

HUMAN RESOURCES FOR RURAL HEALTH

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The stark reality of a gross shortage of health workers sustains poor health outcomes for rural people, and needs immediate attention.

This chapter reviews the realities of and challenges to improving human resources (HR) for rural health care in South Africa. The difficulties are serious - and progress towards solutions is slow. The stark reality of a gross shortage of health workers sustains poor health outcomes for rural people, and needs immediate attention. This chapter places current progress in context.

The lack of acknowledgement of the uniqueness of rural health care with respect to HR is evident in different Government policy initiatives. The recent National Department of Health (NDoH) plan to re-engineer the primary health care sector is critiqued, as are the Negotiated Service Delivery Agreement and the recent NDoH Human Resources for Health strategy.

HR interventions in the short term, as well as longer-term recommendations in the categories of education, regulations, finance and personal and professional support, based on international guidelines are suggested.



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Introduction

While the 2008 edition of the *South African Health Review (SAHR)* included a comprehensive chapter on strengthening human resources (HR) for primary health care (PHC), there was no specific focus on progress in tackling the unique and complex challenges faced in HR for rural health. It is therefore significant that this edition includes a chapter focusing on this topic.

There is no denying that a more equitable distribution of health care workers is required in South Africa (SA). This is accepted by all stakeholders, not least the Government under the leadership of the current Minister of Health, Dr Aaron Motsoaledi. The immediate question, however, is according to what characteristics the decision makers define the 'inequity' in the South African health system.

Health care in SA has been characterised by three levels of inequity in healthcare delivery. Firstly, the divide between public vs private healthcare spending: the former only spends R875 per person/per year on 85% of the population, while the private sector spends R6 500 per person per year on the remaining 15% of the population.¹ Secondly, provision of care is focused on hospitals, rather than on health prevention and promotion in the communities, despite a PHC approach being Government policy since 1994.² Lastly, and perhaps most significantly, health care is generally better resourced, better organised and better supported in urban areas compared to rural health care, which has historically been neglected in SA.

In SA, 30% of doctors and 15.5% of pharmacists are employed in the public sector,³ yet only a minority of these public sector workers are based in rural areas – where 43% of the population resides.⁴ Increasing access to health workers in remote and rural areas through improved recruitment and retention is critical to achieving the rights of rural communities to comprehensive, quality health care.

Rather than only reviewing the isolated local efforts to improve the situation to date, this chapter also places these efforts within the context of local and international policy guidelines and plans. These then give weight to the recommendations aimed at increasing recruitment and retention of health workers in rural areas in SA.

Key findings regarding a focus on HR for rural health at policy level

PHC re-engineering – a new opportunity to focus on HR for rural health care?

2010/11 has witnessed Government plans to re-engineer PHC, based in part on the Brazilian model. In an effort to further preventative and promotive health efforts in the community setting, this plan is structured around new roles and functions of health workers, particularly three interlinking but distinct groups: district specialist teams, PHC outreach teams, and school health teams. However, rural areas are unique and the implementation of the re-engineering PHC plan has to be tailored accordingly. When the PHC re-engineering plan was made known, input by stakeholders actively involved in provision of rural care was provided. This process of 'rural-proofing' resulted in a response to the plan submitted to the National Department of Health (NDoH) in May

2011.⁵ The following are the main points related to HR which are detailed in the submission:

- There is an urgent need for a comprehensive HR for health plan, the importance of which is not stressed in the PHC re-engineering plan. This must incorporate strategies for production, recruitment and retention of PHC teams and the entire rural health workforce at large.
- According to the PHC re-engineering plan, community health workers (CHWs) will be formally employed as core members of PHC outreach teams. Improved first contact with rural communities through the CHWs is crucial, because patients are easily lost to follow-up due to broken referral systems.⁶ However, the planned one CHW per 250 households is unlikely to yield enough CHWs in most rural areas. The following variables will contribute to a formula for calculating the optimum number in each sub-district: baseline health indicators, density of households, topography of area, scope of practice, presence of home-based carers, availability and budget for public/designated transport, and level of social solidarity in the area.
- Both home-based carers and CHWs should be formal PHC outreach team members. In the model proposed in the re-engineering strategy the two fall under different employers (non-governmental organisations and Government respectively), which can potentially complicate the working relationship so vital for delivering assistance in the household, as well as limiting carer liaison with staff at other levels of care within the health sector.
- Nursing staff must receive specialised training in PHC in order to be fully effective. PHC is a specialised discipline in health delivery and training; this training is especially required in rural health care where reliance on individual (not collective) capability is more the norm in these isolated and poorly resourced areas.
- The PHC re-engineering plan requires enrolled nurses to be trained as staff nurses (to lead outreach teams). However, the training and number of professional nurses to substitute in the interim are insufficient for successful PHC outreach in rural areas. Specific mentoring and training will be required for these professional nurses.
- It is envisaged that community health centres (CHCs) will be staffed with doctors, but many rural doctors fear isolation and therefore resist placements in remote CHCs. HR plans must therefore be supported with resources to ensure that these CHCs are direct 'extensions' of the district hospital with regard to supervision, training and social networking of doctors. The understated role of doctors in the community-based health teams, contrary to the Brazilian model, is of concern.
- The plan requires training of post-basic pharmacy assistants, and the process of equipping facilities with appropriately trained staff will be slow. Thought must be given to the use of basic-trained pharmacy assistants to do outreach to CHCs and clinics. There is a major shortage of pharmacy personnel, but the multidisciplinary team can shoulder responsibilities collectively under the guidance of the available pharmacist. Thus task sharing, proper supervision and teamwork are also

important for efficient and cost-effective continuity of care in rural areas.

- The success of the new Bachelor of Medical Clinical Practice (Clinical Associates or ClinAs) training is crucial. Although employed at district hospitals, ClinAs will be important to the successful rollout of the PHC plan. Posts must be created for ClinAs at district hospitals in all provinces, particularly in rural areas. Awareness of their role and function must be actively promoted among other cadres of health professionals, especially since the ClinAs are not independent clinicians. Community service should be a requirement, as for other health professionals.
- Efficient referrals would be a huge improvement on the current system, creating a seamless continuum of care. District-based specialist support teams must work in parallel with outreach teams of specialists at regional hospitals. Duplication of specialists (e.g. obstetricians, paediatricians) at district and regional hospital level is not counter-productive, but the fact that few specialists are available underlines the important coordinating role of the district-based specialist, namely the family physician. Family physicians function as clinicians first and foremost, but will play a vital role in integration and quality of health services within the (sub)district, especially in rural districts where other specialists are scarce.
- While decentralising authority to facility level is important, careful attention must be paid to the sensitive dynamic between off-site supervisors and facility management at all levels of PHC. Complementary roles will operate in a facilitative not merely authoritative environment. For example, recruitment targets must be included in the key performance indicators of the district management team, but job offers should be decentralised to district hospitals and sub-districts.

Does the Negotiated Service Delivery Agreement (NSDA) reflect a new focus on improved HR in rural health?

The NSDA details activities to address challenges in each of its output areas effectively:

- increasing life expectancy;
- decreasing maternal and child mortality;
- combating HIV and AIDS and decreasing the burden of disease from tuberculosis (TB); and
- strengthening health system effectiveness.⁷

In discussing the failings of the PHC system to date, the NSDA identifies the lack of integration of different levels of care and spheres of Government, and between public and private sectors. The document states that patients get “lost in the system”, resulting in poor access to health care and poor quality of care. No mention is made of the lack of integration of rural and urban health care. Rural patients not only get lost in the system, but struggle to access the system in the first place.

There is no reference to ‘rural’ in the NSDA document. While the agreement includes a commitment “not to keep doing things as usual, but to identify solutions and develop new strategies,”⁷ there is no recognition that a specific focus on rural health care is required.

It is significant that two of the top five priorities for rural health care identified during 2010 by the Rural Health Advocacy Project (through an expert panel) are “the need to focus on how to recruit, retain and support senior health care professionals in rural hospitals for the long term” and “the need for the development and implementation of a national Human Resource Plan that is relevant to the rural health care context.”⁸

While acknowledging that improvement in HR for health is a priority for Government, there is little evidence in the NSDA of a plan for rural health workers and communities, who are currently the worst off with respect to HR.⁹ Future generations of health professionals need to be developed within the public health service if it is to be adequately staffed in future. To help achieve this goal, all levels of the health service need to be seen and utilised as training facilities; the staffing crisis cannot be left to universities or the Department of Higher Education. The NDoH must realise that the education and training of health professionals is part of its mandate.

