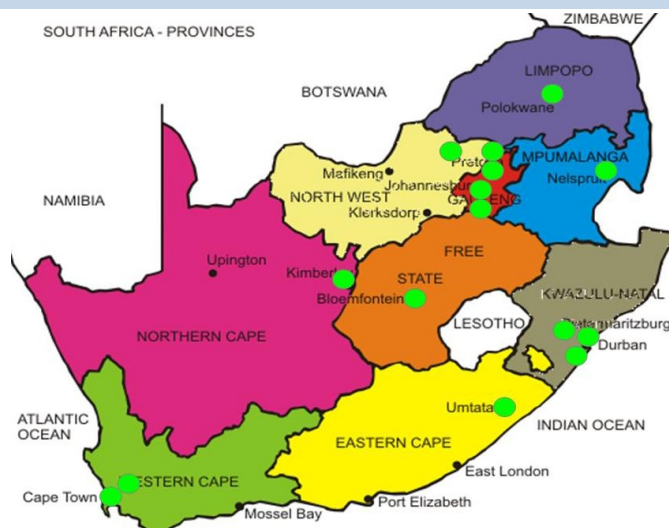




Volume 44, December 2014



Fourth Quarter 2014

Welcome to our 4th issue of the LINK for 2014.

It gives me pleasure to share the experiences of GERMS-SA. This volume 44 of the Link will focus on Q4 GERMS-SA Activities and experiences in the last 3 months.

GERMS-SA had a Surveillance Officers' (SO) meeting on 3rd to 5th Dec 2014. The theme of the meeting was 'Go green, become technologically savvy.' To fulfil the theme, SOs attended sessions of MS Word, MS Excel, MS PowerPoint and MS Outlook training. These trainings were aimed at fulfilling one of the objectives of the SO meeting: to improve performance and productivity through improved computer skills. Another objective of this year's December SO Meeting was to reinforce the use of technology in capturing data on GERMS-SA surveillance organisms. Surveillance Officers had to complete an electronic CRF Review exercise that was facilitated by the Field Project Coordinators.

This volume also gives an update on the Invasive Pneumococcal Disease (IPD) case-control study. The study had its first enrolled case on 14 Feb 2010 and will end in the first quarter of 2015. GERMS-SA has the pride to be associated with Dr Anne von Gottberg of the Centre for Respiratory Diseases and Meningitis (CRDM) et al for her successful publication in The New England Journal of Medicine. The publication is entitled 'Effects of Vaccination on Invasive Pneumococcal Disease in South Africa.'

It is also important to share with you the GERMS-SA successful Teaching and Training Exercise Programme. The programme was introduced by GERMS-SA Head, Dr Vanessa Quan as a tool to improve all GERMS-SA staff knowledge of organisms and other skills. The exercise also improves communication and presentation skills and time management of the GERMS-SA team.

Please refer to the last page of this volume for the case definitions and isolates required by NICD National Surveillance.

GERMS-SA Surveillance - Statement from Head of GERMS-SA

Dr Vanessa Quan

The Surveillance clock ticks on: 11 years of GERMS-SA surveillance, the 44th volume of our newsletter....and some of us are still here! For 2015, the enhanced surveillance sites will be sending isolates (and the surveillance officers will be filling in case report forms (CRF)) for the same organisms as 2014. For all the laboratories, please see the last page to alert you as to which organisms to send - GERMS-SA will continue with *Salmonella* and *Shigella* spp.

The clinic surveillance for TB/HIV and STI has been slow to start but is gaining momentum. We will have 4 sites up and running by early 2015. Watch this space.

To the labs and our colleagues, thanks for your participation in the surveillance programme. Without your isolates and case report forms we will not be able to assist in improving the health of all in South Africa. Have a very happy festive season and travel safely.

