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

$15 million to Kentucky research institutions*
150+ new jobs for Kentucky†

Kentucky's top global health R&D institutions by USG funding*

<table>
<thead>
<tr>
<th>ORGANIZATION</th>
<th>FUNDING</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Louisville</td>
<td>$12.4 million</td>
</tr>
<tr>
<td>University of Kentucky</td>
<td>$2.0 million</td>
</tr>
<tr>
<td>Owensboro Medical Health System, Inc.</td>
<td>$494 thousand</td>
</tr>
</tbody>
</table>

Global health R&D at work in the Bluegrass State

Researchers at the University of Tennessee and University of Louisville have discovered that a person's gut microbes can impact the severity of malaria infection. Malaria is a mosquito-borne disease that infects more than 200 million people each year, killing almost half a million, mostly young children. There is currently no completely effective vaccine, and the parasite is growing resistant to available drug therapies. The researchers discovered that the degree of harm caused by malaria is not only a function of the parasite but is also influenced by microbes in the infected organism. This discovery opens new doors for investigation and could lead to new treatments for malaria or new approaches to improve the effectiveness of existing methods.

Neglected diseases in Kentucky†

<table>
<thead>
<tr>
<th>Disease</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIV diagnoses</td>
<td>3,058</td>
</tr>
<tr>
<td>Tuberculosis cases</td>
<td>711</td>
</tr>
<tr>
<td>Malaria cases</td>
<td>98</td>
</tr>
<tr>
<td>West Nile cases</td>
<td>51</td>
</tr>
<tr>
<td>Zika cases</td>
<td>35</td>
</tr>
</tbody>
</table>

Kentucky industry in global health R&D

- **Amgen**: Louisville
- **ArtemiFlow**: Lexington
- **Kentucky BioProcessing**: Owensboro
- **MosquitoMate**: Lexington
- **Vindico NanoBioTechnology**: Lexington

Kentucky's top areas of global health R&D by USG funding*

- HIV/AIDS: 74.9%
- Tuberculosis: 7.3%
- NTDs: 6.3%¶
- Salmonella infections: 6.2%
- Other: 5.2%

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