



## INTRAMURAL FLAGSHIP PROJECTS

### Cochrane South Africa South African Guidelines Excellence Project (SAGE) Close-out Report

**Section 1: Details of the research project**

Name of Principal Investigator	Tamara Kredo	
Title of project	South African Guideline Excellence (SAGE) Project	
Start date of project	1 March 2014	
Reporting period	From: 1 March 2017	To: 31 March 2019
Collaborating intramural units and external institutions	Health Systems Research Unit, South African Medical Research Council (SAMRC); Faculty of Medicine and Health Sciences, Stellenbosch University (SU); International Centre for Allied Health Evidence (iCAHE), University of South Australia	

**Section 2: Research progress.** Please detail the research and scientific progress covered in the reporting period of the project in the subsections below.

**2.1. Work Planned for Completion.** List the tasks that were planned for completion in this period

- Goal 1 SA Guideline stakeholder and agenda mapping:**
- Publish Goal 1 papers
  - Plan and implement research dissemination for the project including finalization of the final report
- Goal 2 PHC Guideline identification and appraisal**
- Publish goal 2 papers
  - Finalise student support, mentoring and supervision

**Goal 3 CPG stakeholder requirement mapping:**

- Finalise and submit manuscripts
- Disseminate results
- Contribute to communication strategy and final report

**Goal 4 CPG Writing and implementation online resource for SA**

- Market online web-based guideline tool <https://guidelinetoolkit.org.za/>
- Contribute to communication strategy and final report

**Goal 5 Capacity building in guideline activities**

- Implement updated curriculum for the Masters Clinical Practice Guidelines module at Stellenbosch University
- Contribute to communication strategy and final report

**Management and communication**

- Close our meetings for the SAGE management teams including management, research team meetings, Strategic and Methods advisory board meetings, Goal team work sessions
- Implement SAGE communication strategy (brochure, resource page, website, newsletter, tweets of publications, final report – long and short format)

**2.2. Work Completed.** List the tasks that were completed during the period. High level additional information may accompany the list

**Goal 1 SA Guideline stakeholder and agenda mapping**

**Goal 2 PHC Guideline identification and appraisal**

**Goal 3 CPG user mapping**

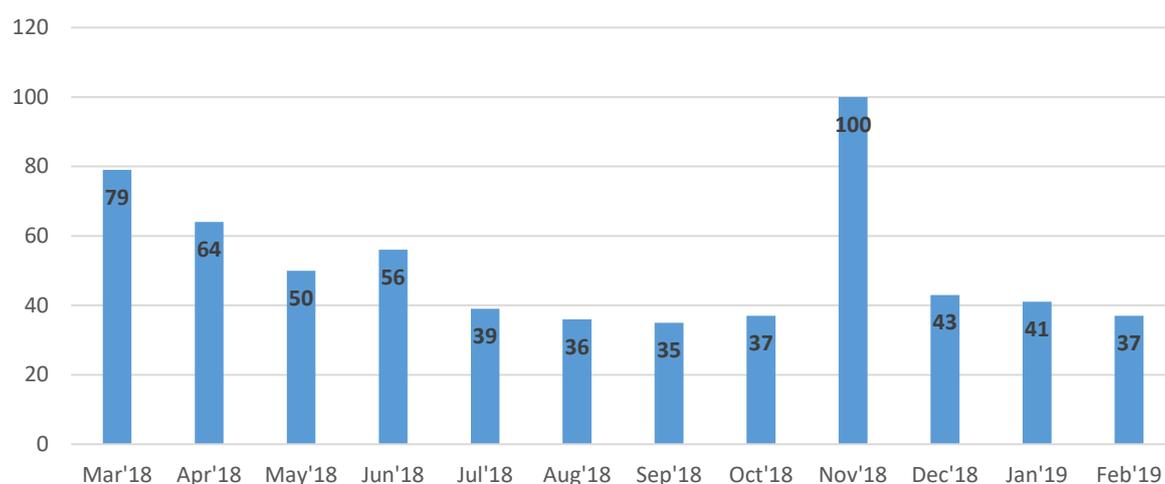
**All outputs related the above goals are provided in section 3.**

**Goal 4 CPG online resource for SA**

Following the conceptualization of the format, platform, content and design of the guideline development, adaptation, implementation “online manual/resource tool”. We have achieved the following:

- Launched the Toolkit <https://guidelinetoolkit.org.za/>
- Introduce the toolkit into the CPG course (see goal 5)
- Marketing toolkit through website, flyers and social media as well as GIN Africa
- Analytics for reporting period:

