

The *Global Report on Urban Health: Equitable, healthier cities for sustainable development* issued in March 2016 by the World Health Organization and the United Nations Human Settlements Programme (UN-Habitat) emphasises the need for enhanced governance and leadership to achieve universal health coverage and the Sustainable Development Goals (SDGs). Noting that a healthy population forms the foundation for “sustainable economic growth, social stability, and full realisation of human potential”, the report presents “practical, proven solutions for working across sectors to tackle these ... health challenges”, and includes examples of such successes in South Africa.^a

The 20 chapters that make up the 2016 edition of the *South African Health Review* mirror this global health and development agenda in a local context and offer evidence-based recommendations for resolving our country’s health challenges. Binding this content is the aspiration for an accessible, high-performing public health system that ameliorates health disparities and provides quality health care, bolstered by multisectoral mobilisation under adept management, leadership and governance.

The chapters in this Review are assembled into the following focus areas: Leadership and governance, Human resources for health, Service delivery, Financing and Medical Products, and Information.

Leadership and governance

In Chapter 1, Andy Gray and Yousuf Vawda describe milestones in South Africa’s health policy and legislation over the past year, and the delays and challenges beleaguering the development and application thereof. They point out that although the long-awaited NHI White Paper was released, related funding and policy issues lack detail and finalisation, while the Office of Health Standards Compliance and the South African Health Products Regulatory Authority are yet to be fully operationalised. They note that the development of secondary and tertiary legislation for the Medicines and Related Substances Amendment Acts of 2008 and 2015 is needed for promulgation, and that there is no movement on the proposed redesign of the Health Professions Council of South Africa. They also note that while draft Bills to amend the National Health Laboratory Service Act and to create a new National Public Health Institute of South Africa have been prepared, neither Bill has yet been tabled in Parliament.

Laetitia Rispel contributes a powerful perspective on public health sector transformation in Chapter 2, noting that although progressive measures in health policy, legislation and resource allocation have been taken since the advent of democracy in South Africa, three key fault lines in implementation underpin the relatively poor performance of our health system and are impeding realisation of improved health for the nation. In her analysis, tolerance of ineptitude and failures in leadership, management and governance, a district health system that does not adequately drive the delivery

of primary health care, and the unsolved health workforce crisis, constitute a conjoined threat to the feasibility of National Health Insurance (NHI).

In November 2015, the South African Medical Association (SAMA) warned that climate change will produce a surge in waterborne diseases. David Hemson’s timely research on water, sanitation and health in South Africa, presented in Chapter 3, portrays the factors indicating a need for improved water and health management, with greater surveillance of water quality – particularly in vulnerable communities – and the delivery of universal water services to ensure health and prevent disease outbreaks. His recommendations include regular review and routine public reporting of water quality management, and further research into the development and sustainability of sanitation services.

In Chapter 4, Mark Spires, David Sanders, Phillip Hoelzel, Peter Delobelle, Thandi Puoane and Rina Swart focus on evidence relating to change from a traditional diet to a ‘western’ diet with more processed foods, more foods of animal origin, and more added sugar, salt and fat, which has been implicated in the rise of NCDs in South Africa. They note that positive policy steps in this regard have been made at national level, but consequent action has been lacking, and a sustained public health effort is required to address the environmental factors and knowledge, attitudes and behaviours that aggravate the NCD burden. A co-ordinated plan is needed to make healthy foods more available, acceptable and affordable.

Human resources for health

In Chapter 5, Virginia Zweigenthal, Leslie London and William Pick contend that several of South Africa’s key transformative health policies make scant mention of the skilled public health (PH) work-force required to monitor the progress of NHI and the SDGs, identify health service priorities and implement effective delivery strategies. However, since 1994, graduate public health programmes have expanded to include other health professionals and social scientists who can apply their broad and versatile skills-base in technical and service roles at district, provincial and national levels. The authors suggest that existing Public Health units in the Western Cape and Gauteng staffed with multi-disciplinary teams of PHM specialists and other PH professionals could be replicated across the country as a resource for health system development and restructuring.

