

A YEAR IN PICTURES



ISSUE 3 - VOLUME 7

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NICD's Year in Review



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Join us as we rewind the clock and delve into the unforgettable moments that defined our 2023! Our Year in Review video showcases some of the magical moments that made the year truly special.

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MESSAGE FROM THE EXECUTIVE DIRECTOR

Prof Adrian Puren

Dear NICD Family,

As we approach the holiday season, I want to take a moment to express my heartfelt gratitude to every one of you for your unwavering dedication and invaluable contributions throughout the year. Your commitment to excellence and passion for public health has been the driving force behind our continued success.

In this edition of NICD Pulse, we feature inspiring stories that showcase the talent within our organisation. From Jacob Mabena's remarkable journey from a herd boy to a pioneering Lab Animal Technologist to Dr Stanford Kwenda, our very own Data-Driven Defender, each narrative underscores the depth of expertise and commitment within our NICD family.

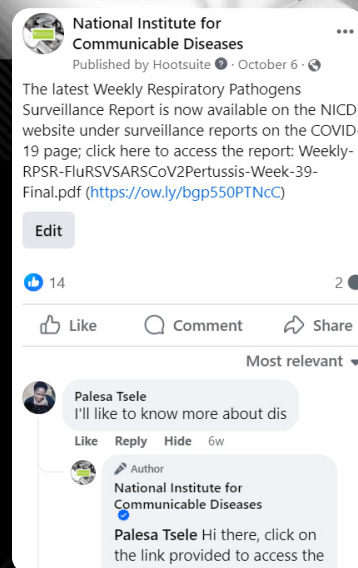
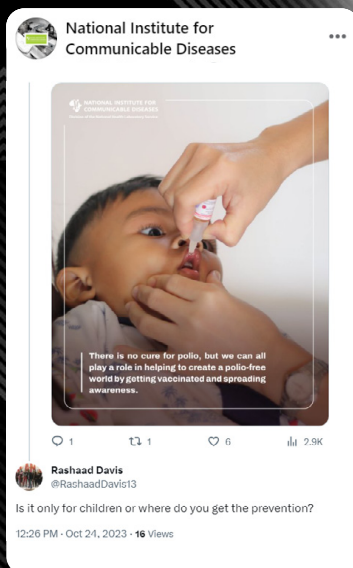
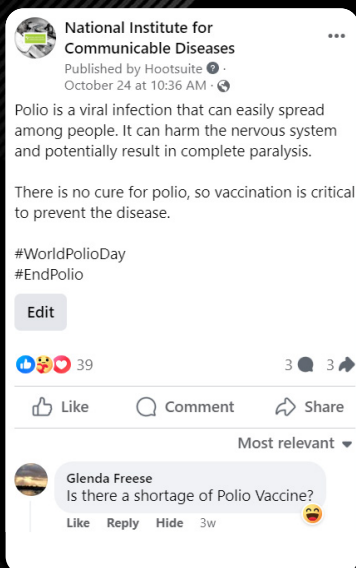
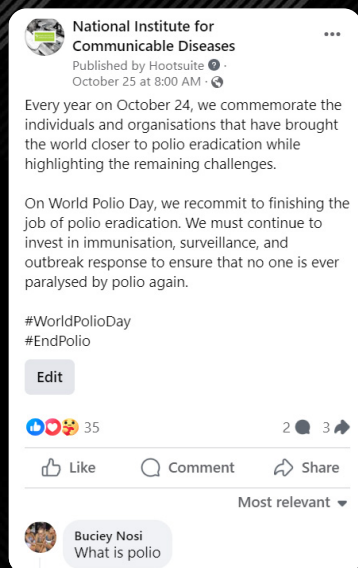
Our latest issue also delves into the pivotal James HS Gear Lecture, where we explore the critical topic of cervical cancer elimination. Look forward to being captivated by the collection of articles in this issue.

As we embark on the festive season, I wish each of you a joyful and safe celebration. May you find moments of peace and reflection, surrounded by the warmth of family and friends.

Explore the latest NICD Pulse now conveniently available on our [website](#) to see our collective achievements and work.

Thank you for your continued dedication, and here's to a safe, prosperous, and healthy New Year!

What are people saying on social media?



