



HDI

One Health & Development Initiative



2024

Annual Report



ADVANCING OPTIMAL HUMAN, ANIMAL AND ECOSYSTEM HEALTH

COPYRIGHT STATEMENT

Copyright © One Health and Development Initiative (2025)

All rights reserved. No part of this document may be reproduced or used in any manner without the prior written permission of the copyright owner, except for the use of cited brief quotations.

To request permissions, contact info@onehealthdev.org



TABLE OF CONTENTS

COPYRIGHT STATEMENT	2
TABLE OF CONTENTS	3
EXECUTIVE SUMMARY	4
INTRODUCTION AND BACKGROUND	5
OUR 2024 PROGRAMMATIC ACHIEVEMENTS	6
PUBLIC HEALTH	6
Anthrax Awareness and Control Campaign	6
Stop Superbugs Squad	7
ANIMAL WELFARE	8
Hen Welfare & Cage-Free Advocacy	8
Hen Welfare Training Guide	9
Animal Welfare Courses Platform	9
ENVIRONMENT & CONSERVATION	10
Pangolin Conservation & Habitat Protection	10
Circular Waste Project	10
SUSTAINABLE FOOD SYSTEMS	11
Alternative Proteins Advocacy	11
ONE HEALTH COMMUNITIES	11
One Health Personalities of the Month	11
One Health Insights Platform	12
Global One Health Internship Program	12
Our External Engagements	13
OPERATIONS AND ADMINISTRATION	15
Resource Mobilization	15
Looking Ahead: Strengthening Our Impact and Expanding Our Reach	16



EXECUTIVE SUMMARY

In 2024, One Health & Development Initiative (OHDI) continued to lead transformational efforts in human, animal, and ecosystem health through an integrated One Health approach. Since our establishment in June 2019, we have implemented high-impact initiatives across zoonotic disease response, animal welfare, antimicrobial resistance (AMR) mitigation, wildlife conservation, sustainable food systems, and environmental protection—driving sustainable health solutions in Nigeria, and globally.

With support from key partners such as The Humane League (THL), Effective Ventures Foundation, South Centre, Microbiological Society, The Chicago Zoological Society, and The Trinity Challenge, OHDI expanded its reach, directly impacting over 27,000 individuals in Nigeria, Cameroon, and Tanzania while engaging over 544 professionals across 13 countries in capacity building activities.

Our commitment to global health security and public health was evident in our anthrax outbreak response in Nigeria, where we supported government institutions and stakeholders to vaccinate hundreds of cattle, educate 150+ farmers and abattoir workers, and engaged residents across 5 communities to promote disease awareness and biosecurity. In combating AMR, our African Youths for AMR Communication Project trained 41 youth champions from 5 countries on AMR risk communication and social and behavioral change. In turn, they trained 362 volunteers and reached 7.6 million people through various AMR advocacy and awareness efforts.

Additionally, we advanced animal welfare by expanding our Hen Welfare & Cage-Free Advocacy Project to seven more states in Nigeria, training 20 Veterinary Field Officers, and developing the Hen Welfare Training Guide. We also launched the Animal Welfare Courses (AWC) platform, providing structured online training on global animal welfare standards.

Our wildlife and environmental conservation efforts focused on pangolin protection, where we educated schools and communities, engaged local conservation leaders, and rescued and rehabilitated trafficked pangolins. Additionally, we laid the groundwork for circular waste interventions by conducting baseline research on recycling to inform a sustainable integrated waste management strategy.

To drive climate-smart interventions, we strengthened our Alternative Proteins Africa (APA) initiative, promoting discourse around plant-based alternatives to support sustainable food systems and mitigate climate change in Africa. We also launched baseline research and pilot projects on climate-smart practices, with full implementation set for 2025 to empower communities with the tools needed for climate change mitigation and adaptation.

We continued to foster global engagement and One Health movement-building through initiatives such as One Health Personalities of the Month, our One Health Insights Platform, and the Global One Health Internship Program.

