The Australian practice nurse Pap testing initiatives:

An evaluation of their impact on cervical screening activity in Grampians general practices.

Dr Christine Hallinan

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RESEARCH TEAM

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Forward

Reforms to increase access to general practice preventive health services included initiatives promoting cervical screening activity and initiatives to ensure practice nurses (PNs) had capacity to undertake preventive services such as Pap-testing. Despite these reforms the most recent recorded rates of two yearly Pap test participation in the western Grampians region ranges between 53.4 and 54.8%, which is almost 8% lower than the overall participation rate (60.7%) and is about 16% lower than the highest recorded two yearly participation rate (69.2%) for Victorian women aged between 20 and 69. This study undertook a complex mixed method evaluation of general practice Pap incentives to determine the main general practice barriers to PN cervical smear screening in the western Grampians region of Victoria from 2005-2011.

The Horsham Campus Research Precinct (HRCP) is located at the Horsham Campus at the University of Ballarat. The research in the precinct aims to contribute to a sustainable future for the local community as well as for rural and regional areas across Australia. Research at HRCP investigates a range of aspects that relate to living in rural and regional communities including population health, environmental science, social science, and education. The research intends build regional capacity and capability through partnerships with other research organisations and agencies to deliver quality research outcomes for Wimmera, Grampians and Mallee communities. The frameworks and outcomes developed in light of evidence gained from research undertaken in 'The Precinct' are expected to be of significance to rural communities elsewhere in Australia and globally

This report presents the research of a mixed method evaluation that illuminates the mechanisms influencing practice nurse cervical screening, with a focus on what works, for whom, how and why in rural Victoria. This study incorporates into policy, a greater understanding of the contextual nuances of general practice, through the integration of evidence from a comprehensive literature review, data set analysis and general practice stakeholders in the western Grampians region.

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List of Abbreviations

ADGP	Australian Divisions of General Practice
AGPN	Australian General Practice Network (formerly ADGP)
APNA	Australian Practice Nurses Association
DoHA	Department of Health and Ageing
DWS	District of workforce shortage’
FTE	Full Time Equivalent
GP	General Practitioner
GPV	General Practice Victoria
HEAG	Human Ethics Advisory Group
HESC	Health Sciences Human Ethics Sub Committee
IM/IT	Information Management & Information Technology
MBS	Medical Benefits Schedule
NCCSP	National Cervical Cancer Screening Program
NiGPI	Nursing in General Practice Initiative
NiGPP	Nursing in General Practice Program
PapPIP	Practice Incentives Program Cervical Screening Incentive
PHCRIS	Primary Health Care Research and Information Service
PIP	Practice Incentives Payment
PN	Practice Nurse
PNPap	Practice Nurse Pap
PNPIP	Practice Nurse Practice Incentives Payment
RACGP	Royal Australian College of General Practitioners
RCNA	Royal College of Nursing Australia
SIP	Service Incentives Payment
SWPE	Standardised Whole Patient Equivalent
UGPA	United General Practice Australia
VCCR	Victorian Cervical Cytology Register
WPE	Whole Patient Equivalent

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1. Introduction

1.1 Rationale

Strategies have been put in place to provide a sustainable primary care workforce which is equipped to provide preventive pro-active services across the Australian population. Of these preventative services is the coordinated and targeted screening of women for evidence of pre-cancerous cervical cell changes. Measures in the form of general practice reforms ensured that the workforce which included practice nurses, not only had the skill base to undertake Papanicolaou (Pap) tests on patients, but also had capacity to undertake the screening in an environment that was burdened with unsustainable patient loads.

Over the past decade the Commonwealth Government has provided funding to promote the transfer of tasks from the general practitioner (GP) across to the nurse. The reforms which were supported by the provision of Commonwealth funded initiatives such as scholarships, grants and incentives were underpinned by the aim to promote the use of the nurse to undertake tasks aligned with public health policy, such as cervical screening and immunisation. However evidence from general practice activity statistics between 2007 and 2010 demonstrated that rates of uptake of Practice nurse (PN) items in general practice varied considerably. Since the implementation of the reforms it became apparent some PN activities such as immunisation and wound care flourished whilst activities such as cervical screening appeared to have a minimal comparative uptake (Britt at al. 2010). Of particular interest was the Victorian cervical screening data that indicated rates of cervical screening (Pap test participation) in the Grampians region was and still is the lowest in the State. The most recent recorded rates of two yearly Pap test participation in the western Grampians region (WestVic Division of GP ranges between 53.4 and 54.8% which is almost 8% lower than the overall participation rate (60.7%) and is about 16% lower than the highest recorded two yearly participation rate (69.2%) for Victorian women aged between 20 and 69 (VCCR 2010b).

Of concern is the limited uptake of Pap provision by trained and competent general practice nurses across all jurisdictions (Britt et al. 2010a). In light of this concern however, is clinical outcome evidence to support the role of the Pap nurse as a provider. Data from Victorian Cytology Reports reflects enhanced nurse competence in the activity compared with other providers (VCCR 2011). Evidence also points to increasing consumer acceptability of the PNPap role (practice nurse Pap role), particularly if consumers are familiar with nurses as Pap test providers (Christy, Gamble & Creedy 2005; Godden et al. 2010).

General practice activity is underpinned not only by the nuances of the patient provider relationship, but also by the complex relationships between the GP and the PN (Day, van Dort & Tay-Teo 2010; Mills & Hallinan 2009). This protocol incorporates a theory building approach to deliver an evaluation framework that enables analysis of PNPap activity outcomes and provides a greater understanding of the contextual aspects of the general practice milieu. As there is minimal evidence relating to the impediments and unintended effects of specific initiatives, the evaluation protocol serves to develop a comprehensive, contextually rich analysis of general practice ‘structures’ that effect

GP and PN teamwork arrangements, in particular those arrangements relating to Pap test provision by nurses in general practice.

The published research to date regarding the roles of and activities undertaken by PNs is largely ethnographic and descriptive, and provides insight not only into the work *that is* done by PNs, but also insight into the spaces and places *where* this work is done (Joyce & Piterman 2010a; Phillips et al. 2008; Phillips et al. 2009). However, the evidence relating specifically to the effectiveness of the PN incentives on population based health outcomes is scant. Currently there has been minimal research undertaken on the impact and effectiveness of general practice incentives on population health outcomes such as national cervical screening rates. This research will serve to produce a contextually rich analysis of general practice ‘structures’ that effect GP and PN teamwork arrangements, in particular those arrangements relating to Pap test provision by nurses in general practice

1.2 Scope

The project explored the factors that may have impacted on the effectiveness of the practice nurse initiatives and cervical screening initiatives on Pap test participation in the Grampians region. The project studied PNPap activity between the years 2005 and 2011, before the removal of PNPap items from the Medicare Benefits Schedule and before the introduction of the general practice PNIP block payment which was introduced in January 2012 (Medicare Australia 2012a). Specifically the scope of this project extends to an evaluation of four distinct but interrelated general practice initiatives, which were supported by Commonwealth Government budgetary allocations and administered to general practices between 2005 and 2011:

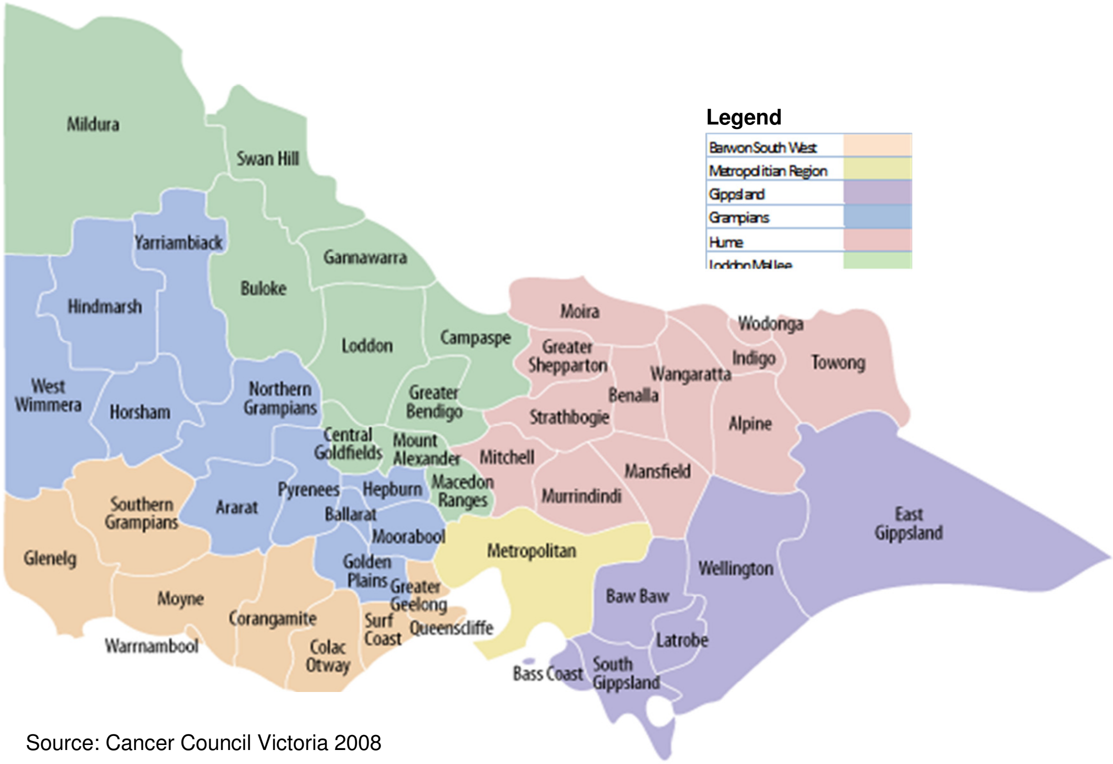
The initiatives include the:

- Nursing in General Practice Program (NiGPP)
- The Practice Incentive Program Practice Nurse Incentive (PNPIP)
- The Practice Nurse MBS (Medicare Benefit Schedule) Pap items
- The Practice Incentives Program Cervical Screening Incentive(PapPIP)

The Grampians region included in this study incorporates the geographic area covered by the western region of the Grampians LGA and the Statistical Local Area (SLA) covered by the WestVic Division of General Practice, and includes areas such as: West Wimmera; Hindmarsh; Horsham; Northern Grampians; Southern Grampians; Ararat; Yarriambiack and Pyrenees - excluding Ballarat; Hepburn; Moorabool and Golden Plains see Figure 1.

The western Grampians region is an area bounded by the South Australian border, Hopetoun to the north, Maryborough to the east and Casterton to the south. The region is classified in terms of remoteness by the ASGC-RA classification system as both Outer Regional and Remote (with the exception of areas from Ararat to Stawell which is classified as Inner Regional). ASGC-RA classification was developed in 2001 by the Australian Bureau of Statistics (ABS), as a statistical geography structure which allows quantitative comparisons between 'city' and 'country' (AIHW 2004). The RA categories quantifies the physical distance of a location from the nearest urban centre (i.e. access to goods and services), is based on population size and is updated after each census year (AIHW 2004).

Figure 1 Local Government Areas (LGA) and DHS Regions, rural and regional



Source: Cancer Council Victoria 2008

1.3 The Region

The western Grampians region represents a geographic area that has a history in agriculture but is changing over time. Primary industry is moving away from the family run farms to larger scale corporate farm business. Land closer to larger rural towns such as Horsham is being subdivided into housing development allotments. These farmland trends are also reflected in changing population compositions. We find the population is ageing as farmers get older and retire from the family farm, and younger people who are not working on the family farms are now migrating to cities in search of opportunities in employment. Non-affluent retirees, welfare recipients and small numbers of new Australian migrants are also moving to rural areas such as the Grampians, where there are opportunities for cheaper housing (Barr 2009; DPCD 2011).

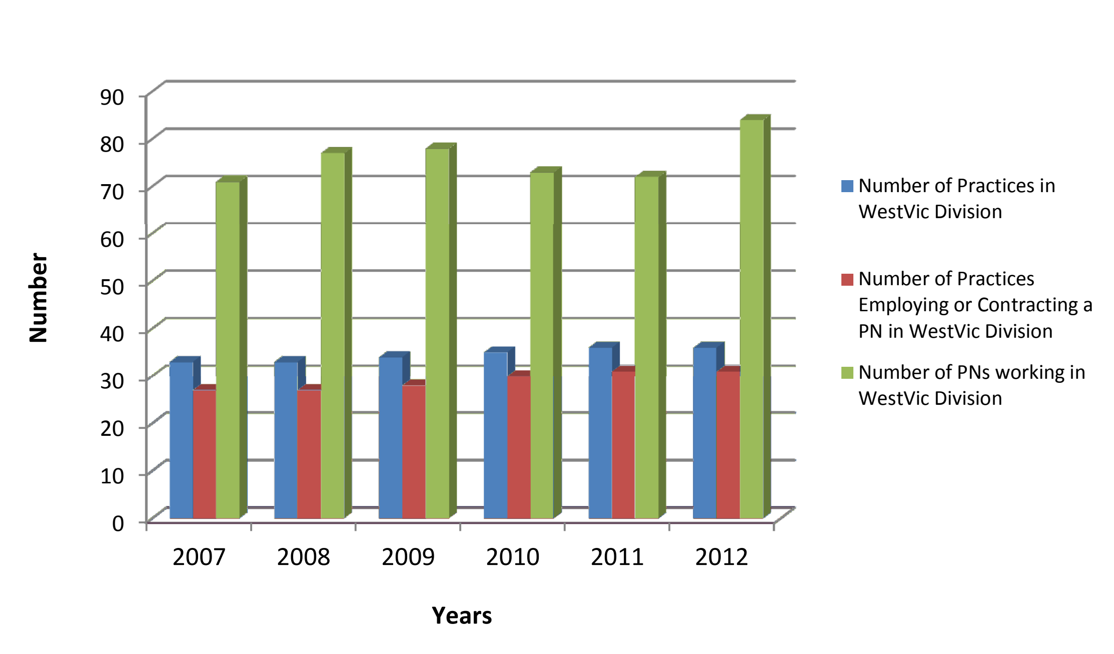
Over the past decades there has been a population decline in smaller towns to larger service towns, and overall there is a population decline in the western Grampians region of 0.3 % against population increases of 1.2% Victoria wide (ABS 2011). Population projections to 2025 for the western Grampians region are trending downward for both sexes in all age groups (PHIDU 2011a). The study region in 2007 had a total population of 81,365; twenty per cent of the population is aged 65 and over; 29.6% is under 25 years of age; 86.1% of the population is Australian born and the Indigenous population equates to less than 1% of the total population. The unemployment rate of the study area is 3.5% (PHCRIS 2011).

Of interest is the health workforce capacity of the region. Within the boundaries of the study area are 64 full time equivalent (FTE) GPs who service the western Grampians region (WestVic SLA) population of 81365 (PHIDU 2011b). The GP to population ratio of the western Grampians region is 1:1250, this compares poorly to Melbourne's GP to population ratio of 1:892 (PHIDU 2011b). Interestingly this GP to population ratio compares favourably to GP/population ratios across other areas of Victoria, however this would not so much be driven by high numbers of GP's but more so by declining population rates.

Of GPs working in the western Grampians region 24 percent are female, this compares with metropolitan areas of Victoria where in an area of high Pap participation 64.4 percent of the GPs are female(PHCRIS 2011). Around 40 percent are International Medical Graduates (IMG's) who have been medically trained overseas (PHCRIS 2011). Recent AHWI data indicates that medical practitioner supply ranges from 366 per 100,000 people in major cities to 181 per 100,000 in rural-remote areas (AIHW 2012a). All areas within the study region are classified as an area of GP workforce shortage otherwise known as a 'district of workforce shortage' (DWS). A location is deemed by DoHA to be a DWS if it falls below the national average for the provision of medical services (DoHA 2012).

