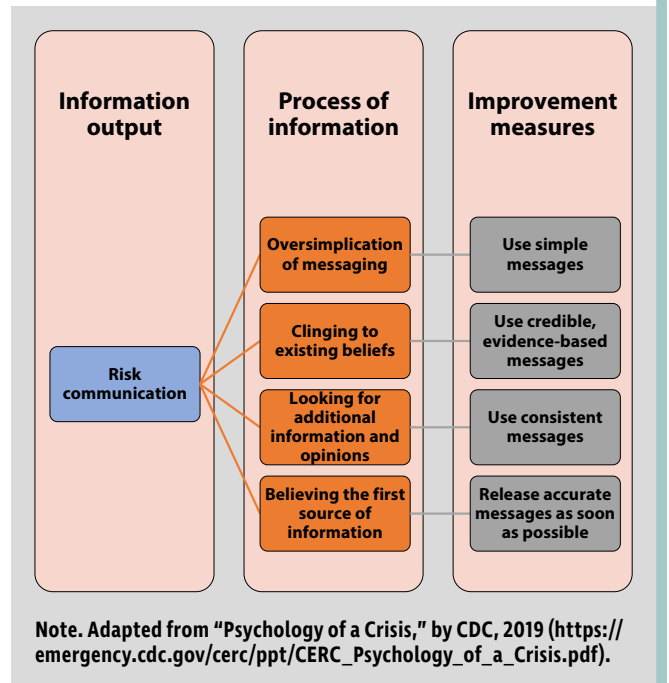


may look different in the present societal climate, the concept of combating misinformation is not new (CDC, 2014, 2019). During emergencies, stressors and information volume can be overwhelming, which can lead to oversimplification and misinterpretation of facts (CDC, 2019). With the continued evolution of social media and interconnectedness among people (Figure 4), inaccurate information, rumors and conspiracy theories spread quickly (CDC, 2019; Kavanagh et al., 2020; Siegmund, 2020). Even when emergencies occur at local and organizational levels, OSH professionals must be proactive in addressing misinformation as a predictable hurdle, but one that can detrimentally affect misguided beliefs and risk perceptions for an extended period.

Shirai et al. (2019) discuss a prominent example of skewed perceptions of risk from the decade prior to the COVID-19 pandemic. In 2011, the Great East Japan Earthquake caused major accidents at Tokyo Electric Power Co.'s Fukushima Daiichi nuclear power station, resulting in radiation contamination of the surrounding area. Reconstruction and cleanup of the surrounding area have steadily progressed, and radiation contamination was quickly reduced to safe and near-negligible levels (Shirai et al., 2019). However, a 2017 survey of Tokyo residents who frequented Fukushima in years prior to the earthquake revealed that 26.3% of respondents still hesitated to eat food from Fukushima and 28.0% of respondents hesitated to even visit Fukushima because of concerns over radiation (Shirai et al., 2019). This demonstrates how, even years after circumstances and actual risk levels have changed, people will cling to their own perceptions of risk, regardless of accuracy.

While the misguided perceptions of risk among Tokyo residents discussed by Shirai et al. (2019) do not appear harmful to the health of those residents, inaccurate beliefs can influence actual risk in other situations. The volume of information that stemmed from the COVID-19 pandemic created many opportunities for oversimplification and misinterpretation of facts. Predictably, misinformation influenced risk perceptions that likely increased actual risk to individuals' safety and health, not only from the virus, but also from many other physical, mental,

