



EDCTP

The power of sharing science



AfricaCDC
Centres for Disease Control
and Prevention

EDCTP–Africa CDC EPI Biostat collaborative initiative

Survey report



Supported by the
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About EDCTP

The European & Developing Countries Clinical Trials Partnership (EDCTP) is a public–public partnership between 15 European and 29 African countries, supported by the European Union.

EDCTP's vision is to reduce the individual, social and economic burden of poverty-related infectious diseases affecting sub-Saharan Africa.

EDCTP's mission is to accelerate the development of new or improved medicinal products for the identification, treatment and prevention of infectious diseases, including emerging and re-emerging diseases, through pre- and post-registration clinical studies, with emphasis on phase II and III clinical trials. Our approach integrates conduct of research with development of African clinical research capacity and networking.

The second EDCTP programme is implemented by the EDCTP Association supported under Horizon 2020, the European Union's Framework Programme for Research and Innovation.



About Africa CDC

Africa CDC is a specialised technical institution of the African Union that strengthens the capacity and capability of Africa's public health institutions as well as partnerships to detect and respond quickly and effectively to disease threats and outbreaks, based on data-driven interventions and programmes. For more information, visit the Africa CDC website: www.africadc.org.

Acknowledgment

We would like to express our gratitude to the European & Developing Countries Clinical Trials Partnership (EDCTP) and our colleagues at the Africa CDC for their efforts in capturing the experiences and insights from the fellows and training institutions that contributed to the preparation of this report. Our heartfelt thanks also go to the coordinators and fellows for their participation in the survey, which assessed the implementation of this initiative and contributed to its continuous improvement. We greatly appreciate their time, commitment, and willingness to share their experiences, all of which are crucial in shaping future programs.

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Background

Africa has long faced challenges in responding to public health concerns. Epidemiological data is often unavailable or severely limited and there is a shortage of skilled personnel and systems to collect and analyse available data and efficiently translate them into policy and practice. The COVID-19 pandemic has further exposed the severe shortages in the public health workforce and infrastructure as well as the inadequate capacity for public health research and emergency response across Africa¹.

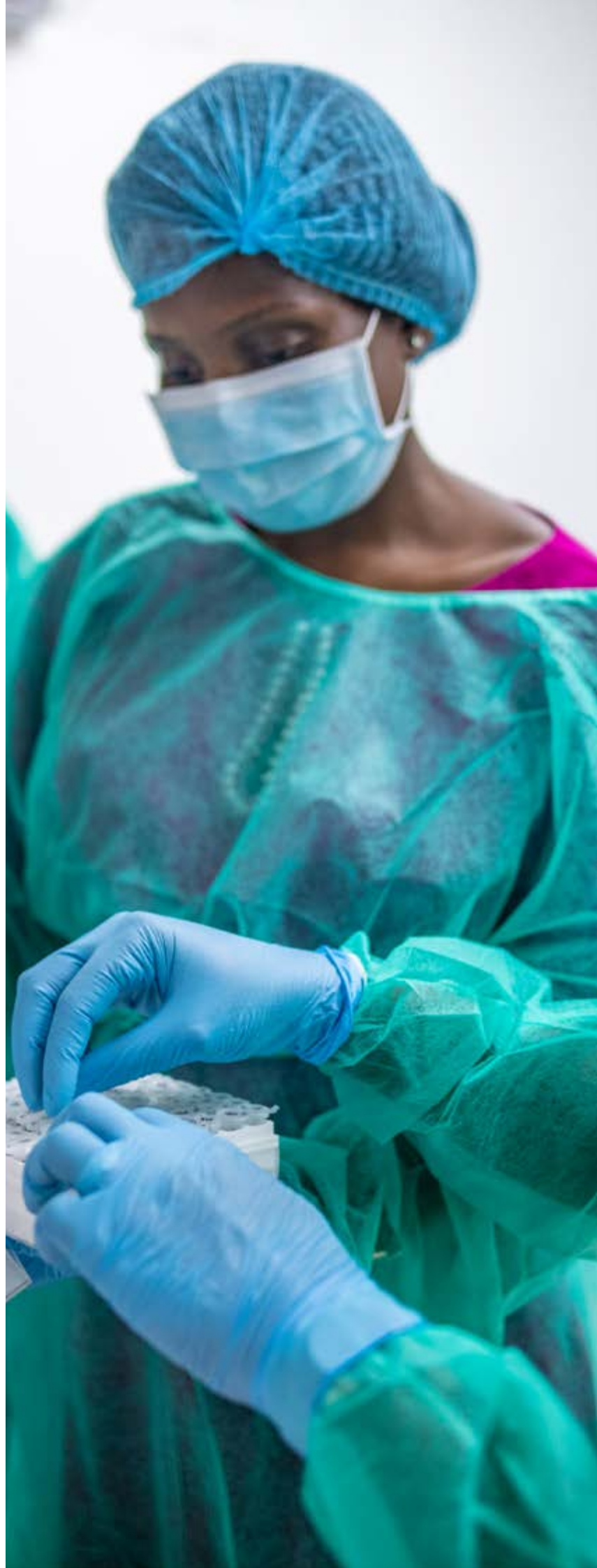
To address this capacity gap, the inaugural programme of the EDCTP and Africa CDC collaboration was launched in 2020. This initiative aimed to address the shortage of skilled personnel in epidemiology and biostatistics in sub-Saharan Africa. The programme aimed to train 150 field epidemiologists and biostatisticians in sub-Saharan Africa over a period of three years. The training is being led by 10 consortia comprised of 42 African and 9 European institutions. These 51 organisations include 24 leading universities in Europe and Africa, working in partnership with National Public Health Institutes, Ministries of Health, as well as other research and not-for-profit organisations².