Furthermore, an HR plan for rural health needs to be underpinned by certain principles,⁹ as noted by the World Health Organization (WHO).¹⁰ A discussion of the relevant principles in the context of the NSDA follows.

HR for health and the broader social, political and economic context

The NSDA points out that “despite spending 8.7% of its GDP on health,”⁷ SA is a middle-income country which produces poorer health outcomes than some lower-income countries. Poor rural communities are the worst off, due to the historical inequities in resource allocation, geographical challenges and the highest levels of deprivation.

To solve problems at the coalface requires decisions to be made and implemented at a local level. This need to decentralise authority and budgets to district management teams and facilities is recognised within the PHC re-engineering plan and the NSDA. Both also state that the current National Health Act will be amended to give authority to efforts at decentralising management decisions and jurisdiction. This needs to occur in the context of a comprehensive HR plan, which must include strategies for rural recruitment and retention.

Understanding the workforce

The NSDA refers to the skewed distribution of health professionals between the public and private healthcare sector. This is indeed the case, and the ratio of 4 200 uninsured people to one general doctor in the public sector is concerning. However, no mention is made of the skewed distribution between urban and rural areas. The typical urban province has 30 generalists and 30 specialists for each 100 000 people not covered by medical aid, while there are an average of 13 generalists and two specialists available per 100 000 people in rural provinces.¹¹ With 43% of the current population living in rural areas the latter figures translate to a ratio of 7 692 people to every general doctor in rural areas – considerably worse than the national average.¹² The differences in terms of other categories of health care professionals are often greater.

a The WHO global policy recommendations for increasing access to health workers in remote and rural areas calls for every country to consider certain guiding principles before starting to design specific recommendations.

While there is a lack of reliable HR statistics in the country, there is enough evidence to demonstrate that universities are not training sufficient health care workers to meet the country's needs, and that health care professionals are least likely to work in rural areas. Analysis of SAHR 2010 data show that vacancy rates for public sector medical practitioners in Limpopo reached a peak of 84%, while 66.8% of professional nursing posts were vacant in the Eastern Cape (both largely rural provinces). Further analysis shows that the Western Cape has more than double the number of doctors per 100 000 people than North West province.¹³

Aggregated data can be misleading. Whereas the Northern Cape and KwaZulu-Natal seem to have a more equitable share of doctors compared to other rural provinces, one needs to take into account the concentration of doctors in urban centres and around academic teaching hospitals within rural provinces.¹⁴ Nurses are proportionally higher in numbers in the more rural provinces, a reflection of nurses substituting for doctors in provinces where they are scarce.¹⁵ Nursing faces additional challenges, such as an aging workforce and migration into alternative employment, and the country faces a severe nursing crisis in the short to medium-term.¹⁶

Most rural provinces rely heavily on foreign qualified doctors rather than South African doctors due to a failure to attract local doctors to work in deeply remote areas. In Limpopo 30% of all public sector doctors are foreign.¹⁷ The severity of the staffing crisis is further illustrated by career choices made by new graduates. Of the 1 200 medical graduates annually, 50% go overseas and 25% go into the private sector. Of the remaining 25% that choose to work in the public sector, only 35 (less than 3%) choose to work in a rural area.¹⁸

Strategic concerns regarding HR in SA

Guided by health outputs of the NSDA, the NDoH has identified several strategic concerns regarding the HRH situation in the SA health system (see Box 1).

Box 1: Strategic concerns identified for HR for health in SA

- > Inequality in access to health services resulting from an inadequate distribution of the workforce
- > Inadequate workforce
- > Weak platforms for planning and implementing workforce strategies
- > Inconsistencies in the quality, extent and oversight of management of the health workforce
- > Absence of integrated planning with respect to services, HR and financing

Source: National Department of Health, 2010.¹⁹

Although inequality in access to health care is reflected above, these concerns do not bring rurality into the picture. To address the crisis in rural areas, strategies and specific targets for HR for rural health have to be set.

The WHO Global Code of Practice on the International Recruitment of Health Personnel (adopted at the World Health Assembly in May 2010) requires countries to implement effective health workforce strategies in order to develop and sustain an appropriate health workforce and reduce the need to recruit migrant health personnel.²⁰ To complement this initiative the WHO had already started a parallel process of developing guidelines to recruit and retain health workers in rural areas. This process led to WHO

policy recommendations on increasing access to health workers in remote and rural areas through improved retention.¹⁰ The guidelines were launched in SA at the Faculty of Health Sciences at the University of the Witwatersrand in September 2010. They contain recommendations in five core categories: education, regulatory strategies, financial incentives and professional and personal support. A group of organisations working in rural health care subsequently drafted a South African contextualisation of these WHO guidelines, detailed later in this chapter.

