Strengthening Human Resources for Primary Health Care

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Abstract

This chapter reviews the progress made in recent years to strengthen human resources to deliver health care within a Primary Health Care approach. It focuses specifically on the availability and preparedness of old and new cadres of health workers, their distribution within the South African health system, as well as their training and development. Findings suggest that overall the health workforce is substantially weaker today than it was in the mid-1990s. There are fewer doctors and nurses available for the vast majority of public sector dependent population, as production has not kept up with population growth, increasing care needs and attrition. Disparities between provinces remain, and disparities between the private and public sectors have grown. The nursing sector faces a serious crisis brought on by an aging professional population. Progress with the development of mid-level cadres has been slow, with pharmacy being the exception. Furthermore, the implementation of community health worker programmes remains fragmented and uneven. Importantly, while there has been curriculum reform in many medical schools, there has been no fundamental shift in the orientation and resourcing of health professions. Health workers entering primary or community care services, thus, often remain ill-prepared and find themselves poorly supported and resourced. It is suggested that the following areas must be a priority in the human resource agenda in coming years: an accelerated production of professionals and mid-level cadres; comprehensive curriculum audits; the regulation and integration of community health workers; and an integrated and comprehensive reconfiguration of Primary Health Care teams.

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Introduction

The transformation of the South African health system towards a district-based system driven by the Primary Health Care (PHC) approach has at its core, the reorientation and reorganisation of the health workforce. A more equitable distribution of the health workforce, broadening of cadres, sufficient numbers of health workers, as well as skills development to ensure appropriate and adequate care, have been at the centre of policy debates for the past 14 years.

This chapter reviews the progress made in recent years, to ensure the availability and equitable distribution of health workers who have the skills to work closely with communities and to function within a decentralised health system. It also looks at the issues which need to be addressed in order to strengthen human resources for health (HRH) for health care delivery within a PHC approach, and explores the availability of old and new cadres of health workers, their distribution and their training and development. The chapter will also focus on key categories of health workers for the delivery of primary and community care, most importantly, nurses, mid-level and community workers and doctors.

This chapter has to be read against the backdrop of an increasing burden of disease and health worker shortages. Neither migration nor the HIV and AIDS pandemic are discussed as separate topics, but in relation to their impact on the availability and orientation of personnel. It is 'taken as read' that particularly the HIV and AIDS crisis, in conjunction with other health threats, including tuberculosis (TB), heart disease, drug abuse and interpersonal violence are creating increased demands on health services and health workers.

Developments in the production and distribution of nurses are also discussed. However, far-reaching changes in the legislative framework, most importantly the promulgation of a new Nursing Act are not discussed in detail. Developments in the nursing sector warrant dedicated attention, possibly in a future issue of the South African Health Review. Finally, the chapter draws on available evidence, including published literature, some media reports as well as key statistics made available by the South African Nursing Council and the Health Systems Trust.

Background

The Alma Ata Declaration emphasises the attainment of acceptable levels of health for all, through amongst other things, active community participation in planning and organising health care, and the involvement of health care workers from physicians to community health workers (CHWs) *"to work as a health team and to respond to expressed health needs of the community"*.[1] This requires a redistribution of resources away from specialist curative care to community and primary level care.

Alma Ata also calls for *"a reorientation and a broadening of the skills of health personnel to enable them to respond to the challenges of implementing PHC and to work in teams as well as with other sector professionals and communities"*, particularly to work more closely with communities and with other sectors and to function in a decentralised health system.[2]

The principles of PHC have informed policy development in South Africa since the early 1990s. Policy work around this time, particularly by the African National Congress (ANC) Health Desk, conceptually laid the ground for post-1994 health sector transformation and picked up on the recommendations developed in the Alma Ata Declaration. The Reconstruction and Development Programme (RDP), which built on the work of the ANC Health Desk, called for *"the complete transformation of the entire delivery system"*, and argued for the introduction of *"district health authorities"*.[3] It suggested that *"the whole NHS must be driven by the Primary Health Care (PHC) approach. This emphasises community participation and empowerment, inter-sectoral collaboration and cost-effective care, as well as integration of preventive, promotive, curative and rehabilitation services"*.[3]

The human resource strategies developed in the RDP were summarised in the chapter on human resources in the first South African Health Review of 1995 as: *"the major issues to be considered in developing a coherent plan for the provision of human resources to meet the health care needs of South Africa include correcting the maldistribution of health personnel, integrating the fragmented health care system, improving efficiency and effectiveness of the health services, providing compassionate care for all South Africans, developing institutional capacity for the planning and management of human resources for health care, reorienting the education and training system for health science students, and corrective action"*.[4]

Thirteen years on a rampant HIV and AIDS crisis, in conjunction with a range of other diseases and health threats, has led to a deterioration in the health status of the population, and has resulted in an increase in health care needs, particularly in community care and at the primary level. Chronic illnesses such as HIV and AIDS, and increasingly heart disease and diabetes, require ongoing and diverse care for growing sections of the population.

Neither the private nor the public health sectors have been able to adequately respond to these needs. On the contrary, the public health sector continues to be under-funded and is today faced with a serious human resources crisis. More than one third of public sector posts remain vacant, and a number of health professionals are not renewing their registration with the Health Professions Council.[5,6] There are also growing concerns about the health of health workers themselves. Indications are that health workers are not always sufficiently protected from infection risks, particularly from TB and HIV, leading to illness and death, and further lowering staff morale.

