

EAN NEWS

From the EAN Board

Intro

Welcome to this third EAN newsletter! We received positive feedback after releasing the second newsletter in March. We are glad you appreciate our idea to restart the newsletter tradition so we can update you on activities of EAN as an organization and its members.

We are looking into the possibility to release the next newsletter also in a glossy edition which we can distribute during the upcoming EPIET conference. We welcome any feedback - please share this with us by e-mailing to EANboard@gmail.com

An update from an 'EU-remote' board member

As the only board member absent from the last newsletter's group photo on the not so sunny beach of Noordwijk in the Netherlands, the other members felt it would be nice to update you all with my news, including a matching beach photo!!



Angie Rose on a sunny beach in Barbados

I moved back to the Caribbean at the end of February to work as an epidemiologist at the University of the West Indies' Tropical Medicine Research Institute. I am part of a small team at the TMRI's Chronic Disease Research Centre in Bridgetown, Barbados.

The CDRC is also home to the Edmund Cohen Laboratory for Vascular Research, and one of our main projects this year is investigating genetic components in vascular complications arising from diabetes. Another major project for 2007 will be setting up national registries for cancer, stroke and cardiovascular events.

A bit of background information

Public health and existing links in the Caribbean region

In terms of health monitoring, the Caribbean is covered by PAHO (WHO's regional office for the Americas). PAHO administers the Caribbean Epidemiology Centre (CAREC), based in Trinidad, on behalf of 21 (mainly English-speaking) Caribbean nation states. CAREC has links with CDC and various networks, such as the Caribbean Health Research Council, and the Caribbean HIV/AIDS Regional Training Network. Although much discussed for several years, CAREC's FETP programme has yet to materialise.

Barbados

Barbados is a small Caribbean island, measuring just 166 square miles or 430 square km (in Guyana we like to say that we have a river into which we can fit the island of Barbados!) with a population of about 270,000. The island lies in between the pounding shores of the Atlantic Ocean (to the east) and the calmer Caribbean Sea (on the west). The weather is mild (daytime temp. 28-32°C year-round), and the sun rises and sets at about the same times daily (6am and 6pm, more or less).



Hurricane season runs from June to November but so far this island has been luckier than most, suffering the last severe hit about 50 years ago.

Barbados has a very high literacy rate (over 95%), evident in the extraordinary local newspapers, filled with letters from the general public, on everything from the sad state of West Indies cricket to current political affairs. There are all kinds of festivals here year-round, from the regular carnival to a jazz festival, Celtic festival, gospel festival, a water festival, a film festival and - yes - even a fish festival!! There's a lively theatre scene and plenty of musical events. And - did I mention the beaches already? And the fact that CDRC is a stone's throw from the nearest beach? Finally, for the curious: the move to Barbados was indeed less painful than the one to France - and yes, only the move to Finland was easier! (I'm still waiting for a landline...)

Now: based on all of the above... who's going to be my next EPIET visitor?

News and activities

EAN Yearbook

The EAN Yearbook is finished and has been sent to you as pdf by e-mail. At a later stage, a hard copy which also includes the cohort pictures, will be sent through the mail to all current EPIET's and alumni and external EAN members. So watch your mailboxes! A big thanks to Julia and Johannes for delivering this excellent work!



Update EAN membership fees

We are currently consolidating our account for membership year for 2006 and 2007 and while the majority of you all have paid your dues, thank you very much for that, we are still awaiting the fees from others. In order to allow us to continue and expand our current activities we heavily rely on the membership fees paid by our members and we would urge those that did not have a chance yet to pay to please do so in the next month. As a reminder: **the yearly membership fee is €20**. New fellows are exempt from this for the first year of their fellowship. It is easiest to pay the fee in cash during the annual General Assembly (GA), which coincides with the EPIET Scientific Seminar – organised 19-20th October 2007 as the ESCAIDE (<http://www.escaide.eu/>). If you can not attend the GA, we would prefer if you can ask somebody in your country to pass on your fee to us. We furthermore would suggest that members pay for a period of 3 or 5 years, to reduce the administrative burden.

Alternatively, you can wire your membership fees to the following bank account:

Name of Bank: Societe Generale
Account Name: Association EAN
Banque: 30003
Agence: 00100
Account number: 00037265432
Cle: 85
IBAN FR76 30003 00100 00037265432 85
BIC/Swift: SOGEFRPP

NB. Please indicate your name and membership year as reference.

