The retention of community service officers for an additional year at district hospitals in KwaZulu-Natal and the Eastern Cape and Limpopo provinces

[a] **Ross A,** MBChB, MFamMed [b] **Reid S,** MBChB, MFamMed
[a] Department of Family Medicine, University of KwaZulu-Natal, Durban
[b] Centre for Rural Health, University of KwaZulu-Natal, Durban
Correspondence to: Dr A Ross, e-mail: rossa@ukzn.ac.za
Key words: community service; recruitment; retention; human resources for health

Abstract

Background: Community service (CS) is an effective recruitment strategy for underserved areas, using legislation as the driver; however, it is not a retention strategy. By the end of each year, most CS officers working in district hospitals (DHs) are skilled, valued and valuable members of the health team, able to cope with the demands of working in the public health service within the resources available at DHs. Their exodus at the end of each annual cycle represents a net loss of valuable skills and experience by the public service, measured by the time and effort required to orientate and induct the following cohort of CS officers. This in turn has a negative effect on the level of service delivery and the quality of patient care.

This study sought to gain understanding of the motivations of CS officers to continue working at the same DH for a subsequent year after their obligatory year was over. The objectives were to determine the number of CS officers who actually remained at the same DH after completing their CS in 2002, the major factors that influenced them to remain and factors that would encourage the 2003 cohort of CS officers to remain at the same DH for an additional year.

Methods: A descriptive cross-sectional study design was employed using qualitative methods with the cohort of CS officers who had completed their compulsory CS year in 2002 and who were still working at the same DH in July 2003. This was followed by a quantitative survey of CS officers doing their CS at DHs in KwaZulu-Natal (KZN), the Eastern Cape (EC) and Limpopo Province (LP) in November 2003.

Results: Twenty-two out of 278 (8%) of the 2002 cohort of CS officers in KZN, EC and LP remained at the same DH in the year following their CS. The reasons given, in order of decreasing priority, were that they were close to home, had been allocated as part of their CS, had been personally recruited, had bursary commitments, had heard about the hospital from friends, had visited the hospital prior to starting CS and had visited as a medical student. Four CS officers did not specify reasons.

In the larger quantitative study 150 out of 221 questionnaires were returned. More than 80% of the respondents felt that there had been opportunities to develop confidence in their own ability to make independent decisions, that they had had good relations with the hospital staff and that they had been able to make a difference in health care delivery. Between 67% and 76% of respondents felt that they were providing a good standard of care, that there were learning opportunities, that they were doing worthwhile work and that CS provided excellent work experience. However, only 52% of respondents felt that there had been opportunities for personal growth, 38% felt that appropriate equipment was available, 37% had a supportive mentor figure and 29% felt that there were adequate levels of staffing at the hospital.

In total 24 (16%) of the 150 officers who responded to the questionnaire indicated a willingness to remain at the same DH after completion of their year of CS. The intention to continue for a further year was statistically significantly associated with the following factors: ethnic group, province, rural origin, allocation priority and bursary commitment.

Conclusions: The retention in the same DH of only 8% of the CS officer cohort in three rural provinces indicates a serious loss of skills on a recurrent annual basis. Local hospital management can do much to strengthen the factors that would attract CS officers to stay on by improving orientation, mentoring, teamwork, professional development opportunities, medical equipment and accommodation.

Ⓟ **This article has been peer reviewed.**
SA Fam Pract 2009;51(3):249-253

Introduction

The CS programme was introduced in 1998 to improve the provision of health services and to allow young professionals the opportunity to develop skills and acquire knowledge, behaviour patterns and critical thinking that would help them in their professional development.[1] Despite this and other interventions aimed at recruiting and retaining health professionals in areas of need, many district hospitals, especially in rural areas, are still struggling to find sufficient staff to be able to deliver the core package of services demanded by the National Department of Health.[2,3]

Annually approximately 2500 health science graduates are allocated for CS throughout the country but only 25% are allocated to district

hospitals.[1] By the end of each year, most of these CS officers are skilled, valued and valuable members of the health team, able to cope with the demands of working in the public health service within the resources available at district hospitals. Their exodus at the end of each annual cycle represents a net loss of valuable skills and experience by the public service, measured by the time and effort required to orientate and induct the following cohort of CS officers. This in turn has a negative effect on the level of service delivery and the quality of patient care.

