

FORUM

REFLECTIONS

From comprehensive medicine to public health at the University of Cape Town: A 40-year journey

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We explore the history of the School of Public Health at the University of Cape Town and its relationship to changes in the understanding of the role of public health both nationally and internationally. We draw from primary and secondary sources to trace the emergence, growth and development of the School, and to

situate these processes within the socio-political, clinical and public health contexts in South Africa and internationally.

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Public health has a long history in South Africa (SA) – the establishment of the School of Public Health at the University of Cape Town (UCT) in 1972 is but one event along the historical continuum.¹ The earliest known public health decree was issued in 1723 by officials of the Cape Colony, forbidding the sale of meat from cattle that had died of disease. There were public health interventions for the containment of plague and smallpox, resulting in port control measures and attempts to curtail the mobility of communities viewed as vectors of disease,² but these interventions were haphazard and, with some notable exceptions, had little effect on the public health of the population at large. Midway through the 20th century, scientific advancements in the control of infectious diseases ushered in a new era in medicine and epidemiology. The development of antibiotics in the 1940s, facilitated the control of bacterial infections and, paired with advances in microbiology and immunology, prompted an interest in the clinical and epidemiological dimensions of chronic diseases, and their socio-economic determinants. This period saw the emergence of sociology of medicine – with an attendant emphasis on the social and environmental determinants of health and the influence of social conditions on disease causation.³

By the mid-1940s, Sydney and Emily Kark, pioneers in community-orientated primary care (COPC), ushered in a new era in public health with the establishment of a community health centre in Pholela, Natal; the first of a number of such centres in the country.⁴ The aim of these centres was to provide comprehensive socio-medical

services for the surrounding communities. Inspired by the National Health System in the United Kingdom, the government-appointed Gluckman Commission recommended the introduction of COPC as part of a National Health Service in SA.⁵ Following the election of the apartheid government in 1948, progressive health developments were thwarted by the Nationalists. However, by the 1950s, social medicine was introduced as an academic discipline in SA.⁶ Owing to their opposition to apartheid, the Karks and other like-minded colleagues left the country and became leading global figures in the sphere of social medicine and epidemiology. Emigration of these public health pioneers contributed to SA's isolation from advancements in the development of public health as a global discipline.

Over the next 2 decades, the primary goal of the government of the country was to train medical officers to manage local authority services.⁷ The emphasis was on statutory public health functions, rather than the distribution and determinants of illness, and methods for disease prevention and health promotion – the currently accepted foundations of public health. It was argued that the apartheid government of the time was disinterested in science-based research about the public health needs of the broader population ... 'During apartheid, there was no concern for the health or wellbeing for the majority of the population. The apartheid government ignored public health, but it also had a sense of public health in terms of the problems that public health posed to people who were advantaged.'

In 1972 UCT established an academic home for public health: the Unit of Comprehensive Health and Community Medicine within the Department of Medicine. The aims included training 'at promotive, preventive, curative and rehabilitative levels, and to treat people rather than disease, within the family, work, cultural and socio-economic environment'. Postgraduate training involved 2 years of practical experience and award of a diploma.⁸ Subsequently, a 4-year registrar training programme as a Fellow of the College of Public Health Medicine was recognised by the Colleges of Medicine of South Africa (CMSA).

During the 1980s there were a number of name changes from Community Medicine to Community Health, and from Family Practice to the Unit of Primary Care. In the late 1990s, what was by then called the Department of Community Health and Primary Care, became the School of Public Health and Primary Health, 1 of 5 schools in the Faculty. In 2002, when Primary Health Care (PHC) became a separate Directorate in the office of the Dean, and with its activities being seen as cutting across the entire Faculty, the name was again changed to the School of Public Health and Family Medicine. This title appropriately reflected the multidisciplinary, consistent with international trends, that had developed in the School's research

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and teaching, and that contributed to a broader understanding of health and the interventions needed to achieve health.

Initially, in line with the apartheid state's view on public health, training focused on service management.⁹ There was no social justice dimension and health systems approach. The political system felt threatened by approaches that identified socio-economic conditions as powerful determinants of health, and academic sanctions limited international collaboration.

