



CASE STUDY

The Power of Collaboration: Empowering the Next Generation of One Health Leaders

Credit: UFHB SOM/IC members.



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Acronyms

| | |
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| AFROHUN | Africa One Health University Network |
| AME | African Methodist Episcopal |
| AMR | Antimicrobial resistance |
| GHS | Global Health Security |
| IEF | Inspectorate of Education and Training |
| IHR | International Health Regulations |
| PEP | Rabies post-exposure prophylaxis |
| RCCE | Risk communication and community engagement |
| UPCG | University Pelefero Gon Coulibaly of Korhogo |
| SBC | Social and behavior change |
| SOHIC | Student One Health Innovation Clubs |
| USAID | United States Agency for International Development |
| WHO | World Health Organization |

Background

The One Health approach recognizes the interconnectedness of human, animal, and environmental health, and champions coordinated action across multiple sectors to prevent, detect, and respond to disease threats. While One Health has existed for decades, the rapid spread of epidemics and pandemics across borders and the continuous emergence and spillover of new zoonotic pathogens within the last decade (including those which have given rise to major pandemics from mpox to Ebola to severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)) have greatly accelerated the global effort to strengthen application of the approach. This includes fostering a foundational understanding of One Health issues among youth who will shape the future.

Breakthrough ACTION, USAID’s flagship global social and behavior change (SBC) project, nurtures the next generation of One Health leaders in several countries through its efforts to strengthen countries’ capacity for risk communication and community engagement (RCCE) to meet their obligations to contribute to controlling the spread of disease across borders within the framework of the World Health Organization (WHO)’s International Health Regulations (IHR). In the 19 countries where Breakthrough ACTION is one of the implementing partners leading Global Health Security (GHS) programming, its activities foster collaboration among national, subnational, and community-level stakeholders, contributing to measurably strengthened International Health Regulations (IHR) capacities in Risk Communication and Community

Engagement (RCCE). These efforts also support other IHR domains where RCCE plays a crucial role, such as antimicrobial resistance (AMR), zoonotic diseases, workforce development, emergency operations, and surveillance.

To foster a generation of youth primed and equipped to address the continued threat of global zoonotic diseases, Breakthrough ACTION designed and implemented multiple innovative activities in collaboration with the education sector, both at the university level and with primary and secondary schools. These efforts required fostering multiple new partnerships at different levels, each with the goal of cultivating a keen awareness of and interest in One Health challenges early on and as youth pursue diverse educational and career pathways.

This case study describes several One Health youth leadership development initiatives undertaken by Breakthrough ACTION in partnership with the education sector in Côte d’Ivoire, Liberia, and Senegal.

Engaging future One Health professionals: University student partnerships

One of the partnerships established by the project to address One Health goals was with the [Africa One Health University Network \(AFROHUN\)](#)—formerly One Health Central and Eastern Africa—a consortium of universities and stakeholders from 10 African countries: Cameroon, Côte d’Ivoire, the Democratic Republic of Congo, Ethiopia, Kenya, Liberia, Rwanda, Senegal,

Tanzania, and Uganda. Founded to cultivate a global One Health workforce, AFROHUN prioritizes pandemic management and fosters collaboration among universities, governments, and partners. AFROHUN addresses complex health challenges through an integrated One Health approach merging human, animal, and environmental health disciplines. By enhancing professional capacities and health systems, AFROHUN fortifies Africa's ability to prevent, detect, and respond to health threats, bolstering global health security and sustainable development.

AFROHUN's initiative to establish Student One Health Innovation Clubs (SOHIC) at universities aims to strengthen student capacities in public health and related areas. These clubs offer a platform where students can apply their academic

knowledge to real-world problems through student-led activities and community engagement.

