Compulsory community service is an effective strategy for recruiting health professionals to rural and underserved areas, but it is ineffective in retaining them in the absence of complementary longer-term human resource interventions.
Introduction

The recruitment and retention of health professionals in rural and underserved areas is a global challenge that no country has managed to solve satisfactorily. In 2010, the World Health Organization (WHO) developed a comprehensive set of guidelines based on the best available evidence for the recruitment and retention of healthcare professionals in rural and remote areas. The guidelines focus on four core categories, namely educational interventions, regulatory interventions, financial incentives, and professional and personal support (Table 1). One of the regulatory interventions within this offering is compulsory service, which places this strategy within a broader set of options for increasing the supply of health professionals in areas that are difficult to staff.

Table 1: World Health Organization guidelines to improve attraction, recruitment and retention of health workers in remote and rural areas

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Examples</th>
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<tbody>
<tr>
<td>Educational interventions</td>
<td>• Recruiting students from rural backgrounds</td>
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<td></td>
<td>• Locating health professional schools outside of major cities</td>
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<td>• Facilitating clinical rotations in rural areas during studies</td>
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<td>• Development of curricula that reflect rural health issues</td>
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<td>• Continuing professional development for rural health workers</td>
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<td>Regulatory interventions</td>
<td>• Enhanced scope of practice</td>
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<td></td>
<td>• Different types of health workers (task-shifting)</td>
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<td></td>
<td>• Compulsory service</td>
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<td></td>
<td>• Subsidised education for return of service</td>
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<tr>
<td>Financial incentives</td>
<td>• Appropriate financial incentives</td>
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<tr>
<td>Professional and personal support</td>
<td>• Better living conditions</td>
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<td></td>
<td>• Safe and supportive work environment</td>
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<td></td>
<td>• Outreach support</td>
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<td>• Career development programmes</td>
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<td>• Public recognition measures</td>
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This chapter summarises the global experience of mandatory community service. The chapter focuses primarily on the experience of community service of medical doctors in South Africa, for two reasons: this was the first group to commence community service two decades ago; and there is a considerable literature on their experiences. The initial development of the programme is described as well as observed trends in the experiences of community service officers, and the effect of community service on the health services since its inception in 1998. The chapter draws on numerous published and unpublished studies of community service in South Africa, including annual exit surveys initiated by the Department of Health. The policy is analysed in terms of its stated objectives, the process of policy development, initial implementation, and the operational challenges that have arisen more recently due to fiscal constraints and the difficulty of provinces in funding sufficient posts for community service officers. The concluding section highlights the key recommendations relevant to policy makers, health service managers, professional associations and other stakeholders.

Community service in other countries

Compulsory service for health professionals has been instituted in various countries since the early 1900s, with literature from the Soviet Union in 1920, Mexico in 1936, Norway in 1954, Cuba in 1960 and Ecuador in 1970. To date, more than 70 countries have established some form of obligatory service in underserved areas, either as a condition of service for government employment contracts, or with incentives such as education (e.g. as a prerequisite for postgraduate training) or licensing for independent practice (including private practice), as in South Africa. Australia imposes obligatory periods of rural service as a precondition to full registration for immigrant doctors who have qualified elsewhere, and in the Indian state of Andra Pradesh, a mandatory one-year period of rural service for all medical and dental graduates was instituted in 2011. Students in India agitated against this government order, arguing that the experience of young graduates would put patients’ lives at risk, a position borne out by the experience in South Africa.