In total, we reached 8 million people worldwide

INTRODUCTION AND BACKGROUND

with One Health-related news, research, and advocacy efforts through traditional and social media.

To enhance our operational efficiency, we conducted organizational reviews, updating our MEAL (Monitoring, Evaluation, Accountability, and Learning) framework, refining HR policies, and strengthening financial systems to ensure transparency, accountability, and long-term sustainability.

None of these achievements would have been possible without the unwavering support of our partners, funders, and stakeholders. As we look ahead, we remain committed to expanding our impact, strengthening our interventions, and fostering cross-sector collaborations that drive sustainable health and development solutions. We invite you to continue supporting our mission—to reach more communities, amplify awareness, and create lasting change for humans, animals, plants, and our shared ecosystems.

OHDI is a non-profit organization committed to addressing the interconnected challenges of human, animal, and ecosystem health through the One Health approach. Recognizing that public health and development issues span these domains, our multidisciplinary strategy is designed to deliver comprehensive and sustainable solutions.

Founded in 2019, OHDI is implementing programs across four key One Health areas: public health (with a focus on zoonoses, global health security, antimicrobial resistance, and food safety), animal welfare, sustainable food systems, and environmental conservation. We leverage diverse strategies—community-based projects, media outreach, research, technological innovation, advocacy, and policy influence—to expand our reach and deepen our impact. To date, our projects have directly engaged and impacted 49 communities across 5 countries, and approximately 41,100 people through education, training, and service provision, while our use of traditional and digital media channels has reached up to 39 million people globally.

Our track record positions us as influential advocates for sustainable health and development practices. Our strategic goal is to promote the well-being of humans, animals, and the environment through targeted, multidisciplinary, high-impact actions. We uphold core values of teamwork, collaboration, integrity, accountability, excellence, community focus, and impact-driven work as we continue to drive transformative change.



OUR 2024 PROGRAMMATIC ACHIEVEMENTS

PUBLIC HEALTH

Anthrax Awareness and Control Campaign

Amid the 2023 anthrax threat and outbreak reports in Nigeria, our commitment to public health has driven us to launch a comprehensive health education and cattle vaccination campaign in Oyo State. In close collaboration with the Oyo State Department of Veterinary Services at the State's Ministry of Agriculture, our initiative focused on raising anthrax awareness and bolstering outbreak response efforts. Anthrax, a fatal zoonotic disease caused by *Bacillus anthracis*, occurs naturally in soil and affects both domestic and wild animals. Since the disease can be transmitted to humans through contact with infected animals or contaminated animal products, early detection, prompt antibiotic treatment, and preventive vaccination are crucial.

Our multifaceted approach included targeted community outreach, the distribution of IEC materials, social media campaigns, ring vaccination of cattle in high-risk areas, and the provision of comprehensive animal health services. By engaging key stakeholders—cattle breeders, butchers, veterinarians, and rural communities—we addressed critical gaps in knowledge and biosecurity that can lead to severe livestock losses, economic hardship, and zoonotic transmission. Through our contribution, we vaccinated over 700 cattle, educated more than 150 cattle farmers and abattoir workers, and engaged residents in over 5 communities on the risk of anthrax and zoonotic diseases. This collaboration with the Oyo State Department of Veterinary Services enhanced disease awareness, promoted safer livestock handling practices, encouraged the timely reporting of animal illnesses, and ultimately reduced the prevalence of anthrax. This integrated strategy not only safeguards public health but also strengthens community resilience against future outbreaks.



Stop Superbugs Squad

OHDI launched the 'African Youths for AMR Communications' Project to educate young AMR advocates and antimicrobial stewards across Africa, and guide them to community action. A key outcome was the establishment of the 'Stop Superbugs Squad', designed to build capacity among students and young professionals through intensive training in AMR risk communication and community engagement. During World Antimicrobial Awareness Week (WAAW) 2024, the initiative selected 41 youth champions from Nigeria, Cameroon, Rwanda, Tanzania, and Malaysia. These were selected through a rigorous evaluation process out of a pool of 108 applications from 65 universities across 14 countries.