Nurse workforce supply per capita varies across Australia and has been found to be greatest in very remote areas. The number of nurses per capita in outer regional areas such as in the western Grampians region is lower than supply numbers in both metropolitan and remote regions (AIHW 2012b). The number of practice nurses employed in general practices in the western Grampians region are just below that of the number of GP's. There are 72 practice nurses employed compared to 84 GPs registrars working in general practice (PHCRIS 2011). Health workforce in the region is also supported by GP registrar placements, there were 9 GP registrars placed in the region over the 2010-11period (PHCRIS 2011). Of the 36 general practices in the region at last count in 2010-11 there were 11 solo privately owned practices, 20 practices with between 2 – 5 GPs and 5 practices with greater than 5 GPs. Five general practices in the region are were corporately owned and of all the practices 31 employ a practice nurse see Figure 2 (PHCRIS 2011).

Figure 2 Number of practices employing PNs in western Grampians region (WestVic Div.)



1.4 Aims

Over the past decade the roles, responsibilities and work practices of practice nurses have evolved serendipitously in a policy environment that was underpinned by the aim to improve quality and build capacity in the Australian general practice arena. Since 2001, the Department of Health and Ageing (DoHA) has provided: (i) funds for general practices to employ nurses; (ii) scholarships to enable the up skilling of PNs; (iii) PN specific MBS item numbers to tasks undertaken by the nurse on behalf of or for the General Practitioner (GP) and PN specific PapPIP items (DoHA 2010a, DoHA 2010b, Jolly 2007). Whilst the first two incentives worked on building up PN workforce, the PN MBS item number allocation aligned with policy aims to improve general practice service provision, and included PN MBS items such as immunisation, wound care and cervical screening.

Over the past two decades, strategies have been put in place to promote a sustainable primary care workforce equipped to provide preventive services across the Australian population. Included in these strategies was the delivery of a coordinated cervical screening program for the early detection and treatment of pre-cancerous cervical cell changes. At the same time, measures in the form of general practice macro-reforms also ensured that workforce, which included practice nurses, had the skill base and capacity to undertake these services in an environment that was burdened with unsustainable patient loads. These reforms were delivered across general practices in both rural and urban environments. In spite of these reforms, Victorian cervical screening data that indicates the rates of cervical screening (Pap test participation) in the Grampians region is consistently one of the lowest in the State (VCCR 2010b). This low uptake is a concern for all members of rural communities regardless of their ties to the land; however the health of our farmers and of their family members is vital to the productivity and micro economy of our farming regions as a whole. Costs associated with morbidity and mortality due to cervical cancer includes personal, family and community losses that result in burdens that are physical, emotional, social and financial. It is intended the research will test the evaluation methodology and also address the overarching question central to this research: Where have all the Pap smears gone?

The evaluation will aim to create a greater understanding of the mechanisms that are embedded in the practice nurse Pap testing initiatives that have influenced cervical screening. The research objectives developed to address the question 'Where have all the Pap smears gone?' are:

- To determine the factors within and outside of general practice that impact on PNPap training outcomes;
- To analyse the impact of access to general practice incentive payments on PN activities in general practices;
- To explore the contextual and structural factors in general practice that impact on the Pap smear activity by the practice nurse
- To gain a greater understanding of the barriers for Pap smear activity in general practice

1.5 Evaluation Framework

The evaluation incorporates a contextual approach where the focus is not simply about what works, but more so about *what* works, for *whom, how* it works and *why*. The research was undertaken in linked and at times overlapping phases for the purpose of un-wrapping the mechanisms embedded in the general practice PNPap initiatives which may have influenced cervical smear screening (Figure 3):

Phase 1 **Pre-evaluation 'Rapid Review'**

Phase 2 **Program Logic Development**

Phase 3 **Process Use**

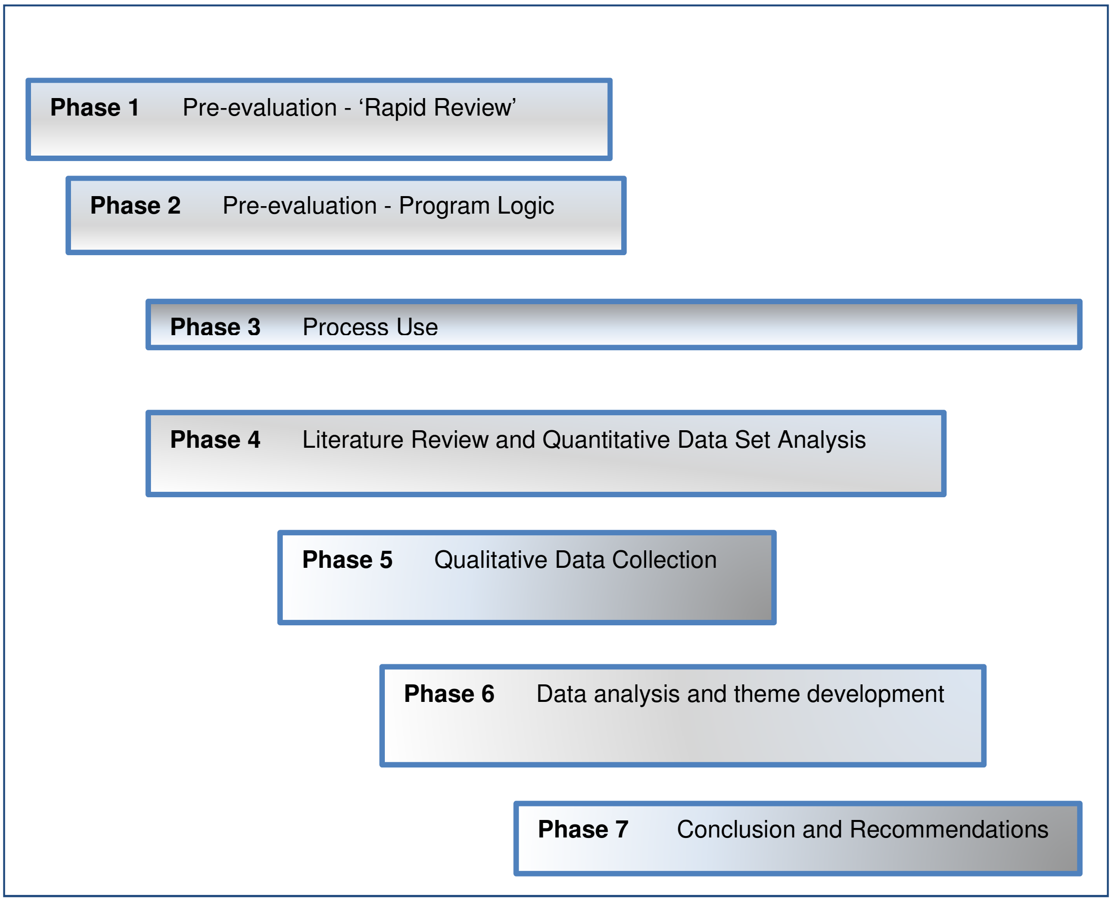
Phase 4 **Literature Review**

Phase 5 **Qualitative Data Collection**

Phase 6 **Data analysis and theme development**

Phase 7 **Conclusion and Recommendations**

Figure 3 Evaluation Framework



Underpinning this research is the recognition that as a consequence of changing policy, there is potential that one or more of the incentives will evolve and even abort, which would in effect render components of the evaluation redundant. In acknowledgement of this risk, the study will undertake an analysis that incorporates a ‘bigger picture’ view of general practice for the intention of, informing general practice policy across similar programs and initiatives in the future.

2 Background, Data and Policy Context

2.1 Cervical Cancer and Screening

Cervical cancer is one of the most preventable and curable of all cancers, particularly if women are screened for precancerous cervical cells (Myers et al. 2000; van den Akker-Van et al. 2002). Since the implementation of the Australian National Cervical Cancer Screening Program (NCCSP) in 1991, the incidence rate of cervical cancer has declined dramatically, from a peak in 1993 of around 11 per 100,000 women, to a rate of 4 to 5 per 100,000 women in 2009 (VCCR 2009b). Mortality due to cervical cancer has also decreased since the introduction of the program, and currently the Victorian mortality rate for cancer of the cervix is around 1.0 per 100,000 women; one of the lowest mortality rates globally (AIHW 2010; VCCR 2010b). It is widely accepted that the early detection and treatment of abnormal cervical cells prevents the progression of precancerous lesions to invasive cancer. This is clearly evident in recent VCCR data that demonstrated, of all the women diagnosed with invasive cervical cancer during 2007, at least 81% had either not ever had a Pap test, or were lapsed screeners prior to cancer diagnosis (VCCR 2010b).

The NCCSP consisted of a coordinated approach to Pap smear testing of targeted females in the Australian population. Once registered on the screening program, women were routinely screened, recalled and followed up if abnormalities were detected. Following the establishment of the screening program, biennial Pap testing participation rates increased, and rapidly became embedded in routine general practice activity. Over the past decade since the Pap screening rate peaked at 63.4% in 1999, 2 yearly participation rates Australia have been steady at about 59% before a statistically significant decrease to 57% was evident in the latest reporting period, 2009–2010 (AIHW 2009, AIHW 2012c).

2.2 General Practice, Nursing and Policy

Recent research suggests that Pap screening activity impediments correlate with individual decision-making barriers, as well as obstructions that specifically relate to general practitioner (GP) access and GP capacity (Day, van Dort & Tay-Teo 2010; Peters 2010). However issues relating to GP access are not new, as was evident in the release of the 1998 General Practice Review Strategy which highlighted the need to improve GP services and service delivery (DHFS 1998). The Commonwealth Government of the time responded to the review by focusing policy around addressing *health system barriers* relating to quality care. In particular, policy focused on barriers relating to *access to* preventative care in the general practice setting (DoHA 2010c; Jolly 2007). This resulted in the development of Commonwealth Government funded strategies to promote and build up capacity in preventative care services, through the use of financial incentives and grants to GPs.

One of these strategies was to develop the role of the nurse and expand the clinical care tasks undertaken by the nurse in general practice (Jolly 2007; Keleher et al. 2007a). The expanded clinical care roles for nurses were defined as either 'task substitution' or alternatively as 'task supplementation' roles, and included activities such as lifestyle screening, education, vaccination, wound care and cervical screening (Keleher et al. 2007a). The development of the expanded clinical role was not just part of the overall government strategy to improve quality in the general practice domain, but was also underpinned by a strategy specifically aimed at improving access to medical services for patients in *rural* Australia (Jolly 2007). Many of the practice nurse incentives were originally available only to GPs in rural and regional Australia, however over time they were expanded to include urban areas as well (with the exception of the practice nurse incentive payment) (DoHA 2006b; DoHA 2010b).

2.2.1 PN Practice Incentive Program

The Nursing in General Practice Initiative (NiGPI) that commenced in 2001, included components such as PN Practice Incentive Program (PNPIP) grants, PN scholarships and the allocation of PN specific MBS items (DoHA 2005). The NiGPI was initially introduced and funded by $104.3 million in 2001-02, and was then refinanced across another four years with $129.7 million allocated in the 2005-06 Federal Budget under the *More practice nurses: for areas of need and rural Australia measure* (DoHA 2001a; DoHA 2005). Within these NiGPI funds, was the provision of PNPIP grants to eligible practices to support rural and remote practices to *employ* a practice nurse (DoHA 2005).

Training and support measures for PNs were also introduced as part of the initiative, and included funding from the 2001-02 Federal Budget of $17.5 million (DoHA 2001a). This was followed by further funding in the 2005-06 Budget of $20.6 million over three years, and was for the provision of scholarships training and support to rural and remote nurses under the *Rural and remote nurses: training support* measure (DoHA 2005).

The 2005-06 Budget also included the *Pap smears in rural areas: new Medicare rebate* measure, which amounted to $17.8 million over five years, to expand Medicare by funding practice nurses to take Pap smears through access to MBS items (DoHA 2005). The Pap smear PN rebate launched in November 2005, included PN MBS items 10994 and 10995, and applied to areas classified as regional, rural and remote (Medicare Australia 2005). Within a year the MBS PNPap item initiative was extended to include practices located in urban and metropolitan areas of workforce shortage and was eventually 'rolled out' across all practices irrespective of practice location (DoHA 2006a). On January 1, 2012 the MBS PNPap items were removed from Medicare Benefits Schedule along with six other practice nurse items such as wound management and immunisation and were replaced with a single PNIP block grant (Medicare Australia 2012a). The PNIP block grant was an incentive payment to support an expanded role for nurses working in general practice (Medicare Australia 2012a). A rural loading of between 20-50% is added on to this PNIP grant for practices located in rural and rural remote areas (Medicare Australia 2012a).

2.2.2 Cervical Screening Practice Incentive Program

Included in the strategies aimed at promoting proactive and preventive care in general practice, was the launch of the measure *Cervical Screening Incentives for General Practitioners,* which was funded with $71.9 million from the 2001-02 Federal Budget (DoHA 2001b). This cervical screening initiative was followed by ongoing funding of $97.2 million over a four year period which was delivered in the 2006-07 Budget (DoHA 2006b). The incentives targeted under-screened women, and also focused on increasing the overall general practice screening rates. They were delivered in the form of a Cervical Screening Practice Incentive.

The Cervical Screening PIP included a one off ‘Sign-on Payment’ for practices that engage cervical screening registers calculated at $0.25 per Standardised Whole Patient Equivalent (SWPE)* (Medicare Australia 2011a). The initiative also included an ‘Outcomes Payment’ of about $3.00 per eligible Whole Patient Equivalent (WPE) **

The ‘Outcomes Payment’ was made available to practices that demonstrated that a proportion of eligible patients between 20-69 years were screened over a 30 month reference period (Medicare Australia 2011a). This proportion has increased over time, from 50% when the outcomes payment was introduced to 65% (Medicare Australia 2011a). Also included in the initiative was a ‘Service Incentive Payment’ (SIP) of $35.00 per patient to general practitioners (on top of the current MBS item number remuneration) for each cervical smear taken on an under-screened woman aged between 20 and 69 years (Medicare Australia 2011a). Before the removal of most of the practice nurse items in January 1 2012, the nurse was also able to claim a SIP for PNPap test provision on an under screened woman.

WestVic Division data of PapPIP and SIPS for general practices in the western Grampians area over the past three years shows that every accredited general practice in the region accesses the ‘sign on’ payment for cervical smear activity (Medicare Australia 2012b). It also indicates only 50% of these practices have reached the outcomes target of screening greater 65% of female patients aged between 20 and 69. Also of interest is the drop in percentage of practices claiming the MBS SIP items for under screened women from a peak in time period of 75% in August 2009 to 44% recorded in May 2011 (Medicare Australia 2012b).

