

2021

ANNUAL REPORT

**Creating
a healthier
world for future
generations**



THE AURUM
INSTITUTE



**Aurum is
an African
organisation
advancing health
science and
innovation**

Vision

Creating a healthier world for future generations

Mission

Aurum generates evidence for policy and translates policy into practice to positively impact the health of communities globally

OURFOOTPRINT



Aurum's headquarters are in Johannesburg South Africa, with a staff presence in the USA, as well as operations in Ghana and Mozambique.

 Aurum Footprint
 Aurum Offices

www.auruminstitute.org

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Message from the Board Chairperson **Ms Phangisile Mtshali**

I would characterise year 2021 as a year of adapting and building resilience at Aurum. We pivoted and seized opportunities brought by the COVID-19 crisis and its aftermath. We restructured and reorganised ourselves from our board to operational units, adapting to meet our planned growth. We paused, reevaluated our organisation and adapted our structures so that we can better serve in our chosen health priorities and support our strategy for sustainability and survival. We deployed technology solutions with the launch of our ERP platform.

The board focused on managing the organisational risk agenda and ensuring we do not compromise organisational values, ethical behaviour, and good governance practices.

When the music changes so does the dance (African proverb)

The next step in our evolution is a critical look at where to invest our expertise and efforts in the next two decades to remain a high impact organisation by addressing prominent health issues.

We want to ensure that we prevail and remain vigilant to prevent and help address new health problems as they emerge and old ones as they become urgent threats. It is our response to adverse situations and not adversity itself, that will determine our survival to serve generations to come as envisaged in our 100-year vision.

I express my appreciation to our board of directors and executives for demonstrating resilience and steering our organisation to adapt in our unpredictable business and funding environment. To our staff for showing up and giving their all, even in difficult circumstances. To our stakeholders, partners, and beneficiaries we recommit to deliver high impact interventions to improve the health status of future generations.



We have a 100-year vision thus it is imperative for us to be constantly aware that if we do not adapt to changes in our environment, we will die.

Board Chairperson
Ms Phangisile Mtshali

Board



Ms Phangisile Mtshali
Chairperson



Prof Gavin Churchyard
Group Chief Executive Officer



Dr Dave Clark
Group Chief Operating Officer



Mr Yaw Peprah
Non-Executive Director



Prof Yosuf Veriava
Non-Executive Director



Mr Nigel Unwin
Non-Executive Director



Mr Arshad Hassim
Group Chief Financial Officer



Ms Christine McDonald
Non-Executive Director



Mr Gary Tamblyn
Non-Executive Director



Ms Paula Fray
Non-Executive Director



Dr Jerry Gule
Non-Executive Director



Prof Pontiano Kaleebu
Non-Executive Director



Message from the Group Chief Executive Officer **Prof Gavin Churchyard**

The Aurum Institute is a proudly African based organisation with a vision to create a healthier world for generations to come. 2021 was a foundational year that will underpin our vision of improving health, today and tomorrow.

If you want to go far, go together (African proverb)

2021 marked the end of the Aurum strategic plan: 2017-2021 (Figure 2). During this period, we pursued a strategy of global diversification. It became evident that our existing structure would not support sustainable growth, so we completed a process of restructuring Aurum. We established an Aurum Group leadership structure, setting out clear accountabilities for the key functions of a global organisation. The global leadership team is seen in Figure 1. An Aurum Covenant of Partnership, By-laws, and Code of Conduct was developed to align country operations and affiliate companies with Aurum's vision and mission. The Covenant defines who Aurum is, how we work together, and will ensure that we go far by going together.

Partnerships are essential to creating healthier communities. We learnt the importance of maintaining strong relationships with key stakeholders, including ministries of health, funders, collaborating institutions and implementing partners.

The chameleon changes colour to match the earth, the earth doesn't change colour to match the chameleon (Senegalese proverb)

Like the chameleon, we had to learn how to adapt to various challenges this year. COVID-19 continued to affect our operations and, tragically, 11 of our staff have died of COVID-19. Despite the personal and organisational challenges, our staff continued to provide quality services to the communities we serve.



Although we were successful in renewing our PEPFAR care and treatment grant, sadly we learnt that we would no longer be the implementing partner in Ekurhuleni. This meant that we had to go through the painful process of right-sizing the organisation. I sincerely thank the staff who were affected by this process. They can all be immensely proud of their legacy, which will serve as a solid foundation for us to continue to build upon.

Prepare now for the solutions of tomorrow (Congolese Proverb)

We painstakingly developed a business investment strategy as a foundation for the overall organisational strategic plan for 2022-2027. The business investment plan provides guidance for investment decisions regarding priority donors, disease areas, new country expansion, and other supporting services required to propel Aurum into its next phase of growth and diversification. This process was ably supported by a dynamic team from Mann Global Consulting. We also initiated development of our Aurum Group Strategic Plan:

Message from the Group Chief Executive Officer **Prof Gavin Churchyard**

2022-2027 that will enable us to become a truly African based, but assuredly global, health impact organisation.

Robust financial systems are required to manage our large current portfolio of 93 grants and support sustained growth. In 2021 we implemented an enterprise resource planning (ERP) system (Microsoft Dynamics 365) with support from Altron Karabina. My sincere thanks go to the many people who worked tirelessly to ensure we have a functional and powerful ERP system to support our decision-making, strengthen our accountability to funders, and make us more efficient going forward.

As a South African-based organisation, Aurum understands the imperatives of diversity and broad-based black economic empowerment (BBBEE) as set out in the legislation of the South African government. The degree of transformation in an organisation is assessed and rated from low (a score of level 9) to high (a score of level 1). We are proud that Aurum achieved a level 1 rating for the second consecutive year, highlighting our commitment to transformation.

He who does not seize opportunity today, will be unable to seize tomorrow's opportunity (Somali proverb)

Aurum seized numerous opportunities during 2021 to improve the health of the communities we serve. COVID-19 brought with it various high-impact research and health programme opportunities that our teams will build on to propel our growth. Aurum prides itself on conducting investigator-initiated and -led research with the aim of advancing science, informing policy, changing practice, and contributing to impact on public health.

Aurum met its ambitious target of publishing 80 international peer-reviewed papers (our highest ever) and presenting at numerous international conferences. In 2021, the World Health Organisation (WHO) published its guidelines and handbook on TB screening, which

cited numerous Aurum publications. In recognition of Aurum's scientific contributions, six people received adjunct appointments at Vanderbilt University. They are an inspiration to us all.

Glory does not come by calling (Kenyan proverb)

Achieving "glory" does not come without commitment, perseverance, and hard work. The newly established Business Development Unit submitted 100 grants during 2021. We were thrilled to be awarded two grants that will contribute to public health impact. The IMPAACT4C19 grant, funded by UNITAID, aims to support the adoption and uptake of new diagnostic approaches and therapies for outpatient management of COVID-19 in low- and middle-income African countries. Aurum, through the TB LON project, is providing technical and clinical support to the South African National Department of Health (NDoH) to strengthen both the drug-susceptible and drug-resistant TB programmes and to effectively deliver on the NDoH TB diagnostics, surveillance and programmatic agenda. The Aurum team was also selected to support the Western Cape Province government initiative between US and South Africa.

Aurum Innova, an Aurum affiliate company, managed to turn its operations around and become profitable in 2021. Well done to the Innova team. The team at Youth Health Africa (YHA) continues to find innovative ways to create opportunities for young people to be employable and employed. They broadened its revenue and service bases beyond the Aurum Group and are even lining up to take their concept of youth empowerment into the continent of Africa. We wish them every success and hope that they will soon be headed to glory.

We should put out a fire while it is still small (Kenyan proverb)

With treatment or vaccines to prevent disease, we can put out fires while they are still small. The IMPAACT4TB

programme was spectacularly successful in catalysing the global scale up of short-course TB preventive treatment with two antibiotics taken weekly for 3 months (3HP). By catalysing scale up of 3HP we substantially contributed to averting TB cases and preventing deaths in the 12 high-burden countries in which we work, and globally. Concurrently, the prices of the drugs needed for this form of TB prevention were radically reduced.

The Aurum team contributed substantially to evaluating COVID-19 vaccines and supporting the national COVID-19 vaccine roll-out by administering >150,000 COVID-19 vaccines in 2021.

"Part of being optimistic is keeping one's head pointed towards the sun, one's feet moving forward."
Nelson Mandela

Kofi Annan, a proud son of Africa and remarkable humanitarian once said, "I am a stubborn optimist, I was born an optimist and will remain an optimist." I, too, am an optimist, and I am eager to start the next phase of our journey towards becoming a locally responsive organisation doing globally relevant work. I fervently believe that Aurum's vision is "pointed" in the right direction. I am confident that we will achieve our vision through the efforts of Aurum's industrious teams as they keep "moving forward" with the intent of creating a legacy of a healthier world today, and for generations to come.


Group Chief Executive Officer
Prof Gavin Churchyard

Group Executive Leadership

Figure 1.



Prof Gavin Churchyard
Group Chief Executive Officer



Prof Dave Clark
Group Chief Operating Officer



Mr Arshad Hassim
Group Chief Financial Officer



Prof Salome Charalambous
Group Chief Science Officer



Mr Michael McMillan
Group Chief HR Officer



Prof Regina Osih
Group Chief Global Health Officer



Ms Karin Kanewske Turner
Group Chief Growth Officer

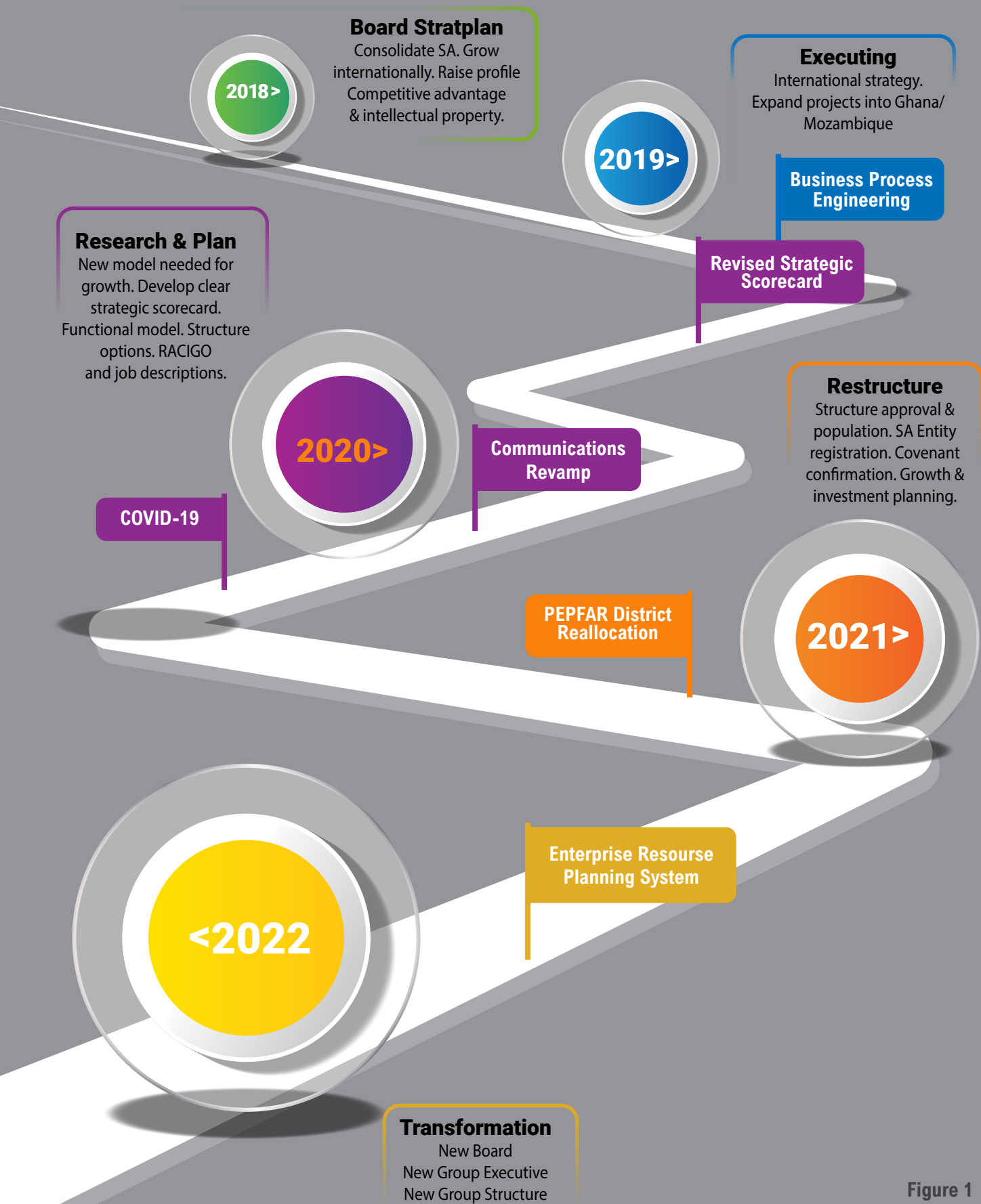


Figure 1

Chief Operating Officer's Message **Prof Dave Clark**

The famous personal mastery guru, Steven Covey, turns to Ethiopian wisdom in his book "The 7 Habits of Highly Effective People." He writes, "When you pick up one end of a stick, you also pick up the other." There are several interpretations of this proverb, but the one I like most proposes that when you take up a new challenge or opportunity for its benefits or rewards, you also take up accountability for its obligations and risks.

