CASE STUDY

Emergency risk communication – early lessons learned during the pilot phase of a five-step capacity-building package

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ABSTRACT

Background: Emergency risk communication (ERC) is one of the eight core public health capacities that WHO Member States must fulfil as as States Parties to the International Health Regulations (IHR) (2005). A pilot five-step ERC capacity-building package was launched by the Health Emergencies Programme of the WHO Regional Office for Europe in February 2017 under the IHR (2005) as a unique, sustained and country-tailored capacity-building project.

Approach: The five-step package engages Member States in an iterative process to develop, test, adopt and implement national health ERC plans and integrate them into new or existing national action plans for emergency preparedness and response under the IHR (2005). Thirteen countries of the European Region and Kosovo[1] started implementation between March 2017 and February 2018.

Observations: Challenges to improving ERC have been identified in the pilot countries, including: coordination among response agencies; sustained human and financial resources; and stronger engagement with communities. Opportunities for improved ERC lie in developing or updating regulations and in better use of existing systems and capacities.

Keywords: RISK COMMUNICATION, EMERGENCY PREPAREDNESS AND RESPONSE, INTERNATIONAL HEALTH REGULATIONS (IHR) (2005), PUBLIC HEALTH, CAPACITY-BUILDING

BACKGROUND

Emergency risk communication (ERC) is one of the eight core capacities that all WHO Member States made a commitment to develop and implement as States Parties to the International Health Regulations (IHR) (2005) *(1)*, and is a component of preparedness within the Pandemic Influenza Preparedness (PIP) Framework *(2)*. The overarching goal of ERC is to mitigate the adverse effects of public health emergencies by ensuring informed decision-making and encouraging protective behaviours among affected people. ERC is a public health intervention required throughout the prevention, preparedness, response and recovery phases of a serious public health event *(3, 4)*.

In times of crisis, people's perceptions require special attention, communication channels are filled with information, and the media is thirsty for news *(5, 6)*. Recent global health emergencies serve as a reminder that effective ERC is instrumental in shortening the time required for emergency control and ensuring that affected communities receive the information that they need. During the Ebola epidemic in West Africa, surveillance and contact tracing were hampered because affected people were not responsive to communication efforts *(7)*. In responding to Zika virus disease, about which little is known but which has huge emotional implications, affected communities require accurate information and public health advice that takes their concerns into account *(8)*.[1]

To meet the needs for effective ERC, capacity-building was prioritized in the WHO European Region in the biennium 2014–2015 and further boosted in 2016–2017 *(9)*. In late 2014, the WHO Regional Office for Europe established a project to scale up ERC capacity-building in the Region under the IHR (2005) and the PIP Framework. From 2014 to 2016, around 150 representatives of 30 countries were trained across the European Region. Recognizing how important it is for public health emergency responders from a broad range of disciplines both to know and to utilize ERC principles *(10)*, participants in ERC activities organized by the Regional Office included

[1] In accordance with Security Council resolution 1244 (1999).

emergency authorities, epidemiologists, communicable disease and animal health experts, communications and health promotion specialists, influenza and immunization managers, civil society and international stakeholders.

Following this phase, and absorbing the lessons learned from the Ebola and Zika outbreaks *(7, 8)*, European countries increased their demands for ERC capacity-building. ERC response personnel recognized a need to improve their skills and embed ERC in emergency preparedness and response at both the national and local levels.

In February 2017, the Regional Office shifted its approach to targeted in-country support and began to pilot a five-step ERC capacity-building package to guide countries in the Region. The five-step package builds upon past ERC capacity-building projects undertaken by the Regional Office while addressing common gaps in ERC capacity-building as a whole. The pilot project aimed to help countries develop, test, adopt and implement national health ERC plans as part of new or existing overall national action plans for emergency preparedness and response under the IHR (2005). Thirteen countries of the European Region and Kosovo[2] embarked on the pilot package between March 2017 and February 2018, and more are in the pipeline for 2018–2019. The Regional Office is supporting countries with tools, missions and technical assistance.