Breakthrough ACTION partnered directly with AFROHUN as a co-implementing partner in Côte d'Ivoire and Senegal to extend the reach of the SOHIC on select university campuses. The project and AFROHUN created a standardized suite of tools and workshops to support and strengthen the capacity of newly enrolled SOHIC groups to understand and organize RCCE activities. In Côte d'Ivoire, efforts centered on the campuses of the University Pelefero Gon Coulibaly of Korhogo (UPGC), Alassane Dramane Ouattara University in Bouaké, Jean Lorougnon Guédé University in Daloa, Félix Houphouët Boigny University in Cocody, and Nangui Abrogoua University in Abobo-



Credit: Breakthrough ACTION Senegal.

A young college student sharing a presentation with community members.



Credit: Hamidou Dia/Breakthrough ACTION Senegal.

Breakthrough ACTION engages students at Tambacounda IEF Dar Salam II school with One Health materials and messages.

Adjamé. This collaboration recognized and leveraged SOHIC members' influential roles as peer leaders and role models within their university communities. As one committee member from Côte d'Ivoire noted:

“Many of our students are knowledgeable about disease prevention and can provide guidance on how to avoid contracting specific illnesses. Alert, Watch, and Listen Committees have been established, led by students, to significantly impact both their immediate school communities and the broader communities. These university students serve as ambassadors to the community.”

To maximize synergies with AFROHUN's mandate, Breakthrough ACTION prioritized RCCE-related curriculum development, training, and student leadership opportunities in its work with the SOHICs. Breakthrough ACTION actively developed RCCE and health education curricula tailored to AFROHUN's member countries. These curricula equip young health professionals with the skills to effectively communicate health risks and engage communities, particularly in combating misinformation.

Breakthrough ACTION then trained health professionals, students, and community leaders in RCCE through workshops, with a specific focus on effective communication during health crises and involving communities in prevention and response

efforts. One SOHIC member stated, “We adopt a community health approach to help individuals understand that it is far easier, more important, less costly, and simpler to prevent disease rather than to cure it. We focus particularly on protecting the most vulnerable groups, especially children.”

For example, several university clubs have held specific trainings on rabies prevention. According to the president of the Bouake SOHIC, “Over 300 people received rabies [training] certificates and leadership skills were developed among club members.” The project implemented these trainings in a cascading manner to reach as many stakeholders as possible and create a self-sustaining system that can scale impact, adapt to local needs, and enhance the long-term sustainability of capacity-building efforts. Importantly, Breakthrough ACTION intentionally expanded its training to include a certificate-based online format option, making the knowledge and skills development more accessible to more SOHIC members. One of the faculty members who oversees the SOHIC explained, “We have set up a system that consists of strengthening the capacities of inspectors who then strengthens the capacities of teachers.”

In Senegal, AFROHUN, Breakthrough ACTION, and other partners jointly supported a unique training approach for SOHIC from six campuses in April and May 2024, consisting of four weeks of online modules for members studying various disciplines, from veterinary medicine to sociology to biology, followed by a field-based session for the members which took place at the Djoudj Bird Sanctuary, the site of recent avian influenza outbreaks. Over

three days, 20 students and four trainees visited the park, to learn firsthand about the importance of ecological monitoring in managing emerging diseases and the risk factors of AMR in the Senegal River Delta, including expansive use of agricultural pesticides and related risks. They observed the park’s hydraulic network and learned more about the bird nesting areas that became the epicenter of the avian influenza outbreak. The students also received training in epidemic management and interpersonal conflict management. The immersive learning experience was particularly engaging and inspiring for the participants. A student participant summarized his key takeaway from the training: “The One Health approach is a state of mind, and it’s now up to us to promote it everywhere.”

Breakthrough ACTION’s capacity strengthening efforts helped AFROHUN and its SOHICs design community engagement initiatives to ensure culturally appropriate health messages. Students learned to disseminate health messages effectively and became advocates within their communities. A community leader stated, “Within this framework, they will not only be able to bring the voice to all levels, in all homes, but they will also grow up with it.” This highlights the potential long-term impact of student involvement in health initiatives.