Table 1 PIP and SIP data - WestVic Division of General Practice Statistics Report

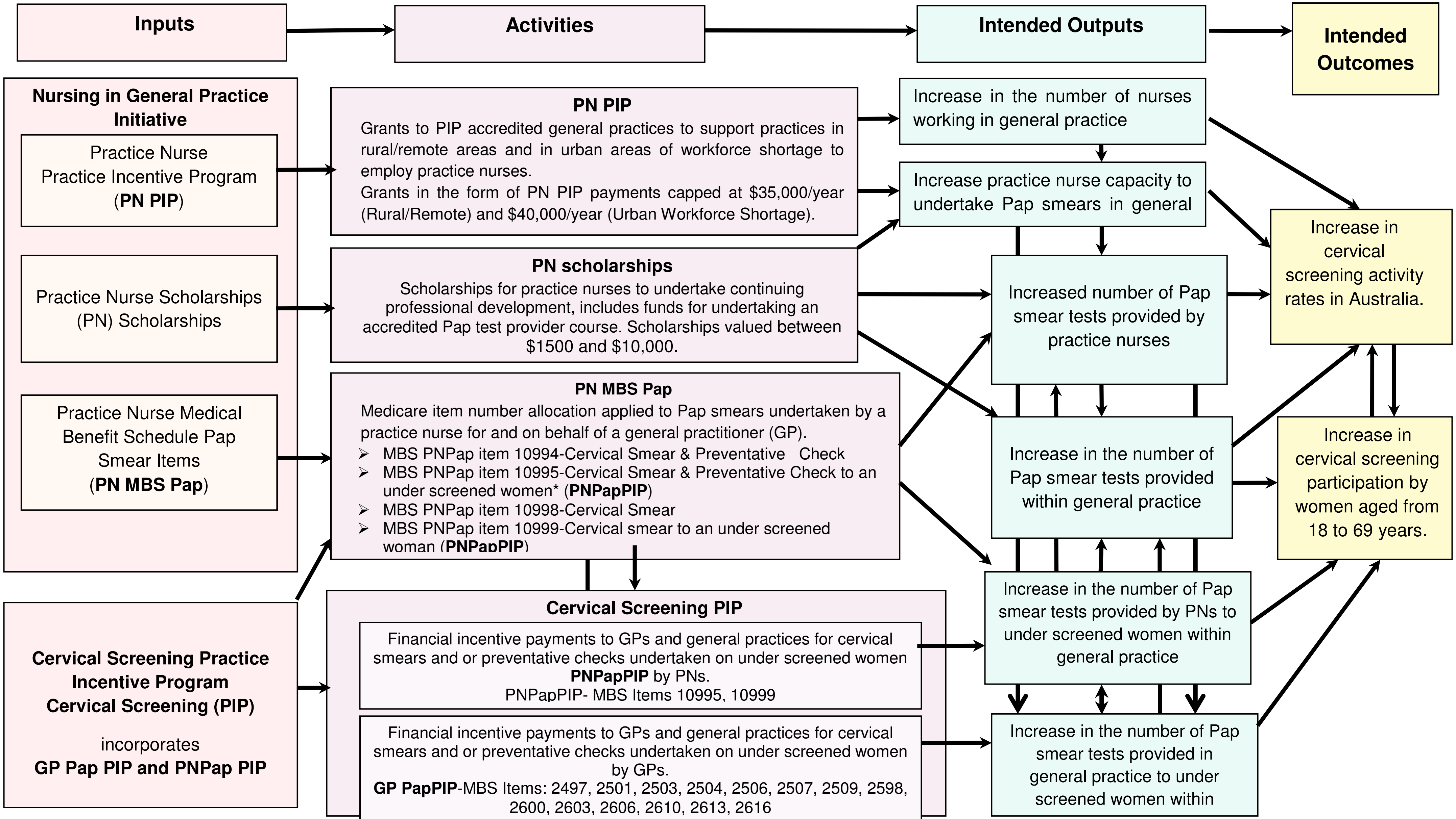
PERCENTAGE PARTICIPATION PIP	Feb -09	May -09	Aug -09	Nov -09	Feb -10	May -10	Aug -10	Nov -10	Feb -11	May -11	Aug -11	Nov -11
Number of Practices in the PIP	25	25	25	25	25	25	25	25	25	27	27	27
Cervical Screening -Sign On payment (%)	100	100	100	100	100	100	100	100	100	100	100	100
Cervical Screening – Outcomes Payment (%)	53	53	54	54	55	55	54	52	55	54	N/A	N/A
Cervical SIP- % of signed on practices claiming SIP	64	60	75	60	52	52	56	48	N/A	44	N/A	N/A

Source: Medicare Australia (2011b) Division of General Practice Statistics Reportshttps://www.medicareaustralia.gov.au/statistics/div_gen_prac.shtml
N/A indicates data that is not available

The PNPap initiatives described above and illustrated in the program logic model (Figure 4) were delivered across, and between, numerous general practice incentive programs. The logic model illustrates how the initiatives and programs relate to each other, and enables the complex and iterative nature of the initiatives, to be represented in a web of actions, events and interactions. The program logic model maps out the incentives introduced between 2005 and 2010 to promote practice nurse Pap screen activity, for the purpose of increasing Pap screen uptake in general practice.

*Standardised Whole Patient Equivalent (SWPE) is used to measure practice size and included a weighting factor for the age and gender of patients. As a guide, the average full time GP has a SWPE value of around 1000 SWPEs annually.
**Whole Patient Equivalent (WPE) is based on GP and other non-referred consultation items provided through Medicare and use the value, rather than the number, of consultations per patient. The total care for one patient equals one WPE

Figure 3: Program Logic Model of the General Practice Pap Nurse and Cervical Screening initiatives 2005- 2011



*Under screened woman- a woman who has not had a cervical smear in the

2.3 Practice Nurses, Nurses and Cervical Screening

The practice nurse initiatives that promoted the development of more advanced roles for PNs were supported by GPs, GP and PN peak professional organisations, as well as State and National GP Networks (Commonwealth funded, general practice support organisations). The initiatives were also welcomed by general practice nurses who embraced the opportunity to increase their scope of practice (AGPN 2010a, Phillips et al. 2008). In 2007, Pascoe et al. undertook a study describing the educational needs of practice nurses. The descriptive study found that PNs welcome opportunities for further education (Pasco et al. 2007). However, results from the study also showed that access to PN further education was hampered by barriers such as work commitments, family commitments, distance to education and costs associated with training courses (Pasco et al. 2007). This has also been supported by recent studies undertaken by Parker, Keleher & Forrest in 2011 and Halcomb, Meadley & Streeter in 2009. Parker, Keleher & Forrest (2011) found that finances, release form work and time constraints were flagged as barriers that most impede access to further education. Descriptive research undertaken as far back as 2006 demonstrated that PNs were able to increase their clinical capacity through access to further education (Halcomb et al. 2008). However, to what *extent* education and training initiatives influence the work undertaken by PNs has not been extensively researched (Parker et al. 2009). Recent evidence gained from a survey of fifty – eight practice nurses by Parker, Keleher & Forrest (2011) found that interestingly post graduate education was not a factor that correlated highly with advance nursing general practice roles, and years of working in general practice was seen as a major factor in determining advanced roles.

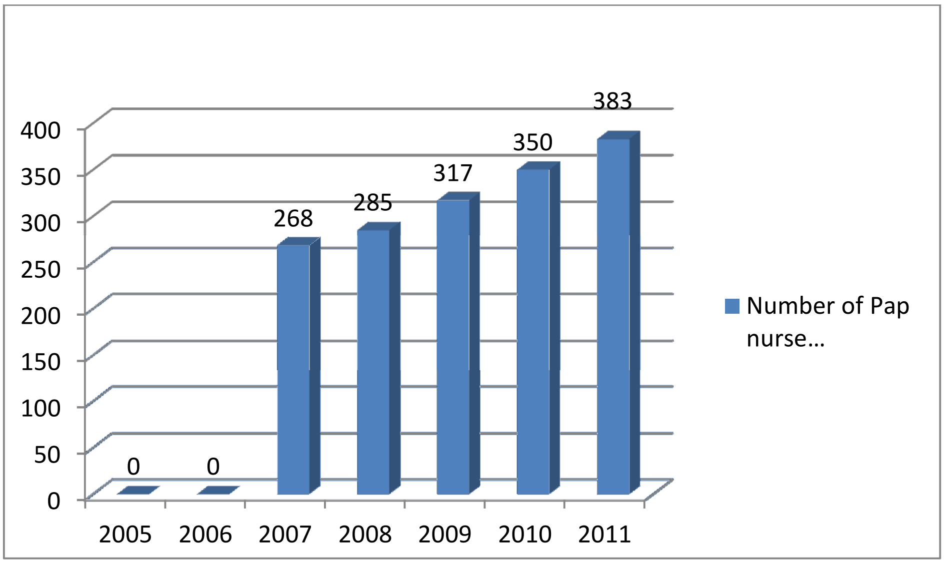
2.3.1 Pap nurses - training, competence and the register

Data obtained from the Australian General Practice Network National Practice Nurse Workforce Survey Reports (ADGP 2006; AGPN 2007; AGPN 2009a), indicated that in spite of education initiatives, a relatively small proportion of PNs surveyed *reported* having one or more post graduate qualifications. The AGPN Workforce Reports, collected data from surveys distributed to General Practice Networks and practice nurses across Australia between 2005 and 2009. Of interest was the small proportion of PNs who reported having a women's health qualification, compared to the PNs who reported having either an immunisation or midwifery qualification (AGPN 2009a). In all three cohort surveys undertaken between 2005 and 2009 an average of 8.4% of nurses reported having a women's health postgraduate qualification. This compares with an average of about 28% of survey cohort who report having an accredited nurse immuniser qualification (ADGP 2006, AGPN 2007 & AGPN 2009a). Interestingly both these post graduate qualifications require study at a tertiary institution, evidence of post training and on-going clinical competency.

As well as providing data on PN qualification estimates, the AGPN workforce reports also provide estimates of PN workforce numbers. The data collected for the AGPN reports has shown that the estimated number of PNs working in general practices has steadily increased across the years from 2005 to 2010 (AGPN 2009a). This increase in PN workforce is also reflected in the Victorian Cytology Cervical Register (VCCR) data, which indicates an increase in the number of PN providers across all nurse Pap providers including providers working in general practice (VCCR 2011). From 2007 to

2011 the number of Pap nurse providers increased from a registered 268 nurse providers in 2007 to 383 in 2011(Figure 5). Of all tests collected by nurse providers in 2011 over half of the tests (62.3%) were collected by PNs working in general practice.

Figure 5 The number of Pap nurse providers* on the VCCR registry (Victoria)



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Source: VCCR 2007; VCCR 2008; VCCR 2009a; VCCR 2011
*Provider includes nurses working across all nurse provider settings such as General Practice, Community Health, Women's Health Service, Sexual Health Centre and other settings such as hospital and dysplasia clinics.
N/A-Not available-Separate PN data was not collected before 2007.

Of particular interest to this research is not only how many Pap nurses there are in Victoria but more specifically where are they located. In 2011 VCCR collected data on where the Pap tests were collected using the Australian standard geographical on remoteness areas classification (ASGC-RA) see Table 2. The ASGC-RA is a geographic classification system that was developed in 2001 by Australian Bureau of Statistics (ABS) as a statistical geography structure which allows quantitative comparisons between 'city' and 'country' Australia. The RA categories are defined in terms of 'remoteness' - the physical distance of a location from the nearest 'Urban Centre' (access to goods and services) based on population size. Nurses working in the western Grampians region would be taking Pap tests is areas that are classified as both Outer Regional and Remote.

Table 2 Nurse practice and woman location at time of Pap test by ASGC – RA

ASGC Remoteness Area	Number of nurses located in the area	%	Number of women at time of Pap test in the area	%
Major Cities of Australia	171	45.7	12,486	40
Inner Regional Australia	145	38.8	13,377	42.8
Outer Regional Australia	57	15.2	5,247	16.8
Remote Australia	1	0.3%	125	0.4
Very Remote Australia	0	0	0	0

(VCCR 2011 p.3)

As well as providing figures showing an increasing number of nurse providers on the VCCR register, the VCCR statistical report also collects smear profile data as an indicator of smear collection competency across providers. Interestingly, the smear profile data collected from 2007 to 2011 indicates that Pap nurse providers registered on the VCCR database demonstrated enhanced competency in smear collection technique, particularly when compared across other providers (VCCR 2011). Nurses have consistently had a lower percentage of unsatisfactory test reports and a greater percentage of endocervical cells (reflecting higher smear quality) on slides, compared to other providers since the commencement of the reporting PN data in VCCR statistical reports (VCCR 2011).

Interestingly, in light of this competency and evidence of a gradual increase Pap test collection by nurses (5% of all tests collected), one must be mindful of the fact that credentialed Pap nurses working in general practice perform only a small proportion (3.6%) of tests when compared across all Pap providers (VCCR 2011). When considering the actual work nurses do, research shows that many practice nurses are working well within their clinical capacity, and that context and structures within general practice are more likely to determine the role of the nurse than individual clinical competency (Halcomb et al. 2008, Phillips et al. 2008). With this in mind, one may hypothesise that a percentage of credentialed Pap nurse providers working in general practice, may due to factors *other* than their own competency, be not engaging in Pap test provision at all.

The VCCR data may however underestimate actual PNPap activity to some extent, as the data does not capture the PNs who are undertaking Pap smears who are not credentialed and who are not eligible for a nurse 'practice number' (VCCR 2010a). The data also does not capture the PNPap testing undertaken by a nurse that is not billed as a PN item and registered as GP activity instead (Britt 2010a; VCCR 2010a). However, recent research undertaken by Joyce and Piterman (2010b) analysing data from 5253 nurse-patient encounters, found that of all PNPap test encounters 95.5% were claimed as nurse MBS Pap test items, and only 4.5% of the encounters *were not* claimed as a nurse MBS encounter.

The register also provides information on the credentialing status of the nurse provider. To become a credentialed Pap test provider, the nurse requires Division 1 Registered Nurse registration, with evidence of Pap testing competency as determined by an accredited training course provider (PapScreen Victoria 2011a). The credentialing process for Pap test providers, which is coordinated by PapScreen, was introduced as a mechanism to ensure quality of nurse Pap test practice, as well as to demonstrate nurse accountability and responsibility for their practice (PapScreen Victoria 2011b). The credentialing status also enables nurse providers to access a Victorian Cytology Service (VCS) number. The Victorian Cytology Service provides nurses with a VCS 'practice number' on condition that the nurse maintains credentialed status under the requirements of the re-credentialing program. The VCS 'practice number' access allows nurses to sign cytology request forms and receive and manage results for Pap tests (PapScreen Victoria 2011b).

Re-credentialing is required every three years and is granted upon review of six, bi-annual provider summary data reports plus a 'quality of practice' statement from the general practice (PapScreen Victoria 2011c). If a nurse's credentialing status lapses, then further evidence is required before the credentialing number is reactivated (PapScreen Victoria 2011c). Hence for Pap nurses to maintain their provider status, a minimum number of tests are required to be collected every six monthly period. This not only involves commitment from the PN but also commitment from the delegating GP and the general practice group.

2.3.2 Practice nurses, cervical screening and systems management'

Another less clinical but just as pivotal contribution practice nurses have made to the Pap screening process is that of systems management, specifically the management of recruitment, recall and reminders for eligible women attending a general practice. Pirkis, Jolley and Dunt (1998) in their meta-analysis of the effectiveness of patient and GP reminder systems in the promotion of Pap test uptake, found that patient, and to a lesser extent GP, reminders can be an effective 'strategic pathway' to encourage women to have regular Pap tests. In the same report they also commented that reminder systems in general practice required a significant investment in GP time, effort and revenue (Pirkis, Jolley & Dunt 1998). However since then, and with the changing general practice landscape, many practices have now included into the PNs role the organisational task of actioning recalls and reminders (Keleher et al. 2007b; Phillips et al. 2008). Not only has it been reported that nurses independently and competently manage recall and reminder systems in general practice, but it has also been reported that they do this well, through the incorporation of a systemised approach to recall and reminder management, and enhanced patient communication (Byrnes et al. 2007; Pearce et al 2009; Phillips et al 2008).

2.3.3 Practice nurses, cervical screening and the consumer

Pap testing in general practice is an activity that is not only dependent on the initiation by the health care provider, it also very much dependent on the decision-making of the consumer (Day, van Dort & Tay-Teo 2010). Consumer perception studies relating to the role of practice nurses in general practice have been undertaken in the past, however there has been limited systematic research relating to consumers preferences for practice nurses as Pap test providers. The evidence available to date on consumer preferences and Pap testing, indicates that across *all* providers, be it general practitioner or nurse, consumers prefer females and also prefer a regular health care provider to undertake their smear (Cheek et al. 2002; Christy, Gamble & Creedy 2005; Duncombe et al. 2007; Fiebig et al 2009; Peters 2010 and Stewart & Thistlethwaite 2010).