When we take up a new clinical trial to advance medical science, we take up the obligation to meet the enrolment and follow-up targets as well as the ethical conduct of the study. When we sign a new health programme grant, we also agree to perform to the standards and targets set by the funder. When we accept funds from a donor, we simultaneously undertake to give an account for every dollar awarded. When we start a new programme in a country or district, we promise to ensure that our work ultimately leads to the improvement of people's lives and not just our own gratification.

These and many other benefit/responsibility combinations played out during 2021. Aurum has been a longstanding partner in the HIV Vaccines Trials Network (HVTN), and every trial we have undertaken under its banner has required us to deliver to strict international standards. In the main, the team has met or exceeded these expectations. This has led to Aurum being considered and funded for new studies in COVID-19 prevention and treatment during the past two years. A similar story played out with IMPAACT4TB, where excellence in delivery against the grant requirements led to major global policy shifts on 3HP for TB Preventive Treatment and, consequently, further grant funding and

project extension in South Africa, Mozambique and Ghana.

This pattern of high-quality delivery to honour our promises leading to new work opportunities remains the best insurance against ongoing funding uncertainty in the global health space. This will continue to be the case for 2022 and in the next 5 years of our strategic planning cycle.

There were many other operational successes in 2021: the reduced in-person office attendance gave rise to new reliance on online technologies and collaboration capabilities, with concomitant savings and increased staff safety due to reduced travel; the Corporate Operations team installed major improvements to our stock management and asset warehousing systems to better account for our assets; and the Communications team developed and rolled out excellent new platforms for improved communication with staff and stakeholders that highlighted the depth of the leadership talent at Aurum.





Regrettably, it is as much true that when we pick up the end of the stick of a grant and fail to deliver on our undertakings, we also pick up the other end of the stick: the consequences of funders reassessing their commitment to us. We had to face this tough reality in the decision by PEPFAR to award the Ekurhuleni District to another partner. The pain was felt especially among many loyal staff members who had to move on from Aurum. Perhaps it is necessary for us to face this kind of pain from time to time so that we are immunised against complacency or any sense of entitlement to the goodwill of our funders.

I am always amazed to look back on Aurum's journey to compare where we have come from to where we are now. Since Aurum became an independent non-profit organisation in 2005, we have managed over R10 billion in grants aimed at our vision of impacting global health for today and generations to come – all with the highest levels of ethical governance and accountability to our shared values.

I would like to thank every person in the operational teams and support services across the Aurum Group for persevering in very stormy times to deliver on our promises. I especially laud those who are not in the limelight who show up every day to contribute to our vision, unheralded but nonetheless essential to getting things done well.

As we pick up the stick for the next five years, let us commit to the operational excellence expected of us as an organisation that aspires to be relevant for the next 100 years.

Group Chief Operating Officer
Prof Dave Clark

Group Chief Financial Officer's Report **Mr Arshad Hassim**



2021 was challenging but rewarding year, with positive developments and progress on our main initiatives of ensuring organisation stability, sustainability and efficiency.

We have exhibited continued financial discipline and managed our costs by driving efficiencies at all levels of the Group. These initiatives enabled the Aurum Group to continue to deliver on our vision: "Creating a healthier world for future generations".

We made further progress on increasing efficiencies in the finance organisation by implementing the Microsoft Dynamics 365 Enterprise Resource Planning (ERP) system. I am very grateful to our Finance and ICT teams across the business for achieving this milestone and for working with such commitment, dedication, urgency and determination while still providing invaluable strategic, professional and administrative support to the Aurum Group.

We have continued the close engagement with our funders and auditors – not only virtually but also by resuming physical meetings, which was among my personal highlights.

As we begin to emerge from the pandemic, we will need to revisit our long-term goals and develop a new 5-year strategy to achieve a positive impact on the lives of the people we serve, today and for generations to come.

Our strategic transformation journey is well underway. The Finance and ICT functions play a key enabling role in supporting strategic delivery by leveraging our capabilities and competitive advantages for the key Aurum strategic pillars of systems and governance, sustainable financial reserves, business investment for growth and enabling a performance culture, risk management, and compliance.

We can take a few lessons from our forebears in many societies around the world who initiated ambitious, carefully considered projects purely for the benefit of future generations. These were often grand constructions that took centuries to complete: St Peter's in the Vatican (144 years), The Leaning Tower of Pisa (199 years), the Mayan Chichen Itza (400 years), and the Great Wall of China (2 000 years). Having a vision that spans multiple generations is called Cathedral Thinking. It embodies vision, planning, and long-term commitment. Our strategic pillar Business Investment for Growth is a great example of this. This is what Aurum's vision is about – looking to the present and benefiting others we may never even share the planet with.

I extend my sincere appreciation to our Board, auditors, and to our Group Finance and ICT teams for their dedication and commitment in striving to achieve the highest standards of financial reporting and intelligence, discipline, and corporate governance. I would also like to thank our valued funders for their vision and continuing support, without which our vision to serve future generations would be short-lived.

As we pursue our strategy and vision, there is a Sudanese proverb that rings true: "We desire to bequeath two things to our children. The first one is roots; the other one is wings."

A handwritten signature in black ink, appearing to read 'Arshad Hassim'.

Chief Financial Officer
Mr Arshad Hassim

Project Spotlight: ERP Implementation

Sustainable solutions enabling decision making for future generations

Most businesses today face the challenge of having disparate systems and disconnected processes, thus there is an overgrowing need to consolidate, integrate and optimise. Aurum embarked on an ERP solution due-diligence process and subsequent implementation project during 2020 and 2021.

The decision was made to implement Microsoft Dynamics 365 (D365) as it represented a good fit with respect to the business requirements identified, as well as the overall ICT strategy/roadmap of Aurum.

Two modules within D365 were prioritised, namely Finance and Operations (F&O) and Customer Engagement (CE). The prioritisation was based on ensuring that the foundational elements of the system be implemented first. That will lead to sustainable grants management and finance processes that address funder requirements. These building blocks would also assist future generations within the organisation to expand on the existing modules of the ERP by

ensuring Aurum continuously improves whilst staying competitive.

They will also provide us a wealth of information through a central database containing information about all leads, grants, and grant renewals that Aurum applied for, or grants that have been awarded. The implementation will ensure sustainable solutions by providing historical and current information about grant applications, and the relevant accompanying documentation will be stored centrally and readily available to authorised staff. Aurum will also have a central database containing information about past, current and potential leads and opportunities, which will ensure that institutional knowledge is retained, and our knowledge base is managed accordingly.

The implementation of the grants management solution is a fantastic enhancement and improvement on current processes. The linking of the CE module with the F&O module also ensures that there is alignment between business processes and the financial aspects thereof and provides Aurum with an opportunity/ capability to analyse this data across the business.



Group Chief Scientific Officer's Report Prof Salome Charalambous

2021 brought with it with many obstacles and difficulties. Probably one of the biggest successes of 2021 was the roll-out of COVID-19 vaccinations, and Aurum is proud to have been at the forefront of many of the trials that were conducted, such as the ENSEMBLE and Novavax trials. Our clinical trials units contributed substantially to the vaccine roll-outs, providing technical support and assistance to the NDoH.

Even though COVID-19 caused a fair amount of distraction, we continued to support the control of TB and HIV. We started large, new, multi-country projects in the field of TB and HIV. The OPT4TPT project, which is being done in South Africa, Zimbabwe and Ethiopia, will ascertain how TB preventive therapy (TPT) implementation can be optimised, and cost data will update and refine ongoing analyses of cost-effectiveness of TPT. The CUT-TB project started in South Africa, Lesotho and Tanzania, and will evaluate new models for TB contact tracing and will provide important economic, microbiological and paediatric insights into TB contact tracing.

Aurum scientists at conferences

During the year, Aurum scientists were significantly involved in virtual conferences. At the SA TB Conference, Aurum's CEO presented in a plenary session on State of the ART: Preventive Therapy. We also represented Aurum with five oral abstract presentations and two posters. This year's Union conference hosted two Aurum-led symposia, one on TB preventive therapy in children ('ABCs' of Scaling up 3HP in Children) and another on Tuberculosis contact investigation. There were also seven presentations from Aurum scientists, including a late-breaker presentation by Prof Robert Wallis on N-acetylcysteine (NAC) in Tuberculosis and a presentation by one of our PhD



students, Farzana Sathar, on patient delays in accessing TB care in four African countries from the TB-Sequel study.

There were also six posters presented and other presentations from IMPAACT4TB from Zimbabwe and Ethiopia. We also had an oral presentation at the ICASA conference in December 2021 on the evaluation of the Youth Health Africa project.

Publications

We built on the work started in 2020 during the COVID-19 lockdown period our writing workshops, continued into 2021. They were very fruitful, with 81 Aurum peer-reviewed and five non-peer-reviewed publications: 24 publications with Aurum first or last authors; and 22 with a high-impact factor. The publications included four systematic reviews, two of which contributed to WHO guidelines on TB screening:



Group Chief Scientific Officer
Prof Salome Charalambous

Tuberculosis screening among people living with HIV; Lifetime burden of disease due to incident tuberculosis; TB preventive therapy for people living with HIV; and the effectiveness of Contact Investigation among Contacts of Tuberculosis Patients.

Several publications from the biomarker-guided tuberculosis preventive therapy (CORTIS) trial were also published. We were also excited to publish the data on safety, uptake, and use of a dapivirine vaginal ring

for HIV-1 prevention in African women (HOPE) in Lancet HIV. Three pivotal publications from clinical trials included the results of the HVTN-702 trial (Vaccine Efficacy of ALVAC-HIV and Bivalent Subtype C GP120-MF59 in Adults); the Efficacy of NVX-CoV2373 Covid-19 Vaccine Against the B.1.351 Variant published in the New England Journal of Medicine; and the Annual Tuberculosis Preventive Therapy for Persons With HIV infection (WHIP3TB trial) published in the Annals of Internal Medicine.



Dr Matsie Mphahlele



Dr Jody Boffa



Dr Lindiwe Tsope



Farzana Sathar

Appointed **3** new
PhDs to our scientific
expertise in 2021

4 new candidate
PhDs enrolled
in 2021

2 new mid-level
statisticians
appointed in 2021

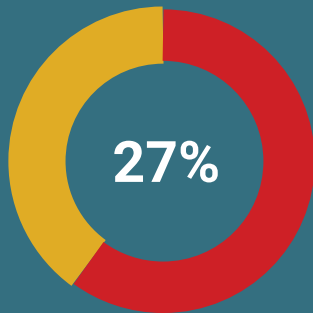
Growth and opportunities

We appointed three new PhDs: Dr Matsie Mphahlele, Dr Jody Boffa and Dr Lindiwe Tsope, adding significantly to our scientific expertise. We also appointed two mid-level statisticians: Batsirai Murapa and Matthew Oladimeji. In 2021, four new PhD students were enrolled: Fadzai Munedzimwe, Nolundi Mshweshwe-Pakela, Nasiphi Ntombela, and Farzana Sathar.

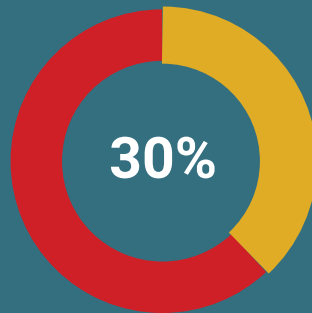
Aurum was presented with one of its biggest opportunities to contribute on the global stage in TB Research. The SMART4TB opportunity, through USAID, was announced on 1 December 2021 with deadline of 31 January 2022, meaning that many team members had to forego their Christmas break. Together with South African, African and international partners, we submitted a formidable application to develop and implement TB research projects in 24 countries. We also look forward to starting some large international TB treatment projects, namely the Horizon 2020 Host-directed therapy trial and the EDCTP-funded Pan TB trial in 2022. We are optimistic and excited about the new year.