New visitors to Guideline Toolkit per month



#### Goal 5 Capacity Building in Guideline activities

- Development, implementation and evaluation of the CPG course complete
- Paper on the systematic review into Teaching and Learning strategies for effective training of clinical practice guideline teams and the review on CPG courses was with Plos One for months. After a long wait, we withdrew it and combined it with the paper on CPG course development, implementation and evaluation which awaits peer review.
- We sought input from the Centre for Health Professions Education at Stellenbosch University. Furthermore, innovative course material developed to simulate WHO guideline panel discussions. To ensure sustainability the course is integrated within the MSc Clinical Epidemiology programme at Stellenbosch University.
- SAGE supported 15 people from national or provincial government or clinical service involved with clinical guideline work to attend the course

#### Management and communication:

- The work of the management and strategic advisory boards were completed in 2017/2018 and only final wrap up meetings with the management team were held in 2018/2019.
- Strategic Methods Advisory Group meetings held ad hoc with Simon Lewin and Jeremy Grimshaw (September 2017)
- Strategic Advisory Board including Nationally representative stakeholders accepted invitations: Peter Baron (technical advisory NDoH), Jeanette Hunter (DDG for Primary Health Care NDoH), Ina Diener (President of Physiotherapy association of South Africa), Gavin Steel (Chief Director, Sector wide procurement, NDoH), Glenda Gray (President SAMRC) – meeting held November 2017.
- Communication Plan for dissemination of the project results is finalised. This makes provision for newsletters, brochures, website information as well as both brief, lay highlights reporting and more in-depth detailed reporting for different target audiences with reports being developed in short and long format for different stakeholders needs.

**Communication materials have been developed and distribution is ongoing through the MRC website:**

(<http://www.mrc.ac.za/cochrane/sage.htm>),

- Brochure
- Resource page on guidelines
- Newsletters and all resources available on the website: Publications
- Reports of Summit and some workshops
- Technical report of scoping project

**2.3. Work not completed (Give reasons).** List the tasks that were planned but not completed during the period.

Additional publications have been submitted for publication

**2.4. Work completed but not planned.** List the tasks that were completed but not planned. Provide reasons

Following feedback from National Strategic Advisory Board and SAGE Summit in 2016, we initiated and completed a project about '**Scoping clinical guideline coordination units globally**' to inform a South African initiative related to the National Health Insurance. Annette Gerritsen, an epidemiologist consultant lead this piece of work.

Report available on the SAGE website: <http://www.mrc.ac.za/sites/default/files/attachments/2018-04-03/SAGEreportScopingGuidelines.pdf>

**Building strategic partnerships**

SAGE team members continue to build relationships with national, regional and international stakeholders in clinical guidelines individually and collaboratively. SAGE has provided a platform for new collaborative relationships.

**2.5 Updated Year 3 Milestone status.** This section will provide project status information at a glance. A comprehensive milestone list should be extracted from the proposal. Each report will update the milestone status. List the Milestones for the entire project in the Milestone Column. Fill in the expected and Actual completion dates where applicable. Milestone Status may be 'Complete (C), In Progress (IP), On Hold (OH)-give reasons and Not Started (NS)'.

No.	Milestone	Expected completion date	Actual completion date	Status
1.	Goal 1: National publications submitted	June 2016	2018	C
2.	Goal 1: Allied Health publications submitted	June 2016	2018	C
3.	Goal 1: Technical report	August 2016	2016	C
4.	Goal 2: Publications submitted	May 2016	2017	C
5.	Goal 3: publications submitted	November 2016	2018	C
No.	Milestone	Expected completion date	Actual completion date	Status
6.	Goal 3: Report Delphi process	February 2017		OH
7.	Goal 3: Technical report	February 2017	April 2018	C

8.	Goal 4: Online resource	February 2017	June 2017	C
9.	Goal 4: Technical Report	February 2017	April 2018	C
10.	Goal 5: SR & CPG courses report submitted	August 2016	August 2016	C
11.	Goal 5: Pilot updated CPG module	June 2016	June 2016	C
12.	Goal 5: Report evaluation of CPG module	December 2016	December 2016	C
13.	Goal 5: Technical report on CPG course	February 2017	February 2017	C
14.	Commence strategic advisory meetings	May 2014	October 2014	C
15.	Y1: 6m report collaborators (01/03 - 30/08)	August 2014	August 2014	C
16.	Y1:12m report collaborators (01/09 - 28/02)	30 March 2015	April 2015	C
17.	Y2: 6m report collaborators (01/03 - 30/08)	30 September 2015	30 September 2015	C
18.	Y2:12m report collaborators (01/09 - 28/02)	30 March 2016	30 March 2016	C
19.	Y3: 6m report collaborators (01/03 - 30/08)	30 September 2016	30 September 2016	C
20.	Y3:12m report collaborators (01/09 - 28/02)	30 March 2017	31 March 2017	C
21.	Y4: 6m report	30 September 2017		C
22.	Y4: 12, report	30 March 2017		C
23.	Overall SAGE report	31 March 2019		C