As part of its community engagement activities with youth, Breakthrough ACTION promoted the use of competitions to communicate about One Health and zoonotic diseases, encouraging creative collaboration among students. The project organized a contest among SOHIC members in Côte d’Ivoire to design the

best priority zoonotic disease (PZD) awareness intervention, awarding social media recognition and seed funds to the winning club to bring their concept to life. These competitions offer applied learning opportunities and leadership experience, which can inspire young people to tackle concrete One Health challenges in their communities while providing practical skills in program planning, using data for decision making, community engagement design, teamwork, and leadership. The UPGC One Health club, represented at the competition by five members, took second place in the competition and was particularly moved by what they had learned during the design research process regarding the epidemiological situation and

continued impact of rabies in Côte d'Ivoire, which has experienced clusters of cases. As the club's general secretary put it:

"I was deeply moved to learn that rabies continues to kill our brothers and sisters, even though it can be easily prevented by vaccination... as a student, I learned a lot, and I think that we will do what is necessary within our club to contribute to the awareness-raising effort that is being made at national level, so that no one dies from this disease in our country."

Even without winning the first prize seed funding, the UPGC club took their competition idea and independently



Social media post honoring the winners of the SOHIC program design competition in Côte d'Ivoire in July 2023. Breakthrough ACTION supports SOHIC members to use social media to raise awareness within their campus communities about One Health.

executed it, launching a campaign on their Facebook page and publishing weekly posts about rabies transmission and prevention.

The successful partnership with SOHIC did not happen overnight. It resulted from intentional engagement and close coordination between Breakthrough ACTION and AFROHUN, a shared commitment to leveraging each group's strengths and resources, and sustained investment over several years. In the case of Côte d'Ivoire, for example, Breakthrough ACTION began the collaboration with AFROHUN in 2020 and has directly trained roughly 600 SOHIC members in RCCE (including rabies, AMR, and rumor management) and leadership skills development in the four years since.

Fostering One Health youth leadership through an internship program

While the SOHIC engaged and mobilized groups of students, providing individual students with career development experiences related to One Health principles can also be powerful. In Liberia, Breakthrough ACTION implemented a three-month, in-house internship program following on-campus half-day learning sessions (seminars) on four university campuses.

To support pre-service training for RCCE, Breakthrough ACTION selected three universities to partner with on a series of interrelated activities intended to complement classroom-based instruction

on RCCE with practical opportunities to apply knowledge to real-world settings. The four universities included African Methodist Episcopal (AME) University, Adventist University of West Africa, University of Liberia, and Grand Bassa University.

First, Breakthrough ACTION conducted a series of RCCE seminars focused on bringing RCCE practitioners to campus to share their perspectives and expertise on RCCE with public health students (junior and senior level). Seminars also incorporated practical sessions where, through group work, students could apply the theories and concepts presented during the seminars. Seminar group work focused on the interrelatedness of environment, human, and animal health through various topics such as food security, AMR, and linkages between climate change and PZDs.

Next, students who attended seminars could apply for a three-month funded internship with Breakthrough ACTION. It was a competitive process in which students were required to demonstrate One Health and RCCE knowledge, show proven experience engaging in RCCE in their school or community, and outline how this competition will support their professional ambitions. As part of the application, all interested applicants also needed to pitch an idea for improving RCCE efforts on their campus.

Following the competitive process, two students were selected. During this time, the students received financial and technical support for a proposed on-campus RCCE project; technical input,

financial support, and monthly mentorship sessions with the SBC team to implement their on-campus project; and a stipend following the end of their internship. Each intern produced a final technical report detailing the internship and on-campus project experience.



Carlton M. Kruah, Jr. during one of the 22 on-campus awareness sessions, promoting the responsible use of prescription drugs.

