

# Managing medical service delivery gaps in a socially disadvantaged rural community: a Nurse Practitioner led clinic

## AUTHORS

### Jo Kelly

MN (NP); Grad Dip Palliative Care; Grad Dip Gerontics; BN; Cert Skin Cancer Medicine; Lymphoedema (Level 1) What Matters Most, PO Box 742, Cowes, Victoria, Australia  
jo@whatmattersmost.net.au

### Deb Garvey

NP; LLB; MIHM; MN; Grad Dip Crit Care (ED, ICU, CCU), RIPRN; BN; Cert Skin Cancer Medicine; Cert Women's Health, DG Nurse Practitioner  
c/o Grantville Transaction Centre, Cnr Bass Highway & Pier Road, Grantville, Victoria, Australia  
deb.garvey@dcsi.net.au

### Mary Anne Biro

PhD, RN, Senior Lecturer, Peninsula Campus Operational Lead, Monash University School of Nursing and Midwifery  
McMahons Road  
Frankston, Victoria, Australia  
Maryanne.Biro@monash.edu

### Susan Lee

PhD, RN, Senior Lecturer, Director Research Degrees Monash University, School of Nursing and Midwifery  
McMahons Road, Frankston, Victoria, Australia  
Susan.Lee@monash.edu

## Acknowledgements

*We thank all health consumers who attended the NPCC inspiring our vision during its tenancy. This paper was funded by the aid of the Victorian Nurse Practitioner Publication Grant, Nursing and Midwifery Policy, Department of Health. Approval to undertake the study was obtained from Monash University Research Ethics Committee.*

## KEY WORDS

Nurse Practitioner; Primary care; Primary health care; Consumer satisfaction

## ABSTRACT

### Objective

The aim of this pilot project was to investigate how Nurse Practitioners (NP) manage medical service delivery gaps in a socio-disadvantaged rural Victorian region.

### Design

A cross-sectional study utilising data from patient consultations that took place at the Nurse Practitioner Community Clinic (NPCC) over six months in 2013 and patient satisfaction survey.

### Setting

The NPCC is a rural clinic servicing a rural population in Victoria.

### Subjects

629 patients.

### Main outcome measures

Numbers of patients; presentations; age; gender; postcode; reason for encounter; consultation length; availability of General Practitioner (GP); consultation activities and follow up; NP Medicare Benefits Scheme (MBS) item number rebate; and equivalent GP MBS item number rebates.

### Results

Over 50% of patients were female; 60% aged over 45 years. Patients had 2.6 encounters with the NPCC; over 50% lasting between 10 and 20 minutes. Approximately half the revenue of that claimed in equivalent GP encounters. Common reasons for attendance were symptoms and complaints (37.2%) and attendance was viewed as convenient and accessible, despite having a regular GP (47.8%). Fifty six Patients responded to a satisfaction survey and indicated they were satisfied with the service would use the service again and would recommend it.

### Conclusions

The NPCC provided an accessible service that met patients' needs in a rural community. The study provides evidence that NPs can provide medical management in areas where medical service delivery gaps exist. However, there was a significant discrepancy between funding reimbursements for services provided at the NPCC and those provided by GPs.

## INTRODUCTION

Nurse Practitioners (NP) have been authorised and licenced to practise in Australia since December 2000 (Dunn et al 2010). Since 2010, they have had provider and prescriber rights under the Medicare Benefit Scheme (MBS) and Pharmaceutical Benefits Scheme (PBS). By December 2013, 1,000 NPs were endorsed in Australia. In a survey of Australian adults Parker et al (2014) found that 87% were willing to see a Nurse Practitioner regarding their primary care needs. In addition, it is widely accepted that a shortage of doctors in rural areas requires innovative solutions, beyond recruiting overseas trained doctors and training more local doctors. One such solution is the development of the Nurse Practitioner (NP) service (Kamalakanthan and Jackson 2009). There is, however, a lack of research regarding the provision of NP services, particularly to rural communities within Australia.

A search of the literature utilised keywords of 'Nurse Practitioner', 'Rural', 'Primary Care', 'Primary Health Care' and were combined using the Boolean operator 'and'. The databases used were CINAHL, Medline and Psycinfo. The time period researched was from January 2000 to July 2015. There were 105 articles, however most studies were conducted in Canada, United States of America or United Kingdom. There were two publications from New Zealand and only five studies in Australia.

