The District Health System must become a learning health system

In South Africa (SA), the district health system (DHS) is a critical platform both for the downstream provision of healthcare services and for addressing the upstream social determinants of health.

Downstream, the DHS supports the delivery of community-based and facility-based primary care services, enables patient referral across the public system, co-ordinates with other local providers and has a key role to play in ensuring improved quality of care.[1] In terms of *upstream* action, moreover, the DHS is well-positioned to co-ordinate action with societal actors and across government departments to meet community health and wellbeing needs, and address the social determinants of health.[2-4] These needs vary considerably from district to district, and change over time. The COVID experience clearly demonstrated that it is necessary for the DHS both to be able to flex quickly in response to new health challenges and to work locally with other sectors and actors to address those challenges.[5]

Such responsiveness to changing community needs requires that the DHS has the capacity to learn and adapt over time. Considering the current systems of monitoring SA DHS performance, Barron *et al.*[6] therefore conclude that '[a] culture of learning needs to be fostered within the DHS'. Such a culture is also necessary because the DHS is the space in which centrally developed policies and plans, the top-down imperatives, meet the complex frontline, or bottom-up, realities of communities and of service delivery.[2,7] Very often, then, it is district and subdistrict managers who must adapt and translate central policy imperatives to fit these realities, in engagement with their staff, community organisations and other sectors and partners.[8,9]

The importance of learning in health systems is also more widely recognised. The Lancet Global Health Commission on High-Quality Health Systems,[10] for example, identified learning, especially DHS-led, as important for delivering high-quality healthcare. The World Health Organization's Alliance for Health Policy and Systems Research (AHPSR) has argued, moreover, that learning is 'fundamental to the strengthening of health systems and the achievement of health goals'.[11]

What is learning and what are the dimensions of a learning health system?

Learning, as defined by Fiol and Lyles,[12] is 'the development of insights, knowledge, and associations between past actions, the effectiveness of those actions, and future actions.' This goes beyond reviewing performance against quantitative indicators, the dominant form of monitoring and evaluation (M&E) in SA,[6] and instead requires tapping into tacit knowledge and experience, and making meaning of data. Hard (quantitative) data should be supported by soft (sometimes also called warm) intelligence (insight into lived experience, and the context and processes underlying system behaviour and performance) to guide action.[10] The AHPSR report[11] stresses, therefore, that learning entails a combination of information, action and deliberation – bringing routine and statistical data together both with the experiential knowledge generated from learning-through-doing and the wider tacit knowledge required to make meaning of hard data.

Two other dimensions are important in developing learning health systems.[11] First, processes that enable learning across individuals and teams within an organisation, and also across organisations. Second, processes that work to challenge the assumptions on which current practices are based. As summarised in Fig. 1, rather than simply supporting adaptations of existing practices ('single-loop' learning), such processes offer opportunities to identify new ways of functioning, ('double-loop' learning) – including the new ways of learning that can transform systems (referred to as 'triple-loop' learning).

Overall, the AHPSR[11] suggests that learning can be encouraged through processes that institutionalise: learning through information, such as M&E processes; deliberative learning, such as platforms for community engagement and participatory planning; and experiential learning, such as pilot schemes and purposefully established learning sites.

The challenges and promise of learning in the South African DHS

However, for learning to happen within any system, the conditions must be enabling. Such conditions include how organisations are structured and the processes that underpin their functioning, the types of leadership and cultures within them and the availability and use of resources.[11] The SA DHS faces challenges in terms of all these conditions. Structurally, for example, although formally decentralised, in practice the public health system is often seen as a 'pyramid sitting on its head'[13] – a top-heavy structure resulting from the concentration of power/authority[13,14] and capacity (staffing, skills and seniority)[13,15] at the top, with inadequate delegation to lower levels. At lower levels, the experience of high workloads,[15] combined with increasing demands and expectations from patients and communities[9] can squeeze out space for learning among frontline staff. Indeed, the top-heavy structure and associated multiple and multidirectional accountability demands[15,16] have, in some places, resulted in a climate of fear and blame[9] and a culture of doing things just for the sake of compliance.[9,16,17]

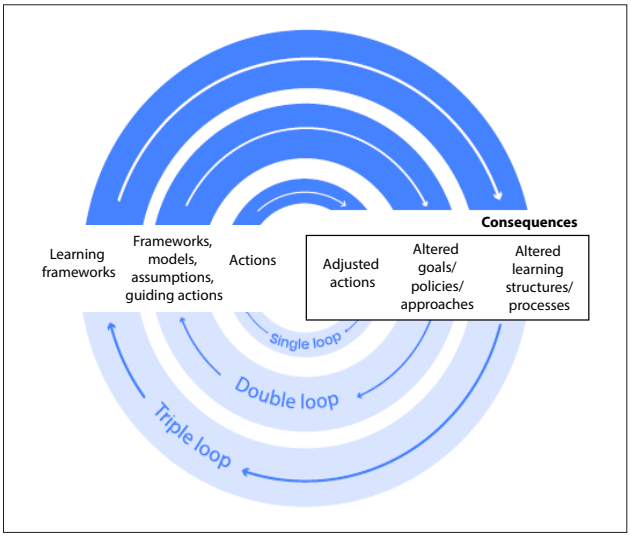

Fig. 1. Nested learning loops.[11]

Yet the DHS does hold critical seeds for learning – such as locally collected (hard) data as well as lived experience (warm data), knowledge of context and local realities (soft data), proximity to the community and a wide span of relationships. Processes that bring these seeds together can generate new ways of functioning better to meet community health needs, and also support new and transformative ways of learning. For example, experience from Limpopo and Mpumalanga provinces demonstrates the critical role of learning, as part of a wider set of governance practices, in sustaining maternal and child mortality reductions at the district level.[18]

Conclusion

The importance of learning at the DHS level means that we need to do more to reap the benefits of the learning seeds embedded in it. Indeed, for the DHS to be strengthened over time and able to address complex health and wellbeing challenges, learning must become a routine of the DHS, rather than being seen as somehow an unnecessary or luxury process.