From the mid-1970s a group of progressive students within the Faculty began to agitate for changes to their degree courses so as to reflect the socio-political and clinical challenges of apartheid SA. Their critique was recorded in *Pulse*, a publication of UCT medical students.¹⁰

During the 1980s the department became a home for researchers with politically progressive views reflected in their research projects, 'public health became an important vehicle for political expression'. Two projects were initiated, which enabled the shift from a department adhering to apartheid health structures, to one that provided space for progressive action. The first was the Mamre Community Health Worker Project: a population-based research, training and implementation initiative, in which medical undergraduates and postgraduates worked in collaboration with a multidisciplinary team including community health workers.¹¹

The second programme, the Zibonele Project, followed a study of urbanisation and women's health in Khayelitsha,¹² and was established in collaboration with UCT's Students' Health and Welfare Centres Organisation (SHAWCO). Involvement in both the Mamre and Zibonele projects laid the basis for community-based undergraduate training in public health, particularly in PHC, epidemiology, research methods and health promotion, and later informed changes to the problem-orientated MB ChB curriculum launched in 2002.

The political transition to democracy in the 1990s provided a new vision for public health, and the department was poised to respond. Researchers used the opportunity provided by political changes to elaborate a new vision for public health research at UCT, and to remodel the department in response to the public health needs of the country. Staff recalled how the democratic transition provided 'a clear political moment' explaining: a ... 'lot of people who were involved in public health became very involved in policies around health, contributing to how we were going to unify a health system, how we were going to deracialise it, how we were going to make it more primary-care based ... The 1990s was an incredibly exciting period in this department'.

Professionals with a strong interest in epidemiology and social justice had joined the department, and the introduction of personal computers assisted data storage and analysis. Colleagues with interests in economics, sociology, anthropology, psychology and applied sciences provided diversity, and the end of the academic boycott led to international partnerships with numerous universities and organisations influencing the conception of local research.

The country's new political leadership drew in the department's health researchers, many of whom contributed to the ANC health desk. The Department of Health showed a strong interest in applying the measurement and management sciences to resource allocation, and developing an evidence basis for new, progressive health policies.

Nonetheless, public health was described in an inaugural lecture in 1999 as the 'Cinderella' discipline of health sciences in SA, and the question was posed: 'Will Cinderella become queen?'⁹ The discipline has, however, since grown in the strength and the breadth of its research, teaching and training. It has participated in health policy formulation and socially responsive research initiatives at provincial and national levels. When the department was established,

postgraduate training was aimed explicitly at medical graduates, but by the late 1980s there was much greater diversity in disciplinary focus, including economics, sociology, anthropology, psychology and basic or applied sciences. Approaches to health research, based on social sciences, have become an essential part of the School's programme.

The various groupings within the School (see below) collaborate with numerous national and international organisations and universities. There is large demand for postgraduate training, including from international students (particularly from Anglophone countries in Africa). An MPhil in Epidemiology was introduced in 1992 and was converted to a Master of Public Health (MPH) in 2000. There has been an increase in academic staff from 6 in 1972 to 111 in 2009. In 2010 there were 261 postgraduate students in the School, including 24 PhD students; 82 postgraduates graduated. By 2009, 65 public health specialists had been trained. The research record is impressive, with 136 articles in peer-reviewed journals published in 2010.

Other notable achievements include the establishment of SA's first surveillance programmes relating to mortality, morbidity and birth defects. As a result, and in collaboration with the Medical Research Council and the UCT Department of Actuarial Science, it was possible early in the 1990s to present mortality statistics to the SA Cabinet that demonstrated, unequivocally, the increase in mortality and changes in age patterns attributable to the AIDS epidemic.

The advocacy and social engagement that characterise the teaching, research and policy work undertaken has been rewarded with 2 staff members receiving UCT's Alan Pifer awards for socially responsive research, and 2 others becoming recipients of the recently introduced Social Responsiveness Award.

Particular strengths within the School

The Health Economic Unit (HEU)

The HEU was founded in 1990. Initially research was limited to micro-level costing appraisals, but it has expanded to address fundamental questions of health equity, resource allocation and health financing. The HEU research has significantly informed the government's Green Paper on National Health Insurance.¹³ The HEU collaborates on universal coverage, financing and governance research as part of a number of global networks for health equity. The Unit runs a health economics track on the MPH and is a well-recognised training institution for health economics in sub-Saharan Africa.

The Health Policy and Systems (HPS) programme

The HPS programme focuses on the dynamics of health system development and policy change. It concentrates on governance and stewardship and the role of the health system in enabling health equity and public value, drawing on health policy analysis, systems thinking and social science perspectives.¹⁴ Teaching activities include the postgraduate Diploma in Health Management (the Oliver Tambo Fellowship programme) and the new health systems track of the MPH. The HPS programme leads an 11-partner network to support the development of African health policy and systems analysis.

