

INGSA CASE STUDIES

PANDERIA: WHEN PANDEMIC TURNS TO PANIC A SUFFICIENCY OF EVIDENCE CASE

INGSA/University of Auckland



PANDERIA

WHEN PANDEMIC TURNS TO PANIC

Panderia is a small, developing landlocked country surrounded by five countries, two of which, the larger Alterra and the smaller coastal Afristan, have been involved in violent conflict for over two years. Although relatively poor, Panderia has been receiving refugees from both countries. With the help of international aid agencies, Panderia has been able to accommodate tens of thousands fleeing Afristaners and Alterrans. However the life in the refugee camps is hard: there is barely enough food, living conditions are cramped, and access to washing facilities is limited. There have been a few outbreaks of gastroenteritis. While all of these outbreaks have been contained, they continue to appear with some regularity.

Recently news has come through of a new and potentially highly infectious disease that appeared in Afristan, provisionally named Afristan Respiratory Encephalitis (AFRE). AFRE is thought to have been originally transmitted to people from monkeys, and is now spreading through human-to-human transmission. The spread is likely occurring through droplets, as the disease starts with a respiratory infection; within 24 hours it becomes encephalitis, which is often fatal or leaves individuals with brain damage. Within a few days the affected person goes from full health to extensive and often frightening symptoms ranging from personality changes and hallucinations to muscle rigidity, involuntary spastic movements and seizures. The mortality is around 50%, although can vary from 25-90%, and about of third of those who survive are left with permanent neurological damage. Women seem to be affected more often, and worse, than men.

Community engagement is important to controlling outbreaks, through a package of interventions: case management, use of face masks, surveillance and contact tracing, a good laboratory service, safe burial practices and social mobilisation. Early supportive care with rehydration improves survival. But in the war-torn Afristan none of this is readily available. Panderia has instituted border checks, including medically trained staff at the busiest border crossings, to identify and quarantine infected people. However it is clear that this will not be enough: many are slipping past the border crossings, through the dense forest.

You are an experienced public health physician and a member of the Panderian Emergency Response Committee and you have just heard about a possible case of AFRE in Panderia.

SCENARIO



SITUATION CLOCK T = 0

You have received a phone call from the head of the Municipal Health Department in the capital of Panderia, Khale. A person has been brought to the main city hospital from the Afristan refugee camp, suffering with seizures. It is a middle-aged woman who lives in the refugee camp with her extended family. Health personnel at the camp initially diagnosed the illness as an untreated epilepsy but the hospital physicians now suspect it to be the first case of AFRE in Panderia. The patient has now been quarantined in the hospital infectious disease ward though it is not 100% it is indeed AFRE.

Questions for Discussion

- **What is the problem you are trying to solve?**
- **What are your options?**
- **What information is going to be required to make any of these decisions?**
- **How will you get this information?**
- **What action, if anything, will you take?**



SITUATION CLOCK T = 12 HOURS

The medical staff at the hospital and health workers in the refugee camp have been requested to keep confidentiality, but within the hours of the admission the news about the possible case of AFRE has trickled onto social media. A person visiting a family member at the hospital ward adjacent to the infectious diseases has noticed the commotion and surreptitiously filmed quarantining of the suspected victim. Although the film provided no definitive link between the quarantined person and the refugee camp, the YouTube video was shared widely: in Panderia, especially among those who reject Panderian current politics towards refugees, but also worldwide – by conspiracy websites, sensationalist press, and in political circles that favour isolationist politics or oppose Panderian politics of neutrality. On Twitter and Facebook too the rumours of the epidemic spreading to Panderia (#HushedAFRE).

Questions for Discussion

- **What is the problem you are trying to solve?**
- **What are your options?**
- **What information is going to be required to make any of these decisions?**
- **How will you get this information?**
- **What action, if anything, will you take?**



SITUATION CLOCK T = 3 DAYS

The Khale public health authorities have demanded an investigation into the background and connections of the patient. The camp authorities have now confirmed that she has been in the camp for a month prior to the symptoms exhibiting. She is 44 and had arrived into the camp from Alterra with her five children and a grandchild, a baby daughter of her eldest daughter who had been killed in the conflict. In the camp she joined members of her extended family and friends from her hometown. She has had close contact with dozens of people.

In the meantime the first laboratory results have arrived and they are inconclusive. There is a high titre of antibodies that can also be found in certain autoimmune conditions. The patient no longer has seizures but now she is experiencing mental confusion and hallucinations. The diagnosis remains open.