The bleak picture painted by data on health status and systems is not reflected in the policy arena. Great strides have been made in the past decade to formulate policies aimed at attaining the goals set out in the first half of the 1990s. The 'White Paper for the Transformation of the Health System' in South Africa laid the ground for a unified national health system, driven by the PHC approach and for the development of a district health system.[7] The PHC norms and standards provide for a core package of care, which should be available to all citizens. The National Health Act (Act 61 of 2003) redefined Academic Health Complexes to make provision for the training of health workers, not only in tertiary hospitals, but also in primary care facilities and communities.[8]

A first concerted effort to develop a national health human resources strategy was made in 1999/2000. The Department of Health's (DoH) HRH Task Team explored staffing implications of the PHC package in great detail and considered the revision of scope of practice of health professionals, with the aim to broaden the roles of service providers.[9] It identified strategic needs in the areas of health management and organisational development as well as education and training. While some of these have been addressed, many targets remain unmet, particularly regarding the technical and management skills and staffing mix required for the implementation of PHC services.

The national human resources plan, finalised in 2006, echoes a strong focus on training and continuing development of human resources. However, current production targets suggest that these will fall short of projected needs. Most importantly, it does not suggest mechanisms to redirect resources for deployment and training, nor for primary and community levels of care as recommended by the National Health Act.

Other policy initiatives have seen:

➤ A new Nursing Act (Act 33 of 2005), which revises the South African Nursing Council and introduces community service for nurses.

➤ The development of new qualifications under the South African Qualifications Authority.

➤ The introduction of community service, aimed at *"improved provision of health services to all citizens of our country"* and to provide young professionals *"with an opportunity to develop skills, acquire knowledge, behaviour patterns and critical thinking that will help them in their professional development"*.[10]

➤ The introduction of rural and scarce skills allowances to attract and retain key health workers in rural areas.

➤ The introduction of a National Community Health Worker Policy Framework (NCHWPF), which provides for the availability of generalist CHWs attached to primary care facilities throughout South Africa.

➤ The introduction of an Occupation Specific Dispensation for nurses, which came into effect in March 2008, providing for a new wage structure for nurses.

➤ The introduction of clinical associates has also been agreed to, and the first 24 clinical associates are presently being trained at the Walter Sisulu University, in Umtata.

Some of these initiatives are in their infancy and it is too early to judge their impact on the human resources situation, or indeed on quality and equity of health service delivery. Other initiatives, such as the NCHWPF and the rural and scarce skills allowances, have been in existence for a few years but have not been evaluated comprehensively. With respect to financial incentives, an evaluation of the community service programme found that a minority of affected health workers was influenced by the new rural allowance to change their short-term career plans.[10] However, there has been no follow-up evaluation.

While it is difficult to assess the impact of individual policies, we can assess the overall landscape of the human resources sector and its contribution towards the goal of *"a level of health that will permit them [residents] to lead a socially and economically productive life"*.[1] What progress has been made in redistributing personnel, strengthening the public sector, and increasing numbers of community and mid-level workers to provide equitable access? Furthermore, has training been increased and reoriented to prepare all health workers for PHC?

Availability, equity and distribution of health personnel

Dramatic inequities, but also insufficient absolute numbers of health personnel, have been identified as one of the key impediments in the improvement of health systems performance worldwide. The 2006 World Health Report puts the global shortage of health workers at 4.3 million.[11]

South Africa is much better placed than most of its African neighbours and many Asian countries. Population health worker ratios far exceed those of countries like Mozambique, Lesotho or Malawi. But the better national ratios hide internal disparities, particularly between provinces and between the private and public sectors. For example, Table 1 shows changes in doctor and nurse population ratios in the public sector over the past 13 years in two provinces (Limpopo and Western Cape).

Table 1: Doctor and nurse population ratios in Limpopo and Western Cape, 1994 and 2007

	Doctors per 100 000 population			Professional nurses per 100 000 population		
	LP	WC	SA average	LP	WC	SA average
1994	6	50	25	212	269	251
2007	17.4	33.8	24.4	115.3	114.0	110.4

Source: Day and Gray, 2007;[5] Health Systems Trust, 1998.[12]

This table shows that in the public sector, geographical differences in the distribution of doctors, and also of nurses have decreased. Doctor to population ratios in Limpopo have become more favourable from six to 17.4 per 100 000 population. At the same time, the nurse to population ratios have decreased dramatically throughout the country, with the national average dropping from 251 to 110.4 per 100 000 population. This means that in 1994 there were around 2.5 nurses for every 1 000 persons, while in 2007 there were only 1.1 nurses available for every 1 000 persons, a decrease of more than 50%. This is probably due to migration and a substantial shift of nurses from the public into the private sector.

A comparison over time of the proportion of key professionals working in the public sector is shown in Table 2. In 1989, 79% of nurses were working in the public sector, but by 2007 this figure had dropped to 42%.[a]

Unfortunately, information on the distribution of nurses across different levels of service is missing, making it impossible to better understand availability and distribution of nurses in primary and community care.

Table 2: Percentage of all doctors and professional nurses working in the public sector, 1989 and 2007

	Doctors (%)	Nurses (%)
1989	38	79
2007	30	42

Source: Day and Gray, 2007;[5] Pick, 1995.[4]

It is worrying that for the vast majority of the country's population there is one doctor for 4 219 people, whereas for the minority who enjoy the benefits of a medical scheme, there is one doctor for 601 people.[5] In practice, this means that there continue to be whole districts, which have either no doctors at all or only community service doctors for PHC.[13] Similarly, there are too many clinics with vast catchment areas staffed by only one or two nurses, making health care practically inaccessible for many.

Vacancy rates for nurses and doctors in the public sector have improved since 2001, but on average one third of posts in the public sector remain vacant and in some provinces, such as Mpumalanga, the figure is as high as 42.5%.[5]

Health professionals doing community service have alleviated shortages of health personnel only slightly. The distribution of community service doctors and community service pharmacists across all South African provinces, since the inception of community service are shown in Table 3 and Table 4 respectively.[b] In 2008, a very low number of community service doctors can be noted. This has its root in the introduction of an extended two year internship for medical doctors.