The 41 youth champions then received comprehensive training covering effective risk communication strategies, AMR and the One Health approach, gender and AMR, digital media advocacy, and policy dialogue. The "train-the-trainer" model enabled them to further

directly educate 362 volunteers and then ultimately and collectively reach approximately 7.6 million people through community projects, social media, webinars, and radio broadcasts. The champions also engaged over 28,000 people face-to-face, with many pledging to take action against AMR.

Their grassroots efforts led to significant impacts, for example - transforming healthcare practices in Ibadan, Oyo State, where a pharmacist adjusted antibiotic dispensing habits, and prompting a school in Malete, Kwara State, to commit to ongoing AMR education and improved hygiene practices. Stakeholders such as community leaders, market vendors, medical personnel, and pharmacy staff across various regions pledged to take action against AMR. These achievements highlight the power of youth-led initiatives in raising AMR awareness and driving behavioral change. Building on this momentum, further activities are underway to scale and extend the initiative's reach and impact.



ANIMAL WELFARE

Hen Welfare & Cage-Free Advocacy

The Hen Welfare and Cage-free Advocacy Project champions a holistic approach to promoting ethical, welfare-driven, safe, and sustainable poultry farming in Nigeria. Key strategies include operational research, capacity building for poultry farmers and veterinarians to adapt global best practices to local conditions, corporate campaigns, and robust consumer awareness and community engagement.

This year, OHDI intensified its efforts by advocating for cage-free systems and best practices in hen welfare. Stemming from initial research that revealed significant gaps in knowledge and practices, the initiative has focused on transforming the chicken and egg value chain.

Building on previous successes with pilot training and advocacy activities in Ogun and Oyo states, the project expanded to 7 more states in Nigeria— Kwara, Bauchi, Gombe, Kano, Sokoto, Imo, and the Federal Capital Territory. This expansion was reinforced by the recruitment and training of 20 Veterinary Field Officers across Nigeria's six geopolitical zones on Animal Welfare, Hen Welfare and Cage-free Advocacy. Together with our team, these officers educated poultry farmers and actively assessed on-farm cage-free compliance.

To date, trained fieldworkers have evaluated **198 farm** establishments, identifying **92** as cage-free. Detailed information from these evaluations has been integrated into an online directory to assist retailers in sourcing cage-free poultry products. In parallel, we engaged 118 retailers—including restaurants and supermarket chains—to advocate for cage-free practices, with 53 committing to exclusively purchase and sell cage-free products.

Preparations are underway to engage even more multi-sectoral stakeholders in the coming year, expand farmers' train-the-trainer workshops, secure cage-free commitments and support farmers to transition. With growing support, OHDI is poised to further promote best practices in animal welfare, paving the way for a nationwide transition to ethical, climate-friendly, sustainable poultry farming systems.



Hen Welfare Training Guide

To support our series of interventions in encouraging the adoption of ethical, welfare-driven and sustainable poultry farming practices, we established the **Hen Welfare Training Guide**, a comprehensive resource developed with support from experts and researchers in the field. This guide aligns with global animal welfare standards and provides detailed insights on hen welfare, alternative housing systems, and best practices for improving poultry health and productivity. It serves as an essential tool for farmers, industry stakeholders, and policymakers committed to advancing ethical and sustainable poultry farming practices.



Animal Welfare Courses Platform

Animal Welfare Courses (AWC) is an online educational platform established to train farmers, veterinarians, animal care and farm management professionals, and other stakeholders on global animal welfare standards and practices, and support its implementation, especially in Africa. AWC was borne out of the demand and need to complement and scale our respective pilot in-person training activities on hen and fish welfare.