MEET OUR

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As the editorial team, we wanted to take a moment to express our deepest gratitude to our Senior Communications Manager, Ms Sinenhlanhla Jimoh. This marks the culmination of her leadership in shaping the NICD Pulse, and we are immensely grateful for her invaluable contributions.

Sine, your dedication, creativity, and unwavering commitment have been the driving force

behind the success of our newsletter and Unit. Your vision has inspired us all, and we are truly thankful for the mark you've left on the NICD Pulse and the Communications Unit.

Though this is the last issue under your headship, we want you to know that we are determined to carry the baton forward with the same passion and excellence that you've instilled in us. Your

legacy will continue to guide us as we strive to maintain the high standards you've set.

Wishing you all the best in your new role. May your journey be as bright and rewarding as the path you've paved for us. Thank you for everything, Sine!

Warm regards,

NICD Pulse Editorial Team

Milestones of Dedication: NICD's Enduring Contributions to HIV Prevalence Research

We are thrilled to recognise the contributions of the HIV Sero-Molecular laboratory, along with NICD/NHLS staff, to the ground-breaking study results that have garnered national and international acclaim. For two decades, the NICD has been an integral partner and collaborator in this momentous survey. The remarkable laboratory findings stand as a testament to the multifaceted efforts of our dedicated staff, who have poured their expertise into protocol design, technical guidance, training, data analysis, and intellectual contributions. This is their story, a legacy woven into the fabric of The Sixth South African National HIV Prevalence, Incidence, and Behaviour Survey (SABSSM VI).

The NICD congratulates Ewaldé Cutler, Zinhle Brukwe, Beverley Singh, Rivashni Jagaroo, Deirdre Greyling, Mirriam Fortuin, Mzwakhe Khumalo, Candice Subramanian, Rorisang Moeng, Vibha Khanna, Monalisa Kalimashe, Mark Goosen, Venessa Maseko, Duduzeli Nhlapo, Koketso Makua, Henry Julius, Cheri van der Walt, Nicolas Tagliatti, Sara Hloma, Zeenat Kalidas, Lulama Goba, Sarvashni Moodliar, Mahlatse Maleka, Themba Nkuna, Briget Maake, Bongiswa Tshewula, Monica Fourie, and the late Ms Johanna Nkaninde. We also extend our gratitude to the phlebotomy team from NHLS and NICD for their invaluable contributions to this study: Bukelani Nyawose, Zakhele Ndaba Fikile Dzivhani and Sr Ida Jordaan.



Small hands, big difference! Promoting community health and safety through hand hygiene - A time for giving

By Koketso Matjane

On the 24th of November 2023, a meaningful chapter unfolded with the launch of the National Institute for Communicable Diseases (NICD/The Institute) Corporate Social Initiative (CSI) programme. Rooted in the newfound principle "From Scientific Discoveries to Community Impact: Connecting Science and Society", the Institute has pledged to make scientific breakthroughs accessible to ordinary community members. This commitment was embodied in an educational initiative between the Institute and Pholosho Primary School, located in the vibrant township of Alexandra.

Through this collaboration, the NICD aimed to bridge the gap between scientific insights and the everyday lives of school pupils and teachers. The initiative went beyond launching a programme; it sought to create a tangible connection between science and society, leaving an indelible mark on the hearts and minds of those involved. The focus of this collaboration was clear: instil the significance of handwashing for disease prevention. Aligned with the World Health Organization's (WHO) endorsement, effective hand hygiene goes beyond words—it has a profound

impact, reducing mortality rates by 21% for respiratory diseases and 30% for diarrheal diseases in children under five.

The initiative was a heartfelt endeavour to translate scientific knowledge into practical action.

Through engaging activities, the NICD conveyed the essence of their role, emphasised the pivotal nature of handwashing in maintaining good hygiene, provided a step-by-step guide to this fundamental practice, and tested the pupil's understanding of the day's crucial lessons. In concluding the day, the Institute presented the school with contributions endorsing effective hand hygiene, resulting in a memorable and impactful educational experience complemented by vibrant melodies from the pupils.

The initiative's success is attributed to the contributions and dedication of staff. To elevate future initiatives, staff are invited to join the Institute's CSI Committee. For details, contact Ms Koketso Matjane via email at KoketsoMat@nicd.ac.za.