Or

Send a **French** cheque in Euros to:
Gabrielle Breugelmans
10 Rue Rosset
69004 Lyon
France

For **one-year membership fee only** you can send cash in a double envelope to the above mentioned address.

Vote on EAN website development

As you all have seen, the EAN board held a website vote to find out if EAN members agree with our plan to establish a stand-alone EAN website in the coming year. Thanks for all the responses. We received 68 responses (response rate was 42 %), of which 65 EAN members answered 'yes' and three answered 'no'. Based on these results, we will give the go-ahead and sign a contract with a company called ClickActive based in London. We hope the website will be up and running in a few months.

It is important to recognize that a good functional website will take considerable work, several test runs and ongoing dialogue between EAN and the providers until the specifications we desire are realized.

ESCAIDE 2007



In 2007, the EPIET Scientific Seminar will take place in the form of a larger conference, the European Scientific Conference of Applied Infectious Disease Epidemiology (ESCAIDE). The ESCAIDE is being jointly organised by the ECDC, EPIET, EAN, and Tephinet Europe. It will take place in Stockholm, 18-20 October 2007. The abstract submission will be open from May 1st until the 5th July 2007

The EAN board is committed to encourage as many EAN members to attend the meeting as possible; in this way we hope to maintain the EPIET spirit in this event. Further information on the conference will be circulated through our e-mail list. More information on ESCAIDE 2007 can you find on the website: www.escaide.eu

EPIET cohort 13

The selection process of EPIET cohort 13 is in full swing and last week all candidates have been informed about the result of the first selection round. In total 32 out of 99 candidates have been selected for the second round, which includes interviews with the ECDC panel in Stockholm on 21 and 22 May. In the afternoon of 22 May, all institutes which are willing to host a fellow for cohort 13, present themselves on a so-called information market.

This market is a nice and efficient opportunity for the institutes to present their activities and to provide information about working and living in their country. Interviews between institutes and candidates will take place the next day.

Courses and conferences

EPICENTRE SEMINAR

This year Epicentre will celebrate their 20 years existence on 24th and 25th of May. To mark this occasion Epicentre will hold two days of scientific discussions and presentations of a selection of our work from the past 20 years. The general theme of the 20 year event is:



How did Epicentre contribute to questions raised by the humanitarian field of operations?

Topics for discussion include mortality assessment and its use, diagnostic tools and the role of operational research. Also the recent results of HIV, malaria, nutrition and TB research projects will be presented. There will be a reception on the evening of the 24th May.

For more information you can visit the Epicentre website at www.epicentre.msf.org

The agenda is available on https://www.voozanoo.net/20ans/files/agenda_20ansEpicentre.pdf

Answers to Rothmans quiz in the last newsletter:

1. The statistical distribution that is usually used as a model for random variation in a risk measure is the **c) binomial**
2. The statistical distribution that is usually used as a model for random variation in an incidence rate measure is the **b) Poisson**
3. The p-value **b) has a uniform distribution under the null hypothesis**
4. In a non-experimental-study, as the study size increases, the probability that a 95% confidence interval for an effect estimate will include the correct value **b) decreases**
5. The main value in calculating a confidence interval is to **c) indicate generally the precision of the estimate**

UPCOMING CONFERENCES:

5th European Congress on Tropical Medicine and International Health
24-28 May 2007, Amsterdam, The Netherlands
www.trop-amsterdam2007.com/

European Working Group for Legionella Infections (EWGLI) 22nd meeting
2-5 June 2007, Stockholm and Uppsala, Sweden
www.congrex.com/EWGLI2007

Second international conference on Surveying Health in Complex Situations
4-5 June 2007, Brussels, Belgium
www.cred.be/SurveyConference2007

Third Med-Vet-Net Annual Scientific Meeting
27-30 June 2007, Lucca, Italy,
www.medvetnet.org/pdf/Conferences/Draft_Programme_v2.pdf

14th International Workshop on Campylobacter, Helicobacter and Related Organisms (CHRO2007)
2-5 September 2007 Rotterdam, the Netherlands.
www.chro2007.nl/

2nd International Conference of the Journal of Travel Medicine and Infectious Disease
12 September 2007, Westminster, London, UK
www.travelmedicine.elsevier.com

4th Congress of the European Society for Emerging Infections (ESEI)
30 September-3 October 2007 Lisbon, Portugal
www.insarj.pt/site/resources/docs/esei.pdf

15th EUPHA conference, European Conference on Public Health
11-13 October 2007, Helsinki, Finland
www.eupha.org

European Scientific Conference on Applied Infectious Disease Epidemiology" (ESCAIDE).
18-20 October, 2007 Stockholm, Sweden.
www.escaide.eu

The EAN board is currently developing a spreadsheet with all upcoming conferences and courses which are of interest to EAN members.

