

REFLEXIVITY STATEMENT

Has the research team engaged constructively with the reflexivity statement?

This manuscript is derived from an international research partnership, inclusive of researchers and research institutions from the UK, Burkina Faso, Cameroon and Malawi; namely the 'Partnership to Increase the Impact of Vector Control' (PIIVeC). PIIVeC, as per funder stipulations was UK-led, and aimed to increase the evidence-base for making informed decisions related to vector control; enhance partnerships between evidence generators and evidence users through knowledge translation and policy uptake strategies; and strengthen the institutional research and management support services of partner organisations to sustainably generate high-quality evidence. The PIIVeC programme design emphasised capacity strengthening of the African partners, which was most visibly demonstrated by the recruitment of 10 African postdoctoral fellows, based in African partner institutions, to lead the substantive research components of the partnership and by the collaborative design and implementation of bespoke institutional capacity strengthening plans for all four of the African partner institutions. Most of the partnership budget was allocated to the African partners and most research publications that have emanated from the partnership have been first authored by the African postdoctoral fellows. Further information about PIIVeC, including publications, can be found here: <https://www.piivec.org/>.

This particular manuscript emanates from a 'learning research programme' that was embedded within PIIVeC. The aims of the learning research programme were to derive robust, research-based lessons from the experience of implementing PIIVeC that could be used in 'near real time' to inform decision-making within PIIVeC and to inform good practice in future programmes with similar objectives. The focus of this manuscript, as indicated in the title, is on supporting good practice for African postdoctoral researcher capacity development within 'learn-by-doing' international research partnerships. The learning research programme was co-led by a UK (Justin Pulford) and a Burkinabe (Innocent Valea) senior researcher and was implemented by an early career researcher (Jessica Amegee Quach). Jessica is a Togolese national who was recruited by the UK lead institution (Liverpool School of Tropical Medicine) for this position.

Have the research partners co-developed the research study?

PIIVeC was co-developed by senior scientists from across all partner institutions. Senior scientists from all institutions were formally included as co-investigators and were members of the overarching management committee. This included design of both the overarching PIIVeC programme and the learning research programme embedded within it. The research objectives for the latter were collaboratively agreed at the inaugural meeting of the PIIVeC management committee.

Does the study address priority research questions for the LMIC partners?

PIIVeC was designed to address priority vector borne disease (VBD) related research questions in the three African partner countries. This was achieved by two primary means: 1) the 10 African postdoctoral fellows who collectively led the substantive PIIVeC research programme were given (supported) autonomy to design research projects that addressed recognised VBD priorities in their respective countries. Proposed projects were agreed following expert review from senior scientists in their respective home countries as well as the UK. All postdoctoral fellows were physically located at one of the four African partner institutions and conducted their research locally; 2) in addition, PIIVeC funded an operational research programme designed to support priority research as determined by members of national Technical Vector Control Advisory Groups (TVCAGs) in the respective African partner countries. This operational research programme was undertaken by research institutions from the partner country.

Is there a LMIC partner who is the first or the last author?

The lead author, Jessica Amegee Quach, is a Togolese national. She was recruited by the Liverpool School of Tropical Medicine to lead implementation of the learning research programme.

How have LMIC early career researchers been incorporated as authors?

Jessica Amegee Quach, lead author, is an early career researcher.

How are data shared with LMIC partners to address research needs?

PIIVeC established the TVCAGs in each of the three partner countries to, among other things, lead knowledge translation efforts from PIIVeC outputs. TVCAGS include representatives from relevant Government Ministries (e.g. Health and Agriculture) as well as key national stakeholders in VBD-related issues (research partners, NGOs, industry partners etc). PIIVeC have also produced several policy briefs based on their research outputs which have been disseminated via TVCAGs and are available on the aforementioned website.

Is there open access funding to improve publication dissemination?

Yes, all members of PIIVeC have open access funding support.