Highly Effective Hep C Vaccine Unlikely by 2030

However, there is hope that two HIV vaccines under investigation may at least cut transmission risk in half and qualify for mass use.

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Given the inadequate state of current global funding for 35 leading diseases that affect the world's poor, the globe is unlikely to see highly effective vaccines for HIV, malaria, tuberculosis (TB) or hepatitis C virus (HCV) by 2030.

However, researchers are hopeful that two HIV vaccines currently in advanced trials may reduce the risk of the virus by at least 50 percent, which would probably justify a worldwide rollout that could make a major dent in the epidemic. Those trials are expected to complete by 2021.

Publishing their findings in Gates Open Research, researchers reviewed the pipeline of products—including diagnostics, treatments and vaccines—for 35 so-called neglected diseases. As of August 2017, they identified 538 product candidates that met the criteria for inclusion in their research.

To produce a robust response to neglected diseases by 2030, the global research budget would need to about triple, from about $3 billion annually to nearly $9 billion. Unfortunately, global investment in such research has been declining since the 2008 financial crisis (with the exception of a recent burst of Ebola-related funding), having soared during the early 2000s. Funders in the United States, including the National Institutes of Health and the Bill & Melinda Gates Foundation, currently pick up the tab for about half of the $3 billion figure.

Given current spending on such products, the researchers projected that there would be few launches of complex chemical entities and that launches of highly efficacious HIV, tuberculosis or malaria vaccines would be unlikely by 2030.

The study estimated that about 125 new products for neglected diseases would likely hit the market during the next dozen years, including more effective combination therapy for hep C, TB and malaria. HIV will not see a fully efficacious vaccine but will likely see 26 products approved, while HCV will see eight products approved.

Currently, there are 99 HIV products in the pipeline, including 41 vaccine candidates, while 16

HCV-related products are under investigation, including four vaccine candidates. Moving the HIV products through the pipeline would require $2.3 billion while $541 million would be needed for the HCV products.