Epi cartoon



'Case finding exercise'

Surveillance

Surveillance, finally!

Marion Muehlen, EPIET alumni cohort 9
mmuehlen@igc.gulbenkian.pt

When I joined the theoretical epidemiology group in Lisbon a year ago, I was excited about learning the secrets of mathematical modeling ☺ ! Well, I have learned a lot, no doubt, and yet, it takes many years to become a good modeler and you do have to know a lot about math if you want to do it alone... How I missed the “simple” life of a field epidemiologist! My big chance at a halfway normal life came when I discovered Sander working on the GripeNet Project. He had worked for the GroteGriepMeting Project (www.deGroteGriepMeting.nl) at the RIVM in The Netherlands before coming to our group as a PhD student. Our boss liked the idea so much, that we started this great internet based surveillance system for ILI in Portugal, and we are finishing our second surveillance year now. In The Netherlands and Belgium it has been going on since 2003.

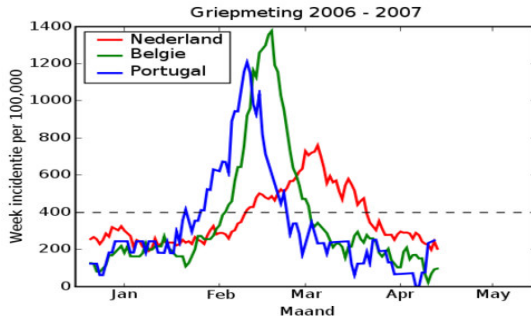


Figure 1: Comparison of incidence curves between The Netherlands, Belgium, and Portugal within Gripenet. Plots represent weekly ILI incidences. The peak of ILI activity was first reached in Portugal, closely followed by Belgium and then in The Netherlands. Based on Gripenet data, the height of the peak in ILI incidence in The Netherlands is lower than in Belgium and in Portugal, but the activity lasted longer. Thus, overall attack rates in the 3 countries are similar for the 2006-2007 season within the Gripenet system, but vary greatly if compared to EISS data.

One of the great things about this surveillance system is that it is based on volunteer participation of individuals via the internet. Any resident of Portugal, The Netherlands, or Belgium can participate by completing an application form on a localized website (www.griepmeting.nl or www.gripenet.pt) containing various demographic, behavioral and life style questions. Participants visit the website on a weekly basis and report if they have (or not) experienced any ILI-related symptoms since their last log-in by completing an online questionnaire. Based on a strict case definition, daily incidence is determined by the number of participants with an onset of ILI, divided by the number of active participants on that day. A participant is active between the day of registration and the last filled in weekly questionnaire. To minimize participation bias, we can opt to include only participants who have completed at least three questionnaires in the analyses. The online questionnaire also inquires about GP visits, medication, and absenteeism.

Since the system collects data on symptoms, it does not suffer the draw-back of different ILI case definitions used in the various European countries. The case definition in the GripeNet system may be adapted according to analytical requirements and defined questions. It has the advantage of being very fast and thus, has the potential of acting as an early warning system. Furthermore, it does not depend on individuals being ill and going to the doctor to report their symptoms (like most other surveillance systems), since all participants are asked to fill in the weekly online questionnaire independent of symptoms or GP visit. Another advantage is that the system delivers information on GP visiting rates and absenteeism due to ILI, information which is hard to acquire otherwise.

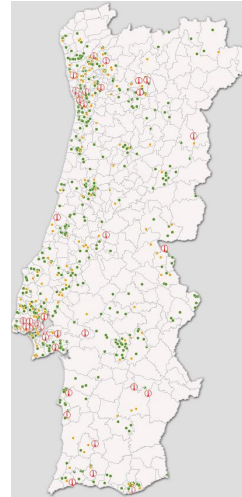


Figure 2: Map of Portugal, week 19-26 Jan 2007

The green dots are Gripenet participants for that week (without symptoms), the yellow dots are participants with symptoms, but not ILI, and the red circles are participants who meet the Gripenet case definition for ILI in that week.

The system does have some potential biases, though. Individuals not experiencing at least mild ILI symptoms might not consider themselves suitable for participation. Although GripeNet aims to attract a representative sample of the population, the younger and

older age groups tend to be underrepresented because of their lower internet usage. We have tried to circumvent this by allowing one family member to complete the weekly online questionnaire for other members belonging to the same aggregate, as long as they have registered as such. We have also been recruiting very actively in schools to boost the participation of children and with that, encourage the participation of other household members.