GERMS-SA SO Meeting 3rd to 5th Dec 2014

Oliver Murangandi

The December 2014 GERMS-SA SO meeting was split over 3 days. Each day had its own exciting activities. Day one was dedicated to presentations by presenters from centres within NICD. Day two was dedicated to training. SOs were given some refresher training on the use of MS Word, MS Excel, MS PowerPoint and MS Outlook. The whole group was split into 2 groups and these alternated between refresher training and electronic CRF review. Day three was dedicated to team building exercises. This day had a lot of exciting activities away from the work environment. The whole group went to Gold Reef City where the team engaged in team building exercises that included games and breath-taking rides.



Surveillance officers' Meeting December 2014 held in Sandringham

GERMS-SA SO Meeting Day 1 Presentations

Oliver Murangandi

The day started well with welcome remarks and performance indicators, followed by a motivating presentation by Claire, entitled "GERMS-SA: Refocusing and goal setting." Other presentations included feedback and updates on the following surveillance projects:

- Rifampicin resistant TB and clinic surveillance
- Invasive pneumococcal disease trends following the introduction of the pneumococcal conjugate vaccine (PCV) in South Africa and the effectiveness of PCV
- The impact of a HiB vaccine booster
- Rotavirus surveillance
- Cryptococcus screen and treat programme
- Candidaemia surveillance in 2014 and
- Phenotypic and genotypic characterisation of *Staphylococcus aureus* and *Pseudomonas aeruginosa*



Penny Crowther-Gibson presenting performance data



Dr Anne von Gottberg presenting pneumococcal data



Vusi Ndlovu (SO Dr George Mukhari) and Dr V

Certificates and Awards for GERMS staff

GERMS-SA had the pleasure to recognise long serving members on day 1 of the SO meeting. These were put into ten and 5 years' service categories.

Members who served 10 years or more: Dr Vanessa Quan, C. Miller, K. Mawasha, N. Nzunza, N. Shalabi

Members who served 5 years or more: M. Morapeli, Z. Kgapola, P. Crowther-Gibson, Dr S. Meiring, B. Zigana, M. Rakhudu, I. Naidoo, S. Joyi, S. Njikhoh

Some members were also recognised in the following categories.

- Kimberley Hospital SOs for submitting the most stools for rotavirus surveillance for Oct and Nov 2014
- Top Scorers for Teaching Exercise (for SOs and admin staff): Vusi Ndlovu, Dikeledi Lesha, Anna Motsi, Ophtia Koaho
- Top Scores for Teaching and Training Exercise (for Admin staff): Judith Tshabalala
- **GERMS-SA top SO performers: Sunnieboy Njikhoh (Rob Ferreira and Themba Hospitals, Mpumalanga) and Indran Naidoo (Pietermaritzburg, KZN)**

GERMS-SA SO Meeting Day 2 MS Office Overview

Oliver Murangandi

MS Excel overview - facilitator Oliver Murangandi

Surveillance Officers were given an overview of MS Excel as a refresher course. The overview also acted as an eye opener to some SOs who never thought Excel could simplify their maintenance of CRF Tracking Logs and CRF missing lists.

Below are some comments from SOs after the MS Excel training.

- Siyabonga Mbaxwana, *"It was a good exercise and more professional if the instructor had given us a day attendance certificate."*
- Matsheko Siyaka, *"It refreshed my memory on what I learnt 10 years ago and was presently not using the knowledge. Good training"*
- Anna Motsi, *"Very educative"*
- Bekiwe Ncwana, *"Eye opener, interesting and not as intimidating as one thought it would be. Well presented."*



Front Row from Closest : Khasi, Zodwa and Nathi; **Second Row from Closest:** Venesa and Winnie
Standing and facilitating: Bulelwa and Penny

MS Word Overview - facilitator Penny Crowther-Gibson

Surveillance Officers were given an overview on MS Word to help them sharpen their skills for writing reports.

Below are some comments from SOs after MS Word Training.