The discourses related to the legislative and policy frameworks governing NP practice have been investigated in two studies (Harvey 2011; Turner et al 2007). These studies suggest that despite the rhetoric about autonomous practice, NPs are still cast in the role of care givers rather than care providers. This lack of clarity is further evidenced in a study by Parker et al (2013) using seven focus groups across Australia, which found health care consumers were confused about the roles of NPs compared to doctors and other nurses. There were no studies found that clarified the roles of NPs in rural Australia and there were no studies found that evaluated the work of rural NPs in Australia. Poghosyan et al (2012) recommended NPs actively engage in publishing the productivity of clinical service delivery, addressing workforce shortages and recognising that NPs can add value to health service and contribute to reducing health costs by incorporating their full scope of practice.

A pilot project established under an Australian Commonwealth Department of Health and Aging (DOHA) to improve access to primary care services for older people developed a Nurse Practitioner Community Clinic (NPCC) for a disadvantaged rural population in southern coastal Victoria. The clinic opened to the public servicing all age groups in June 2012. Local reports indicate the communities in the region are considered socially and geographically disadvantaged with significant primary health service gaps (Aspex Consulting 2010; Vinson 2007). Prior to the establishment of the NPCC, the residents of this community had no access to GP services within a twenty-five kilometre radius, very few GP services offered a MBS Bulk Billing service (meaning patients paid the full cost of the service at the consultation, before they were partially reimbursed by Medicare), there was limited access to nursing and allied health services and limited access to public transport. The NPCC was staffed by two nurse practitioners working 1.4 effective full time (EFT) for a period of two years.

This study reviewed the NPCC over a six month period to examine the characteristics of patients attending; the types of encounters; the NPCC Medicare rebates compared to General Practitioners (GP) for the same items; and the level of patient preference and satisfaction.

## METHOD

Existing data collected by the NPCC and a survey of patients to determine service satisfaction and preferences for service over a six month period in 2013 formed the basis of this study. A cost analysis of service provision was undertaken to determine the Medical Benefits Scheme cost differential between NP and standard medical services.

### Clinic Consultation Data

An existing data set, collected in relation to consultations in the clinic, was mined and the data was de-identified and entered in to an Excel spreadsheet. The data included numbers of patients; number of presentations; age; gender; postcode; main reason for encounter; length of consultation; availability of regular GP; activities during consultation and follow up; NP MBS item number rebate equivalent GP MBS item number rebates; and cost of consumables utilised for sustainability purposes however this final category of data was not sufficiently complete to include in analysis.

### Satisfaction Survey

Satisfaction surveys were distributed periodically and returned by mail anonymously. The satisfaction survey included five (5) Likert scale response questions related to service satisfaction, 12 limited response questions regarding service intentions and one (1) open ended response question. Survey data was entered into another Excel spreadsheet by the receptionist of the NPCC.

Ethical review was exempted by Monash University Research Ethics Committee (CF14/3795 - 2014001988) on the basis that the study involved an existing record containing only non-identifiable data. The study was also approved by the Regional Health Service overseeing the NPCC.

De-identified clinic consultation and survey data were provided to the Monash University authors, independent of the clinic and health service, for analysis. Numeric data was summarised using numbers and percentages. Qualitative responses to the survey were transcribed verbatim to a single document and the data read repeatedly searching for patterns. This allowed the grouping of data excerpts into themes which were then described.

## FINDINGS

During the study period there were a total of 649 patients who presented to the NPCC, of which 57.9% were female. The majority of patients represented the older age groups with more than 60% aged 45 years and above. There were 341 new patients attending the NPCC during the study period (table 1).

The most common reasons why people chose to attend the NPCC were that despite having a GP, the NP was convenient and accessible (47.8%) or the patient was happy to receive shared care between the NP and GP (11.9%) or their specialists (4.5%). However, a number of people indicated that they attended the NPCC because they were dissatisfied with GPs (26.5%) or had no regular GP (9.4%) (table 2).