The strength of GripeNet lies in the unique central control of every element of the monitoring system and its uniform performance across different countries: the recruitment of participants, the questionnaires, the case definitions, the analyses of the data and the presentation of results. This makes the system not only efficient but also very flexible. Based on demographic data of the participants, GripeNet has the potential of monitoring the geographical spread of ILI. Our current objective is to motivate more European countries to participate in this system. If you are interested, please contact me (mmuehlen@igc.gulbenkian.pt) and I will be happy to give more details, and be on the look-out for the publication of our results for this season, soon available at your local... newsstand?

References:

Great Influenza Survey (De Grote Griepmeting).
www.degrotegriepmeting.nl
Marquet, R.L.; Bartelds, A.I.M.; van Noort, S.P.; Koppeschaar, C.E.; Paget, J.; Great. Influenza Survey (Gripenet) (Portuguese) www.gripept.net

I left my Heart in Guyana...

Nathalie El Omeiri, EPIET fellow cohort 12
n_elomeiri@yahoo.fr

Guyana

Guyana, commonly known among EPIETs as “Angie’s homeland”, is an Amerindian word for “Land of many waters”. It is the only English-speaking country in South America and yes, people do drive on the left here. North of the equator, but in the tropics and on the Atlantic Ocean, Guyana is bordered to the east by Suriname, to the south and southwest by Brazil and to the west by Venezuela. It is the third smallest country in South America, yet with an area of 264 000 km² it is about the size of Great Britain. Its capital, Georgetown, is beautiful; rich in colonial heritage from the Dutch, British and the French.



Its some 768 000 inhabitants are concentrated on the coast, leaving the huge hinterland sparsely occupied. The country is characterized by vast rain forests (impressive view from the plane), which cover about two-thirds of the land, dissected by numerous rivers, creeks and waterfalls. I had the chance to see Kaieteur Falls while I was there - the highest single-drop waterfall in the world, five times the height of Niagara

Falls! Lying down on the warm ground, looking down into that deep gorge (of 251 m) was a breath-taking experience. Remember Guyana inspired Sir Arthur Conan Doyle's 1912 novel *The Lost World*! But perhaps the prize-winning rum and ‘Demerara sugar’ will sound more familiar... Another great memory from my visit is of crossing the Essequibo River on a speedboat for the launching of DOTS TB programme in another region. The trip was worth a million roller coaster rides with its muddy “café con leche” water splashing in our faces and scenery of little islands around conferring an indescribable feeling...

They say in Guyana that if you drink creek water, you’re likely to come back! So running out of time, on my last week-end, I drank from Kaieteur Falls - not a creek but black river water; I hoped it counted...The black water is fascinating, like cola or black tea, the colour results from the leaching of tannins from decaying leaves of vegetation.

In spite of being on the South American continent, Guyana is culturally very Caribbean and not Latin at all. And who says ‘Caribbean’ says ‘music’, of course! Great music everywhere, all the time... Although you might get tired after a while waking up to the neighbours’ radio at 05h30, including Sundays when you have a church next door with a 06h30 gospel session! I was amazed at the incredible mix of people

there: African, Indian, Chinese, European, Amerindian, Portuguese and “mixed”! (Don’t ask why the Portuguese are considered a separate ethnic group from any other Europeans... it’s complicated!) The food is delicious (best in the Caribbean), reflecting the ethnic make-up of the country: from hearty curry and roti, chow mein and cook-up rice, to pepperpot and garlic pork. Staples are rice and cassava.

International Cricket Council (ICC) Cricket World Cup

So, how did I end up working for 5 weeks in this amazing place? Since May 2005, the Centre for Infectious Disease Prevention and Control of Health Canada, the Canadian FETP, and other Canadian and international partners have been working with the **ICC Cricket World Cup WEST INDIES 2007** Caribbean Epidemiology Centre (CAREC) to prepare for the International Cricket Council (ICC) Cricket World Cup (CWC) 2007 in the West Indies, implementing enhanced disease surveillance activities (including surveillance for bioterrorist agents) before and during the games, as well as laboratory and epidemiology training to country personnel.



European CWC support was also provided through epidemiologists working alongside national epidemiologists during the games: Dr Graham Fraser from London’s Health Protection Agency was based in Jamaica, Jurgita Bagdonaite was in Grenada (EPIET cohort 11), while my supervisor Dr Alicia Barrasa and I were sent to Guyana by the Spanish FETP.