The Centre for Occupational and Environmental Health Research (COEHR)

The COEHR had its origin in the 1980s when a postgraduate Diploma in Occupational Health was first offered. Subsequent growth led to accreditation as a Unit in 1988 and as a Centre in 2007. The COEHR played an important role in the newly recognised speciality of Occupational Medicine (through the CMSA) and has graduated the largest number of specialists. Activities include an

Occupational Health referral clinic and a postgraduate Diploma in pesticide risk management.

The COEHR plays an influential role in health advocacy, policy and legislation, applied research and development, and technical consultation in Africa. The Centre was strongly instrumental in the ban on asbestos mining and its use in SA. Members are involved in advisory boards of government, industry, trade unions and international bodies, such as the International Labor Organization. The COEHR is a World Health Organization collaborating centre. Research strengths include occupation-related conditions such as allergy, respiratory conditions, neurotoxicity, chemical toxicity, metals and mining hazards and conditions peculiar to healthcare workers.

The Women's Health Research Unit (WHRU)

The WHRU was established in 1996 following research into women's health and urbanisation in Khayelitsha.¹² The WHRU is well known for its research and advocacy on reproductive health including contraception, termination of pregnancy and the prevention of cervical cancer. Members participate in the development of national and international policy and guidelines. The WHRU conducted the first randomised controlled equivalence trial, comparing the rates of complications between mid-level providers and doctors performing first-trimester abortions in SA and Vietnam.¹⁵ Other significant areas of operations research include interventions to integrate fertility intentions and STI-screening into HIV care.

Courses on women's health were first introduced in the early 1990s and a module on gender and health is included in the MPH. Annual courses focusing on reproductive health are provided for international groups from New York and Stanford University.

The Centre for Infectious Disease Epidemiology and Research (CIDER)

The CIDER had its origins in operations research on measles epidemiology in informal settlements in the 1990s. The CIDER is best known for documenting successes with the prevention of mother-to-child transmission of HIV and antiretroviral therapy (ART) in Khayelitsha at the time when high-level national AIDS denialism was depriving millions of HIV-infected South Africans of access to ART.^{16,17} This work, in conjunction with the non-governmental organisation Médecins sans Frontières, was cited more than 200 times and was seminal to debates on ART access in low-resource settings internationally.

The CIDER focuses on infectious diseases in southern Africa, and integrates laboratory, clinical, epidemiological, social science and health systems research. It frames itself as a service-led research entity and maintains strong links with health services at all levels. Operations research assists policy makers, and programme and service managers. A module on infectious diseases is included in the MPH.

The Division of Family Medicine

The Division of Family Medicine was established in 2001 to consolidate the teaching of primary care and general practice. Undergraduate students are attached to general practitioners and community health centres, and a rural training site at Vredenberg. The Division aims to graduate doctors well qualified in the practice of Family Medicine, in support of the PHC approach. The Division won the PAN SALB award for promoting the teaching of previously under-utilised languages within undergraduate student education, in order to transform communication with patients.¹⁸

The Division offers a Higher Diploma in Family Medicine (Fam Med) and Masters in Family Medicine (M Fam Med). Family Medicine was established as a specialty in 2007 and 6 of the community health

centres in the West Metropolitan district are staffed by jointly appointed family physicians who provide clinical governance, care and teaching. This ensures that all teaching is relevant to the health care system, policies and needs. The MPhil and Higher Diploma in Palliative Medicine – the only such postgraduate programmes in Africa – were introduced in 2001.

The Division has established research collaborations with Johns Hopkins School of Public Health and the University of Ghent through the twinning project with the University of Namibia. Links are evolving with the Department of Family Medicine at the University of Minnesota.

The Health and Human Rights Programme (HHRP)

The HHRP began in 2002 in response to the findings of The Truth and Reconciliation Commission that highlighted human rights violations in health under apartheid. The programme is predicated on the concept that human rights are essential for health professional practice. The HHRP runs a Train-the-Trainer course in health and human rights to enable academics to integrate human rights into their teaching;¹⁹ this contributed to the recommendation by the Health Professions Council of South Africa (HPCSA) in 2007 for a core curriculum in health rights, ethics and law. The HHRP runs a module (the only such course in SA) in the MPH to skill postgraduates in incorporating human rights approaches in public health planning.

Research within the HHRP has seen the development of a model for the Network on Equity in Health in East and Southern Africa (EQUINET), which links health equity to human rights approaches by emphasising community agency.²⁰ This is tested in a collaborative network of civil society organisations and universities that develops and shares best practice for realising rights, through a learning network (LN) that fosters knowledge translation through popular materials and advocacy. For example, the LN has developed a range of pamphlets and a toolkit on the right to health to enhance the claim, on the part of community members, to their right to health, and to strengthen health committees as vehicles for community participation in health (<http://www.salearningnetwork.weebly.com>).