In social media as well as tabloid press in Panderia and its neighbours (as well as the British *Daily Mail*), the rumours are continuing to spread. The opposition party are demanding answers from the PM of Panderia. She happens to be out of the country attending an international conference attempting to broker a peace agreement between Afristan and Alterra. The PM is internationally regarded as the peacemaker of the region. Yet critics are arguing that, by accepting refugees, she is exposing her own population to danger. Her motives are not at all selfless, they say: she wants to earn international respect in order to pave the way to a high-level position in an international organization following her career in Panderian politics – which is, they say, likely to end soon.

Questions for Discussion

- **What is the problem you are trying to solve?**
- **What are your options?**
- **What information is going to be required to make any of these decisions?**
- **How will you get this information?**
- **What action, if anything, will you take?**



SITUATION CLOCK T = 2 WEEKS

The virus culture arrived and it shows no AFRE in the blood. A medical delegation from the Centre for Disease Control has arrived in Panderia. The team that included Panderian infectious disease specialists has arrived to the conclusion that the symptoms are a result of a combination of underlying issues. These include an untreated autoimmune disease; a longstanding parasitic infestation which has now become active following the physical and mental exhaustion of the war, long journey and life in the camp. With the good care and medical treatment she has now recovered sufficiently to be discharged.

Yet the camp authorities worry that she cannot go back to the original camp. Although the diagnosis has been publicized and the public has been told that there is no reason to worry, the rumours are continuing to circulate, and the original video continues to be shared. The PM has returned from overseas and has appeared on national TV to soothe the public. Yet even though many accept that this was indeed not AFRE, they continue to worry that this case has shown that it is only a matter of time until AFRE is indeed going to arrive in Panderia.

There has been a sharp increase of attacks on the refugee camps, to the extent that Panderian army has been called to protect the camp. The mood in Khale is tense.

Five days ago, a rumour began to circulate on social media that drinking hot water with considerable amounts of added salt could prevent AFRE. Already, excessive salt consumption in the summer heat has led to several hospitalizations and one death.

Some are turning to traditional healers in a bid to combat the disease through prayers and exorcisms, rather than medical science. Also, unscrupulous merchants are selling “AFRE vaccines” at extortionate rates, made of little more than limes and onions.

Questions for Discussion

- **What is the problem you are trying to solve?**
- **What are your options?**
- **What information is going to be required to make any of these decisions?**
- **How will you get this information?**
- **What action, if anything, will you take?**

Notes for the mentor and for case expansion (not for distribution)

Consider the scenario from the perspective of various stakeholders:

- Government of Panderia
- Opposition party
- Local government
- NGO managing the refugee camp
- Public health authorities in Panderia
- Health workers in the camp
- YouTube, Facebook, Twitter
- International medical organisations

Some considerations might include:

- Political uses of epidemics
- Traditional and new channels of communication
- Social science considerations (insights about local values and practices)
- Staying up to date on the evolving science (through CDC, WHO) and how to communicate this.
- Disaggregation of the population to consider various ways the disease is spreading (different occupational sectors for instance)
- Making contact with officials in Panderia and other neighbouring countries



*This work is licenced for non-commercial reuse,
with attribution to INGSA and named authors, and link to <http://ingsa.org>.
See <https://creativecommons.org/licenses/by-nc-sa/4.0/> for more info.*



ABOUT INGSA

INGSA provides a forum for policy makers, practitioners, academics, and academics to share experience, build capacity and develop theoretical and practical approaches to the use of scientific evidence in informing policy at all levels of government.

INGSA's primary focus is on the place of science in public policy formation, rather than advice on the structure and governance of public science and innovation systems. It operates through:

- Exchanging lessons, evidence and new concepts through conferences, workshops and a website;
- Collaborating with other organisations where there are common or overlapping interests;
- Assisting the development of advisory systems through capacity-building workshops;
- Producing articles and discussion papers based on comparative research into the science and art of scientific advice.

Anyone with an interest in sharing professional experience, building capacity and developing theoretical and practical approaches to government science advice is welcome to join INGSA.

By signing up to the INGSA Network you will receive updates about our news and events and learn of opportunities to get involved in collaborative projects.

Go to <http://www.ingsa.org> for more information.

INGSA has been supported by
The Wellcome Trust • International Development Research Centre, Canada • Royal Society London



**International
Science Council**

INGSA operates under the auspices of the International Science Council. The INGSA secretariat is currently hosted by the University of Auckland, New Zealand.

A: PO Box 108-117, Symonds Street, Auckland 1150, New Zealand |
T: +64 9 923 6442 | E: info@ingsa.org | W: www.ingsa.org