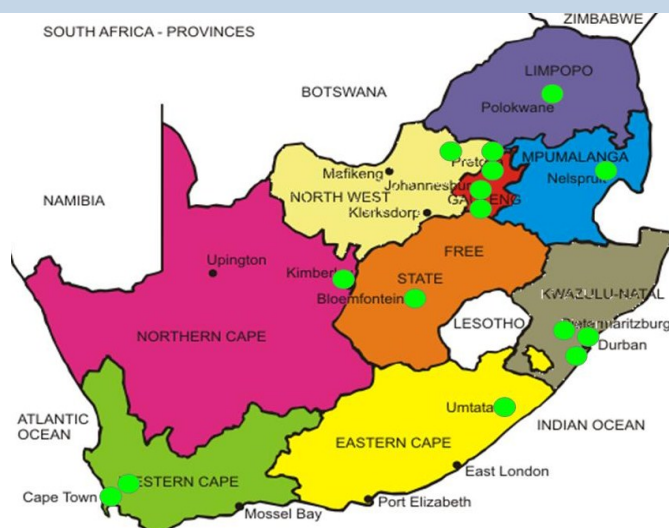




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## First Quarter

It is unbelievable that the first quarter of the year is already over and GERMS-SA continues to buzz with changes and activities. The Surveillance Officers' Meeting, which was a success, was held at the Genesis Conference Centre on the 13-14 March (pg 2).

The beginning of the year saw changes in its surveillance with some sites introducing new organisms and others saying goodbye to them e.g the *Cryptococcus* enhanced surveillance will now be done every first quarter of the year instead of the whole year (pg 5). The GERMS-SA Electronic Data collection Information system (GEDI), which was started in Gauteng and Limpopo, continues to rollout and training had extended to North West, Mpumalanga, KwaZulu-Natal, Free State, Northern Cape and Western Cape (pg 6).

The Invasive Pneumococcal Disease case control study is progressing well and GERMS-SA data was presented at the International Symposium on Pneumococci and Pneumococcal Diseases (ISPPD-9) in India (pg 8). Site visits were conducted around the country for various reasons (pg 10). We welcomed a new member into the team and sadly bade farewell to another (pg 12).

The last page includes a table of the surveillance organisms and sites for the laboratories. Keep watching this space for our annual GERMS-SA Report which will be distributed very soon. Our website remains <http://www.nicd.ac.za>

This news letter was compiled by Mmakgomo Rakhudu, and edited by Vanessa Quan, Division of Public Health Surveillance and Response. Please send any queries, recommendations or contributions to: Dr Vanessa Quan [vanessaq@nicd.ac.za](mailto:vanessaq@nicd.ac.za); Tel 011 386 6012

## GERMS-SA Surveillance Officer meeting

Mmakgomo Rakhudu

The first GERMS-SA Surveillance Officers Meeting for 2014 was held on the 13-14 March at the Genesis Conference Centre in Sandringham, Johannesburg. The meeting was well attended by Surveillance Officers across the country as well as some members from various centres of the National Institute for Communicable Diseases (NICD). The theme of the meeting "Waves of change, Oceans of opportunities" set the scene to discuss the changes that are taking place in GERMS-SA as well as opportunities that are presented to the Surveillance Officers.

Greater emphasis was placed on data quality with gaps identified and addressed. Updates on the current GERMS organisms was given by principal investigators.

The meeting also saw changes in the surveillance programme with some pathogens going out while others joining certain sites. The first day of the meeting ended with fun and exciting team building activities.



Everybody had fun posing for the SO Meeting. The expanding group of attendees at the SO Meeting 13-14 March, Johannesburg.



Drs Cheryl Cohen and Sarona Lengana giving update and training on the IPD case control study



Dr Susan Meiring giving feedback on the competency test that was given to the Surveillance Officers



Dr Michelle Groome updating us on the Rotavirus surveillance project



Rubeida Badat updating us on Staphylococcal surveillance





Group discussions, fun and excitement at the team building sessions



**GERMS-SA Men.....Aren't they handsome?**

## Changes in the GERMS-SA Surveillance Pathogens

GERMS-SA saw changes with enhanced surveillance with regards to pathogens. We said goodbye to *Salmonella* and *Shigella* organisms as they are no longer part of our enhanced surveillance programme in all our sites since the 1st of January 2014.

Cryptococcal surveillance has changed. All public sector cases will be detected through the Corporate Data Warehouse (CDW) and NHLS laboratories are no longer required to submit cryptococcal isolates. Surveillance Officers will still be required to complete a GERMS CRF for all cases identified from 1st January to 31st March each year.

Gauteng province and Western Cape, which were the only sites doing candidaemia surveillance, have stopped and the rest of the provinces have added candidaemia enhanced surveillance.



Nelesh Govender head of Centre for Opportunistic, Tropical and Hospital-associated Infections giving update on the changes



## GERMS-SA Electronic Data collection Information system (GEDI) update

Mmakgomo Rakhudu

The GEDI project is continuing to grow. It started in Gauteng and Limpopo provinces last year and has now rolled out to the rest of the provinces since the beginning of the year.