It is accepted that Pap test provision by nurses, reflects practice nursing in the 'advanced practice role'. Findings from research looking at consumer acceptability of practice nurses working in the advanced practice role, demonstrates that consumers who have little knowledge of the advanced PN role, are much less likely to accept the nurse performing activities that reflect this advanced role (Cheek et al. 2002; Christy, Gamble & Creedy 2005; Godden et al. 2010 and Hegney et al. 2006). Results from a study undertaken by Hegney et al. in 2006, concluded that consumer 'comfort' was lowest with tasks such as diagnosing and treating minor illnesses, prescribing medications, giving health advice over the phone and undertaking Pap smear testing. However given the results, Hegney et al. (2006) impressed that although their research used 'comfort' indicators, at no time were any of the advanced PN roles deemed uncomfortable or unacceptable by consumers. The findings from the Hegney et al.

(2007) study regarding consumer comfort of the advanced PN role are reflected to varying extents, across other consumer acceptability studies undertaken in Australia (Cheek et al. 2002; Christy, Gamble & Creedy 2005; Godden et al. 2010).

Consumer research also indicates that consumers are most comfortable with PNs administering vaccinations, performing health assessments and undertaking wound management. However the same research also demonstrates that acceptability across all roles and activities, including that of Pap testing, was seen to significantly *increase* with greater consumer familiarity with the role (Cheek et al. 2002; Christy, Gamble & Creedy 2005; Godden et al. 2010; Hegney et al. 2006). Fiebig et al. (2009) used preference data to target the factors influencing women in their decision-making regarding Pap testing. The Fiebig et al. (2009) research found that cost, false positive and false negative results rated highly as determinants for Pap decision making, as did GP prompting. Increased availability for opportunistic screening and gender preferences were also found to be significant determinants for a woman's decision to have a Pap test (Fiebig et al. 2009).

2.4 The Milieu of General Practice

We have witnessed over the past two decades a significant evolution in the role, scope and clinical practice of PNs in Australia. There undoubtedly has been a nursing 'presence' in Australian general practice for many years (Dunt, Temple-Smith, Johnson 1991). However, over time this 'presence' has been greatly affected by general practice 'health system' pressures such as GP workforce shortages, increased incidence in chronic disease, the ageing population and need for the implementation of proactive preventative care measures. As a consequence the role development of the Australian PN has been more related to policy changes within the general practice arena, rather than the determination of the nursing profession that practice nursing should consciously develop into a specialty area of nursing practice. In fact, in times as recently as the last decade, general practitioners and even sectors of the nursing profession displayed not only ambivalence toward the evolving PN role, but also a reluctance to accept practice nursing as an established, specialised field of practice (Keleher et al. 2007b).

In contrast, general practice nursing in the United Kingdom and New Zealand has been regarded as a valid nursing 'speciality' since the late 1960's (Jolly 2007). Over the years general practice nursing in the UK and New Zealand has continued to advance and progress, transforming from a nursing 'speciality' into the contemporary and autonomous general practice model that is evident today. These changing roles have evolved in response to significant health care delivery reforms not only within general practice but in the primary health care system as a whole (Jolly 2007; Keleher et al. 2007a). Whereas the PN role in Australia has been basically driven by general practice financing arrangements, supplied and endorsed by the Commonwealth Government. These financing arrangements included not only grants but incentives delivered as 'an extension of fee for service payments in privately owned practices.

Whilst it is widely accepted that GPs continue to act as the key decision makers in the delivery of care, it is also acknowledged that this decision making 'dominance' arises from many structural and contextual factors embedded in general practice. These factors include the major influence of changes made to the constitution in the 1940s that resulted in the general practice 'small' business funding arrangements that we see today. The 1946 amendment bill to *The Constitution* allowed for the Federal government to make [financial] provision for:

> maternity allowances, widow's pensions, child endowment, unemployment, pharmaceutical, sickness and hospital benefits, medical and dental services (*but not so as to authorize any form of civil conscription*), benefits to students and family allowances (Parliament of Australia 2003).

The constitutional amendment that was passed by the government of the time, enabled medical practitioners to directly bill, and in turn directly receive Commonwealth funds, for the provision of patient care. Other influences include factors such as the determination of the AMA to maintain the principle of GP clinical sovereignty, the RACGPs recommendation to promote the role of GP as 'team leader', consumer perceptions and their support of the GP leading role, and entrenched social structures such as GP medical and professional dominance (AMA 2010; Cheek et al. 2002; Del Mar 2011; Halcomb et al. 2008; Mills & Hallinan 2009; Patterson, Price & Hegney 2005; Pearce et al. 2011, RACGP 2007; Willis 2000).

As the key decision makers in general practice, GPs and the GP leading team mostly determine what is done and by whom within their teams. Both the AMA and the RACGP endorse the team approach to the delivery of care in general practice, as do the majority general practice stakeholders including high level policy makers (AMA 2010; DoHA 2010c; RACGP 2007; Roxon 2009). However, the AMA believes that the emphasis on the substitution of tasks away from medical practitioners to other health staff, may lead to diminished quality and safety outcomes (AMA 2010). In particular, they believe teamwork in general practice should incorporate practice nurses working in a complementary role to GPs, rather than working in the independent autonomous role alongside GPs (AMA 2010).

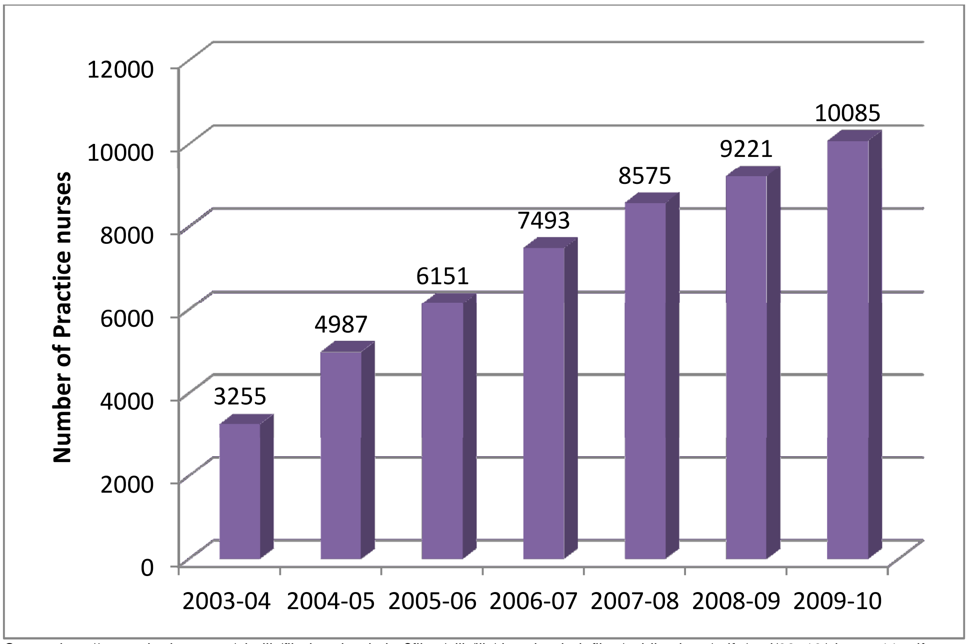
Contrary to the AMA's position regarding quality and safely outcomes, evidence in reviews on primary care substitution, demonstrated that multidisciplinary care, in particular through the use of the nurse in a substitution role, can lead to at least equal to, or improved patient outcomes as well as enhanced coordination of care (Buchan & Calman 2005; Keleher et al 2007a; Laurant et al. 2004; Richardson 1999). These findings do shed light on the benefits of task substitution; with evidence demonstrating effectiveness of task substitution has in fact, been available for many years. In 1996, Kottke & Trapp (1998) undertook a retrospective cohort analysis of all Pap tests (n=23,218) submitted to a commercial pathology laboratory in Dakota USA over a six month period. The study demonstrated that after one week of training, nurses collected Pap test specimens that were of the same quality (percent of endocervical cells on slide) as the specimens collected by physicians and physician assistants (Kottke & Trapp 1998). Laurant et al. (2004) undertook a systematic review of papers published from 1966 to 2002 to evaluate the impact of doctor-nurse substitution on patient outcomes, process of care, and resource utilisation. Results from the review of 16 studies meeting inclusion criteria, indicated that appropriately trained nurses can produce just as high quality care and just as good patient health outcomes as primary care doctors (Laurant et al. 2004). Yet Laurant et al. (2004) also concluded that results of the systematic review should be viewed with caution, as only one study was powered to assess equivalence of care, many studies had methodological limitations and patient follow-up was generally 12 months or less.

These changes to care delivery that incorporate both GP substitution and GP PN collaboration, in the main have been taken up by GPs. However these changes initiated by the government and endorsed by general practice peak bodies, have also delivered to the general practice environment some pervasive concerns and constraints. Concerns include fears for loss of GP autonomy; the inability to maximise GP business case; infrastructure limitations including lack of space; patient risk, indemnity and litigation; costs for PN education and training (AGPN 2010b, AMA 2010; APNA 2011, Fraser 2006; Harris & Harris 2006; Kidd et al 2006; Lewis & Marjoribanks 2003; Marjoribanks & Lewis 2003, Pasco et al. 2007, Philips et al 2008). In light of these barriers PNs have reported that much of their work in general practice is well inside their clinical capability and scope of clinical practice (Alfred, Bowers & Kalucy 2009; AGPN 2009b; APNA 2011; Byrnes et al 2007; Del Mar 2011; Fraser 2006; Halcomb et al 2008; Hallinan 2010; Kidd et al. 2006; Lewis & Marjoribanks 2003; Marjoribanks & Lewis 2003; Watts et al 2004; Willis, Condon & Litt 2000; Yong 2006).

2.5 Action, Uptake and Outcomes

The model of general practice team care delivery, and in particular the development of the role of the practice nurse, has involved general practice policy decisions that have been enacted out in the form of initiatives. These policy driven initiatives have been taken up to varying degrees across general practices more so in rural general practices than in urban practice. Across all general practices in Australia, the number of practice nurses has doubled since 2005 from 4510 to 10085 in 2010 (Carne et al 2010).

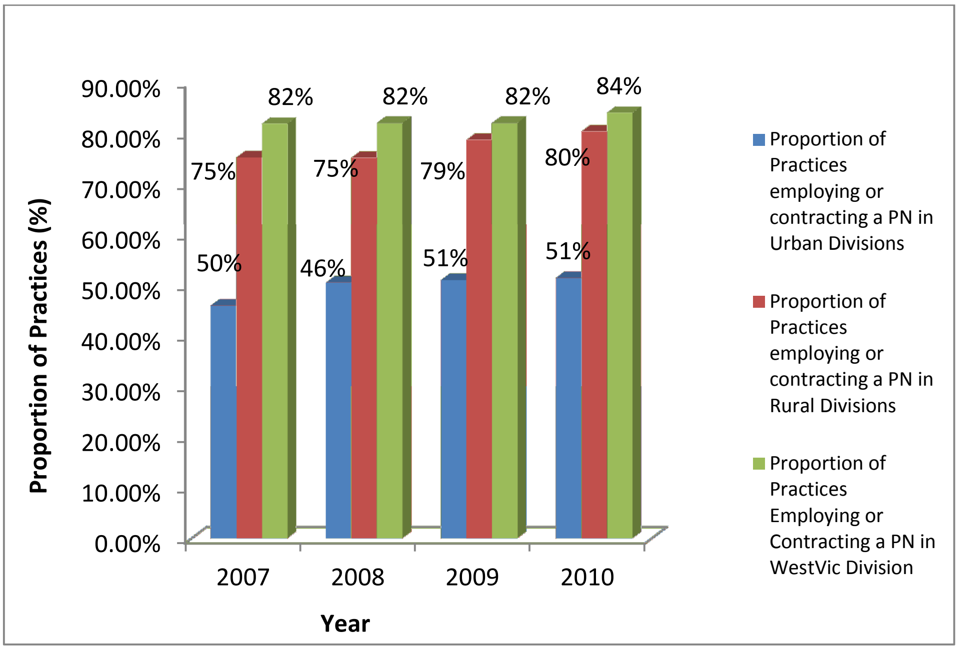
Figure 6 Number of Practice Nurses in Australia



Source:http://www.phcris.org.au/phplib/filedownload.php?file=/elib/lib/downloaded_files/publications/pdfs/asd/09_10/chapter11.pdf

The number of practices employing a nurse is trending upwards however only half the general practices in urban areas of Victoria employ a nurse. This is in contrast to rural practices where 80 percent of practices employ a nurse and in the western Grampians region (WestVic Division) where 84% employ a PN see Figure 7 (GPV 2011).

Figure 7 Proportion of practices employing a PN-Urban, Rural and WestVic Division



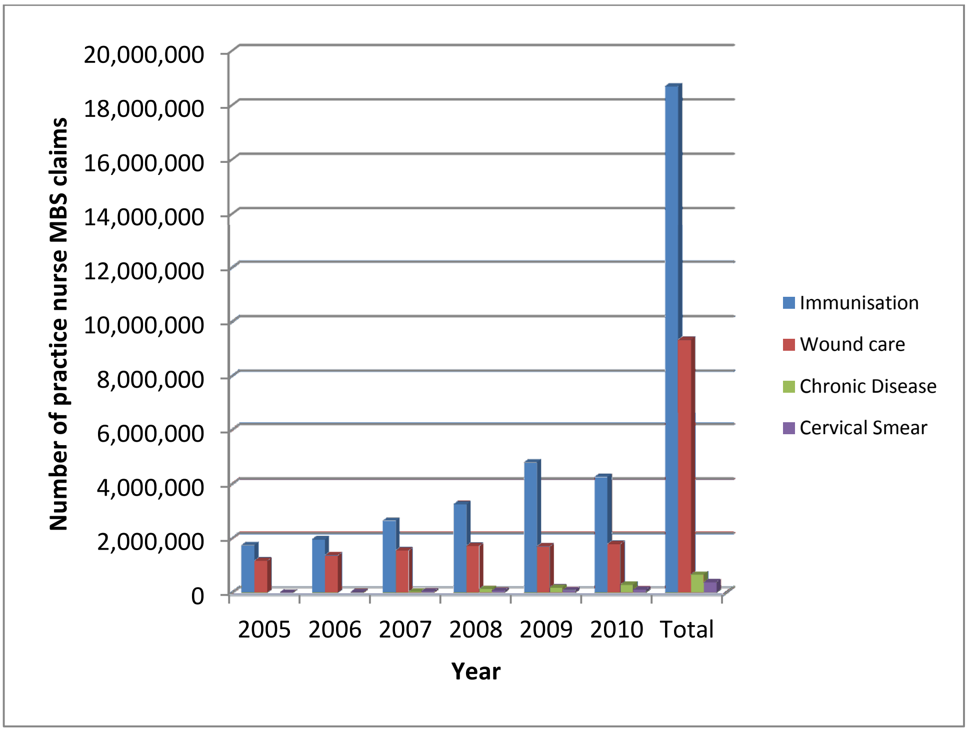
Source GPV 2012

The total number of practice nurse MBS items claimed from 2005 to 2010 has more than doubled from 2,944,505 to 6,493,182 items (Medicare Australia 2011a). Although these figures represent a substantial increase in PN item uptake, this uptake is not reflected consistently across all PN items. The analysis of PNPap uptake data reflects a significantly higher number of immunisation items (10993) and wound items (10996) processing compared with the processing of PN cervical smear items. Interestingly, of the PN MBS items, the cervical smear (10998 and 10999), immunisation (10993) and wound care (10996) items had at the time an identical bulk billing payment of $11.55.

