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Peace Through Vaccine Diplomacy

CAN VACCINATIONS HELP TO RESOLVE CONFLICTS AND NURTURE DIPLOMACY? LATER THIS MONTH, Indonesia, the world's most populous Islamic country, will host U.S. President Obama, a visit that could establish important scientific ties between the United States and Indonesia and implement a potentially powerful piece of vaccine diplomacy.

The oral polio vaccine is a substantive example of how vaccination diplomacy has driven cooperation in times of crisis, allowing groups and states to put aside ideological differences to eradicate disease. Even today, the Taliban leader in Afghanistan is cooperating with the Afghan government and United Nations agencies to eradicate polio in Afghanistan.* There is now an unprecedented opportunity to lock the United States and Islamic nations into a meaningful program of vaccine R&D and potentially improve foreign relations and promote peace.

When the United States and Soviet Union entered a deep Cold War chill after the 1957 Sputnik launch, they also entered into a little-known scientific collaboration that led to one of the most important medical advances of the 20th century. With both countries suffering horrific epidemics of childhood poliomyelitis, Soviet and U.S. scientists, led by Albert Sabin, worked together to develop an oral polio vaccine that was deployed worldwide and ultimately eliminated the disease in most of the world by 2008 (the disease still persists in Afghanistan, India, Pakistan, and Nigeria). Similar international cooperative efforts with the Soviet Union led to an improved vaccine that eradicated naturally occurring smallpox by 1977.

Today, up to one-half of the world's neglected tropical diseases occur in Islamic countries, mainly Indonesia, Pakistan, Nigeria, Bangladesh, Sudan, and to some extent Afghanistan, Iran, and Iraq. The most common of these diseases, including hookworm infection, schistosomiasis, and leishmaniasis are notorious for more than their long-term disabling health effects. Impaired healthy development adversely affects rural worker productivity and can lead to agricultural insecurity, a condition that increases the likelihood of conflict among groups and states.

Although more than one billion people suffer from neglected tropical diseases, the corresponding vaccines have essentially no commercial market, relegating their development to nonprofit product development partnerships funded by sources such as the Bill & Melinda Gates Foundation, the Wellcome Trust, and the U.S. National Institutes of Health. Recently, the pharmaceutical giants Novartis and Merck also initiated global health vaccine development partnerships. But more needs to be done. Joint scientific cooperation between the United States and technologically advanced member countries of the Organisation of the Islamic Conference (OIC)—especially the Asian OIC nations of Indonesia, Pakistan, and Malaysia, and selected Middle Eastern countries—could advance vaccine development for treating neglected tropical diseases in Islamic countries. Indeed, leishmaniasis vaccines are under development in Iran, but these efforts would benefit from greater cooperation with scientific institutions in the West.

Last year, the Obama Administration launched a new Science Envoy program to Islamic nations to foster scientific collaboration in ways that address economic, social, and ecological challenges.** In that connection, a vigorous new program of vaccine R&D diplomacy could create opportunities for the United States to address the world's most terrible disease scourges while simultaneously creating a new foreign policy venue. The globally beneficial legacy of the oral polio vaccine should spur the United States and its international product development partnerships to connect with scientists in the Islamic world and produce a new generation of life-saving products. The incentive and opportunity to improve international public health, reduce poverty, and promote global security have never been so clear.

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