Ensure HR expertise is strong

The NSDA recognises the “weak implementation of HR policies ... which translates to poor performance management and weak accountability”.⁷ The agreement largely mirrors WHO guidelines specifying the importance of professional and competent HR managers able to perform relatively complex and varied functions compared to the norm. These include active management of issues around workforce planning, job performance and supervision in particular.

Improvement is especially important in HR management in rural health. Lengthy recruitment processes compound the challenges of shortages and retention of health professionals in rural areas, with recruitment turnaround times across the various departments ranging from six to nine months.²¹

At an operational level, supervision and retention strategies are closely interlinked. The impact of poor supervision of and support for rural health workers can prompt resignations.

Short-term recommendations for HR for health

Progressively realising the right to health requires immediate short-term interventions (Box 2) as well as longer-term strategies.

Box 2: Short-term urgent NDoH priorities for HR for health

- > Establish a national strategic forum on the health workforce
- > Reconfigure/recost Health Professionals Training and National Tertiary Services Grant
 - Target all main health categories, not just medicine and dentistry
 - Determine the conditionalities and oversight requirements
 - Allocate appropriate grant components to education and training providers
 - Develop a framework for training providers to contract with provincial Departments of Health (DoHs)
 - Ring-fence the budget for joint academic and other related posts
- > Develop strategic service plans for hospital services, district services, emergency medical services, and service platforms with a teaching function and priority programmes (HIV and AIDS, TB, maternity, CHWs)
- > Improve marketing, registration and visa requirements for any foreign doctors and nurses wanting to work in SA

Source: National Department of Health, 2010.¹⁹

It is pleasing to note that there are some similarities between the short-term priorities of the NDoH and those contained in a letter submitted to the national Minister of Health in April 2010 by a coalition of organisations involved in rural health workforce issues.²² These are discussed in more detail below.

Nurturing rural community service professionals

Whereas community service officers (CSOs) were introduced to address inequities in access to HR for health, the allocations remain highly inequitable, favouring urban areas. Considering the SAHR 2010 data from a rural perspective, Gauteng received 215 community service medical officers, while Limpopo (with the highest vacancy rate) received only 98; Gauteng received 58 clinical psychologists, Mpumalanga received only 2; Gauteng received 71 physiotherapists, while North West received only 12.¹³

Research in SA has shown that negative experiences during community service contribute towards 'pushing' health workers to the private health sector and developed nations.²³ To address this there is a need to ensure that:

- a transparent process for equitable allocation of CSOs, with preference being given to rural hospitals and districts, is developed;
- mechanisms to encourage community service professionals to opt for rural placements and to stay on thereafter (such as credits when applying for postgraduate positions) are in place;
- there is an improvement in the orientation and support programmes for new community service professionals with districts taking responsibility for practical and prompt orientation of them; and
- national and provincial departments facilitate communication between future community service professionals and senior staff at hospitals in which they have an interest. There is also a clear need to create a central database profiling the relevant hospitals.

The recently adopted Policy on Community Service Officers adopted by the KwaZulu-Natal DoH addresses some of the above matters, and sets an example for other provinces in the country.²⁴ It provides clear guidelines for the equitable allocation of CSOs to public health facilities in KwaZulu-Natal with appropriate supervision and a supportive working environment "that would enable and encourage Community Service Officers to remain in the public service, particularly in underserved areas". The stated aim is that 100% of CSOs will undergo a structured orientation programme within two weeks of arrival. Some of the rural-friendly components include:

- rural and underserved areas being given preference when allocating CSOs of all professional categories; and
- CSOs will be required to provide services in PHC settings and may be required to travel to deep rural areas. Rehabilitation and therapeutic therapists are required to travel at least 40% of their time at PHC level (including clinics, community-based services, non-profit organisations and schools).

The policy further contains detailed guidelines for accommodation, training, supervision and mentorship. Successful implementation of the policy will depend *inter alia* on recruitment and retention of senior health practitioners, since they are needed to provide the required support and supervision.