Over the 2010 claiming period, PN immunisation item uptake amounted to 4,264,227 items Australia wide and 783,012 items across the State of Victoria, whilst the number of PN wound care items amounted to 1,793,302 and 410,943 respectively (Medicare Australia 2011a). However, PNPap item uptake across the same claiming period, amounted to 113,277 items claimed across Australia, and 23,714 PNPap items Victoria wide (Medicare Australia 2011a). These figures reflect a large disparity in PN item uptake across both Victoria and Australia; with PN immunisation and wound care uptake calculated to be around 16 to 38 times the total PNPap item uptake respectively see Figure 8.

Within this environment of increasing practice nurse activity, where the number of PN encounters from 2005 has almost doubled to that of about 6.5 million; the item uptake across PN cervical smear encounters has reflected only a modest increase in number, particularly when compared across other items. Over the years since the introduction of the PNPap items in 2005 and 2006, PNPap encounters across two of the four available PNPap items has in fact, reflected a downward trend (Medicare Australia 2011d).

Figure 8 Change in distribution of PN MBS items from January 2005 to December 2010



Source: Medicare Australia 2011c*, Medicare items 10986, 10993,10994,10995,10996,10997,10998,10999 processed from January 2005 to December 2010,* Medicare Statistics, Australian Government

Short Descriptor - Claimable PN items:

- **Immunisation** service by a nurse = MBS item 10993
- **Wound care** service by a nurse = MBS item 10996
- **Chronic disease** service by a nurse = MBS item 10997
- **Cervical Smear** by a nurse +/- preventative check = MBS items 10994,10995, 10998,10999

Note: The above data is no longer available as PN MBS item were removed from the schedule January 2012.

These trends in PN item uptake are also evident in the BEACH 2000-01 to 2009-10 practice nurse encounter data see Table 3. Of note in this data, is that of all PN MBS encounters undertaken by a practice nurse over the 2009-10 encounter period, immunisation and wound care accounted for 74.9% and 21.3% of PN encounters respectively, and cervical smear testing (across all four cervical smear items) accounted for a paltry 0.5% of all PN claimable MBS encounters (Britt et al 2010a). This disparity is consistently reflected in the data across the 2005 to 2010 encounter period.

Table 3: Distribution of practice nurse items numbers claimed at encounters from 2005-06 to 2009-10

Medicare item number	Short descriptor	Per cent of total (95% CI)					
		2005-06 (n=1,696)	2006-07 (n=1,835)	2007-08 (n=2073)	2008-09 (n=2,438)	2009-10 (n=4,215)	Change (a)
10993 (b)	Immunisation	69.5 (63.8 - 75.3)	66.8 (61.5 - 72.2)	64.1 (59.6 - 68.6)	63.5 (59.0–68.1)	74.9 (72.0–77.7)	Increase
10994 (c)	**Cervical Smear** and preventative checks	N/A	0.2 (0.0 - 0.5)	0.2 (0.0 - 0.4)	0.7 (0.1 - 1.2)	**0.4 (0.0 - 0.7)**	**Decrease**
10995 (c)	**Cervical smear and preventative check** - women 20 - 69 years, no smear in previous four years	N/A	0.1 (0.0 - 0.2)	0.1 (0.0 - 0.2)	0.4 (0.0 - 0.9)	**0.0* (0.0 - 0.0)**	**Decrease**
10996 (b)	Wound treatment (other than normal aftercare)	30 (24.3 -35.7)	32.6 (27.2-40.0)	34.4 (30.0 -38.8)	33.3 (29.1–37.5)	21.3 (18.8–23.8)	Decrease
10997 (d)	Service to a person with a chronic disease by a practice nurse or registered Aboriginal health worker	N/A	N/A	0.7 (0.2 - 1.2)	1.9 (0.9 - 2.9)	3.0 (1.7 - 4.2)	Increase
10998 (e)	**Cervical smear**	0.0	0.1 (0.0 - 0.3)	0.3 (0.2 - 0.5)	0.1 (0.0 - 0.2)	**0.1 (0.0 - 0.1)**	**Static**
10999 (e)	**Cervical smear** - women 20 - 69 years, no smear in previous four years	0.5 (0.0 - 0.9)	0.2 (0.0 - 0.4)	0.3 (0.0 - 0.8)	0.0	**0.0* (0.0 - 0.1)**	**Static**
00711 (f)	Health check by a practice nurse or registered Aboriginal health worker	N/A	N/A	N/A	0.1 (0.0 - 0.2)	0.3 (0.1 - 0.5)	Static
Total practice nurse item numbers- rate per 100 total encounters		**1.7 (1.4 - 2.0)**	**2.0 (1.7 - 2.3)**	**2.2 (1.9 - 2.4)**	**2.5 (2.2 - 2.9)**	**4.2 (3.7 - 4.7)**	**Increase**

Source: Britt et al. 2010a, General practice activity in Australia 2000-01 to 2009-10: 10 year data tables, Cat. no. GEP 28, Canberra: AIHW

(a)The direction and type of change from 2005–06 to 2009–10 a statistically significant change indicated for each result:
(b) Item number introduced in 2004.
(c) Item number introduced in November 2006.
(d) Item number introduced in November 2007.
(e) Item numbers introduced in November 2004, but broadened in 2006, so they are not limited to services in rural areas.
(f) Item number introduced in November 2008.
Note: N/A—Not applicable.
** Rates are reported to one decimal place. This indicates that the rate is less than 0.05 per cent.*

2.6 Where to from Here

The dwindling number of general practitioners, in particular GPs in rural and regional Australia, is certainly on the political agenda. Also on the agenda is the acknowledgement that the opportunity for GPs to deliver proactive preventive care is 'hamstrung' by increased patient demand on general practitioner services. The Commonwealth Government has, and continues to, invest in general practices across Australia by providing funds in the form of additional fee-for-service payments, and top up payments such as practice incentive payments. These financial incentive payments are delivered in an attempt to influence 'decision making' by GPs and to promote the allocation of activities across to nurses employed in the practice. However not only do the implicit contextual elements *within* general practice milieu impose on Commonwealth Government driven change process outcomes, so do external influences such the changing political environment and technological advances in health care and services.

The information presented in this review regarding practice nurse Pap smear activity illustrates the 'state of play' as was available from 2005 - 2011. From January 2012 and in light of reforms underpinned by the National Primary Health Care Strategy, a PNIP initiative was introduced to general practice (DoHA 2010c). The PNIP initiative included $390.30 million over four years, to provide incentive payments in the form of a single grant (block funding) to general practitioners to employ practice nurses (DoHA 2010d). The block funding includes annual incentive payments of $25,000 per year for the employment of a registered nurse and is capped at $125,000 per practice (Medicare Australia 2012a). A rural loading of between 20-50% is added on to this PNIP grant for practices located in rural and rural remote areas (Medicare Australia 2012a).

Incorporated into the measure was the removal of most of the practice nurse MBS items in lieu of the grant. Items removed from the MBS included the PN immunisation, wound and Pap test items. This meant that GPs could not be remunerated for the immiunisation, wound and Pap test services undertaken by the nurses (Medicare Australia 2012a). The loss of practice nurse MBS items has been met with hostility from key general practice bodies (Medical Observer 2010; Medical Observer 2011; UGPA 2010). United General Practice Australia, a coalition of GP groups, suggested that abolishing MBS items would not only leave practices worse off financially, but may also result in the reduction in nurse provided care, and potentially increase the need for many more GP face to face consultations such as immunisations (Medical Observer 2010; UGPA 2010).

The 2010-11 Budget also introduced an amendment to the incentive outcomes payment for cervical screening (DoHA 2010e). The outcomes payment criterion that was based on practices meeting the target of screening at least 50 per cent of eligible female patients aged between 20 and 69 was increased from the payment criterion of 50 per cent to 65 per cent to be implemented from May 2011 (Medicare Australia 2011a). Increasing the outcomes payment threshold criteria is an interesting policy manoeuvre, and could consequently inhibit Pap screening activity, as GPs may perceive the target too difficult to achieve and may focus on incentive targets that are 'more achievable'.

Also potentially affecting the practice nurse Pap smear activity was the development of a vaccine for human papillomavirus (HPV) in 2006. With the knowledge that HPV is the necessary cause of cervical cancer, the HPV vaccine was developed to protect against HPV type 6, 11, 16 and 18 (DoHA 2011b, Walboomers et al. 1999). The protection against HPV 16 and 18 was particularly relevant to the epidemiology of cervical cancer, as HPV 16 and 18 are known to cause about 75% of cervical cancer cases (Schiffman et al. 2007). However, the vaccine does not protect against all other 13 human papillomaviruses known to be a necessary cause for cervical cancer, and in effect does not fully protect against the development of cervical cancer (Munoz et al. 2004). As the vaccine does not protect against all HPV viruses, the Commonwealth Government has continued to promote the biennial cervical screening program (DoHA 2008). Hence the National Cervical Screening Program is ongoing and currently supported by the policy, although there has been and continues to be, contention around the cost effectiveness and 'value' of the biennial screening program regardless of vaccine access (Canfell, Sitas & Bera 2006; Canfell 2010; Wain 2006).

Since 2007, the Commonwealth Government funded a HPV universal vaccination program and incorporated into the schools immunisation program, a 3 dose course over a six month period to female students between the ages of 12 and 13. The government also incorporated a catch up vaccination program (which ceased in 2009), where females up to 26 years were able to access the subsidised HPV vaccination program. It is expected the degree of overlap between the 'vaccinated and screened' cohort and the 'screened only' cohort will increase with time as the cohorts mature, however at this point in time it is not yet known how the HPV program will affect cervical cancer rates in the future (Canfell 2010). Of concern however was data extracted by the National HPV register that indicated an inconsistent uptake of the three doses across the course demonstrating a disappointing 30% to 73% completion rate of vaccination program across all cohorts (DoHA 2011b). School vaccination programs and school catch up programs had three dose vaccination coverage of 73% and 72%-66% respectively, the community catch up programs reflected the lower vaccination coverage rates of between 30 -38% (DoHA 2011b).

3. Evaluation Methodology

The mixed method evaluation comprised two major evalautory stages, a clarificative stage followed by a summative stage. During the clarificative stage quantitative and descriptive data was gained from a literature review and data set analysis. The information gained at this stage was used to test assumption validity, inform early theory development and facilitate program logic model development. Throughout the summative stage, qualitative data collected from key informant interviews (n=14) was collected, coded, analysed and synthesised. This qualitative data was scrutinised for repeating and emergent themes that align with the theories developed in the clarificative stage. At this stage the data was also explored for anomalies that may indicate flawed assumptions or unintended outcomes which were not made explicit in the clarificative stage. Findings (theories or hypothesis) that are consistent with the notion of 'what works for whom and how' were developed from the evidence collected.

All aspects of the evaluation will be undertaken following the principles of systematic enquiry; competence; integrity and honesty; respect for people and responsibilities for general and public welfare (Shadish et al 1995).

3.1 Process Use

As dominant themes and hypotheses emerged during the course of project the research objectives were continually reviewed. Patton (1998) describes evaluation responsiveness as 'process use'. The incorporation of 'process use into evaluation framework enabled the project to integrate flexibility into evaluation process).

3.2 Pre-evaluation 'Rapid Review'

A pre evaluation 'rapid review' was undertaken to establish the 'state of play'. The 'rapid review' captured primary and secondary data, published research, reports, budget documents, government data sets as well as 'grey' material (Appendix 1). The 'rapid review' is used as a strategy to gather contextual and comparative material to build a platform for the evaluation.

3.3 Program Logic

The evaluation used program logic to facilitate a greater understanding of the general practice context as well as a greater appreciation of the generative mechanisms that effect outcomes in the PNPap incentive programs (Hallinan 2010). Caracelli and Green (1997) identified the potential for the incorporation of program logic theory into the framework for the design and analysis of evaluations, and in particular those that used a mix of qualitative and quantitative methods. In this research, program logic guided the evaluation by identifying key program elements and how the elements are assumed to relate to each other (Cooksey et al. 2001). The program logic model development was an integral part of the clarificative stage of the evaluation, and was modified as the key assumptions to test emerged from the collection of new data (Rogers 2007).

3.4 Literature Review – A Traditional Approach

The desktop literature review incorporated a systematic and methodical approach to the collection of primary and secondary data, along with a search focus centred on the evaluation question. The review sought to uncover the emergent and underlying theories that explain semi-predictable recurring patterns of behaviour, by critically examining the interaction between inputs, context and outcomes in the review data. The literature review also incorporated into the search; an understanding that as human agency is involved in the general practice domain the *predictability* of behaviours is limited. This is particularly relevant to general practice, as the explicit choices made by GP decision makers, change with the structures and context that underpin their practices. Hence, the literature review had more of an explanatory focus, rather than effectiveness and outcomes focus. The literature review synthesised many sources of knowledge to facilitate the unpacking of theories relating to how the complex and iterative general practice incentives work (or do not work) in various general practice settings. The literature was critiqued with the intention to find gaps in the existing knowledge base, as well as for the purposes of potentially shedding new light on the existing research.

3.5 Literature Review Methods

The desk top literature review captured primary and secondary data, published research, reports, budget documents, government data sets as well as grey material as a strategy to gather contextual and comparative material for the evaluation**.** The review will aim to gather information on: (1) Pap testing by nurse providers in general practice - primary health care; (2) the political context underpinning general practice incentive strategies; (3) the interests of GP and PN stakeholder groups; (4) GP and PN autonomy; (5) consumer perception of PNs as Pap test providers; (6) the role of the PN in general practice and (7) the drivers (internal/external) for change in general practice.

The core terms used in the search included ‘general practice’ 'practice nursing' 'primary nursing care', 'community health nursing', ‘primary health care’, ‘role’, ‘scholarships’, ‘consultations’, ‘pap test’, cervical screening’, ‘health screening’, ‘cervical cancer’, ‘cervical cancer’, chronic disease management’, 'government regulation', ‘rural’, ‘quality’, ‘HPV’, ‘HPV vaccine’, ‘shared care’, ‘task substitution’, ‘teamwork’, ‘multidisciplinary’ ‘autonomy’, 'government policy making', 'nursing education', 'cost effective', ’effectiveness’, ‘program evaluation’, ‘economic evaluation’, ‘intervention’, ’financing’, ‘funding’, ‘initiative’ 'health policy', 'health care policy', 'policy making', ‘policy’ and 'health care reform'.

Searches were conducted to identify articles published in English between 1995 and 2011. The databases searched will include Academic Search Complete (EBSCO), Medline, Science Direct, CINAHL, JSTOR, APAFT, ISI Web of Science, Cochrane Library and PubMed. The search terms will be combined using the Boolean operators 'and', 'or' and 'not'. The search strategy will also be modified and adapted for each separate database.

The review accessed peer reviewed publications, government reports, published and unpublished papers, prior evaluations and grey literature. Grey literature from Australian internet sites: AMA, RACGP, APNA, RCNA, GPV, AGPN, APNA, Medical

Director, Doctor Weekly, 6 minutes, The AGE, The Australian was also scrutinised. Wider search strategies incorporating the review of reference pages from papers found in earlier searches as well as the searching relevant journals for topic specific articles.

3.6 Quantitative Data Sources

Quantitative data collection incorporated data set analysis of Victorian Cervical Cytology Registry statistics, General Practice Activity statistics, Medicare Statistics, Australian Institute of Health and Welfare cervical screening data and General Practice Victoria data sets.

3.7 Qualitative Data - Key Informant Methodology

Key informant interviews were used to collect qualitative data. The interviews were semi structured and guided by an interview tool based on the literature review and data set analysis. The interview tool was prepared to: (i) provide topic areas for exploration; (ii) guide the discussion and (iii) ensure all questions are answered. The tool was in the form of an outline script and included a list of open ended questions relating to PNPap activity (Appendix 2). The informant was provided an opportunity for further questions, final comments and/or recommendations in the interview and was also advised of the 'destination' of the information collected at interview.

