

Stigmatized by viral infection

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Not many in the general public understand how viruses infect humans or what can be done to prevent their spread. When viral infections spread quickly and result in an outbreak, the psychological effects can surpass the physical as communities deal with treating patients and preventing further occurrences. This can be particularly acute in populations that are unfamiliar with a disease or in situations that lack a carefully planned and engaging communications strategy.



Doctor Stephan Becker is a professor at the Institute for Virology, Philipps-Universität in Marburg, Germany and a member of the Global Virus Network's (GVN) German consortium. He underscores the need for enhanced communication strategies in dealing with viral diseases. As a young virologist, when he had just begun working on his Postdoctoral degree at the Institute of Virology in Marburg, he had the chance to visit two survivors of the [Marburg virus](#) outbreak in 1967.

“The couple vividly remembered their experiences during this time, when the whole city of Marburg was in the grip of the exotic virus. Although the totality of infected patients was only 32, in the first days of the Marburg outbreak, citizens were very scared, and everybody expected to be the next victim. This had negative consequences for Marburg virus patients who experienced rejections from neighbors and friends. Some nurses, out of fear of becoming infected, refused to enter patients' rooms, leaving food at the door. Nobody wanted to let their children play with healthy children of Marburg virus patients. Even twenty years later, when sharing their story, the couple was upset and traumatized from the ensuing chaos following the Marburg outbreak.”



The Marburg virus was named after the German town where it was first identified in 1967. At that time, monkeys imported from Uganda infected laboratory workers, who were hospitalized with the severe and unknown disease. Marburg virus is related to the Ebola virus, and is also responsible for outbreaks in Angola, the Democratic Republic of Congo, and Uganda.

There is no known cure for the virus, which spreads through bodily fluids such as blood, urine, excrement, vomit, and saliva. Symptoms of an infection include diarrhea, stomach pains, nausea, and vomiting, which give way to bleeding.

The mental effects of viruses can also be damaging, as they were for Marburg residents in 1967. People feared for their own survival, lost trust in their neighbors and rejected Marburg virus patients, creating emotional distress in both the patients and the wider community.

Communication plans are, therefore, extremely important in notifying vulnerable populations. Marburg residents would have benefited from greater information on the virus, its pathology, and preventive steps that could have been taken. This information would have empowered the residents to deal proactively against the virus, dispelling misconceptions in the process.

Moreover, the public reaction to the Marburg virus outbreak was not wholly unique. Similar actions were repeated in the 1980's with AIDS, and in 2003 with the SARS outbreak, demonstrating that public information campaigns need to persist after an outbreak has abated.

“During the [SARS outbreak in 2003](#) I encountered again the phenomenon of social stigmatization. Chinese students returning to Marburg from Hong Kong, the epicenter of the SARS outbreak, with no signs of disease were excluded from participating in lectures and seminars and were facing the rejection of their fellow students. These two experiences showed me that emerging infectious diseases elicit fears that are very difficult to control - even more so when a lot of uncertainty exists about the transmission and pathogenesis of the disease.”

Clearly, the public needs to be educated on a range of issues related to viral infections. It should be a top priority for policy makers and national and global health institutions to not only allay the public's fears once an outbreak has begun but to also help communities heal emotionally after an outbreak.

“I think it is so important that scientists speak up in public especially in the beginning of an outbreak to put the situation into a realistic perspective. These two experiences brought me to take another attitude towards communicating science. I think we have the duty to provide the public with meaningful and comprehensible information about the field of infectious diseases.”

Public education is a core value of the Global Virus Network. In recognition of the necessity to provide information on viral threats to the public, the latest findings, and the implications of research, the organization has pledged to serve as a credible source of information on viral diseases and prevention. The GVN reaches major audiences around the world through its website, speeches, webinars, and through supporting major events that outline specific viral challenges. The ultimate goal is to communicate strategically with vulnerable populations and engage with communities that experience outbreaks.