In Chapter 6, Rajen Naidoo, Saloshni Naidoo and Sujatha Hariparsad provide a review and critique of the current approaches to managing ill-health among healthcare workers and assessing their ability to work. Healthcare workers experience a significant burden of disease caused by a range of workplace hazards, and inadequate institutional management of sickness absence results in a high number of lost work-days, translating into massive costs. The

^a http://www.who.int/kobe_centre/measuring/urban-global-report/en/

authors propose that institutional responsibility for a work-focused approach be adopted to address the health of healthcare workers, and thereby improve productivity and patient care; this would entail involvement of the Employee Health Service for periods of five days of absence, or of the Occupational Medical Practitioner for repeated short-term absences and assessment of fitness to work.

The focus of Chapter 7 is on addressing language barriers in South African health care using trained interpreters. Ereshia Benjamin, Leslie Swartz, Linda Hering and Bonginkosi Chiliza identify themes emerging from mentor sessions in a pilot project conducted in Western Cape hospitals. Community interpreters were found to experience their work as challenging on practical and emotional levels, and to be uncertain about their location and role in the health system. The authors highlight the potential to develop a multilingual health service for South Africa's culturally and linguistically diverse population; they argue for the promotion of language access in health services and the professionalisation of health interpreters, and suggest areas for further research.

Mosa Moshabela, Thembelihle Zuma and Bernhard Gaede provide a compelling account (Chapter 8) of the need for respectful engagement between biomedical and traditional health practitioners, following the promulgation of the Traditional Health Practitioners Act (22 of 2007). In foregrounding the resilience of indigenous knowledge, practice and experience, they advocate for the 'reclamation' of traditional medicine and healing through policy, legislation and research that will resolve continuing tensions between the two paradigms of health care and, through the lens of mutuality rather than opposition, prioritise the needs of the large proportion of South Africa's patient population. A merged, complementary system of plural health care would benefit both arms of healthcare practice, the patients themselves, and other countries in the African region that seek to institutionalise traditional healing.

Service delivery

Chapter 9, crafted by Naomi Lince-Deroche et al., acknowledges South Africa's progressive and comprehensive laws, policies and guidelines on contraceptive service provision in the public sector and the country's commitment to integrated, rights-based service delivery in the context of the SDGs and the Family Planning 2020 (FP2020) initiative. However, scarce resources and South Africa's HIV epidemic, and their impact on delivery of contraceptive services, are health systems constraints that demand accountability for related budgeting and dispensing methods. The authors suggest that shift and scale-up of contraceptive use in South Africa requires ongoing assessment of the couple year protection rate and unmet contraception need, along with counselling, education and supportive interactions with the healthcare system for all women, in order to optimise improved contraceptive uptake.

Knowledge and evidence, politics and governance, and capacity and resources are the three linked elements of an enabling environment for breastfeeding. In Chapter 10, Lisanne du Plessis, Nazia Peer, Simone Honikman and René English observe that enhancing and broadening breastfeeding interventions at all levels of impact will contribute extensively to the achievement of the health, food security, education, equity, development and environmental SDG targets. To support breastfeeding through a multi-layered approach across the various levels of government and society, the

authors urge for dissemination of evidence to promote a culture of breastfeeding; political will; removal of societal and structural barriers to breastfeeding; regulation of the breast-milk substitute industry; interventions tailored to local needs; appropriate capacity and resources; good-quality data; standardised messages, and explicit guidelines.

MomConnect – a national digital maternal health program that implements the South African mHealth Strategy and the National Health Normative Standards Framework (HNSF) for Interoperability in eHealth – has drawn global attention due to its innovative features and its avoidance of many of the common pitfalls of implementing digital health projects at scale in low-resource settings. Enrolment of more than half a million women from all regions of the country in the first year of operation (representing approximately half the number of pregnancies in the public health sector) has generated a national registry of pregnant individuals and a national feedback system to clients. In Chapter 11, Christopher Seebregts, Peter Barron, Gaurang Tanna, Peter Benjamin and Thomas Fogwill focus on the design and development of the technical infrastructure supporting MomConnect, and offer evidence-based recommendations for the future development of the MomConnect technical infrastructure and related projects as part of the HNSF implementation; several of these recommendations are already being investigated or developed by the NDoH.