KNOWLEDGE DISSEMINATION

In the year 2021, Aurum has contributed significantly to advancing science:



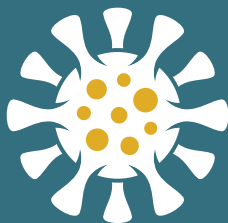
in high-impact
publications



as first and
senior authors



increase from the
previous year



Contributed to **12** clinical trials
across treatment and prevention
of COVID-19



A total of
81 papers authored
by Aurum staff in the
scientific literature

Research Spotlight: The ASCENT Project

ASCENT, the Adherence Support Coalition to End TB, is a UNITAID-funded coalition made up of Aurum, South Africa; KNCV, Netherlands; PATH, Ukraine; and London School of Hygiene and Tropical Medicine (LSHTM), United Kingdom. The project aims to implement and evaluate digital adherence technology (DAT) systems linked to a web-based adherence platform to create a differentiated response to adherence among adult TB patients. The project has a large evaluation component to understand the effects of DAT on TB treatment outcomes, as well as to understand patient and health worker experiences of use of the technologies. Through LSHTM, we will evaluate the cost-effectiveness and model the impact of using DAT technologies compared to standard of care from health system and societal perspectives, relative to country-specific cost-effectiveness thresholds.

After substantial delays due to COVID-19 restrictions, we were finally able to start the project in 2021.

By the end of 2021, there were 2 500 TB patients started on digital adherence tools across 5 districts in 3 provinces of South Africa. Most patients were drug-sensitive TB patients that were started on the MERM device, which is an electronic box that organises medication, sends alerts for dosage and refill, and digitally records opening events.

Early data from the electronic database indicates that approximately 80% of participants are reaching 90-100% adherence, with another 10% reaching 80-89% adherence. A very small proportion are achieving less than 70% adherence. We are particularly excited about the 443 drug-resistant TB patients who have also been enrolled in partnership with NDoH, Isibani and TB HIV Care as part of the Global Fund project. In the City of Cape Town, we are also including a psychosocial assessment at the start of TB treatment to determine which patients need further psychological or social support for treatment adherence. The project will complete enrolment in June 2022 and results will be available by December 2022.



Other achievements

50 youths from communities in which we work were empowered with 12-month internships to support implementing clinics. They were given 2 weeks of research training and training in Good Clinical Practice. Slow enrolment was encountered at the start of the project due to reduced testing at clinics, since COVID-19 testing took priority.

Our research teams worked with the clinics to increase TB testing. Enrolment in the Phoenix trial in Rustenburg improved substantially after the ASCENT team was engaged to assist.

Group Chief Global Health Officer: Aurum's COVID-19 Programmes **Prof Regina Osih**

The COVID-19 pandemic created ongoing opportunities for Aurum to provide expertise to the ministries of health through support of various technical working groups in Ghana, Mozambique and South Africa. In 2021, Aurum also competed for and secured a new grant from UNITAID to cover COVID-19 work in 5 countries: South Africa, Ghana, Mozambique, Ethiopia and Philippines, the latter two being covered by our partner, KNCV.

This grant aims to improve access to key commodities across the diagnostic and therapeutic realms in low-and middle-income countries and to generate evidence for the use of these commodities in these countries. Through this work, Aurum will be able to consolidate its work in the COVID-19 response across the national and international global health space and expand its recognition as a key player in market access dynamics. Aurum will be able to generate evidence on use cases for self-tests in various settings, develop an innovative test-and-treat package for outpatient care for COVID-19, and establish the need and use for digital tools in linkage to care.

2021 also saw Aurum increase its on-the-ground activity for the delivery of COVID-19 vaccines, with support for communication around vaccinations, increase in rural vaccine coverage in South Africa, and partnering with the Solidarity Fund to increase access to vaccinations in South Africa.

Solidarity Fund-supported vaccinations

Aurum commenced COVID-19 vaccinations in August 2021, supported by the Solidarity Fund.



Along with our affiliate partners, Innova, YHA and CHAPS, we deployed 56 mobile teams to operate across 7 provinces and achieved a cumulative 158 298 vaccinations up to 7 March 2022. Aurum services comprise vaccination teams at retail settings with high foot traffic, rural outreach through mobile services, and school-based services. Closely collaborating with local Departments of Health and the Department of Basic Education, Aurum supported school-based vaccination programmes in reaching 12–17-year-olds and provided mobile vaccination services to more than 50 schools since late January 2022.

CDC-supported vaccinations

Aurum received an award from the Task Force for Global Health (TFGH), supported by the CDC, to expand vaccine accessibility to rural and underserved communities. From December 2021, Innova and YHA deployed 5 teams to the districts of Bojanala and Dr Kenneth Kaunda in the North-West Province and expanded to the district of Ruth Segomotsi Mompati in February 2022 with an additional two teams. We have since reached just over 15 800 people with vaccine services.

Demand Creation

Our vaccination reach is augmented by several demand creation strategies and campaigns. With support from CDC, Aurum funded and spearheaded the development of the GenV campaign aimed at addressing vaccine hesitancy across South Africa, Mozambique and Lesotho. The campaign reached an estimated 19 million viewers across mass media networks including TV, Radio, out-of-home (OOH) media and social media.

Aurum currently receives Corporate Social Responsibility funding from Accenture to develop locally relevant campaigns and messaging across 6 districts in the Eastern Cape, North-West and Gauteng. Aurum and YHA are partners of the national Zwakala campaign, focused on addressing vaccine

hesitancy and promoting vaccine uptake among 18–34-year-olds. This campaign has reached over 1 million people through OOH and social media. An estimated 55 000 people in the 6 districts have been successfully linked to vaccination services since October 2021.

Quality Assurance

Aurum was recently awarded a service level agreement with Anglo American to undertake several quality assurance and quality improvement initiatives across 11 of its mines in South Africa for nine months. Aurum will be providing external quality assurance assessments and on-site mentorship as well as monthly quality improvement monitoring to support quality standards and transparency of the Anglo American vaccination programme.



The Aurum Institute contributed to improving knowledge and delivering COVID-related services in various ways:



3 519 COVID-19 diagnostic tests conducted at Aurum's labs in support of the national response in SA



Installed **256** Shesha Geza Washbasins to provide an innovative solution for improved hygiene and hand sanitation at health centers in South Africa



172 348
COVID vaccinations administered through various sources of funding



Actively executing **12** Clinical Trials to assist in finding a new vaccine and or treatment for COVID-19



1 011 000 educational material on COVID-19 distributed in Ghana.



Assisted the national vaccine programme with storage for **151 710** vials of Pfizer vaccine at our research facilities in the North West, South Africa, representing **888 670** doses of vaccine

> Group Chief Growth Officer's report: Business Investment Strategy **Karin Turner**

In 2021, Aurum embarked on a process to develop a new Business Investment Strategy (BIS) to build a foundation for the organisational strategic plan for 2022-2027. Its goal is to support key Aurum leadership, decision-makers and other staff to make clear investment decisions around priority donors, vertical health/disease areas, cross-cutting areas, new country expansion, and other supporting services required to propel Aurum into its next phase of growth and diversification.



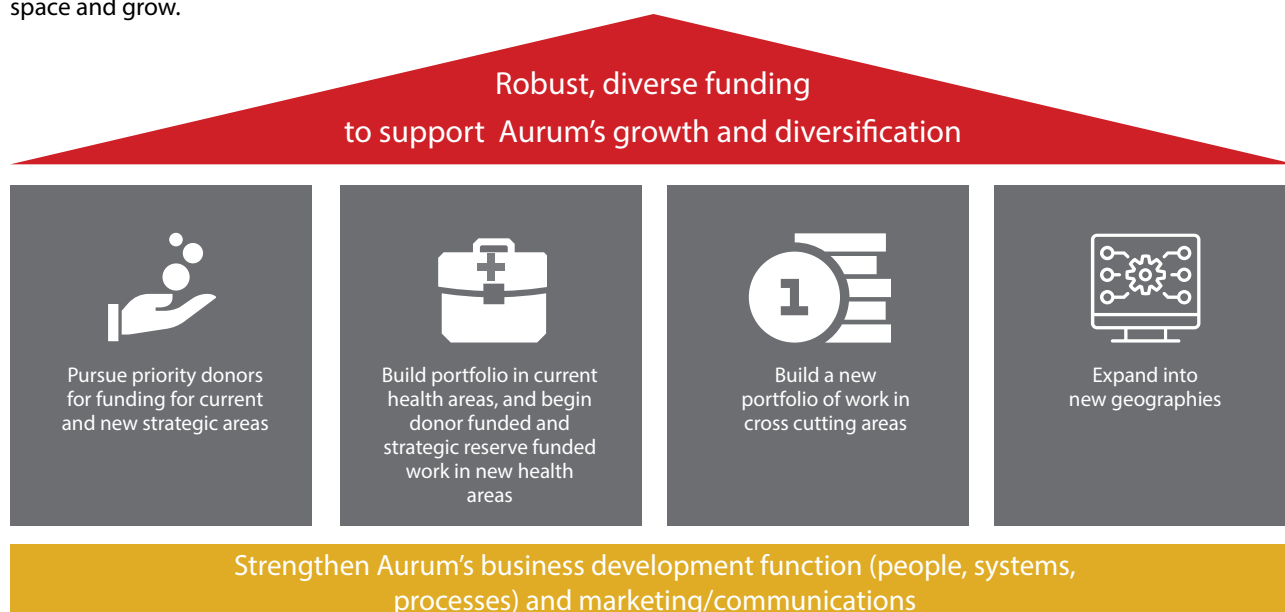
WHERE DO WE WANT TO GO?



TIMELINE:

5-years from 2022-2027

The overlap between these three areas is the foundation of understanding who Aurum is and what it wants to do. It includes identifying Aurum's unique selling proposition and opportunities to successfully compete in a chosen space and grow.



> 2021 HIGHLIGHTS

Gita Ramjee Prize

The Aurum Institute, in collaboration with the International AIDS Society, created the inaugural Gita Ramjee Prize in honour of Aurum's late Chief Scientific Officer Prof Gita Ramjee.

The prize will be presented at every HIV Research for Prevention Conference (HIVR4P). It recognises leading female scientists in the field of HIV prevention research who demonstrate the principles and practices that Prof Ramjee embodied in her life and career. She was committed to uplifting disadvantaged communities, promoting gender transformation, and generating solid evidence in her field.



In January 2021, Dr Nelly Mugo became the first recipient of this prize. Mugo is the Senior Principal Clinical Research Scientist at the Kenya Medical Research Institute (KEMRI) and a Research Associate Professor at the Department of Global Health in the University of Washington, USA.

Aurum at the 11th IAS Conference on HIV Science

Aurum experts presented at the 11th International AIDS Society (IAS) Conference in July 2021. Prof Gavin Churchyard presented on the current state of the TB/ HIV epidemic in a symposium on advances in TB and HIV diagnostics and treatment.

Dr Tonderai Mabuto, Aurum Director: HIV Research, presented an abstract on the uptake of a rapid HIV point-of-care diagnostic test to increase the reach of HIV testing services in public sector clinics in South Africa.

Dr Pearl Selepe, Klerksdorp Clinical Research Site Leader, and Marthinette Taljaard, Quality Assurance Head of Department, co-authored an abstract with Dr Nelly Mugo, titled "HPV increases HIV risk in African women: advancing the argument for HPV immunization".



Aurum Clinical Research conducted
COVID-19 studies with more than
40 000 participants

> Aurum 2021 highlights

Aurum receives part of US\$ 50 million FIND and Unitaid COVID-19 grant

The Aurum Institute, with partner KNCV, was awarded a portion of a US\$50 million grant to quickly deliver new end-to-end strategies that will accelerate and enhance improved access to COVID-19 diagnostics and treatment, while continuing to build capacity for test-trace-isolate and treatment efforts to contain the ongoing spread of the virus.

FIND and UNITAID made the funding available to address inequities in access to COVID-19 testing and treatment, supporting early adoption of comprehensive care packages in low- and middle-income countries across Africa, Southeast Asia, Latin America, and the Western Pacific.



Aurum hosts Deputy Minister in the Presidency

About a year after the March 2020 confirmation of the first case of COVID-19 in South Africa, the country started vaccinating health workers in the first phase of the national vaccine roll-out. Aurum supported the North-West province roll-out, with staff seconded to vaccinating hospitals. As custodians of vaccine doses, Aurum was responsible for managing the cold chain, injection preparation, and accounting for every dose.

The Aurum Clinical Research sites in Klerksdorp, Tembisa, Rustenburg and Pretoria conducted seven COVID-19 studies with more than 40 000 participants. These sites were also part of the Sisonke vaccine roll-out.

IMPAACT4C19

In 2021 Aurum was asked to propose interventions to address the lack of access to key commodities to manage the COVID-19 pandemic in lower and middle income settings. Aurum partnered with KNCV to propose a 12 month project that would gain key insights through research on the use of novel diagnostics such as self-tests as well as drive the uptake of essential new drugs needed in the fight against COVID-19.