We piloted the [Animal Welfare Courses platform](#) utilizing it to train our veterinary fieldworkers responsible for training poultry farmers and stakeholders, and promoting ethical and sustainable poultry farming practices. Now, with increasing interest and potential for greater scale and impact, we are expanding the platform to accommodate training modules in other priority animal species and expand knowledge on the impact of animal welfare on One Health.

ENVIRONMENT & CONSERVATION

Pangolin Conservation & Habitat Protection

Over the past three years, OHDI has supported wildlife conservation in Nigeria, with a special focus on protecting endangered pangolins. With support from the Chicago Zoological Society's Endangered Species Fund, we initiated conservation education and awareness campaigns in Southwestern Nigeria, beginning in Ago-Iwoye, Ogun State. These efforts have focused on highlighting the ecological importance of pangolins, the threats they face, and the legal measures to curb their illegal trade.

This year, our campaigns extended to communities in Osun State and Oyo State. We engaged 4,284 students across 8 schools on the need for pangolin conservation and habitat protection. Since the project's inception in 2023, a total of 5,287 students from 11 schools in five communities have been educated, and over 150 community members trained about the critical issues surrounding pangolin welfare. We also supported these community members to be custodians of Pangolin conservation in their communities ensuring timely reporting, rescue and rehabilitation of pangolins and other priority endangered wildlife animals. Furthermore, in partnership with the Pangolin Working Group of Nigeria (PWGN), we rescued, rehabilitated, and released 4 trafficked pangolins, ensuring they received proper care before their safe return to the wild.

At OHDI, safeguarding endangered species is a top priority. Through ongoing awareness, advocacy, and direct conservation actions, we are working to eliminate wildlife trafficking and foster a culture of protection, especially among the youth, who are vital to sustaining long-term conservation efforts.



Circular Waste Project

The Circular Waste Project aims to develop and implement innovative One Health solutions that enhance waste management, combat plastic pollution, and promote a thriving circular economy in Nigeria and across Africa. To lay the groundwork for this initiative, we conducted baseline research to assess industry challenges and propose an evidence-based framework for intervention. This included a survey of recycling companies in Lagos and Abuja, mapping key stakeholders, identifying best practices, and understanding barriers to sustainable waste management. Insights from this research will inform the pilot and scale-up of an integrated waste management strategy, set for implementation in the next strategic year, to mitigate environmental pollution and its impact on health, biodiversity, and climate change.

Additionally, in commemoration of International Mother Earth Day, we launched a media campaign to raise awareness about the dangers of plastic pollution and its effects on ecosystems and human health. Our advocacy aligns with global efforts, supporting a 60% reduction in plastic production by 2040 and a complete phase-out of single-use plastics by 2030. We also emphasized the health implications of climate change, including the heightened risk of waterborne diseases due to natural disasters, while advocating for the One Health Approach as a cost-effective, collaborative strategy to strengthen public, animal, plants and environmental health.

SUSTAINABLE FOOD SYSTEMS

Alternative Proteins Advocacy

This year, we advanced our mission to raise awareness and promote the adoption of alternative proteins through our project, Alternative Proteins Africa (APA). Launched as a climate-smart intervention, APA demonstrates how plant-based alternatives in food production and consumption can reduce greenhouse gas emissions, conserve resources, and support sustainable food systems. The platform highlights the benefits of alternative proteins and encourages the transition from animal-derived to predominantly plant-based food systems.

By leveraging APA, we aim to spark interest in sustainable food systems and wellness, drive research and innovation, and attract investments into Africa's emerging alternative protein sector. Our goal is to provide individuals and communities with comprehensive access to essential information, services, innovations, and markets in this area.

In addition, we have initiated baseline research and pilot projects on locally adaptable climate-smart practices and interventions. These efforts set for full implementation in 2025 are driven to empower communities and stakeholders with the crucial knowledge and resources needed for effective climate change mitigation and adaptation.

ONE HEALTH COMMUNITIES

One Health Personalities of the Month

This year, we launched "One Health Personalities," a platform that celebrates trailblazers making significant impacts in global One Health initiatives. Through in-depth interviews conducted by our communications

team, these professionals shared insights into their work, passion, and landmark achievements in sustainable health and development using the One Health approach.