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a   The percentages for 1989 are based on a denominator of professionals working, whereas calculations for 2007 are based on a denominator of the number registered with the relevant professional councils and thus includes those who are not working in either sector.

b   Total for South Africa may be more than the total for all provinces since it includes personnel employed at national level.

Table 3: Distribution of community service doctors across provinces, 1999-2008

	EC	FS	GP	KZN	LP	MP	NC	NW	WC	SA
1999	132	102	163	238	160	79	19	78	103	1 112
2000	110	74	132	261	140	105	33	86	135	1 115
2001	149	79	126	271	150	107	34	97	141	1 194
2002	68	75	128	248	89	95	33	77	152	1 005
2003	100	73	164	231	103	113	41	73	153	1 092
2004	137	86	93	280	145	145	48	64	80	1 128
2005	127	60	114	330	121	165	59	87	127	1 233
2006	-	-	-	-	-	-	-	-	-	1 324
2007	150	57	195	169	127	160	76	106	129	1 224
2008	48	29	33	43	19	19	22	14	30	295

Source: Health Systems Trust, 2008.[14]

**Table 4: Distribution of community service pharmacists across provinces, 2001-2008**

	EC	FS	GP	KZN	LP	MP	NC	NW	WC	SA
2001	33	39	68	82	33	39	5	31	48	406
2002	18	50	144	91	38	34	7	19	61	484
2003	27	22	70	69	22	19	6	27	57	341
2004	27	26	59	40	34	42	9	24	9	299
2005	34	35	56	49	36	40	16	37	40	345
2006	-	-	-	-	-	-	-	-	-	473
2007	41	42	70	65	52	42	33	42	53	472
2008	40	38	59	57	42	61	26	39	53	457

Source: Health Systems Trust, 2008.[14]

The first cohort of nurses undertaking community service was observed in 2008; this was introduced with the Nursing Act. Altogether just under 2 000 nurses are in community service at present. The largest recipients of community service nurses are in Gauteng (591 nurses), followed by the Western Cape (272 nurses) and the Eastern Cape (237 nurses).[14]

All provinces have benefited from the introduction of community service, although figures vary quite substantially in different years. Unfortunately, these figures do not disaggregate supply by levels of care, making it difficult to assess what percentage of community service personnel are allocated to community health centres (CHC) and first-level hospitals with the greatest need.

An extremely worrying development is the age distribution in the nursing sector (see Figure 1 for registered nurses, Figure 2 for enrolled nurses / midwives and Figure 3 for enrolled nursing auxiliaries), particularly among professional nurses. At present only 3% of registered nurses are under the age of 30, while 40% may retire within the next five to 10 years. The situation among enrolled nurses and enrolled nursing auxiliaries is similar.

Figure 1: Age distribution of registered nurses, 2007
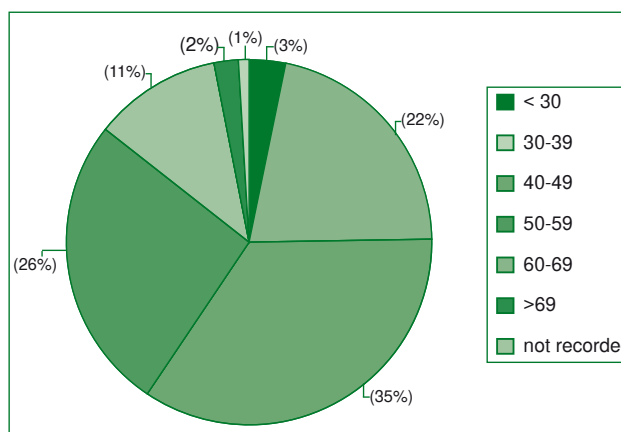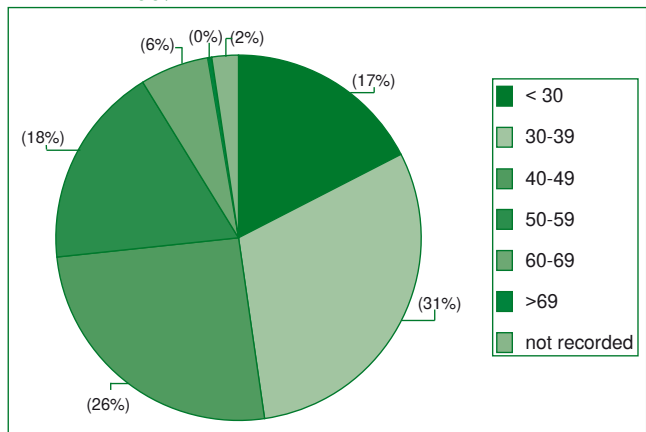

Source: South African Nursing Council, 2007.[15]

Figure 2: Age distribution of enrolled nurses / midwives, 2007

(5%) (1%) (1%) (13%)
(19%)
(29%)
(32%)

■	< 30
■	30-39
■	40-49
■	50-59
■	60-69
■	>69
■	not recorded
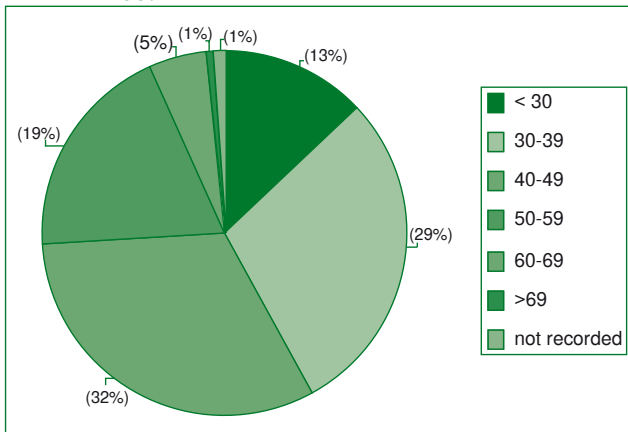
Source: South African Nursing Council, 2007.[15]

These figures show that almost 70 000 nurses (in all categories) or more than one third of the entire nursing population is likely to retire within the next five to 10 years. This has dramatic implications for the training of nurses, as training institutions will have to annually graduate 7 000 nurses (of different categories) just to retain current levels, not taking into account increased need and attrition other than retirement.