Chapter 12, written by Helen Malherbe, Colleen Aldous, Dave Woods and Arnold Christianson, explores the virtually hidden disease burden of congenital disorders (CDs) as a cause of child mortality in South Africa. As the CD mortality rate drops, the proportion of deaths from undiagnosed or misdiagnosed CDs is increasing in South Africa. Inaccurate data for CDs as the cause of death has masked the true scale of the role of CDs in child mortality and morbidity. The authors note that the re-engineering of the healthcare service and the NHI initiative provide opportunities for the rebirth of medical genetic services for the prevention and care of CDs, specifically through integration into services for women's, maternal and child health throughout the continuum of care in all appropriate stages of life.

In order to improve national and global health, mental, neurological and substance use (MNS) disorders should be integrated into health policy and practice. Chapter 13 demonstrates that integration of mental health into primary care in South Africa is challenging but can be both efficient and cost-effective, and that not doing so will result in mental health continuing to be underfunded and marginalised. Marguerite Schneider et al. provide an overview of existing policies and services in place for mental health care in South Africa, describe current research on effective strategies for providing such services, and identify key barriers and facilitators in implementing and scaling up mental health services.

The rights and health issues of South Africa's sex workers form the focus of Chapter 14, authored by Andrew Scheibe, Marlise Richter and Jo Vearey, who assert that South Africa will not reach the United Nations Joint Programme on HIV and AIDS (UNAIDS) 90-90-90 targets unless adequate attention and political will are invested in sensitive, appropriate and evidence-based responses to sex worker health. The South African National AIDS Council's SANAC Sex Worker Programme 2016–2019 represents limited but important progress in expanding appropriate programmes for

sex workers in South Africa, but this requires rapid implementation, and much more is needed to reach and empower sex workers to keep themselves safe, safeguard public health, and achieve health-related SDGs. Delays in addressing data gaps, implementing global recommendations on sex work law reform and a lack of evidence-based interventions continue to impact negatively on sex worker morbidity and mortality, and have wide-ranging implications for public health and related expenditure.

Another aspect of public health requiring urgent attention in order for NHI to succeed is South Africa's extensive injury burden. Addressing the causes and treatment of trauma requires specialist services and multidisciplinary care. Chapter 15 presents data from numerous studies giving insight into the options for establishing systems of quality trauma care and accreditation programmes for hospitals. The authors, Timothy Hardcastle, George Oosthuizen, Damien Clarke and Elizabeth Lutge, address current and optimal staffing of trauma-care facilities, compliance with minimum equipment standards, and the potential for patient harm, and call for the establishment of a National Trauma Data Bank. They emphasise the need for prevention programmes and the cost implications of trauma care, noting the cost-benefit ratio of good trauma care compared with the litigation risk to government when such care cannot be provided.

The last chapter in the section related to health service delivery speaks to clinical quality of care and client satisfaction. Ronelle Burger, Shivani Ranchod, Laura Roussouw and Anja Smith propose in Chapter 16 that measuring quality of care will be strengthened by complementing current approaches with alternatives such as standardised clients and vignettes, health worker knowledge tests, direct observation, and gathering client feedback on the clinical dimensions of client-provider interaction. Measuring quality and its improvement is pivotal for the planned health-system reforms to be effective in promoting health, ensuring client safety and saving lives. Continued critical reflection and debate on how best to measure quality in the public sector should centre on the affordability, feasibility, reliability, credibility and relevance of current and alternative approaches.