Our featured personalities in 2024 included:

- **Dr. Simon Doherty (of blessed memory)** – Co-Chair of the Veterinary Public Health & Sustainability Working Group, Federation of Veterinarians of Europe (FVE), and recipient of the World Veterinary Association (WVA) Global Veterinary Award for One Health.
- **Dr. Deborah Thomson** – Executive Director at One Health Lessons and Chair of the World Veterinary Association's (WVA) One Health Subgroup.
- **Pharm. Estelle Mbadiwe** – Founding Partner at Ducit Blue Solutions and In-Country Coordinator at The Tropical Health & Education Trust (THET), Nigeria.
- **Prof. Raman Muthusamy** – Adviser and Cluster Head of One Health, Infectious Diseases, and AMR at the Center for Global Health Research, Saveetha Medical College and Hospital, Chennai, India.
- **Dr. Wande Alimi** – One Health Unit Lead at the Africa Center for Disease Control, Ethiopia.
- **Dr. Herman Barkema** – Professor of Epidemiology of Infectious Disease at the University of Calgary and Scientific Director, AMR at One Health Consortium, Canada.
- **Dr. Laura Kahn** – Co-Founder of the One Health Initiative, Chair of the Advisory Board at One Health & Development Initiative, and former Vice President of the Princeton Board of Health, USA.

Through their stories, we aim to inspire others to embrace the One Health approach and become leaders in this transformative field.



Global One Health Internship Program

The Global One Health Internship is a capacity-building program that provides an opportunity for early career professionals to contribute to global One Health projects while enhancing their knowledge, education and skills in One Health operationalization. It is particularly designed early-career professionals from diverse academic and professional backgrounds and geographical origins. The internship program is a scale-up of our previous One Health Advocacy and Mentorship (OHAM) program, which engaged young health professionals in Nigeria with similar objectives.

One Health Insights Platform

We launched our One Health Insights platform, providing a space for One Health enthusiasts and professionals to share knowledge, experiences, and perspectives on human, animal, and environmental health topics. Content featured on this platform, includes reviews, research findings, case studies, technical reports, and practical recommendations and solutions addressing One Health issues. Through One Health Insights, we aim to foster collaboration and promote One Health education, discourse, technical knowledge and movement building, driving continuous positive impact across the entire One Health spectrum. This year, we received a landmark contribution of 54 articles from 16 countries. 14 were published across different themes, including animal welfare, climate change, antimicrobial resistance, sustainable food systems, food safety, conservation and biodiversity, environmental health, global health security, zoonoses, and human-animal interaction.

This year, we established our pilot in November in which we selected 10 One Health enthusiasts from over 700 applicants across 55 countries. The 2024 inaugural cohort of One Health Interns are playing a key role in contributing to the development and management of ‘One Health Resources’, an extensive global repository of One Health research, updates, opportunities and more, which will serve as a valuable tool for One Health (and related) practitioners globally. In addition, they will engage in OHDI projects assigned based on their expertise and career goals.



Our External Engagements

As part of OHDI's commitment to advancing One Health and thematic areas, our team members actively participated in key conferences and summits in 2024. These events provided invaluable opportunities for advocacy, collaboration, and knowledge-sharing to drive impactful interventions. Here are some of the highlights from these conferences.

Animal and Vegan Advocacy (AVA) Summit

Date: May 16-19, 2024 | Location: Washington, DC, USA

The AVA Summit is an international conference series for advocates focusing on systemic change and working on various strategies toward sustainable foods systems. At this summit, our founder, Dr. Kikiope Oluwarore, presented on "*Aquaculture Fish Welfare in Nigeria: Perceptions, Practices, Challenges, and Recommendations*" and participated in a panel session on global Aquatic Animal Advocacy. The summit provided insights into sustainable food systems and animal advocacy.