The IMPAACT4C19 (Improving Public Health Outcomes through Enhancing Accelerated Access to Care and Treatment Innovation for COVID-19) project was approved for US\$8.3 million and started in September 2021. Aurum is implementing this project in Ghana, Mozambique and South Africa, and KNCV is implementing in Ethiopia and the Philippines. Through this additional stream of funding from UNITAID, Aurum will play a key role in clarifying the evidence, pathways and processes to ensure access to essential diagnostics and therapeutics.

➤ Aurum 2021 highlights

Aurum MD appointed at UNISA

Professor Geoffrey Setswe, Managing Director: Implementation Research Division (IRD), was appointed as a Professorial Research Fellow at the University of South Africa (UNISA). Prof Setswe's role in the university's Department of Health Studies includes improving research capacity by supervising PhD candidates and contributing to research publications. He has previously supervised or co-supervised 45 completed Masters' and Doctoral degrees in public health and health sciences and has more than 70 publications.



Aurum at 52nd Union World Conference on Lung Health

In October, eight Aurum experts presented the latest research on various projects at the virtual 52nd Union World Conference on Lung Health, which was themed, "Lung Health for All: Solutions for a New Era".

Aurum's technical presence included symposium presentations by Prof Gavin Churchyard on the role of TB preventive therapy on eliminating TB and an introduction of the CUT TB trial by Prof Salome Charalambous. There was also a symposium by the Aurum-led IMPAACT for TB project titled "The ABC's on Scaling up 3HP in Children".

Oral presentations were made by Prof Violet Chihota, Chief Specialist Scientist, Prof Robert Wallis, Chief Scientific Officer: Host Directed Therapy, and Farzana Sathar, Junior Research Manager.

Prof Charalambous, Health Economist Rachel Mukora, and Fundação Aurum (Mozambique) Country Director Prof Emilio Valverde also presented e-posters with Dr Matsie Mphahlele, Senior Technical Advisor, co-moderating an oral abstract session on TB: transmission to treatment.

Aurum at 6th International Conference on AIDS and Sexually Transmitted Infections in Africa (ICASA)

The Aurum Institute, in partnership with WHO, hosted a high-level round table discussion on the Status of TB Prevention in Southern Africa at the 6th International Conference on AIDS and Sexually Transmitted Infections in Africa (ICASA). The conference was held virtually in December 2021 under the theme "Africa's AIDS response: The race to 2030 – Evidence. Scale Up. Accelerate."

As Secretariat of the South African Health Technologies Advocacy Coalition (SAHTAC), Aurum in collaboration with Amref Health Africa, Coalition for Health Research and Development (CHReaD), and Advocates for the Prevention of HIV in Africa (APHA) hosted a breakfast meeting on the sidelines of ICASA. Discussions were held on assessing the state of domestic funding in health research and development in Africa. Panelists interrogated the importance of investing in health to improve quality of health by ensuring that innovative health technologies reach the most vulnerable.



AURUM GHANA





3HP Launch in Ghana

IMPAACT4TB

IMPAACT4TB is being implemented with the Ghana Health Service in partnership with NACP and NTP in 4 regions using national reporting systems. The project uses existing logistics management systems and avoids duplication while cascading capacity building for implementing staff. The target is to enrol 9 000 PLHIV and household child contacts up to 34kg of TB index cases. The first batch of 3HP arrived in-country in March 2021 and a total of 4 741 patient courses were distributed to the implementing sites through Regional Medical Stores.

LAUNCH OF 3HP

3HP was launched in Ghana on 20 April 2021 at Agormanya in the Eastern Region of Ghana. The launch was attended by officials from the NACP, NTP, the Regional and District Health Directorates, traditional leaders, CSOs and management and staff of the facility. It was covered by both print and electronic media and streamed on Aurum Ghana's Facebook page. Patient enrolment onto 3HP commenced immediately, with Ghana being one of the first countries in the world to administer the new patient-friendly short-course TPT to patients.



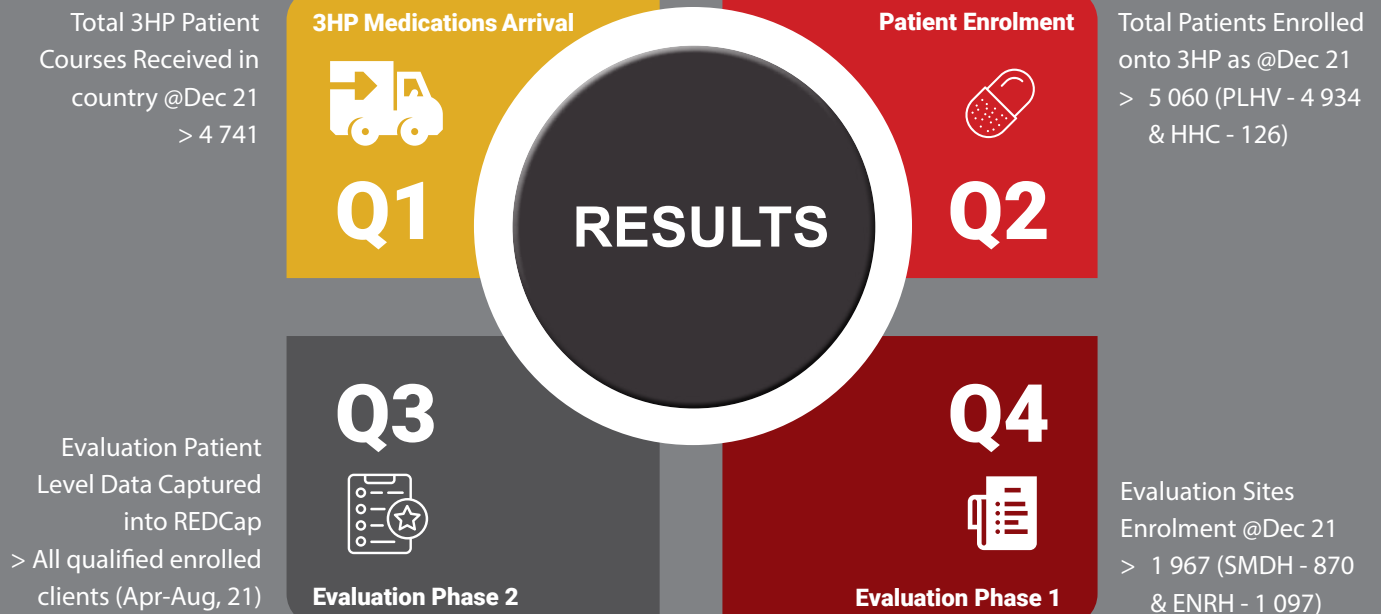
EMERGING LEADER

Jabina Anaman
Programme Manager

Jabina Anaman is a professional nurse and public health practitioner who has been working on implementing public health interventions for 19 years. She has worked in government and NGOs in programme management, clinical care, health systems strengthening, management and health administration at the community, district, and national levels. Ms Anaman holds a Master's degree in Public Health and is determined to take advantage of the opportunities she has at Aurum to work towards becoming a technical expert.

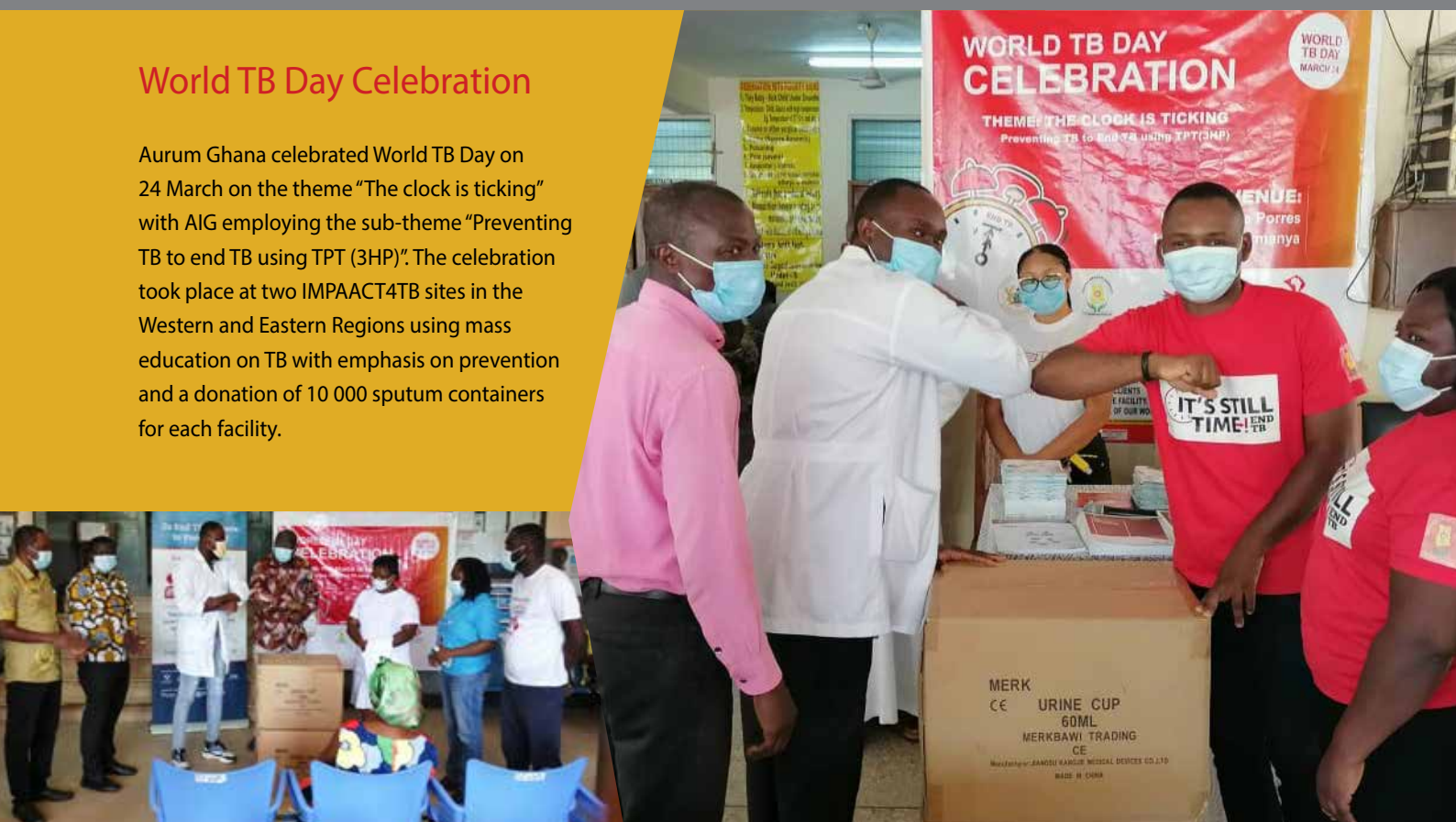
"I love being a healthcare professional and sharing the extensive knowledge and experience I have gained with others. What motivates me most is working for and with people."

PROJECT PROGRESS AND IMPACT



World TB Day Celebration

Aurum Ghana celebrated World TB Day on 24 March on the theme “The clock is ticking” with AIG employing the sub-theme “Preventing TB to end TB using TPT (3HP)”. The celebration took place at two IMPAACT4TB sites in the Western and Eastern Regions using mass education on TB with emphasis on prevention and a donation of 10 000 sputum containers for each facility.



> Aurum Ghana

ANTIMICROBIAL RESISTANCE (AMR)

The Fleming Fund Country Grant 1A (CG1A), Antimicrobial Resistance (AMR) project was implemented by Aurum Institute Ghana with Mott MacDonald Limited as the Management Agent for this award. The implementing period of the grant was from 14 December 2020 to 31 October 2021. CG1A continued off from an initial CG1 grant implemented by University of Ghana Office of Research Innovation and Development (ORID) and was designed as a bridging project with a specific scope of work.

The key scope of work of CG1A was to:

1. Refurbish 11 sentinel reference and surveillance laboratories (8 Human Health and 3 Animal Health).
2. Provide and maintain essential equipment.
3. Assure a continuous supply of appropriate reagents and consumables.

All programme activities specified within the scope of work were accomplished. Aurum Institute Ghana coordinated quarterly progress meetings of all Fleming Fund Ghana grantees and the Ministry of Health AMR secretariat. AIG is in the process of officially handing over major equipment installed to the government of Ghana.



**INSTALLED
AMR LABORATORY
EQUIPMENT**





WFP COVID-19 ANTI-STIGMA CAMPAIGN

AIIG collaborated with the United Nations World Food Programme (WFP) to promote education in the COVID-19 Anti-Stigma campaign.