The CWC is a prestigious cricket event that takes place every four years; this year it was hosted across the Caribbean in nine countries¹ from 1 March - 28 April for a total of 51 matches, with 16 international teams² participating.

Media attention

The exceptional reach of broadcast media in the Caribbean offered a unique opportunity to pass public health messages during the CWC.



Throughout CWC 2007, many of the world’s leading cricketers, match referees and others visited the

¹ Barbados, Antigua, Grenada, Guyana, Jamaica, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, and Trinidad and Tobago.

² India, Pakistan, Bangladesh, Sri Lanka, South Africa, Zimbabwe, Kenya, Australia, New Zealand, England, Scotland, Ireland, the Netherlands, Canada, Bermuda and hosts the West Indies.

Caribbean to see facilities linked to HIV/AIDS education and to show their support for HIV awareness- raising programmes, as part of the alliance between the ICC, UNAIDS, UNICEF and the Caribbean Broadcast Media.



West Indies cricketer and Guyanese Ramnaresh Sarwan signs the oversized AIDS campaign poster

In Georgetown, I saw video profiles of players talking about the impact of AIDS on children, a quiz entitled "Know as many facts about HIV/AIDS as about cricket?", banners and posters

Mass gathering surveillance system

In Guyana, a mass gathering surveillance system was implemented at sites associated with the cricket matches. I was in charge of reporting to CAREC on a daily basis: entering data onto the online database, analysing for aberrations, and providing information on clusters or unusual events. I was on call with an outbreak investigation team for the 2 weeks of matches in Georgetown. Although - fortunately - there were no health threats at all, the list of what I have learned is endless, as I was involved in all other activities of the surveillance unit of the ministry of health! It would take another column to tell you all about it. Being there for such a long time, I seized the opportunity of providing some epi training (including the famous Giardiasis case study!), presenting and explaining details of my tasks, and leaving a very detailed protocol for those who would take over weekly syndromic surveillance analysis after I left.

Fantastic experience

I made some great friends in Guyana, had many nights out despite crazy work schedules and now have some truly life-long memories. Last but not least, I had the great pleasure of being Angie's first visitor in Barbados, and was able to tell her face-to-face that her country is truly F-A-N-T-A-S-T-I-C!



Freddie Flintoff, from the English team (according to Sarika one of the best players of the past decade!)

EUSTITE project

Gianfranco Spiteri
EPIET alumni cohort 10
gfspteri@gmail.com



In recent years, the European Commission has issued a number of directives on setting standards for the quality of Tissues and cells (including reproductive cells) intended for transplantation. *The European Union Standards and Training for the Inspection of Tissues Establishments (EUSTITE)* kicked off in late 2006 with the aim of setting up standards for the inspection of tissue establishments in Europe and with a secondary objective of setting up a vigilance system for the surveillance of adverse events and reactions associated with tissue transplants. The importance of a surveillance system for adverse events has been recognized in recent years following a number of high profile incidents which have resulted in investigations spanning across borders.

WHO is leading the work on development of the surveillance system through the Essential Health Technologies team, led by Luc Noel. After my EPIET fellowship in Northern-Ireland, I have been involved as a surveillance expert working for WHO on a contract for three months initially. The work on the project has been divided into two parts.

In the first phase, we have worked to identify persons to form a vigilance and surveillance medical advisory committee which will have the role of building up the surveillance system, deciding on definitions and working methods and eventually develop a pilot system. These persons are either experts in project partner states with experience running similar vigilance systems at a national level or clinical or laboratory experts with a special interest in tissue transplantation.

During the second phase, the pilot system will be launched and will involve reporting from all project partner states. At the end of the pilot the project will be evaluated internally and externally and recommendations will be submitted to the European Commission on how an EU-wide vigilance system for tissues and cells will operate.

The project is still in the early phases and there are a number of challenges in developing this surveillance system, particularly with the need to adopt definitions which are common throughout the EU and with developing systems which are compatible with what is being developed in the United States and Canada.