Dr Stanford Kwenda: NICD's Data-Driven Defender

By Laura De Almeida

At the heart of the National Institute for Communicable Diseases' (NICD's) data realm, Dr Stanford Kwenda fortifies surveillance by orchestrating the integration of vital data from the National Health Laboratory Service (NHLS) and Notifiable Medical Conditions (NMC). Fostering a close-knit team, he partners with epidemiologists while nurturing the growth of junior data analysts. In this narrative of unity, Dr Kwenda's leadership adds a touch of warmth to every data-driven endeavour.

Stanford started with a biological sciences degree, then focused on molecular biology in his master's. Transitioning to bioinformatics, he used IT and statistics to tackle molecular biology questions. His PhD explored pathogen virulence mechanisms, marking his entry into public health research. Driven by a passion for translating raw data into actionable knowledge, he shifted from biology to IT and data science.

Looking ahead, Dr Kwenda aims to enhance his team's capacity by providing essential learning opportunities and acquiring necessary skills. As a leader, he emphasises mentoring, continuous development, and team-building to align projects with organisational goals.

However, his leadership extends beyond the professional sphere. In his own words, "as much as my role is about IT skills, it's also about people skills and trying to nurture and bring people up in a way that they are responsible individuals, even outside the workplace".

A champion of genomic surveillance capacity building, Dr Kwenda is spearheading an Africa-wide workshop at the NICD in 2024. This pioneering initiative focuses on implementing next-generation sequencing for pathogen genomics to enhance surveillance, outbreak detection, and strain identification across the continent. The workshop will culminate in a symposium where African researchers will showcase their findings.

As a crucial member of the organising committee, Dr Kwenda will actively contribute to course development, highlighting key aspects of pathogens and genomics. Despite extending beyond his lead data analyst role, this effort seamlessly aligns with his broader commitment to advancing genomic surveillance practices within the NICD.



CATALYSING GLOBAL CHANGE:

James HS Gear Lecture Tackles Cervical Cancer Elimination

By Siyabonga Mbatha

On the 13th of November 2023, the Poliomyelitis Research Foundation (PRF) hosted another triumphant James HS Gear Memorial Lecture. In a ground-breaking lecture titled "Cervical Cancer Elimination: Give Us the Tools and We Will Finish the Job," leading minds gathered to address the global challenge of eradicating cervical cancer.

The James HS Gear Memorial Lecture is an annual event where healthcare professionals, advocates, and the public congregate to exchange ideas on how to address health crises, advocate for good health, and enhance the availability of healthcare services.

The 17th edition of the lecture was presented by world-renowned health practitioner, Professor Helen Rees, who has been at the forefront of cervical cancer prevention initiatives.

Her presentation delved into the current state of cervical cancer globally and also highlighted the barriers countries are encountering, especially those in Africa. A lack of access to vaccinations due to socioeconomic factors and high vaccine prices hinders progress.

One of the crucial messages resonating throughout the lecture was the urgent need for improved

tools and resources to combat cervical cancer effectively. Prof Rees emphasised that with the correct support, including increased access to screening, vaccination programmes, and advanced treatment options, the goal of elimination is not only attainable but within reach.

As the event concluded, a palpable sense of optimism lingered. Attendees left the venue inspired and ready to take action. In the wake of this triumphant gathering, the torch of hope burns brighter, illuminating the path toward a future where cervical cancer is not just treatable but entirely preventable.

Image figure 1: Prof Barry Schoub, Prof Caroline Tiemessen, Prof Helen Rees, Mr Alastair Moffat, Mr Dale Wood



SAVOURING CULTURE: INSIDE NICD'S HERITAGE AND DIVERSITY PARK



By Nande Harmans

NICD's commitment to diversity and inclusion showcases the organisation's principles of respect and collaboration. The Heritage and Diversity Park Day was not just a celebration; it was a testament to the NICD's dedication to fostering a workplace that embraces the richness of South Africa's cultural tapestry.

The day was marked by an array of activities that brought together NICD staff from various backgrounds.

One of the highlights of the day was the diverse and delectable Mzansi-flavoured cuisine. Attendees savoured iconic South African dishes such as shisanyama (braai), chakalaka, umleqwa, boerewors, and biltong. The aroma of these dishes wafted through the air, creating a sensory experience that resonated with the essence of South African heritage.