The activities included:

- Developing educational and anti-stigma messaging leaflets.
- Community health volunteers' Anti-Stigma Campaign in Ayawaso West Municipality.
- Engaging a COVID-19 Ambassador to sensitise the masses.
- Disseminating anti-stigma messages on traditional and new media.

AMR PROJECT CLOSE OUT CEREMONY



IMPAACT4C19

Implementation commenced in September 2021 with a landscaping phase. The landscape analysis involved a review of relevant national guidelines and manuals, as well as interviews with several key stakeholders in the health system. The analysis, undertaken by a consultant, covered national testing guidelines, availability and use of specific therapeutics in case management, the regulatory regime governing COVID-19 commodities, procurement and supply chain systems, as well as the incorporation of digital tools within the national response strategy. The summary of the findings has been presented in stakeholder engagements as part of the formative phase of the project. Those findings also form the basis of planned activities to be implemented under the various work areas of the grant. This includes plans to introduce antigen rapid tests into mobile- and facility- based bidirectional screening for TB and COVID-19; to facilitate the revision of national antigen testing guidelines to include self-screening and community testing; and to support country forecasting and quantification for essential COVID-19 commodities.

AURUM MOZAMBIQUE





EMERGING LEADER

Ms Agagá Tembe Cuambe

Financial and Operations Manager: Fundação Aurum

Agagá Tembe Cuambe is a certified accountant with a Master's degree in Business Management. Her work entails providing leadership and support for projects by setting up project offices, financial systems, operations and logistics, staff administration and general project management. She oversees research and programmatic projects from start-up to close-out. Ms Cuambe has worked on several donor projects: USAID, CDC, UNITAID, UNICEF, UNOPS, DFID (FCDO) at Aurum.

"I am passionate about achieving results. The impact on public health achieved through the people I work with who implement the projects is my driving force."

2021 has been a year of tremendous growth and transition within The Aurum Institute in Mozambique. In January, the team consisted of only 6 staff members, while in December, it had increased to 26 employees.

The local entity, Fundação Aurum, legally registered in November 2020, convened its first Board meeting in May with the first appointed independent non-executive director from Mozambique, Mr Diogo Milagre. Operations started in September, coinciding with the appointment of the second independent non-executive director, Ms Ana Chichava. We expect the transition from the South African branch of The Aurum Institute to the local Fundação Aurum to be completed during 2022.

During 2021 Aurum started full implementation of our project portfolio. We also increased the number of projects in execution, after receiving additional funding from CDC and UNITAID under regional programmes to support the government of Mozambique to fight COVID-19.

Rollout of 3HP

On 24 March, as part of the celebrations for World TB Day, Mozambican Prime Minister Carlos Agostinho do Rosário launched the campaign for the roll-out of 3HP. The NTP also published the national guidelines for latent TB infection treatment, adapted from the WHO 2019 guidelines with the collaboration of Aurum. The roll-out of 3HP in Mozambique is supported by Aurum through the UNITAID-funded programme, IMPAACT4TB. Delivery of 3HP to patients started on 1 April. As of December, more than 11 000 patients had started 3HP in Maputo and the districts of Chókwè and Mandlakazi in the province of Gaza. Intermediate results are promising, as we have a completion rate of 78% and no serious adverse events yet reported. The project is being implemented in 69 health facilities, and Aurum staff give constant technical assistance to the National Health System staff. Plans for 2022 include expansion of 3HP prescription to the remaining districts in Gaza and to the provinces of Maputo and Inhambane.

Within IMPAACT4TB, we started the implementation of the CAT (Choice Architecture TB Therapy Prescription)

study looking to evaluate a strategy to increase prescription of Tuberculosis preventive therapy. This study is taking place in 20 health facilities randomly selected from those rolling out 3HP and is expected to be completed by the end of 2022.

TB Reach Wave project

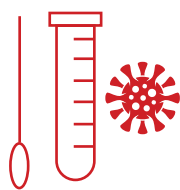
After delays caused by COVID-19, the TB Reach Wave 8 project “Establishing Simple and Functional Pathways for TB Patient Referral and Notification in the Mozambican Private Health Sector” started implementation in the cities of Maputo and Matola. Private clinics, as part of the formal private health sector, and traditional healers, as informal private health providers, were identified, contacted, and selected to participate in the programme, which includes the introduction of a mobile app to facilitate the exchange of information between the private and public health sectors.

Due to the delays experienced in project start, the Stop TB Partnership granted Aurum a no-cost extension until December 2022. Although private clinics and traditional healers have started to refer patients to the public sector, we expect results will be more evident in the second semester of 2022.

During the first quarter of 2021, Aurum received funding from the regional CDC office to support communication activities on vaccination against COVID-19. In coordination with the Communication Technical Working Group (TWG) of the Ministry of Health, we adapted brochures and posters produced by Aurum in South Africa, distributing them later throughout the country. One million brochures and more than 6 000 posters were distributed to all provincial health authorities.

IMPAACT4C19

UNITAID extended the IMPAACT4TB project named IMPAACT4C19. This extension aims to support the government of Mozambique to accelerate access to diagnostic and therapeutic interventions to address the COVID-19 pandemic. The intervention has a component of technical assistance at central level, in which Aurum



Aurum implemented rapid **COVID-19** testing in the communities, collaborating with the National Institute of Health and the Maputo City Council

staff performed a complete landscape analysis of the COVID-19 situation, focusing on diagnostics, care and treatment, and digital support tools used. Aurum staff is participating in different TWGs, providing insights and bringing Aurum experiences from other countries.

The second component of IMPAACT4C19 is field operations, and Aurum is implementing rapid COVID-19 testing in communities, collaborating with the National Institute of Health and the Maputo City Council. We are also developing a protocol to implement bi-directional screening for TB and COVID-19, trying to recover the TB notification rates, which were badly affected by the COVID-19 pandemic.



More than **11 000** patients started 3HP in Maputo and Chókwè and Mandlakazi in the Gaza province



1 000 000 brochures and more than 6 000 posters were distributed to all provincial health authorities



AURUM SOUTH AFRICA



In 2021, The Aurum Institute South Africa (Aurum SA) NPC was established, as a subsidiary of The Aurum Institute NPC. Prof Vinodh Edward was appointed as the CEO, with Dr Ntombikile Mtshali as the Deputy CEO. Together with Prof Gavin Churchyard (Aurum SA Chairperson), Dr Jerry Gule (Aurum SA Non-Executive Director) and Arshad Hassim (Aurum SA Non-Executive Director), they formed the board of Aurum SA. Aurum SA, once fully established, will take over key SA projects from the Group to deliver the vast portfolio of work in South Africa.

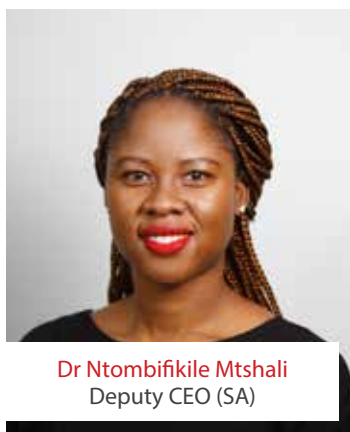


Prof Vinodh Edward
CEO (SA)

Prof Edward, who was previously Aurum's Chief Operating Officer for Health Research, leads one of the largest and most diverse research teams in South Africa that focuses on TB, HIV and COVID-19, with sites in Klerksdorp, Tembisa, Rustenburg and Pretoria. He is also the Aurum Principal Investigator for the IAVI ADVANCE Programme.

He will take over from Prof Dave Clark, who served as Aurum South Africa CEO in addition to his primary role of Group Chief Operating Officer of The Aurum Institute. "Prof Vinodh Edward brings a wealth of experience and a heart for global health. At a time when we face complex challenges, his ability to mobilise resources while managing transformational change is exactly what we need. We expect him to take Aurum in South Africa to the next level," said Aurum Group CEO Prof Gavin Churchyard.

Prof Edward will oversee and guide the implementation of strategy designed to maximise impact against HIV, TB and build resilient and sustainable systems for health.



Dr Ntombikile Mtshali
Deputy CEO (SA)

Deputy Chief Executive Officer Dr Ntombikile Mtshali, who is also Managing Director of the Health Systems Division, has over 10 years' experience in the health sector as a clinician in both the private and public sector. Dr Mtshali is currently overseeing and managing a \$75 million grant, which is aimed at providing technical assistance, health systems strengthening and direct service delivery in the HIV/TB response in South Africa.

The four current operating divisions (Health Systems, Public Health, Clinical Research, and Implementation Research) will transition to operating under Aurum SA. They have had many successes in 2021 and continue to deliver high-quality work.

In 2021, Aurum's HIV support programme through PEPFAR in South Africa continued to provide life-saving services to persons living with HIV:

The HSD supported the Department of Health with implementing HIV and TB programmes in **4** of the **27** priority districts during 2021: Ekurhuleni (GP), Bojanala, Dr KK and NMM (NW) - collectively a population of **7 500 000**



2 466 716 people were tested for HIV in the North West (Dr KK, Bojanala and NMM) and Gauteng provinces, allowing them to take appropriate action for treatment or prevention



43 311 persons received medical male circumcision services, allowing them to reduce their risk for HIV by 65%



200 000 INSTI HIV Test Kits distributed by Innova



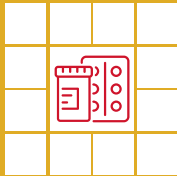
Aurum facilitated **62 586** new persons on life-saving antiretrovirals



Aurum's programme supports **577 000** people on antiretroviral treatment in four districts of South Africa



Aurum facilitated patient-centered care through the continued development of innovative methods for medication delivery:



116 167
parcels were
collected
through Peleboxes
in 2021



80 329 medication
parcels delivered to clients'
homes, allowing patient-
centered care in the face of
the COVID-19 pandemic to be
scaled up



354 000 people received
their medications outside of
regular patient queues (health
facility fast queues, adherence
clubs, F-PUPs) in Ekurhuleni
and the North West (Dr KK,
Bojanala and NMM)

Through our HIV interventions we were able to reach Key Populations

Jan 21 - Dec 21

15 777
people
received
PrEP



55 601
people were
reached for
HIV prevention
interventions



1 991 people
are still on PrEP



TB LON (Tuberculosis Local Organizational Network) project

Key accomplishments:

Implementation of the National TB Recovery Plan to assist in finding missing TB cases:

- Initiation, monitoring and reporting of chest X-Rays (CXR) for TB diagnoses. This had previously not been monitored; now 100% of district hospitals are monitoring and reporting on the TB cascade from CXR.
- ULAM testing and reporting for TB diagnoses. Only two hospitals had been conducting ULAM testing, however after Aurum's in-service training, 100% of district hospitals are now conducting and reporting on TB cascade through ULAM testing diagnoses.
- Piloting, monitoring and reporting of TB diagnoses from simultaneous COVID-19 and TB testing units. Activity started with buy-in at one facility in July 2021; currently it has been rolled-out to 55% of DoH facilities within the West Coast District.
- Improving the TB confirmed case finding from NHLS lists in 2021 from 71% in August 2021 to 86% in December 2021 for DR-TB diagnosed patients; and from 70% to 84% for DS-TB diagnosed patients.



TB

Aurum continued to lead in the TB space through various initiatives:



5 060

Household contacts
initiating 3HP



9 000

medical examinations
conducted for miners for
TB/Silicosis in South Africa



46 334

PLHIV initiated
on 3HP



12 000

chest X-Rays completed
in South Africa

We continued to explore innovative
case finding strategies through
collaboration with the private sector in
Mozambique:



47 health professionals and **96** traditional
healers trained on procedures to refer TB
presumptive patients to the public sector



EMERGING LEADER

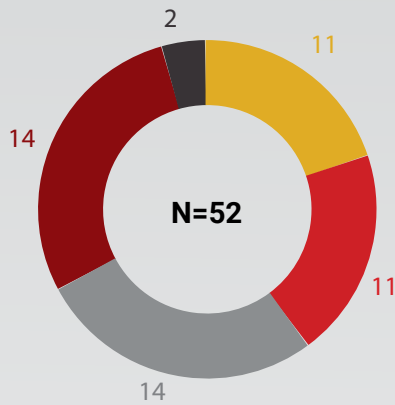
Yajna Duki

Programme Manager: Clinical Research Division

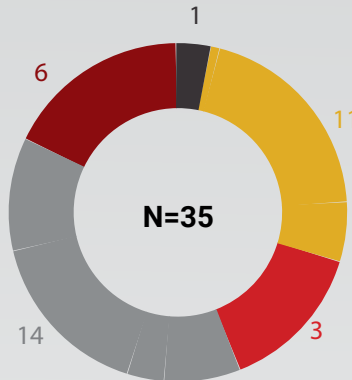
Yajna Duki has been working in clinical research on various diseases for 15 years. She has acquired a broad skillset in regulatory, quality, coordination and site operation roles, which has provided her with the grounding to be able to oversee the day-to-day functions of a clinical research site (CRS). As Programme Manager at the Tembisa CRS 4, she works closely with the CRS Lead/Principal Investigator Dr Kathryn Mngadi, who has mentored her since joining Aurum as a Clinical Coordinator in 2018. Ms Duki, who holds a Masters' degree in Medical Science, has grown within the organisation as Project Coordinator then Study Coordinator before taking up this role.