**Section 3. Research outputs / outcomes / impact.** Outline the direct and/or indirect outputs/outcomes/impact of the research achieved thus far in terms of the flagship programme goals outlined in the subsections below:

### 3.1 The advancement of scientific/health knowledge

There is now growing evidence globally, regarding the progress and process of guideline work in South Africa. SAGE is filling a gap in current understanding and in this process of engaging with South African guideline producers, implementers and users; we are building a network of those interested in maintaining contact and advancing this field of research. Each of the five goals within SAGE aims to develop new knowledge and disseminate findings through publications, presentations and stakeholder engagement meetings. At the project completion, we will present recommendations based on our findings to inform primary care guideline activity for South Africa.

**Some of the results of the Goals to date are relevant in terms of advancing scientific/health knowledge:**

#### Goal 1:

- **Interviews with guideline developers at national level.**

We identified the key role players, contexts, processes, drivers and barriers involved with primary care guideline development, contextualisation, and implementation in South Africa. Various stakeholders can provide different insights into the field. National guideline developers have a broad view of policy and guideline development; however, do not have the full insight into implementation and what is happening 'on the ground'. As such, we focused at first on the national stakeholder group. We found several themes emerging describing their experiences, including: lack of clarity in understanding the terminology in policy/guidelines; different views on the roles of guidelines; fragmentation/ silos of work resulting in possible duplication and inefficiency; *ad hoc* methods and systems; human capacity challenges; use and misuse of evidence; and, descriptions from stakeholders regarding improvements in the process of guideline development over time.

- **Interviews with allied health professionals** have complemented the above broad national primary care interviews by doing a deeper exploration of one specific disciplinary field. The manuscripts cover from mapping the reference sample to understanding the barriers and enablers to guideline uptake and use.

#### Goal 2:

- We identified poor to moderate methodological quality of 16 primary care South African guidelines, and pinpointed the methodological issues that need to be addressed to make these guidelines conform to internationally acceptable standards.
- Based on these findings, Goal 2 produced a conceptual framework of guideline activity, where three tiers are required to produce a methodologically sound, locally acceptable and implementable guideline recommendations.
- Goal 2 highlighted the innovation with which South African guideline writers produced 'products'. Tier 3 products were designed specifically for end-users, an approach not often found in dedicated guideline writing
- Goal 2 activities identified inconsistencies in terminology and processes in guideline manuals, which, in turn, highlighted the need for specific clarity about what South African guideline writing was all about. This work underpinned the questions asked of key stakeholders in Goal 1, in terms of how they described what they did, what emphasis they placed on methodology (and how extensive this was), the way expert opinion was gathered, and how 'products' were developed. This was related to national and provincial pressures for better quality, equitable care delivered in South African primary care settings.

- The work highlighted the wealth of international activity on guideline development, and the comparatively smaller amounts of activity on other aspects of guideline activity (updating, adopting and contextualising, or adapting). This underpinned the work being undertaken in Goals 4 and 5 in terms of specific training materials, and capacity building for South African guideline writers.
- The findings from this Goal also identified the need for a ‘demystifying paper’, which attempted to collate and discuss relevant global literature on guideline methods. This has been published.

### Goal 3:

#### - Interviews with provincial guideline developers and implementers

Provincial players, including provincial and district office holders, have come out strongly from the data as the key implementers of guidelines, with only side roles in guideline development. At times they may adapt guidelines, but more often they play a role in linking with NGO partners to develop supporting tool which summarise the guidelines and assist with uptake and training for clinicians in the provinces.