In South Africa, the first mandatory period of service was the Community service (CS) introduced in July 1998 and was implemented within the context of a confluence of recommendations on human resource training and retention. Firstly, there was the recommendation from the Ministerial Committee on Human Resource Development that medical graduates undergo a compulsory period of postgraduate vocational training (PGVT) with appropriate supervision, which was adopted and became effective in January 1998. The National Department of Health (NDoH) simultaneously proposed two-year compulsory CS for all medical graduates after internship, to meet the health needs of rural communities. At the same time, the Medical and Dental Education Committee (a technical group) of the Health Professions Council of South Africa...
Community service

(HPCSA), recommended a five-year undergraduate degree for doctors followed by a two-year structured internship programme to ensure competencies and skills in all domains. Intense lobbying by the Junior Doctors Association maintained that young doctors were prepared to serve in areas of need as part of their social obligation but that it would be unrealistic to call this training when the level of supervision was unlikely to be adequate, particularly in rural hospitals. PGVT was eventually replaced with one year of compulsory CS post-internship in 1998, via amendments to the Health Professions Amendment Act.16

The objectives of CS have been to:
➢ Ensure improved provision of health services, especially to rural and underserved areas; and
➢ Provide young professionals with an opportunity to enhance their skills, and to acquire knowledge, behaviour patterns and critical thinking to assist them in their professional development and future careers.17

While the two objectives were not explicitly weighted in terms of importance, the evidence suggests that the second objective has been subsumed by the first because in reality the programme has consisted of ‘service not training’. CS officers have reportedly been allocated according to healthcare needs as determined by the NDoH rather than according to availability of supervision for junior staff.

A significant shortcoming of the CS policy is that it was initiated through a political process18 and in the absence of a broader human resources for health (HRH) strategy for the health sector. Despite three of the eight strategic priorities of the HRH strategy19 being directly relevant and complementary to CS (professional human resource management; quality professional care; and access to health professionals in rural and remote areas), by the time that the HRH Strategy 2012/13–2016/17 was published, the CS programme had already been institutionalised. Thus the complementary strategies of the broader HRH policy framework needed to optimise CS were not implemented during the initial decade.

Despite some limited evidence provided by initial and ongoing surveys, implementation of the CS policy has varied considerably, especially because of the absence of national guidelines for provincial departments. Specific procedures and a written policy were eventually developed only by the KZN Department of Health in 2010.20 This lack of attention to detailed guidelines has been the source of much confusion and unhappiness with the CS system, together with an alleged lack of transparency in the allocation process.

Allocation of community service

The allocation process allows CS applicants to nominate their choice of sites from a prescribed list of approved health facilities drawn up by the provincial Departments of Health, the South African National Defence Force, and the Department of Correctional Services. These posts are identified according to the availability of funding, rather than actual relative need in terms of objective indicators such as vacancy rates for each category of staff in each province or district. Applicants are requested to select five options of their choice from the list, and these preferences are then submitted directly to the NDoH, which allocates applicants to different sites according to certain criteria. Provincial bursary-holders who have a service obligation to their provinces of origin, are given first priority for placement. Other social factors such as family responsibility are then taken into account on an individual basis.

Around 50% of CS officers in each professional group were allocated to rural hospitals. This could be regarded as successful in terms of the objective of improved provision of health services, since about half of the South African population was located in rural areas in 1998.21

Figure 1 plots the number of CS doctors allocated and the number of accredited facilities in each province against the percentage of the national population and the percentage of each provincial population that is rural (with the provincial percentage shown in decreasing order), using data from Stats SA censuses 2001 and 2011.22 The aim of this comparison is to show allocations in terms of

Figure 1: Percentage of provincial and national population that is rural, compared with the number of CS doctors and number of facilities accredited for CS by province (2001–2013)

Sources: Stats SA Census 2001 & 201122 and annual CS survey.23
relative need in rural areas. Limpopo receives a disproportionately low number of CS doctors for its rural needs, while the Western Cape and Gauteng receive disproportionately high numbers of CS doctors.

Another approach, adopted by the Rural Health Advocacy Project, yielded similar results. The project compared the distribution of CS allocations with the South African Index of Multiple Deprivation, applied to health districts in the Eastern Cape, North West, and KZN. These results suggest that there is a gross maldistribution of CS allocations in favour of urban and less-deprived districts as well as an accompanying regression in access to health services in rural areas.

