Outbreak forecasts sometimes wrong because they work

December 2 2014

In *Nature*, SFI Omidyar Fellow Sam Scarpino is among 24 co-authors offering a rebuttal to recent assertions that epidemiological models used to estimate the trajectory of the Ebola outbreak in West Africa missed the mark.

On November 4, *Nature* writer Declan Butler wrote: "For the current crisis, on-the-ground data contradict the projections of published models." He then noted several model forecasts that had failed to predict the course of the outbreak.

The editorial prompted lead author Caitlin Rivers and co-authors to write: "We argue that the author misrepresents the purpose of epidemic models, and overlooks the role models play in outbreak response," noting

that the modeling forecasts themselves encourage public health interventions, which can change the course of the outbreak.

"As those interventions were implemented and as behaviors changed, case counts that diverged from the modeled baseline were one of the earliest indicators that the adaptive response was having an impact," they write. "Instead of portraying them as having 'missed the mark', we encourage a closer inspection of the importance of models beyond providing forecasts.

More information: "Ebola: models do more than forecast." *Nature* 515, 492 (27 November 2014) DOI: 10.1038/515492a

Provided by Santa Fe Institute