#### Interviews with clinicians at primary care facilities

We conducted seven focus groups in four provinces in South Africa. Clinicians included: nurses, dieticians, dentists, doctors, allied health practitioners, from primary care facilities in rural, urban and peri-urban settings. We used semi-structured interview guides and transcribed these verbatim. We adopted a thematic approach to analysis which was iterative and integrated into all phases of the research. The focus groups took place between November 2015 and August 2016 in Eastern Cape, Western Cape, Kwazulu-Natal and Limpopo. Clinicians at facilities were receptive to using CPGs, and generally felt enabled by them. Nurses felt more independent with increased confidence to treat patients where doctors were scarce. Enablers include ‘ease of use’ such as design features, using local language, training and physical access to CPGs; ‘system level facilitators’ include supportive audits to help identify gaps, accessible clinical support and community involvement for accountability; other enablers included ‘strong teamwork’; and ‘involvement of partner non-governmental organizations’. Barriers generally mirrored enablers. We feel that primary care clinicians’ perspectives on potential enablers to CPG use can help identify approaches to better implement these to improve South African health care.

### Goal 4:

- The online resource platform has been developed and is being piloted. It aims to meet the need identified through interviews and stakeholder engagement that guideline producers and implementers are seeking additional support and resources and would like a ‘one stop shop’ to find relevant sources of information to inform their approaches.
- The online resource will also support training during the CPG module at Stellenbosch University <https://guidelinetoolkit.org.za/>

### Goal 5: Capacity Building in Guideline activities

- The review of existing guideline courses indicated that very few courses include methods to engage with members of the guideline team and methods of guideline dissemination relevant to the end-users. In addition training on contextualisation and adaptation to address more practical issues of local application for implementing CPGs are needed. We have piloted workshops on contextualisation inviting key role South African players. Some of our recommendations have been considered by primary healthcare guideline teams in South Africa.
- Various workshops completed are described in section 2.4.
- Contribute to publications linked to SAGE linked student (Dawn Ernstzen’s) doctoral research. Ernstzen DV, Loue QA, Hillier SL. Clinical practice guidelines for the management of chronic

musculoskeletal pain in primary healthcare: a systematic review. *Implementation Science* 2017; **12**.

- Contribute to publications linked to SAGE linked student (Michael McCaul's) doctoral research.

McCaul M, de Waal B, Hodkinson P, Pigoga JL, Young T, Wallis LA. Developing prehospital clinical practice guidelines for resource limited settings: why re-invent the wheel? *BMC Res Notes*. 2018;11(1):97. doi:10.1186/s13104-018-3210-3.

### 3.2 Knowledge generation to improve South Africa's scientific competitiveness on the world stage

#### New areas of development within the SAGE project:

- In response to SAGE stakeholder feedback from both the Summit and the Strategic Advisory Board, we have initiated a piece of research describing and comparing various guideline coordination approaches at play in different national or multi-lateral settings. In the South African context, we are moving to a National Health Insurance, which includes the need for coordination of guideline development. How this could look in our setting should be based on experiences and lessons learned from other settings. For example, the UK has a process for coordination of clinical guidelines, including development of quality indicators through National Institute of health Care and Excellence (NICE). A different process is at play in the U.S.A and the WHO also has a process. In response to SAGE stakeholder's requests, consultant was employed to conduct a scoping review.
- Goal 1 and Goal 2 has identified new knowledge about the construction and terminology of CPGs, relevant to South African primary health care – this may be relevant to other guideline work internationally, particularly in other lower or middle-income settings. Publications have been published to share this internationally. In particular, the Goal 2 team have presented a way of considering CPG construction that will assist future developers, implementers and end-users to efficiently focus on CPG purpose, and to present CPGs effectively and in ways which will improve uptake. The related publication is:  
Machingaidze S, Grimmer K, Louw Q, Kredo T, Young T, Volmink J. Next generation clinical guidance for primary care in South Africa – credible, consistent and pragmatic. *PLOS ONE*. 2018;13(3):e0195025.
- Goal 3 is able to describe current barriers to primary care guideline implementation based on the qualitative research. This forms the basis for recommendations to national and provincial government players regarding best strategies to overcome known barriers and identifies research gaps for further exploration.
- Goal 4 has finalised and begun marketing of the online guideline toolkit for guideline users, developers and implementers. It is a one stop shop pulling together available resources in the field into one space.
- Goal 5 has contributed to upgrading of the semester long, Masters level module on clinical practice guidelines for health managers, policymakers, researchers and guideline implementers. The course content has been reviewed based on formal evaluation and is now implemented with sustainable approach via Stellenbosch University.

### 3.3 The development of research infrastructure to conduct cutting edge, world class research

This project is not primarily developing infrastructure, however, current findings from the SAGE research have identified challenges with the systematic, transparent and rigorous development and implementation of clinical guidelines in the context of South African primary care. Many interviewees have mentioned the potential need for a centralised national unit with skills across the range of guideline activities.