Financing and medical products

Chapter 17, contributed by Mark Blecher, et al., investigates HIV financing in South Africa. The authors probe whether there is sufficient fiscal space to afford and sustain the expanded and rapid roll-out of antiretroviral treatment and prevention interventions needed to reach the UNAIDS 90-90-90 targets in the context of declining economic growth, the monetary constraints announced in Budget 2016, and diminishing donor funding. Their analysis uses the results of the recent HIV investment case, which includes the most recent national costing, cost-effectiveness and allocative efficiency modelling of the epidemic, and information from recent national budgets. Overall, there are indications that introducing the HIV 90-90-90 targets will be hard to achieve, but that they are likely to be affordable and cost-effective if implemented in a phased way and if annual increments to Government AIDS budgets are sustained. Bearing in mind that spending more now will lead to a decrease in total spend, the total cost of the national HIV and AIDS programme will increase, notwithstanding the mix of interventions chosen, because of South Africa's generalised epidemic and Government's pre-existing commitment to fund lifelong ART to existing patients.

In Chapter 18, Varsha Bangalee and Fatima Suleman discuss South Africa's pharmaceutical pricing dynamics and related transparency issues. As more countries look to South Africa for lessons from its pricing policies, an understanding of the manufacturer's price, logistics fees and the relationship between the two has become increasingly necessary to support the principle that the Single Exit Price (SEP) – which clarifies the price at which a manufacturer may sell a medicine to logistics service providers or medicine dispensers – leads to more transparent prices. Their findings reveal that prices reflected in South African medicine price registries may not be a true reflection of those negotiated between manufacturers and distributors/wholesalers. To guide further policy decisions, gauge market changes in response to the various policies, and ensure transparent pricing, more robust information is needed on medicine pricing in the South African pharmaceutical sector, gleaned from larger, in-depth pharmaco-economic evaluations.

Information

Chapter 19 reviews the concept of health research observatories as globally recognised proactive institutions that provide appropriate evidence-based information to guide policy-making decisions for improving a country's health care. The chapter describes the vision, mandate, purpose, scope and benefits of, as well as key challenges to, South Africa's proposed National Health Research Observatory (NHRO). Nobelungu Mekwa et al. identify the NHRO as a comprehensive information and translation system designed to enable the national co-ordination and integration of research and health information from the country's multiple research platforms, driven by the National Health Research Committee's commitment to elevating health research that is aligned with both South Africa's National Development Plan 2030 and the World Health Organization's global interest in research for health. This synopsis serves to stimulate local awareness among and participation by the health research community and relevant stakeholders for sectoral adoption and support of the NHRO.

The final chapter, presenting health and related indicators, is the long-established ballast of the Review, compiled by Candy Day and Andy Gray. Casting their statistical analyses against the backdrop of the SDGs, which catalyse efforts to tackle NCDs alongside major communicable diseases, the authors note that although the SDGs pose extended data and monitoring challenges, they also yield more opportunities for productive engagement between researchers and operational actors. This year's Indicators chapter offers its characteristically wide range of information, with a specific focus on the data needed to monitor NCDs. The scope covers demographic, socio-economic and risk factor indicators, health services indicators (health facilities and health personnel), and health financing indicators. Health status data on mortality, disability, tuberculosis, HIV and AIDS, infectious diseases and malaria are reported, as are reproductive health statistics featuring contraception, sexual behaviour, sexually transmitted infections, termination of pregnancy and maternal health. The remaining categories are child health, nutrition, NCDs, injuries, risk behaviour and determinants of health.

It has been said that a river cuts through a rock not because of its power, but because of its persistence. In the continued quest to ensure an optimal health system for all, evolutionary interventions are needed to counteract the rapidly growing burden of NCDs together

with prevailing infectious diseases. The imminently devastating effects of climate change, and the vulnerability of economically deprived and socially unprotected members of our communities requires innovative and decisive action. It has never been more important to abandon vertical and fragmented approaches and to opt for an inclusive coalition of roleplayers to address the interdependent factors benefiting human health, the environment and the economy.

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