Conclusions

A recent university-led academic review described the School as vibrant and productive, and as making a meaningful contribution to the wellbeing of the population, training of health professionals, and advancement of science, through the dedication and energy of its staff. The work of the School has influenced policy, legislation, guidelines and training, all of which have contributed to health reform in the post-apartheid era. Various research projects, many in collaboration with national and international colleagues, have played a critical role in monitoring and evaluating interventions in terms of their effectiveness and efficiency. The School's research is characterised by its social responsiveness and relevance to the practical provision of equitable health services in SA.

The School's vision for the future is framed in terms of commitment to the promotion of a healthy population, with equitable access to resources and highly competent healthcare professionals, and a steady contribution to just social development locally, nationally and on the African continent, through a multidisciplinary approach that addresses the major health challenges.

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1. Spencer IW. Comprehensive and Community Medicine Unit. Groote Schuur Hospital Annual Report. Cape Town: Groote Schuur Hospital, 1972.

2. Laidler PW, Gelfand M. South Africa – Its Medical History. Cape Town: Struik, 1971.
3. Burrows EH. A History of Medicine in South Africa. Cape Town: AA Balkema, 1958.
4. Kark SL, Steuart GW. The Practice of Social Medicine: London: E&S Livingstone, 1962.
5. Harrison D. The National Health Services Commission, 1942-1944 – its origins and outcome. *S Afr Med J* 1993;83(9):679-684.
6. Kark SL. Family and community practice in the medical curriculum: A clinical teaching program in social medicine. *J Med Educ* 1959;34:905-910.
7. Spencer IW. Postgraduate training and qualification in community medicine in South Africa. *S Afr Med J* 1975;49(2):35-43.
8. Spencer IW. Preparing the Health Professional for Community Health. *S Afr Med J* 1979;55(12):444-447.
9. Myers J. Public Health in the New South Africa: Will Cinderella Become Queen? Inaugural Address as Professor of Public Health, UCT, 1999.
10. Anonymous. Health Department Prognosis Grave. Cape Town: Pulse – University of Cape Town Medical Students Council, 1981.
11. Hoffman M, Yach D, Katzenellenbogen J, et al. Mamre Community Health Project - rationale and methods. *S Afr Med J* 1988;74:323-328.
12. Cooper D, Pick WM, Myers JE, et al. Urbanisation and women's health in Khayelitsha. Part I: Demographic and socio-economic profile. *S Afr Med J* 1991;79:423-427.
13. McIntyre D, Mills A. Research to support universal coverage reforms in AfriEnca: the SHIELD project. *Health Policy and Planning* 2012;27(S1):i1-i3. [<http://dx.doi.org/10.1093/heapol/czs017>]
14. Gilson L, Daire J. Leadership and governance within the South African Health System. In: Patharath A, English R, eds. South African Health Review 2011. Durban: Health Systems Trust, 2011.
15. Warriner IK, Meirik O, Hoffman M, et al. Rates of complications in first-trimester manual vacuum aspiration abortion done by doctors and mid-level providers in South Africa and Vietnam: a randomised controlled equivalence trial. *Lancet* 2006;368:1965-1972. [[http://dx.doi.org/10.1016/S0140-6736\(06\)69742-0](http://dx.doi.org/10.1016/S0140-6736(06)69742-0)]
16. Coetzee D, Hildebrand K, Boule A, Draper B, Abdullah F, Goemaere E. Effectiveness of the first district-wide programme for the prevention of mother-to-child transmission in South Africa. *WHO Bulletin* 2005;83:489-494.
17. Coetzee D, Hildebrand K, Boule A, et al. Outcomes after two years of providing antiretroviral treatment in Khayelitsha, South Africa. *AIDS* 2004;18:887-895. [<http://dx.doi.org/10.1097/00002030-200404090-00006>]
18. Morris M. UCT wins multilingualism award, Monday Paper. Cape Town: UCT Press, 2011;30:1.
19. Ewert EG, Baldwin-Ragaven L, London L. Training Trainers in Health and Human Rights: Implementing curriculum change in South African health sciences institutions. *BMC Medical Education* 2011;11:47. [<http://dx.doi.org/10.1186/1472-6920-11-47>]
20. London L, Baldwin-Ragaven L, Kalebi A, Maart S, Petersen L, Kasolo J. Developing human rights competencies for South African health professional graduates. *S Afr Med J* 2007;97:1269-1270.

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