Through SAGE we are exploring this further in several ways:

- i) In the process of stakeholder engagement, we have begun to establish a valuable network of those interested in improving guidelines for South Africa. The SAGE Guidelines Summit was a highlight – well attended with valuable discussion about the need for nationally coordinated guideline activity.
- ii) The teams at the universities of Stellenbosch and South Australia are supporting several SAGE students – with mentoring, training or formal supervision in clinical guideline work and research (see section 3.4).
  - Goal 4 team has developed the online resource or toolkit and capacity development approach to support building skills in this field. <https://guidelinetoolkit.org.za/>

**3.4** Human capacity development (number of post graduates trained and post-docs mentored). Please provide the names, registered degree, date of 1<sup>st</sup> registration, expected date of completion; year of study (1<sup>st</sup>, 2<sup>nd</sup> etc.), race, gender and status (new, continuing or completed) of postgraduate students working on and/or benefiting from the project.

We offer training, and either mentoring or supervising post-graduate students as part of the SAGE capacity development activities. These are outlined below.

**Capacity building for students working on CPG related projects**

- General support for students to attend courses, workshops, summits, research retreats and provide guidance on research projects. In particular, maintain contact with SAGE students regarding opportunities for capacity building as they arise.
- The opportunity for a writing retreat for SAGE students and researchers may be offered to progress write up of publications related to guideline activities.
- Coordinate bursary for research conduct which will be paid directly from SAMRC (to cover specific expenses outlined in bursary form). We supported one of the master’s students (Kganetso Sekome) to present his related work in an international conference and to attend the Global Evidence Summit.

We are offering mentoring or supervising of SAGE linked post-graduate students as part of the SAGE capacity development activities. These students are registered for programmes at the University of the Witwatersrand and Stellenbosch University (listed below).

**PhD Students:**

Janicke Visser, PhD at Stellenbosch University, Year 1 in 2015 [K Grimmer mentor; female; white]

Dawn Ernstzen, PhD at Stellenbosch University, Graduated 2016 [Q Louw supervisor; female; coloured]

- Publication: Ernstzen DV, Louw QA, Hillier SL. Clinical practice guidelines for the management of chronic musculoskeletal pain in primary healthcare: a systematic review. *Implement Sci.* 2017 Jan 5;12(1):1. doi: 10.1186/s13012-016-0533-0.
- Oral presentation World Confederation of Physiotherapy: Ernstzen D, Hillier S and Louw Q: Contextualised Evidence Based Guidelines for chronic pain in the Western Cape. World Confederation of Physiotherapy; 2-4 July 2017, Cape Town, South Africa
- Oral presentation at the Global Evidence Summit: Ernstzen DV, Louw QA, Hillier SL. Contextualisation of clinical practice guidelines: An innovative approach for the primary healthcare of chronic musculoskeletal pain in South Africa. Abstracts of the Global Evidence Summit, Cape Town, South Africa. *Cochrane Database of Systematic Reviews* 2017, Issue 9 (Suppl 2). dx.doi.org/10.1002/14651858.CD201702.

Michael McCaul, PhD registered at Stellenbosch University, year 1 in 2016 [K Grimmer mentor, T Young supervisor; male; white]. Lead the adaptation of Emergency Care national Guidelines for South Africa.

**Masters Students:**

Kganetso Sekome, MPH (Rural Health) at Wits University graduated [K Grimmer, Q Louw mentors; male; black]  
 Marna Steyn, MSc (Physiotherapy) at Stellenbosch University [Q Louw supervisor; female; white]

**Post-doc:**

Janine Dizon, Stellenbosch University, now University of South Australia [K Grimmer and T Young mentors]

**CPG module of the Masters in Clinical Epidemiology, Stellenbosch University.**

The SAGE grant has assisted to enhance the module in CPGs hosted at Stellenbosch University. We are building on findings from the other SAGE Goals to inform the content and approach to delivering the learning material. The semester long (12 credits) Module is co-convened by SAGE team members, Tamara Kredo and Michael McCaul.