The programme is designed to train a cohort of epidemiologists and biostatisticians who can conduct routine surveillance, public health research, and respond to disease outbreaks. The programme aims to boost the capacity of National Public Health Institutes, Ministries of Health, and other health institutions in Africa to collectively conduct public health research and effectively respond to disease emergencies across the continent².

The purpose of this survey was to gather insights from both fellows and participating training institutions on the overall practice and impact of the initiative, ultimately informing future programmatic iterations to enhance public health capacity in sub-Saharan Africa.

¹ EDCTP. "EDCTP and Africa CDC EPI Biostat Fellows: Background." .

² Africa CDC. "Africa CDC and EDCTP Partner to Train Highly Skilled Epidemiologists and Biostatisticians in Africa."



EDCTP and Africa CDC collaborative initiative: overview

The 10 consortia are:



CDAE, led by the African Population Health Research Center, Kenya, with partners from Kenya and Sweden, and fellows from Kenya, Malawi, Somalia, Tanzania, Uganda and Zambia.



ENTRANT, led by the London School of Hygiene and Tropical Medicine, UK, with partners and fellows from Botswana, Ethiopia, Kenya, Tanzania, Uganda and Zambia.



IDEA, led by Busitema University, Uganda, with partners from Uganda and fellows from Uganda.



FETP-CV, led by Universidade Nova de Lisboa, Portugal, with partners from Angola, Cabo Verde, Denmark, Guinea-Bissau and Mozambique.



MPHEBDOER, led by the University of Ibadan, Nigeria, with partners from Nigeria and the UK, and fellows from The Gambia, Nigeria and Sierra Leone.



MSC EpiBiostat, led by Kinshasa School of Public Health, DRC, with partners from the DRC and fellows from the DRC.



PREP-EPID, led by l'Institut Africain de Santé Publique, Burkina Faso, with partners from Guinea Conakry and Burkina Faso, and fellows from Benin, Burkina Faso, Burundi, Central African Republic, Chad, Comoros, Côte d'Ivoire, Guinea, Madagascar, Mali and Togo.



SCEPRESSA, led by Jomo Kenyatta University of Agriculture and Technology, Kenya, with partners from Malawi, and fellows from Kenya, Malawi, Namibia, Rwanda, South Sudan, Tanzania and Uganda.

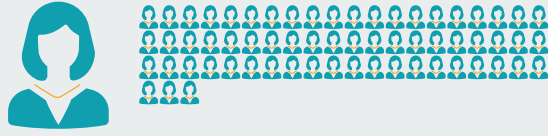


TEBWA, led by the University of Abomey-Calavi, Benin, with partners from Benin and the UK, and fellows from Benin, Côte d'Ivoire, Ghana, Guinea, Liberia, Mali, Niger, Nigeria and Togo.