Carlton M. Kruah, Jr., is a senior student majoring in public health and minoring in environmental science at AME University who aspires to become a community health expert. He applied for the internship because he viewed it as “an opportunity and a platform that will help to enhance my knowledge and professional skills within the field of public health.” As part of the internship, Carlton developed a proposal to increase awareness of the risks associated with AMR among students. As part of his on-campus project,

Carlton led 22 on-campus awareness sessions promoting the responsible use of prescription drugs. He also extended his work to pharmacies close to the university campus to promote increased awareness of AMR among pharmacy workers. Carlton expressed,

“My time at Breakthrough ACTION Liberia has been an invaluable moment as I was able to gain important insights and pertinent skills in proposal writing, effective use of RCCE tools, SBC message development for diverse audiences, report writing, and designing, implementing, and evaluating SBC Programs.”

The other student intern, Francis T. Konty, also a student at AME University majoring in public health and minoring in environmental science viewed the internship program as an opportunity for

“Practical experience that complements my academic studies, helps me build a network of professional contacts, and gain insights into public health organizations by interacting with student food sellers about the prevention of Lassa fever and how we adapt good social behavior practices to combat the disease.”

Francis conducted 26 awareness raising sessions on and off campus focused on engaging students, communities, and food sellers to promote behaviors that will prevent the spread of Lassa fever. He stated, “The internship program aligned with my goal of gaining hands-on experience and furthering my career aspirations in public health or a related field. Internships are crucial for applying

Credit: Breakthrough ACTION Liberia.

classroom knowledge to real-world situations and developing professional skills.”



The two interns at the national multisectoral RCCE strategy validation workshop.

The 12-week internship program contributed to the career development of the two interns, while also expanding the reach of AMR and Lassa fever prevention efforts on their university campus. Through opportunities to shadow Breakthrough ACTION staff, collaborate on RCCE and SBC materials development, and attend national level One Health-related events, the interns had access to expanded networking opportunities which enabled them to meet RCCE stakeholders from multiple line ministries. In addition, through the internship activities, the students learned new program management and SBC skills they can continue to utilize as they progress in their careers.

Reaching the youngest One Health champions: Engaging primary and secondary school students

University students are not the only group benefiting from One Health education. Breakthrough ACTION extended its efforts to support One Health understanding and action among children as young as those in early primary school, equipping them with a basic awareness of zoonotic disease risks and key preventative measures. In 2023, the project launched a pilot partnership with the Inspector of Education and Training (IEF) in select sites in Senegal’s St. Louis region, initially targeting around 4,800 students across six schools. Breakthrough ACTION collaborated with the IEF and school staff to develop life skills lessons focused on zoonotic disease risks, designating special days to deliver these lessons and conduct broader activities.

As with the student clubs engaged at the university level, Breakthrough ACTION encouraged the use of competitions to involve primary and secondary school students in communicating about One Health and zoonotic diseases to community members, fostering creative collaboration. Dramatic skit competitions in primary schools not only educated students but also extended the message to their families. As one participant noted, “It’s children who raise awareness. It’s the children who say what needs to be done. So, we said to ourselves, when you enter school, you’ve finished knocking on the doors of all the houses.”

Credit: Breakthrough ACTION Liberia.



Credit: Breakthrough ACTION Senegal.

Young students who took part in an awareness-raising activity to stop Ebola.

In Senegal’s St. Louis commune, 35 schools participated in the zoonotic disease skit competition where students made presentations in the form of skits, theater performances, songs, and poetry related to the causes and consequences of various zoonotic diseases, including rabies and avian influenza. These competitions stimulated creative thinking and fostered a spirit of collaboration among students. A student participant highlighted the significance of these events: “Competing in these challenges pushed us to think outside the box and work together in ways we hadn’t before.” These competitions helped increase student engagement, enhanced disease prevention knowledge, and heightened community awareness. Amadou Al Ousseyn Sarr, the IEF for St. Louis commune shared, “During these presentations, there were many adults who came to admit that they did not have a precise understanding of what

this [the cause and consequence of the disease] means. Now, based on how it was presented, they understand the risk or danger.”

