THE AURUM INSTITUTE

WHO WE ARE & WHAT WE DO

QUALITY IMPROVEMENT

Quality Improvement

Aurum's work spans the cascade of health care from innovation to implementation, as illustrated below:

Our Model: Bridging the worlds of research, policy and implementation for impact

<table>
<tr>
<td>Clinical Research
Testing the safety and efficacy of new medical products:
• TB / LTBI treatment, vaccines, diagnostics
• HIV vaccines, PrEP, treatment, diagnostics
• COVID vaccines</td>
<td>Implementation & Translational Research
Designing, testing and bringing to market new health interventions that inform national and international policy and practice in TB, HIV and other diseases</td>
<td>Health Systems Strengthening
Specialities include
• Health information
• Quality Improvement
• Pharmacy services
• Human Resources for Health: Training & development</td>
<td>Health Service Delivery
• COVID testing
• HIV testing
• TB & STI screening
• Medical male circumcision
• Key Population services
• ART initiation and adherence support</td>
</tr>
</table>

…from innovation to implementation…   **impact**

Quality Improvement (QI) is a formal approach to the analysis of performance and systematic iterative efforts to improve it.

Aurum has invested significantly over the last 10 years in a dedicated and specialised QI division, as quality of service has been an organisational value at the core of Aurum's growth trajectory.

This has led to the development of a home-grown, indigenous QI programme that boasts an array of staff and critical skills in the management, training and implementation of QI programmes at scale.
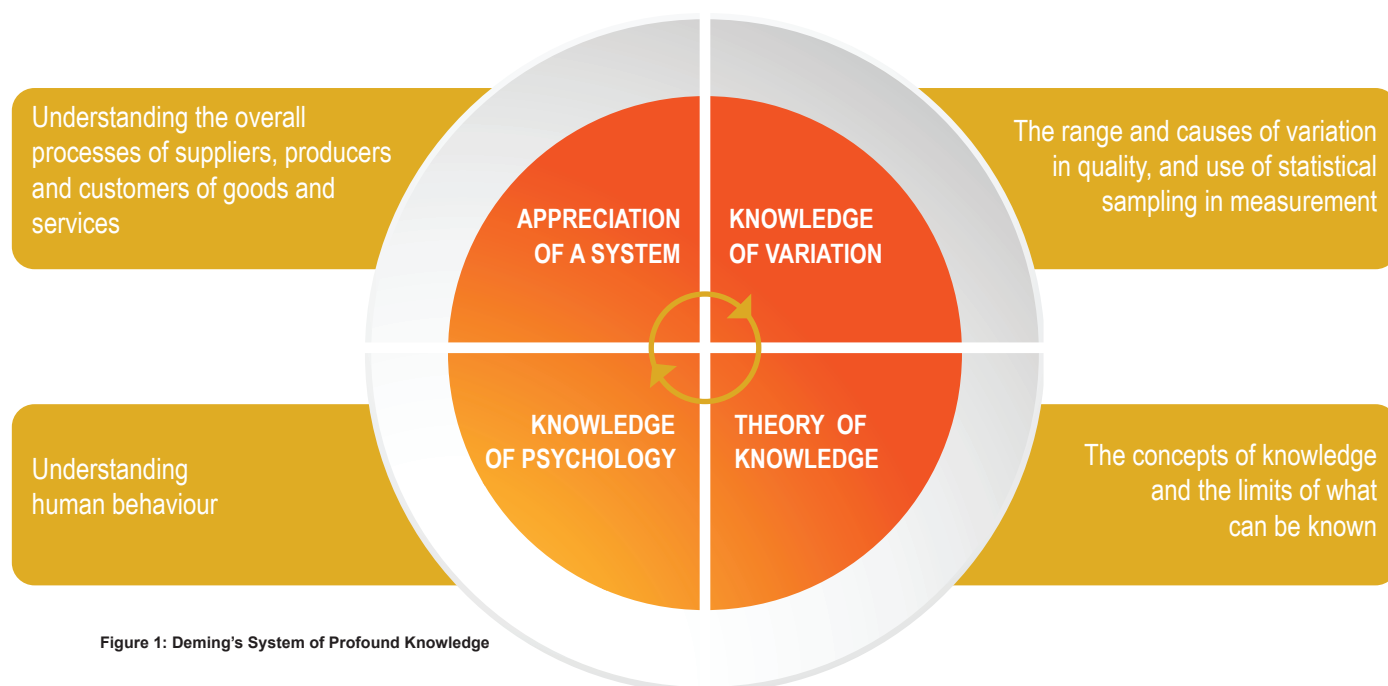
Our 30 QI staff are trained in the Science of Improvement, and mentored in the practical application of improvement activities at various levels within the health sector.

This accumulation of QI knowledge and experience within the organisation has provided a unique opportunity for Aurum to normalise and embed QI into its culture and programmes, as well as capacitating Aurum to provide technical support to other organisations that seek to institutionalise the science of Continuous Quality Improvement. This is achieved through the development of a culture that:

• encourages staff to critically examine the work they do to determine where and how improvement can be achieved.
• acknowledges the complexity of all work done allowing a systemic view of work processes.
• inspires integration and sharing.
• values and embraces a testing philosophy.
• is driven and informed by data for decision-making.
• celebrates, encourages and shares learning.

A. Our Technical Expertise

Our scientific approach is based on Dr Edward Deming's Theory of Profound Knowledge *(Figure 1)*, and the Model for Improvement designed by the Associates in Process Improvement *(Figure 2)*.

Understanding the overall processes of suppliers, producers and customers of goods and services	**APPRECIATION OF A SYSTEM**	**KNOWLEDGE OF VARIATION**	The range and causes of variation in quality, and use of statistical sampling in measurement
Understanding human behaviour	**KNOWLEDGE OF PSYCHOLOGY**	**THEORY OF KNOWLEDGE**	The concepts of knowledge and the limits of what can be known

Figure 1: Deming's System of Profound Knowledge

These models help to design responsive health systems through an iterative learning approach that is driven by user needs. We equip individuals and organisations with the knowledge, skills and tools to analyse their performance over time, and to design and implement changes for sustained improvement. The method aims to institutionalise QI through the collective responsibility of health care staff and patients. Training, mentoring, peer learning, and use of data enables facilities to identify gaps in service delivery and implement changes that improve HIV and TB health outcomes. Problems in health care processes are the primary target, addressed by root cause analyses, generating change ideas, testing ideas, and implementing effective ones.

Aurum uses several methods to develop and spread innovations in HIV and TB care, such as:

- **PDSA (Plan-Do-Study-Act) Testing cycles** i.e. leading facility champions and teams to identify problem areas that require change for an improvement. This action orientated learning process tests a change within the working context by planning, trying, observing the results, and acting on what is learned.
- **Innovation hubs** i.e. working with facilities where 'Innovators' and 'Early Adopters' are willing to test change ideas that can then be spread to other facilities.
- **Rapid Learning Collaboratives** i.e. using peer learning among a geographic cluster of facilities to better understand, test, spread and sustain improvement in an area of mutual interest
- **Improvement summits** i.e. collective one-day opportunities for learning, benchmarking and celebrating improvement projects
- **Change packages and newsflashes** that highlight success stories, provide the tools to implement an improvement and stimulate receptiveness to change.

AIM
What are we trying to accomplish?

MEASURE
How will we know that a change is an improvement?

CHANGES
What chnages can we make that will result in improvement?

Notable achievements

Internationally recognised QI curriculum and teaching aids

- The Aurum QI 'How To' Guide is a QI curriculum and desktop aid that was co-developed and endorsed by the Institute for Healthcare Improvement.
- It was launched at the International Forum on Quality and Safety in Paris, France in March 2014. It is sought after by PEPFAR partners in South Africa and abroad and was recently translated into Portuguese for use in Mozambique
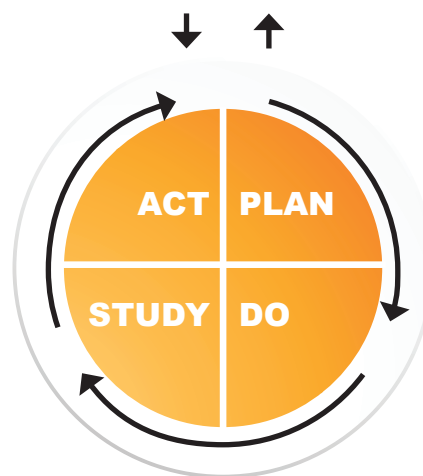
Representation at National and International Conferences

- Lauren de Kock was part of the Scientific committee for the 1st African IHI Quality and safety conference held in Cape Town South Africa
- Aurum's experts have presented and chaired sessions at various QI Forums internationally and nationally, notably hosting QI workshops that have been attended by hundreds of attendees.
- In 2019, Lauren de Kock co-presented a workshop with international experts Dr Peter Lachman (President of ISQUA) and Prof Pat O'Connor who is an IHI fellow and leads improvement work for the Scottish Government.
- Over 50 posters displayed at national and international conferences that have drawn great interest
- 10 articles published in HIV Nursing Matters

OUR EXPERTS

Lauren de Kock, Regional Director: Quality Improvement, has a rich professional career which spans across academia, as a lecturer in public health; entrepreneurship and public health management with specific emphasis on training, mentoring and quality improvement. Lauren is a recognised Improvement Expert, who provides strategic QI direction to the national department of health and other health organisations in South Africa, on design and implementation of improvement programmes in HIV and TB. She obtained an Improvement Advisor qualification from the Institute of Healthcare Improvement (IHI) in 2014, a Master degree from the University of Witwatersrand in the Sociology of Public Health, and a Bachelor of Science from Brigham Young University in USA. She is an accomplished presenter and has spoken at and chaired many conferences in SA and internationally. Lauren was a member of the IHI Scientific Committee for the 1st IHI Africa Health Forum in 2018 and 2020 (postponed due to COVID-19).

The past 10 years of her career have been devoted to enabling professionals and their environments to ensure better health outcomes. Focusing on the fields of HIV and TB, Ms de Kock has a track record of using innovative and diverse methodologies to empower professionals and their organisations acquire, implement and apply knowledge and skills to change their behaviour and the systems in which they work. She led the development of and authored numerous teaching aids and educational tools for healthcare providers that have been endorsed by the National Department of Health (NDoH) and are widely used throughout South Africa. Lauren strategically developed and currently heads a National Quality Improvement programme that supports over 500 primary healthcare facilities around the country. Through her vision and leadership, a unique mentoring programme was implemented that equips professional nurses with training, mentoring and systems improvement skills that enabled them to appropriately and confidently address root causes at primary healthcare facilities. Ms de Kock has headed two other training departments for other NGOs in South Africa that were widely respected and acknowledged for their impact. She is an acclaimed trainer and speaker and has equipped numerous NGOs around South Africa to develop and strengthen their improvement programmes. She offers extensive support to the NDoH through advising on QI interventions and developing training material on their behalf. Ms Lauren de Kock is a member of, and has assisted in, the development of a QI working group that aims to improve QI capacity in South Africa across the private and public sector.

Neo Masike, Senior Programme Manager: Quality Improvement, is a professional nurse and IHI qualified Improvement Advisor with 12 years' experience in quality improvement. For the past 6 years she has assisted in managing Aurum's PEPFAR-funded QI programmes, where her responsibilities include QI strategy design and implementation, planned experimentation and prototyping of improvement changes, data analysis, learning collaborative design and planning, development and dissemination of change packages and documentation of best practices, and stakeholder engagement with DOH and other developmental partners.

Winnet Chinogwenya, Programme Manager: Quality Improvement, has 17 years' work experience in Public Health. In 2014, she embarked on a life-changing journey in quality improvement and systems change. She has since amassed invaluable experience as a QI professional involved in the strategic design and implementation of QI projects at national, district, sub-district and facility levels. Some of the projects she has worked on include PMTCT programmes, HIV testing and linkage to care, ART initiation and management, and TB control programmes.

OUR EXPERIENCE

Project name	Programmatic Implementation and Technical Assistance for **HIV/AIDS & TB Prevention, Care & Treatment Services throughout the Health System** in South Africa under PEPFAR		
Funder	PEPFAR-CDC	**Funder ref. no.**	NU2GGH001981
Funding period	Oct 2016 – Sep 2021	**Funding amount**	$ 227,363,170 (at Sep 2020)

Overall Project Goal: To contribute directly to HIV and TB/HIV epidemic control by providing technical assistance (TA) on HIV prevention, care and treatment; and in select programs, direct service delivery (DSD) for targeted, priority, and key populations at facility and community levels.

Quality Improvement work: The programme deploys 30 staff to implement the following QI training and mentoring programme:

- To provide technically sound assistance, Aurum has developed a professional development tract to ensure that its QI staff members become technical experts. This includes each individual having to implement the methodology themselves in a structured and supportive learning environment
- These staff then train and mentor professional nurses with systems improvement skills that equip them to appropriately and confidently address root causes in health care facilities. To date, 22,948 nurses have been trained.
- Learning Collaboratives based on various care pathways were launched in 17 sub-districts.
- Innovative peer reviews were successfully implemented in 15 sub-districts and significantly enhanced learning, innovation, engagement and ownership of QI projects. These continue to be a successful strategy with 3 collaboratives (92 facilities) currently running in the Ekurhuleni district that are led by DOH management and technically supported by Aurum.
- > 25 QI summits and learning collaboratives designed and implemented in various districts in South Africa with a total of >1500 attendees
- Conducted >1000 PDSA cycles to test various change ideas and concepts

Project name	Southern Africa TB and Health Systems Support Project (SATBHSS) – Technical Assistance for Quality Improvement in Lesotho and Mozambique		
Funder	East, Central and South Africa Health Community (ECSA-HC)	**Funder ref. no.**	TZ-ECSA-130388-CS-CDS
Funding period	Mar 2020 – Feb 2021	**Funding amount**	

Aurum supports the Ministries of Health in Mozambique and Lesotho to build QI capacity in their TB Directorates, helping their leadership to address high priority challenges.

OUR EXPERIENCE

Project name	IMPAACT4TB (www.impaact4tb.org)		
Funder	Unitaid	Funder ref. no.	UNITAID: 2017-20-IMPAACT4TB
Funding period	Sep 2017 – Aug 2021	Funding amount	$ 58,887,058

Overall Project Goal: To reduce TB incidence and deaths among PLHIV and child contacts <5 in low and middle income countries by scaling up *3HP, a short-course TB preventive regimen* of high-dose INH and rifapentine weekly for 3 months. The current 6-month INH regimen has not significantly decreased the pool of latent TB due to poor uptake. 3HP's lesser toxicity and shorter regimen may address some barriers to adherence, and has lower risk of generating resistance, with similar efficacy.

Quality Improvement work: Aurum uses QI methodology to ensure consistent roll out of programme protocols in participating countries, which include South Africa, Brazil, India, Indonesia, Kenya, Ghana, Tanzania, Mozambique, Ethiopia, Cambodia, Zimbabwe, and Malawi.

Project name	Operation Phuthuma QI Technical Support Project, expanded to COVID-19 QI support		
Funder	Bill & Melinda Gates Foundation	Funder ref. no.	107-10-01-019
Funding period	Oct 2019 – Jun 2022	Funding amount	

Aurum provides expert technical advice and leads a QI unit within Operation Phuthuma, which is the operational arm of the HIV, AIDS & STI cluster in the South African National Department of Health. Support was expanded to address COVID-19 impact on national HIV and TB programmes.

Project name	Establishment of Quality Learning Centres in line with the National Health Quality Improvement Plan		
Funder	South African National Department of Health	Funder ref. no.	Bid no. NDOH 11 / 2020-2021
Funding period	2021-2023	Funding amount	

Two Quality Learning Centres will be established in each of the 9 provinces to:

- be the focal point of learning and development in the province

- ensure that there is local capacity developed over time

- support the poorest performing establishments in the province

- improve to the required regulated norms and standards

The Quality Learning Centres will be linked through a coordinating mechanism to offer peer support, peer review and to share best practice and learning. Existing expertise and good practice will be built upon and used to leverage improvement.

Business Development Office
Dr Dino Rech, Group Strategy and Business Development Officer
Email: DRech@auruminstitute.org

Continuous Quality Improvement
Lauren de Kock, Regional Director: Continuous Quality Improvement
Email: LDeKock@auruminstitute.org

"To seek, to find, to share, to care."