- Bekiwe Ncwana, *"Interesting as well, learnt a lot of new things. Well presented."*
- Fiona Timba, *"Interesting, managed to get some questions on MS Word answered."*



SOs attending MS Office Training

GERMS-SA SO Meeting Day 2

Oliver Murangandi

MS PowerPoint Overview - facilitator Dr. Susan Meiring

Surveillance Officers were given an overview on how to prepare presentations using MS PowerPoint.

Below are some comments from SOs after MS PowerPoint Training.

- Dikeledi Leshaba, "As for me in particular, I never knew how to prepare a presentation. This was of great help."

Email Etiquette — facilitator Bulelwa Zigana

Surveillance Officers were given an overview on MS Outlook and basic email manners.

Below are some comments from SOs after MS Outlook Training.

- Matsheko Siyaka, "Very informative especially the use of reply and reply to all"
- Dikeledi Leshaba, "I had difficulty in sending emails with attachments. This was well presented."

Electronic CRF Review - Facilitated by Sonwabo, Mmakgomo and Cecilia.

All the SOs completed the same CRF on their handset to use for the CRF review exercise. The exercise was meant to establish the common errors and challenges that SOs encounter when completing the CRFs.



From Left to Right: Molly, Thandi, Ophtia, Sunnieboy, Indran, Cecilia (standing and facilitating), Matsheko and Nokuthula

GERMS-SA SO Meeting Day 3—Team Building

Oliver Murangandi

This was the most exciting of the 3 days with outdoor games and scary rides. The whole team spent the greater part of the day at Golf Reef City where the group was split into 4 teams. The teams were identified by colours, Yellow, White, Orange and Red. Congratulations to the Yellow team for winning the day since they managed to get stickers to participate in all the games. I had a chat with Anna Motsi immediately after she watched a 4D movie and her comment was just one word. "Technology!"

Below are some comments from other team members

- Sandisiwe Joyi
"It was the best exercise ever. The exercise I enjoyed best was at the movies. My team really worked hard and did not give up until all the exercises. At the end of the day, the Yellow team won, after getting all stickers for all the games."
- Boniwe Makwakwa
"A very wonderful outing and working together we can achieve more."

Photo Gallery



From Left to Right: Molly Morapedi, Penny Crowther-Gibson, Vanessa Quan, Nthabiseng Motati, Venesa Kok, Thandeka Kosana, Khasi Mawasha, Nazila Shalabi and Sharon Jerome—the PINK team.

GERMS-SA SO Meeting Day 3—Team Building

Oliver Murangandi

Continuation: Photo Gallery

Susan and Vusi participating on THE ANACONDA



Claire, Penny, Vanessa, Susan and Cecilia preparing for the next activity



Below from Left to Right: Portia Mogale, Zodwa Kgaphola, Dikeledi Leshaba, Thobeka Simelane, Rachel Nare, Thandeka Kosana, Matsheko Siyaka, Lerato Mthombeni, Ophtia Koaho, Sunnieboy Njikhoh, Khasi Mawasha and Tebogo Modiba almost getting run over by a golf cart.



World Pneumonia Day and pneumococcal surveillance

Claire von Mollendorf

On the 12th of November this year, the National Institute for Communicable Diseases (NICD) was involved in the "Biggest World Pneumonia Day ever".....

The NICD released findings on the 12th November, which showed that rates of invasive pneumococcal disease (IPD) had fallen significantly in South Africa following the introduction of a pneumococcal conjugate vaccine (PCV) in 2009.

The findings were published in the November 13th edition of the New England Journal of Medicine (NEJM) and data were contributed by the GERMS-SA pneumococcal surveillance programme. The manuscript, entitled, "Effects of Vaccination on Invasive Pneumococcal Disease in South Africa¹" compared IPD incidence after the introduction of PCV (post-introduction: 2011 and 2012) to incidence prior to its introduction (2005-2008). The results illustrated that PCV works in the routine immunisation schedule as rolled out by the Department of Health and that significant declines in drug-resistant pneumococcal cases have also been noted due to the vaccine.