Revise policies on who may work in the public service in SA

Recruitment of foreign doctors to work in the South African public health service has theoretically been limited to those originating from developed countries, but little active recruitment has been done. While steering clear of active recruitment from developing countries, there have been calls from local stakeholders to allow suitably skilled doctors from such countries, who have already left their home countries and who apply to work in SA *on their own initiative*, to be employed as well as actively recruiting doctors and other health professionals from developed countries. In order to address this there is a need for the following to be done:

- review policies that dictate circumstances under which doctors and nurses may be endorsed to work in SA, without compromising standards of patient care;
- review all applications for endorsement pending with the Foreign Workforce Management Programme of the NDoH; and
- conduct marketing and recruitment drives in wealthy nations which potentially have excess doctor and nurse capacity or at least greater resources for training.

Increase support to the nursing profession

Nurses play a vital role in rural health teams, but face many challenges. Urgent actions required include:

- revision of current lengthy registration processes, including the requirements for South African Nursing Council registration;
- ensuring a speedy process for appointment of nurses in rural health facilities;
- improving support structures for nurses working in rural facilities; and
- considering the role of foreign qualified nurses in rural health care delivery. Foreign nurses have shown growing interest to work in SA but move to other countries due to blockages and delays in getting registered in SA.

Improve recruitment and retention processes for healthcare workers

The process for recruiting local and foreign health workers into the system can also be carried out more efficiently. This would greatly assist in filling vacancies quickly and avoid losing health care workers to other posts due to delays. To address this, the following are required:

- ensure rapid turnaround times for advertisements and appointment of key health professional categories with set, measurable norms;
- ensure that recruitment targets are included in performance management agreements for HR personnel and managers;
- identify and unblock bottlenecks and avoid duplication in the recruitment process of health workers by, among others, automating suitable points in the process and facilitating cooperation between players such as the Foreign Workforce Management Programme, the Health Professions Council of South Africa (HPCSA) and provincial DoHs; and

- reconsider Occupation Specific Dispensation (OSD) scaling of mid-level medical officers, who are the backbone of rural health care. Review impact of current OSD of nurses on recruitment and retention of different nursing categories. Adjust salaries adequately to recruit and retain experienced doctors and nurses in the public sector.

Revisit priorities for cutting costs at provincial level

In response to health overspending, provincial health departments have attempted cost-cutting by freezing medical posts in Government health facilities. Rural communities historically receive support below the critical level required to be sustainable and thus often move from crisis to crisis. This means that doctors and other health professionals who leave rural facilities are not replaced, which has led to the collapse of entire health teams. Previous measures to allow for motivation of 'unfreezing of critical posts' have not worked due to the tedious and lengthy processes involved, with potential candidates moving elsewhere. In recognition of the matter, a 2009 KwaZulu-Natal provincial report made a number of points, outlined in Box 3.

Box 3: Recognition of problems with cost-cutting measures

The moratorium on staff recruitment is severely affecting the capacity of the various components at provincial and district levels to provide quality service delivery.

The overly bureaucratic recruitment procedures from the Department for Public Service Administration and the moratorium imposed by head office on staff recruitment have a number of negative effects, including:

- Staff recruitment seems to be one of the biggest challenges facing the department; for example, there is currently a shortage of about 78% of pharmacists in the whole of KwaZulu-Natal, which is acutely felt in rural areas.
- Potentially interested candidates are going elsewhere.
- A number of managers expressed extreme frustration since the moratorium does not take cognizance of increased demand for service delivery.
- It has also resulted in key staff leaving the department for other opportunities within other sections of Government and the private sector.

Source: Integrated Support Team, 2009.²⁵

Given the disproportionate negative effect of appointment moratoria on rural hospitals, it is imperative that these are not used as a tool for managing budgets or, at least, should clearly exclude all health professional positions without a specific motivation being required.

Long-term recommendations

In its national strategy to improve HRH released in October 2011 (Box 4), the NDoH documented longer-term strategies.

Box 4: Longer-term strategic NDoH priorities

- Leadership, governance and accountability
- Intelligence and planning for HR
- Re-engineering of the workforce to meet service needs
- Revitalisation of education, training and research
- Academic training and service platform interfaces
- HR management
- Quality professional care
- Access to health professionals in rural and remote areas

Source: National Department of Health, 2011.²⁶

The problem statement on access to rural health professionals is clear. Similarly, the last of the priorities listed above is evidence of the clear intention of Government and a welcome addition to the proposed policy. This is a significant step forward, since it is the first time specific attention is being given to staffing in rural and remote areas.

