Are we ready? Operationalising risk communication and community engagement programming for public health emergencies

Leah Dick, Janae Moodie, Ashley L Greiner

INTRODUCTION
Risk communication and community engagement (RCCE) are consistently cited as critical components for effective public health emergency response interventions. Examples range from the collaborative implementation of safe and dignified burials in response to Ebola virus disease, providing malaria messaging in churches through faith leaders as well as the emergence of infodemic management during the COVID-19 pandemic. The WHO’s Joint External Evaluations (JEE) second edition includes three multipart indicators for RCCE covering risk communication systems, internal and partner coordination for RCCE work and public communication for emergencies. When assessing data from all 125 JEE reports regardless of year, the global average capacity score for risk communication was 52%, compared with 63% for real-time surveillance and 78% for immunisation (range: 39%–78%).

Despite the importance of this technical pillar, RCCE is typically underfunded, understaffed and inappropriately staffed with community engagement roles and tasks often conflated with risk communications. Along with the lack of standardised RCCE processes and integration into the larger emergency response infrastructure, these systemic challenges can lead to delays in RCCE interventions that can adversely affect a community’s understanding and acceptance of public health emergency interventions.

The risk communication and community engagement (RCCE) operations is a novel approach in public health emergency readiness. RCCE should be integrated into every phase (preparedness, response, recovery and mitigation) of the emergency management cycle. RCCE is critical in every public health emergency and must be operationalised in public health programmes to ensure effective response measures.

THE RISK COMMUNICATION AND COMMUNITY ENGAGEMENT OPERATIONS PARADIGM
Operationalising risk communication and community engagement programming in emergency response frameworks and within organisations is of critical importance. The goal is to ensure a sustainable and functional RCCE programme exists and seamlessly integrates within an emergency response structure, mitigating any delay in effective RCCE interventions during a public health event.

The WHO refers to risk communication as, ‘the real-time exchange of information, advice and opinions between experts or officials and people who face a threat (hazard) to their survival, health or economic or social well-being’. Community engagement is defined as, ‘a process of developing relationships that enable stakeholders to work together to address health-related issues and promote well-being to achieve positive health impact and outcomes’. These complimentary areas encompass the technical work of RCCE; or the what of RCCE, such as designing messaging content; Knowledge, Attitudes and Practices surveys; focus groups; behaviour change communications or community-based participatory research. Risk communication and community engagement operations (‘RCCE Ops’), rather, focuses on the plans, policies and procedures within a sustainable RCCE programme to streamline implementation of the technical work and integration into the larger public health emergency response structure. This is ‘the how’ of RCCE.
and focuses on critical administrative considerations (eg, budget, human resources) and standard operating procedures (SOPs) needed for RCCE implementation during emergency.

**WORKFORCE**

RCCE Ops can be implemented and integrated into every phase of the emergency management cycle: preparedness, response, recovery and mitigation. However, establishing RCCE Ops prior to an emergency, in the non-emergency phase, is critical (Figure 1). RCCE workforce is prominent in this phase; staffing and rostering RCCE staff ‘before an outbreak is critical to timely deployment and response’. For an RCCE programme, this requires identifying existing and/or hiring new personnel with expertise in risk communication and community engagement to serve on a response roster. The process can include a stakeholder analysis to identify internal (within the health system) and external RCCE partners that can support the pillar including response and field staff. Additionally, RCCE Ops training (initial and continuous) goes beyond ensuring staff have standardised RCCE technical training and includes emergency response operations, so that staff understand how RCCE is integrated in the overall response strategy and relevant RCCE SOPs. By using a Training of Trainers model that cascades through all levels of the emergency response structure (eg, local, regional, national, global, etc), RCCE staff can educate others, such as response leadership and frontline community health workers, for frontline RCCE activities.

**OPERATIONS**

Delineating RCCE SOPs is equally important in the non-emergency phase. This ensures that an RCCE programme is developed and functional with the intention of being fully integrated into the overall emergency response system during a public health event. RCCE SOPs should include both internal and external response processes. Internal response processes may include partner and community mapping and networking, vulnerable population identification, clearance process for external dissemination of communication products, internal response updates and messaging to response staff, training rapid responders on RCCE considerations during predeployment, etc. External response processes may include triaging rumours as part of message dissemination, social behaviour research design, addressing stigma, mobilising community groups, messaging development, communication networks/modalities, feedback mechanisms, mapping and targeting affected populations, etc. Considering multisectoral response contributors at all levels (community, external and internal) in the development of these RCCE SOPs ensures a coordinated and holistic response with partners and communities when a public health emergency happens.