**Table 1: Demographic characteristics (n = 649)**

	n	(%)
<b>Gender</b>		
Male	273	(42.1)
Female	376	(57.9)
<b>Age category ( )</b>		
< 1 year	12	(1.8)
1-4 years	16	(2.5)
5-14 years	57	(8.8)
15-24 years	51	(7.9)
25-44 years	98	(15.1)
45-64 years	200	(30.8)
65-74 years	139	(21.4)
> 75 years	76	(11.7)
<b>New patient</b>		
Yes	341	(52.5)

**Table 2: Reasons for choice of Nurse practitioner (n = 649)**

	n	(%)
NP convenient and accessible, has regular GP	310	(47.8)
Prefers NP Clinic to GP wants share care to GP; Can't afford doctors, does not like GPs, happy with NP clinic; refuses to go to GP	172	(26.5)
Shared care with GP, happy with NP service, NP clinic has good service	77	(11.9)
NP convenient and get same day appt; no regular GP	56	(8.6)
Shared care with specialists, happy with NP clinic	29	(4.5)
No regular GP	5	(0.8)

There were 1,677 encounters during the study period with the average of 2.6 encounters per patient (table 3). In over 35% of encounters a prescription for medication was provided. The length of encounter was recorded for 1,621 encounters. More than 50% of the encounters were of between 10 and 20 minutes duration, rebated at a rate of \$17.85 per consultation compared to the rebate for GPs of \$37.05 per consultation. This represents a difference of \$17.05 between rebates, which over six months and 958 consultations is a rebate difference between NP consultations and equivalent GP consultations of \$16,333.90. For longer consultations of between 20-40 minutes (nearly 33% of consultations), the rebate for NPs is less than half that for GPs. The rebate income for the NPs during the six month period for these longer consultations was just over \$18,000 but for equivalent GP consultations, it would have been \$39,000 (table 3).

**Table 3: Encounter number, duration and rebate**

Number of encounters	N = 1,677			
	Mean	Median	Range	
No. of encounters per patient	2.6	1	1-28	
	n	%		
Received a prescription during encounter	614	(36.6)		
Length of encounter (where pt. present)	N = 1621			
	n	(%)	NP Rebate	MBS rebate
< 10 mins	59	(3.6)	\$8.70	\$16.95
10 - 20 mins	948	(58.5)	\$17.85	\$37.05
20 - 40 mins	544	(33.6)	\$33.80	\$71.70
> 40 mins	70	(4.3)	\$49.80	\$105.55

Nurse Practitioner encounters were categorised using the International Classification of Primary Care – Version 2 (ICPC-2) (Britt et al 2014). The three most common reasons for encounters were for symptoms and complaints (37.2%); diagnostic, screening and prevention (26.3%) and medications (including prescriptions), treatments and procedures (24.8%). Table 4 outlines the primary reasons for encounters.

**Table 4: Primary reason/s for encounter (n = 1,658\*)**

	n	%
Symptoms and complaints	616	(37.2)
Diagnostic, screening and prevention	436	(26.3)
Medications (includes prescriptions - 279), treatments and procedures	412	(24.8)
Test results	149	(9.0)
Referrals	52	(3.1)
Administrative	58	(3.5)

\*Denominator varies due to missing values; Respondent may have more than one reason for encounter (total percentage > 100%).

The variance of prescriptions issued between the table 3 – 614 and table 4 – 279 results as table 4 represents the primary reason for the encounter rather than the result of the encounter.

The NPCC had a satisfaction survey that patients could participate anonymously and voluntarily in order to provide feedback for the NPCC over a two week study period. A total of 56 patient satisfaction surveys were returned during the study period. Of these patients, 87.5% had visited the NPCC more than once. All these respondents indicated they would see the NP again for a similar need and would recommend the NPCC to others. A total of 60% of patients waited no more than five minutes after their appointment time to see the NP. All were happy with the length of the consultation and the information they received from the NP and all

felt the NP was thorough. In response to the question “How has the NPCC benefited you?”, the most common responses were the location of the NPCC in their local community reduced travel time, costs and inconvenience; appointments were available when needed; the staff were knowledgeable, provided information and a service of quality; and the staff were warm, caring and provided a personal service.