A number of surveys have compared the ranking of the choice of site chosen by CS officers on application, with outcomes at the end of the year such as satisfaction with CS and professional development, and found no relationship between the two.

Finally in 2017, the Minister of Health stated unambiguously that from 2018, rural communities would be prioritised in CS placements. Community Service and Internship Placement Guidelines were published for 2017–2018. This coincided with the launch of an online application and placement system (ICSP), which was compromised by teething problems in the first year of implementation.

Implementation

The pioneer group of 26 CS doctors were mostly allocated to urban hospitals in July 1998, followed by a cohort of 1 088 in January 1999. The first group of 173 dental graduates began their CS year in July 2000, and were allocated to sites in all nine provinces as well as the South African Military Health Service. In 2001, 406 newly qualified pharmacists started and in 2003 a further six professional groups began CS: physiotherapists, occupational and speech therapists, clinical psychologists, dieticians, radiographers and environmental health officers. In 2005, professional nurses as the largest single health category commenced community service, bringing the total number of CS officers each year to around 7 500.

Take-up rate

The take-up rate for CS, calculated as a percentage of those eligible for CS who actually arrive to take up their placements, is a first indicator of the general acceptability of CS in the eligible population of new graduates. The results show that around 90% of registered medical interns report for CS, with the shortfall being accounted for by emigrations, foreign interns, social reasons such as starting a family, or decisions to leave the profession. This is of some concern, as the 10% who do not turn up for CS amount to about 130 new graduates, the output of one medical school, who may be lost to the South African public health system in the longer term.

Evaluation of CS for doctors

An internal report by a specific task team for the NDoH on the skills and competencies of interns and CS doctors in 2001 revealed serious challenges (Figure 2). The report noted that the most important technical skills were lacking among junior doctors, namely emergency procedure skills (particularly Caesarean section skills), anaesthetic skills, and resuscitation skills. Additionally, certain skills had not been sufficiently developed, such as the flexibility and competencies to make clinical decisions without supervision or complete diagnostic information in resource-constrained settings where essential equipment was not available.

Figure 2: Major themes identified by the NDoH task team on the skills and competencies of interns and CS doctors in South Africa, 2001

![Diagram of skills and competencies](image-url)
In addition to technical competencies, the task team found that less tangible issues such as attitude, teamwork, confidence and communication, were equally important in the delivery of quality medical care and were significantly enhanced or hampered by the degree of supervision available and the management capacity of the institution.

These findings prompted a revival of the two-year medical internship proposal, which was eventually implemented in 2005. Thus internship, as part of the professional training period, was adjusted specifically to meet the health service needs encountered during the CS year.

Despite efforts to address gaps in the skills of new graduates, critical gaps still persist among CS doctors. For example, in 2007 data from the National Confidential Enquiries into Maternal Deaths showed that junior doctors with one year of internship were not adequately prepared for unsupervised practice, and that a number of maternal deaths occurred in district hospitals with junior staff who did not have the requisite anaesthetic and obstetric skills. In a 2013 follow-up study, Nkabinde et al. found that most CS doctors felt well-prepared clinically, but critical gaps in knowledge and skills were still identified in paediatrics, orthopaedics, anaesthesics and obstetrics.

Experience of community service professionals

The experience of CS has been monitored in several cross-sectional surveys as well as via qualitative studies within all professional groups. The first year of CS implementation for doctors, dentists, therapists, dieticians, and psychologists was scrutinised particularly closely. The findings suggest that despite the less-than-satisfactory allocation, orientation and support processes, the majority of respondents reported that they developed professionally through the year and contributed positively to the community they had served.

Supervision

A detailed study of the 2009 cohort of CS doctors, which developed a ‘Supervision Satisfaction Score’ (SSS), found a high level of participant satisfaction with CS. The study noted that participants reporting professional development during the CS year were twice as likely to report an intention to remain in rural, underserved communities. Orientation and induction processes at the various sites were variable, and on the whole, far from optimal. On average across the country, CS doctors (the group for whom the most longitudinal data are available) rated their satisfaction with job orientation at around 65%, clinical supervision by seniors at around 60%, and support from managers at around 50%.

A KZN study of professional nurses, reported that they felt positive about CS policy and their work experience, but struggled with the workload and role expectations in terms of responsibility and autonomy. This is not unexpected among young professionals entering the workplace fulltime for the first time.

An interesting finding from surveys of dieticians, doctors and therapists was that CS is viewed more positively at the end of the year than at the beginning. Longitudinal data from CS doctors show that this trend has increased significantly over the past 15 years, as shown in Figure 3.

Discussion

The CS experience has become something of a ‘rite of passage’ in the process of professional identity formation. Clearly, a significant process resulting in greater acceptability of CS occurs during the 12 months of placement, which could be explained by a number of different hypotheses. Either CS has just become part of the anticipated norm over time, or the exposure of young professionals to the real needs of patients in the public health service stimulates a sense of social solidarity, despite the difficulties of the system. The CS process may be understood in terms of the acquisition of confidence and competence through professional development, leading to a clearer professional identity and the development of resilience under challenging circumstances. But it may equally be understood as a social intervention, bringing health professionals from largely middle class backgrounds into direct contact with the social, economic and historic inequities in South Africa.

Longer-term implications of community service

Following initial assessment of the first cohorts of various professions, a number of insightful studies have followed up with analyses of CS, including the implications for undergraduate education and internship. In summary, the experience of CS exposes the misalignment of many tertiary education curricula with the challenges and priorities of the South African public health services. Hence educationalists need to address the realities that their graduates will inevitably face.

A number of other studies have focused on the retention of professional staff in rural areas after the completion of CS. The proportion of CS officers who say that they are prepared to work in the public service in rural or underserved areas after CS varies between 10% and 35% depending on the study setting, the province, and the professional category. For doctors, this figure was consistently around 20% of survey respondents, representing one-fifth of the professional workforce who remain positive and committed to rural service on a voluntary basis. This has implications for continuity of care. As noted by one hospital manager: "It is better to have one doctor for 5 years than 5 doctors for one year each." 

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a Personal communication: V. Fredlund, 2013.
Community service is a reliable recruitment strategy for short-term staff, but retention of committed professionals requires an array of interventions. Rather than rotating all graduates through rural facilities for a year only, a different strategy to form a more stable rural workforce would be to incentivise the 20% who are willing to stay on longer, and release the rest. In isolation of other HR strategies, CS might to some extent actually defeat its own ends if newly qualified professionals assume that they have ‘done their duty’ and compensated society for the cost of their studies after only one year in public service. The potential of this annual workforce supply of motivated young professionals could be optimised through bonded scholarships, incentivised postgraduate training, and promotion opportunities to build teams in difficult-to-staff health facilities. This is an area of long-term human resource management that is generally lacking in the public health service, but a comprehensive strategy could make all the difference to rural health services in the longer term.

**Backlash**

Inevitably there has been some degree of backlash against the compulsory nature of CS, epitomised in a 2012 article in the South African Medical Journal entitled “Slaves of the State”. Describing CS as “forced labour”, the author, from the legal profession, characterised it as exploitation and discrimination, and called for it to be challenged under the Constitution. Indeed, an application was brought by Dr Miguel Desroches in 2014 to be heard directly by the Constitutional Court. Posted to a rural site in the EC for his CS year, he challenged the system legally, but his application was dismissed by the judges who said it was “not in the interests of justice to hear it at this stage”. The ethics of the compulsory nature of CS, limiting the freedom of individual health professionals to practise where they choose, is often framed against the need for social and restorative justice in South Africa, and further legal challenges can be anticipated in future.