While CS is an effective recruitment strategy for underserved areas, using legislation as the driver, it is not a retention strategy. Merely exposing each new cohort of young health professional graduates to the public service does not guarantee that any of them will remain where they are needed for longer than they are obliged to stay.[4] It has been postulated that CS may even contribute to the exodus of health professionals from South Africa by 'immunising' them against working in the public service, if their experience is a negative one.[4] However, if a significant proportion of CS officers chose to spend one extra year at the hospital where they had done their year of CS, the positive impact on service delivery would be enormous. Evaluation of the 2001 cohort of CS officers showed that up to 18% would be willing to work in rural or underserved areas in the future.[5]

In this study we wanted to gain understanding of the motivations of CS officers to continue working at the same DH for a subsequent year after their obligatory year was over. The objectives were to determine the number of CS officers who actually remained at the same DH after completing their CS in 2002, the major factors that influenced them to remain and factors that would encourage the 2003 cohort of CS officers to remain at the same DH for an additional year.

Methodology

A descriptive cross-sectional study design was employed using qualitative and quantitative methods. The study population consisted of all CS officers doing their compulsory CS year in 2003 as well as those who had completed their CS in 2002 but who had elected to stay on at the same DH in 2003 in the rural provinces of KZN, EC and LP. The cohort of CS officers who had completed their compulsory CS year in 2002 and who were still working at the same DH in July 2003 comprised the first sample (Phase 1). A quantitative study using a questionnaire developed from the qualitative study and sent to CS officers doing their CS at DHs in KZN, EC and LP in November 2003 comprised the second sample (Phase 2). Ethical approval was obtained from the Research and Ethics Committee of the Nelson R Mandela School of Medicine. Permission to conduct this research project was obtained from the relevant provincial departments of health. Data from the structured questions and personal and demographic questions were entered into the SPSS program and analysed with the help of a statistician.

Phase 1

In July 2003, all the DHs in KZN (37 hospitals), EC (45 hospitals) and LP (27 hospitals) were contacted and a list of all the medical, dental and pharmaceutical CS officers who had completed their CS in the same hospital the previous year was drawn up. Each one was then contacted individually and invited to participate. Written informed consent was obtained from each participant.

Data was collected using open-ended free-attitude interviews with individuals and one focus group discussion. The opening question that was asked in both methods was, "Why have you chosen to remain at the same DH after completing your year of CS?" An interview guide was then used to ensure that important information had not been overlooked. The interview guide covered the following issues that were previously identified by Edington and Holst[6] as factors that influence professionals' choices to remain at a DH: work-related factors, location-related factors, accommodation, vocation, funding and family factors. On completion of the interview, personal and demographic data were obtained from each participant. The individual interviews and focus group discussion were audiotaped and transcribed in full. Important and recurrent themes were identified from the transcribed texts and a model was constructed demonstrating the relationship between the themes. Complete transcripts and the analysis were sent to each participant to validate the interviews.

Phase 2

From the themes identified, a questionnaire was drawn up in consultation with the National Department of Health and members of the Rural Doctors Association of South Africa (RuDASA) and the Junior Doctors Association of South Africa (JuDASA) and was piloted with CS doctors working in the Department of Family Medicine at King Edward VIII hospital in Durban in September 2003. Questionnaires were sent to 148 randomly selected CS doctors (sample selected from a random numbers table stratified per province) and all CS dentists and pharmacists working in DHs in KZN, EC and LP in November 2003.

Results

Phase 1

In the first phase, a total of 22 health professionals who had remained working in normal posts at the same DH for the year after their CS were found in the three provinces. These consisted of 13 doctors, six dentists and three pharmacists, with a total of 14 in LP, four in KZN and four in EC. There were 11 males and 11 females, 16 blacks, three whites and three Indians, and nine of them were married. Fourteen of them had bursary commitments of which 11 were in Limpopo. Fourteen of the 22 were originally from rural communities including six who were from communities around the hospitals where they were working. The reasons given for choosing to continue to work at that particular DH, in order of decreasing priority, were that they were close to home, had been allocated as part of their CS, had been personally recruited, had bursary commitments, had heard about the hospital from friends, had visited the hospital prior to starting CS and had visited as a medical student. Four CS officers did not specify reasons.

