

REVIEW

Leadership, communication, and science: three pillars essential to public health emergency response and closing the gap in the HIV response among key populations



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ABSTRACT

Globally, there have been multiple public health emergencies in recent decades. High rates of morbidity, occasionally mortality, and economic instability are usually associated with pandemics. One of the epidemics that has significantly increased morbidity and mortality worldwide is the human immunodeficiency virus (HIV) and acquired immune deficiency syndrome (AIDS) pandemic. HIV has a disproportionately negative impact on key populations. Strong leadership, effective communication, and sound science are necessary for public health emergency (PHE) responses to be successful. These three PHE response pillars are also essential for bridging the HIV response gap among key populations in the setting of restrictive laws. In this review, we explored the importance of these three pillars of successful PHEs responses, and how they are essential to closing the gap in the HIV response among key populations. Leaders must make decisions and instill a sense of authority in the populace during PHEs to foster trust and confidence. Leaders should base their choices on scientific evidence. Effective communication during PHEs should be proactive, polite, imaginative, innovative, and constructive. To address gaps in the HIV response among key populations, leaders must create a supportive environment for effective communication and scientific research, communication should be used to raise awareness of HIV and to dispel stigma and discrimination, while science should provide evidence of efficacy and effectiveness of interventions among key populations.

1. Introduction

In the past few decades, there have been several public health emergencies (PHEs) such as epidemics, pandemics, and disease outbreaks globally. An outbreak is an unpredicted increase in the number of people presenting with a disease in a new area while an epidemic is an outbreak that spreads to a larger geographic area.¹ A pandemic is an epidemic that spreads across the world.² PHEs are a global threat to health and security. PHEs are usually accompanied by high rates of morbidity, occasionally mortality, and economic upheaval. They usually place a lot of strain on healthcare systems since hospitals are overrun with patients who may be infected and/or suspected cases. Daily activities can be impacted by PHEs.³ Quarantine and isolation are examples of control measures that may have detrimental social and psychological im-

pacts. PHEs are made worse by people's dread of contracting an infection or dying, which causes stress and anxiety and increases the prevalence of psychological problems.⁴ An extraordinarily broad range of difficult decision-making needs are brought on during PHEs. They impose special requirements on communication and public trust.⁵ They also require surveillance, planning, and preparation on a timescale longer than the normal political horizons, coupled with a readiness to act very quickly. Since PHEs disregard political boundaries, effective pandemic control requires extensive worldwide collaboration.⁶

The human immunodeficiency virus (HIV) and acquired immune deficiency syndrome (AIDS) epidemic is one of the epidemics that has caused considerable morbidity and mortality globally. Substantial investment has been committed to the HIV response over the years. Spending on HIV and AIDS in low-to-middle-income countries increased from

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USD 15 billion in 2010 to about USD 21 billion in 2020.⁷ The dramatic increase in global investment in HIV has had a major impact on the HIV epidemic. Since 2004, the number of people living with HIV has increased by 50%, but the number of AIDS-related deaths has decreased by 69%.⁸ This is, to a large extent, due to the increased availability of antiretroviral therapy (ART). ART is a life-saving treatment that can suppress HIV to undetectable levels, substantially reducing the chances of transmitting the virus to others. It is estimated that about 21 million deaths globally were averted due to improved access to ART.⁸

Key populations, such as men who have sex with men (MSM), transgender people, and sex workers, are disproportionately affected by HIV. In many countries, these populations face discrimination and violence, which can make it difficult for them to access HIV prevention, treatment, and care services.⁹ Zablotska et al. identify limited access to HIV prevention programs, stigma and discrimination, and restrictive laws as barriers to implementing pre-exposure prophylaxis (PrEP) in the Asia-Pacific region.¹⁰ As a result of these barriers, the global HIV response is not yet on track to reduce new HIV infections to the levels needed to end AIDS as a public health threat.⁸ The successful control of PHEs requires strong leadership, good communication, and sound science. These three pillars of PHE response are critical in addressing the gap in the HIV response among key populations in the context of restrictive laws. They are essential in advocating for policy changes, promoting awareness, ensuring equitable access to HIV prevention and treatment services, and closing the gap in the HIV response among key populations in the context of restrictive laws. In this review, we explore the importance of these three pillars of successful PHEs responses, and how they are essential to closing the gap in the HIV response among key populations.