OVERVIEW OF THE FIVE-STEP ERC CAPACITY-BUILDING PACKAGE

The draft capacity-building package (Fig. 1) systematically identifies and addresses ERC needs at country level. It consists of the following steps: (1) training, (2) capacity mapping, (3) plan development, (4) plan testing and (5) plan adoption. Countries can access the package at any stage according to their level of ERC capacity. Support missions are conducted; these enable countries to complete two or three steps within a week. The aim is to ensure continuity of national and local level contributions to capacity mapping and plan writing as well as a final consensus and "buy in" among stakeholders regarding the approach taken and the next steps, which are typically plan testing and adoption.

Support by the Regional Office has so far included undertaking multiple missions to countries in the various phases of the five-step ERC package, as well as providing countries with the tools to implement the package. The role of WHO country offices is critical in engaging the relevant stakeholders and steering the process.

The five-step package begins with training to provide a country's multisectoral representatives with a "common language" of ERC. The capacity mapping step often occurs next, consisting of a review of the capacity mapping tool completed in advance by national health response agencies. Following the capacity mapping step, an ERC plan template is adapted to country needs and response mechanisms. Typically, countries further refine the plan following the mission and use it to ensure that a more coordinated ERC response is in place with partners. The plan is then tested through a simulation exercise. Refinements to the plan will be made and ultimately the plan will go through an adoption step according to a country's policy approval or ratification process.

THE FIVE-STEP ERC CAPACITY-BUILDING PACKAGE: A NEW APPROACH

INCLUSION OF MULTISECTORAL AND LOCAL PARTNERS

An important aspect of the five-step package is multisectoral and multilevel engagement *(11)*. While past ERC training workshops run by the Regional Office have mostly involved public health response personnel (epidemiologists, influenza and vaccine-preventable disease managers, etc.), the 2017 revision includes a wider array of partners and stakeholders. In the framework of the IHR (2005), the five-step package takes a multi-hazard approach, aiming at engaging the whole of society while addressing real or potential risks. Application of these constructs in the five-step ERC package ensures that all response partners are brought to the same table to work together through training, capacity mapping and plan development processes. It ensures a more effective implementation of ERC principles and practice *(10)*. This expanded list of partners, and the reasons for involving them, includes:

- technical and communication experts, to have a common understanding of needs and to work together in times of peace and crisis;
- relevant sectors for emergency preparedness and response, including emergency, agriculture and environment, to ensure coordinated intersectoral action;

2 In accordance with Security Council resolution 1244 (1999).

- different levels of government, to ensure a unified and consistent approach; and
- other relevant partners and stakeholders, including health care workers, hospital administrators, civil society, United Nations and other international organizations, to ensure a whole-of-society approach.

ERC TRAINING STARTS AND ENDS WITH COORDINATION

Recognizing the need to move capacity-building beyond simple, one-off training workshops, the ERC package addresses country-centric needs by using inputs and adaptations from local response agencies, such as practising responses to nationally determined top public health threats, while measuring impact on the ground *(12)*. The five-step package was also designed to address needs beyond merely the communicator's media response skills. One of the key aspects of effective ERC is coordination, which is part of the delivered package. During a public health emergency, communication does not occur solely through a public health agency. Partners and other responders will present their messages, which might be in contradiction with public health recommendations. Ensuring that all response "voices" are in sync and provide consistent recommendations helps avoid confusion and mistrust among the population *(13)*. ERC principles and practice are more easily and effectively absorbed into the national response fabric through training that involves multisectoral partners *(10)*. In addition, effective ERC training, such as the course designed for the five-step package, includes methods for working closely with affected communities and designing messages for at-risk populations *(10)*.

ERC CAPACITY MAPPING THROUGH ALL PHASES OF AN EMERGENCY

The five-step package emphasizes systematic capacity-building by addressing ERC structures and systems, staff and roles, skills and tools *(14)*. This is reflected in the draft ERC capacity mapping tool. The capacity mapping tool supports national counterparts to reach consensus on assessing the four ERC capacities across the emergency lifecycle. The tool gauges the level of capacity through a five-point scale ranging from "not prepared" to "prepared and operational" on each of 78 indicators. It is complementary to Joint External Evaluations (JEEs) that assess a country's capacity to prevent, detect and rapidly respond to public health risks in compliance with the IHR (2005) *(15)*. In the WHO European Region, Albania, Armenia, Kyrgyzstan and Turkmenistan conducted JEEs in 2016 and Belgium, Finland, Slovenia and Switzerland did so in 2017. The five-step ERC capacity mapping tool differs from the JEE tool in that it provides countries with a detailed view of their strengths and challenges at each phase of an emergency response.