FAO Conference – "Fish-Vet+ Dialogue II: One Health and Biosecurity"

Date: June 18-20, 2024 | Location: FAO Headquarters, Rome, Italy

This conference provided a platform to discuss biosecurity challenges in aquaculture and the One Health approach to managing fish-borne diseases like *Streptococcus agalactiae*. Representing OHDI virtually, Dr. Abdullah Al-Awal, our Program Officer, participated in discussions on food safety, disease prevention, and sustainable aquaculture practices across global aquatic food systems.



Epidemiological Society of Nigeria Conference

Date: June 5-7, 2024 | Location: Abuja, Nigeria

With the theme "One Health and the Rising Prevalence of Zoonotic Diseases," this conference explored the intersection of climate change, epidemiology, and public health. Experts discussed vaccine research, climate change's impact on health, and strategies to combat emerging diseases. While in attendance, Dr. Kikiope Oluwarore spoke on the topic "**Supporting One Health Implementation to Combat Zoonotic Diseases In Nigeria,**" emphasizing the importance of the One Health approach in disease prevention.

Open Wing Alliance Africa Summit

Date: July 16-19, 2024 | Location: Nairobi, Kenya

This event aimed to promote ethical and sustainable poultry farming practices across Africa. Representing OHDI, Ilunamien Aisedion, presented on the role of governments in cage-free advocacy across Africa. The summit focused on ethical poultry farming, hen welfare policies, and sustainable food production, strengthening OHDI's commitment to advancing animal welfare initiatives.



World One Health Congress

Date: September 20-23, 2024 | Location: Cape Town, South Africa

The 8th World One Health Congress 2024 gathered over 1,400 participants from 87 countries, featuring 400 speakers across 70 sessions and 600 scientific posters, fostering cross-sectoral and transdisciplinary discussions. At this global One Health Congress, Dr. Kikiope Oluwarore presented findings from our research works on critical One Health issues including AMR and schistosomiasis, and participated in discussions that foster collaboration, inform policies, and drive health interventions at the human-animal-environment interface.

Africa Animal Welfare Conference

Date: September 30 - October 2, 2024 | Location: Nairobi, Kenya

This annual conference serves as a platform for professionals and practitioners to convene and address important issues related to animal welfare, wildlife protection, and environmental conservation. OHDI was represented by Dr. Kikiope Oluwarore and Mr. Ilunamien Aisedon. In her presentation, Dr. Kikiope shared insights into our progress with our pilot initiatives for improving livestock and aquaculture welfare across Africa, and plans for scale-up



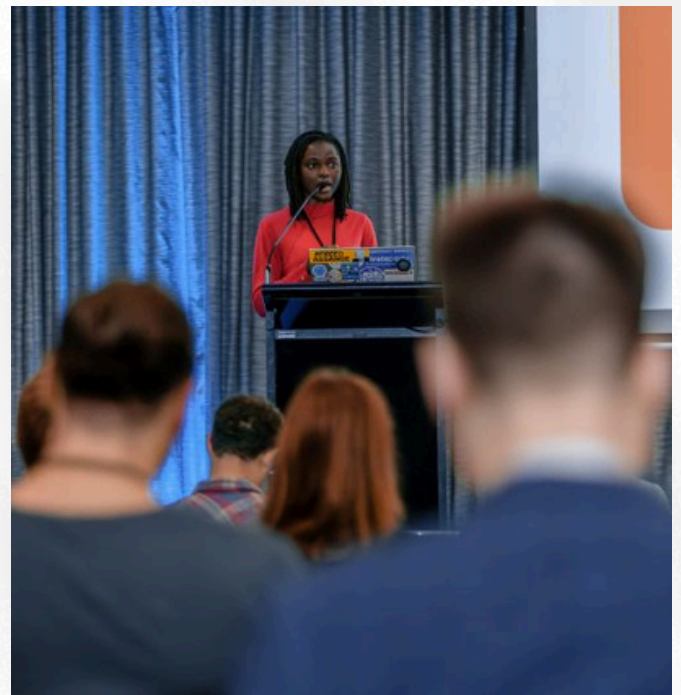
EAGxAustralasia 2024 (Australia)

Date: November 22 - 24, 2024 | Location: Sydney, Australia

EAGx (Effective Altruism Global X) is a series of independently organised conferences that bring the ideas of effective altruism to local and regional communities worldwide.