The key informants were invited to participate in the evaluation through an introductory letter. This was followed by either a telephone call or an email to arrange a convenient time and place for meeting. The length of interview was not capped although it was indicated on the introductory letter that the interview may last up to 60 minutes. The duration of the interviews ranged between 37 and 80 minutes and was determined by the time constraints of the key informant.

The interviews were digitally recorded, 13 were held face to face and one interview was via the telephone. Interviews were transcribed post interview. The transcriptions will be coded using NVivo© software to enable thematic development and analysis.

3.8 Key Informant Selection Criteria

Key informants, as a consequence of their personal skills, position in society or membership of particular groups, are individuals who are able to provide deeper levels of insight into the analysis of situations (Marshall1996; Patton 2002). Tremblay (cited in Marshall 1996) describes key informants simply as 'natural observers'. The characteristics of an 'ideal' key informant include the informant(i) having an established role in the community; (ii) having the ability to gain access to the desired information; (iii) demonstrating willingness to communicate knowledge, (iv) having the ability to communicate intelligibly and (v) demonstrating impartiality and objectivity (Tremblay, cited in Marshall 1996). In this evaluation, Tremblay's criteria were used to identify potential key informants.

The informants were selected from a pool of general practice stakeholders and included 4 western Grampians general practitioners, 4 western Grampian practice nurses, 2 western Grampians practice manager and Medical Director of a Local Health Service. Key informants also included representatives from the Victorian Division of General Practice, Victorian Cervical Cytology Register and Pap Screen Victoria.

Selection of the PNs and GPs from within the western Grampians region of Victoria enabled a greater understanding of the geographic anomalies experienced by these informants at the ‘coal face’. Information from a GP representative body provided further contextual information on the history, politics and culture of GP and PN health care provision. The organisations representing cervical screening processes, cervical screening research and screening quality were included in the stakeholder pool, as they delivered insights into the factors outside the ‘ general practice gate’ that influences behaviour inside the practice.

The advantages of the use of key informants in this general practice evaluation are that they incorporated dense, rich and insightful contextual data which was gathered in a relatively easy and inexpensive way. Importantly the use of key informants for qualitative data collection reduced the ‘interview’ burden on larger cohorts of ‘time poor’ general practitioners and nurses, who are frequently exposed to time consuming questionnaire and survey activities.

4. Results

4.1 Incidence, Mortality and Participation

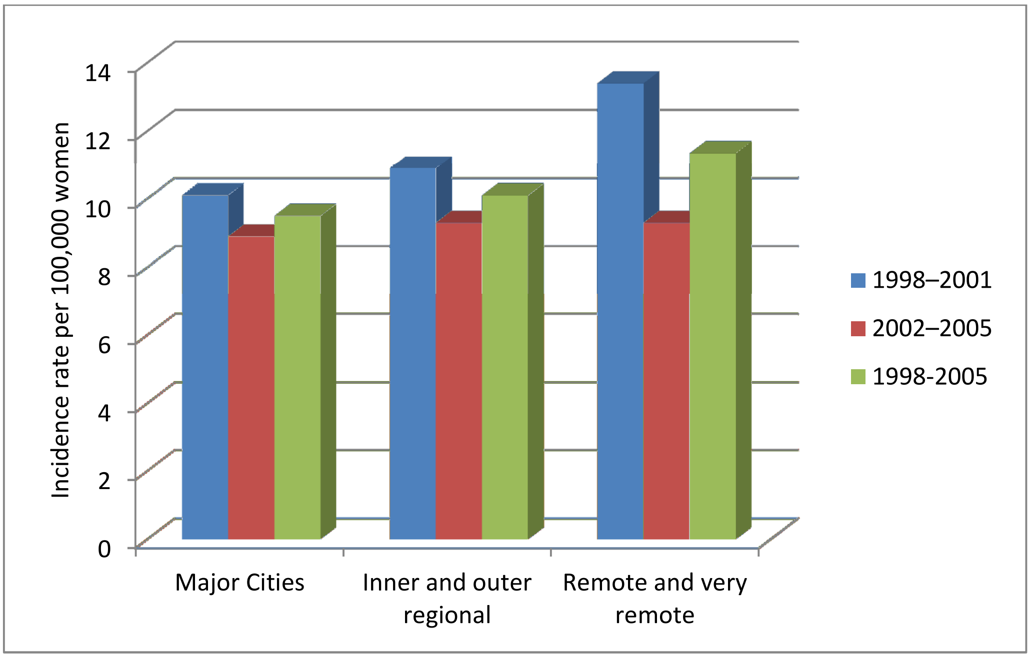
4.1.1 Cervical cancer incidence and mortality

> There were 2216 new cases of in-situ cervical cancer diagnosed in 2008 across Victoria.

> Forty-eight Victoria women died of cancer of the cervix in 2009.

> The incidence of cervical cancer in rural Australia across the eight year period between 1998 and 2005 is almost 20 percent greater than cervical cancer incidence in metropolitan areas of Australia see Figure 9.

Figure 9 Incidence (age standardised rate) of cervical cancer by geographic region between 1998 and 2005



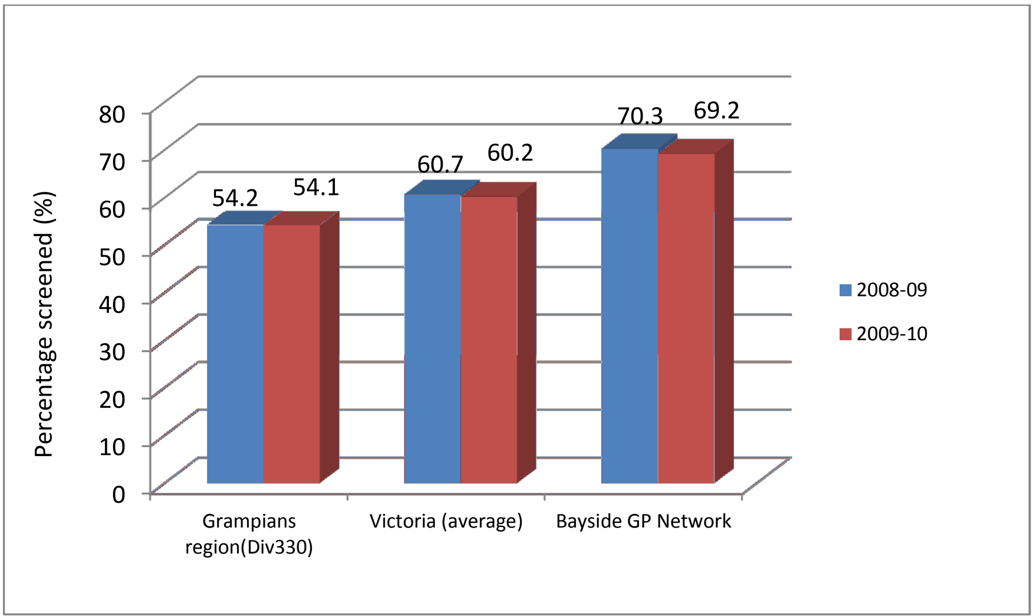
Source: Cancer Council Victoria 2011

4.1.2 Pap testing rates in the Western Grampians region 2009

> Fifty four percent of females aged between 18 and 69 in the western Grampians region (WestVic Division) have two yearly Pap testing.

> Pap participation of females on western Grampians region is:
- Eight percent lower than Pap participation across Victoria
- Sixteen percent lower than the highest recorded Victorian participation rate see Figure 9.

Figure 10 Pap participation by GP Networks

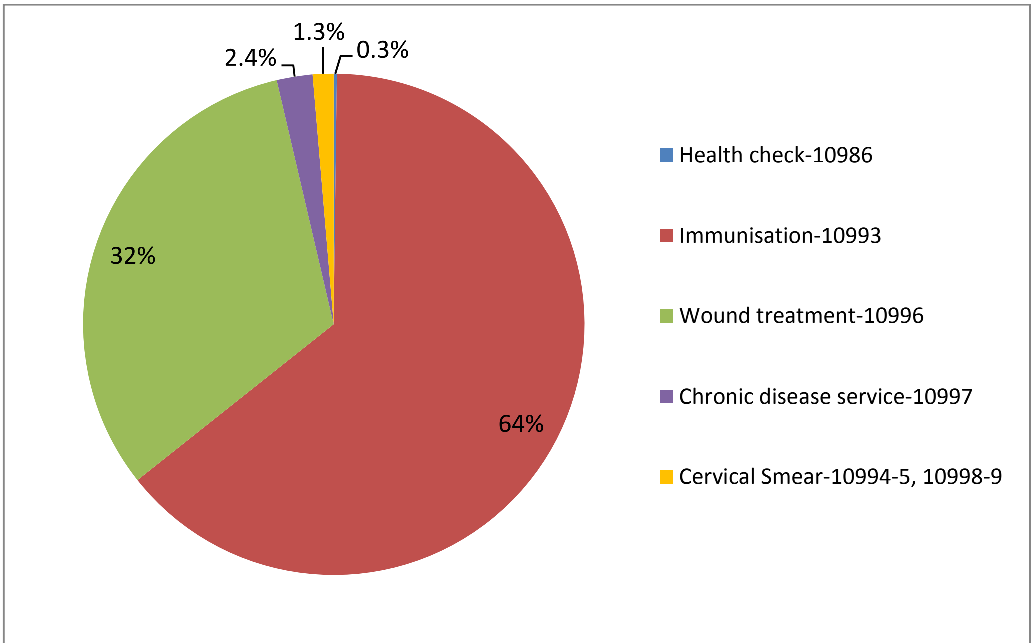


Source VCCR 2010

4.1.3 PN cervical screening uptake data 2005 -10

> PN cervical screening activity associated with a PN item number in general practice accounted for just over 1 per cent of all nurse activity see figure 10.

Figure 11 Percent of total PN items claimed 2005 -2010



Source Medicare Australia 2010, *Medicare items 10986, 10993,10994,10995,10996,10997,10998,10999 processed from January 2005 to December 2010*

4.2 Barriers to PN Task Transfer for Pap Activity

4.2.1 Lower incentive remuneration compared to other activities

> Cervical smear activity without/with women's health check (item 23/36) has a lower remuneration of $34.30 /$ 65.20 compared to other activities that take a similar amount of time such as the Over 75 health check (item 705/707) which is remunerated at $183.05 /$258.65 respectively. The Pap smear and health check are activities that the nurse can undertake for and on behalf of the GP.

…certainly health assessments, aged health assessments all increased in number with the incentives coming into place. But the Pap smears, while we've sent a nurse away to get training to become a Pap smear provider and providing them with sessions, we're doing it at a loss. There's no incentive to do it. PP1114

…health checks are not a practice nurse item number, they are a GP item number and the financial remuneration associated with [health checks] is far greater, than that of the PN item numbers, so there is more financial incentive to get the nurse to assist the GP to do a health check. PP1106

…I think they're just pulling in money and not being very effective with the work they're doing. They do health assessments because they get $100 but there are no outcomes and no referrals from those health assessments. PP1102

…you can do the immunisations quicker and generate more money. PP1101

…I think the GPs these days are absolutely overloaded… [regarding] an incentive, if it was a significant one…they certainly would be taken up. PP1103

…well if you do that [health assessment] plus a team care arrangement and a GPMP you're making a lot more money than you would doing 2 pap smears. PP1106

I think our GP practice employs a practice nurse - the financial incentives for lots of things is very important to him…as far a Pap smear incentives are concerned, they must be not as important to him because he is not interested in having them at all. PP1102

Whatever brings in the most money…It's very much a dollar driven business. What brings in the most grants and the most funding. PP1107

I mean if [the remuneration] for cervical screening was a lot more money, you would probably be more proactive in dragging all the people from your practice database to come in and get Pap smears PP1109

…'cause they have to run their own business, the bottom line is their finances as the first priority. PP1104

We had to write down every MBS item number that we charged, and every dollar that we made for the practice. I am not sure if that was to make us feel like we were, to justify, the wage that we earning or [working out] whether we were making the practice the same amount of money. PP1106

Incentives still have a major influence as there are staff that needs wages, overheads, bills and mortgages. So if the finance is not matching…in the reality of life you have to be serious and consider the income of the practice. PP1111

For the GP when the nurse can do it he's happy because costing wise a Pap smear will take about 25 minutes to half an hour; in that time you can see two GP consultations. PP1111

Yeah, we claim all those [incentives] that have got big money, medication review and care plan and all that sort of stuff. So, I mean, that is big - that's like big money for that sort of thing. So I guess in a way he doesn't really need to look for other… PP1113

…sounds like there's a paradoxical effect of making the treatment plan so lucrative, so the incentives work so well in that area that the ones where the doctors have done the quick sums and either make $46 an hour from a nurse with a Pap smear, why on earth would you bother to do it? We'll do a mental health plan or we'll do a care plan. PP1103

> Medical Benefit Schedule (MBS) rebates for PN Pap test without/with women health check (Item10998/Item10994) has a remuneration of $11.25/ $23.10 respectively. The remuneration for Pap tests undertaken by a PN is less the one third of that for the same activity undertaken by a GP. The GP rebate (Item 23/ Item 360 is $34.30/$65.20 respectively.

> The removal of the PN MBS item numbers for Pap testing will impede the delegation of Pap tests to nurses.

Those services, while they're picked up by the patient, a lot of doctors are just as happy to do a Pap smear themselves. They realise that financially we're no better off - we're worse off. The nurse doing hourly Pap smears we would be subsiding, so you're not even making ends meet, let alone making a profit out of the service. At the end of the day, private practice still has to make a profit to pay for the staff salaries, wages, equipment, building and etcetera. If they're going to have the nurse to patient education, then that's going to take longer - 20 to 40 minutes - so they then, again, that impacts on that dollar value I mean, if we look purely on a financial exercise, we'd stop it tomorrow. PP1114

I think the role I would advocate …is a more autonomous position as a nurse pap test provider, that was was not always completely supported all by the practice principals, as financially if I don't get the GP in [to sign off as well] they are losing some money….they get the [GP and PN] money for the review. We were encouraged to get the GP to review the patient after we had finished. As a nurse professionally I felt happier just claiming the PN Pap item…more autonomous….but felt under pressure from the practice to call the GP in.

PP1106

…the support from the GP organisation gave me more insight into how we can generate money through Pap smears. PP1101

Yes, money would be a very big thing from the GPs I've known here…Huge…
PP1102

I mean, currently we bulk bill all our cervical smears...They all get charged a 23 and the doctor will go in and discuss what's going on with the patient. Then the 10994 for the nurse is claimed….. Whereas if you ran that just running off the 10994, there wouldn't be enough in it to make it justified. PP1109

Yeah, you need to increase the rebate payment. It comes back to your dollars. If you increase your rebate payment then the practice will get more people through the door. You will get more people encouraged to have it done. I think they need to retain nurse practice item numbers. PP1107

I think that's one of the biggest issues for us is that we have Nicola Roxon and the health ministers all saying how they fully support nurses in general practice, they want to see more nurses being allocated more resources. I know, the doctors and partners of the practices are all for it but when it comes down to the other side and where the dollar value is reflecting the work they do, there is none. PP1114

…there is concern in general practice that they will be losing that money [with the removal of PN item numbers] even though there's the PNIP and they will be receiving extra money…
PP1106

I am appalled [about removal of PN item] because I think it's going to take - we've worked hard to get this - I don't know what the word is - responsibility, autonomy. Then it's just going back to being billed as what item number under a GP again. I think it takes away our status as credentialed Pap providers. PP1107

Continued next page

If you just got the block grant I don't think there's any incentive for the general practice to use nurses in specific roles or increased roles…you know, you get the PNIP and then could just have the nurse there to make the cups of tea. I guess we would be certainly aiming to maintain the services that we're running at the moment, but it perhaps makes us less likely to put on extra PN services, because what's the benefit for the financial structure practice to provide twice as many nurse services…in the case of Pap probably it will be a case of maybe introducing a gap fee on top of GP item for the nurse consult. PP1109

I think having a block grant and very little extra funding for specific things is counter-productive, because I can't see it extending the role of the practice nurse or providing new nursing services. I think it has to have some fee for service…because that's probably what the driver is for most things. PP1109

[Regarding block grant] are we going to still do the [Pap] follow up, try to encourage and pick the people on the screen and send them letters? That will continue because that's good business module; that preventive care that's our role. As I said, we had [nurse led] Pap smear clinic and we promoted it. That's gone because it doesn't fit with your budget. So [the nurses will] lose their skill. Then you end up with GPs who not interested in doing it, then you start to see stacks of people who don't have Pap smears, and then [get] cervical cancer which is preventable. PP1111

Practice nurse payments are - all of your 10993, 10996 - the co-payments are all being dropped away and they're going to be replaced with the quarterly payment per full time equivalent doctor I know practices who have worked out they're going to be $100,000 per annum less. So the only alternative they've got is to either subsidise that, charge patients more or put nurses off. PP1114

4.2.3 Consumer preference

- Consumers prefer a female provider, the same provider and a GP.
- Consumers have become complacent about cervical screening since the introduction of the HPV vaccine.