Working with the communications departments from Johns Hopkins School of Public Health, GAVI and Wits University, the article made a far reaching impact. It featured in a number of local and international print and online media fora, was tweeted and blogged about and the lead author, Dr Anne von Gottberg, also did a radio interview. It highlighted the importance of robust surveillance data from middle-income countries.

Lastly, in commemoration of pneumonia day, Professor Keith Klugman delivered a talk titled, "Opportunities to save children's lives from pneumonia - perspective of the Gates Foundation" on the 14th November 2014. Professor Klugman, director for pneumonia at the foundation, discussed the burden of pneumonia deaths in young children and how this can be prevented. The prevention of these deaths is the mission of the Gates Foundation.

This manuscript would have not been possible without the hard work and dedication of the GERMS-SA surveillance officers and site coordinators.

Useful links: http://www.nicd.ac.za/assets/files/NICD%20Brochure_CRDM%20FINAL%20LR.pdf

Vaccine beats back pneumonia deaths

SA study focusing on high risk groups reveals infection rates declined.

new, lower rates of infection discovered among those at most at risk.

Info

World health report

A pneumonia is the leading infectious cause of death in children worldwide, according to WHO.

Immunisation has reduced pneumonia, meningitis

SA study shows that the introduction of the pneumococcal conjugate vaccine (PCV) into the routine infant immunisation programme has led to a significant decline in the rates of invasive pneumococcal disease (IPD) and meningitis.

The study, which was published in the New England Journal of Medicine, found that the rates of IPD and meningitis had declined significantly since the introduction of PCV in 2009.

Infant vaccine drive pays off for SA

WITS MEDICAL SCHOOL

IN 2009, South Africa became the first African country to incorporate the pneumococcal conjugate vaccine (PCV) into its routine infant immunisation programme.

And now, five years later, that decision has been proved to have made a significant effect in reducing rates of invasive pneumococcal disease (IPD) - resulting in severe pneumonia or meningitis - including reducing cases caused by antibiotic-resistant bacteria.

Wits University and the National Institute for Communicable Diseases (NICD) released a study: "Effects of Vaccination on Invasive Pneumococcal Disease in South Africa", which coincided with World Pneumonia Day yesterday.

GERMS-SA around the country

Linda de Gouveia

Site visits to KZN NHLS Microbiology laboratories; Port Shepstone, Mahatma Ghandi Memorial Hospital, Stanger and Ngwelezana were conducted in October 2014 by Linda de Gouveia (CRDM), Portia Mutevedzi and Marshagne Smith (COTHI).

We received a very warm welcome from all sites, and despite all labs being severely under-staffed, we managed to "whip up" an audience to listen to the GERMS data presentation, as well as some recent statistics showing the number of cases with missing isolates for each of the laboratories visited. The impact this missing data and/or isolates has on GERMS surveillance was also discussed, and although all labs said that the short staffing was a major contributor to their not submitting isolates they were urged to try their utmost in submitting these very precious isolates to NICD.



Staff at Mahatma Ghandi NHLS Laboratory



Staff at Port Shepstone NHLS Laboratory

Other visits were made to Kimberley Hospital and laboratory for follow up training of the new surveillance officer (Winnie Matthews); to Port Elizabeth (EC) private Laboratories Ampath Netcare Hospital Glenacres and Pathcare St George's Life Hospital and PE NHLS laboratory.

Thanks to all staff for hosting us and making time to listen to why you participate in the surveillance programme and the importance of sending isolates.

If your laboratory would like feedback or training on surveillance, please contact us on 011 386 6234/ 011 386 6012 to arrange a site visit.

