The Global Health Sector’s Contributions to the Economy of North Carolina

Final Report

Prepared for—

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Executive Summary

GLOBAL HEALTH WORK ADVANCES NORTH CAROLINA’S ECONOMY

North Carolina’s global health sector produces significant humanitarian and economic benefits both globally and locally. As a national leader in global health, North Carolina houses more than 220 organizations and institutions that work in more than 185 countries to save lives and improve health. Major universities; nonprofit organizations; faith-based groups; government agencies (including the National Institute of Environmental Health Sciences and offices of the Environmental Protection Agency); and biotechnology, pharmaceutical, and medical technology companies all come together in the state to improve the health of people around the world. Global health transcends boundaries and requires collective solutions that emphasize improving health, reducing disparities, and protecting against global threats. From mitigating emerging disease outbreaks like Zika and Ebola to developing early HIV/AIDS treatments and increasing access to safe drinking water and sanitation around the world, North Carolina institutions are at the forefront of saving lives. By developing new medicines, vaccines, technologies, and services, local researchers, businesses, and advocates are improving the health of communities around the world, including those in North Carolina, while also benefiting the state’s economy.

The Triangle Global Health Consortium, in partnership with RTI International, found that in 2015\(^1\), global health work contributed about $3.7 billion in state gross domestic product (GDP), a common measure of the size of the economic production of North Carolina. This statewide value is roughly $370 per person and is comparable to other important North Carolina sectors such as arts/entertainment/recreation and farming.\(^2\) To create this economic impact, more than $1.2 billion in health research funding comes to North Carolina from sources other than the state government, including federal agencies, much of which is spent locally on wages, goods, and services.

Global health work supports over 26,000 jobs in North Carolina across multiple sectors (Table 1). These jobs paid over $1.6 billion in annual wages, salaries, and

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1 This is the most recent year for which data is available.

TOP THEMATIC AREAS OF NC GLOBAL HEALTH ORGANIZATIONS

Drug Discovery and Development

General Clinical Research

Food and Nutrition

Clinical Trials

Community Engagement

Infectious and Tropical Diseases

Medical Technology

Knowledge Dissemination

Noncommunicable Diseases

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benefits, an average of about $62,000 per job. The top three sectors directly engaged in or supporting global health are

- scientific research and development services: 3,998 jobs;
- pharmaceutical preparation manufacturing: 1,190 jobs; and
- colleges and universities: 732 jobs.

The fiscal impact of the global health sector is important too. The additional economic activity created state tax revenue ($182 million) and federal tax revenue ($433 million) that totaled $615 million (Table 2).

North Carolina has a long history of a wide variety of organizations working collaboratively to achieve global health advances, spur innovation, and improve health. The Triangle Global Health Consortium was founded in 2009 as a hub for this collaboration. The Consortium’s mission is to establish North Carolina as an international center for research, training, education, advocacy, and business dedicated to improving the health of the world’s communities. The Consortium brings together diverse organizations across the state to build community, share best practices, prepare the next generation of global health leadership, and advance North Carolina as a center of global health. By working together, North Carolina organizations can build healthier communities and expand human progress, while also increasing stability, expanding democracy, creating new trade partners, and generating good will for both the state and the country. This work produces significant benefits both globally and here in North Carolina.

Table 1. Summary of Economic Impact of Global Health Activities on the North Carolina Economy: 2015

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>STATE GROSS DOMESTIC PRODUCT (GDP) ($MILLION)</th>
<th>LABOR INCOME ($MILLION)</th>
<th>JOBS</th>
</tr>
</thead>
<tbody>
<tr>
<td>For Profit</td>
<td>$3,336</td>
<td>$1,360</td>
<td>21,233</td>
</tr>
<tr>
<td>Nonprofit</td>
<td>$318</td>
<td>$225</td>
<td>4,252</td>
</tr>
<tr>
<td>Academic</td>
<td>$64</td>
<td>$43</td>
<td>966</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$3,718</strong></td>
<td><strong>$1,628</strong></td>
<td><strong>26,451</strong></td>
</tr>
</tbody>
</table>

**Source:** RTI analysis based on a single region IMPLAN PRO Input-Output Model (2013) results

Table 2. Estimated Fiscal Impact for Governments: 2015 ($Million)

<table>
<thead>
<tr>
<th>GOVERNMENT</th>
<th>CATEGORY</th>
<th>FOR PROFIT</th>
<th>NONPROFIT</th>
<th>ACADEMIC</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal</td>
<td></td>
<td>$379</td>
<td>$45</td>
<td>$9</td>
<td>$433</td>
</tr>
<tr>
<td>State/Local</td>
<td></td>
<td>$158</td>
<td>$19</td>
<td>$5</td>
<td>$182</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td><strong>$537</strong></td>
<td><strong>$64</strong></td>
<td><strong>$14</strong></td>
<td><strong>$615</strong></td>
</tr>
</tbody>
</table>

**Source:** RTI analysis based on a single region IMPLAN PRO Input-Output Model (2013) results
NORTH CAROLINA’S GLOBAL HEALTH SECTOR

North Carolina has a uniquely diverse and thriving global health sector. Over 220 organizations work in 185 countries to save lives, improve health, and protect against global threats. The purpose of this study is to measure how global health work advances North Carolina’s economy.

This statewide value is roughly $370 per person and is comparable to other important North Carolina sectors such as arts/entertainment/recreation and farming.

NC GLOBAL HEALTH CORE STRENGTHS

- Drug Discovery and Development
- General Clinical Research
- Food and Nutrition
- Clinical Trials
- Community Engagement
- Infectious and Tropical Diseases
- Medical Technology
- Knowledge Dissemination
- Noncommunicable Diseases

CONTRIBUTIONS TO NORTH CAROLINA

<table>
<thead>
<tr>
<th>Retains Over</th>
<th>Attracts Over</th>
<th>Adds</th>
</tr>
</thead>
<tbody>
<tr>
<td>220 Organizations and Institutions</td>
<td>1.2 Billion in Annual Research Funding</td>
<td>$182 Million in State and Local Tax Revenues</td>
</tr>
</tbody>
</table>

JOBS

<table>
<thead>
<tr>
<th>Direct</th>
<th>Indirect</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>9,776</td>
<td>16,675</td>
<td>26,451</td>
</tr>
</tbody>
</table>

Global Health Sector Wages, Salaries, and Benefits

<table>
<thead>
<tr>
<th>Direct</th>
<th>Indirect</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>$769 Million</td>
<td>$859 Million</td>
<td>$1,628 Million</td>
</tr>
</tbody>
</table>

Average Global Health Sector Wages, Salaries, and Benefits

<table>
<thead>
<tr>
<th>Direct</th>
<th>Indirect</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>$79,000 per job</td>
<td>$52,000 per job</td>
<td>$62,000 per job</td>
</tr>
</tbody>
</table>

1 Indirect effects include two economy responses to the direct global health sector spending. The first response is the new business spending among local businesses as they buy more goods and services to meet growth. The second response is the spending of wages, salaries, and benefits associated with job creation.
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