

## FRESH AIR Uganda study

### Letter 5: May 2012

The FRESH AIR Uganda project is running on schedule. So far 200 participants have been recruited and the research assistants (RAs) are working with a lot of enthusiasm.

During my 2-week visit to Uganda in February, we gave a 1-day education programme twice for 50 different healthcare workers about chronic respiratory diseases, particularly asthma and COPD. During the second week we gave 25 RAs an intensive 3-day training about spirometry and the protocol of the survey. At the end, Mr. Wilson Isingoma Muginba, the LC5 or the Chairman of the district, gave a certificate to all the RAs. He was very impressed with what the RAs had learnt and promised he would tell everybody about the burden of COPD and the risk factors, particularly tobacco smoke and biomass fuel use, and the impact it has on the community. A 'Manual of Operations' has been published and handed over to all the RAs.



The sampling methodology has been adapted, partly due to the behaviour of several highly-financed NGOs, offering a higher salary to the RAs. Development aid is big business in Africa. Our methodology had to be solid, being able to cope with mishaps, and keeping the group of RAs motivated. With the help of Uganda Bureau of Statistics, we chose 30 villages, selected by probability sampling proportionate to size. Hereafter an intensive enumeration took place to make a random sample of 20 households in the selected villages. All eligible in a household above the age of 30 were selected. Most of the time, between 6 to 10 RAs are conducting the survey in a selected village and finishing



the job in 3 to 4 days. Often the female RAs work as a pair ("we can help each other") and the male RA alone ("why should someone check me while I'm doing my work?"). This is Africa.....

The prevalence survey started during the first week of April and everything is working as planned. The local guide is essential because he prepares the selected village for the survey and has close contact with the LC1, the head of the village. When the RAs visit the village, everyone is prepared. The informed consent takes a lot of

time, particularly if someone can't read, but doesn't want to admit it. The screening questionnaire has been adapted to local conditions, with the help of the RAs. The CCQ has been translated in Lunyoro and Swahili, and with some patience the answers are given correctly. So far the quality of the spirometry is high. The RAs receive feedback about their performed tests on a daily basis. Furthermore they receive a 1-day training every month. John Turyagaruka, the District Health Officer

of Masindi makes sure everything is going smoothly. His efforts are irreplaceable. During the first weeks, Bruce Kirenga, Patrick Musinguzi or Simon Luzige were in Masindi during the survey, making sure everything went well.

The data will be transferred independently into a database by Juliette and Maureen, the data typists working in the DHO's office. The MS ACCESS program has been adapted and fine tuned, and their work will start mid-May.



Measurement of particulate matter (PM) with the DustTrak II (from TSI) is not that easy. We have a technical problem as the batteries don't last 24 hours. Furthermore people in a household are often scared of the device. One cleaned it every hour and another didn't dare to cook anymore.

All the money of the survey is kept safely under the responsibility of the Uganda Thoracic Society (University of Makerere). The treasurer is accurate and very reliable. The salaries of the RAs

and others working in Masindi are managed by the DHO's office (in close consultation with the Uganda Thoracic Society).

Thys van der Molen and one of his researchers, Corina de Jong, visited Masindi during the first week of May. The data management has been checked thoroughly and minor changes have been made. In general, Thys and Corina were pleased with how the survey was running and impressed by the dedication of the healthcare workers in Masindi. On their last day, they had a successful meeting with Prof. Moses Kamywa at the University of Makerere. Ideas of a substantial collaboration are crystallizing.

One of the RAs was Sam Bategenya, a physician and head of Masindi Hospital (the only hospital in the district). We were honoured by his presence. He has received a spirometer (Pneumotrac with Spirotrac software from Vitalograph) and will use it when participants have serious COPD. Furthermore, after the survey, the healthcare workers must go on with case finding. Handheld COPD6 spirometers, granted by Vitalograph, will be used in the different health centres. If anyone has a spirometry test out of the normal, the person can be referred to the hospital for a definitive diagnosis using the Pneumotrac.

During the successful conference in Edinburgh, plans were finalized to start a FRESH AIR Eritrea pilot survey under the leadership of Beraki Ghazai. Jim Stout from Seattle wants to start a FRESH AIR survey in Kenya. This is terrific news.

Frederik van Gemert, project lead

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