**3.5 Specific research outputs (e.g. publications, reports, conferences, etc.)****PUBLICATIONS**

<b>Metrics for published papers</b>	<b>Impact factor 2019</b>	<b>Citations (Scopus)</b>
Kredo T, Bernhardsson S, Machingaidze S, Young T, Louw Q, Ochodo E, et al. Guide to Clinical Practice Guidelines: The Current State of Play. <i>Int J Qual Health Care</i> . 2016.	2.554	34
Dizon JM, Machingaidze S, Grimmer K. To adopt, to adapt, or to contextualise? The big question in clinical practice guideline development. <i>BMC Res Notes</i> . 2016;9(1):442.		15
Grimmer K, Machingaidze S, Dizon J, Kredo T, Louw Q, Young T (2016) South African clinical practice guidelines quality measured with complex and rapid appraisal instruments. <i>BMC Res Notes</i> .;9:244. doi: 10.1186/s13104-016-2053-z		6
Machingaidze S, Zani B, Grimmer K et al. Quality and Reporting Standards of Clinical Practice Guidelines in use in Primary Care in South Africa. <i>Journal Clinical Epidemiology</i> . 2016. doi: 10.1016/j.jclinepi.2016.09.015	4.245	12
Dizon JMR, Grimmer K, Machingaidze S, McLaren P, Louw Q. Mapping South African Allied Health Primary Care Clinical Guideline Activity: establishing a stakeholder reference sample.(2016) <i>Health Research Policy and Systems</i> (10;14(1):77.	2.179	4
Dizon JM, Grimmer K, Louw Q, Machingaidze S, Parker H, Pillen H. Barriers and enablers for the development and implementation of allied health clinical practice guidelines in South African primary healthcare settings: a qualitative study. <i>Health Research Policy and Systems</i> . 2017;15(1):79.	2.179	4

Kredo T, Abrams A, Young T, Louw Q, Volmink J, Daniels K. Primary care clinical practice guidelines in South Africa: qualitative study exploring perspectives of national stakeholders. BMC Health Serv Res 2017 Aug 29;17(1):608. doi: 10.1186/s12913-017-2546-z	1.827	0
Wilkinson M, Wilkinson T, <b>Kredo T</b> , MacQuilkan K, Mudara C, Winch A, Pillay Y, Hofman KJ. South African clinical practice guidelines: A landscape analysis. South African Medical Journal. 2017;108(1):23-7. DOI: 10.7196/SAMJ.2017.v108i1.12825.	2.163	0
Dizon, J. M., et al. 2018. South African primary health care allied health clinical practice guidelines: the big picture. BMC Health Services Research, 18:48, doi:10.1186/s12913-018-2837-z.	1.83	2
Machingaidze S, Grimmer K, Louw Q, Kredo T, Young T, Volmink J. Next generation clinical guidance for primary care in South Africa – credible, consistent and pragmatic. PLOS ONE. 2018;13(3):e0195025.	2.766	3
Kredo T, Cooper S, Abrams A, Daniels K, Volmink J, Atkins S. National stakeholders' perceptions of the processes that inform the development of national clinical practice guidelines for primary healthcare in South Africa. Health Res Policy Syst. 2018;16(1):68.	2.179	1
Kredo T, Cooper S, Abrams A, Muller J, Volmink J, Atkins S. Using the behavior change wheel to identify barriers to and potential solutions for primary care clinical guideline use in four provinces in South Africa. BMC Health Services Research. 2018;18(1):965.	1.83	
Louw Q, Grimmer K, Dizon JM, Machingaidze S, Parker H, Ernstzen D. Building capacity in primary care rehabilitation clinical practice guidelines: a South African initiative. Health Res Policy Syst. 2018;16(1):96.	2.179	

#### SAMJ Editorial series:

- Machingaidze, S, Kredo T, Louw Q, Young T, Grimmer K. South African Guidelines Excellence (SAGE): Clinical practice guidelines - quality and credibility. S Afr Med J 2015 Sep 14;105(9):743-5 Available at: <http://www.samj.org.za/index.php/samj/article/view/9763/6741> (IF 2.163, citations 12)
- Kredo T, Machingaidze S, Louw Q, Young T, Grimmer K. South African Guideline Excellence (SAGE): What's in a name? S Afr Med J 2016;106(1):18-20. <http://www.samj.org.za/index.php/samj/article/view/10286> (IF 2.163, citations 11)
- Grimmer K, Dizon JM, Louw Q, Kredo T, Young T, Machingaidze S. South African Guidelines Excellence (SAGE): Efficient, effective and unbiased clinical practice guideline teams. S Afr Med J 2016 Mar;106(5):440-441. <http://www.samj.org.za/index.php/samj/article/view/10770> (IF 2.163, citations 4)
- Dizon JM, Grimmer K, Louw Q, Kredo T, Young T, Machingaidze S. South African Guidelines Excellence (SAGE): To adopt, to adapt, or to contextualise? South African Medical Journal 2016;106 (12):1177-8. DOI:10.7196/SAMJ.2016.v106i12.11374 <http://www.samj.org.za/index.php/samj/article/view/11601> (IF 2.163, citations 3)