The event also emphasised the freedom of NICD staff to express their cultural identities. Traditional attire adorned the crowd, creating a colourful display that mirrored the mosaic of South Africa's cultural heritage. The freedom to celebrate Heritage Day in their way fostered a sense of unity and pride among NICD employees.

The success of the NICD Heritage and Diversity Park Day serves as a model for other organisations seeking to celebrate diversity in a meaningful manner. The event demonstrated that inclusivity is not just a buzzword but a tangible commitment that can be realised through well-planned and well-executed initiatives.

Looking ahead, the NICD Heritage and Diversity Park Day set the stage for future celebrations of South Africa's cultural richness. As the event becomes a recurring tradition, it will undoubtedly strengthen the sense of community among NICD staff and continue to promote the organisation's values of diversity and inclusion.

As NICD continues to lead by example, we can anticipate many more Heritage and Diversity Park Days that bring people together, creating a harmonious workplace reflective of South Africa's diverse and vibrant heritage.



From Herd Boy to Pioneering Lab Animal Technologist: Jacob Mabena's Inspiring Journey

By Nande Harmans

In the heart of Mpumalanga, Kwa Ndebele, a remarkable journey unfolds with Jacob Mabena, a Lab Animal Technologist (LAT) at the Centre for Emerging Zoonotic and Parasitic Diseases (CEZPD). Born into a life of tending his family's livestock, Jacob's path to scientific excellence was paved with determination and unwavering passion.

Jacob's pursuit of education led him on a daily 50 km odyssey to Ekangala High School, the lone institution offering science in the vicinity. His tenacity prevailed when family friends, recognising his potential, offered him a home closer to the school. The warmth and love he received during these times, especially during Christmas, remain etched in his memory.

As a former herd boy, Jacob witnessed the agony of livestock falling prey to illness, sparking his desire to make a difference. His first taste of fulfilment came when he discovered natural herbs to aid a goat struggling to produce milk. This early experience kindled his profound love for animals.

Financial constraints threatened to derail his dreams, but fate intervened. A discarded newspaper on a Putco bus floor revealed a lifeline – a bursary from Landbank. Successfully securing the bursary, Jacob embarked on an academic journey at Tshwane University of Technology, graduating in record time. His pursuit of knowledge continued at UKZN, culminating in a Master's in Veterinary Technology.

Jacob's expertise now extends to contributing to the South African National Standard on the Care and Use of Animals for Scientific Purposes. With a unique skill for healing animals using natural plants, he aspires to pursue a Ph.D. in Ethno-Veterinary medicine.

Currently, at the helm of the CEZPD Animal Annex Project, Jacob leads the charge in creating a state-of-the-art Animal Unit for Lab Animal Research. His vision includes rigorous scientific requirements and safety measures for the upcoming Animal Rodent Unit Plague Surveillance project.

Among the intriguing facets of Jacob's work is the role of geese and turkeys in research. They serve as vital contributors, providing blood for disease research. Jacob affectionately describes them as "pedigree animals", emphasising the responsibility scientists bear in ensuring their well-being, even undergoing annual audits by the National Council of SPCAs.

What fuels Jacob's daily smile at the NICD extends beyond his passion for excellence as a LAT. He revels in the inclusive environment, where gender-specific roles are non-existent. In a team predominantly led by skilled and trailblazing females, he champions the value of inclusion, urging recognition based on skills and experience and not marginalising one another, underscoring the importance of diverse perspectives in serving society, whether it's animals, the environment, or humans.





Celebrating the **Next Generation of Public Health Champions**

By Laura De Almeida

On the 18th and 19th of October 2023, the South Africa Field Epidemiology Training Programme (SAFETP) hosted the Intermediate Scientific Seminar and Completion Ceremony in Nelspruit, Mpumalanga, signifying a momentous occasion for its trainees. This event provided a remarkable opportunity for FETP Intermediate trainees to share their research findings and experiences, offering a vivid demonstration of their unwavering commitment throughout their training.

The FETP Intermediate Scientific Seminar and Completion Ceremony is a celebration of the accomplishments of its participants and a platform to acknowledge their significant

contributions to public health through research, investigations, and capacity building.

