

# Lack of continuous infectious disease pandemic research endangers responses

August 17 2020

---



Credit: CC0 Public Domain

While the volume of research of infectious coronavirus diseases is very high after an outbreak, it drops substantially upon containment, which prevents a full understanding of coronavirus management and prevention, according to a new study by Ben-Gurion University of the Negev researchers.

In the study published in *GigaScience*, the researchers developed and

analyzed a dataset of 35 million papers over 20 years that revealed the comparatively limited research conducted on emerging [infectious diseases](#). Moreover, the research peaked after epidemics, but then dropped off precipitously within two years of the initial outbreak.

"The COVID-19 outbreak has revealed how little we know about emerging coronaviruses," says Dr. Michael Fire, a lecturer in the BGU Department of Software and Information Systems Engineering (SISE) and the founder of the Data Science for Social Good Lab. "There has been no sustained research into these types of infections, merely peaks following specific outbreaks. That pattern has left us woefully unprepared for the COVID-19 pandemic. If we want to be ready for the next pandemic, we must maintain a steady pace of research, even after the current pandemic subsides. The path to understanding is a marathon, not a sprint."

Dr. Fire, together with Dima Kagan, his Ph.D. student and Prof. Jacob Moran-Gilad of the Department of Health Systems Management at BGU's School of Public Health constructed and analyzed the novel dataset of research articles on emerging diseases.

The researchers also discovered that there have been few international collaborations to study emerging infectious diseases. Moreover, 73% of the coronavirus studies were centered in only six countries, far fewer than other investigated diseases, with the majority of research emanating from the U.S. and China.

The coronavirus was also studied considerably less than blood borne viruses like Hepatitis B or C and H.I.V. and its [research community](#) has less prolific researchers than the other investigated diseases. This translates into limited collaborations and a non-sustained investment in research on coronaviruses. Such a short-lived investment also reduces funding and may slow down important developments such as new drugs,

vaccines or preventive strategies.

"We believe the lessons learned from the scientometrics of previous epidemics argue that regardless of the outcome of COVID-19, efforts to sustain research in this field should be made," Fire says. "More specifically, in 2017 and 2018, SARS and MERS were considered to be priority diseases in WHO's R&D Blueprint, but their research rate did not grow relative to other diseases. Therefore, the translation of international policy and [public health](#) priorities into a research agenda should be continuously monitored and enhanced."

**More information:** Dima Kagan et al, Scientometric trends for coronaviruses and other emerging viral infections, *GigaScience* (2020). [DOI: 10.1093/gigascience/giaa085](https://doi.org/10.1093/gigascience/giaa085)

Provided by American Associates, Ben-Gurion University of the Negev

Citation: Lack of continuous infectious disease pandemic research endangers responses (2020, August 17) retrieved 23 April 2024 from <https://medicalxpress.com/news/2020-08-lack-infectious-disease-pandemic-endangers.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--