2. Three pillars of PHEs responses

2.1. Leadership

Leadership is essential for public health emergency response. Effective leaders can build trust and confidence in the populace, ensure that the population receives objective information, and coordinate a response across multiple sectors. This section will discuss the core competencies of public health emergency leadership, including empathy and caring, transparency and communication, adaptation, courage and resiliency, decisiveness, consultation and cooperation, and empowerment of the impacted population.

Leaders must possess certain characteristics in order to build trust and confidence in the populace during a public health emergency. Effective leadership is essential for building trust and confidence in the populace during a public health emergency. To cooperate with stringent public health measures, the populace must trust and believe in the leadership. Support for policy execution is difficult to gain without trust and confidence in the leadership, especially when short-term sacrifices are required but the long-term objectives are less evident. Leaders must make decisions and instil a sense of authority in the populace to foster trust and confidence.⁵ Leaders also ensure that the population receives objective information and can speak up and ask questions. To keep the people's trust, leaders should be honest and forthright. They ought to be approachable, forthcoming, and eager to respond to inquiries from the general public. Leaders should provide credible up-to-date information for the population to consider.¹¹

Leaders should ensure that they set up local command centres since these are critical in supporting intelligence gathering and timely decision-making. Leaders should coordinate responses, including beyond the health sector, across public and private sectors, as well as civil society organizations since effective leaders ensure good coordination. Leaders must ensure that they engage communities through local groups so that there is a sense of local ownership of the interventions. Participation by the community will also guarantee that the interventions are acceptable and suitable.⁵ Leaders must mobilize their organizations

by setting clear priorities for the response and empowering others to discover and implement solutions that serve those priorities. Empowering others involves granting them authority to make and implement decisions without having to get approval.¹² To ensure accountability and that choices are taken by the right individuals at the right levels, a decision-making architecture should be built. Flexibility and adaptation are enabled via decentralization, self-organization, and shared decision-making.

Leadership should be proactive and well-prepared. Because not all pandemic scenarios can be predicted or managed, thorough, and ongoing risk assessments will be necessary, and leaders should be prepared to adapt their plans quickly and whenever necessary. Despite limited knowledge, leaders must recognize issues that occur in a quickly shifting environment, comprehend the threat, act decisively in response, and coordinate this process.¹¹ Leaders should constantly seek pertinent information and intelligence about the pandemic's trajectory and effects from dependable sources like healthcare professionals, researchers, international colleagues, and related sectors during times of high uncertainty.¹³ Rapid response is a well-known trait of decisive leadership in PHEs, founded on a clear comprehension of the threat posed by the pandemic and the understanding that delaying action may have greater consequences.¹⁴ In conclusion, the core competencies of PHE leadership includes empathy and caring, transparency and communication, adaptation, courage and resiliency, decisiveness, consultation and cooperation, and empowerment of the impacted population.

2.2. Communication

Effective communication during PHEs should be proactive, polite, multi-channel, accurate, and rigorous. Communication should be proactive because, for it to reach the target audience, it competes with many other sources of information. It should aim to establish trust and contradict false information, and this can be achieved by focusing on people, their needs, and expectations.¹⁵ Content should be phased and situation-specific to ensure communication precedes and monitors the operational and community response during the multiple pandemic stages. A variety of avenues, including blogs, call centres, webinars, conference calls, online videos, and digital news media, should be used to convey information.¹⁶ It is important to use reliable and trustworthy information sources since doing so will help people go from awareness to action. When communicating, it's crucial to keep mistakes like mixed and delayed messages, paternalism, and ignoring rumours or myths, technical words, and acronyms to a minimum.¹⁵ Setting common goals, forming a coordinated response, creating a communication plan, putting the communication strategy into practice, and being prepared to modify the strategy are the five steps that should be followed for effective pandemic communication.¹²