**Figure 3: Age distribution of enrolled nursing auxiliaries, 2007**

(6%) (0%) (2%) (17%)
(18%)
(31%)
(26%)

■	< 30
■	30-39
■	40-49
■	50-59
■	60-69
■	>69
■	not recorded

Source: South African Nursing Council, 2007.[15]

Training and support

Increasing numbers

Primary care in South Africa is overwhelmingly nurse-based. Most clinics and many CHCs are staffed by professional, enrolled and auxiliary nurses who are supported by some clerical and general health workers and CHWs. In the face

Figure 4: Output from nurse training institutions, 1998-2007
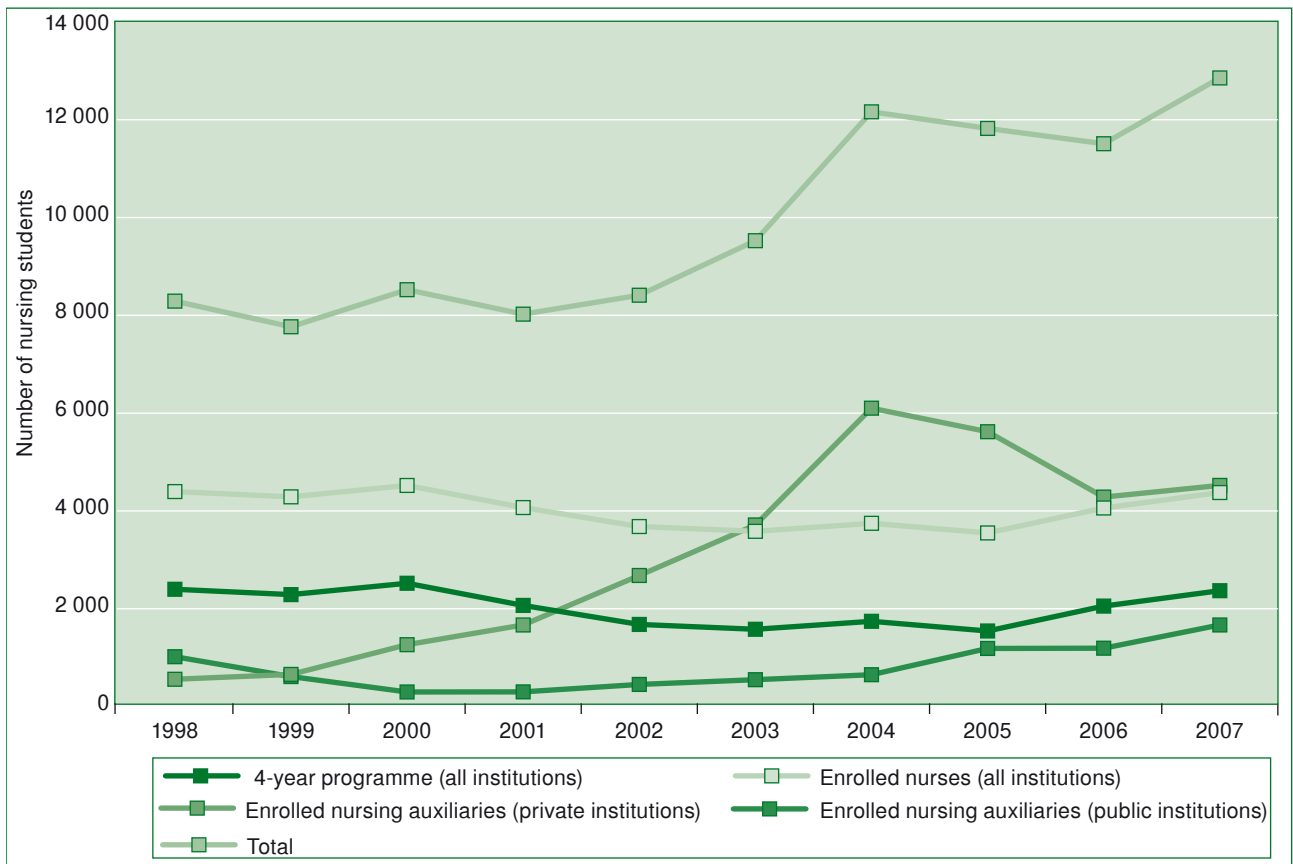

Source: South African Nursing Council, 2007.[15]

of a rising demand due to increased burden of disease and a growing population, the training of sufficient numbers of nurses with appropriate skills must be a human resources priority.

Unfortunately, production figures do not reflect this. On the contrary, at public training institutions, output figures dropped for enrolled and professional nurses between 2000 and 2004/05, and only picked up again in the past two to three years; reaching 1998 levels in 2007 (see Figure 4).[15] At private training institutions, the picture is different; here output increased sharply after 2000. This was primarily due to the increase in the output of enrolled nursing auxiliaries at private training institutions in Gauteng and KwaZulu-Natal in the 2000/01 to 2004/05 period, when in both provinces, private training institutions increased their output four- and five-fold. This increase has ebbed off substantially again since 2004.[15]

Given the age pyramid in the nursing profession, nurse training at public institutions must increase rapidly. The DoH's National Human Resource Plan for Health recommends that the annual output of professional nurses should be increased to 3 000 by 2011, arguing that *"current production levels are relatively low taking into consideration the health service needs, especially at PHC level. Massive production is strongly indicated in this area, also in order to assist in countering the impact of migration"*.[16] This recommendation might well be considered a minimum requirement in light of accelerating attrition and the impact of task shifting on nurses' workloads and scope of activities.