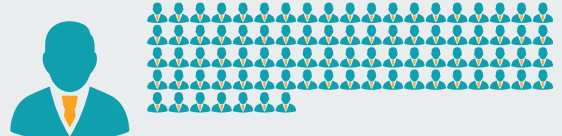


TEDOER, led by the University of Ghana, Ghana, with partners from Germany and fellows from the DRC, Ghana, The Gambia, Liberia, Sierra Leone and Zambia.

Fellows by gender

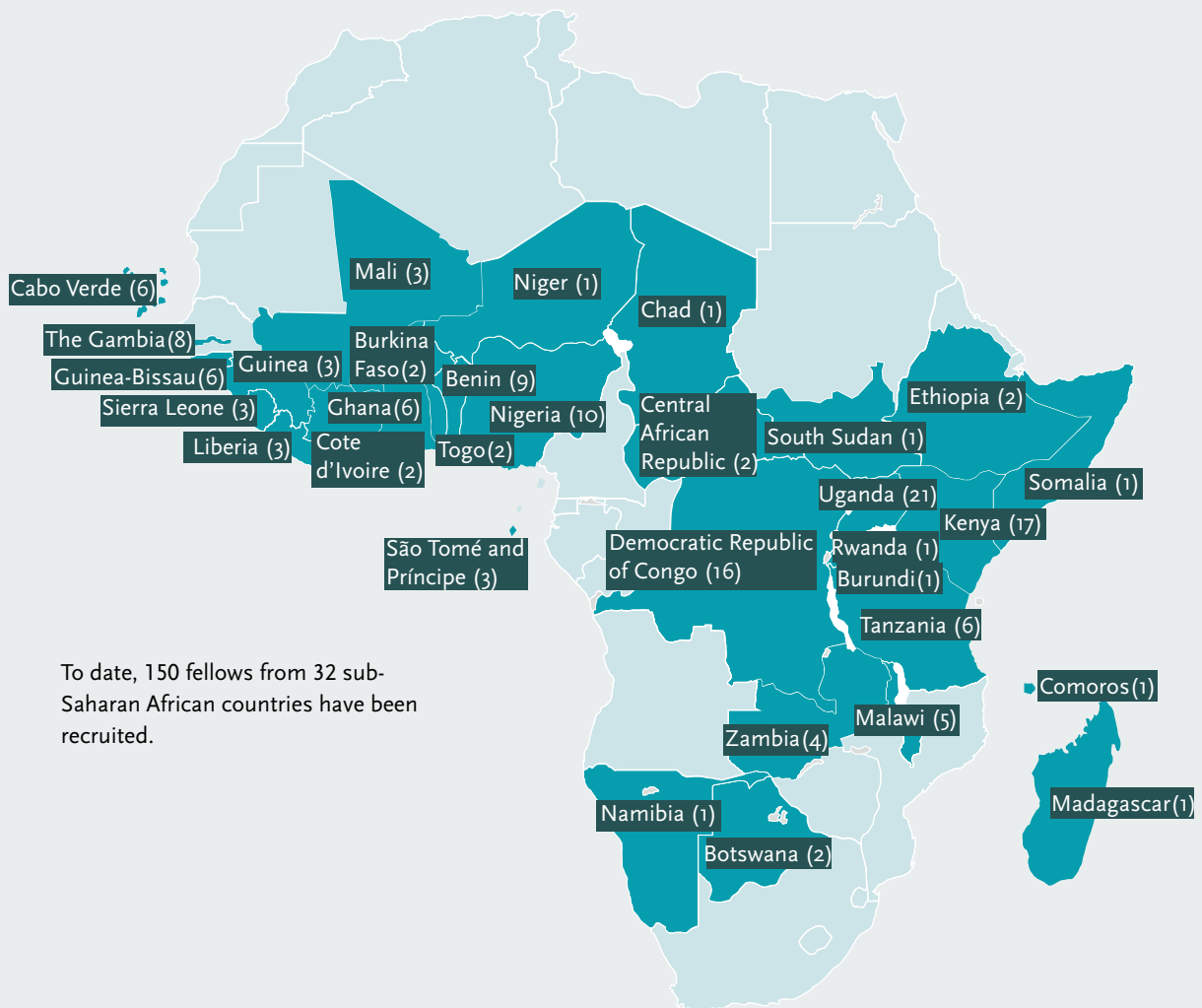


63
Female fellows
(42%)



87
Male fellows
(58%)

Fellows by country



To date, 150 fellows from 32 sub-Saharan African countries have been recruited.

