The National Department of Health (NDoH) officially launched the mobile application of the Standard Treatment Guidelines (STGs) and Essential Medicines List (EML) for Primary Health Care Level in Pretoria on 25 November 2015. The mobile application was funded by the Department of Science and Technology, and developed by The Open Medicine Project, an organisation aimed at improving information access in healthcare by leveraging innovative mobile technology.

The EML has been promoted as one of the most cost-effective ways of saving lives and improving health through providing medicines that satisfy the priority health care needs of the population. The public and economic impact of the inefficient and irrational use of medicines is far-reaching. In order to guide the rational use of these essential medicines, STGs have been developed. The STGs and EML are intended to promote equitable access to affordable medicines that are safe, effective and improve the quality of patient care and clinical decision making. Efficient access to the latest STGs and EML is therefore critical.

Currently, access to the STGs and EML is mainly paper-based, in the form of books. The electronic document is also available for download on the NDoH’s website and can be accessed at this link: [http://www.health.gov.za/index.php/component/phocadownload/category/197](http://www.health.gov.za/index.php/component/phocadownload/category/197).

What has not been done up to now, is full leverage of mobile application technology to enhance access to the STGs and EML. Mobile phone penetration in South Africa is approaching 100 percent of the population. Healthcare professionals are increasingly turning towards their smart phones for clinical guideline information and support in decision-making. One major motivation driving the widespread adoption of mobile devices has been the need for better communication and information resources at the point-of-care.

The revised edition of the Primary Healthcare Level STGs and EML is the culmination of many months of intensive review by the Expert Review Committee, National Essential Medicines List Committee and collaboration with various stakeholders including National Department of Health Programmes, Clinical Societies and Health Experts. The launch of the STGs and EML for Primary Healthcare mobile application is seen as the first step toward the effective dissemination and implementation of the revised guidelines and promoting rational medicines use including antimicrobials. The extensive use of antimicrobials has resulted in drug resistance that threatens to reverse the life-saving power of these medicines.

“This is merely the dawn, not an event, as we embrace technology to leverage the potential of the STGs and EML,” said Mr Gavin Steel, Cluster Manager: Sector Wide Procurement, NDoH, at the launch.

“The availability of the revised edition of the STGs and EML in mobile application format is intended to improve accessibility and acceptability to healthcare professionals at all levels of care. The mobile APP leverages the capabilities of modern smart phone technology to facilitate efficient, point-of-care access to up-to-date medicine information,” said Dr Anban Pillay, Deputy Director-General: Health Regulations and Compliance Management, NDoH.

According to the Executive Director of the South African Medical Research Council, Dr Richard Gordon, “The launch of the Primary Health Care mobile APP is testament that investing in technology can change the ability to improve the delivery of health care.”

**Features and Innovative Tools**

**Access**

The APP is for all categories of healthcare professionals, healthcare workers, and managers involved in medicine use. The APP has been made available on most modern smart phones, including Android and Apple. The content is fully available offline after initial download to allow access to information even in remote areas with poor or no connectivity.
The APP boasts several features

- The system for the selection of essential medicines considers clinical need, evidence of efficacy, quality, safety, affordability and implications for practice. To promote transparency, the revised edition of the Primary Health Care STGs and EML is accompanied by the level of evidence, which is now reflected in the mobile application.

- Utilising the APP offers a unique experience. The guidelines presented in mobile application format have been colour-coded for ease of understanding and interpretation.

- Intelligent Search Function: Input of key words or symptoms in the Search box will elicit a list of relevant guidelines. This will facilitate efficient access to the required information. Guidelines are also interconnected, easy transition from one to another.

- Cardiovascular Risk Assessment Tool: Allows the user to automatically calculate a patient's percentage risk of having a cardiovascular event, such as a heart attack in the next 10 years.

- Paediatric Drug Dosage Calculator: Allows the user to accurately calculate the dosage for the most common medicines on the EML, based on weight or age. This would decrease the risk of medication errors due to incorrect dosing.

- Medicine Stock-Out Tool: Allows the user the ability to report medication shortage and stock-outs directly to the NDoH.

- The Adverse Drug Reaction Tool: Allows the user to report serious reactions to medications.

- Medicine Cost: Provides the current cost of medicines on the national contracts.

- ICD10 Codes: The recording of medical diagnosis information according to the international ICD10 standard will be a requirement for National Health Insurance. This tool provides a searchable database of ICD10 codes.

- Directory Service: The APP provides a directory service of all the health facilities in the country, with the phone numbers and GPS location of these facilities.

How to download the APP

The APP can be accessed as follows: Go to “App Store” (iPhone) or “Google Play Store” (Android) and search for ‘PHC Clinical Guide’, or follow one of the below links


Postscript by the editor

Dr Janine Jugathpal, Deputy Director: Essential Drugs Programme, shared something really exciting with me – the stats relating to the download and use of the app by 18 December 2015, i.e. 23 days after the launch.

The total number of downloads was 5260, with 4867 users in South Africa. The remainder came from the Netherlands, India, Namibia, Pakistan, the United States, the United Kingdom, Ghana, Nigeria and Tanzania. The app had been downloaded on 3 046 iPhones!

During that time South Africans had viewed 87 365 screens during 16 548 sessions which averaged about four and a half minutes. Users in the Northern Cape had an average length of the session as 6 minutes and 9 seconds, compared to Limpopo at 2 minutes 47 seconds. Mm. Curious.

The top ten conditions searched were:

1. Anaemia
2. Pain control
3. Hypertension, adults
4. HIV infection in adults
5. Immunisation schedule
6. Allergic rhinitis
7. Antiretroviral therapy, adults
8. Painful red eye
9. Angina pectoris, stable
10. Vaginal discharge syndrome (VDS)

I still love the fact that the Level of Evidence is shown – we MUST embrace evidence-based medicine. And there is no excuse to ever say that it’s a schlep to submit an ADR form – it’s so easy with the app! ED.