Notably, Amadou Al Ousseyn Sarr was so impressed by the project-supported pilot activities, he ultimately mobilized additional resources to replicate zoonotic disease awareness activities in additional public schools enabling a reach of 36,813 students. Harnessing the power of theater for development has transformed students in Saint Louis Commune into One Health leaders and champions who can connect to other community members to share their message. As one stakeholder expressed, “Using interactive methods like skits and performances really helped us connect with the community. People were more engaged and receptive to the health messages.”

Benefits of Engagement

According to AFROHUN, Student One Health Innovation Club members, and stakeholders who participated in the pilot integration of PZD awareness into primary and secondary schools, the engagement with Breakthrough ACTION has brought significant benefits in the following three domains.

1. Increased Awareness and Knowledge

- **Improved Understanding:** Students and community members better understand the One Health concept and public health issues, including the use of interactive methods, such as skits and competitions, enhanced engagement, and retention of information.
- **Effective Communication:** Incorporating visual aids and engaging methods addressed prior skepticism and improved message delivery

2. Development of Skills

- **Leadership and Project Management:** Club members developed critical leadership and project management skills, which are valuable for their future careers. A club member who completed the training remarked, “The leadership skills I gained have been invaluable. They not only helped in managing our projects but also prepared me for future challenges in my career.”
- **Community Engagement:** Students learned the importance of community involvement and how to communicate health messages effectively and in a manner tailored to the intended audience.

3. Tangible Outcomes

- **Increased Rabies Vaccination Rate:** In Côte d’Ivoire, rabies awareness campaigns supported by SOHICs alongside mass media, installation and training of local rabies committees, and community engagement efforts, all focused on promoting post-exposure prophylactic (PEP) vaccination after encounters with dog bites. The campaigns were noted as contributing to improving compliance with rabies PEP from 60% in 2021 to 64% in 2022, according to National Public Health Institute data.
- **Direct student leadership and ownership of activities:** Following capacity strengthening activities, SOHIC have been able to plan and carry out their own campus dialogues, demonstrating application of the skills they have gained through taking part in the program. For example, SOHIC in Côte d’Ivoire organized dialogues on PZDs on their campuses that reached 272 students in 2021 and 2022. Breakthrough ACTION specifically involved the supported student groups in the dengue response in Abidjan in 2022, and their leaders reached 600 people on their campuses with information on dengue prevention at a critical time when cases were exploding. The success of these student clubs in developing and leading their own activities is a testament to the project’s contributions to fostering the next generation One Health leaders.

Beyond the immediate health impacts, the One Health clubs fostered a culture of interdisciplinary collaboration and student empowerment. Students from diverse fields worked together, bringing different perspectives and expertise to address health issues. This holistic approach enriched their learning experience and prepared them for future challenges. As a club member said, “Working with peers from different disciplines opened my eyes to new perspectives. It was a great learning experience and showed the power of collaboration.”

Conclusion

The success of Breakthrough ACTION’s One Health initiatives demonstrates the transformative impact of empowering youth by giving them the knowledge and skills they can employ to address global health challenges. By partnering with educational institutions across university, primary, and secondary levels, the project not only cultivated a new generation of One Health leaders but also instilled a sense of responsibility and proactive engagement among young people around major global health challenges that require a multisectoral mindset and collaboration. The use of interactive methods like competitions, skits, and collaborative activities fostered critical thinking, leadership, and community involvement, bridging the gap between health education and practical application.

The ripple effects of these efforts—including increased vaccination rates—highlight the tangible benefits of these interventions. Beyond the immediate outcomes, these programs have created

a sustainable model of youth leadership, interdisciplinary collaboration, and community engagement, equipping the next generation to tackle future health crises with confidence and innovation.

As Breakthrough ACTION and its partners continue to invest in the development of young health professionals, the lessons learned from these initiatives will serve as a blueprint for similar efforts worldwide, ensuring One Health principles are deeply embedded in the minds of future leaders. By empowering youth to take charge of health challenges within their communities, the project has laid the groundwork for a more resilient, informed, and proactive global health system.



Credit: Breakthrough ACTION Senegal.

Young students performing a skit during a competition in St. Louis commune.