However, many officials and organisations still do not recognise the need for a specific focus on rural areas, believing that implementation of the District Health System will achieve this, despite the fact that it has singularly failed to provide targeted measures to solve the 'rural problem' of access and equity.

The proposed establishment of a working group with HR for rural and remote health as the terms of reference is a positive move, but there is concern that the specific focus on rural health care carries a risk that it will remain out of mainstream priorities at local level and thus will not have the necessary resources allocated. Each of the priority areas listed above should be modified to include a plan for a customised 'rural response'.

There are no quick-fix solutions, but longer-term strategies need to be developed and implemented now in order to ensure future supply. Longer-term strategies are set out according to the framework of the WHO guidelines on increasing access to health workers in rural and remote areas.¹⁰ High-priority recommended interventions are presented below.

Educational strategies

Educational strategies are critical in long-term planning, and without them the future health workforce cannot be developed. International evidence is clear that educational strategies targeted at producing health professionals for rural areas are required in order to impact the future health workforce in such areas.^{27,28} In fact, the educational recommendations have the most evidence behind them of all of the WHO recommendations.

SA already has good localised examples which need to be scaled up. In order to identify how universities are preparing students for service in rural or underserved areas, a peer review evaluation of nine health science faculties was conducted. As judged by a number of criteria developed during this process, most South African faculties fall short with regard to preparation of students for practice in rural or underserved areas after qualification, despite implicit or explicit intentions to achieve the contrary.²⁹

Considering the wider scope, universities need to recruit and train on the basis of their core mandate: producing HR for the health care needs of the entire SA population. International experience has shown that there are no grounds to believe that the HR needs of the 43% of the population who live in rural areas will be addressed by a trickle-down effect, unless targeted interventions are implemented.

What kinds of interventions are required?

Targeted admission policies: Students from rural areas are 2-5 times more likely to work in rural areas.³⁰ Currently fewer than 30% of students in key health science programmes are from rural areas, with most faculties having fewer than 15% of students from rural areas.³¹ Recruitment of rural students should be a mandatory component of selection policies, and universities should be required to report on progress in this regard. However, support for such students from both the faculties and districts from which these students originate is critical, along with processes to identify such students currently at high school level.

Walter Sisulu University Medical School in the Eastern Cape is an example of a school that considers the rural origin and future practice intent of applicants, with positive outcomes in terms of rural practice.³²

Location of undergraduate clinical training outside of major cities:

There are numerous examples of the success of locating training outside of major centres,^{33,34} and the impact of this on students has been shown to be significant in SA.³⁵

In May 2010 a group of deans and their representatives from eight medical schools and a dental school in SA visited Australia to have a closer look at programmes offered in the rural clinical schools of Monash and Flinders universities, with a view to seeing what lessons could be learnt by South African universities in expanding rural health training facilities. Their report indicated that universities need to commit to training students in different settings, particularly underserved and rural settings.³⁶ They stated that in order for this training to succeed there is a need for political commitment and a national policy framework, financial investment by Government, partnership with private sector practitioners, and community cooperation.

There are existing district-based campuses and nursing schools in rural areas that should be supported and developed. Far less costly than establishing new facilities from scratch, these facilities prolong the stay of graduates. As members of the multidisciplinary health care teams, such students contribute to the job satisfaction and retention of qualified health professionals.

Exposure of students to rural clinical experiences through rotations in existing district health systems is cheaper than establishing purpose-built facilities, but the rotations need to be long enough and have a positive impact. The programme and all logistics need to be resourced properly, including transport and supervision (academic and administrative), and especially accommodation. Stellenbosch University Medical School has made a major commitment to the development of a multi-professional rural clinical school, with the establishment of a site at Worcester where students in their clinical years will spend 12-18 months living and learning in health facilities in the district.

Location of postgraduate clinical training outside of major cities:

Opportunities for postgraduate training must be established in rural areas. In terms of medicine, all registrar training programmes should include rotations in regional hospitals and outreach to district hospitals. Other training programmes such as family medicine training can be fully placed in rural areas.

There are already a number of medical schools which have incorporated regional hospitals into specialist training. For example, the Klerksdorp-Tshepong Hospital Complex in North West province has become an important part of specialist training ('the registrar circuit') at the University of the Witwatersrand (Wits), in disciplines including medicine, surgery, paediatrics and obstetrics.