Figures on the output of doctors from medical schools reflect a slow climb; with some variation over certain years (see Figure 5). They also fall short of the increase to 2 400 doctors per annum by 2014, as recommended in the National Human Resource Plan for Health.

Figure 5: Output from medical schools, 1994-2005
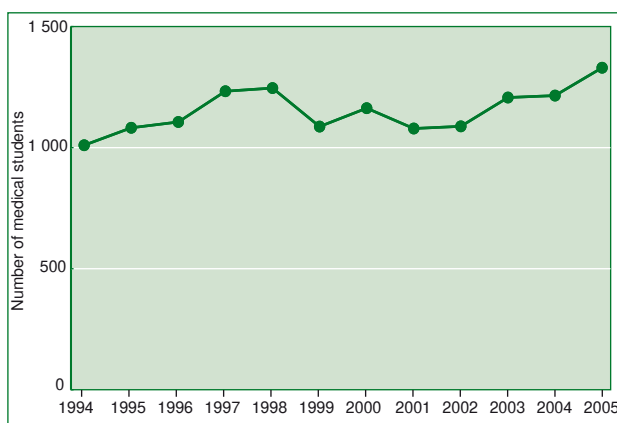
Source: Department of Health, 2006.[16]

Appropriate skills for Primary Health Care

Research in the late 1990s and early 2000s showed that doctors and nurses were often ill-prepared to render services in primary care settings.[17-20] Since then there has been a massive expansion in needs and service expectations of the PHC system, brought about by the HIV and AIDS and TB epidemics. A concomitant shift in disease burden towards chronic non-communicable diseases will exacerbate this in future. Skill requirements have therefore changed, and health sciences faculties are confronted with the need to restructure curricula and make decisions about teaching priorities.

Curriculum transformation has been, and is taking place at most health sciences faculties, but to varying degrees and focusing primarily on medical curricula. The general thrust has been to strengthen community-based education, to alter teaching methods to improve problem solving and critical thinking skills and to foster multidisciplinarity. The impact of these reforms has not been evaluated and a comprehensive audit of health science curricula is urgently required, particularly in light of changing needs and service expectations. Questions need to be asked as to whether health professionals, in general and nurses, in particular, are indeed prepared to address the changing burden of disease, and to function effectively in primary and community care settings. An important step in this direction is the Collaboration for Health Equity in Education and Research (CHEER) initiative, a research collaboration between all universities in the country to assess *"the educational factors that would improve the supply and retention of health professionals in rural and underserved areas"*.[21]

Early evaluations of the community service programme suggest that new graduates continue to feel ill-prepared for service in rural areas and PHC settings. Many expressed *"a disjuncture between the academic training expectations and the actual conditions in the public service"*.[10] One graduate described his experiences as follows: *"There wasn't enough emphasis on patient management in a lower level institution, our training was mostly theoretical ...most patients are filtered out at this lower level therefore the students don't see them ...The environment here is very different from both RCH and Pretoria Academic ...some of the antibiotics we were taught to use aren't available so we have to look for alternatives ...The Sister is teaching me a lot. I'm learning more than I ever learnt in my whole training"*.[c, 22]

This lack of skills is aggravated by insufficient supervision, particularly in rural areas where community service doctors find themselves the only doctors in certain facilities. Not

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c   Quote from a community service doctor from the Eastern Cape.

only do they find themselves often not knowing what to do, but also not knowing who to ask for assistance. A possible result of this was that in 2001, 43% of doctors in community service expressed their intention to leave South Africa to work overseas.[10]

The extent and impact of curriculum transformation in nursing curricula has not been comprehensively reviewed. Individual studies suggest that curriculum reviews have taken place in many institutions, but other studies suggest that nursing graduates continue to feel ill-prepared for practice.[23-28] A thorough audit, similar to, but inevitably much larger than the CHEER process, would be a vital contribution to steering training institutions and departments of health in recurriculation.

While curriculum transformation in health professions' education has proceeded rather slowly, there have been numerous continuing education initiatives in the past decade aimed at strengthening the skills of managers and health workers in charge of driving health sector transformation. Close to 9 000 participants, for example, have over the past 15 years participated in the University of the Western Cape's Summer and Winter School programme. The University of Cape Town's Oliver Tambo Fellowship programme is training senior level managers. Furthermore, many Schools of Public Health in the country are now offering Masters in Public Health programmes.

An area of concern is the fact that despite a proliferation of training activities, which support district development as the main vehicle for health sector transformation, research suggests that planning and management skills of middle and senior managers in many areas remain weak and working environments are not conducive to change and innovation.[29,30] This begs the question as to the effectiveness of existing training initiatives. Quite possibly, there is a need for comprehensive and nationally standardised training for PHC and district health systems development, and for the utilisation of different learning interventions such as practice-based learning, coaching and mentoring. Such methods are common practice in clinical training, but have generally not found their way into public health training, partly because of resource constraints. Schools of public health and faculties of health sciences should engage systematically, with the specific need to strengthen district health systems development, and advocate for adequate resourcing of such capacity development from the DoH.

Introduction of new cadres

Mid-level workers

The use of mid-level health workers plays an important role in PHC implementation, as it widens access and coverage, and ensures service delivery in areas, which are otherwise severely underserved. International experience suggests that mid-level workers, if properly trained and supported, can render health care within their scope of practice, which is of equal or better quality than that rendered by health professionals.[31-34]

In South Africa, the introduction of new cadres of health professionals or para-professionals has been a topic of much debate since the early 1990s. While mid-level nurses (enrolled nurses and enrolled nursing assistants) have been used for many years, the introduction of other mid-level cadres and of community-based health workers has been a slow process.