## DISCUSSION

In this study, the work of a rural NP clinic has been quantified, showing the breadth of activities in encounters of 649 patients over a period of six months. The satisfaction survey returned by 56 patients contributed further details to the study. The results also highlighted the funding difference provided by Government Rebate to NP services in comparison to GP services. A national survey of General Practice activity between 2013-2014 (Britt et al 2014), revealed the gender distribution of female patients was predominant at 56.6% of consultations, similar to this study. In addition, the age distribution of infants attending consultations was similar with nearly 2% infants. This study included a significantly higher number of consultations with patients over the age of 65 years with 15.1% in the national survey compared to 41.5% in our study being over the age of 60 years. This may reflect the vulnerability of the population in this area compared to the national average. Britt et al (2014) reports the older population are more likely to attend general practice and have increased frequency and need for additional encounters associated to their chronic conditions and multiple comorbidities. Parker et al (2009) reflected on the necessity for the uptake of NPs in the primary care sector due to the ageing population and increasing health demands due to chronic disease. They suggested that NPs could significantly address the workforce issue and add value to the primary care sector (Parker et al 2009). In addition, prior to the commencement of the NPCC, residents in two townships in the area had to travel more than 25 kilometres to obtain rudimentary medical care. Additionally, these two townships have a high rate for disability and sickness (South Coast Primary Care Partnership 2012). The main conditions contributing to the relatively poor health status of residents in study area were chronic conditions of liver disease; chronic respiratory disorders attributed to asthma and chronic obstructive pulmonary disease (COPD); diabetes and a higher rate of malignant cancers and cardiovascular disease than the Victorian State average (Aspex Consulting 2010). Studies (Ryan and Rahman 2012; Martin, 2000) suggest that health consumers often disregard routine health care checks until their health deviates from their normal. Further, the consequences are significantly worse for those consumers who have a low socio-economic background, live in an underserved area, have little access to public transport and have an out-of-pocket expense to pay when presenting to the medical profession (Ryan and Rahman 2012; Martin 2000).

NPs and GPs in Australia have a Provider Identification Number to obtain reimbursement for care provided from the MBS. Payments under the MBS received for the same four consultation time item numbers vary significantly between NPs and GPs. At the time of the clinic operation in 2013, a NP was reimbursed a Medicare rebate range from \$8.70 - \$49.90 depending on the time of consultation, whilst a GP rebate ranged from \$16.95 - \$105.55. NPs earned less than 50% rebate benefit compared to GPs (RACGP 2014).

Another major point of difference between this study and the national survey is the mean length of time of the consultations. Since 2004-2005, the mean length of consultation for GPs has decreased to 14.8 minutes, and the median length was 13 minutes in 2013-2014 (Britt et al 2014). In our study, 58.5% of our consultations lasted between 10 – 20 minutes, and 33.6% were between 20 – 40 minutes in relation to the claiming of MBS time consultation items. Whilst the figures have not been extrapolated exactly to indicate the mean or median length of consultations, this data is consistent with other literature indicating NPs provide longer consultation time with the health consumer (Keleher et al 2009). NPs provide a wellness model that objectively targets improving consumers' health and wellbeing knowledge by recommending physical exercise,

cultivating healthier nutritional regimes, encouraging a reduction in smoking and alcohol intake as well as opening discussions about the impact of lifestyle on chronic disease (Keleher et al 2009). The relationship, along with the ability to engage in meaningful communication and attentiveness between the NP and the health consumer, improves comprehensive care, enhancing the health consumer's knowledge and compliance and giving rise to ultimate satisfaction, often accompanied by improved health outcomes (Ryan and Rahman 2012; Keleher et al 2009). Longer NP consultations allows patients to discuss their needs which may be beneficial to their health outcome; as opposed to the patient having to make several appointments with a GP due to the time pressures on GP practice of imposing time limitations in order to see greater numbers (Ryan and Rahman 2012).

While the national survey (Britt et al 2014) indicated there has been a decrease in consultation length since the 2004-2005 data, the claiming of chronic disease management items, health assessment and GP mental health care have all significantly increased. Disparity arises where GPs in Australia have the ability to be reimbursed for numerous clinical procedures and incentive payments whereas NPs, having the same scope to undertake and perform these procedure, do not obtain reimbursement for the same items from the MBS.

This study demonstrated that NPs add direct clinical benefits through reducing the accessibility gap in areas of need and providing cost effective care in a timely manner to improve health outcomes. This has been recognised by others to reduce the burden on other health care institutions, reducing hospital admissions and length of stay through recognised earlier interventions (Poghosyan et al 2012; Ryan and Rahman 2012; Bauer 2010).

A major limitation of this study in being able to compare the data to the Britt et al (2014) survey is that the data base was set up for purposes other than this pilot project. In this study, the NP data only recorded the main reason for the encounter and did not record the number of issues addressed during the consultation despite often being faced with multiple reasons within the encounter. Also not recorded was the actual diagnosis from any of the consultations within this data. In the Britt et al study (2014), 70.9% of problems concluded with at least one medication or treatment given; 62.1% of encounters resulted in at least one medication prescribed, supplied or advised; 9.8% of problems led to referrals; and at least one investigation was requested in 19.1% of cases. In our study, only the main encounter was recorded, and in this regard a direct comparison the Britt et al (2014) study cannot be made.

NPs are able to provide a high level of medical care and when working in collaboration with a range of other health professionals, the health consumer benefits by access to timely efficient care that helps address the increasing demand for primary care (Poghosyan et al 2012; Middleton et al 2007).