As the FETP Intermediate trainees shared their experiences of diving headfirst into real-world disease outbreak investigations, surveillance data analyses, and disease surveillance system evaluations, they captivated the audience, making it a moment of collective agreement that the SAFETP's contributions are not just history in the making; they are creating an exhilarating narrative of progress and achievement.

The high calibre of work produced by the FETP Intermediate participants is demonstrated by the acceptance of four abstracts at

the 8th African Field Epidemiology Network (AFENET) Conference in Mombasa, Kenya, and one abstract at the International Conference on Public Health in Africa (CPHIA) in Lusaka, Zambia.

This international recognition is a significant achievement that highlights the programme's ability to produce work that is not only relevant but also globally competitive.

With their widespread recognition, these achievements signify the programme's ability to influence and elevate public health practices, showcasing the far-reaching implications of their work.



Guarding against communicable diseases this **festive season**

By Keketso Matjane

'Tis the season for joy, warmth, and all-out celebrations! As we dive into this festive period, filled with family reunions, mouth-watering feasts, cherished traditions, and a trip down memory lane, it's essential to keep the party going without any health hiccups.

While this time might seem like the ultimate chill-out session, we've got to stay on our toes to ward off those sneaky communicable diseases and make sure everyone stays healthy for the holiday festivities. Here are some tips to ensure your festivities stay vibrant:

- 1. Get Vaccinated:** Make vaccinations your first line of defence against viruses. Vaccination not only reduces the risk of serious illness and bacteria, but also minimises the chances of hospitalisation, long-term health impacts, and mortality. This festive season, prioritise getting vaccinated to protect yourself and your loved ones from diseases such as COVID-19 and more.
- 2. Practice Good Hand Hygiene:** The holiday season is filled with festivities in the form of weddings, parties, and traditional ceremonies. These festivities account for 40% of salmonella outbreaks. This festive season, don't form part of the statistics - follow our [five keys for food safety](#) when preparing your delicious meals.
- 3. Consult Your Healthcare Practitioner:** With the advent of the summer season, areas in South Africa, particularly Limpopo, KwaZulu-Natal, and Mpumalanga, face heightened malaria risks. If you plan to travel to these regions, consult your healthcare practitioner for a risk assessment and advice on anti-malaria measures.
- 4. Stay Informed:** Stay updated on communicable diseases by relying on our platforms as a trusted source of knowledge. Subscribe to our newsletter and follow @nicd_sa on Facebook, Instagram, LinkedIn, and X to access the latest and most accurate information.



Training & Development

The World Health Organization (WHO) has just released two new training videos on assaying for insecticide resistance in malaria vector mosquitoes. These videos were developed at the Vector Control Reference Laboratory (VCRL) of the National Institute

for Communicable Diseases (NICD) in South Africa, drawing upon the institution's expertise in this field. The training videos feature three dedicated VCRL members: **Ashley Burke, Thabo Mashatola, and Avhatakali Matamba**



Ashley Burke



Thabo Mashatola



Avhatakali Matamba



The videos can be accessed by scanning the following QR codes.

Achievements



SAFETP Trainees Showcase Their Impact on Public Health:

Wellington Maruma, who serves as the North West Provincial Epidemiologist, received recognition for leading Epidemiology, Surveillance, and Outbreak Response, ensuring the province's effective epidemiology programme. This award was conferred by the MEC, DDG, and Chief Director of the North West Province.

South Africa FETP scooped four awards at the 8th African Field Epidemiology Network (AFENET) Scientific Conference, which has recently ended in Mombasa, Kenya. This is a huge achievement, given that more than 400 abstracts were presented at the conference. Brian Brummer, currently a resident of SAFETP at NMC, secured the Best Scientific Public Health Innovation award (first position) at the AFENET conference in Kenya on the 10th of November 2023.

In the Advanced FETP category, Naledi Mapitja excelled in the Best Oral Poster Presentation, while Lethukuthula Zondi secured the first runner-up position for the same category. Additionally, in the Intermediate FETP category, Sifiso Sithole stood out in the Best Oral Presentation and achieved the second runner-up position, marking another noteworthy accomplishment for the programme.