FIGURE 1. THE WHO REGIONAL OFFICE FOR EUROPE FIVE-STEP ERC CAPACITY-BUILDING PACKAGE

Step 1. ERC training

ERC training sessions are tailored to meet identified needs and gaps, based on existing national ERC plans and documents. Through a mix of lectures, skill drills and media tips, participants learn and practise effective communication in public health emergencies. The training targets epidemiologists, experts on pandemic preparedness and immunization, and emergency response and communications specialists.

Step 2. ERC capacity mapping tool and mission

The ERC capacity mapping tool is the starting point in identifying needs and gaps with a view to strengthening in-country ERC.

The ERC capacity mapping mission aims to review ERC priority areas for intervention to be addressed in the ERC plan and in a national ERC capacity-building roadmap.

Step 3. ERC plan: development

The ERC plan template aims to support and facilitate the development of a tailored national multi-hazard ERC plan. The Regional Office also assists countries to adapt and integrate the ERC plan into national preparedness and emergency response plans, in line with governance structures.

Step 4. ERC plan: testing

The Regional Office supports testing of the ERC plan through multisectoral simulation and table-top exercises, focusing on:

- health emergencies: disease outbreaks (including pandemic influenza), natural disasters, humanitarian and environmental crises;
- ERC principles: early and transparent communications, communication coordination, listening and community engagement, effective channels and key influencers.

Step 5. ERC plan: adoption

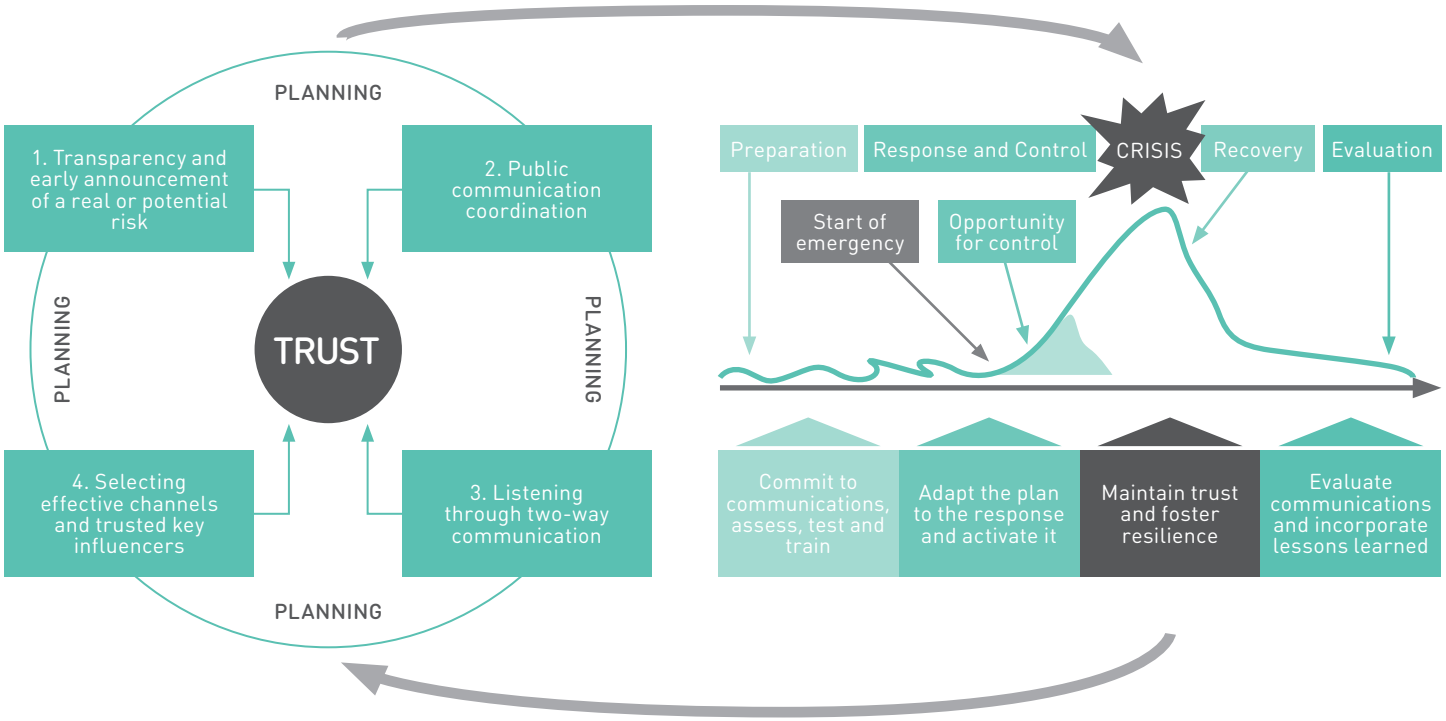
Based on the results of the simulation exercise, the Regional Office provides recommendations for updating the national ERC plan and facilitates its integration into national preparedness and response plans.