The Britt et al study (2014) indicated a decrease in home visits which has implications for the older person wishing to be managed at home rather than in institutional care. Britt et al (2014) reported that a total of 2.6% of all MBS items combined for Residential Aged Care Facilities, institutions and home visits were claimed, providing an opportunity for NPs to service this cohort of patients, though it was not a component of the NPCC role. Keleher et al (2009) recognised that there has to be a dynamic restructure if Australia is to reduce the burden of cost of the health sector by switching care from institutions to home and community based facilities. The provision of ambulatory primary health care, provided by NPs and delivered within community-based facilities, enabled timely efficient health outcomes, potentially reducing hospital presentations and in turn reducing costs to the health sector (Ryan and Rahman 2012; Bauer 2010; Keleher et al 2009; Horrocks et al 2002).

The funding of NPs prevents them from operating to the full extent of their authorisation. In countries such as the United States of America, NPs are granted a Provider Identification Number which ensures they receive a

greater access to Government medical benefit schemes than their Australian counterparts, with benefit rates of 85% from their MBS, helping ensure sustainability for the services NPs deliver (Poghoysan et al 2012).

It is no longer the case that only medical practitioners are qualified to offer differential diagnosis, investigate, diagnose and treat the health consumer, indicating that there is a role and need for NPs across Australia (Ortiz et al 2010). Our study showed that 26.5% of people attended the NPCC because they were dissatisfied with GPs, and the overall satisfaction levels of the NPCC patients who completed the satisfaction survey were positive. This concurs with the common theme revealed from several articles in the primary health care sector indicating the equivalency between NPs and doctors, showing that patient satisfaction and appreciation was higher for NP services (Ryan & Rahman 2012; Ortiz et al 2010; Hayes 2007; Horrocks et al 2002). Nurse Practitioners often detected more physical complaints through providing longer consultations; offering supplementary advice on self-care; health promotion with proactive management; and utilising active listening and communication skills thus building a greater affinity with the health consumer (Ryan and Rahman 2012; Ortiz et al 2010; Hayes 2007; Horrocks et al 2002).

Less satisfaction and lack of care is greater in areas where resources are lacking, particularly in underserved areas with elements of high disadvantage (Ryan and Rahman 2012). Hayes (2007) indicated the health consumers when seen by a NP were more likely to implement and follow the care plan interventions as trust and rapport were established as a result of patients valuing the NPs contribution. This combined with the short access times to the NPCC contributed to increased access and satisfaction from the community, also found in our study.

Parker et al (2013) found Nurse Practitioners in primary care were recognised and accepted by health consumers to provide routine consultations and manage uncomplicated chronic conditions in Australia. Several articles recognised there is a real need in Australia to have NPs acknowledged for the health care they provide, as they have the ability to increase quality of life for the wider population, with similar or sometimes better health outcomes, increasing satisfaction for the health sector and providing significant Government savings in the area of health (Bauer 2010; Horrocks et al 2002).

## RECOMMENDATIONS

This study has demonstrated the sustainability for NPs in Australia is difficult due to several reimbursement differences awarded by the Australian Government. Despite the significant contribution NPs are able to make to rural communities, without further research into the equitable access of fund reimbursements, they will be unable to affect health policy, economic and workforce issues as their role was envisaged (Mills et al 2011; Bauer 2010). The MBS system should be revised to include reimbursement amounts for NPs that are fair and realistic, reflecting their service provision and ensuring sustainability and longevity for NPs in the primary health care sector (Bauer 2010; Middleton et al 2007).

The role of NPs in rural communities remains under-investigated. Further research needs to be undertaken to analyse these roles and understand the relationship of NPs to GPs in small communities.

## CONCLUSION

The NPCC in this study demonstrated an innovative and flexible service to a small rural area, which was valued by the patients using the service. Despite this, the Government reimbursement of services is at least 50% less than similar services provided by General Practitioners. Appropriate funding of Nurse Practitioners in Australia is essential for the development and economic sustainability of new models of primary health care, particularly for vulnerable, more isolated populations.