References:

Project website: <http://www.eustite.org>

The EUSTITE project: working towards harmonised implementation of European regulation of tissues and cells
<http://www.organsandtissues.net/scheda.asp?n=8066>

Mission report: Rift Valley Fever Outbreak and Malaria Surveillance in Kenya

Ole Wichmann, German FETP cohort 11
WichmannO@rki.de

“Hello Ole. I’m going to make your reservation for Nairobi. I’ve made a reservation for you for tomorrow.” - This was the e-mail I received one day after I was selected by Epicentre to join a mission to the North Eastern Province of Kenya. That was fast. But luckily I had all my required vaccinations. I only went to a shop in Berlin to buy three packs of repellents and in a pharmacy my antimalarial drugs. It was the second week of January and I had the feeling that this was a good start for the second year of my FETP.

Repellents would be important, because we were leaving for Kenya to support a local MSF-team by describing a Rift Valley fever outbreak but also by implementing a malaria surveillance/alert system. The last outbreak of Rift Valley fever in the same area in 1998 was followed by a severe malaria outbreak. Concerns were raised it could also happen this year, since there were similar El Niño driven climatic anomalies with massive flooding as nine years ago. Under such conditions, *Aedes* mosquitoes and later *Culex* mosquitoes love to breed and transmit the Rift Valley fever virus from animal to animal and may cause outbreaks among domestic animal populations. Typically after some weeks, *Anopheles* mosquitoes, which more often feed on humans and have the ability to transmit malaria, find optimal breeding conditions and replace other mosquito populations.

At the time of my departure I was not quite sure about the exact role of the *Aedes/Culex* mosquitoes transmitting Rift Valley fever virus also to humans. But after intense literature review during my flight to Nairobi I was more informed that most published human cases can be linked to consumption of raw or under-cooked meat, blood, or milk from sick domestic animals, or from direct contact to sick animals’ blood e.g. during slaughtering. For this reason, groups at highest risk during Rift Valley fever outbreaks are herdsman and housewives in communities that rely on domestic animals.

In Nairobi a taxi driver picked me up at the airport and dropped me at the MSF headquarter. There, all administrative stuff was done within half an hour, since a car was already waiting to drive me to Garissa. After a 5 hour car drive we stopped at a decent hotel in Garissa with air-conditioned rooms, internet connection, and a good restaurant with a shady terrace. This was where most of the aid and other organizations were accommodated including WHO and CDC. Here I met Francesco, my Epicentre supervisor, and two MSF logisticians. I have been told that in Garissa it was quite busy with all the organizations and

NGOs. We were, however, supposed to leave the place already in one hour to catch a helicopter that brought us to the southern part of Garissa Province named Ijara district.

The flight saved me from sitting an additional 5 hours in a car. Instead, I was lucky to sit in the front of a helicopter and enjoyed a marvellous view on the East African savannah while listening to the Pilot’s music via headphones. We were guided south by the Tana River and noticed that on the banks there was still some flooding, but not as much as I expected from the reports I read in ProMed and other sources. The helicopter landed after 45 minutes in Masalani, with 8,000 inhabitants the largest town of Ijara district. I still remember the words of one of the logisticians who said to himself during the landing “welcome back to the bush”.



Visit of one dispensary in the district, where cases of Rift Valley fever were diagnosed.

We arrived at the compound of the MSF team in the late afternoon. And there we were: Two pit latrines next to two small shower cabins without roof, no electricity, no running water, and barracks with rooms for three mosquito-net covered beds. As a tropical medicine specialist it was not my first time in Africa. However, it was my first time during an emergency situation, in times, when more improvisation is needed. Therefore, I was more intrigued by the situation than appalled. We had a cook who usually served two different meals: either noodles with some sauce or rice with some sauce.

Due to the ongoing Rift Valley fever outbreak slaughtering and selling meat from cattle, sheep, or goats was banned in the region. Only the restaurant of Mama Gulu (I can not recall for sure if the name is correct, but definitely it was one of three restaurants in town) one chicken per day was cooked. And if we were in the restaurant before 7 p.m. there was a chance to have some good rice with beans and chicken. In the end, my wife was the happiest person because I lost more than 5 kilograms during my 3 weeks in Kenya. Overall, I was very happy to have had the chance to make this experience. I was very thankful that Epicentre gave me the chance to join the mission, and I was thankful to find in Francesco a perfect supervisor who gave me enough freedom to take over some responsibilities. Before I started FETP I

was working for 5 years in tropical medicine with clinical work and a research focus on vector-borne disease (including malaria and dengue hemorrhagic fever). These experiences helped me a lot to handle every-day life in the field. I was able to do some microscopy on malaria slides to confirm the quality of the local diagnostics, and we went into the field for active Rift Valley fever case finding and collected patients' blood and performed rapid diagnostic malaria tests on febrile people.