Consumer preference

…Some like the doctor to do it, and if they don't do it, then they don't come. PP1101

…they don't like to go to the 'community' nurses because they know them...they are part of their social network and they like to come to the [GP] clinic. PP1101

Doctor is still God, particularly in the country and if I was up there they would think that if I had any trouble I could always get the doctor in or he would be aware of my ability and so he must think I'm good enough…we have got a female doctor who's now come here. But people are choosing to go to her over me, because they just believe their education is probably better I guess. PP1102

I say clients won't come to me now because they're embarrassed. Back when we've had our previous GPs who were also community members. So there would have been embarrassment with going to those GPs PP1102

…recently employed a female GP she's had three full-day sessions, completely booked out…So it means that women want to go to a GP; they want to go to a female GP. PP1102

I certainly think a female provider for a female and a GP or a nurse - female GP or a female nurse who knows what she's doing are probably the preferred options. I knew the doctors here wanted me to do it because they wanted a woman being able to look after a woman basically. Given their cultural differences they wanted us to be able to offer that to women that are not comfortable with a male GP. PP1107

Continued next page

The preference is usually to see a nurse for Paps…they don't mind [male] GPs doing it if it's after-hours because I don't work after-hours… Dr Green obviously, being a female, does a lot of Pap smears. PP107

Assuming you have a Pap nurse, I would say patient familiarity with their own doctor; patients wanting to talk to their doctor about other health concerns at the same time; patients having had an abnormal smear in the past; patients - especially older patients - feeling that smears should be done by a doctor and not by a nurse, you know, patients who really seek out that relationship with their female doctor.[They are referred to me]… because they went to school with that nurse and they don't know me from a bar of soap; also because they see the Muslim male doctor who refuses to do Pap smears.
PP1108

These are generally women who don't come to the doctor except to get a smear and they figure - I haven't been to the doctor in two years, it's time for my Pap smear, I better go and get a check up and get a repeat of my script - if they're on a script, I better go and get my cholesterol checked, I better go and talk about contraception or, oh, I've had that niggling ache when I have sex so I suppose I better go and - and oh, I've got that funny pain in my side and I've got that mole I should probably get it checked. So - and that needs a GP.
PP1108

Yeah you usually come to the doctor because you are sick, not to do a preventative - not to do a Pap smear, the patient will feel more comfortable [with] the nurse.
PP1111

Patients would come in and say they want to see the nurse for a Pap smear at the moment we've got a female GP on board and next year we'll have two female GPs. So there's not the pressure to have a nurse, a female nurse, doing Pap smears.
PP1114

I suppose with the introduction of a vaccine use, certainly there seems to be some resistance when they're a young, of course now they think they're all okay and they don't have to worry about Pap smears, so I think it's a bit hard to get them to come in for Pap smears now.
PP1105

Or they think because they've had the vaccines that they don't need Pap smears because they've been protected against cervical cancer. So there's still that misconception that the vaccine is going to cure all so you don't need to worry about it anymore.
PP1107

there is concern that people will believe that the HPV vaccine means that you don't need a Pap smear anymore…ah and that patients will not be educated that Gardasil only covers 4 strains of HPV … so there may there is concern that could affect the uptake.
PP1106

I think people -like, patients I've spoken to, accept that [HPV vaccine] it lowers the risk but that they still need Pap smears, the risk still exists and, at the best, it lowers but it doesn't eliminate the risk. PP1108

4.2.4 Infrastructure and organisational constraints

> The availability of a private space or a spare consulting room to undertake Pap tests is a factor that also determines the transfer of Pap tests to PNs.

> The time it takes to do a Pap test is a barrier particularly when compared to other PN renumerated tasks such as immunisation or wound care.

> There are also issues relating to PN access to Pap test results, PN recall of patients with abnormal results as well as medical indemnity and liability concerns.

Infrastructure

…so the nurses end up in a space that hasn't really been created as a nursing space, which might be in the treatment room or in the back half of the clinic or something like that.
PP1104

….didn't have a lot of space two rooms of doctors, one was a treatment room which didn't really have a lot of space I suppose really to do the - there wasn't the facility there but there was already a practice or cervical/smear practice set up by the hospital.PP1105

…Well the immunisation and wound care is undertaken in a GP's room or in a procedure room as opposed to your pap smears or health checks being undertaken in a separate room… There is no space for procedure paps. PP1106

…because a nurse will need a separate room for Pap so they might take up space…whereas immunisations can be in the treatment room. PP1102

The space, the privacy, having the ability to set aside a period of time to run a women's clinic is a barrier. PP1104

I think where there is a greater increase in cervical screening it is driven by GP interest, availability of nurses and physical space. PP1106

The third part is the facility - the room, the time, the space…Whereas so you can have a Pap smear nurse taking up a room, seeing two patients an hour, doing Pap smears for the Medicare rebate or opposed to having a GP privately working in there seeing more [patients].
PP1111

Time, costs and red tape

…the factors that impact on the incentive uptake, talking about time and burden and capacity to take on board any more new changes. PP1103

Well it's much quicker to do an immunisation than it is to do a Pap smear. Because an immunisation blocks out 10 minutes, my Pap smears are half an hour.
PP1107

an immunisation or wound dressing is a much quicker procedure than doing a health check and a pap smear therefore in an hour you may be able to do 15 immunisations and receive the same amount of you know, receive a lot more money than if you doing 2 pap smears…you are going to be receiving 71/2 times the amount of money. PP1106

…they have to make an appointment. Because I'm usually booked up, I'm usually full so I can't just fit in patients ad hoc so it has to be a booked appointment.
PP1107

…in the country I think we're [GPS] so overworked that we always try and do the best for our patient.
PP1108

So we specifically use Victorian Cytology and on the bottom of their results there's a little tear off slip that is signed by the doctor and always gets mailed. So it's a bit of administrative time and cost doing that. ...I sign the reports and then they go to the admin staff.
PP1109

With the Pap smear, you've then got to have a follow up, you've then got to contact the patient, you've got to then have the results come back, you've got to set up … for recall system, you've got to then handle the women who haven't had their Pap smears, send them reminder letters and things like that So there's a host of extra work that needs to be done with Pap smears that doesn't need to be done with the other nursing environment.
PP1114

Medical indemnity and liability concerns

…in terms of the 'item number' the nurse provides a service for and on behalf of the GP… so the GP is responsible… …other nurse Pap test providers would let the GP to sign their pap test form and the chlamydia form The GP is responsible because the way this practice set it up the results went to patient's GP or to the duty Dr on the day…. So they chose for the nurse not to be responsible for the result. PP1106
Most GPs do the recall on their own patient. So the nurse would be involved in the Pap smears because they would then tend to follow up on the overdue Pap smears. Whereas for the results, the doctors probably would send out the tear off sheet at the bottom of the histology forms for their patients…we do need to cover, so you're paying two wages while that happens. PP1114

4.2.5 GP autonomy

> GPs also value their professional autonomy and clinical sovereignty as well as a holistic approach to patient care. As the GPs are decision makers regarding task transfer to PNs their decisions will be based on perceptions of clinical expertise.

What I'm more concerned about is the other things that might be - if the doctor's not doing the Pap smear, the other things that might be missed, that might come up in the discussion while the Pap smear was being done or other things that the doctor might notice, skin rashes or other sorts of things about the patient that might be missed by a nurse who's concentrating on a particular procedure to be done. P1103
…he felt there were enough doctors there without me doing it. So that was a barrier there… PP1101
I've trained for 14 years. I appreciate that they're [PNs] highly skilled, but they're not going to pick up Lichen sclerosus on a vulva, they're not going to pick up a pre-cancerous lesion, they may think a Napothian cysts on a cervix is something different, they may think that physiological discharge is chlamydia or vice versa. You know there's just - there are subtleties. .and I think that's where the strength of medical training really lies and that's why we're so deep in debt and why we get paid better than the nurses do. So yes, I agree that that level of pay for nurses is not great and should be higher, but I'm not altogether uncomfortable with the pay discrepancy because I think that when I do a women's health check, I'm not saying I do it better, I'm just saying that - I guess I have a less algorithmic approach to it. PP1108
You would feel uncomfortable [as a GP] if you were getting $32 to do a Pap smear and the nurse was getting $232… You might think that you're better at it than they are because you've been doing it longer… I'd also be worried that a nurse practitioner group would just set up and just do Pap smears perhaps if Pap smears [remuneration for nurses] got too high. We've got things like breast screen, mole scan - people are becoming used to not going to their GP for things. I don't think that's a good idea, but it's something that is happening. I think it leads to fragmentation of care and information. Nurses have lesser pathological background cause of the diseases. PP1109

4.2.6 PN credentialing requirements

> The requirement to obtain a minimum number of Pap tests per annum and demonstrate competency to maintain credentialing status is a deterrent in general practices where the PN Pap activity is sporadic and varies with GP capacity.

Well it's a concern whether I think I'm maintaining standards that are high enough…because there's minimum number... shame for us and our skills. PP1102

…that's another barrier…he time factor to be recredentialed is a real issue for me. PP1101

I have talked to pap screen about that, and it has been a concern of mine that I have to perform so many pap tests per six months. When I first trained I had to do 6, every 6 months um but I haven't done any for 12 months. PP1106

We probably will wind the Pap clinics down… [she won't keep the tests up]. She'll probably do more work in the general nursing department. PP1114

4.2.7 PN education

> Post graduate courses for nurses to undertake Pap test activity is complex, comprehensive and is often delivered in a tertiary institution. Victorian courses are based in Melbourne, costly and require mentoring and preceptorship from certified PN providers. Mentoring by a credentialed preceptor is a training requirement.

It's time, money. In discussing it with other nurses, it is very hard. That means back to school or back to the classroom, it is very hard to comprehend, also the time factor in doing their placement. Because of our isolation - or my isolation, I find that I have to travel everywhere, regardless of what education I do. I had to go to Melbourne to do the course. PP1102

I would work a shift…have my 2 days off, I'd drive down, go to Uni. for the next 2 days, come back go to work, so it was hard work doing it…certainly having to go to Melbourne to complete the training would be a deterrent for some people particularly if they had a family. PP1106

I…preceptored a nurse from another practice and we just negotiated it amongst ourselves the reason we uncomfortable asking is because she works for an opposing practice which is an opposing business. PP1106

I know that the community health nurse at the hospital I believe is a preceptor but she only does one clinic a month so it would take a very long time to get your 20 pap smears if the patients were willing. PP1106

I think being in rural Victoria we are heavily penalised for anything that we want to do. I mean you're trying to bring up rates of screening but you're not making it any easier for people to do training or to update. PP1107

…going down and doing the course in Melbourne – I mean that's a big drag for people who have got kids. PP1109

So not enough skilled nurses and if there [maybe] one who has the intention to learn especially in the country region, but they cannot afford it and don't have the time. They can't afford to do it and the doctor or the practice has to take the financial load.

…even to send our nurse away to do the course and provide training time, resources, we still - subsidising the course… Not to mention wages and etcetera. Most of our nursing staff, if it's paid for during office hours, then they're willing to pay If it's something that's after hours, weekends or they might have to contribute, then, it's very unlikely that they'll take up this training. PP1114

It's more cost for the practice to send them away and pay them while they're having that preceptorship so it's that additional time and cost and for us in a rural area, having numerous other nurses to then step in too is quite difficult. PP1111

4.2.8 Under representation of Practice nurse Pap activity

> PN Pap activity may be under represented as Pap test data is collected from general practice activity statistics and VCCR cytology data not clearly reflect the Pap test activity as it may be recorded under a GPs name.

So the VCCR data comes in only under the credentialed nurses who use the Victorian Cytology Service …whereas if they just come into the registry under the GP we've got no way of knowing that it was a GP or a nurse.

PP1110

…whereas all the other nurse Pap test providers in the practice would let the GP sign their pap test form even though they took the smear.

PP1006

…your stats are going to be completely out of whack with the introduction of the PNIP grant because I can no longer use the PN item I'm going to be doing Pap smears on behalf of Dr Jones or Dr Brown…So I become a nobody.

PP1107

5 Discussion and Recommendations

5.1 The Upshot of the Evidence to Date

Multilayered policy instruments enacted in complex worlds like general practice need complex, dense and multilayered evaluations. There are large amounts of accessible statistical data available to the public, numerous reports, and a volume of descriptive research that depicts 'what is happening' in general practices. What was missing, is an evaluation that attempts to understand why, where and how 'things happen' in general practice.

Many researchers who understand the value of evidenced based policy acknowledge that contextual knowledge relating to general practice initiatives is untapped (Alfred, Jackson-Bowers & Kalucy 2009; Del Mar 2011; Keleher 2009b; Pearce 2011; Phillips 2009). The strength of this evaluation is that it delivers a methodology that illuminated the mechanisms embedded within the PNPap initiatives that have influenced cervical screening in the western Grampian region.

The data sourced for the development of the protocol demonstrates that practice nurse Pap smear provision is relatively small, despite the Commonwealth Government funded general practice initiatives. In light of all the evidence, the need to continue screening women between 20 -69 for precancerous cervical changes are clear. General practice is a place most likely to capture this screening target group. Women prefer a female provider and the same provider be it a nurse or a GP. Women in western Grampians have the lowest Pap test participation rates in Victoria, have an increase incidence of cervical cancer and have decreased access to female GP services compared with their urban counterparts. Nurses are well positioned to support women's health in rural areas of female GP shortage, as they are already working in the area and when trained to perform Pap tests have demonstrated enhanced competency.

General practice reforms have been delivered with a particular focus on rural and remote practices to build in capacity for PNs to undertake cervical screening. However these reforms have come at a price, as millions of dollars have been provided to general practices, GPs and to a smaller extent PNs, in the form of grants and incentives to promote the transfer of tasks from the GP provider across to the nurse.

Barriers to PN Pap activity in the western Grampians region include the delivery of incentives to general practice with a higher remuneration than the incentives associated with Pap activity; the general practice business case and its impediments to PN task transfer; the costs, time and burdens associated with post graduate Pap training courses for nurses working in rural Victoria; the removal of the MBS item for nurse Pap activity; PN re-credentialing requirements; GP clinical sovereignty as well as general practice infrastructure and organisational constraints.

Amidst all this evidence and alongside the assumptions relating to Pap test provision are features inherent in all general practices, that is that general practice is, in the main a business albeit small or large. We also know that GPs are generally, although not always, the owners of the business and finally that GPs are the individuals who mostly determine what is done, who does what, and when it is done in the general practice arena. To deliver change in general practice to support an increase Pap test participation, the tools used to trigger practice change need to be meaningful to the general practice decision makers and be sense making in the context where they are being delivered. This evaluation has delivered not only valuable information on the current state of play of PN Pap activity in the western Grampians region but a greater understanding of the need to incorporate context in to policy making.