Method

Africa CDC administered two surveys via the web, one for the fellows and the other for training institutions. EDCTP shared the survey with the Coordinators, who, in turn, disseminated the survey amongst the fellows. The survey remained open for two months, from 31 May to 30 June 2024. Two follow up reminders were made during the duration of data collection.

The survey targeting fellows consisted of 24 questions, while the one targeting training institutions had 12. The purpose of the survey was to gather insights into the overall practice and impact of the initiative. Data was collected from both the fellows and the training institutions participating in the training program. The survey questions were designed to assess fellows' satisfaction with the training program, their employment and job performance, the collaboration between the training institutions and EDCTP/Africa CDC, and suggestions for future improvements.

Survey findings are summarised below with pertinent recommendations for future programming.



Survey results

Fellows

Among the total 150 epidemiologists and biostatisticians undergoing the training, 42.4% (N=64) completed the survey.

Satisfaction with training program and institutions

Almost all respondents were satisfied with the in-class training. They appreciated the communication and collaboration with other fellows. Additionally, they were pleased with the interaction and engagement with the universities and faculty. The quality of the training, along with the skills and knowledge provided by the training institution, also received positive feedback. In contrast, only half of the respondents were satisfied with the level of interaction and engagement they had with the consortium members, such as public health institutions (Figure 1).