Table I: Qualifications of CS officers who remained at the same DH by province

Province	Qualification			Total
	Doctors	Dentists	Pharmacists	
KZN	2		2	4
EC	4			4
LP	7	6	1	14
Total	13	6	3	22

In the interviews and focus groups, participants expressed a constant tension between positive factors that encouraged them to remain and negative factors that forced them to think seriously about leaving. Figure 1 shows in a pictorial manner the interrelationship between

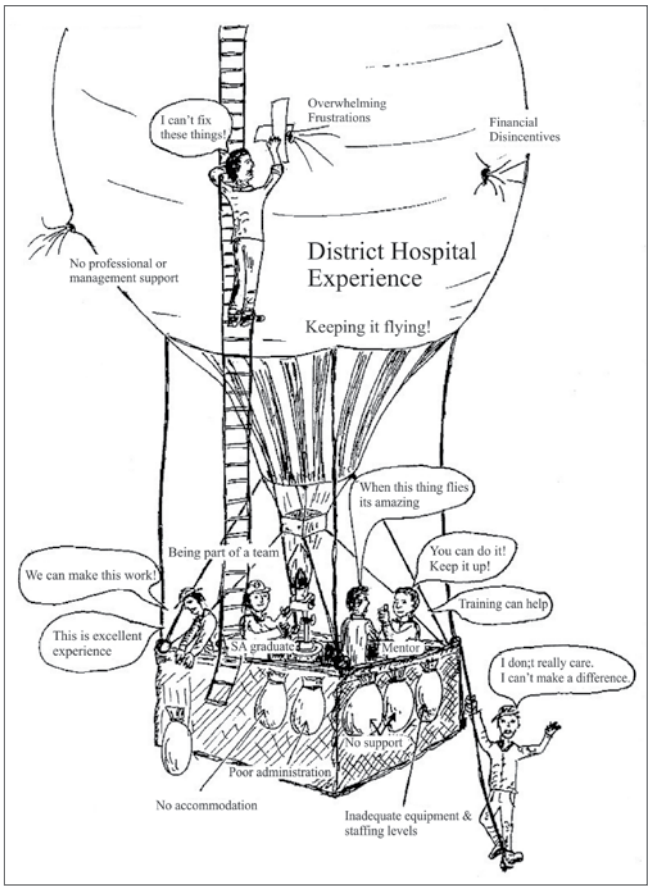

Figure 1: Pictorial representation of the interrelations between the themes identified

the major themes identified. The hot air balloon image is an attempt to capture this tension. The DH experience can be rewarding for CS officers, with opportunities for gaining excellent professional experience, for learning to take responsibility and develop critical thinking and for personal development. These themes are tabulated in Table II. For example, one participant said, "The work experience here is fantastic... it equals like three years experience in six months", and another, "I am confident because I had more opportunity to do it practically". Gaining this experience was facilitated by senior people being available to help, management support and working as a team. In the words of some of the participants, enjoying working at a DH, feeling that they were "helping the community" and being "appreciated (for) what you are doing" plus suitable accommodation, a lifestyle that "is convenient for my family" and being able to "serve without (being) forced" all enhance the experience of working at a DH.

However this 'potentially fantastic experience' is undermined in many DHs by a negative work experience and a lack of the following: professional support, management support, staff, equipment, financial incentives and adequate accommodation. These themes are illustrated by the following quotes:

- "If a person is bored he is going to leave."
- "This year I became totally disillusioned because the support structure ... it just fell away."
- "There is no management support… it's unbelievable."
- "If the hospital is inadequately staffed... no one wants to stay."
- "The rural allowance is nonsense"
- "The accommodation is horrible."