At this conference, Dr Kikiope Oluwarore, gave a presentation on the One Health approach to global health and health security challenges. She emphasized the potential for EA-driven strategies and inclusion to support global health initiatives, urging stronger collaboration between One Health advocates and global health and development changemakers.

Through these engagements, OHDI continues to champion One Health - spanning animal welfare, sustainable food systems, climate-smart, and public health initiatives, fostering cross-sector collaborations to create lasting impact.



OPERATIONS AND ADMINISTRATION

Strengthening Organizational Operations

As part of our commitment to enhancing efficiency and sustainability, OHDI has undertaken a comprehensive review of key organizational structures and policies. This includes an evaluation and update of our Monitoring, Evaluation, Accountability, and Learning (MEAL) framework to improve impact assessment and program effectiveness. Additionally, we refined our human resources (HR) systems and policies to foster a more efficient and inclusive work environment. To ensure financial sustainability and transparency, we strengthened our financial systems, policies, and personnel, reinforcing our accountability and operational resilience. These strategic improvements are designed to optimize our internal processes, enhance organizational effectiveness, and support the long-term success of our programs.

Resource Mobilization

In 2024, our programs were made possible through the generous financial support of our valued partners, including:

- Effective Ventures Foundation
- The Humane League (THL)
- South Centre
- Microbiological Society
- The Trinity Challenge
- The Chicago Zoological Society (Chicago Board of Trade for Endangered Species Fund)

We extend our deepest gratitude to these organizations for their commitment to our mission. Their support has been instrumental in driving impactful initiatives that advance human, animal, environmental, and ecosystem health through the One Health approach.





Looking Ahead: Strengthening Our Impact and Expanding Our Reach

As fiscal year 2024 comes to a close, we mark the completion of 80% of our 2021–2025 strategic period—a defining moment to reflect on our progress and intensify efforts toward achieving our long-term vision. While a comprehensive evaluation is yet to be conducted, we have identified key priority areas that will shape our focus as we transition into the next strategic phase beyond 2025.

As global health dynamics evolve, we recognize the emerging challenges and priorities in One Health and sustainable development. Our commitment is to align our programs and interventions with these pressing needs while continuing to drive high-impact, evidence-based solutions. To scale our work and expand our impact across Africa, we are actively working to diversify our funding sources, forge stronger strategic partnerships, and invest in initiatives that foster long-term sustainability and resilience.

Through professionalism, resilience, and an unwavering commitment to excellence, OHDI remains at the forefront of advancing One Health principles and promoting sustainable solutions to global health and development challenges. As our organization continues to grow, we are adapting our structures, policies, and strategies to better meet the demands of our expanding work while maximizing efficiency and effectiveness.



We deeply appreciate the critical role played by our partners, collaborators, donors, supporters, volunteers, and advocates in advancing our mission. The management, staff, Board of Trustees, and Board of Advisors of OHDI extend heartfelt gratitude to government agencies, communities, researchers, CSO partners, and private sector institutions for their unwavering support in realizing our programmatic and organizational goals.

Your contributions have strengthened partnerships, deepened community engagement, and expanded our reach to millions. As we look to the future, we are excited about the opportunities ahead and remain committed to scaling our impact, driving transformative change, and building a healthier, more sustainable future for all.

Thank you for being part of this journey.



One Health & Development Initiative



www.onehealthdev.org



One Health and Development Initiative



@onehealthdev



One Health and Development Initiative



@onehealthdev



info@onehealthdev.org



+234-916-506-8270