"I would like to grow as a leader as I believe the work that we have been afforded holds a significant impact in the future of COVID research and policy implementation. My drive has always been to make an impact on people's lives, be it staff and participants, the community at large, public health or the scientific world."

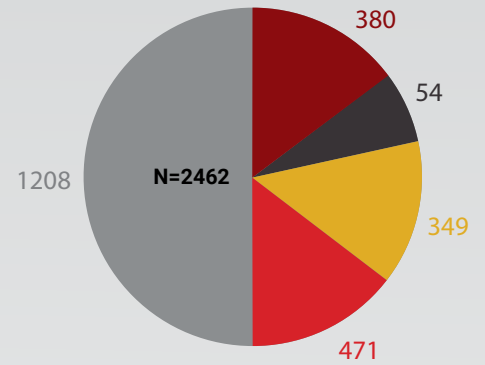
Number of current trials



Number of planned trials



Participants in active trials in 2021 by Clinical Research Site



📍 Rustenburg
 📍 Tembisa
 📍 Klerksdorp
 📍 Pretoria
 📍 Durban



RUSTENBURG

N=11 Current Trials/Studies (349ppts)
 HIV Vaccines = 1 trial
 PrEP = 2 trials
 TB Treatment = 1 trial
 TB Prevention = 1 trial
 COVID-19 Vaccines = 3 trials
 COVID-19 Natural history = 1 study
 COVID-19 Treatment = 2 trials



PRETORIA

N=7 Current Trials/Studies (380ppts)
 PrEP = 1 trial
 TB Treatment = 2 trials
 RSV = 1 study
 COVID-19 vaccines = 3 trials
 (7 trials transferred from Vx Pharma)



TEMBISA

CLINIC 1&2

N=7 Current Trials/Studies (213ppts)
 PrEP = 1 trial
 TB Vaccines = 1 trial
 TB Treatment = 2 trials
 TB Prevention = 1 trial
 TB Natural history = 1 study
 COVID-19 Treatment = 1 trial



CLINIC 3&4

N=7 Current Trials/Studies (995ppts)
 HIV Vaccines = 1 trial
 RSV = 1 trial
 COVID-19 Prevention = 1 trial
 COVID-19 Vaccines = 3 trials
 COVID-19 Natural history = 1 study



KLERKSDORP

N=11 Current Trials/Studies (471ppts)
 HIV Vaccines = 2 trials
 PrEP = 2 trials
 TB Vaccines = 2 trials
 COVID-19 Vaccines = 3 trials
 COVID-19 Natural history = 1 study
 COVID-19 Treatment = 1 trial



DURBAN

Non-Aurum Site using Aurum Staff
 N=2 Current Trials/Studies (54ppts)
 STI = 1 trial
 HIV Treatment = 1 trial

Expanded Quality Improvement Support to Operation Phuthuma

Operation Phuthuma (OP) was launched on 1 April 2019 by the NDoH to drive sustainable interventions that will accelerate progress towards achieving 90-90-90. OP acts as a support structure to the NDoH HIV/AIDS and STI Cluster. OP considers all interventions from a national perspective and plans are developed with provinces to address challenges in their facilities.

The Aurum Institute Quality Improvement (QI) Division was approached by OP and the Bill and Melinda Gates Foundation (BMGF) to provide specialised QI support to the national OP office and the HIV and STI cluster. Given the success of this grant and the imperative to rapidly improve HIV programming in South Africa, the grant has been extended for 3 years, with the primary emphasis on supporting provincial departments of health to apply a revised OP nerve centre approach when implementing health programmes.

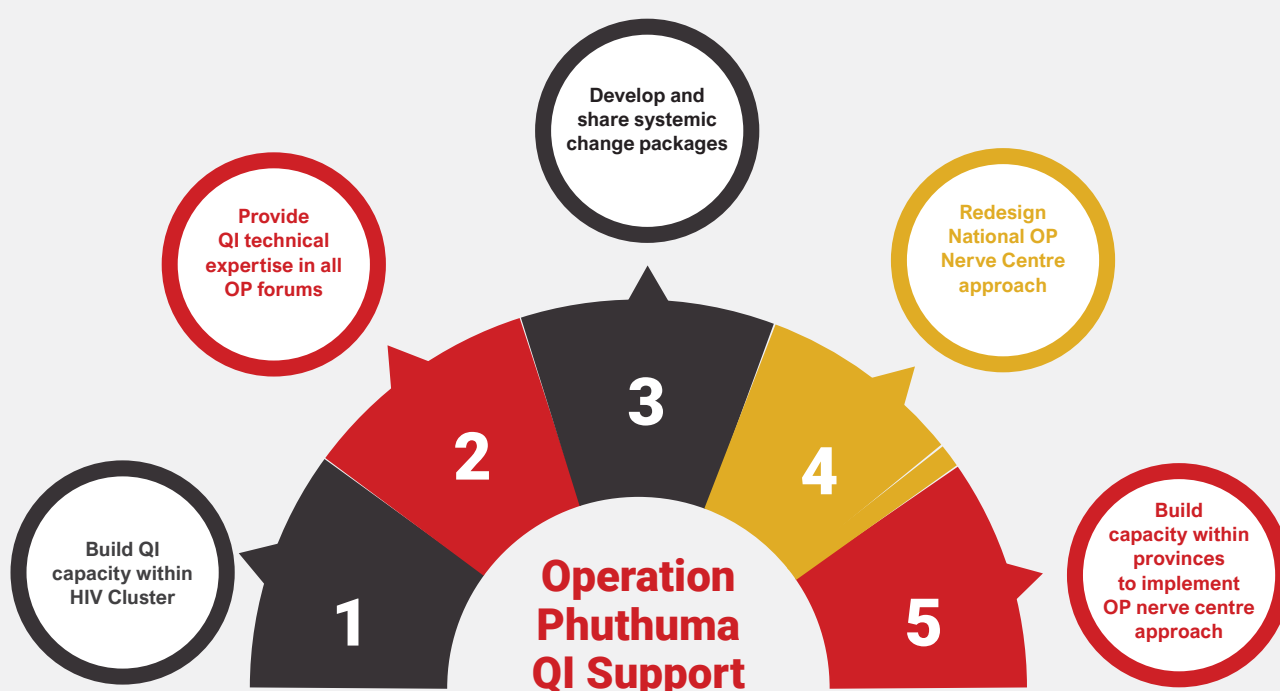
The insights gained from this work have enabled us to identify critical gaps in the implementation and management of the HIV programme nationally. While South Africa has clinically sound and reputable clinical guidelines, our implementation is inconsistent, unstandardized, and lacking in contextual application. This creates pockets of excellence that are difficult to recreate as they are often a result of individual dedication and excellence, rather than real systems performance.

Gaps in healthcare workers' ability to systematically and sustainably identify and address problems are a major concern. Data, when used, is primarily for the purposes of reporting with little insight being sought from the data to identify the underlying causes of implementation gaps. The figure below shows Aurum's QI approach to addressing this:



390

People trained on OP
new Nerve Centre Approach

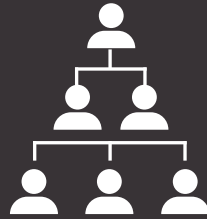


Key outputs 2021

Our Implementation Research Division produced **12** TB research projects, **6** HIV research projects and **2** COVID-19 research projects



Raised
R66 500 000
in research funds



Changed organogram
to emphasise scientific/
research roles for all
research staff



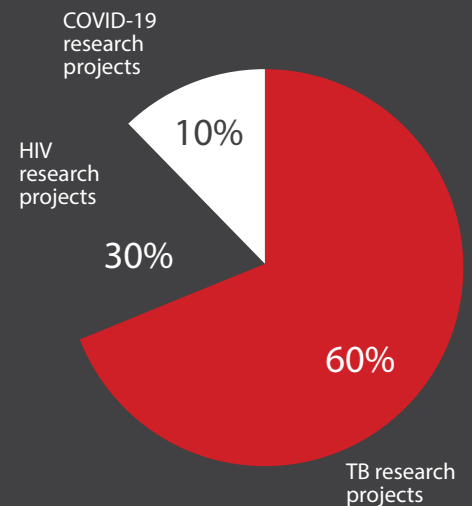
Ensured that **90%**
of staff are funded
by projects



Produced **40** peer
reviewed publications



Increased **staff capacity** for
research, data management,
analysis and publications



Dr Tonderai Mabuto
Senior Scientist: Implementation Research Division

Dr Tonderai Mabuto is a global health researcher with a passion for evidence-informed interventions and practices to improve implementation, service, and client outcomes in routine healthcare programmes. He holds a PhD in Public Health and a Master of Science degree in Epidemiology and Biostatistics. Dr Mabuto has been the Principal Investigator and Co-Principal Investigator in several implementation and outcomes research studies. He has vast experience managing projects and high-performing teams and prides himself on his ability to navigate complex environments.

“My vision is to see a closing of the gaps between impactful research findings and their application in real-world programmes or their translation to real-world health outcomes.”

EMERGING LEADER

ACHIEVEMENTS AND REMAINING GAPS TO DATE:

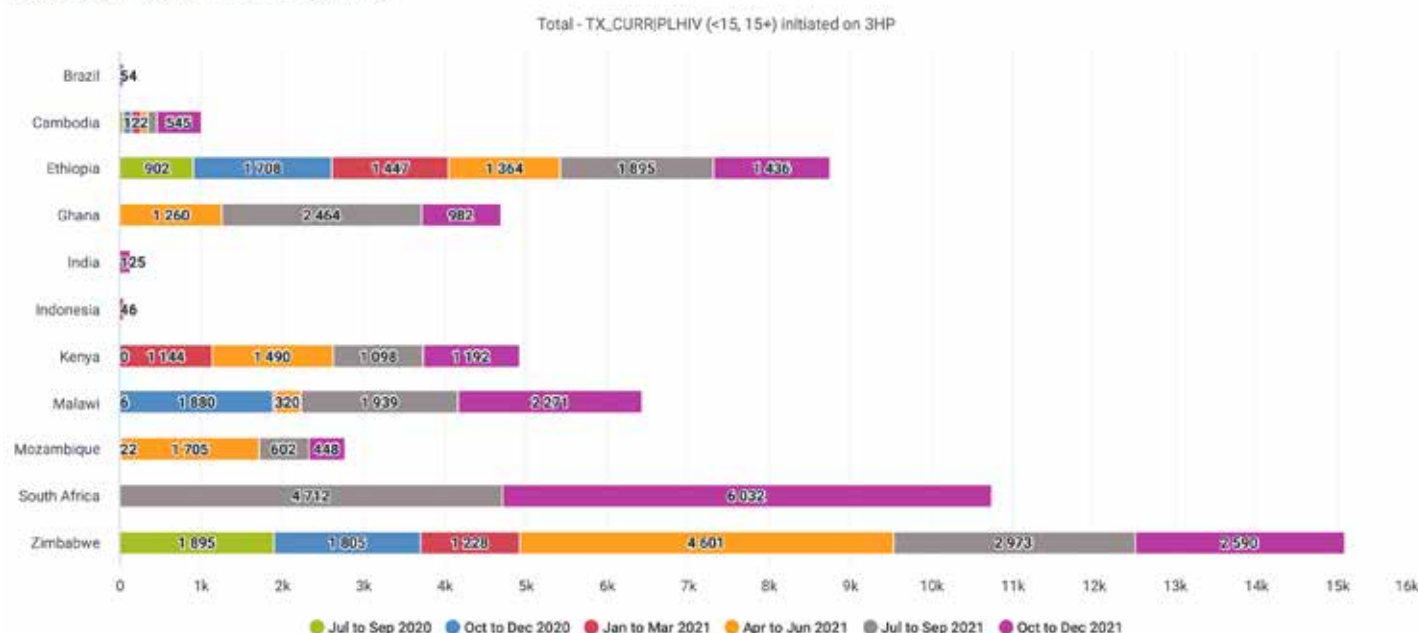
Impact:
The price of **3HP** was substantially reduced

Gap:
Currently **\$15** per patient-course but could it go lower?

Two generic manufacturers entering the RPT market with a RPT/INH **300/300mg** Fixed-Dose Combination formulation and a RPT **300mg** Single Film-Coated Tablet

Implementation Gap: Regulatory approval of RPT is still limited to few countries, with WHO-Product Quality clearance for the generic fixed dose combination (FDC) tablet still pending and the new 300mg single formulations not yet approved (filed in Oct 2021). A second generic predicted to enter the market with 300mg and FDC by July 2022.