Table II: Themes and illustrative quotes from focus group discussions and free-attitude interviews

Positive factor	Themes	Negative factor
"You have to manage different cases"	**1. Excellent professional experience**	".. if a person is bored he is going to leave"
" ... he was an encourager, a motivator …he says you can go on… you can do this"	**2. Support** 2.1 Having a mentor	".. this year I have become totally disillusioned... the support structure... just fell away"
"Relationship with management is very good..."	2.2 Supportive environment	".. there is no management support... it's unbelievable"
"...we work as a team..."	2.3 Being part of a team	"… if the hospital is inadequately staffed no one wants to stay..."
"... in a district hospital you have to stand on your own. You have to make decisions..."	**3. Learning opportunities** 3.1 Critical thinking and taking responsibility	
"When I arrived... he taught me from the first procedure to the last procedure. Now I'm confident ..."	3.2 Training opportunities	"Most clinics don't have equipment…dentists go there and they sit the whole day doing nothing…"
	4. Inadequate equipment	"... there is no equipment.... you are helpless as a doctor… why are you there?"
"...I am exposed to things that develop me as a person" " I am confident in surgery, I am confident in anaesthetics... because I had more opportunity to do it practically"	**5. Personal development** 5.1 Confidence	
"I like the place… the people…I enjoy working here"	5.2 Enjoyment	… its no more enjoyable – only frustrating
"... you enjoy helping your people get better"	5.3 Making a difference	
"... I want to serve my community"	5.4 Service	
"... so I would even ride in a taxi and listen to them. All their complaints, all their satisfactions. ... they appreciate what you are doing"	5.5 Being appreciated	
"... I stayed because I have a bursary"	**6. Finance**	"... you cannot stay here and raise a family unless your wife works... the rural allowance is nonsense"
"... its a nice place"	**7. Physical factors** 7.1 Attractive area	
"I love my new kitchen."	7.2 Accommodation	"... accommodation is horrible"
"... my belief in God... it played a big role"	**8. Social factors** 8.1 Religious convictions	
"... its convenient for my family life"	8.2 Close to family	
"... it was never one of those things that I had to stay... it was a good thing for me to work with these communities"	**9. Choice**	

Phase 2

In the second phase, a total of 150 questionnaires were returned out of the 221 that were distributed to a total study population of 278 CS officers in the three provinces. This represents a 68% response rate, with a range of 42% to 100% in different provinces and professional categories. Details are shown in Table III. Most respondents were single and between the ages of 20 and 30. Demographically they consisted of 36% blacks, 32% whites, 30% Indians and 1.5% coloureds. Of all the respondents, 52% were receiving the rural allowance, 29% had a bursary and 26% grew up in a rural area.

Table III: CS doctors, dentists and pharmacists allocated to each province in 2003 and those willing to remain at the same DH in 2004

	Total number of CS officers allocated in 2003	Total allocated to district hospitals	Question-naires sent	Question-naires returned	Response rate (%)	Number willing to remain in 2004	Percentage willing to remain in 2004
DOCTORS							
KZN	234	73	56	43	77	3	7%
EC	100	62	48	20	42	3	15%
LP	104	61	44	28	64	8	29%
Total	**438**	**196**	**148**	**91**	**61**	**14**	**15%**
DENTISTS							
KZN	23	10	10	9	90	0	0%
EC	9	9	9	8	89	3	38%
LP	19	12	12	8	67	3	38%
Total	**51**	**31**	**31**	**25**	**78**	**6**	**24%**
PHARMACISTS							
KZN	56	19	19	13	69	1	8%
EC	25	13	11	9	82	2	22%
LP	23	19	12	12	100	1	8%
Total	**104**	**51**	**42**	**34**	**83**	**4**	**12%**
Grand total	**593**	**278**	**221**	**150**	**68%**	**24**	**16%**

In terms of their experience as CS officers, more than 80% of the respondents felt that there had been opportunities to develop confidence in their own ability to make independent decisions, that they had had good relations with the hospital staff and that they had been able to make a difference in health care delivery. Between 67% and 76% of respondents felt that they were providing a good standard of care, that there were learning opportunities, that they were doing worthwhile work and that CS provided excellent work experience. However, only 52% of respondents felt that there had been opportunities for personal growth, only 38% felt that appropriate equipment was available, only 37% had a supportive mentor figure and only 29% felt that there were adequate levels of staffing at the hospital.

Of the 150 who responded to the questionnaire 24 (16%) had decided to remain at the same DH after completion of their year of CS. The intention to continue for a further year was statistically significantly associated with the following factors: ethnic group, province, rural origin, allocation priority and bursary commitment. Thirty per cent of black graduates chose to stay on at the same DH (14 out of 47) compared with 5% of white (two out of 44), 10% of Indian (four out of 41) and 0% of coloured graduates (zero out of two) ($p < 0.004$). In terms of provincial differences, 12 out of 46 respondents (26%) in LP, eight out of 37 (21%) in EC and four out of 65 (6.2%) in KZN indicated that they were planning to stay on at the same DH. The cohort of CS officers who did their CS in LP in 2003 were four times more likely (relative risk 4.2, $p < 0.003$) and those in EC were three times more likely (relative risk 3.5, $p < 0.02$) to stay on at the same DH than those who did their CS in KZN.