## REFERENCES

- Aspex consulting. 2010. *Gippsland South Coast Service Plan and Model of Care - Final Service Plan July 2010*. Aspex Consulting: West Melbourne.
- Bauer, J.C. 2010. Nurse practitioners as an underutilized resource for health reform: Evidence-based demonstrations of cost-effectiveness. *Journal of the American Academy of Nurse Practitioners*, 22(4):228-231.
- Britt, H, G C Miller, J Henderson, C Bayran, L Valenti, C Wong, J Gordon, A J Pollack, Y Pan, and J Charles. 2014. General practice activity in Australia 2013-2014. In *General Practice Series no. 37*. Sydney: Sydney University Press.
- Dunn, S.V., Cashin, A., Buckley, T. and Newman, C. 2010. Nurse practitioner prescribing practice in Australia. *Journal of the American Academy of Nurse Practitioners*, 22(3):150-155.
- Harvey, C. 2011. Legislative hegemony and nurse practitioner practice in rural and remote Australia. *Health Sociology Review*, 20(3):269-280.
- Hayes, E. 2007. Nurse practitioners and managed care: Patient satisfaction and intention to adhere to nurse practitioner plan of care. *Journal of the American Academy of Nurse Practitioners*, 19(8):418-426.
- Horrocks, S., Anderson, E. and Salisbury, C. 2002. Systematic review of whether nurse practitioners working in primary care can provide equivalent care to doctors. *BMJ*, 324(7341):819-823.
- Kamalakanthan, A. and S. Jackson. 2009. Doctor supply in Australia: rural-urban imbalances and regulated supply. *Australian Journal of Primary Health*, 15(1):3-8.
- Keleher, H., Parker, R., Abdulwadud, O. and Francis, K. 2009. Systematic review of the effectiveness of primary care nursing. *International Journal of Nursing Practice*, 15(1):16-24.
- Martin, K. 2000. Nurse Practitioners: A Comparison of Rural-Urban Practice Patterns and Willingness to Serve in Underserved Areas. *Journal of the American Academy of Nurse Practitioners*, 12(12):491-496.
- Middleton, S., Allnutt, J., Griffiths, R., McMaster, R., O'Connell, J. and Hillege, S. 2007. Identifying measures for evaluating new models of nursing care: A survey of NSW nurse practitioners. *International Journal of Nursing Practice*, 13:331-340.
- Mills, J., Lindsay, D. and Gardner, A. 2011. Nurse Practitioners for rural and remote Australia: Creating opportunities for better health in the bush. *Australian Journal of Rural health*, 19:54.
- Ortiz, J., Wan, T., Meemon, N., Paek, S. and Agiro, A. 2010. Contextual Correlates of Rural Health Clinics' Efficiency: Analysis of Nurse Practitioners' Contributions. *Nursing Economics*, 28(4):237-244.
- Parker, R., Keleher, H., Francis, K. and Abdulwadud, O. 2009. Practice nursing in Australia: A review of education and career pathways. *BMC Nursing*, 8(1):1-6.
- Parker, R., Forrest, L., Ward, N., McCracken, J., Cox, D. and Derrett, J. 2013. How acceptable are primary health care nurse practitioners to Australian consumers? *Collegian: Journal of the Royal College of Nursing, Australia*, 20(1):35-41.
- Parker, R., Forrest, L., McCracken, J., McRae, I. and Cox, D. 2014. "What primary health-care services are Australian consumers willing to accept from nurse practitioners? A National Survey." *Health Expectations*, 17(5):733-740.
- Poghosyan, L., Lucero, R., Rauch, L. and Berkowitz, B. 2012. Nurse Practitioner Workforce: A Substantial Supply of Primary Care Providers. *Nursing Economics*, 30(5):268-274; 294.
- RACGP (2014) Medicare Benefits Schedule fee summary For Fellows of The Royal Australian College of General Practitioners or vocationally registered general practitioners. <http://www.racgp.org.au/download/Documents/PracticeSupport/2014mbsfeesummary.pdf> (accessed 05.02.15).
- Ryan, K. and Rahman, A. 2012. Examining factors influencing patient satisfaction with nurse practitioners in rural urgent care centres. *Journal of American Academy of Nurse Practitioner*, 24(2):77-81.
- South Coast Primary Care Partnership. 2012. Integrated Chronic Disease Management <http://www.southcoastpcp.org.au/index.php/programs-a-services/integrated-chronic-disease-management?layout=default> (30.04.12).
- Turner, C., D. Keyzer, and T. Rudge. 2007. Spheres of influence or autonomy? A discourse analysis of the introduction of Nurse Practitioners in rural and remote Australia. *Journal of Advanced Nursing*, 59(1):38-46.
- Vinson T. 2007. Dropping Off The Edge The Distribution Of Disadvantage In Australia. <http://catholicocialservices.org.au/node/976> (26.04.12).