Quarterly 3HP Uptake with PLHIV by Country



SUCCESSSES

Catalysing a strong global demand for 3HP, which is creating a favourable environment for adding manufacturing capacity.

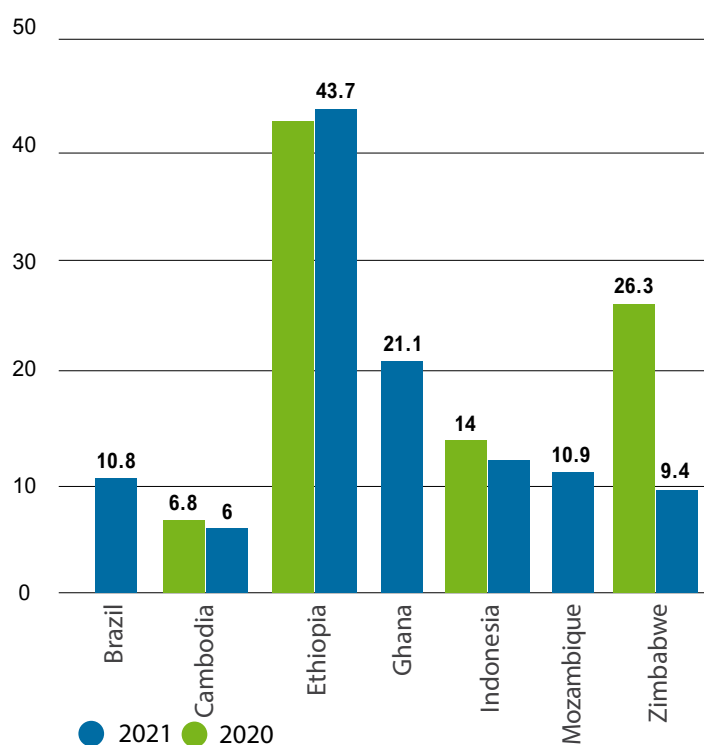
Technical Assistance to advise manufacturers on their regulatory strategy and priority countries for all products (300mg, 300/300mg, and 150mg FS DT)

Regulatory Support for national drug regulatory authority submissions depending upon the timelines for filings and prequalification for all products, noting that WHO prequalification may not occur until after the grant end.

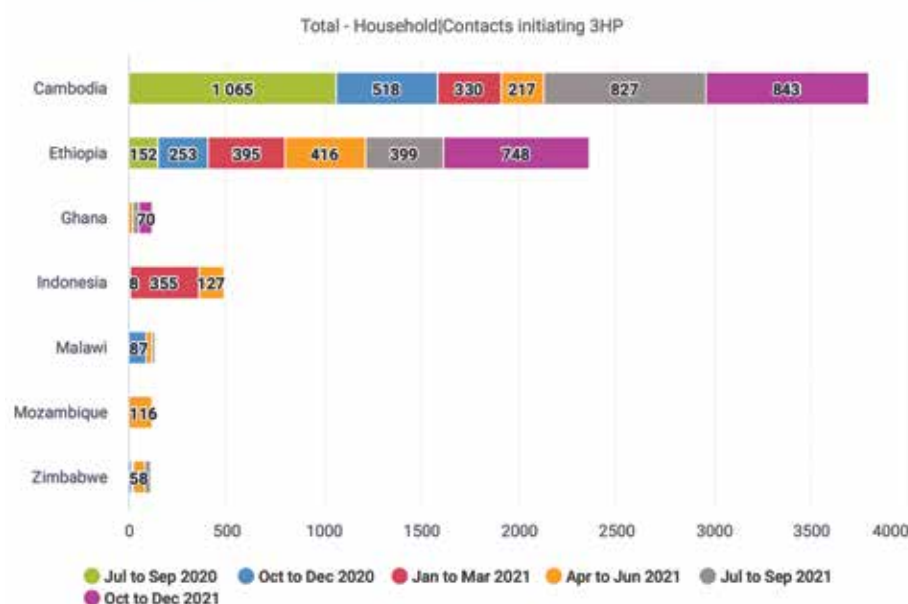
Unmet Need - Paediatric formulation:

No supplier has reported initiating development of a functionally scored dispersible tablet, although at least one supplier has reported developing a product prototype. This is due to lack of market analysis, slow country guidance updates for paediatric TB prevention, slow 3HP adoption in high TB burden countries for child contacts, and nitrosamine impurity level concerns for children using crushed available adult formulations. Without a properly formulated option for children, programmes may not adopt RPT for any paediatric household contacts, which would impact long-term demand.

HH Contacts - 3HP Coverage Rates by Country/Year



HH Contact TPT Uptake



In 2021 Aurum was asked to propose interventions to address the lack of access to key commodities to manage the COVID-19 pandemic in lower and middle income settings. Aurum partnered with KNCV to propose a 12 month project that would gain key insights into the use of novel diagnostics such as self-tests through research; as well as drive the uptake of essential new drugs needed in the fight against COVID-19. The IMPAACT4C19 (Improving Public Health Outcomes through Enhancing Accelerated Access to Care and Treatment Innovation for COVID-19) project was approved for 8.3 M USD and started in September 2021. Aurum NPC is implementing this project in Ghana, Mozambique and South Africa, and KNCV is implementing in Ethiopia and the Philippines. Through this additional stream of funding from UNITAID, Aurum will play a key role in clarifying the evidence, pathways and processes to ensure access to essential diagnostics and therapeutics.



Catalytic purchasing of **3HP** by non-Unitaid programmes and expansion of roll-out into **33 countries** to push manufacturers to market to all eligible populations.

Unmet Need: Reducing API nitrosamine impurities in RPT. This was identified in 2020 and continues to slow the WHO-PQ approval of current generic products and the scale-up of 3HP. The ongoing efforts to reduce the impurity level by manufacturers and ongoing monitoring and communication to TPT communities about amendments in these levels will require focus during the coming year.

Catalysed the scale-up of more than **3 462 010** patient courses procured of **3HP** for people with HIV and child and adult household contacts.

Contributed to the finalisation and revision of the "**WHO consolidated guidelines on TB 2020**" and "**WHO operational guidance on TB 2020**" based on evidence generated and inclusion of RPT-based short-course regimens in guidelines across 9 countries.

One-to-Three study: An evaluation of treatment success (adherence and treatment completion) and safety of **1HP vs 3HP** in adolescents and adults living with HIV and HIV negative household contacts.

Implementation Opportunity: Demonstration of viability of an ultrashort regimen (1HP) and expanded evidence is required to convince countries to implement the 1HP regimen. Significant uncertainty exists in the future market for 1HP due to the higher cost of 1HP compared to 3HP and the potential need to double the dose of DTG. Generic manufacturers have only recently started looking at supplying 1HP due to perceived barriers to implementation. Additional evidence is required to inform policy to support global, family-focused, patient-centred scale-up of RPT-based TPT for HHCs and pregnant women.

➤ Aurum communicating to change behaviours

We reached more than 4 million people on social media through the COVID-19 communications and demand-creation campaign, Zwakala. It uses vibrant graphic and video content featuring young champions who advocate for vaccine uptake and encourage non-pharmaceutical prevention methods through personal testimonies. It was established in August 2021, following the start of phase three of the vaccine roll-out in South Africa that opened vaccinations to youth from 18 years old. It is a partnership between Accenture, The Aurum Institute, affiliates Centre for HIV-AIDS Prevention Studies (CHAPS) and Youth Health Africa (YHA), as well as UNICEF South Africa, UN Verified, USAID, the NDoH and Community Media Trust.

Zwakala also hosted dynamic activations with music and stage trucks, and trained community mobilisers to go door-to-door to share information and encourage people to vaccinate at activations in their communities as part of support for the national vaccine roll-out.





As'bangene is an awareness campaign that aims to increase the uptake of health services, especially in relation to HIV testing, treatment initiation, and adherence among young people.

In 2021, the campaign supported Ekurhuleni on NDoH's Coach Mpilo, a support programme to encourage antiretroviral uptake and adherence among men. As'bangene was also involved with the maternal health support initiative, MomsConnect, employing Mom Squad leaders who recruited new mothers into Mom Squad WhatsApp groups and developed materials for social media that specifically target new mothers.

Though primarily targeting youth in Ekurhuleni, Gauteng, where Aurum was implementing the NDoH national TB and HIV programmes, the use of social media widened As'bangene's reach.

In 2021, the campaign's Facebook and Instagram following had more than 10 000 followers, with a reach of more than 900 000 combined. Through community management, As'bangene responded directly to questions on these platforms, as well as on community radio stations and WhatsApp Squads. Almost 1 500 people received services from a healthcare facility through the WhatsApp Squads.





WHO YOU DOING IT FOR?

WENZELA BANI?

OE ETSETSA MANG?

UYENZELA BANI?

VIR WIE DOEN JY DIT?



WHO YOU DOING IT FOR?

GEN-V was established to create a powerful and unifying voice to guide the public through the COVID-19 pandemic and to increase and sustain vaccine demand and uptake across Southern Africa among the vaccine hesitant.

The campaign asked the emotive question, "Who are you doing it for?" This was aimed at empowering the target market to try to suppress the disease and protect themselves and their loved ones in a tangible way – by taking the vaccine.

This Solidarity Fund-supported campaign was developed and driven by CHAPS, The Aurum Institute, Population Services International (PSI), UNICEF SA, Centre for Communications Impact (CCI), Community Media Trust (CMT), HIVSA, JSI SA, and the Knowledge Translation Unit at the University of Cape Town (UCT KTU).

The campaign was rolled out on digital platforms, television and outdoor advertisements in high-foot-traffic areas such as transport hubs in the CBD, reaching more than 30 million people.

The campaign reached
30 000 000+
people on digital platforms, television
and outdoor advertisements.



AURUM IN THE MEDIA

Between January 2020 and December 2021, Aurum had **609 news features** in print, broadcast and online media in **13 countries**. This coverage translated into a circulation of well over **750 million**.



7 240 309

Reach on the website and social media pages



42 730 @AurumInstitute
followers on Facebook, Twitter,
LinkedIn, Instagram and YouTube



INTRODUCTION

Human Resources Services remained committed to inclusive excellence and ensuring a safe and a welcoming work environment at Aurum, enabling staff to do their best work every day. From initiating health and safety protocols to supporting leaders with decision-making and guidance documents, Human Resources Services ensured essential activities continued as normal whilst supporting leaders in managing their remote workforce under COVID-19 conditions.

OUR VALUES

Dedicated, healthy and engaged employees are paramount to Aurum's vision to expand as an organisation and to shape a successful impactful future for the next 100 years. Paramount to our People strategy is a strong core guided by the Aurum Values and Behaviour Charter.

Respect
Integrity
Innovation
Teamwork
Excellence



“The DNA and foundation of any organisation is its company values. This sets it apart from other organisations. Our core values must support the company's vision and will shape the culture of Aurum. Without well-defined, clearly communicated core values we won't be able to build great teams, deliver an excellent service, foster innovation and build respect and integrity.”

Professor Gavin Churchyard at the official launch in July 2021 of the Aurum Values and Behaviour Charter



Lilian Monji
HR Executive

Lilian Monji is a human resources professional who holds a Master of Business Administration (MBA) degree. Before joining Aurum, Ms Monji was appointed as Senior HR Manager at Aurum affiliate CHAPS, where she directed the HR activities across the employee value chain in South Africa, eSwatini and Namibia. Afterwards she joined Aurum as Senior HR Manager: Operations, and was promoted to HR Executive within two years.

“Always at the forefront of innovative thinking, I am most inspired when formulating creative ideas, such as the current proposed hybrid work model, which ultimately aims to improve business productivity and enhance employee wellbeing.”

