

# Development of Primary Healthcare Quality Measures for Community Pharmacy in Non-Communicable Diseases: A modified e-Delphi study in South Africa (Focus: hypertension, diabetes mellitus, dyslipidaemia)

Simoné Eksteen, BPharm

Master of Pharmacy Candidate (Pharmacy Practice) | University of KwaZulu-Natal

Supervisors: Dr Andy Gray | Dr Sham Moodley

QR CODE  
PLACEHOLDER

SCAN THE QR-CODE FOR:  
The original submitted abstract  
This poster  
Ethics approval letters  
The link to participate in this research  
and  
Researcher and supervisor contact details  
Email: simone\_xtn@msn.com  
Mobile: +27824130067

## WHY IS THIS NEEDED?

Non-communicable diseases (NCDs), including hypertension, diabetes mellitus and dyslipidaemia, are major contributors to morbidity and mortality in South Africa.

### THE PRIMARY HEALTHCARE OPPORTUNITY FOR COMMUNITY PHARMACY

Community pharmacists are increasingly recognised as one of the most accessible primary healthcare providers. They are performing clinical work, supporting collaborative professional practice, disease prevention and public health promotion beyond traditional dispensing roles. Community pharmacies also:

- Have a wide geographical footprint, spanning urban, peri-urban and rural areas
- Have extended hours of trading
- Are not stigmatised environments
- Appointments to see a pharmacist are not required

### SOUTH AFRICAN CONTEXT

South Africa lacks a contextually relevant consensus-based set of quality measures for NCD care within the primary care context and low- to middle-income settings.

### THE GAP

- How do we structure pharmaceutical care to be delivered consistently?
- How do we measure the quality of that care?
- How do we measure the cost that care?
- How do we reimburse for that care for a sustainable system?

### PURPOSE

To develop a literature-informed set of quality measures and achieve expert consensus on their relevance, feasibility and clarity for use in South African community pharmacy, with a focus on hypertension, diabetes mellitus and dyslipidaemia.

### ETHICS APPROVAL AND OVERSIGHT

The University’s Human and Social Science Ethics Research Committee oversees the study to safeguard participants from harm and protect confidentiality.

Protocol: HSSREC/00008280/2025

Original protocol: full approval on 3 April 2025

Amendment approval: 6 October 2026

## THE QUALITY-MEASURE FRAMEWORK

### 40 CANDIDATE QUALITY INDICATORS

Literature-informed • structured • multidomain

|    |                                                                                                   |
|----|---------------------------------------------------------------------------------------------------|
| 01 | <b>Access and coverage</b><br>Example: Essential NCD medicine availability                        |
| 02 | <b>Screening and early diagnosis</b><br>Example: Opportunistic blood pressure screening           |
| 03 | <b>Risk stratification</b><br>Example: Cardiovascular risk stratification                         |
| 04 | <b>Monitoring and follow-up</b><br>Example: blood pressure monitoring frequency                   |
| 05 | <b>Pharmacotherapy</b><br>Example: Appropriate first-line therapy                                 |
| 06 | <b>Pharmacotherapy adherence and persistence</b><br>Example: Medication adherence and persistence |
| 07 | <b>Continuity of chronic care</b><br>Example: long term pharmacotherapy management                |
| 08 | <b>Lifestyle</b><br>Example: Lifestyle assessment and counselling                                 |
| 09 | <b>Treat-to-target</b><br>Example: Blood pressure / HbA1c / LDL control                           |

### WHAT THE FRAMEWORK IS INTENDED TO SUPPORT

Standardisation • accountability • benchmarking • policy development • reimbursement models • stronger integration of community pharmacy into primary healthcare •improved long-term sustainability of community pharmacy and primary healthcare

## METHODOLOGY

### MODIFIED e-DELPHI + RAND/UCLA APPROPRIATENESS METHOD

|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | <b>Structured literature review (completed)</b><br><br>Evidence-informed development of candidate measures.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 2 | <b>Indicator development (completed)</b><br><br>40 candidate indicators organised into nine predefined domains.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 3 | <b>Expert panel</b><br><br>Ethics approval received. Recruitment may proceed for 10–15 experts using purposive and snowball sampling.<br><br><b>Examples of possible participants</b> <ul style="list-style-type: none"><li>•Clinical and PCDT Pharmacists</li><li>•Pharmacists that are pharmacy owners</li><li>•Multidisciplinary and integrated care experts</li><li>•Family medicine experts</li><li>•Healthcare policy experts</li><li>•Healthcare funding experts</li><li>•Primary healthcare and NCD experts</li><li>•Pharmacy workforce development and management experts</li><li>•Experts in development and monitoring of minimum standards for best practice</li></ul> |
| 4 | <b>Iterative rating</b><br><br>Each indicator rated on a 9-point scale for appropriateness, feasibility and clarity based on the RAND/UCLA methodology<br><br>What is the RAND/UCLA methodology?<br>The RAND Corporation/University of California, Los Angeles (RAND/UCLA) Appropriateness Method is a formal consensus process that combines scientific evidence with expert medical opinion. Researchers widely use this method to develop expert consensus on healthcare quality indicators and patient safety metrics.                                                                                                                                                         |
| 5 | <b>Consensus testing</b><br><br>Indicators reaching insufficient agreement are revised and re-evaluated across iterative rounds.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 6 | <b>Consensus threshold</b><br><br>Consensus is defined as ≥75% agreement, represented by scores 7–9.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

## EXPECTED CONTRIBUTION

|                                                                                                                                           |                                                                                                                                      |                                                                                                                     |                                                                                                                                               |                                                                                                                                      |
|-------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| <b>STANDARDISATION</b><br><br>A structured approach to measuring the quality of pharmaceutical care delivered through community pharmacy. | <b>ACCOUNTABILITY</b><br><br>Objective measures that can support transparent assessment of service delivery and quality improvement. | <b>BENCHMARKING</b><br><br>A potential basis for comparing quality across community pharmacy settings and services. | <b>POLICY and REIMBURSEMENT</b><br><br>Evidence to inform policy development and future approaches to reimbursement of professional services. | <b>PHC INTEGRATION</b><br><br>A framework to strengthen recognition and integration of community pharmacy within primary healthcare. |
|-------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|

- Measure patient outcomes associated with pharmacist-provided care
- Highlight how pharmacists’ clinical skills and medicines expertise improve healthcare delivery
- Show how better NCD management may improve clinical outcomes and wellbeing, with potential healthcare, economic and social cost savings

Findings may inform policymakers, funders, healthcare professionals and civil society about community pharmacy’s value in strengthening South African primary healthcare.

The study may support recognition and fair remuneration for pharmacists’ services and specific expertise, helping build healthier communities, one patient at a time.

## CONCLUSION

This study will produce a consensus-based, multidomain quality indicator framework for pharmaceutical care in NCD management within South African community pharmacy. The findings are expected to support standardised performance measurement, inform policy and reimbursement models, and strengthen the role of pharmacists with an expanded scope of practice in building a primary healthcare system fit for the future in South Africa and similar settings.