The first profession other than nursing to introduce a mid-level cadre in South Africa has been pharmacy. However, other professions have been lagging behind. While the introduction of physiotherapy and occupational therapy assistants, as well as the introduction of a mid-level worker in the field of nutrition, has been under discussion for a number of years, finality has not yet been reached on these issues.

In 2004, a decision was taken to implement a category of mid-level medical workers in the country, with the specific purpose "*to assist doctors in district hospitals in rural and urban areas*".[35] The first cohort of 24 mid-level medical workers, who will be called 'clinical associates', is now being trained at Walter Sisulu University.[d] Nevertheless, posts and career pathways for this cadre still need to be established.

Community health workers

Like mid-level workers, CHWs are considered vital to the implementation of PHC. Their area of expertise and scope of practice has remained contested and they have therefore remained on the sidelines of health systems.[36]

CHW programmes run by non-governmental organisations (NGOs) have existed in South Africa since the mid-1970s. During the 1980s a few notable programmes impacting on child survival, flourished with support from international donors.[37] The policy documents in the early 1990s, most notably the ANC Health Plan, identified CHWs as an

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d   Personal communication, R Henbest, Walter Sisulu University, June 2008.

important resource for PHC implementation. *"They were viewed as catalysts for community development, who could mobilise people around issues such as the need for clean water, sanitation, waste disposal, safe playgrounds and parks. […] It was envisaged that they would form an integral part of the decentralised health services, and be compensated, either by the Government, or the local community".*[38]

Following a rapid growth in a range of community caregivers (most notably lay counsellors, TB directly observed treatment supporters and home-based carers) in response to the HIV and AIDS pandemic, the national Department of Health (NDoH) moved towards the introduction of a national CHW programme in the early 2000s and has been implementing the NCHWPF through provincial health departments and NGOs since 2004. The framework makes provision for the appointment of generalist CHWs, who are to be paid a stipend by respective provinces through appointed NGOs and who, attached to primary care facilities, should perform a wide range of community-based care and support functions.

However, managers in provinces and districts are challenged to regularise and regulate implementation. At present many hundreds of NGOs funded by different donors are running CHW programmes throughout the country, overseeing and training a large number of CHWs, estimated at many tens of thousands. The programme has not been comprehensively evaluated, but early experiences suggest that while CHWs play an important role in service delivery at primary care level, they remain peripheral to main stream health services and face many of the challenges traditionally associated with CHW programmes. Training and supervision are not sufficiently established and integrated, and many CHWs render services without any training at all; roles are not clarified and tension exists around the question of whether they are volunteers or remunerated workers.[36,39,40] An evaluation of practices and regulation of the sector is clearly urgent given its size and importance for community and primary care.

Strengthening human resources for Primary Health Care implementation

There can be little doubt that while the policy direction of the human resources sector has a firm commitment and orientation towards a PHC approach and the goals set in the Alma Ata Declaration, implementation remains a big challenge. While there has been some success in redistributing resources within the public sector, they still remain insufficient. Furthermore, efforts to address inequities between the private and public sectors and ensuring better retention of health professionals have failed. Endeavours to reorient and restructure training have been gradual and training volume is not addressing need or demand. In addition, poor morale and motivation contributing to low productivity, poor quality of care and increased attrition are putting substantial additional pressure on health service delivery.[30] Yet, the recent international focus on human resources, the revitalisation of the PHC approach as well as national developments such as the promulgation of the National Health Act, along with the HIV & AIDS and STI Strategic Plan for South Africa, 2007-2011 (NSP) and the publishing of a national human resources plan, present a valuable opportunity to address key weaknesses and to strengthen human resources for PHC.

Training and supervision

Three aspects of training health workers need urgent attention.

1. Presently slowly growing production, particularly of nurses, has to be substantially accelerated to catch up with growing demands and attrition. Engagement with and support of training institutions to facilitate increases in numbers need to be pursued vigorously.

2. Skills development and the reorientation of curricula towards PHC have to remain a priority. The redefinition of academic health complexes to include all levels of care contained in the National Health Act may well provide an opportunity to revisit the location, content and learning processes of health professions education. It may also be worthwhile to revisit the recommendations made by the DoH's HRH Task Team in 2000, which included the setting up of a curriculum review committee, a comprehensive evaluation of training institutions and the establishment of monitoring processes to continuously assess the appropriateness of educational programmes.[9]

3. The training of mid-level and community-based cadres requires acceleration and standardisation. If clinical associates are to substantially strengthen staffing in district hospitals in the near future, numbers of trainees should be substantially increased and their training and deployment carefully monitored. The training of CHWs remains wholly unsatisfactory. While certain minimum standards have been set in the policy, these are not being met. Provincial health departments should ensure that staffing, resources and infrastructure for the compulsory training of all CHWs are available, and that training is conducted as well as monitored regularly and reliably.

Linked to training are issues of supervision. It is well established and accepted that careful and regular supervision impacts profoundly on quality of service delivery.[41-43] Without supervision staff easily feel unappreciated and insecure, particularly in the implementation of new policies and treatment regimes. This sense of insecurity and lack of appreciation may in turn lead to disenchantment with, and resistance to, the transformation process in the health sector. Yet despite overwhelming agreement on its importance, supportive and regular supervision remains one of the weakest aspects of human resources management. It is urgent that both provincial and local government health departments explore mechanisms to improve supervision, particularly of staff working at lower levels of the service and in rural areas. This requires skills development of supervisors, but also the incorporation of supervisory duties into the contracts and workloads of professionals employed at different levels of the service (including in provincial and regional tertiary and secondary level facilities). While nurses in primary care facilities must be obliged and enabled to accompany CHWs on their rounds in communities, professionals working in management, academic institutions and hospitals might in their performance agreements be required to spend part of their time supporting and supervising nurses and managers in clinics, sub-districts and districts.