CS officers are given five initial choices of their site of allocation and submit these in order of preference, submitting a further five choices if they are not allocated any of their first five. Thirty-one per cent of those who got their first choice indicated that they would remain at the same hospital, and 15% who got their second to fifth choice indicated that they would remain. Only 7% who got their sixth to tenth choice and only one out of 16 who got greater than their tenth choice indicated a willingness to remain at the same hospital ($p < 0.026$). Sixteen of the 44 graduates (36%) who had bursary commitments chose to remain in the same DH compared to eight of the 104 who did not have bursary commitments, which is a significant difference ($p < 0.001$). Those graduates from a rural origin were 2,3 times more likely to remain in a DH than their urban colleagues ($p = 0.021$).

For those who indicated that they would not be remaining at a DH the following were the commonest reasons given: far from family and friends (47), poor salary (45), career move (28), lack of staff (24) and excessive workload (24).

Discussion

The results of the quantitative study confirm the validity of the themes identified in the qualitative study and are similar to those found in previous studies.[4] These factors are similar to those mentioned by De Vries who identified professional growth opportunities, personal growth, the feeling of being needed, the challenges and huge diversity at a rural hospital, good relationships with patients, the community and colleagues as reasons why women doctors chose to work at rural hospitals.[7] Couper identified similar although slightly different themes as to why doctors chose to 'go rural'.[8] These included a sense of vocation, a sense of adventure, a love of nature, a need for experience, a place to escape, a way in, going back home and a worthwhile package.

The results show that even though the vast majority of CS professionals were positive about their year of CS, only a minority of 16% were prepared to continue working at a rural DH, and most of these appear to be linked to bursary obligations. So the building of clinical experience and confidence during the CS year, as reported by Cameron et al,[9] is not a sufficient motivation for them to stay on. The lack of sufficiently strong attractors such as salaries, training and accommodation in addition to pull factors such as high salaries overseas do not encourage CS officers to stay. The 'potentially fantastic experience' in many DHs is therefore undermined by a negative work experience and a lack of the following: professional support, management support, staff, equipment, financial incentives and adequate accommodation. Of concern is the fact that only 38% felt that appropriate equipment was available and only 37% had a supportive mentor figure, which are factors identified in the interviews as important in influencing the decision to remain at a DH. Many of these factors can be addressed at a local hospital level if the management team is prepared to put together a retention strategy for CS professionals. It is important to note that there was no statistical correlation between staying on and skills development, gaining good

professional experience, having a mentor or learning opportunities, even though these were strong themes from the qualitative data. This may be due to the small numbers of CS officers who indicated a willingness to stay and the positive experience of most of the CS officers, whether they were staying or not.

The higher proportion of CS officers staying on who were black, were stationed in LP, had been allocated their top choice of site, held a bursary and had grown up in rural areas has implications for all components of the health system, particularly at provincial level. The selection of students for health sciences education, the CS allocation process and the monitoring and management of the provincial bursary processes all play a role. It has been established in South Africa that medical graduates drawn from rural areas are 3.5 times more likely to end up practising in rural areas than those who grew up in urban areas.[10] The Limpopo Department of Health has attempted to address its human resource requirements by developing a close working relationship with the University of Limpopo in the selection of students for health science courses and in the allocation and monitoring of provincial bursaries. Medical students are selected from all of the districts throughout the province, including the most remote districts, and provincial bursaries are awarded from each district in proportion to the population and the needs of the districts. In addition, an orientation and ongoing support programme for CS officers is run annually. These strategies are likely to account for the higher proportion of CS officers who stayed on in LP compared to the other two provinces.

There is a notable difference between the stated intention to stay on – in this study 16% of the 2003 cohort, similar to the national figure of 18% in 2001[5] – and the actual number who eventually did stay on from the previous year, which was 8% of the 2002 cohort. This falloff needs to be explored further but could be related to the lack of human resource planning and other bureaucratic problems that prevented CS officers from being placed in normal posts at the end of their 12-month contracts.

