

# Return on Innovation



Global health R&D delivers for Michigan



US government (USG) investment in global health R&D has delivered

**\$51.9 million**  
to Michigan research institutions\*

**700+** new jobs  
for Michigan†

## Michigan's top global health R&D institutions by USG funding\*

ORGANIZATION	FUNDING
University of Michigan	\$26.6 million
Michigan State University	\$23.5 million
Wayne State University	\$1.4 million
University of Central Michigan	\$420 thousand

## Global health R&D at work in the Great Lakes State



Michigan State University (MSU) researchers are developing a low-cost skin patch that can rapidly and safely detect malaria. Current diagnostics for malaria generally require blood; the patch will render this unnecessary via an array of micro-needles that painlessly collect fluid from just beneath the skin's surface, an area known to contain proteins from the malaria parasite in infected individuals. This sample will then be transferred to a test that would indicate a positive diagnosis with colored lines. The MSU team aims to develop a prototype for preliminary evaluation. Each year, malaria kills almost half a million people, mostly young children in Africa.

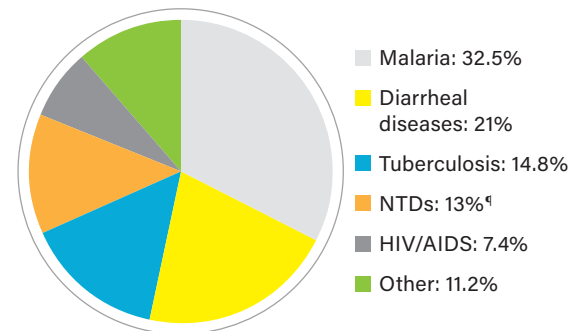
## Neglected diseases in Michigan‡

HIV diagnoses	6,932
Tuberculosis cases	1,343
West Nile cases	381
Malaria cases	189
Dengue cases	77

## Michigan industry in global health R&D

**AbbVie:** Wyandotte  
**Bayer:** Muskegon  
**Emergent Biosolutions:** Lansing  
**NanoBio:** Ann Arbor  
**Vestaron Corporation:** Kalamazoo

## Michigan's top areas of global health R&D by USG funding\*



## GLOBAL HEALTH R&D IS A SMART INVESTMENT FOR THE UNITED STATES§

**89¢** of every dollar  
the USG invests in global health R&D stays within the United States, **supporting the domestic economy.**

USG investment in global health R&D between 2007 and 2015 **generated an estimated:**

**200K** new US jobs

**\$33 BILLION** in US economic growth.

\*Authors' analysis of USG investment data from the G-FINDER survey, including funding for R&D for neglected diseases from 2007–2015 and for Ebola and select viral hemorrhagic fevers from 2014–2015. Reflects USG funding received by entities in state including academic and research institutions, product development partnerships, other nonprofits, select corporations, and government research institutions, as well as self-funding or other federal agency transfers received by federal agencies located in state; but excludes pharmaceutical industry data which is aggregated and anonymized in the survey for confidentiality purposes. See [www.ghtcoalition.org](http://www.ghtcoalition.org) for full methodology.

†Based on previous analysis of the economic impact of National Institutes of Health R&D funding and author's analysis described above. See [www.ghtcoalition.org](http://www.ghtcoalition.org) for additional details.

‡Centers for Disease Control and Prevention: HIV diagnoses 2008–2016, Tuberculosis cases 2008–2016, West Nile virus disease cases 2008–2016, Malaria cases 2008–2014, Dengue virus infection cases 2010–2016.

§Source: Policy Cures Research, Global Health Technologies Coalition. Return on innovation: Why global health R&D is a smart investment for the United States. 2017.

¶NTD: neglected tropical disease. NTDs include Buruli ulcer, Dengue, Helminths, Kinetoplastids, Leprosy, Trachoma, and Leptospirosis.