Finding Ebola’s hiding place key to stopping another major outbreak

No one foresaw, back in December 2013, that the little boy who fell ill in a village called Méliandou, in Guinea, West Africa, would be the starting point of a gruesome epidemic, one that would devastate three countries and provoke concern, fear, and argument around the planet.

Among the most puzzling aspects of Ebola virus, since its first recognized emergence almost four decades ago, is that it disappears for years at a time. Since a 1976 outbreak in what then was Zaire (now the Democratic Republic of the Congo) and a simultaneous episode with a closely related virus in what was then southern Sudan (now South Sudan), the sequence of Ebola events, large and small, has been sporadic. During one stretch of 17 years (1977-1994) not a single confirmed human death from infection with Ebola virus occurred. This is not a subtle bug that simmers delicately among people, causing nothing more than mild headaches and sniffles. If it had been circulating in human populations for those 17 years, we would have known.

A virus can’t survive for long, or replicate at all, except within a living creature. That means it needs a host—at least one kind of animal, or plant, or fungus, or microbe, whose body serves as its primary environment and whose cell machinery it can co-opt for reproducing. Some harmful viruses abide in nonhuman animals and only occasionally spill into people. They cause diseases that scientists label zoonoses. Ebola is a zoonosis, an especially nasty and perplexing one—killing many of its human victims in a matter of days, pushing others to the brink of death, and then vanishing. Where does it hide, quiet and inconspicuous, between outbreaks?

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion and analysis. Read full, original post: Seeking the Source of Ebola