To increase familiarity with and adherence to precautions during PHEs, risk communication is essential. To close the information gap and persuade the public to change their behaviours during the PHE, risk warnings must be conveyed to the public in an open and timely manner. The information disseminated should be easy for the public to understand and comply with.¹⁷ The use of accurate and rigorous language is important for ensuring that people understand and trust the information they are receiving. The use of local science or tradition and faith to communicate messages about the pandemic can also be considered. For example, ministries of Health could partner with local religious leaders to develop health messages tailored to the community's specific beliefs and practices. Policymakers could also work with local traditional healers to incorporate their knowledge and practices into public health communication strategies. This allows for the usage of language that is sensitive to and respectful of the cultural and religious beliefs of the community and avoids using language that could be considered offensive or insensitive.

2.3. Science

During PHEs, policymakers must base their choices on scientific knowledge, particularly medical knowledge but also knowledge from other disciplines such as economics, sociology, or law. During PHEs, policymakers must base their choices on scientific knowledge, including medical knowledge, economics, sociology, and law. Different disciplines work together to develop and implement public health interventions. For example, economists may help to assess the economic impact of different interventions, sociologists may help to understand the social factors that contribute to the spread of disease, and lawyers may help to ensure that interventions are legal and ethical.

Scientists seek an appropriate PHE response based on professional standards, which may be influenced by responses to earlier PHEs. Science may be trusted to offer potential causes for the spread of PHEs as well as prevention and control strategies when common information is unavailable.¹⁸ Science can be utilized to identify the organism causing the PHE and precisely sequence its genome. This will therefore make it possible to develop treatments for the disease, such as antibodies and vaccines, as well as diagnostic procedures for both symptomatic and asymptomatic individuals. The pathogenicity of the causative organism, the infectiousness of the causative organism throughout the incubation period, and the safety and effectiveness of the medications and vaccines used to treat the disease can all be learned from scientific research.¹⁹ Utilizing cutting-edge information technology increases the efficiency of epidemiological investigations by quickly locating new and suspected patients, as well as close contacts via digital tracking. The accuracy of PHE trend predictions can also be improved by using big data.²⁰

Finally, developing PHE response programs that incorporate local science or tradition and faith-based interventions is also important. These programs could be tailored to the specific needs of the community, and they could be delivered in a way that is culturally and religiously sensitive.

3. The three pillars and closing the gap in the HIV response among key populations

The linkages between the three PHE response pillars for bridging the HIV response gap among key populations are explored in this section. The three PHE response pillars of leadership, communication, and science are essential for closing the HIV response gap among key populations. Leaders must be committed to the fight against HIV and create an environment that supports the provision of HIV prevention, treatment, and care services to key populations. Effective communication is needed to raise HIV awareness, eradicate stigma and discrimination, and build trust between key populations and service providers. Scientific research is essential for developing and evaluating new HIV prevention and treatment interventions that are effective among key populations.

3.1. Leadership

Closing the HIV response gap among key populations requires strong leadership from government officials, healthcare professionals, and community leaders. Leaders must be committed to the fight against HIV and create an environment that supports the provision of HIV prevention, treatment, and care services to key populations. Leaders can also play a role in building trust and confidence in key populations by working to reduce stigma and discrimination.

Leaders must be dedicated to the fight against HIV, have the political will to make the necessary investments and foster an environment that supports the provision of HIV prevention, treatment, and care services to key populations.²¹ By developing and adopting legislation, political leaders have the chance to not only strengthen HIV prevention and treatment strategies for key populations but also to use their inherent influence over the population, including healthcare professionals, to change their attitudes toward key populations. The political system,

in particular through elected officials, can have an impact on how well-informed individuals are on key populations' susceptibility to HIV transmission. Leaders can actively participate in leading HIV prevention efforts among key populations and acknowledging personal relationships with key populations.²¹ Leadership is required to decriminalize the activities of key populations. National laws on non-discrimination, independent human rights institutions, and gender-based violence have been linked to significantly higher knowledge of HIV status and higher viral suppression among people living with HIV (PLHIV).²² Leaders also need to be able to build partnerships with key stakeholders, including civil society organizations, the private sector, and faith-based organizations.

There are several examples of strong leadership in the HIV response among key populations. In Uganda, for example, President Yoweri Museveni has made HIV a top priority, and he has worked to reduce stigma and discrimination against PLHIV. As a result, Uganda has made significant progress in the HIV response, and it is now considered one of the world's success stories in the fight against HIV.²³

3.2. Communication

Effective communication is essential for closing the HIV response gap among key populations. Communication campaigns can be used to raise HIV awareness, eradicate stigma and discrimination, and build trust between key populations and service providers. Communication campaigns should be culturally appropriate and should be tailored to the specific needs of different key populations.

Major impediments to HIV prevention, treatment, and care for key populations include stigma and discrimination.²⁴ Raising HIV awareness and eradicating stigma and discrimination may both be accomplished with effective communication. It can also help to build trust between key populations and service providers.²⁴

There are several effective communication strategies that can be used to reach key populations.²⁵ These strategies include using peer educators who are members of key populations to deliver HIV prevention messages, creating culturally appropriate media campaigns that target key populations, working with faith-based organizations to reach key populations with HIV prevention messages, and conducting community outreach events to raise awareness of HIV and to dispel stigma and discrimination.²⁶ Audience segmentation approaches should be used to target categories of key populations who may be open, persuadable, or resistant to various HIV-related health messages with different messages.²⁷

3.3. Science

Scientific research is essential for closing the HIV response gap among key populations. Scientific research can be used to develop and evaluate new HIV prevention and treatment interventions that are effective among key populations. Scientific research can also be used to identify and address the unique challenges faced by key populations in accessing HIV prevention, treatment, and care services.

There has been significant progress in HIV research in recent years. New HIV prevention interventions, such as PrEP and post-exposure prophylaxis, are highly effective in preventing HIV infection.²⁸ Scientific research is also essential for closing the gap in the HIV response among key populations. Studies to determine the efficacy and effectiveness of new HIV prevention and treatment interventions among key populations are needed. This is because, the efficacy and effectiveness of these new interventions cannot be generalized from the general population since key populations are usually underrepresented in studies due to stigma, discrimination, and marginalization.²⁹

4. Conclusion

PHEs are a global threat to health and security. They usually place a lot of strain on healthcare systems since hospitals are overrun with

patients who may be infected and/or suspected cases. An extraordinarily broad range of difficult decision-making needs are brought on during PHEs. The HIV and AIDS epidemic is one of the epidemics that has caused considerable morbidity and mortality globally. Key populations, such as MSM, transgender people, and sex workers, are disproportionately affected by HIV. The successful control of PHEs requires strong leadership, good communication, and sound science. These three pillars of PHE response are also critical in addressing the gap in the HIV response among key populations in the context of restrictive laws. Leadership enables communication and science by creating a supportive environment for effective communication and scientific research. For example, leaders can provide funding for HIV prevention and treatment programs, and they can work to reduce stigma and discrimination against key populations. Communication informs science and leadership by raising awareness of HIV and by identifying the barriers that key populations face in accessing HIV prevention, treatment, and care services. This information can then be used to develop more effective HIV prevention and treatment interventions, and to advocate for policy changes that support the HIV response among key populations. Science supports leadership and communication by providing evidence-based information on the efficacy and effectiveness of new HIV prevention and treatment interventions. This information can be used to make informed decisions about how to allocate resources and to develop effective HIV prevention and treatment programs.

Competing interests

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

CRedit authorship contribution statement

Tafadzwa Dzinamarira: Conceptualization, Writing – original draft. **Enos Moyo:** Writing – original draft. **Perseverance Moyo:** Writing – review & editing. **Munash Chimene:** Writing – review & editing. **Grant Murewanhema:** Writing – review & editing.

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