Master in Field Epidemiology by blended-learning approach designed for students from West African Lusophone countries: Lessons Learned and Challenges



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Implementation of a *Master in Field Epidemiology by blended-learning* approach proved successful and lessons learned indicates as a good model to expand the training across countries and increase rapidly the quantity and quality of workforce of field epidemiologists in Sub-Saharan Africa.

BACKGROUND

In 2020, the European and Developing Countries Clinical Trials Partnership (EDCTP) and Africa CDC announced funds for training of field epidemiologists in sub-Saharan Africa. In response, a consortium was established which included African and European

LESSONS LEARNED AND CHALLENGES

- Virtual theoretical classes delivery with participation of teaching staff from all partner countries was successful due to collaborative planning and commitment made ahead of time.
- The outline of objectives and expected outputs (products) for each

Universities, National Institutes of Public Health and Research Centers (see detailed list of partners at the bottom of this poster). This *consortium* developed a project proposal to implement a *Master* in Field Epidemiology offered through blended-learning from the University of Cabo Verde to serve students from three countries: Cabo Verde (CV), Guiné-Bissau (GB) and São Tomé & Principe (STP). Thus, this poster aims to share the experiences, lessons learned and challenges faced along the implementation and running of the Master program.

OVERVIEW OF THE MASTER PROGRAM

• The Master in Field Epidemiology program was inspired in an Advanced Field Epidemiology Training Program (FETP) model from Center for Disease Control and Prevention (CDC/ United States). Students were recruited through calls made with the support of National Institutes of Public Health (NIPH) and Ministries of Health of CV, GB and STP. A total of 15 students were enrolled (6 from CV, 6 from GB, and 3 from STP) from 55

field training with clear guidelines shared in advance with students, mentors and field supervisors contributed for its successful occurrence with the collaboration of National Institutes of Public Health (NIPH) of countries of origin of the students.

- Students were able to work on relevant infectious diseases topics (including human and animal health topics within One Health approach) and the outputs (products) resulting from Field Training 1 and Field Training 2 are important contributions made by the students and FETP Project to local health systems/NIPH of CV, GB and STP.
- However, in countries where leadership of NIPH were more aware of the FETPs and its importance for health system strengthening, the field training occurred more successfully with much better quality outputs produced by students and even provided with opportunities to actively participate in outbreak investigations.
- Offering field work within the countries of origin of the students allowed better insertion with the local health systems and students

applications received from all three countries.

- Similar to other FETP advanced programs, the theoretical teaching and field training were designed for students to attain critical competencies in the 1st Year of the Master's Program and included subjects such as: epidemiology, biostatistics, outbreak investigation, scientific communication, surveillance evaluation, teaching others, climate change, One Health, public health legal frameworks and public health leadership (Figure 1).
- The field training included placements of students in local health system sites with the support of NIPH of countries of origin of students who were supported by locally selected supervisors.
- This two-year Master program was accredited at the University of Cabo Verde (Uni-CV) as well as at Higher Education Accreditation Authorities in Cabo Verde (in 2021).

1st YEAR (month 1 to month 12)			2nd YEAR (month 13 to month 24)		
1st FIELD TRA	INING	2nd FIELD TRAINING	Research proposal and qualification	Research implementation and thesis presentation	

reports and other outputs produced during field training covering reportable infectious diseases including zoonotic diseases within One Health approach were considered useful contributions for local health system by local NIPH of the three countries.

Leadership turnover and mobility at the level of the Ministries of Health as well as NIPH contributed negatively for full-time availability of students for the Master Program Training (contrary to what was agreed at the start of the Project).

CONCLUSIONS

The *Master in Field Epidemiology* was successfully established and is formally accredited in Cabo Verde and all conditions and resources are in place to continue providing Advanced FETP training for students from CV, GB, and STP and also to students from other countries. This *Master in Field Epidemiology* contributes to enhance the workforce of Field Epidemiologists in Lusophone African countries together with the existing programs in Mozambique and Angola.

Focused on database assement and data analysis (statistics competencies)

Focused on epidemiological research

competencies (demonstration of system assement research methods skills, data collection and analysis skills, scientific writing skills and science communication skills)

(Field Epidemiology competencies)

Focused on

surveillance

and outbreak

investigation

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Figure 1: Outline of the Master in Field Epidemiology implemented at UniCV

GA NUMBER: CSA2020E - 3113 – Project FETP_CV – CONSORTIUM PARTNERS

Universidade Nova de Lisboa (Portugal) | Universidade de Cabo Verde (Cabo Verde) | Instituto Nacional de Saúde Pública (Guiné-Bissau) | Instituto Nacional de Saúde (Moçambique) | Instituto Nacional de Saúde Pública (Cabo Verde) | Centro de Investigação da Manhiça (Moçambique) | Universidade Agostinho Neto (Angola) | Universidade Eduardo Mondlane (Moçambique) | Centro Nacional de Endemias (São Tomé & Príncipe)

