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Chapter 14: Status of South Africa's National Health Research System: a 2018 update

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- South Africa's pursuit of universal health coverage (UHC) requires contextualised scientific knowledge to guide development of health system-strengthening strategies/interventions, and to spur inter-sectoral action tackling social determinants of health. Urgent concerted action is needed to strengthen the national health research system (NHRS), with a view to generating high-quality knowledge and promoting its utilisation in population health development.
- The first NHRS status report published by Senkubuge and Mayosi in 2012 highlighted the weaknesses inherent in the system. A survey conducted by the World Health Organization (WHO) in 2014 estimated South Africa's NHRS barometer score at 79%, higher than the average of 37% for high- and upper-middle-income African Region countries. In 2015, the sixty-ninth WHO Regional Committee for Africa adopted a regional strategy on research for health calling upon Member States to strengthen their NHRS.
- In 2018, a study was conducted which sought to gauge South Africa's progress in NHRS strengthening three years after adoption of the regional strategy. The specific objectives of this study were to: assess some aspects of South Africa's NHRS; estimate NHRS barometer scores for South Africa; identify facilitating and constraining factors; and make recommendations to enhance South Africa's NHRS.
- To date, only two published studies in the African Region have attempted to develop a NHRS index to monitor performance over time. In 2015, Kirigia et al. developed the Malawi national NHRS index, and in 2016, they used regional data collected in 2014 to develop a NHRS barometer for use in the African Region.
- The barometer has four functions, namely governance of research for health (R4H), developing and sustaining resources for R4H, producing and using research, and financing of R4H; as well as 17 sub-functions.
- South Africa's NHRS barometer was developed using the following six steps: delineate the goals and functions of NHRS; delineate the sub-functions under each NHRS function; collect data on each NHRS sub-function; score NHRS sub-functions; calculate NHRS barometer sub-function indices for South Africa; and calculate the overall NHRS barometer score for South Africa.
- Leadership and governance of the NHRS in South Africa is primarily performed by the NHRC, and the National Health Research Ethics Council. Despite a 100% NHRS barometer score for the 'leadership and governance' function, there is room for improvement. For example, the National Health Research Policy, the Health Research Strategic Plan, and the National Health Priority Research Agenda are over six years old and need to be updated.
- The average barometer score for developing and sustaining resources was 73.7%. In order to maximise this function, both the number of universities undertaking R4H and human resources for health research per population need to increase.

- In 2017, the total number of R4H publications in South Africa was 12.5 per 100 000 population, compared with 15.46 in Brazil, yielding a publication score of 81%. The barometer score for the producing and utilising research function was 93.7%. The deficit in performance can be bridged by increasing the number of peer-reviewed R4H publications.
- The average ‘financing R4H’ score was 50%. A lot needs to be done to attain the recommended investment of at least 2% of national health budget on NHRS capacity-strengthening.
- In 2018, none of the 17 sub-function barometer scores had a zero index (which would have meant non-existent); two scored less than 1%; one scored 42% (below average); one scored 81% (above-average); and the remaining 13 sub-functions scored 100% (flourishing). The average barometer function scores were 100%, 73.7%, 93.7%, and 50.11%. Thus, the overall NHRS barometer score for South Africa in 2018 was 83.7% (above average, but short of optimal performance by 16.3 percentage points), compared with 79% in 2014.
- Recommendations for the leadership and governance function include updating the national R4H policy, the national strategic plan on R4H, and the national priority R4H agenda; strengthening research management capabilities at provincial level; developing national guidelines for the management of intellectual property and knowledge-transfer activities; spearheading the development of memorandums of understanding between the NDoH and national universities with health sciences faculties and those involved in biomedical research; continuing to promote south-south and north-south R4H collaborations and networking for excellence; and continuing discussions on genomic research and its potential benefit to African countries.
- Recommendations for developing and sustaining resources include upgrading health research infrastructure in the 10 lowest-ranked universities; fast-tracking clinical research approvals; upgrading more clinical research facilities to the standards of the WHO Good Clinical Laboratory Practice; and continued investment in doctoral degree training to create a critical mass of multi-disciplinary human resources for health research, and postgraduate trainers and mentors.
- Recommendations for producing and utilising research include sustaining investment in the existing knowledge translation platforms; sustaining incentives for universities and the South African Medical Research Council; and supporting the ongoing development of South Africa’s National Health Research Observatory.
- Recommendations for financing research for health include institutionalising a system of national R4H accounts to track health-related research and development (R&D) spending; and commissioning a study to inform development of sustainable innovative health-related R&D financing mechanisms to meet the Algiers Declaration target.

SOURCE: Senkubuge F, Muthivhi T, Loots G, Makanga M, Bockarie M, Nyirenda T, Kirigia JM, Kahn M, Shirinde J. Status of South Africa’s National Health Research System: a 2018 update. In: Rispel LC and Padarath A, editors. South African Health Review 2018. Durban: Health Systems Trust; 2018.

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