Norms and standards

The agreement on a set of norms and standards for PHC services, which make it *"possible for individuals to see what quality of primary care services they can expect to receive"* and provide *"guidance for provincial and district health authorities to provide these services"* was one of the earlier achievements of the transformation process.[44] However, for many, if not most of the PHC facilities in the country, these norms have remained a wish list due, in particular, to insufficient staffing. Staffing norms, to match service norms, have so far not been developed. While there has been discussion on workload norms, these have never been linked to service packages, but rather been articulated as patient to health worker ratios or based on utilisation rates.[13]

Methodology to develop staffing norms remains controversial as these, in general, militate against the complexities and diversity of health services, such as different service requirements in high and low density areas, or the availability of referral services. Nevertheless, the absence of norms established against services packages and measured as population and/or utilisation ratios, makes resource allocations arbitrary and monitoring impossible, a situation which should be remedied. Ratios need to take

into account service contexts, possibly through categorising facilities according to service environment, and they need to adopt a team approach (i.e. establishing norms for teams of health workers, not only individual categories).

Three aspects will require particular consideration:

1. How will norms accommodate the expanding functions of health workers within PHC settings?

2. How will the introduction of auxiliaries impact on the skills requirements and workloads of professionals?

3. How will the restructuring of health teams through inclusions of community and mid-level workers impact on workloads of other teams members (e.g. through supervision requirements)?

Primary Health Care teams and rational distribution of tasks

The World Health Organization (WHO) has recommended a *"rational redistribution of tasks among health workforce teams"*, commonly called 'task-shifting', alongside other strategies that are designed to increase the total numbers of health workers in all cadres.[45]

In the South African context task-shifting at primary and community care level commonly focuses on two aspects: the delegation of prescribing and diagnosing tasks from medical doctors to nurses; and the delegation of tasks to CHWs and caregivers. Particularly the issue of nurse prescribing in the context of antiretroviral treatment (ART) has become a hotly contested issue. Although international and national experiences with nurses prescribing antiretrovirals (ARVs) have been overwhelmingly positive, and the practice is well established in many African countries, legislative provisions in the new Nursing Act remain ambivalent.[5,45,46] There is no doubt that this ambivalence, together with slow accreditation processes, creates one of the major bottlenecks, particularly in HIV and AIDS treatment care, which should urgently be removed.

The second pillar of task-shifting is much broader and diverse and involves the delegation of a wide variety of existing and emerging tasks to CHWs and caregivers. In many countries, lower-level nursing and clerical tasks, health education, as well as counselling and testing have been delegated to an array of community caregivers, whether volunteers, workers or patients themselves. Some of these tasks are being performed by enrolled nurses and nursing auxiliaries in the South African context. But there is a growing realisation that these cadres are presently being under-utilised and that they could play a much more pro-active role in facilities. The question of to whom which tasks should be shifted in

the South African primary level care, urgently needs debate among stakeholders. In this context it may be prudent to explore multi-skilling and the broadening of scope of practice, particularly of mid- and lower-level providers, with the proviso that they should be able to perform their duties competently.

Health worker shortages and variations in available cadres in conjunction with diverse service requirements also make it advisable to think of scope of practice, less as delimiting and restrictive mechanisms, and more as competency statements, with overlaps between different cadres of health workers. The DoH HRH Task Team made recommendations for revisions in the scope of practice for a number of professional categories, including enrolled nursing assistants, as well as a number of new mid-level cadres.[9] It may be appropriate to review and expand the Task Team's work and to develop scope of practice which reflects the realities of the South African PHC context as part of a revision of task allocations within PHC teams.

While the rational distribution of tasks among PHC team members is to be considered one of the most important pillars of strengthening human resources for PHC, it is suggested here that the concept of 'task shifting' may hinder rather than help rational engagement with the topic. Task shifting implicitly and explicitly signals the delegation of tasks to lower level cadres as an emergency response to shortages of professionals. As such it reinforces a notion of health care delivery, which views treatment by a medical doctor as the gold standard of care, which all health services should strive towards. This view not only contradicts rigorous and growing evidence which suggests that other cadres appropriately trained and supported can render aspects of care, particularly at primary and community levels, as well or even better than medical doctors.[36,47-50] It also inhibits an unprejudiced response to questions of staff mix and task allocations. What services are rendered as part of the PHC package? What skills are needed for these services? Who can provide these services? What tasks get shifted? Who takes on newly emerging tasks? Who coordinates and supervises? Most important in this context is a redefinition of the role of nurses as leaders and supervisors in PHC teams and careful consideration of the roles and locations of CHWs.

Amongst the 22 recommendations issued in its Task Shifting Guidelines, the WHO proposes that: "*Countries should define the roles and the associated competency levels required both for existing cadres that are extending their scope of practice, and for those cadres that are being newly created under the task shifting approach. These standards should be the basis for establishing recruitment, training and evaluation criteria (Recommendation 8). Countries should*

adopt a systematic approach to harmonized, standardized and competency based training that is needs-driven and accredited so that all health workers are equipped with the appropriate competencies to undertake the tasks they are to perform (Recommendation 9). Supportive supervision and clinical mentoring should be regularly provided to all health workers within the structure and functions of health teams. Individuals who are tasked with providing supportive supervision or clinical mentoring to health workers to whom tasks are being shifted should themselves be competent and have appropriate supervisory skills (Recommendation 11). Countries should ensure that the performance of all cadres of health workers can be assessed against clearly defined roles, competency levels and standards (Recommendation 12)".[45]

The recommendations importantly, also raise the need to ensure career progression for those offering health services. This raises the controversial issue of career opportunities for community and mid-level workers. CHWs in particular are presently being kept outside the health system, with no, or very limited, career opportunity. If CHWs are likely to provide essential health services in the medium- to long-term however, lack of career or development opportunity will act as a disincentive and demotivator. It is also socially unjust and unacceptable to expect members from poor and vulnerable communities to work for, at best, the equivalent of minimum wages and to forego opportunities for development.