EMERGING LEADER

PEOPLE FACTS



9
PhD Qualifications

81%

Staff between the age
of 18 and 40 Years

40

32 Medical Doctors
8 Locums



207 Professional nurses
66 Locums



8
Doctors in other fields



68 Master's Degrees



12 Professors in
the Organisation



2
Health Economists



22
Pharmacists



Level 1 B-BBEE
Accreditation



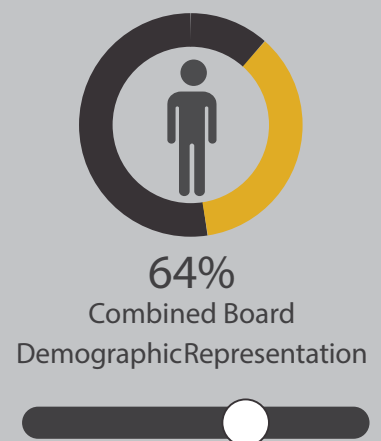
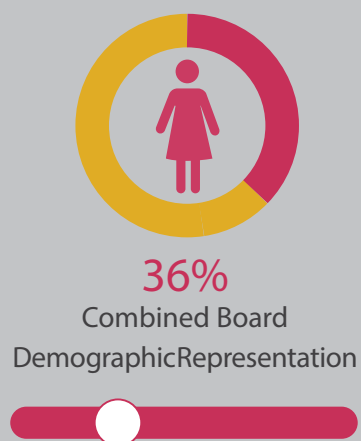
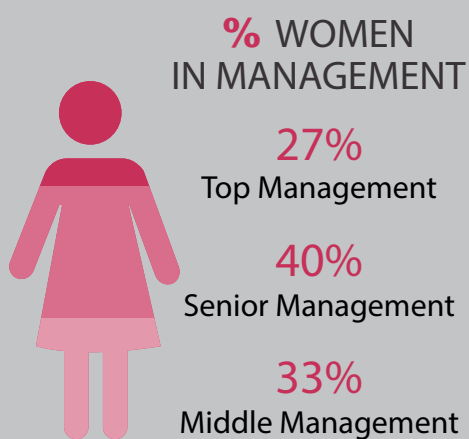
Youth Health Africa
Successfully hosted
1 785 Unemployed Youths
Aurum sponsored **191** Youths



3 181
Aurum's Active
Employees



70%
Women in Senior &
Professional Positions



AFFILIATES





YOUTH HEALTH AFRICA

EMPLOYABLE | EMPOWERED | HEALTHY

Youth Health Africa achieved great success in 2021. Our flagship youth experience programme expanded its geographic coverage from six to eight provinces in South Africa. A total of 940 new youth joined our programmes in the year, including youth work experience (YWE), community projects, and temporary work for alumni. Our numbers of youth involved passed 3 100 by the end of 2021. The organisation also implemented a diverse range of projects and interventions, including research projects, demand creation for COVID-19 vaccination, food security through organic farming, and entrepreneurship incubation for young business owners.

Our revenue tripled in 2021 compared to 2020 and YHA attained a surplus of approximately R8 million. We continued diversifying our funding revenues for financial sustainability. Youth Employment Service (YES) continued to fund YHA and remains the biggest funding source of the YWE programme. We had more than 10 corporate sponsors, with several sponsors from 2020 returning to sponsor other programmes in 2021. This is a vote of confidence in our ability to deliver quality programmes.



Our relationships with stakeholders strengthened. YHA increased the number of stakeholders and implementors in 2021. This helped us to increase our geographic coverage both in urban and rural areas. In 2021, YHA was able to place youth directly with the Provincial Departments of Health in Free State, Eastern Cape, and Limpopo. We thank the following stakeholders and implementors: The Aurum Institute, BroadReach HealthCare, Wits RHI, Jhpiego, Aids Foundation South Africa, Aurum Innova, CHAPS, TBHIV Care, and CAPRISA.

The Aurum Institute hosts YHA's operations and funds YHA for several youth development initiatives. Aurum is YHA's second biggest funder after YES.



Youth Health Africa created
3 100 youth employment
opportunities in South Africa,
in collaboration with the
YES campaign



Our revenue tripled in 2021
compared to 2020 and YHA
was able to attain a surplus of
approximately
R8 million



EMERGING LEADER



Farai Mzungu

Chief Operations Officer: Youth Health Africa (YHA)

Farai Mzungu, a lawyer by qualification, is one of Aurum's youngest leaders, driving operations at Aurum's youth-empowerment affiliate YHA. Over the past two years, Ms Mzungu has represented YHA as a Global Focal Point for SDG 5, focused on gender equality at the United Nations Major Group for Children and Youth. In 2017 she was granted a licence to curate a TEDx conference, inviting various speakers to share innovative ideas about transforming society. Ms Mzungu is the founder of Sprout Africa, an agricultural NGO operating in South Africa and Malawi to increase business financing to subsistence farmers.

"My ambitions for Youth Health Africa are to increase its impact and ultimately achieve our long-term goal of having 10 000 youth internships per year. I would like to see growth in the areas we are already in and expansion into new geographies, and to see more young people step into senior and executive leadership roles within the organisation."

Aurum Innova

Aurum Innova is an innovative mobile health solutions provider that focuses on mobile diagnostic, procurement, occupational health, employee wellness, and mobile health screening services in the public health and private sector. Innova works mainly in the SADC region, with a large presence in South Africa. Innova's mandate is to generate profits to contribute to the sustainability of the overall Aurum Group.

Innova's performance was positive in 2021, turning around a loss position in the previous year and recording an unaudited net profit of R1.79 million at the end of 2021. Innova reduced its long-term debt by 30%. This follows a change in management, strategic hires in key areas such as finance, overall organisational restructuring, and closer integration with the broader Aurum Group.

Innova contracted with the Tshiamiso Trust to conduct benefit medical examinations to ex-mineworkers across SADC. These examinations are assessed by the Tshiamiso Trust medical panel to determine whether the ex-miner is due compensation from having contracted TB/silicosis while working in the mines.

Innova teams were deployed to the Harmony Gold vaccinations and Covid-19 testing sites, providing medical support to the Harmony Gold employees for 4 months.

In 2021, Innova began the medical surveillance programme for 1 800 NDoH employees and conducted Occupational Hygiene Risk Assessments in 8 South African ports of entry. Innova also completed a silicosis study for the Occupational Health Services Institute of Zambia, which included the analysis of 400 X-rays.



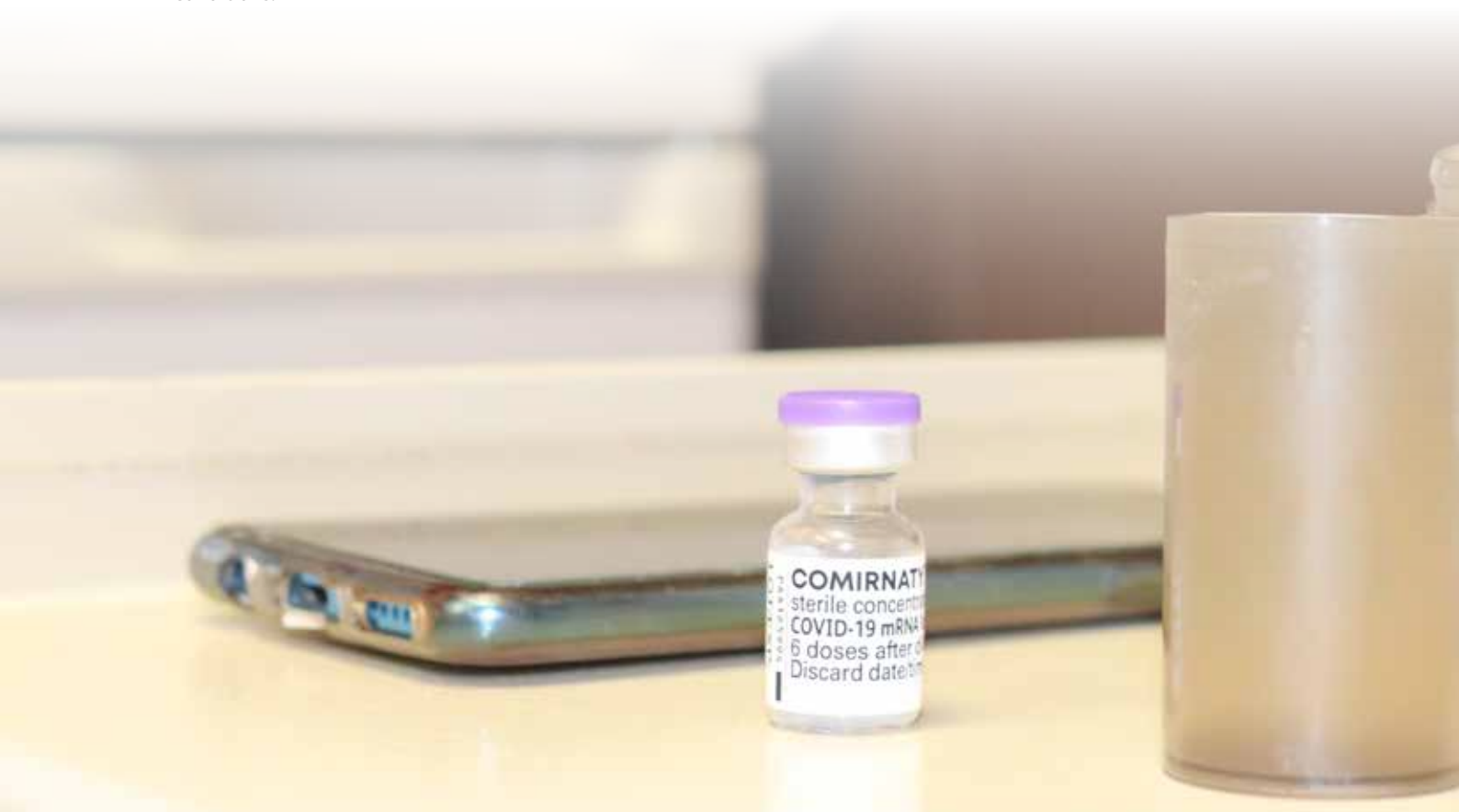
Silicosis Study for the
Occupational Health
Services Institute of
Zambia which included
the analysis of
400 X-rays



Global Health Innovations (GHI), part of the Aurum group of companies, has been at the forefront of South Africa's COVID-19 response since 2020. The company brought together a team of scientific experts to provide high-quality services in healthcare. The team has partnered with academic institutions, corporates, philanthropists, and NGOs to diversify its innovative solutions grounded in scientific evidence.

Some key highlights in 2021:

- Brokered a deal with PHRU (Perinatal HIV Research Unit) to provide local PBMC (peripheral blood mononuclear cells) processing capability in the Klerksdorp region.
- Supported the North-West Department of Health with COVID-19 vaccine storage under specialised storage conditions.
- Established partnerships with pathology labs to develop a full pathology offering in Gauteng, KwaZulu Natal, North-West and Western Cape.
- Provision of local laboratory capabilities and staffing for foreign entities on a retainer basis.
- Partnering with international entities to bring in contract clinical research.
- GHI's clinical research organisation potential has yet to be tapped to unlock more value for the Aurum Group.





The Centre for HIV-AIDS Prevention Studies (CHAPS) is a South African public benefit organisation established in 2010. We have grown into one of the most recognised, proudly South African companies focused on innovative, community-based healthcare access and provision. We operate in in South Africa, eSwatini, and Namibia.

CHAPS has successfully implemented and disseminated sustainable, evidence-based health solutions. It is recognised as a leading NGO in providing research and capacity building in Voluntary Medical Male Circumcision (VMMC) and HIV Testing Services (HTS). Our unique site distribution model offers onsite and mobile services to communities. CHAPS has provided support to several sub-Saharan African countries in public health programme design, community mobilisation, health system strengthening, training, service provision, and quality assurance.

In 2021 CHAPS provided VMMC services in 7 districts and HTS in 4 districts. In addition, we undertook 9 new projects and secured 3 more to commence in COP21. These projects in 2021 comprised.

1. Perception and Acceptability of Delivery of Chronic Medication using Unmanned Aerial Vehicles (UAVs) in Ekurhuleni, South Africa
2. An Analysis of the Antiretroviral Treatment Health Care Landscape: Ability to Incorporate an Injectable Antiretroviral Alternative in South Africa (JnJ through THINK-SA)
3. Amplifying Resilient Communities (ARC) to Facilitate a Deeper Understanding of How Vulnerable Populations Respond to and Recover From a Crisis, Such as COVID-19
4. GenV COVID-19 Vaccine Confidence campaign
5. Accenture COVID-19 Vaccine Confidence Campaign
6. Global Giving COVID-19 Vaccination Roll-out
7. Solidarity Fund (through Aurum) COVID-19 Vaccination Roll-out
8. WHO VMMC EQA Partner
9. Process Evaluation of Micro-Planning as a Service Delivery Model for the PWID Programme

CHAPS Research

In 2021, CHAPS partnered on a number of research projects with: the University of Pretoria's Centre for Sexualities, AIDS and Gender, the University of South Africa's Institute for Social and Health Sciences, Sediba Hope Medical Centre, THINK SA, ASK AFRICA, Matchboxology, the Aurum Institute and the University of Washington.

In October 2021, the CHAPS Research Department was selected as a Human Sciences Research Council (HSRC) research internship site. CHAPS will provide mentorship in research methodology, data collection, analysis, writing of papers and report writing to research interns during their internship

> Funders



International Collaborators



> The Aurum Institute Ghana Collaborators



> Fundação Aurum Collaborators



> The Aurum Institute South Africa Collaborators





THE AURUM
INSTITUTE

2021

ANNUAL REPORT

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