The Zika virus garnered global attention when an outbreak began in April of 2015 in Brazil, spreading to 84 countries as of July 2017. Zika has been shown to be linked to microcephaly, a rare birth defect that impairs head growth, resulting in a smaller-than-normal head size for affected babies. Severe cases can result in a much smaller head, which can result in smaller brain size, seizures, vision loss, hearing loss and developmental delays. In adults, Zika has been linked to rare cases of Guillain-Barre syndrome, or GBS, which causes a person’s own immune system to damage the nerve cells, which can lead to muscle weakness and paralysis in some cases.

The number of confirmed cases of Zika around the world dropped dramatically in 2017, with the peak of the epidemic occurring in 2016. Brazil reported 205,578 probable cases in 2016, but only 13,253 reported cases through the end of July 2017. The U.S. reported 224 probably or confirmed local cases and 4,830 travel-related cases 2016. As of August 2017, that number has dropped to just one local case in Texas and 200 travel-related cases across the U.S.

Can we stop worrying about the Zika virus in the U.S.? While there is disagreement among researchers about future Zika patterns, one expert from the Centers for Disease Control and Prevention, or CDC, warns that we cannot let our guard down.

“These are very episodic diseases that are very difficult to predict, often dying down and exploding again,” Lyle Petersen, head of CDC's vector-borne disease division in Fort Collins, Colorado, said in Science Magazine. “Just because cases go down, it doesn't mean we should stop worrying about it. We need to maintain our vigilance.”

According to Peterson, Zika cases increased in northern Mexico this year, which he said "is a little concerning" because it could lead to outbreaks in Texas communities on the border over the next few months.

But with Zika cases declining overall, the conversation has shifted towards a promising discovery made by researchers at Washington University. Researchers have shown in lab and animal experiments that the Zika virus could target and destroy stem cells that drive the growth of glioblastoma, an aggressive type of cancer that can occur in the brain or spinal cord. (Sen. John McCain was diagnosed with glioblastoma in July 2017.) The glioblastoma research results using the Zika virus were published Sept. 5 in The Journal of Experimental Medicine.

In the case of fetuses, the Zika virus is known to disrupt brain development, but the virus doesn't appear to have this effect on adult brains. In the experiments performed, researched tested the Zika virus on patient-derived glioblastoma stem cells. The Zika virus identified, infected and destroyed glioblastoma stem cells in the laboratory experiments. In addition, a modified strain of Zika slowed brain tumor growth in mice, dramatically extending their lives. Although the research is in early stages, it shows promise for treating this deadly type of brain cancer and the importance of innovative research in health care.

By: