

South African Department of Health Applies a 4A Systems Approach to Quality Improvement to Address Systems Challenges in the HIV Programme

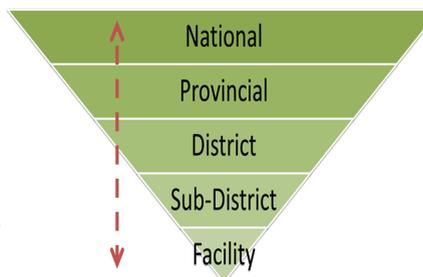


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1. Background and Objectives

The HIV/AIDS epidemic and weaknesses in the health system in South Africa, paired with the global focus on ending AIDS as a public health threat by 2030, drove the National Department of Health to move away from vertical programming to a systems-level improvement strategy. This strategy was developed by the Aurum Institute in partnership with the National Department of Health HIV/AIDS and STI cluster. The strategy was based on Aurum's Improvement Framework called the **4A Framework** and developed into a **system-wide improvement approach called the Nerve Centre Approach (NCA)**. The NCA is a data-driven strategy that guides health care workers at all levels of the health system to improve service delivery through the adoption of standardised, problem-focused and improvement-driven platforms and tools. In the past, many quality improvement (QI) projects have been developed in facilities across the country as standalone projects, however most were not sustained or linked to the next level of operation or supported systems change; therefore a systems approach to improvement was developed



2. 4A Quality Improvement Framework



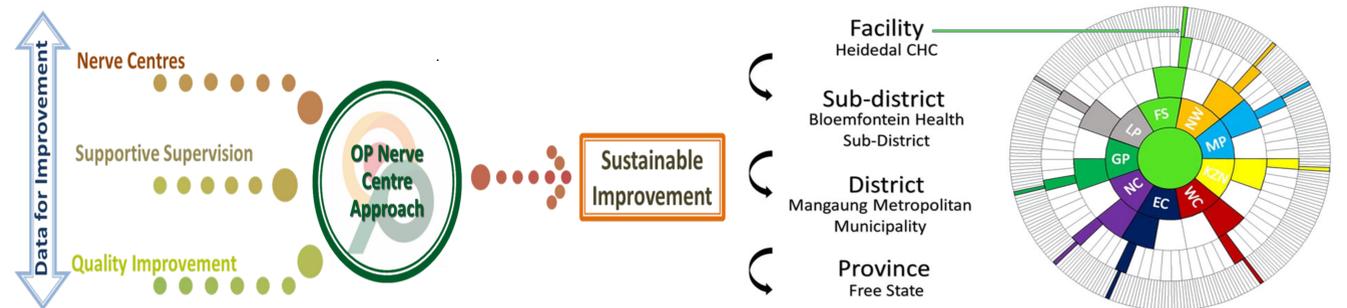
In developing the NCA, the tools and strategy, we used a QI project management framework (**4A Model**). This framework provides the big-picture view needed when seeking to make sustainable systems improvements, while being appropriate for everyday use for any problem. If applied correctly, it will stop the same mistakes being repeated and ensures efforts are effective and sustainable. The framework suggests that all improvement work should follow 4 phases:

- Assess:** Before any intervention is ventured into, an assessment should be done. Multidisciplinary teams assess the current situation, determine what the cause of the problem is, decide what the current priority is and where you want to start.
- Act:** Once the core problem and its likely cause has been identified, and an action plan has been developed; it is time to ACT. To get a different more sustainable result, something must be done differently. Some interventions based on gaps include:
 - Lack of knowledge (**Training**)
 - Lack of skills (**Mentoring**)
 - Lack of resources (**Provision of resources**) or **Workflow or implementation issues that require Plan-Do-Study-Act (PDSA) cycles and utilizing process maps.**

Analyse: Whenever something is done differently in a health system, it is important to determine the impact of the change by asking whether the change was a success and determining how success is measured. This part of the framework must be data driven, utilizing outcome and process measures; determine if the change is a good fit for our system is crucial. **Anchor:** Once a solution has been identified, anchor it into the system to avoid repeating the cycle. **This model is a simple way of looking at all work to make sure it is sustainable and effective, and that QI efforts are integrated into the system.**

3. What is a Nerve Centre?

- Multi-disciplinary / cluster/ caucus / team
- Focused on a high priority problem/s
- Oversee and guide improvement plans informed by data, situational and root cause analysis
- They routinely monitor and analyse data and improvement plans/data to determine impact
- Ensure the adoption and spread of tried and tested improvements **at their respective levels**



4. Above Site Management Level Interventions

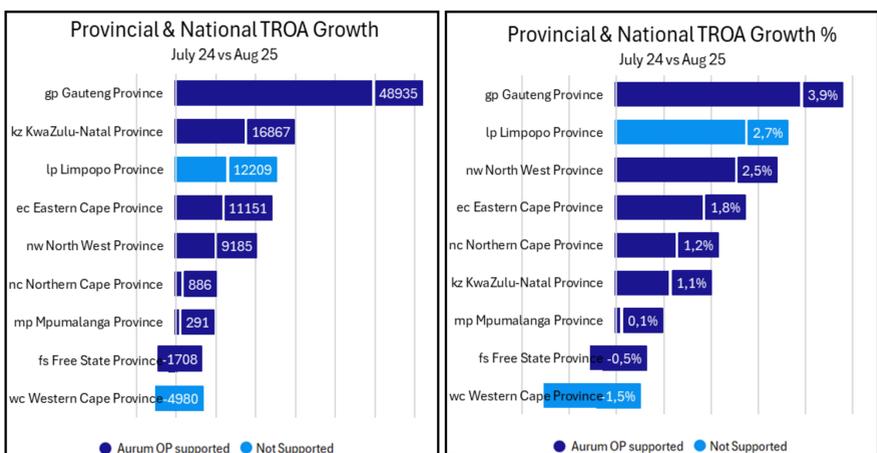
Our health system constantly faces challenges and problems that are experienced at facility level. Some challenges are because of problems occurring at a facility that can be addressed by facility staff; while other problems are out of the control of facility staff and rely on managers to make changes. **The role of management therefore must be to CHANGE THE SYSTEM rather than focusing on individuals as the source and solution of the problem.** To do that, the NCA has introduced 3 levels of change for all levels of management, while facilities simultaneously address facility level challenges:



5. Facility-Level Interventions

- 1 Complete the relevant barometers
 - 2 Conduct or review the Step-by-Step Indicator Assessment to identify all the gaps
 - 3 Collect the data and complete the indicator summary chart
 - 4 Circle the identified problem on the summary chart
 - 5 As a team, work through the Drivers for Program Excellence
 - 6 Prioritize the problem area to be worked on
 - 7 Decide what the team would like to focus on this week and develop a brief improvement plan
 - 8 Report back
- The NCA has provided a standardised **8-step approach** to QI for the countries HIV programme at **facility level**. The **step-by-step assessment** is a tool that assists teams to identify specific gaps in their own system, process or workflows, and/or resources. Users need to follow each step to identify the gaps.
- Indicator **summary charts** provide a quick overview of all the data elements that are contributing to an indicators' performance. They enable data-driven decisions when identifying problem areas and planning for improvement activities.

6. Impact At National & Provincial Level on Total Remaining on ART



Indicator: Total Naive Start ART

Assess the following	Evidence	Source	Assessment objective
STEP 1: HITS PERFORMANCE	Number HIV tested weekly HIV positivity rate (year)		To determine if HITS performance and processes comprise the critical linkage to care step
UNKNOW TO CARE	Number HIV positive same day initiation (same day) Verify if HIV positive index contacts are initiated on ART Verify that PCR positive are initiated on ART	TES Net	To determine if there is a management process of all eligible by ART patients who have not yet been initiated, due to various reasons, to ensure they are not missed or forgotten.
STEP 2: DATA FOR MANAGEMENT	Does the clinician keep track of patients not started on ART? (no same day) Is there a monitoring tool for patients who did not start treatment? Number of Deferred for Medical reasons due to reason for ART starting review Number not currently ready now but due for follow up after 14 days List the follow up process of patients due to return to care	Pre-ART report Process Map	
PATIENT FLOW	Step 3: # Assess the patient flow from HITS point to consulting room How do you ensure all patients tested post-visit with a Clinician? Number of Patients who tested post-visit were not seen by a clinician	TES Net	Analyse the current patient flow from HITS service point to consulting room, to identify the gaps where the patients might be lost.
DATA CAPTURED ON TES-NET	Step 4: # Patients that were started on ART in same period # Same day initiation captured on TES-Net # If patient's from the list waiting to start ART # If removed from TES-Net list waiting to start ART	TES Net Process Map	To determine if there are any recording, flow, verification and reporting gaps that may result in work not being reflected in data collected and captured
AREAS FOR IMPROVEMENT	Step 5: Describe the flow from Clinician to		Comments

Facility Level Data Driven Tools for Analysis

- Tools compliment and support each other in identifying implementation gaps
- By using data elements and process data, teams identify their own unique problems
- Tools provide standardized solutions to address problems

The top-performing provinces (Gauteng, KwaZulu-Natal, Eastern Cape, North West, Northern Cape, and Mpumalanga) are all "Aurum OP supported" and show positive growth. Gauteng Province (gp) shows the highest growth with 48,935. KwaZulu-Natal Province (kz) is second with 16,867. Western Cape Province has the greatest loss with a negative growth, at -4,980. Similarly, the highest percentage growth rates are observed in "Aurum OP supported" provinces, with Gauteng leading at 3.9%. The "Not Supported" provinces show lower or negative percentages, with West Cape showing a negative growth of -1.5%.

8. Conclusion

The Nerve Centre Approach based on Aurum's 4A Improvement Framework, is a national quality improvement approach that is showing incredible improvement at all levels of the health system. The approach has been catalytic in ensuring alignment to national strategies, a standardised culture of joint problem solving, and centring all changes on data for all levels of government. The approach has revived an atmosphere of commitment that change in a very complex health system is possible!

7. Impact At Focus Facility Level vs Remaining Clinics in SA