As part of this process, the Regional Office supports the development and implementation of a capacity-building roadmap based on identified priorities. The roadmap can include ERC training courses and workshops that engage different audiences and support integration of ERC into technical capacity-building activities and field simulation exercises.

THE EMERGENCY LIFECYCLE

All five-step tools were developed around the following approach:

FIG. 2. ERC CAPACITIES AND THE EMERGENCY RESPONSE LIFECYCLE



BOX 1: WHO REGIONAL OFFICE FOR EUROPE ERC CAPACITY DEFINITIONS

Transparency and early announcement of a real or potential risk

Maintaining the public's trust throughout an emergency requires transparency, including timely and complete information on a real or potential risk and its management. The first announcement frames the risk and addresses concerns. As new developments occur over the course of an outbreak they should be communicated proactively. What is known and what is not yet known must be communicated transparently. When transparency is high, people are more likely to trust the responders and follow recommendations.

Public communication coordination

Proactive public communication and internal communication and coordination with partners before, during and after an emergency are crucial to ensuring effective, consistent and trustworthy risk communication that addresses both internal and public concerns. If this is done, public communication resources are used effectively, confusion is reduced, and outreach and influence are strengthened.

Listening through two-way communication

Community engagement is essential. Communities must be at the heart of any health emergency response. Responders must understand who the target communities are, how they perceive a given risk, and what their existing beliefs and practices are. Without this knowledge, they may fail to influence decisions and behaviour changes that protect health, resulting in more severe social and economic disruption than necessary.

Selecting effective channels and trusted key influencers

Following audience analysis, it is essential to select the right channels to reach the relevant audience. There is no universal recipe for which channels work best; it all depends on the local context and the specific audience to be reached. As a general rule, the most effective channels are those that the target audience already uses. These can include traditional media, web-based social media, hotlines, SMS and others. Influencers play a critical role in delivering messages, as they are trusted opinion makers, often belonging to the community.

The emergency lifecycle, which includes (i) preparation, (ii) initial response, (iii) crisis response and control, (iv) recovery, and (v) evaluation is interlinked with the four ERC capacities of (i) transparency and early announcement of a real or potential risk, (ii) public communication coordination, (iii) listening through two-way communication, and (iv) selecting effective channels and trusted key influencers (Fig. 2 and Box 1). This matrix provides countries with defined goals and actions in each of the emergency phases according to the four ERC capacities.

WRITING AN ERC PLAN THAT WILL NOT SIT ON A SHELF

The draft ERC plan template constitutes the main application of this method and is the central piece of the five-step package. In response to countries' requests, the Regional Office has developed, peer reviewed and piloted this template, which facilitates nationally tailored plan writing *(5)*. The plan uses the information obtained from the training and capacity mapping components, which provide a baseline to guide the development of procedures to sustain national ERC capacities.

The plan is developed to address the unique threats and specific emergency response structures of each country involved in the ERC capacity-building package; it uses a multilevel and multisectoral approach and engages with the whole of government and whole of society to include all relevant government sectors and stakeholders.

TESTING AND REFINING A USABLE ERC PLAN

The next step is plan testing through simulation exercises that either focus solely on the ERC response or include ERC as a response activity of equal importance and in step with epidemiological, laboratory, clinical management and other key emergency response components. The type of simulation is based on country specificities and ranges from table-top exercises to a more comprehensive series of drills or functional exercises. While only one country at the time of publication has gone through the testing process, it is anticipated that the exercise will provide insights into any necessary refinements to the plan.

ADOPTING THE FINAL PLAN TO MAKE IT A LIVING DOCUMENT

Plan adoption entails the country defining a roadmap to strengthen the weaker areas identified in the simulation exercises and reviewing political processes for adoption of the plan as part of new or existing national preparedness and response plans.