The WHO makes this point in Recommendation 14: "*Countries should recognize that essential health services cannot be provided by people working on a voluntary basis if they are to be sustainable. While volunteers can make a valuable contribution on a short term or part time basis, trained health workers who are providing essential health services, including community health workers, should receive adequate wages and / or other appropriate and commensurate incentives*".[45]

There are many ways of thinking about structuring career opportunities for community and mid-level workers. One option which may warrant debate is the development of permeable, portable and laddered career structures, similar to the structure of the National Qualifications Framework within bands of health care professions. Such a scenario might see community volunteers progress to become nursing auxiliaries or even professional nurses, after appropriate work experience and training at different levels (see Figure 6).

Figure 6: Possible career structure in the community care / nursing band
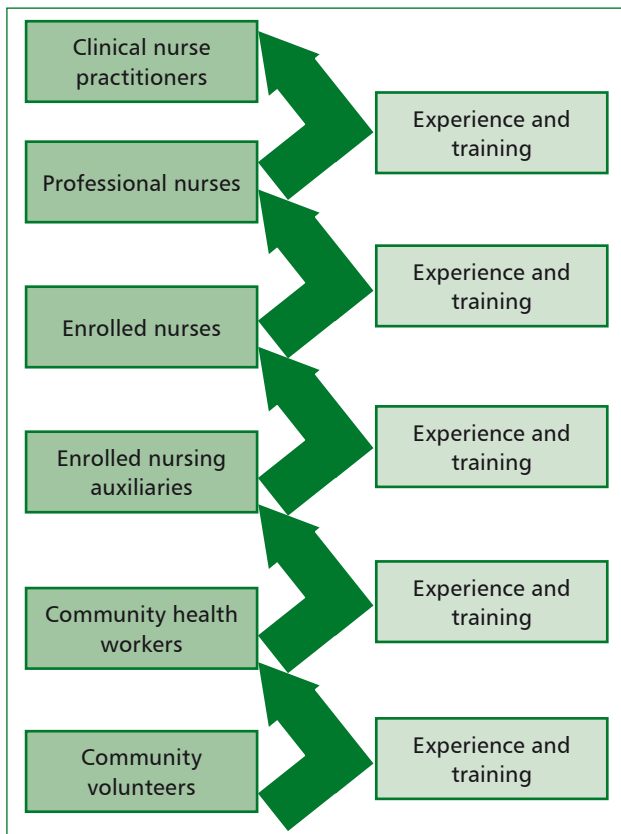
Source: Flow diagram developed by author.

Such a structure would not only allow career progression, and development opportunity for community members (with proven track records of caring who could not otherwise afford further education); it would also provide a continuous pool of recruits into the nursing profession who have experience with, and a proven commitment to, community-level care.

While such proposals may appear outlandish and radical to some, they acknowledge that the present human resources situation requires new thinking and more than 'business as usual'. It is acknowledged that they would have far-reaching implications for health professions and particularly nurses. It is therefore imperative that regulating bodies, and professional associations, engage with questions of how to organise and staff health services in the long-term. In this engagement the yardstick should, however, not be high-tech medical and hospital care, but affordable, accessible, equitable and appropriate care for all.

Conclusion

This chapter set out to explore what progress has been made to reorganise and reorient human resources in South Africa to build a health system driven by a PHC approach. It focused specifically on the availability and preparedness of appropriately trained personnel to render primary and community care services at a time of dramatically increased care needs. The findings paint a bleak picture. While a menu of excellent health policies exists, the health workforce is substantially weaker now than it was 14 years ago. There are fewer doctors and nurses available for the vast majority of public sector dependent population, as production has not kept up with population growth, increasing care needs and attrition. Disparities between provinces remain and disparities between the private and public sector have grown. The nursing sector faces a serious crisis brought on by an aging professional population. Progress with the development of mid-level cadres has been slow with the exception of pharmacy. The implementation of CHW programmes remains fragmented and disparate. Very importantly, while there has been curriculum reform in many medical schools, there has been no fundamental shift in the orientation and resourcing of health professions. Health workers entering primary or community care services thus often remain ill-prepared and find themselves poorly supported and resourced.

Returning to the question of what progress has been made towards strengthening human resources to implement PHC, one has to say, very little. Key challenges identified in the early 1990s remain and in many cases are much more pronounced, given the impact of the HIV and AIDS crisis and staff attrition. But while the situation is dire there is reason for optimism. National reviews of the health and social sectors offer opportunities to rethink policies and to reprioritise implementation. Findings from this chapter suggest that accelerated production of professionals and mid-level cadres, comprehensive curriculum audits, the regulation and integration of CHWs and an integrated and comprehensive reconfiguration of PHC teams, must head the human resources agenda in coming years.

To make real progress in any of these areas requires all role players to leave behind conventional wisdom of what can and cannot be done and to think anew in innovative and unconventional ways. Professional boundaries need to be crossed. Academic institutions will need to devise new ways of teaching public health and health management skills to strengthen capacity to plan for and manage district health services. Scope of practice and regulatory frameworks will need to be changed, staffing norms developed and training

infrastructure enhanced. More importantly, resources for the integration of new cadres into the national health system for PHC training and community-based training infrastructure need to be made available, with medium- to long-term timeframes rather than on a project basis.

The spectre of the last elderly nurse leaving a rural clinic with no prospect of a successor, thus leaving whole communities without access to health care is unnerving. The 30-year celebration of the Alma Ata Declaration provides a timely opportunity to jointly recommit to, and build on, the principles of PHC.

Acknowledgements

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