**Funding**

The availability of funded CS posts poses the greatest challenge to the current system as provinces struggle to find sufficient funding to employ all new health profession graduates in CS posts. In a review of the 2017 CS officer allocations in North West and Eastern Cape projects, a report by the Rural Health Advocacy Project found that posts in urban facilities were filled whereas rural posts remained unfilled, indicating that the funding crisis disadvantaged the very areas that CS was intended to assist with staffing. Some media releases have highlighted complaints against the NDoH for failing to place applicants, but applicants have refused to take up available posts in rural areas. However, in the case of environmental health practitioners, and more recently dentists and pharmacists, the absolute number of posts available in the public health system has been insufficient to accommodate all applicants. Although relatively small in number, some health professionals have been unable to fulfil their CS requirements to register for independent practice, and have left their profession to take up other occupations to earn a living. If no funded posts are available in the public sector, then a policy change needs to be considered, including an amendment of the relevant legislation, to allow an alternative to CS as currently constituted to suffice for independent practice. In the case of pharmacists for example, this means accrediting private pharmacies for CS or removing the obligation for CS altogether.

Other professions have expressed an interest in introducing CS. The Department of Higher Education has considered a system of CS for all university graduates, similar to the National Youth Service Corps in Nigeria, which was established by decree in 1973. Despite lengthy consultations and investigation, this has not been developed further. The legal profession, led by the Law Society of South Africa, has also considered a certain period of compulsory CS before full qualification as an attorney, with support from law students who regard it as an issue of social justice. However, CS is often confused with pro bono work and no clear decision has been made; the Law Society adopted the view that pro bono services would be best rendered by its members on a voluntary rather than a compulsory basis. Veterinarians have been more successful, through the initiative of the Department of Agriculture, Forestry and Fisheries, which instituted a compulsory year of CS for all newly qualified graduates in 2015, with the first group beginning in January 2016. Non-profit veterinary organisations as well as government services have benefited enormously from the injection of human resources as a result of this intervention.

**Conclusion**

Compulsory CS is an effective strategy for recruiting professional staff to rural and underserved health facilities, but it is ineffective in retaining them in the absence of complementary longer-term human resource interventions. It has positive effects in terms of professional development and social investment, but there are also some unintended consequences and a backlash to the compulsory nature of the programme. In addition, provinces are finding it difficult to fund all the necessary posts.

**Recommendations**

The following recommendations were made at a National Summit on Community Service held in 2015, and on the basis of this review.

- A comprehensive long-term strategy ensuring access to health professionals in rural and underserved areas in South Africa needs to be driven by the NDoH. Current development of the National Strategic Plan for Human Resources for Health 2019/20–2024/25 provides a strategic entry point for framing many of these policy decisions.
- Community service posts need to be allocated and funded on the basis of relative need and equity, based on objectively verifiable indicators such as the deprivation index or vacancy rates by district.
- The orientation, supervision, support and professional development of CS officers needs to be better structured and funded, with incentives such as postgraduate training opportunities for the minority who are prepared to stay on in rural or underserved facilities after CS.
- The roles of the universities should be formalised in terms of recruiting and selecting students from rural areas, exposing them to rural facilities during undergraduate training, and providing postgraduate opportunities for professional development during the CS year.
➢ Management and support of CS officers should be standardised across provinces, including the provision of adequate staff accommodation in rural areas. The private and non-profit sectors could play a helpful role in this area.

➢ A system should be instituted to monitor CS and subsequent career progression via continuous online human resource tracking, through the relevant statutory health councils.

➢ Attention must be given to the maintenance and development of CS as one of a range of HRH strategies crucial to the establishment of the National Health Insurance system.

➢ Ongoing monitoring and evaluation of HRH, including specific research projects on operational and strategic aspects of compulsory CS, will be crucial to inform future policy changes.

➢ Further policy development on CS may be needed, including relevant legislative changes, in order to adjust the programme to the changing context.
References