THIRTEEN COUNTRIES ENROLLED IN ONE YEAR: CHALLENGES AND OPPORTUNITIES

The European Region is the first of the six WHO regions to scale up ERC capacity-building for plan development, testing and adoption. This unique, sustained and country-tailored project aims to increase the effectiveness of the ERC response, in concert with multisectoral partners.

TABLE 1. THE FIVE-STEP ERC PACKAGE IN THE WHO EUROPEAN REGION

	Training	Capacity mapping	Plan development	Plan testing	Plan adoption
Armenia	X	X[a]	X		
Bosnia and Herzegovina	X	X	X		
Estonia		X			
Kosovo[b]		X			
Kyrgyzstan	X	X[a]	X		
Romania		X	X		
Serbia		X			
Slovakia	X				
Slovenia	X	X[a]	X		
Sweden	X				
Tajikistan	X	X	X		
Turkey	X		X		
Turkmenistan	X	X[a]	X	X	X
Ukraine	X	X			

Notes: [a] mapping through JEE; [b] In accordance with United Nations Security Council resolution 1244 (1999).

Thirteen countries in the Region (Armenia, Bosnia and Herzegovina, Estonia, Kyrgyzstan, Romania, Serbia, Slovakia, Slovenia, Sweden, Tajikistan, Turkey, Turkmenistan and Ukraine) out of 53, plus Kosovo[3] *(16)* embarked in the process between March 2017 and February 2018 and are at various stages of progress (Table 1). Turkmenistan is the first among these countries to have completed the process with the adoption of an ERC plan.

The following are the main common challenges facing countries that were identified in the pilot process:

1. dedicated human and financial resources for ERC are lacking within health ministries;
2. protocols for transparency are not in place or need strengthening;
3. coordination among response agencies for health emergencies is in general unstructured and not routinely tested;
4. expertise for listening to and engaging with communities, and message testing, is underdeveloped;
5. channels other than the media are not systematically used;
6. key influencers, such as health care workers, are unprepared and underequipped with effective ERC tools and resources.

The following are the main opportunities in countries for establishing strong, integrated ERC systems:

1. updating or developing laws for plan adoption;
2. training and repurposing health promotion staff for ERC;
3. linking the emergency and health sectors for coordination purposes;
4. ensuring that the ERC plan connects to existing or developing emergency structures;
5. using existing expertise in community engagement from civil society and international partners;
6. engaging with trusted opinion leaders and influencers.

LESSONS LEARNED

The five-step ERC capacity-building package has raised high interest in the European Region, and 13 countries plus Kosovo[4] requested the support of the Regional Office in beginning the process of plan development and adoption. Many countries acknowledge that they need to increase their capacity and capability in the field of emergency preparedness.

In the year between March 2017 and February 2018, many lessons were learned from missions to implement the five-step package in the countries. Consolidation of these lessons indicated that the following are the central issues for consideration and follow up.

- The health sector usually has the lead in disease outbreak response, but is part of a broader intersectoral response in case of other hazards (including natural or environmental disasters): this needs to be taken into account in development and adoption of the plan as well as in defining roles and responsibilities, utilizing the comparative advantages of response agencies and referring to national structures and systems.

- Coordination among sectors needs to be strengthened. While the process might be steered by health, particularly for disease outbreaks, it is likely that the health sector will not be able to manage an entire emergency response alone and will need partners' channels and resources to conduct a more effective communication response.

- Many countries are in the process of instituting an incident management system (IMS) – a formal and standardized mechanism to manage an emergency response – operated out of another ministry (e.g. the interior, emergency or civil protection ministry). Emergency communication focal points in other sectors may or may not have ERC experience and therefore the operationalization of the ERC plan needs to be integrated into this IMS structure.

- Activities under the five-step ERC package must be adjusted constantly to meet the needs and unique situations of different countries. This requires a certain amount of expertise from ERC facilitators and the package will need to be further refined to make it applicable and useful to other countries and organizations that are considering embarking on this process.

CONCLUSION

The five-step ERC capacity-building package is unique in its country-tailored approach that maps multisectoral and multilevel communication capacities, develops ERC plans using these capacities, and results in the testing and adoption of plans. The Health Emergency Programme in the Regional Office will continue to explore the most effective methods to improve national ERC capacity and capability across European countries. This includes identifying and engaging partners and

[3] In accordance with United Nations Security Council resolution 1244 (1999).

