

Collaboration between the Data Science for Social Good program (DSSG) and the Mozambican Alliance Towards the Elimination of Malaria (MALTEM)

Summary:

The Mozambican Alliance Towards the Elimination of Malaria (MALTEM) - a joint effort of the Mozambican National Malaria Control Program (NMCP), the Manhica Health Research Center (CISM), and the Barcelona Institute for Global Health (ISGlobal) - aims to eliminate malaria in Southern Mozambique by 2020. The project has complex operational and data-related components, from the identification of people eligible for mass drug administration (MDA), to the procurement of drugs and the reactive epidemiological surveillance of malaria in a low-transmission context.

The Data Science for Social Good (DSSG) program trains data scientists to address problems that matter, by working closely with organizations involved in social good. The DSSG program is currently scoping projects for May-August 2018.

MALTEM, namely the malaria elimination pilot in Magude district, offers an ideal partner for the DSSG. In the proposed partnership, a DSSG team will work with MALTEM to (i) aggregate, clean, and organize different sources of epidemiological, operational, and census-related data into one database; (ii) build a statistical model which predicts the likelihood of re-emergence in malaria at the person or small area level so as to guide active case detection efforts; (iii) validate the model through an experimental approach in which the model's predictions are used to guide case detection efforts in one area but not in others; (iv) if successful, design a scale-up plan for the NMCP to guide active case detection efforts throughout Mozambique.

Next steps:

Representatives of the DSSG (Paul van der Boor and Rayid Ghani) should speak with representatives of MALTEM (Francisco Saute, Pedro Aide, Bea Galatas). Items to be covered in this meeting (non-exhaustive list):

- Scope and timing of project: does the summer fellowship work with MALTEM's operations (during dry season, etc.)?
- Data sharing rules and obstacles: will the DSSG team have full access to the relevant databases (DSS, cross-sectional prevalence tests, health post incidence data, etc. all at the person-level)?
- Roles, expectations, and the "product". Does MALTEM need this? Will MALTEM use this? Will the NMCP use this?
- Finances / budget: will CISM pay a part, or would DSSG need to absorb all costs?
- Organizational roles: does ISGlobal need to play a role? Is the partnership with CISM or MALTEM? Who would be the CISM/MALTEM liaison with DSSG?
- Training: how can it be ensured that Mozambican epidemiologists and data managers are capacitated to participate and take ownership of the "product"?
- Geography: how much (if any) time should DSSG fellows spend on site?