- Louw Q, Dizon JM, Grimmer K, McCaul M, Kredt T, Young T. Building capacity for development and implementation of clinical practice guidelines. *S Afr Med J*. 2017;107(9):745-6. <http://www.samj.org.za/index.php/samj/article/view/12056/8224> (IF 2.163, citations 2)

### **Submitted**

- Grimmer K, Louw Q, Machingaidze S, Dizon J. Allied Health South African guidelines current state of play. *BMC Res Notes*
- Young T, Dizon JMR., Kredt T, McCaul M, Ochodo E, Grimmer K Louw Q. Enhancing capacity for clinical practice guidelines: Development, implementation and evaluation of a dedicated training course to address the training needs of clinical practice guideline stakeholders in South Africa. Submitted *BMC health services research* (October 2018)
- Kredt T, Cooper S, Abrams A, Muller J, Schmidt BM, Volmink J, Atkins S. Primary care guideline implementation: perspectives of provincial and district implementers in four South African provinces. *BMJ Open* (submitted 5 May 2019)
- McCaul M, Erntzen D, Draper B, Temmingh H, Galloway M, Kredt T. Clinical practice guideline adaptation methods in resource-constrained settings – four case studies from South Africa. Submitted *BMJ EBM* (5 March 2019)

### **REPORTS**

- SAGE report
- SAGE summary report
- Machingaidze S. Technical report – Goal 2 Primary Health Care Clinical Guideline Identification and Appraisal
- Grimmer K. Technical report: Literature review and recommendations for SAGE definitions of PHC and PC
- Gerritsen A et al. Technical report. Scoping review of guideline coordination units

### **CONFERENCE PRESENTATIONS:**

#### **National**

- Kredt T et al. *The South African Guideline Excellence (SAGE) Project – an innovative model for improving the development and use of primary health care clinical practice guidelines (CPG)*. Stellenbosch University research day, August 2014 (Poster)
- Machingaidze S et al. *Evidence for impact – working together to support knowledge translation in the African region*. Western Cape Research Day, September 2014. (Oral and poster)
- Kredt T et al. *The South African Guideline Excellence (SAGE) Project – an innovative partnership for improving the development of use of primary care clinical practice guidelines*. Sustainable Rural Health Days, Worcester, 18-19 March 2015 (Oral Presentation).
- Machingaidze S et al. *The South African Guideline Excellence (SAGE) Project – an innovative partnership for improving the development of use of primary care clinical practice guidelines*. Africa Evidence Network meeting November 2015 (Poster)
- Kredt T et al. Exploring current players, practices, processes and contexts of clinical guideline development for South African primary care. Health Systems Trust Conference Johannesburg, May 2016 (Oral and poster)

- Louw Q, Parker H, Dizon J, Machingaidze A and Grimmer K (2016) *Barriers and enablers for the uptake of allied health clinical practice guidelines in South Africa in South African Primary Health Care Settings*. FMHS (SU) Annual academic year day 11 August 2016 (Poster)

### International

- Abrams A et al. *South African Guideline Excellence (SAGE) Project: an innovative partnership for clinical guideline excellence – results Goal 1*. Guidelines International Network conference, Amsterdam, October 2015. (Poster)
- Abrams A et al. *Reported use and perceptions of value of Cochrane evidence by South African guideline developers*. Annual Cochrane Colloquium. Vienna, October 2015 (Oral)
- Machingaidze S et al. *Quality and reporting standards of South African primary care clinical practice guidelines*. Guidelines International Network conference, Amsterdam, October 2015. (Poster)
- Machingaidze S et al. *Clinical guidance terminology in South Africa: producing believable, appropriate and implementable evidence statements*. Guidelines International Network conference, Amsterdam, October 2015. (Poster)
- Grimmer K et al. *Clinical practice guideline quality: an effective appraisal instrument for busy people*. Guidelines International Network conference, Amsterdam, October 2015. (Poster)
- Dizon JMR et al. *A review of teaching and learning strategies and existing CPG courses for effective training in clinical practice guideline development approaches – accepted for oral presentation in the coming Guidelines International Network Conference, September 27-30, 2016, Philadelphia, USA.*
- Grimmer K, Dizon J Louw Q, Bernhardsson S: *clinical practice guidelines in physical therapy: current state of play (symposium) World Confederation of Physiotherapy; 2-4 July 2017, Cape Town, South Africa (accepted)*
- Louw Q, Dizon K, Grimmer K: *Barriers And Facilitators For Uptake Of Allied Health Clinical Practice Guidelines In South African Primary Health Care Settings, World Confederation of Physiotherapy; 2-4 July 2017, Cape Town, South Africa (accepted)*
- Kredo T, Muller J, Mokganyetji T, Abrams A, Daniels K, Atkins S. *Exploring barriers and facilitators to South African primary care clinical guideline implementation: perspective of clinicians*. Abstracts of the Global Evidence Summit, Cape Town, South Africa. *Cochrane Database of Systematic Reviews 2017, Issue 9 (Suppl 2)*. [dx.doi.org/10.1002/14651858.CD201702](https://doi.org/10.1002/14651858.CD201702).
- Ernstzen D, Hillier S and Louw Q: *Contextualised Evidence Based Guidelines for chronic pain in the Western Cape*. World Confederation of Physiotherapy; 2-4 July 2017, Cape Town, South Africa