This newsletter was compiled by Oliver Murangandi and edited by Vanessa Quan from the Division of Public Health Surveillance and Response. Please send any queries, recommendations and contributions to: Vanessa Quan vanessaq@nicd.ac.za; Tel: **011 386 6012**

Staff Leaving and New Arrivals

Bulelwa Zigana - Project Administrator

Read what Bulelwa has to say after about her stay with GERMS-SA



I remember my first day at NICD 6 years ago when the team welcomed me to the GERMS-SA family! There was no turning back because of the warm reception I received. I always admired GERMS management techniques and team spirit; that forced me to take a great step to move out of my comfort zone as a data clerk taking over a great challenge as an administrator. My major role was to devote time to everyone- satisfying everybody to the fullest. I've also learnt to handle work pressure without letting out on the team members, supporting other departments and taking initiative and responsibility. A special thank you to GERMS-SA team for allowing me to learn such great skills- this has advanced me personally as well as my career.

The years I've spent at NICD have been some of the greatest. I feel honoured to have worked with such great people as Ms Penny, Drs Quan, Meiring, von Gottberg, Govender, Erasmus, Mr Sonwabo and (Nevashan in his absence). Your advice, guidance and support have made me the person I am. Thank you, you'll always remain my mentors.

The GERMS team wish Bulelwa well and congratulate her on her move upwards and outwards. We thank her for her many years of loyal service (with a smile).

GERMS-SA has been blessed with new arrivals.



LEFT: Congratulation to Olga Hattingh (CRDM) on the birth of her daughter, Yula, on the 25th June



LEFT: Congratulations to Dineo Mogale (CRDM) on the birth of her daughter, Nolwazi, on the 9th July

General Information for Surveillance Laboratories

Surveillance organisms and sites

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 DISA/TrakCareLab report or send specimen tube/blood culture bottle if uncertain of identification and/or no isolate available (contact lab to discuss these).

Call CRDM for Dorset Media (011 555 0315)

Campylobacter should be submitted on special transport media available from CED (011 555 0333/4)

Pathogen	Specimen	Lab tests	NICD Centre
<i>Streptococcus pneumoniae</i> <i>Haemophilus</i> spp. <i>Neisseria meningitidis</i>	All normally-sterile site specimens, e.g. CSF, blood, pleural fluid, peritoneal fluid, pericardial fluid, joint fluid, tissue, etc.	Culture positive OR Consistent Gram stain OR Latex positive	CRDM 011 555 0315
<i>Salmonella</i> spp. (including <i>Salmonella</i> Typhi) <i>Shigella</i> spp. <i>Campylobacter</i> spp †† <i>Vibrio cholerae</i>	Any specimen	Culture positive	CED 011 555 0333/4
Diarrhoeagenic <i>E. coli</i>	Gastrointestinal specimens, e.g. stools, rectal swabs, etc.	Culture positive	CED 011 555 0333/4
<i>Cryptococcus</i> spp. (no need to send isolates unless your lab is specifically asked to do so)	Any specimen - enhanced surveillance laboratories need to inform the Surveillance Officers about cases (January to March inclusive) PRIVATE LABS—please submit a lab form only for case counting	Culture positive OR CrAg test positive OR CSF India ink positive	COTHI – MRL 011 555 0384
† <i>Candida</i> spp.	Blood culture only	Culture positive	COTHI – MRL 011 555 0384
* <i>Staphylococcus aureus</i>	Blood culture only	Culture positive	COTHI – AMRRL 011 555 0342
** <i>Pseudomonas aeruginosa</i>	Blood culture only	Culture positive	COTHI – AMRRL 011 555 0342

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

* Charlotte Maxeke Johannesburg Academic, Steve Biko Pretoria Academic, Helen Joseph /Rahima Moosa, 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.

†† *Vibrio cholerae* isolates from human and non-human (environmental) specimens must be reported to national Department of Health

CRDM = Centre for Respiratory Diseases and Meningitis, CED = Centre for Enteric Diseases, COTHI = Centre for Opportunistic, Tropical and Hospital Infections, MRL = Mycology Reference Laboratory, AMRRL = Antimicrobial Resistance Reference Laboratory.

Should your laboratory suspect and OUTBREAK, please call the NICD Outbreak Response Unit to alert them

011 555 0392/ 0542 or 011 386 6354