**Tracking Pathogens Act**

Introduced by Senators Tammy Baldwin (D-WI) and Bill Cassidy, M.D. (R-LA)

*A bipartisan bill to strengthen and expand genomic sequencing of pathogens to identify new threats and better prepare for the next pandemic*

**Background:** The world has once again identified a new and highly contagious variant of SARS-CoV-2, Omicron, using genetic surveillance. This process remains the best way to identify, survey, and understand emerging variants of the novel coronavirus, as well as other pathogens. National sequence-based surveillance, with systematic sampling of viruses from state and local public health laboratories and in partnership with hospital-based, academic and independent laboratories, provides a picture of circulating pathogens, patterns in transmission and introduction, and context for investigations and mitigation efforts to better respond to and prepare for pandemics. This information will also provide data to assess vaccine effectiveness and, if necessary, inform new vaccine formulations.

At the beginning of 2021, the U.S. was only conducting sequence-based surveillance of approximately 0.3 percent of COVID-19 cases, lagging far behind other nations.[[1]](#footnote-1) Thankfully, we have made important progress, and the CDC recently reported that it was sequencing one out of every seven PCR tests that were positive for COVID-19.[[2]](#footnote-2) We must however, continue to do more and build out the infrastructure necessary for genetic surveillance of future pathogens with pandemic potential.

**The Tracking Pathogens Act** would enhance our ability to prepare for future pandemics and strengthen our nation’s ability to conduct genomic sequencing for pathogens by:

* **Issuing Guidance:** Issuing guidance to support collaborations for genomic sequencing, including the use of new and innovative approaches and technology for the detection, characterization, and sequencing of pathogens, to improve public health surveillance and preparedness and response activities
* **Supporting and Enhancing Sequencing Activities:** Directing government health agencies, including the CDC and NIH, to expand and improve activities related to genomic sequencing by:
	+ Continuing and expanding activities to identify and respond to emerging infectious disease threats, including by identifying the use of advanced technology to inform surveillance activities
	+ Seeking new partnerships between public health laboratories and the larger health infrastructure to expand the reach of sequencing programs
	+ Providing technical assistance and guidance to State, Tribal, local and territorial public health departments to increase capacity for sequencing
	+ Enhancing the capabilities of the public health workforce focused on pathogen genomics, epidemiology, and bioinformatics
* **Establishing Centers of Excellence:** Awarding grants to public health agencies and partnerships to establish centers of excellence to promote innovation in pathogen genomics and molecular epidemiology. Established Centers would:
	+ Identify and evaluate technologies that may advance public health preparedness, and improve tools for integrating and analyzing genomic and epidemiologic data;
	+ Assist with genomic surveillance of, and response to, infectious diseases;
	+ Conduct applied research to improve public health surveillance and response to infectious diseases;
	+ Develop and provide training materials for experts in the fields of genomics, microbiology, bioinformatics, epidemiology, and other fields;
	+ Conduct workforce development through advanced training in academic labs
* **Authorize sustained funding of $175 million per year for FY23-27** for genetic surveillance and genomic sequencing

1. https://www.nbcnews.com/health/health-news/u-k-variant-spreads-u-s-scientists-warn-country-isn-n1253467 [↑](#footnote-ref-1)
2. https://www.nbcnews.com/health/health-news/cdc-hunting-omicron-variant-us-cases-spread-globally-rcna7097 [↑](#footnote-ref-2)