It turned out that most of the Case Report Forms (CRFs) were completed on interview even when most of the Surveillance Officers were sceptical about using the cellphones with patients, *Staphylococcus aureus* was 89% while *Cryptococcus* was 97%. The turn around time for CRF submission has seen a huge improvement.



Cute neh!!!!!! These are the Nokia E5 that are used for the GEDI project; charged and ready to go!



Surveillance Officers at Baragwanath Hospital during their GEDI training in the picture is Molly Morapedi, Mokupi Manaka, Nthabiseng Motati and Thandi Mdimma



Dr George Mukhari couldn't miss their share of the training as well, here we see Vusi Ndlovu with Ophthia Koaho.



Everybody paying attention to their cellphone in the Western Cape from left is Nazila Shalabi, Cecilia Miller, Priscilla Mouton and Cheryl Mentor

## **9<sup>TH</sup> INTERNATIONAL SYMPOSIUM ON PNEUMOCOCCI AND PNEU-MOCOCCAL DISEASES (ISPPD-9)**

Claire von Mollendorf

The 9<sup>th</sup> International symposium on pneumococci and pneumococcal diseases (ISPPD-9) was held in Hyderabad, India from the 9<sup>th</sup> to the 13<sup>th</sup> of March 2014. A number of NICD representatives from the Centre for Respiratory Diseases and Meningitis (CRDM) attended the symposium. This was the first ISPPD to be held in Asia.

The opening ceremony included numerous guests of honour from the Indian Council of Medical Research to the Indian Academy of Paediatrics, and ended off with a colourful performance by the Shaimak Dance Company.

The symposium had 8 main themed sessions: 1) Pneumococcal colonization and carriage, 2) New pneumococcal diagnostics – further ahead or more confused, 3) Man versus microbe – who gets pneumococcal disease and why, 4) Next generation vaccines, 5) The promiscuous pneumococcus – evolution and biology, 6) Controlling pneumococcal disease around the globe, 7) Global pneumococcal disease and policies for control and 8) Pneumococcal pneumonia – risky business. Invited guest speaker talks, as well as poster presentations were organised according to these themes. Parallel sessions were only held for poster presentations and a “meet the expert session” which made it easy for delegates to attend most of the key sessions.

Anne von Gottberg, Stefano Tempia, Claire von Mollendorf, Mignon du Plessis and Linda de Gouveia attended from NICD. Stefano and Claire had oral poster presentations and Anne presented the GERMS-SA surveillance and pneumococcal vaccine impact data from South Africa. The oral and poster topics taken to the symposium from CRDM were:

- a) Anne von Gottberg: Invited speaker in “Controlling pneumococcal disease around the globe” session. Talk entitled: Impact of the pneumococcal conjugate vaccine (PCV) in South Africa
- b) Stefano Tempia: Oral poster presentation: Cycle threshold value for optimal identification of pneumococcal serotypes using molecular assays
- c) Claire von Mollendorf: Oral poster presentation: Epidemiology of invasive pneumococcal disease (IPD) in HIV-exposed-uninfected children <1 year of age in South Africa, 2009 through 2012
- d) Mignon du Plessis: Poster: Molecular epidemiology of invasive serotype 1 pneumococcus in South Africa, 1989-2012
- e) Linda de Gouveia: Poster: Fluoroquinolone resistance among invasive pneumococci in children <15 years, South Africa, 2003-2013

.What was refreshing this year was that a number of young, new scientists were invited to present their work in the main sessions. Some presentations from the pneumococcal colonisation and carriage session included a talk by Dan Weinberger who discussed whether carriage data could be used to model and predict changes in IPD incidence post-PCV introduction.

Next up was Claire Chewapreecha, a PhD student from the Sanger Institute, whose work involves whole genome sequencing of 3,085 pneumococcal carriage isolates from a 2.4-km<sup>2</sup> refugee camp (Mae La) in Thailand. This community has a high population density and is relatively isolated and this allows for a unique study population. The third talk was by Bill Hanage from the Harvard School of Public Health who discussed the molecular epidemiology of *Streptococcus pneumoniae* using whole genome sequencing data from the SPARC (Scholarly Publishing & Academic Resources Coalition) Massachusetts cohort.

Other highlights included presentations and discussions surrounding the respiratory microbiome and how this has changed in the post-PCV era, results from the PERCH study, updates on new protein-based pneumococcal vaccines in the development pipeline and a panel discussion looking at the differences and impact of the PCV programmes in the USA, UK and Australia.

Professor Kate O'Brien, Director of the International Vaccine Access Center (IVAC) at Johns Hopkins University Bloomberg School of Public Health, was the Robert Austrian lecturer for ISPPD-9. She artfully summarised the history of ISPPD and the highlights of this biannual symposium which started in 1998 in Elsinore, Denmark.

Despite a tightly packed scientific programme, there was still time made for networking and social events. The famous ISPPD sputum cup, which is traditionally a football match between the host country and other delegates, was transformed into a cricket match this year, as India is known for its cricket and not soccer players. Needless to say the host team won, although it was a tight match. There was also an elaborate banquet dinner on the evening of the 12<sup>th</sup>, at the Trident Hotel with dancing which lasted into the early hours of the morning.