- Ernstzen DV, Louw QA, Hillier SL. Contextualisation of clinical practice guidelines: An innovative approach for the primary healthcare of chronic musculoskeletal pain in South Africa. Abstracts of the Global Evidence Summit, Cape Town, South Africa. Cochrane Database of Systematic Reviews 2017, Issue 9 (Suppl 2). dx.doi.org/10.1002/14651858.CD201702.
- Kredo T, Cooper S, Muller J, Mokganyetji T, Abrams A, Daniels K, Volmink J, Atkins S. Using the Theoretical Domains Framework to explore barriers to and facilitators of South African primary care clinical guideline implementation: perspectives of primary care clinicians. Abstract of the Behaviour Change for Health: Digital and beyond, 21-22 February 2018, University College London, United Kingdom (late breaker poster)
- McCaul M, Erntzen D, Temmingh H, Draper B, Galloway M, Kredo T. Adaptive clinical practice guideline development methods in resource-constrained settings – four case studies from South Africa. Guidelines International Network Conference. Manchester, UK. 11-14 September 2018 (poster)
- Ongolo-Zogo C, Youta A, Kredo T. Clinical Practice Guidelines for Priority Communicable diseases in Francophone Countries of Sub-Saharan Africa. Guidelines International Network Conference. Manchester, UK. 11-14 September 2018 (poster)
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- Kredo T, McCaul M, Siegfried N. Simulation for teaching GRADE in guidelines development in sub-Saharan Africa. Guidelines International Network Conference. Manchester, UK. 11-14 September 2018
- Kredo T. Mapping needs of guideline implementers for South African primary care. African Cochrane Indaba 2019. Cape Town. 25-26 March 2019 (oral)
- Siegfried N, McCaul M, Kredo T. GRADE: Evidence to Decision (EtD) guideline panel simulation. African Cochrane Indaba 2019, Cape Town. 25-26 March 2019
- Kredo T. Introduction to evidence informed decision-making. Evidence 2018, Pretoria, South Africa. 25-28 September 2018 (workshop)

#### **WORKSHOPS AND STAKEHOLDER MEETINGS**

- PRICELESS, University of Witswatersrand, School of Public Health, meeting with the team and information sharing regarding SAGE and Cochrane work, 3 December 2014
- IDSI, NICE International meeting hosted by PRICELESS, University of Witswatersrand, School of Public Health, February 2016 (Oral presentation regarding SAGE)
- National Department of Health, PRICELESS, discussion to clarify role of PRICELESS and possible priority areas from NDoH seeking collaboration and cross over to create relevant evidence products, 18 April 2016
- SAGE Students capacity building workshop, Cape Town, SAMRC, March 2015
- Allied health workshop, Gauteng Province, June 2015
- National workshop on contextualization of guidelines, Cape Town, SAMRC, June 2015
- RUDASA conference workshop, Mpumalanga, September 2015
- Mpumalanga PDOH workshop, September 2015.
- SAGE Summit, February 2016
- Pharmaceutical Care Management Association (PCMA) Feedback on SAGE Summit, 11 March 2016 (Oral presentation)
- SAGE Panel Discussion, April 2017
- SAGE feedback session at re-launch of Pharmaceutical and Therapeutic Care Management Association, 8 March 2018, Discovery Building, Sandton, Johannesburg

<ul style="list-style-type: none"> <li>• SAGE feedback April 218, SAMRC conference Centre, Cape Town</li> </ul>
<b>3.6</b> Contributions the research has made to improvements in health outcomes
None to report.

<b>Section 4: Issues and planned resolution.</b> List any issues that arose during the period. (This may relate to project work itself or issues related to the consortium, etc.)
Nil to report

<b>4.1 Issue resolution.</b> Describe how the issues have been/will be resolved. Provide information on expected dates of resolution
Nil to report

