FRESH AIR Uganda study

Letter 6: July 2012

On 13th April 2012 the first participant was enrolled in Kinogozi, a village in Karujubu subcounty. On average, 10 participants would be recruited per day. Mid-July we assessed the 600th participant for the prevalence survey, the amount we wanted to achieve. Right now we're finishing the last phase. Maureen and Juliet, the data typists, will work on this until the end of August.

The survey ran from Monday to Saturday between 9.00 am to 5.00pm save for special arrangements. FRESH AIR Uganda was able to use a room at the District Health Officer's office in Masindi. Every morning a 4 wheel drive car and 3 boda bodas (depending on the number of Research Assistants RAs working on that day) would go to the relevant village, together with the laptops and spirometers. At the end of a day's work, everyone would go back to office in Masindi town. The laptops would be loaded again, using our own generator (the electricity in Masindi is rather unreliable).

In the case where a participant was identified to have COPD or any other respiratory abnormality, a referral form would be filled and the patient referred to Masindi Hospital for chronic care and follow up by the trained hospital team.

During my visit in Uganda at the beginning of July, Bruce Kirenga, Simon Luzige, Patrick Musinguzi and I checked the data and most of the spirograms thoroughly. We were amazed by the high quality performed by the RAs. Nevertheless, we encountered an awkward problem: the FVC and FEV1 values seemed to be higher than average (more than 110%). One of the reasons could be definition of the ethnic group. Sub-Saharan Africa doesn't have any reference values for spirometry at all, except for Rwanda. Afro-Americans could be compared with West-Africans, not with East-Africans. Luckily the FEV1/FVC ratio is a value independent of the ethnic group. An extensive discussion with Philip Quanjer, leader of the Global Lung Function Initiative, among others, resulted in a plan to define the reference equations ourselves within a couple of months. Another reason could be that the participants often don't mention their correct age and pose to be older (and therefore wiser). This will be checked, if possible, in the county register of birth in Masindi.

The banks in Uganda can cause a lot of problems. A transfer from UMCG to Uganda bounced because they didn't accept euros (!) anymore. It took the bank more than 2 weeks to admit they made a mistake (they rather tell you the money didn't arrive), but the amount was already transferred back to the

UMCG. Eventually it took 6 weeks before we received the transferred money. In the meantime, we were out of money and couldn't pay the salaries of the RAs anymore. A couple of young RAs decided to strike, for they were afraid that, as few NGOs unfortunately do, we would disappear with the data without paying their salaries anymore. John Turyagaruka, the DHO, helped us tremendously and convinced the RAs FRESH AIR Uganda was different. After 3 days the RAs started to work again. Some NGOs do have a bad reputation in the communities.

As the survey will be ending fairly soon, we have been thinking how the district can go looking for people with a lung obstruction. The RAs have much experience and they are very keen to go on with case finding. They even want to go to schools and villages to explain to the community about the effects of biomass fuel use. Looking at the first data, the prevalence of COPD among local people above the age of 30 years, could be as much as 20%. Bernard Garbe (from Vitalograph) has granted the 10 spirometers we've been using during our survey, so we will grant 2 spirometers (and laptop) to the local hospital and the only health center 4. All the HC 3 (n=8) and HC 2 (n=18) will receive a COPD-6 device (partly granted by Vitalograph, and partly granted by my wife and myself). They will use this device with a short questionnaire, adapted to local conditions. This means all the health centers in Masindi district will have the possibility to find patients with a possible obstruction. If anyone has a deviant measurement with the COPD-6 (ratio < 0.73), the person can be referred to the hospital or HC 4 for further evaluation. John Turyagaruka, the DHO, will lead this. This could be a perfect example how research and the development of local expertise in the provision of healthcare could be an integral component of the survey, meaning they can go with case finding all by themselves.

During a festive gathering of everybody involved with FRESH AIR Uganda, the government of Masindi District, including the LC 5 (the prime minister), and the minister of health, were present. Both of them promised they would fight for the availability of inhaled medication. At the same time, George Bategenya, the medical leader of Masindi Hospital, declared he wanted to start a Chest Clinic, the first one in a rural area of Uganda.

During the first week in July, Niels Chavannes attended the WHO-GARD conference in St. Petersburg in Russia, and gave a presentation of FRESH AIR Uganda. Later on, the WHO announced that FRESH AIR Uganda is now officially recognised as a WHO-GARD demonstration project. Thank you all!

Frederik van Gemert, project lead

Fresh Air is funded by IPCRG, supported by a grant from Mundipharma International Ltd.