Both the district hospital and the MSF compound were located in Masalani. Ijara district is a very remote area of around one hundred kilometre in width. There were 2 further health centres and 6 dispensaries. Masalani was located in the very west of the district, and it took on the main road around 3 hours by car to drive 50 kilometres to the dispensary located in the centre of the district. Several dispensaries were not reachable during December and January because of bad road conditions. Several times our car was stuck, and several times we were forced to give up our plan to visit more remote settlements.

We worked very closely together with the MSF-team, even though at the beginning there were some difficulties to convince them about our epidemiological ideas and that collecting individual data through the surveillance system is better than collecting aggregated data. However, we were not able to convince the team that an entomologist might give us some additional clues about in which stage we were (low/high risk for a malaria epidemic, still *Aedes* mosquitoes with Rift Valley fever virus, etc.). The comment of one of the team members after we proposed an entomologist was "and who will come next, an archaeologist?" In that situation I was simply lost for words. Furthermore we were closely working together with the local people from the Ministry of Health. The District Medical Officer was very cooperative, and since the beginning we had always a colleague from the hospital with us who was responsible in the district for surveillance of communicable diseases and vaccination campaigns.

As consultants, we analysed the situation with our partners (MSF and MoH), and we proposed a solution that was feasible and allowed us to obtain the minimum information we thought that was essential to achieve our objectives. Besides field visits we were as epidemiologists of course responsible for Rift Valley fever data management, analysis, and writing outbreak reports to inform the provincial level.

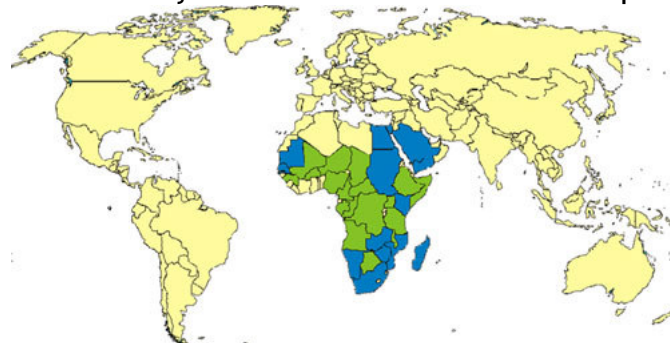
I learnt how important it is to have a long-lasting laptop battery, since in the first 10 days we relied only on the hospital's generator, which was often not a reliable and constant source of power. Those, who already have been in Africa during similar missions, know probably many of the above described situations: stuck on the road, no power for the computer, pit latrines, and difficulties as an epidemiologist to convince your team about the things you propose and which might increase their workload.



Francesco (my Epicentre supervisor) performing a rapid diagnostic test for malaria in a settlement.

For me, even though not my first time in a developing country, the mission was a great experience. It was a mission which focused actually on two interesting diseases (malaria and Rift Valley fever). There was a lot of field work but also some work on the computer in a humid office. I learnt a lot especially about Rift Valley fever and the fact that banning slaughtering will not easily stop an outbreak in humans as long as you don't provide food to communities who rely entirely on their animals. It was an outbreak investigation (but not with fancy case-control studies) and an implementation of a surveillance system (which was designed to pick up both malaria and Rift Valley). It was an experience of working in a team and working with local people from the Ministry of Health. Therefore, in my personal view, it could not have been better!

Rift Valley Fever Distribution Map



- Countries with endemic disease and substantial outbreaks of RVF: Gambia, Senegal, Mauritania, Namibia, South Africa, Mozambique, Zimbabwe, Zambia, Kenya, Sudan, Egypt, Madagascar, Saudi Arabia, Yemen
- Countries known to have some cases, periodic isolation of virus, or serologic evidence of RVF: Botswana, Angola, Democratic Republic of the Congo, Congo, Gabon, Cameroon, Nigeria, Central African Republic, Chad, Niger, Burkina Faso, Mali, Guinea, Tanzania, Malawi, Uganda, Ethiopia, Somalia

Adapted from CDC Rift Valley Fever Homepage: www.cdc.gov/ncidod/dvrd/spb/mnpages/dispages/rvf/rvfmap.htm

Fighting flu together: a Dutch-Indonesian collaboration on avian influenza

Mårten Kivi, EPIET fellow cohort 11, marten.kivi@rivm.nl
Mirna Du Ry van Beest Holle, EPIET alumni cohort 8, mirna.du.ry@rivm.nl

A project at the RIVM in The Netherlands has provided EPIET alumni and fellows with inspiring opportunities for field work. The project is carried out in collaboration with Indonesian counterparts to increase the understanding and control of highly pathogenic avian influenza (HPAI).