The symposium sped to a close on the afternoon of the 13<sup>th</sup> with a presentation on the 2016 ISPPD-10 which will be held in Glasgow, Scotland. Although all the NICD delegates were exhausted, it was a very worthwhile symposium and plans are already being made for data to be presented at ISPPD-10.



The CRDM NICD attendees: Stefano Tempia, Claire von Mollendorf, Anne von Gottberg, Mignon du Plessis and Linda de Gouveia in the poster hall at the Hyderabad International Convention Centre



## GERMS-SA Site visits across the country

### Mmakgomo Rakhudu



On the 4th and 5th February Mmakgomo Rakhudu and Sonwabo Lindani went to King Edward and Ad-dington laboratory to train the new project nurse. Here they are with Nkosinathi Mbhele, Thobeka Simelane and the two sisters in charge from King Edward children's ward.



Siyabonga Mboxwana from Umtata went to Groote Schuur hospital on the 6th –7th February for training on GERMS and Disa laboratory system.



On the 17th and 24th of March Mr Nevashan Govender and Dr Vanessa Quan visited Lancet laboratory Head office at Richmond and presented GERMS-SA data as well as giving feedback on the lab performance on the Surveillance programme. Pictured here are staff from Lancet Richmond laboratory.



## Hello and Goodbye!

### Profile of Thobeka Simelane

#### Tell me a little about yourself?

I am a female of 30 years old, born and brewed at Umlazi KZN. I am a very energetic and fun person. In my spare time I enjoy listening to music and reading as I read anything and everything I lay my eyes on.

#### What did you do prior to joining GERMS-SA?

Before I joined GERMS I was working as an enrolled nurse at Prince Mshiyeni Memorial Hospital in an Orthopaedic female department.

#### What made you decide to take a position with GERMS?

The fact that I was going to do research, I love working with people so this job was going to offer me that chance to interact with patients in another perspective, different from the ward, as well as promoting health within the society as a whole.

#### What are you enjoying about your job so far?

It gives me high self-satisfaction to practice independently but obviously with consultation where needed and necessary. I enjoy working in a different working environment. I enjoy working with other members of the multidisciplinary team, in a lab-based perspective. Even though there are challenges which arise but doing this job is interesting and I learn a lot of new things and conditions which I did not know before.



### Goodbye!

Sister Maria Mokwena has been with GERMS-SA as a surveillance officer for Limpopo Province since 2003. Congratulations on your new job with the Department of Health. While we will miss you and have fond memories of working with you, we wish you well and hope you attain all the success you deserve. Your loyalty and work ethic have been an inspiration to us all.



## General Information for Surveillance Laboratories

As part of **NICD National Surveillance** please submit the following bacterial and fungal pathogens to the National Institute for Communicable Diseases (NICD) on Dorset transport media with a laboratory working card /copy of LIS report.

Pathogen	Specimen	Lab tests	NICD Unit
<i>Streptococcus pneumoniae</i> <i>Haemophilus</i> spp. <i>Neisseria meningitidis</i>	All normally-sterile sites specimens, e.g. CSF, fluid, joint fluid, tissue, etc.	Culture positive OR Consistent Gram stain OR Latex positive	CRDM
<i>Salmonella</i> Typhi	Any specimen	Culture positive	CED
<i>Vibrio cholerae</i>	Gastrointestinal specimens, e.g. stools, rectal swabs, etc.	Culture positive	CED
† <i>Candida</i> spp	Blood culture only	Culture positive	COTHI-MRL
* <i>Staphylococcus aureus</i>	Blood culture only	Culture positive	COTHI-AMMRL
** <i>Pseudomonas aeruginosa</i>	Blood culture only	Culture positive	COTHI-AMMRL
<i>Cryptococcus</i> species	Just a lab form as an alert from the private lab	Culture positive Latex positive India ink positive	COTHI-MRL

† Mthatha, Pelonomi/Universitas, Dr George Mukhari, RK Khan, Addington, KEH, Edendale, Greys', Northdale, Polokwane/Mankweng, Rob Ferreira, Themba, Kimberley, Tshepong.

\* Charlotte Maxeke Johannesburg Academic, Steve Biko Pretoria Academic, Helen Joseph, Groote Schuur, Tygerberg

\*\*Universitas, Chris Hani Baragwanath, Charlotte Maxeke Johannesburg Academic, Dr George Mukhari, Helen Joseph, Steve Biko Pretoria Academic, Tygerberg, Groote Schuur, Northdale, Inkosi Albert Luthuli, KEH, Mahatma Gandhi Memorial.

Should your laboratory suspect an OUTBREAK of *Shigella* spp, non-typhoidal *Salmonella* or diarrhoeagenic *E. coli*, please contact and submit isolates to the Centre for Enteric Diseases (011 555 0333/4). Please also call the NICD Outbreak Response Unit to alert them 011 555 0392/0542 or (011) 386 6354

**To order a new batch of Dorset transport media contact CRDM on 011 555 0315**  
**For other surveillance, please call NMSU at Telephone: 011 386 6234**