Since the promulgation of family medicine as a specialty by the Health Professions Council of South Africa (HPCSA) in 2007,³⁷ many of the Departments of Family Medicine in SA have established rural district-based registrar training for family medicine. This is expected to have an important positive effect on retention of both doctors and other health workers in the long term. Some of the first graduates are already working in district hospitals in Robertson and Ceres in the Western Cape.

Continuing professional development (CPD) programmes:

Support for appropriate, well-organised and locally based CPD is an important factor in retention. Good examples exist in SA, using innovative training approaches such as facility-based mentoring or web-based learning, and need to be supported in order to scale up.³⁸ An appropriately skilled training coordinator should be appointed to be responsible for this in each district. Career development opportunities are then needed for all professional categories.

A project established in 2010 to support CPD in rural districts in the Eastern Cape, with a CPD coordinator in each district, is showing great promise.³⁹ Working within three districts, programme achievements include establishing a working relationship with all Level 1 remote facilities. By June 2011 more than 16 fully accredited CPD activities had been completed, involving a minimum of 24 health professionals each.

Further examples include an emergency skills training programme, the Basic Emergency Skills Training (BEST) course (a collaboration between Wits, Monash University in Australia and the North West DoH), which has become a requirement for all doctors working in emergency departments in North West province.

The evidence provided above is particularly relevant when these recommendations combine into a 'rural pipeline' in medical education and training. This pipeline involves recruiting students from rural backgrounds, delivering training in regions, a rural curriculum providing repeated rural exposures, and building regionally based postgraduate training pathways.⁴⁰

Regulatory strategies

Educational strategies are most effective in the context of a supportive regulatory environment.

Enhanced scope of practice: The skills mix required in urban district hospitals is different from that required in rural district hospitals, and definition of an appropriate skills mix for rural hospitals is urgently needed. Furthermore, restrictive narrowing of the scope of practice that often occurs in urban areas must not impact negatively on rural areas, which need multi-skilled generalists more than specialists, regardless of the health professional cadre. One example is the need for generic mid-level rehabilitation assistants in rural areas as opposed to discipline-specific assistants in order to provide a comprehensive level of PHC care amid staffing shortages. The scope of practice must therefore be appropriate for rural areas, with flexibility.

Different types of health workers: The optimum range of health workers required for rural district hospitals and health services must be determined as a matter of urgency. The appropriate skills of such workers must be determined, and job descriptions should be based on need rather than professional protection.

Clinical Associates: This is given special, separate attention because they are a new category of health worker, but could also be included under educational strategies. The first 23 ClinA graduates joined the workforce at the end of 2010, with around 100 expected at the end of 2011. Training of this mid-level medical worker cadre must be scaled up urgently, with appropriate resources given to institutions engaged in training, and adequate numbers of posts created in the public service to ensure that district hospitals can employ sufficient numbers of them. In the short term, increased funding to the three existing training institutions (Walter Sisulu, Wits and Pretoria universities) and regulation of community service for ClinAs should be a priority.

Incentives for return of service: Rural scholarship schemes abound internationally and have had good success. Two South African schemes, Umthombo Youth in KwaZulu-Natal and the Wits Initiative for Rural Health Education in North West, have shown that these can work here.^{41,42} Critical to their success are local involvement in student selection, facilitation of an ongoing relationship with the district during training through vacation service and regular contact, educational mentoring and service posting back to the district of origin. Extension of such programmes will assist targeted admission of rural-based applicants to faculties.

Some of the regulatory strategies may meet with resistance from professional bodies and students who may wish to avoid rural placements. However, it is the country's health needs that should inform the strategies, which requires stakeholders to look beyond professional boundaries and personal interests. Some of the recommendations, such as training of new cadres, will take time – but cannot be avoided.

Training of mid-level workers is a cost-efficient strategy, although the need for additional supervision needs to be considered. The value of implementing these recommendations is enhanced because these health workers may be less inclined to leave rural areas than doctors. Enhancing their scope of practice can then reduce the

shortage gap while scaling-up the supply of higher-trained health workers.

In the meantime staffing norms (Box 5) need to be introduced to ensure the equitable allocation of HR and the required supervisory support.