Why the Netherlands and Indonesia?

There are several grounds for why this cooperation was brought about. The primary rationale is the determination in both countries to better understand and control HPAI. Indonesia is presently the country in the world where most H5N1 cases appear to occur.ⁱ Meanwhile, in 2003 the Dutch experienced an H7N7 outbreak with 89 confirmed human cases, the death of a veterinarian and substantial economical loss for farmers.ⁱⁱ Furthermore, The Netherlands has recent experience of larger-scale H5N1 vaccination in poultryⁱⁱⁱ and there are historical ties with Indonesia through the colonial past of the two countries. The Dutch Ministry of Agriculture has since 2005 cooperated with Indonesian counterparts to develop and implement HPAI control programs in poultry in Indonesia. The role of the RIVM and its Indonesian equivalent, the NIHRD, is to contribute a human health aspect to this predominantly agriculture-focused project. These human studies are funded by the Dutch Ministries of Health and Foreign Affairs.

Field studies in rural and urban Indonesia

There are at present two RIVM-NIHRD studies; one is carried out among poultry farmers in rural Java and the other among poultry workers in collector houses in Jakarta. Collector houses are wholesale markets through which poultry from the countryside is channeled before being sold at live poultry markets in the city. There have been H5N1 outbreaks on some of the farms included in this study and earlier this year, a collector house was a suspected infection source of a human case in Jakarta. The study participants contribute questionnaire information and blood samples, the latter for serological H5N1 testing. In these putative high-risk groups, we will explore the H5N1 seroprevalence (if any), risk behaviors and possibly identify determinants of infection. The first preliminary results will hopefully be presented at the European Scientific Conference on Applied Infectious Disease Epidemiology (ESCAIDE) in Stockholm in October 2007.



Shipment of samples and ethics

The field studies have provided both Dutch and Indonesian counterparts with valuable and enjoyable experiences. We have encountered logistical difficulties, as expected in field missions, but also some less anticipated complexities. For example, international shipment of the serum samples for confirmatory testing has proven to be quite problematic. A contributing factor to this was the Indonesian authorities' ban on all international shipment of H5N1 samples, affecting not only the RIVM but also other agencies such as the WHO. An interesting ethics debate followed about how commercial vaccine producers (and in this case an Australian company in particular) develop vaccines using samples from low-income countries, while the end-product is often too expensive for the low-income countries whose samples were used.^{iv, v}

Eventually, after a recent high-level meeting in Jakarta, the Indonesian authorities agreed to some international distribution of H5N1 samples.^{vi}



The agenda of national public health institutes

The present project has a strong emphasis on mutual capacity building in infectious disease control and epidemiology in general and in HPAI in particular. There are plans for further collaboration, for example for the development of avian influenza diagnostics. This project is also an excellent example of how a network of animal and human health professionals can be strengthened. European national public health institutes are in general primarily concerned with issues of direct public health importance for their national populations. Additionally, we hope that national institutes can raise sufficient resources to support multi-country collaborative projects that promote long-term capacity building in infection disease control in an international context.

ⁱ Cumulative number of confirmed human cases of avian influenza A/H5N1 reported to WHO. Available at: http://www.who.int/csr/disease/avian_influenza/country/cases_table_2007_04_02/en/index.html

ⁱⁱ Koopmans M, Wilbrink B, Conyn M, Natrop G, van der Nat H, Vennema H, Meijer A, van Steenberg J, Fouchier R, Osterhaus A, Bosman A. Transmission of H7N7 avian influenza A virus to human beings during a large outbreak in commercial poultry farms in the Netherlands. *Lancet*. 2004. 21: 587-93.

ⁱⁱⁱ Commission Decision on the website of the European Commission. Available at:

http://ec.europa.eu/food/animal/diseases/controlmeasures/avian/eu_resp_vaccination_en.htm#hpai

^{iv} Government told to sue WHO over virus samples. Available at: http://www.thejakartapost.com/yesterdaydetail.asp?fileid=20070210_H02

^v Vaccines and the justice of reciprocity. Available at:

http://www.indonesia-ottawa.org/information/details.php?type=news_copy&id=3795

^{vi} Indonesia to resume sharing H5N1 avian influenza virus samples following a WHO meeting in Jakarta.

Available at: <http://www.who.int/mediacentre/news/releases/2007/pr09/en/index.html>