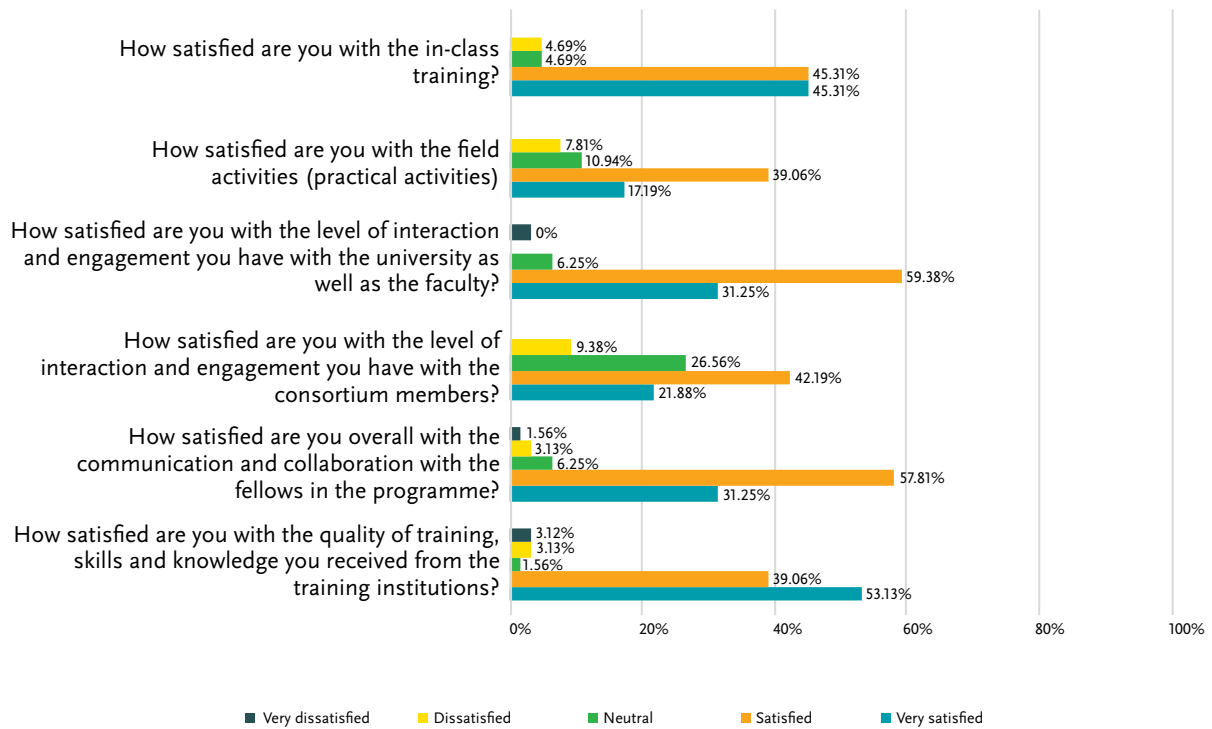


Figure 1: Summary of satisfaction related questions, N=64

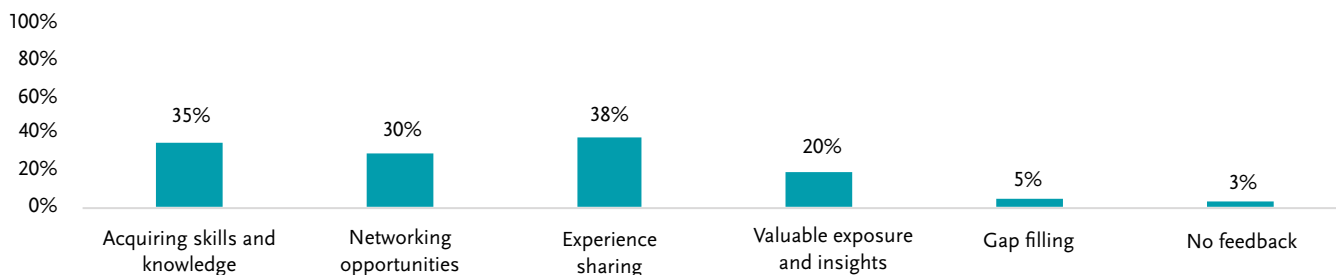


Figure 2: Experience gained from meeting/conference, N=40

More than half, 62.5% (N=40) of the respondents attended meetings/conferences hosted by Africa CDC or EDCTP and responded that the experience was engaging and interactive. Fellows who attended felt the conference improved their skills and knowledge as well as allowed them to share experience with fellow scholars (Figure 2).

More than 70% (N=47) of respondents indicated that their training institution provided them with adequate support services, such as career counselling, research opportunities, and networking events. While a few respondents mentioned that they would not recommend their training institution to others due to poor communication between fellows and faculty (N=2), and poor time management by the training institution leading to delayed graduation (N=1).

Employment and Job performance

Responses from fellows regarding employment and job performance reveal that among the total number of the respondents, 39% (N=25) are currently working at National Public Health Institutes while 36% (N=23) are employed elsewhere. Among the unemployed respondents, 25% (N=16), showed a strong desire to pursue future opportunities at these institutions. Among those employed (N=48), the large majority (70%, N=45) reported that the training they received has positively impacted their job performance, providing specific examples of how their work has benefited from the skills and knowledge gained (Table 1).

Table 1: Examples of how the training improved fellows' jobs performance (N=47)

| Examples | Frequency | Percent |
|--|-----------|---------|
| The training has significantly enhanced my ability to analyze data | 20 | 43% |
| The training enhanced my research coordination and report writing skills | 14 | 30% |
| This training has enhanced my ability to investigate outbreaks, and in epidemiological surveillance and response | 11 | 23% |
| The training has improved my competence in disease surveillance | 7 | 15% |
| The training experience has increased my work efficiency | 5 | 11% |
| The training has improved my ability to use software, such as Stata | 2 | 4% |

Respondents described how they are utilising the knowledge and skills acquired from their training in various ways. Almost half of the respondents felt the programme improved their in-depth data analysis and research skills. A quarter of the respondents have seen improvements in their outbreak investigation and disease surveillance skills in their work environments. Five percent of the respondents stated that they have applied the lessons learnt to implement public health programmes, review national policies, develop guidelines, and monitor and evaluate health initiatives.

Of the respondents, 89% (N=57) stated that the training met their expectations, while seven respondents indicated it did not. The reasons for unmet expectations are summarised below. Some mentioned that the stipend was insufficient, and delays in the programme caused international students to be sent home before completing their studies. Others highlighted a lack of follow-up and support. Additionally, some felt there was not enough emphasis on fieldwork, and there were criticisms regarding the effectiveness of the internship programme in relation to field activities. A portion of respondents also noted the absence of practical training elements, such as field visits.

Nearly all respondents (97%, N=62) indicated they would recommend the Africa CDC–EDCTP fellowship collaborative initiative to others. The remaining respondents suggested additional considerations for future collaborations. These include selecting institutions with a strong track record in mentorship and ensuring a more rigorous selection process for institutions in future cohorts.

Institutions

Among the 10 consortiums in total, 50% (N=5) completed the survey.

Collaboration of training institutions and EDCTP/Africa CDC

Consortiums expressed overall satisfaction with their collaboration with EDCTP and Africa CDC. They suggested that further improvements could be made by clarifying the role of Africa CDC and enhancing the supervision of trainees. All the consortiums said there were no challenges or barriers to effective communication with EDCTP and Africa CDC.