Box 5: Staffing norms

Staffing norms need to be set as an overall guideline for health managers responsible for service delivery. The Rural Doctors Association of Southern Africa (RuDASA) argues that a minimum of six doctors should apply to smaller rural hospitals of about 60 - 80 beds. RuDASA recommends the following formula for determination of doctor posts at district hospitals as an accepted minimum level requiring no motivation for filling of posts, regardless of financial situation, job freezes and budget cuts:

1 000 uninsured population	=	1 bed
10 beds	=	1 doctor
100 beds	=	10 doctors for 100 000 uninsured population
	=	1 doctor per 10 000 people

Interns still undergoing training should not be calculated in this pool, and not more than two community service doctors should be part of the minimum doctors/population. The staffing norms take into account leave days, a 24-hour service, the fact that caesarean sections and other surgical operations require at least two doctors in theatre, and the need for outreach to support CHCs and clinics. It must be stressed that this is the minimum that should be available, and areas with high disease burdens and high levels of socio-economic deprivation should be first in line to receive additional doctors. Similar staffing norms for other health professionals need to be established.

Source: Adapted from Versteeg and Couper, 2011.⁸

Financial incentives

In terms of financial incentives, there is a need to:

- review the OSD to ensure that it favours rural careers;
- evaluate the rural allowance to ensure that appropriate facilities attract the rural allowance;
- investigate the possibility of sabbatical leave for rural health professionals; and
- consider increased leave days for rural health professionals, e.g. increasing by one day per year after each leave cycle for two years served. (The latter carries very little direct cost, increases quality of life for rural health workers and may prevent burn-out.)

Whereas some of the above incentives are costly to the State, not reviewing the OSD and rural allowance means forfeiting their original purposes. The OSD has been declared 'anti-rural' by RuDASA and Rural Health Advocacy Project,⁴³ and there are health care workers at urban-based facilities that receive rural allowances.

The financial incentives can only be successful within a broader package of interventions.

Personal and professional support

Outreach support: There is a need to change the mindset of clinicians and managers in order to reorientate the whole health service towards outreach and support, so that each level is supporting and taking responsibility for those that refer to it. It is more reliable and cost-effective for health professionals to move to where the patients are than for patients to be referred

and, more importantly, this allows for appropriate skills transfer and professional support. Outreach should be included in the performance management agreements of all health professionals in tertiary, regional and district hospitals. Appropriate transport resources will need to be provided for this.

Outreach is beneficial for all patients; specific outreach guidelines should be compiled for each category of health worker. At Grey's Hospital in KwaZulu-Natal, for example, outreach by consultants to district hospitals (particularly in paediatrics) has been shown to improve clinical care and teaching, assist with mortality audits linked to quality improvement projects, and aid in system and infrastructure development.⁴⁴

Improve living conditions: Priority should be given to improving facility-based accommodation for health professionals (because appropriate housing is often not available in small towns and villages), and providing good Internet access not only for work but also private purposes.

Safe and supportive working environment: This requires not only attention to security and community relationships but also good leadership and functional health care teams, with a critical minimum number of health professionals.

Career development programmes: As noted above (under 'Educational strategies'), study opportunities must be provided with structured recognition and rewards, as well as promotion opportunities within the rural context. External recognition can also support this, such as the RuDASA annual Rural Doctor of the Year Award.

Managerial and administrative support: Management teams and administrators need to take cognizance of the vulnerability of small rural health teams and need to make the replacement of health professionals that leave a major priority, with succession planning and rapid turnaround times. Health professionals need to be valued and treated as the scarce commodity that they are.

The above recommendations are not difficult to implement and are a low- or medium-cost burden – but the expected outcomes are high. Private-public partnership proposals exist for the accommodation needs. Good leadership, a feeling of appreciation and a strong support system within the formal health system are valued highly by rural health care workers, as several studies confirm. The challenging part in relation to the above recommendations is the change of mindset – which requires high-level leadership and managers that lead by example.

Conclusion

It cannot be assumed that addressing HR generally will sort out the problem of HR for rural and remote areas of SA. The interventions relating to improving HR for rural health each require the commitment of individuals as stakeholders in the process. Individuals and organisations are already engaged in actively trying to implement some of these recommendations. What is now needed is the universal commitment of everyone involved in rural health care.

To progress from outputs to the intended impacts of improved health service delivery and improved health status of South Africans requires determination and enthusiasm that no set of

recommendations will achieve alone. There are signs that an environment in which to nurture this determination is beginning to develop among our health professionals and other stakeholders.

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