FIGURE 4
ADDRESSING THE PROCESS OF INFORMATION DURING AN EMERGENCY

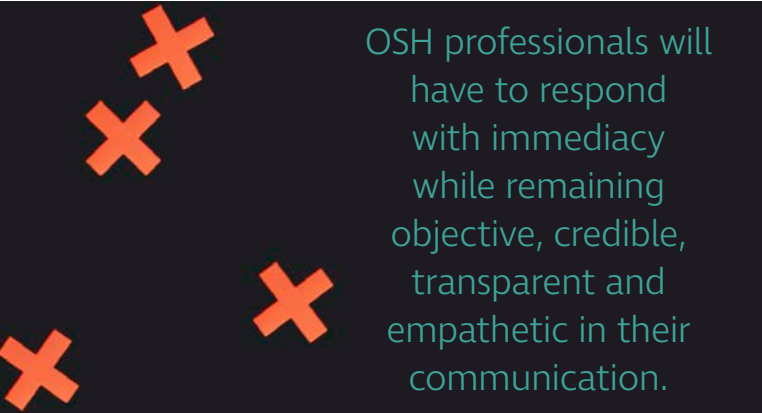


emotional and economic factors (Duplaga, 2022; Lu, 2020; Pain & Lanius, 2020). In the case of the LAquila earthquake, the misinterpretation of information supplied by SMEs likely led to an increased death toll among residents in the aftermath (BBC, 2012; Herovic et al., 2020). The specific origins of misinformation may remain unclear, but the certainty of misinformation's evolution necessitates the need for OSH professionals to be proactive in the implementation of preventive measures (CDC, 2019; Lu, 2020).

For OSH professionals, the application of all six principles of the CERC framework helps prevent and combat misinformation. Those affected by crises and emergencies will often cling to the first message they receive, emphasizing the need for OSH professionals to provide relevant information as quickly as possible (CDC, 2018b, 2019). OSH professionals must also remain objective in their communication and provide only credible, evidence-based information that promotes meaningful action from their audience (CDC, 2014, 2018b). Risk communication must also be empathetic to the fears, anxieties and challenges faced by the intended recipients, and OSH professionals should refrain from sharing subjective opinions and engaging in adversarial conversations (CDC, 2014, 2018b). Misinformation will develop with almost certainty and will spread quickly, and OSH professionals can only prevent further harm by remaining objective, credible and transparent in their risk communication throughout the response.

Beyond CERC: Other Helpful Sources for Emergency Risk Communication

Depending on the nature of various crises and emergencies, several organizations are tasked with response efforts, including risk communication, and can provide additional evidence-based information that can help OSH professionals develop risk communication plans. For example, the Federal Emergency Management Agency (FEMA, 2022) published the National Incident Management System (NIMS) to help both public and private entities effectively communicate during emergencies to mitigate risk, respond and recover. In one notable episode of FEMA's



OSH professionals will have to respond with immediacy while remaining objective, credible, transparent and empathetic in their communication.

(2021) “PrepTalks” series, Claudine Jaenichen discusses the psychology of people receiving risk communication, the cognitive biases that prevent appropriate action, and how organizations can improve visual information to communicate risk more effectively. Within both NIMS publications and FEMA’s continuity guidance, the agency encourages private organizations to initiate preemptive discussions with local emergency management authorities to plan for response and recovery operations and ensure that risk communication promotes appropriate action among those affected by emergencies (FEMA, 2018, 2022). FEMA continues to provide updates to helpful resources for public and private organizations to prepare for crises and emergencies and to communicate risk to affected audiences before, during and after these situations.

Conclusion

In the near term, OSH professionals may not need to address risk communication to the scale of that demanded by the COVID-19 pandemic, but emergencies can strike at any time. In this profession, serious injuries and fatalities, extreme weather, and other local and organization-level events could constitute emergencies that require immediate risk communication to reduce further harm to people, property and the environment. The OSH professional’s role should remain focused on the prevention of these incidents to the highest possible degree rather than response once the damage has already occurred, but planning for risk communication can help organizations reduce further damage and recover more quickly. Evidence-based frameworks such as CDC’s CERC model can help OSH professionals plan for effective risk communication during crises and emergencies. OSH professionals will have to respond with immediacy while remaining objective, credible, transparent and empathetic in their communication. Now is the time to reflect upon the lessons learned from previous crises and emergencies and prepare for effective risk communication should they ever again be experienced. **PSJ**

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