RCCE Ops can particularly address intraorganisation infodemic management as seen as a major issue during the COVID-19 response. An infodemic, which is an ‘over-abundance of information—some accurate and some not—that occurs during an epidemic’, can impact all response workers emotionally, mentally and professionally. By implementing RCCE Ops processes, organisations can step ahead of an infodemic and function at maximum efficiency and efficacy. Internal processes can include determining how new findings, scientific publications and response changes (such as travel restrictions or mandates) are communicated to response workers. The process of clearance, or an organisation’s approval of messages before dissemination, is also important to define and streamline throughout the response phase. This can include scientific messages (eg, new updates to previous organisational guidance), scientific papers (eg, a journal paper focusing on an aspect related to the emergency response) or public-speaking presentations (eg, internal or external meetings with other emergency response collaborators).

**MONITORING AND EVALUATION**

Monitoring and evaluation (M&E) is another component of RCCE Ops that is not only pertinent during the emergency phase but also in the non-emergency phase. While there are widely available minimum quality standards for risk communication and community engagement, capturing accurate M&E data for any technical area requires thorough planning and implementation at every phase. After an emergency, findings from RCCE M&E can be used in conjunction with after-action reviews to strengthen RCCE work in future responses as well as non-emergency times. To maximise preparedness for future events, RCCE Ops integrates emergency RCCE technical work into preparedness activities when appropriate and feasible. This can include incorporating social listening, rumour management and reporting data from community networks into existing surveillance systems as well as leveraging community influencers to monitor acceptance and behavioural changes as a result of community interventions. Frameworks similar to...
the community feedback mechanism implemented by the International Federation of Red Cross ensure that ongoing data is analysed and applied in a contextual manner for the populations most impacted by the public health emergency, which is imperative in M&E.\textsuperscript{11} RCCE Ops M&E can subsequently include actively incorporating social listening and community feedback into response plans, policies and procedures to improve future response efforts.

**SUSTAINABILITY**

Financial resources for RCCE Ops are pivotal for successful implementation and sustainability of programming. Budget needs focus on the non-emergency and emergency phases, including RCCE staffing, training and equipment. RCCE budgeting, like all aspects of response budgeting, depends on the financial resources and response needs of an organisation. Equipment can include a wide range of items (eg, hotline call bank, cellular phones for outreach and partner (including community leaders and influencers) communication, printers, paper, tables, printer ink) and, thus, should be ideally identified and procured before a public health event. Additional operational budget considerations include field deployment costs, language translation services costs, media and material production costs and the costs of initial and ongoing training for RCCE staff. RCCE budgeting particularly requires leadership buy-in, implementation and integration during the non-emergency phase, rather than a rapid ramp-up after a public health emergency event occurs.

**CONCLUSION**

As learnt in previous emergency responses, robust social behavioural science data as a product of RCCE Ops are leveraged across technical pillars to minimise social disruption, prevent infodemics and humanise the response at the local, regional, national and global levels.\textsuperscript{12 13} RCCE Ops requires buy-in not just by RCCE subject matter experts but also by response and organisational leadership. The implementation of RCCE Ops and a sustainable RCCE programme (including equitable support for both risk communication and community engagement) can link to improving JEE scores, capacity building for UNICEF’s ‘Minimum quality standards and indicators in community engagement’, getting countries closer to meeting the International Health Regulations, and ensuring a measured approach to preparedness that saves lives.\textsuperscript{10 14} By operationalising RCCE to ensure an RCCE programme that is ready and seamlessly integrates into an emergency response system, we build on the hard-won lessons from previous public health emergency events and intentionally serve the communities most impacted. The time to prioritise the integration of RCCE Ops into public health emergency response work is now.

**Contributors**

Concept and design: LD, JM and ALG. Data collection: LD. Statistical analysis: LD and ALG. Analysis and interpretation of data: LD, JM and ALG.

Supervision: ALG. All authors contributed to, read drafts of, and approved the final manuscript.

**Funding**

The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

**Disclaimer**

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

**Competing interests**

None declared.

**Patient consent for publication**

Not applicable.

**Ethics approval**

Not applicable.

**Provenance and peer review**

Not commissioned; externally peer reviewed.

**Data availability statement**

Data are available in a public, open access repository.

**Open access**

This is an open access article distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited, appropriate credit is given, any changes made indicated, and the use is non-commercial. See: http://creativecommons.org/licenses/by-nc/4.0/.

**ORCID iD**

Leah Dick http://orcid.org/0000-0002-9369-515X

**REFERENCES**