[4] In accordance with United Nations Security Council resolution 1244 (1999).

raising the interest, commitment and resources of policy-makers and donors. As other countries in the Region implement the five-step package, additional findings and lessons learned will be documented and shared. A more comprehensive assessment of the five-step process will follow and a full study report will highlight changes in package development, resulting in a final product for use in other countries and by other capacity-building agencies. Other countries and organizations will then be able to use the final five-step package to improve ERC interventions at the local and national levels before, during and after public health emergencies.

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REFERENCES

1. International Health Regulations (2005) core capacity monitoring framework: Checklist and indicators for monitoring progress in the development of IHR core capacities in States Parties. Geneva: World Health Organization; 2013 (http://apps.who.int/iris/bitstream/10665/84933/1/WHO_HSE_GCR_2013.2_eng.pdf?ua=1, accessed 16 February 2018).
2. Pandemic influenza preparedness (PIP) risk communication [website]. Geneva: World Health Organization; 2018 (http://www.who.int/risk-communication/pandemic-influenza-preparedness/en/, accessed 16 February 2018).
3. World Health Organization outbreak communication planning guide. Geneva: World Health Organization; 2008.
4. Crisis and emergency risk communication. Atlanta (GA): US Centers for Disease Control and Prevention; 2014.
5. Reintjes R, Das E, Klemm C, Richardus JH, Kessler V, Ahmad A. "Pandemic public health paradox": Time series analysis of the 2009/10 influenza A/H1N1 epidemiology, media attention, Risk perception and public reactions in 5 European countries. PloS One. 2016;11(3):e0151258.
6. Chang C. News coverage of health-related issues and its impacts on perceptions: Taiwan as an example. Health Commun. 2012;27(2):111–23.
7. Gillespie AM, Obregon R, El Asawi R, Richey C, Manoncourt E, Joshi K et al. Social mobilization and community engagement central to the Ebola response in West Africa: Lessons for future public health emergencies. Glob Health Sci Pract. 2016;4(4):626–46.
8. Tambo E, Madjou G, Khayeka-Wandabwa C, Olalubi OA, Chengho CF, Khater EIM. Ethical, legal and societal considerations on Zika virus epidemics complications in scaling-up prevention and control strategies. Philos Ethics Humanit Med. 2017;12(3) (http://peh-med.biomedcentral.com/articles/10.1186/s13010-017-0046-8, accessed 16 February 2018).
9. Capacity building [website]. Copenhagen: WHO Regional Office for Europe; 2018 (http://www.euro.who.int/en/health-topics/emergencies/international-health-regulations/capacity-building-and-risk-communication/capacity-building, accessed 16 February 2018).
10. Miller AN, Sellnow T, Neuberger L, Todd A, Freihaut R, Noyes J et al. A systematic review of literature on effectiveness of training in emergency risk communication. J Health Commun. 2017;22(7):612–29.
11. Miller JL, Rambeck JH, Snyder A. Improving emergency preparedness system readiness through simulation and interprofessional education. Public Health Rep. 2014;129 Suppl 4:129–35.
12. Schacter M. "Capacity building": A new way of doing business for development assistance organizations. Ottawa: Institute on Governance; 2000 (https://www.files.ethz.ch/isn/103082/policybrief6.pdf, accessed 16 February 2018).
13. Fischhoff B. Communicating uncertainty: Fulfilling the duty to inform. Issues Sci Technol. 2012;28(4) (http://issues.org/28-4/fischhoff/, accessed 16 February 2018).
14. Potter C, Brough R. Systemic capacity building: a hierarchy of needs. Health Policy Plan. 2004;19(5):336–45.
15. Joint external evaluation tool: International Health Regulations (2005). Geneva: World Health Organization; 2016 (http://www.who.int/ihr/publications/WHO-HSE-GCR-2016-18/en/, accessed 16 February 2018).
16. United Nations Security Council resolution 1244. New York (NY): United Nations; 1999 (http://www.un.org/en/ga/search/view_doc.asp?symbol=S/RES/1244(1999), accessed 16 February 2018). ■

5 In accordance with Security Council resolution 1244 (1999).