1. Barron P, Sankar U. Developments towards a district health system. In: Ntuli A, ed. South African Health Review. Durban: Health Systems Trust, 2000:221-230.
2. World Health Organization. Report of the Interregional Meeting on Strengthening District Health Systems Based on Primary Health Care, Harare, Zimbabwe, 3 - 7 August 1987. Geneva: World Health Organization, 1987. https://apps.who.int/iris/bitstream/handle/10665/61829/WHO_SHS_DHS_87.13.pdf?sequence=1 (accessed 10 January 2024).
3. De Maeseneer J, Willems S, De Sutter A, van de Geuchte I, Billings M. Primary health care as a strategy for achieving equitable care: A literature review commissioned by the Health Systems Knowledge Network. HSKN, 2007. https://biblio.ugent.be/publication/396406/file/1041490 (accessed 10 January 2024).
4. South Africa. National Health Act No. 61 of 2003.
5. Vallabhjee K, Gilson L, Davies M-A, et al. Reflections on the health system response to COVID-19 in the Western Cape Province. S Afr Health Rev 2021;1:173-187.
6. Barron P, Mahomed H, Masilela TC, Vallabhjee K, Schneider H. District Health System performance in South Africa: Are current monitoring systems optimal? S Afr Med J 2023;113(12):1515-1521. https://doi.org/10.7196/SAMJ.2023.v113i12.1614
7. McCoy D, Engelbrecht B. Establishing the district health system. In: Nicholas C, Antoinette N, eds. South African Health Review. Durban: Health Systems Trust, 1999:131-146.
8. Engelbrecht B, Gilson L. Governance, leadership and management. In: Matsoso MP, Chikte U, Makubalo L, Pillay Y, Fryatt R, eds. The South African Health Reforms 2015 - 2020. Johannesburg: Trackstar Trading, 2022:291-312.
9. Gilson L, Elloker S, Olckers P, Lehmann U. Advancing the application of systems thinking in health: South African examples of a leadership of sensemaking for primary health care. Health Res Policy Systems 2014;12:1-3. https://doi.org/10.1186/1478-4505-12-30
10. Kruk ME, Gage AD, Arsenault C, et al. High-quality health systems in the Sustainable Development Goals era: Time for a revolution. Lancet Glob Health 2018;6(11):e1196-1252. https://doi.org/10.1016/S2214-109X(18)30386-3
11. Sheikh K, Abimbola S, eds. Learning health systems: Pathways to progress. Flagship report of the Alliance for Health Policy and Systems Research. Geneva: World Health Organization, 2021. https://ahpsr.who.int/publications/i/item/learning-health-systems-pathways-to-progress (accessed 10 January 2024).
12. Fiol CM, Lyles MA. Organizational learning. Acad Manage Review 1985;10(4):803-813. https://doi.org/10.5465/amr.1985.4279103
13. Kawonga M, Blaauw D, Fonn S. The influence of health system organizational structure and culture on integration of health services: The example of HIV service monitoring in South Africa. Health Policy Plan 2016;31(9):1270-1280. https://doi.org/10.1093/heapol/czw061
14. Choonara S, Goudge J, Nxumalo N, Eyles J. Significance of informal (on-the-job) learning and leadership development in health systems: Lessons from a district finance team in South Africa. BMJ Glob Health 2017;2(1). https://doi.org/10.1136%2Fbmjgh-2016-000138
15. Wolvaardt G, Johnson S, Cameron D, Botha B, Kornik S. Challenges and constraints at district management level. In: English R, Padara A, eds. South African Health Review. Durban: Health Systems Trust, 2013:81-92.
16. Nxumalo N, Gilson L, Goudge J, et al. Accountability mechanisms and the value of relationships: Experiences of front-line managers at subnational level in Kenya and South Africa. BMJ Glob Health 2018;3(4):1-14. https://doi.org/10.1136%2Fbmjgh-2018-000842
17. Mukinda FK, van Belle S, George A, Schneider H. The crowded space of local accountability for maternal, newborn and child health: A case study of the South African health system. Health Policy Plan 2020;35(3):279-290. https://doi.org/10.1093/heapol/czz162
18. Schneider H, George A, Mukinda F, Tabana H. District governance and improved maternal, neonatal and child health in South Africa: Pathways of change. Health Syst Reform 2020;6(1):e1669943. https://doi.org/10.1080/23288604.2019.1669943

L Gilson, PhD
Division of Health Policy and Systems, School of Public Heath, University of Cape Town, Cape Town, South Africa; Department of Global Health and Development, London School of Hygiene and Tropical Medicine, London, UK
lucy.gilson@uct.ac.za

O S Motshweneng, FISQua
Department of Health and Wellness, Western Cape Government, Cape Town, South Africa; The Council for Health Service Accreditation of Southern Africa, Cape Town, South Africa

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