It must be borne in mind that staying on for one year in a DH, which was the principal outcome measurement of this study, is not the only end point of CS and that positive experiences during the compulsory year may create better specialists in the long run and even encourage some graduates to return to DHs after further training or going overseas. Further work needs to be done on this, as there is no information on the effects of CS on long-term career development.

The relatively small sample size of the qualitative phase and the restriction of the sampling to three provinces may limit the generalisability of the results. Lists of CS officers obtained from the provincial departments of health were not accurate, which distorted the random selection. However, the similarity of the qualitative data to the quantitative results strengthened the validity of the study.

In conclusion, the retention in the same DH of less than 10% of the CS officer cohort in three rural provinces indicates a serious loss of skills on a recurrent annual basis. LP demonstrates how a comprehensive approach at provincial level to the staffing of rural DHs can make a measurable difference in retaining these valuable skills in areas of need. Local hospital management can do much to strengthen the factors that would attract CS officers to stay on by improving orientation, mentoring, teamwork, professional development opportunities, medical equipment and accommodation.

Recommendations

As a result of this study we are able to make the following recommendations regarding the retention of CS officers in areas of need in the public service:

1. The selection of health science students should favour students of rural origin, linked to provincial bursaries, as part of a comprehensive recruitment and retention strategy involving a partnership between the provincial departments of health and the relevant universities.
2. Every effort should be made to allocate CS officers to the hospital of their choice in a transparent and equitable manner, bearing in mind the needs of the most underserved areas.
3. A thorough orientation and induction programme for CS officers should be instituted at hospital level, guided and monitored by provincial CS coordinators.
4. Each CS officer should be allocated a senior mentor for the year, to whom he or she should be accountable.
5. Each CS officer should be assisted to develop a professional development plan, outlining how he or she will meet his or her training needs throughout the year.
6. Hospital and medical managers need to facilitate good working relationships by addressing issues of teamwork, timeous problem solving and setting a good example, ensuring that structures and systems that facilitate good working relationships are in place.
7. Suitable accommodation needs to be provided at rural DHs.
8. Adequate and appropriate equipment needs to be provided, especially for dental officers.
9. The remuneration of those willing to remain after CS needs to be reviewed, including promotion opportunities.

Further research is needed on the long-term impact of CS on individual careers as well as on large-scale human resource patterns.

Acknowledgements

Our thanks to Ms Tonya Estherhuizen for statistical support in completing this research project and to Brigitte Watkins, Research Assistant, Centre of Rural Health, University of KwaZulu-Natal, Durban. A small travel grant was made available by the Rural Health Initiative.

References

1. Reid SJ. Compulsory Community Service for Doctors in South Africa – an evaluation of the first year. S Afr Med J 2001;91:329–336.
2. De Villiers MR, De Villiers PJT. Doctors' views of working conditions in rural hospitals in the Western Cape. SA Fam Pract 2004;46(3):2–126.
3. Damp MH. A rural general surgeon's thoughts on surgery in South African rural areas. S Afr J Surgery 1997;35(3):145–146.
4. Sankar U, Jinabhai CC, Munro GD. Health personnel needs and attitudes to rural service in KwaZulu-Natal. S Afr Med J 1997;87(3):293–298.
5. Reid SJ, Conco D. Monitoring the Implementation of Community Service. Chapter 17 in: South African Health Review 1999. Health Systems Trust, Durban, 2000. http://www.hst.org.za/uploads/files/chapter17_99.pdf
6. Edginton ME, Holst HE. Doctors in rural hospitals in KwaZulu and Natal. S Afr Med J 1991;80:511–512.
7. De Vries EM, Marincowitz GM. The perceptions of rural women doctors about their work. SA Fam Pract 2004;46(3).
8. Couper I. Why doctors chose to work in rural hospitals. S Afr Med J 1999;89(7):736–738.
9. Cameron D, Blitz J, Durrheim D. Teaching young docs old tricks – was Aristotle right? An assessment of the skill training needs and transformation of interns and community service doctors working at a district hospital. S Afr Med J 2002;92(4):276–278.
10. De Vries E, Reid S. Do South African rural origin medical students return to rural practice? SA Med J 2003; 93(10):789–793.