Fellows' employment and contribution to Public Health

Consortiums shared insights regarding the employment and contributions of fellows in public health practice. Two of the five consortiums mentioned that they are planning to retain the fellows after their training is completed. The rest mentioned that fellows have been working in the public health sector before joining the programme and they will therefore return to their duty post after training is completed.

Institutions provided details about strategies in place for absorption of students into the national health system. Sixty percent suggested recruiting from within the national health system. Twenty percent suggested involving fellows in the development and management of projects as well as research activities to be considered as a strategy for absorption. The rest (20%) proposed preparing a bonding agreement with fellows before enrollment.

Consortiums reported that fellows made significant contributions to public health practice during and after the programme. All respondents noted that fellows helped strengthen public health initiatives and contributed to public health strengthening, outbreak investigation and response, and highlighted improvements in the quality of surveillance data.

All the consortiums stated that they host international fellows, and they discussed the enablers and challenges of hosting international students. Challenges included time to adapt to a different learning environment, failure to ensure the active engagement of fellows during virtual learning as well as fellows not completing tasks on time, delays in visa processing and challenges with budget to accommodate stipends for international students. Enablers include good field learning activity monitoring as well as the presence of supportive network/cohort mentors and international alumni.

Additionally, consortiums provided suggestions for enhancing the effectiveness of future programmes. These suggestions included integrating Africa CDC within the programme with a clearly defined role to fully utilise its expertise and support, providing mentorship training to enhance effective and productive interaction between fellows and mentors, involving fellows in managing epidemics in their own contexts, and budgeting improvement.



Conclusion

This survey showed that fellows generally have a high level of satisfaction across various aspects of the programme. The majority of respondents expressed satisfaction with in-class training, field activities, interaction with the university and faculty, communication with fellow participants, and the overall quality of training received. The survey results also highlight both positive aspects and areas of improvement concerning fellows' experience with their training institutions. The majority of respondents reported actively applying the knowledge and skills gained from the training programme in various critical areas of public health practice.

All institutions expressed satisfaction with the level of collaboration with EDCTP and Africa CDC. This indicates a positive partnership that supports the objectives of the training programme. In addition to this, all institutions reported no challenges in communication with EDCTP and Africa CDC. This suggests that existing communication channels are effective in facilitating interaction and exchange of information between partners. The majority of the institutions mentioned that fellows would return to their duties after completion of the fellowship, which underscores the programme's role in enhancing the capabilities and contributions of public health professionals across various institutions.

The institution acknowledges significant contributions from fellows to public health practice, with key areas being highlighted, including public health strengthening and outbreak investigation/response, capacity-building activities, and improving quality of surveillance data, which shows the programme's effectiveness in preparing fellows to make meaningful impacts within their respective fields.

Areas for improvement based on the survey results:

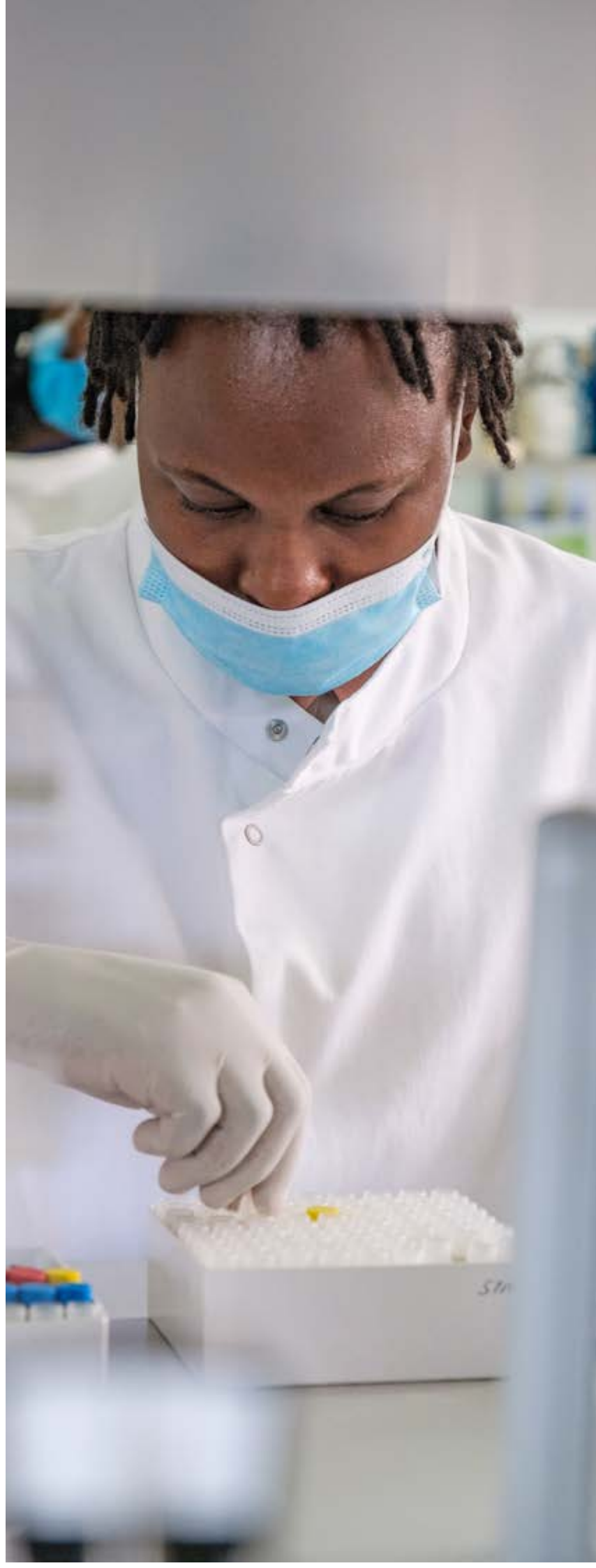
- **Communication:** There are reports of poor communication between fellows and faculty, which can hinder the learning experience. Improving channels for dialogue and feedback may enhance relationships and support.
- **Time Management:** Challenges related to time management at institutions have made it difficult for some fellows to graduate on time. Establishing clearer timelines and support systems could help alleviate this issue.
- **Stipend Adequacy:** The stipend provided to fellows has been deemed insufficient by some respondents. A review of financial support could improve fellows' overall experience and enable them to focus more on their training.
- **Fieldwork Opportunities:** There is a perceived lack of emphasis on practical fieldwork and internship effectiveness. Increasing opportunities for hands-on experiences would benefit fellows' training and real-world application of skills.
- **Follow-Up and Support:** A lack of follow-up and support post-training has been noted. Implementing a structured follow-up programme could help fellows transition to employment more smoothly and ensure that they apply their training effectively.
- **Selection of Institutions:** Some fellows indicated the need for better selection of universities based on their mentorship capabilities. Establishing criteria for institution selection could enhance the overall training quality.
- **Better integration of Africa CDC:** There is a suggestion to clarify the role of Africa CDC within the programme to maximise the utilisation of its expertise and support for fellows.
- **Mentorship Training:** Providing additional mentorship training could foster more effective interactions between fellows and mentors, improving the learning experience.
- **Engagement in Epidemic Management:** Involving fellows in managing public health crises in their regions could provide practical experience and enhance their skills in real-time situations.
- **Employment Connections:** Strengthening connections between the programme and job opportunities at national public health institutes could support fellows in securing employment after training.

Addressing these areas could significantly enhance the training experience and outcomes for future cohorts.

Limitations

It should be noted that at the time of survey administration, some programmes were still in progress and not all fellows had completed the programme/graduated.

The reliance on coordinators to distribute the survey might have introduced a bias in the data collection process.



Recommendations

- Promote participation in EDCTP and Africa CDC meetings by disseminating information about the opportunity and providing financial support.
- Incorporate more interactive workshops and practical exercises to enhance active learning and collaboration.
- Implement regular assessments and evaluations to measure training impact and gather feedback for continuous improvement.
- Address stipend adequacy and improve communication between fellows and faculty.
- Develop strategies to support fellows in securing post-training employment, especially with National Public Health Institutes (NPHIs).
- Regularly evaluate the programme's impact on fellows' career trajectories and job performance.
- Define the role of Africa CDC clearly within the partnership to enhance engagement and align with programme goals.
- Integrate conferences into the programme's curriculum or professional development plan.





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European & Developing Countries Clinical Trials Partnership

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Cover photo:

Dr Jennifer Serwanga, Senior Immunologist for the CHAPAS trial interacts with the other CHAPAS study researchers at the laboratory at UVRI (Uganda).

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