5.2 Recommendations

The use of key informant interviews in the methodology of this pilot evaluation provided the deeper qualitative data necessary for a greater understanding of the context and structure associated with Pap test activity in western Grampians regions. The interview script facilitated the detailed story telling this was evident in the key informant data.

Recommended is a further evaluation using the data analysis methodology as well as the piloted key informant interview script. The future evaluation should also include a survey of GP stakeholders including consumers to gather more descriptive data on the barriers to Pap participation in the region. The survey will be constructed incorporating the knowledge gained from this pilot evaluation.

It is also recommended this report will be used to inform policy and decision making within the Commonwealth Department of Health, Medicare Australia, Grampians Medicare Local, Cancer Health Victoria, Victorian Cervical Screening Register and PapScreen Victoria.

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Appendix 1- Rapid Review

PRIMARY CARE POLICY, GENERAL PRACTICE AND PRACTICE NURSES					
	Author details	Literature		Details-methodology	Comments-findings
		Source	Type		
1	Alfred, A, Jackson Bowers, E & Kalucy, E 2009, Nursing in General Practice: still some way to go,PHCRIS Research ROUNDup, viewed 11 February 2011, from http://www.phcris.org.au/phplib/filedownload.php?file=/elib/lib/downloaded_files/publications/pdfs/news_7961.pdf	Primary	PHCRIS - Research overview	Overview of practice nursing in Australia, including an overview of barriers and facilitators, consumer perceptions, impact on health outcomes and future directions.	A number of barriers and facilitators to an expanded role for practice nurses have been identified in research, including legal and funding issues related to the lack of a system-level model, poor role definition for practice nurses, lack of space available in general practices and GP attitudes. Inter-professional issues, medico-legal concerns and a poorly defined scope of practice were also identified as barriers.
2	Australian Bureau of Statistics (ABS) 2011, *Australian Social Trends March 2011 Health Services: Use and patient experience,* ABS Cat. No. 4102.0, viewed 16 March 2011, from http://www.ausstats.abs.gov.au/ausstats/subscriber.nsf/LookupAttach/4102.0Publication23.03.113/$File/41020_Healthservices_Mar2011.pdf	Primary	Report	Primary and community health services are usually a patient's first contact with the health care system. GPs, play an important role in monitoring an individual's health and managing their health conditions. Advice from doctors has been shown to be most effective in changing unhealthy behaviour,	ABS 2009 Patient Experience Survey found four out of five people (81%) aged 15 years and over had seen a GP in the 12 months prior to the survey. In 2009, 5.4% of the population (937,800 people) aged 15 years and over reported there had been times that they had been unable to access health services. For 82% of these people, it had not been possible to visit a GP when one was required. The main reasons were that waiting times were too long or no appointment was available (47%), or no service available in the area (34%). 2009 survey also indicated 1.1 million Australians aged 15 years and over (6.3%) reported that they had delayed seeing or did not see a GP in the previous year because of the cost.
3	Australian General Practice Network(AGPN) 2009, *National Practice Nurse Workforce Survey Report 2009a*, viewed 10 February 2011 from, <http://www.actdgp.asn.au/content/Document/New%20site%20folders/Practice%20Services/National-Practice-Nurse-workforce-survey-report-PDF.pdf>	Primary	Report	Quantitative analysis-online to divisional members survey (95% of GP's are members of local divisions of general practice) instrument consisting of 3 sections: (1) Network member organisation survey; (2) general practice survey; (3)PN survey	Results from the Network's 2009 survey indicate the number of practices employing a nurse stayed static at 56.9% (practices employing PNs in 2007-58%). Result was set in the context of a 15.3% increase in the actual number of PNs employed from 7728 in 2007 to 8914 in 2009. The number of PNs reporting women's health qualifications decreased from 11.1% in 2007 to 9.56% in 2009. The number of PNs employed in Victorian general practices has increased from 1707 in 2007 to 2026 in 2009 (5% increase). In 2009 71.1%.of Vic practices employs a PN.

4	Australian General Practice Network(AGPN) 2009b, *National Practice Nurse Workforce Survey Supplement Report 2009*, viewed 10 February 2011 from, <http://generalpracticenursing.com.au/__data/assets/pdf_file/0004/23818/Practice-Nurse-Workforce-Survey-sup-PDF.pdf>	Primary	Report	Survey to investigate why general practices do not employ a practice nurse given that 43.1% divisional general practices do not employ a practice nurse. Surveyed all network member general practices that do not employ a nurse. Survey collection period between April to June 2009. Response rate 89%.	Reasons for not employing PN - Practices not eligible for PNPIP payment 24.4%; Practice is lacking in sufficient space 17.3%; Solo GP states that he/she is not cost effective or does not want a nurse12.9%; solo GP state close to retirement 10.3 %. AGPN recommends extend PIP scheme to all general practices as well as an infrastructure incentive/ investment to provide additional space for PN workforce.
5	Australian Medical Association(AMA) 2010, *Primary Health Care-2010,* viewed 12 February 2010, from <http://ama.com.au/print/5992>	Primary	Position Statement	The AMA Position Statement released in 2010 examines the role of general practice in the delivery of primary care services in Australia. The position statement was developed ad a vision for general practice and primary care into the future.	
6	Britt H, Miller GC, Charles J, Valenti L, Henderson J, Chambers T, Harrison C, Bayram C, O'Halloran J, Fahridin S & Pan Y 2010. *General practice activity in Australia 2000-01 to 2009-10: 10 year data tables.* General practice series no. 28. Cat. no. GEP 28. Canberra: AIHW, viewed 20 April 2011, from http://www.aihw.gov.au/publication-detail/?id=6442472440	Primary	Report	This report presents results from the most recent 10 years (April 2000 to March 2010) of the BEACH program, a national cross-sectional study of general practice activity. During this time 9,842 GPs provided details of almost 1 million GP-patient encounters.	Report presents a review changes that have occurred over the decade in the characteristics of general practitioners and the patients they see; the problems managed; and the treatments provided.
7	Britt HC, Fahridin, S & Miller GC 2010, 'Ascendancy with a capital A: the practice nurse and short general practice consultations', Medical Journal of Australia, vol. 193, no. 2, pp. 84-85	Primary	Commentary-Health reform	Commentary on Taylor et al. 2010 paper that reports on the recent decline in Level C and D (long) general practice consultations at odds with health policy objectives that rely on long consultations to provide preventive care and chronic disease management. Taylor et al. hypothesise that the increased use of Level A consultations may reflect; the administrative burden created by the complexity of MBS special items; an increase in encounters for "vaccinations, prescriptions, medical certificates or test results and a greater use of practice nurses.	ERA rank A. Data from the BEACH program suggest that greater use of PNs- explains most of the increase in claims for short (Level A) consultations. Short consultations in 2008–09 included a large number of procedures, and PNs were involved in 24% of these consultations. However, procedures increased 3.4-fold, from 112 per 1000 short consultations in 2003–04 to 385/1000 in 2008–09, when practice nurses undertook almost two-thirds of all recorded procedures. Results show an increase of about 45% in claims for short consultations between 2003–04 and 2008–09. Two-thirds of these claims are accounted for by increases in vaccinations (23% of the increase), dressings (25%), INR tests (10%), and excisions (8%). Practice nurse involvement in procedural care accounts for about three-quarters of the increase in short consultations

8	Buchan & Calman 2005, *Skill mix and policy change in health workforce: Nurses in advanced roles*: OECD health working papers 17. Paris. Organisation for Economic Co-operation and Development, doi:10.1787/743610272486	Primary	Report	Review on PNs in advanced roles concludes most of the evidence of 'the use of nurses in the advanced practice role demonstrates their clinical effectiveness and cost effectiveness'	The use of nurses in 'the advanced practice roles' demonstrates their clinical effectiveness and cost effectiveness'-nurse can provide care that is equivalent….patient satisfaction increased
9	Byrnes, P; Crawford, M; Peers, M & McGoldrick, C 2007, 'Cervical screening in general practice - strategies for improving participation', *Australian Family Physician*, vol.36, no.3, pp.183-4, 192, viewed 12 February 2011, from Informit Health Collection	Primary	Research-Journal Publication	To test four main approaches to promoting screening in general practice (serving 2941SWPEs) in Bundaberg QLD. Approaches consisted of individual invitations, opportunistic screening special screening services (Pap nurse-screening only), and community education programs.	ERA rank B. Participation rates increased from 53% to 67.5% in 18 months. 49% patients selected the PN option during the 6 month period when it was offered. Reason for introducing PNPap provision was to reduce workload for GP. Authors noted the provision of a PN consulting room and cost of PN education would be a barrier for PN approach.
10	Canfell, K, Sitas F & Bera V 2006, 'Cervical cancer in Australia and the United Kingdom: comparison of screening policy and uptake, and cancer incidence and mortality', Medical Journal of Australia, vol. 185, pp. 482-486	Primary	Research-Journal Publication	To compare cervical screening policy, screening uptake, and changes in cervical cancer incidence and mortality between Australia and the United Kingdom through the analysis of screening registry data and national cancer statistics.	ERA rank B. The 2-yearly screening policy in Australia and the predominantly 3-yearly screening policy in the UK appear to have been of broadly similar effectiveness.
11	Canfell, K 2010, 'Models of cervical screening in the era of human papillomavirus vaccination', *Sexual Health,* vol. 7, pp. 359-367, from CSIRO	Primary	Review-Journal Publication	This review considers some of the policy questions in categories of screening program evaluation of interest such as(1) changes to screening considered over the short term, over which the effects of vaccination should be confined to the youngest age groups (<30 years old); (2) the medium and long-term effect of vaccination on the screening program; and (3) changes to screening in context of vaccination and discusses the modelling implications, with particular focus on the Australian context.	ERA rank C. Epidemiologic and economic evaluation using simulation modelling can support complex policy decisions, and is an important tool in predicting the future interaction between human papillomavirus vaccination and cervical screening.
12	Cancer Council Australia Media release 19, April 2011, *Girls failing to complete HPV vaccine course*, 19 April 2011, from, http://www.cancer.org.au/Newsmedia/mediareleases/mediareleases2011/19April2011.htm	Secondary	Media release		Data released by the Australian Government has raised concerns that many girls are failing to complete the three-dose course of the cervical cancer or human papillomavirus (HPV) vaccine resulting much less protection against HPV type 16 and 18. The program requires a minimum 80% coverage to see a marked reduction in cervical cancer incidence.

13	Cheek, J, Price, K, Dawson, A, Mott, K, Beilby, J & Wilkinson, D 2002, *Consumer Perceptions of Nursing and Nurses in General Practice Consumer perceptions of nursing and nurses in general practice,* A Report to the General Practice Branch. Centre for Research into Nursing and Health Care, Adelaide: University of South Australia, viewed 10 February, from <http://www.health.gov.au/internet/main/publishing.nsf/Content/924BC1FCC5D1557DCA2574020079EF65/$File/conful l.pdf>	Primary	Research-Report	Perceptions of consumers were explored during 20 focus group (170 consumers) discussions conducted across six states in Australia using a thematic analysis incorporating multiple qualitative analytical methods. Of semi-structure focus group interviews. Research undertaken to explore the initial perceptions of nursing in general practice to identify key concerns and misconceptions, particularly regarding quality of care; access to general practice and other health services; scope of practice; and level of consumer awareness. Methodology:	In 2002 consumers experience of nurses working as inter-professional practitioners, performing health assessments, directing care services and coordinating case conferences was not at levels in the community where the experience can be explored with consumers (92% had not had exposure to a PN) Perceptions were in the main explored from what is expected or hoped for; and currently held views about the role of PNs, nursing, and GPs. Many female consumers recognised advantage in having female nurses performing pap tests p27
14	Christy, L, Gamble, J & Creedy, DK 2005, 'Women's views of registered nurses and Papanicolaou smear providers: A pilot study', *Contemporary Nurse*, vol. 20, no.2, pp. 159-168, from Informit Health Collection	Primary	Research-Journal Publication	A cross sectional descriptive exploratory survey was conducted in a metropolitan family planning clinic in Queensland to determine women's attitudes towards nurses as Pap test providers. Convenience sample response rate 86%, n=100.	ERA rank C. Barriers to participation include practitioner factors, service factors, client factors. Overall participants reported positive attitudes to nurses as Pap test providers. Positive attitudes correlated directly with prior awareness of nurses as providers, less positive attitudes correlated with no previous knowledge of nurses as providers. More than half respondents reported they would prefer to see a doctor if they had concerns or worries. Participants less likely to accept a male nurse as a provider-gender preference is consistent with previous studies. GPs reject 2 yearly testing guidelines.
15	Day, S, van Dort, P & Tay-Teo, K 2010, *Improving participation in cancer screening programs: A review of social cognitive models, factors affecting participation, and strategies to improve participation*, Victorian Cytology Service, viewed 16 December 2010, from <http://www.vccr.org/downloads/Literature%20Review.pdf>L	Primary	Review	A review of the literature was commissioned by the Department of health and prepared by the Centre for Health Policy, Programs and Economics at the University of Melbourne for the Victorian Cytology Service. The work was undertaken in three phases and was delivered in three stand-alone volumes. Special areas of focus included needs of specific groups that may be under screened, innovative approaches to enhancing participation and the translation of research findings into action.	Financial incentives would appear to have the largest impact on intentions however incentives and social encouragement appear to have the greatest impact on behaviour. SES/education is a determinant for Pap screening participation with a positive correlation with increasing SES. Literature indicates a positive impact of nurse in reporting of and participation of and participation in screening activities including Pap tests. The literature indicates a negative relationship between uptake of screening and increasing rurality. Female doctors are consistently screening more women than male doctors. Compared to well screen women, poorly screened women were more likely to find choosing a health care practitioner more difficult.

16	Del Mar, C, 2011, 'New investments in primary care in Australia'*, BMC health services research,* vol. 11, no. 39, pp. 1-2, viewed 16 January 2011, from http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3050696/pdf/1472-6963-11-39.pdf	Secondary	Commentary	Commentary was based on a response to the Pearce C et al. 2010 paper, *Following the funding trail: financing nursing and team work in Australian General Practice.*	ERA rank B. The Australian government has attempted to fix general practice workforce shortages by role-substitution (replacing medical work with nurses). Obstacles include entrenched social roles (leading to doctors 'checking' nurse-substituted work) and structures (nurses subservient to doctors) – both exacerbated by ageing demographic; doctors owning their own practices; doctors perceiving to have primary responsibility for the care delivered; and greater attraction towards independence that may have selected doctors into primary care in the first place.
17	Duncombe, J, Barraclough, H, Morrell, S, Baker, D & Kreis, I 2007*, GP and geographic influences on cervical screening in rural New South Wales*, Cancer Institute NSW, viewed 16 December 2010, from http://www.cancerinstitute.org.au/cancer_inst/publications/pdfs/abstracts/2007-11-16_cosa2007_meru.pdf	Primary	Research-Journal Publication	Study was an exploratory analysis of factors that influence women to screen for cervical cancer. Aimed to identify and describe "encouraging" postcodes in rural NSW and investigate the demographic characteristics of GP's in these areas, in order to understand why more women screen in certain geographic areas. Each postcode was classified as 'encouraging' or 'discouraging' according to a ratio based on number of screens by GPs and numbers of women residents in the same postcode. Logistic regression, unadjusted and adjusted for confounding, was used to model possible predictive factors that impact on how encouraging a postcode is. Twenty-nine rural postcodes were deemed "encouraging", 50 "neutral" and 32 "discouraging".	Current evidence suggests that a variety of factors influence cervical screening participation, including: geographic location, cultural and social barriers and sex, age and ethnicity of GP's. The greatest proportion of "encouraging" postcodes were in the 'outer regional' postcodes. There were no 'very remote' postcodes in the "encouraging" category. Despite small numbers, availability of a female GP in a postcode was positively associated with that postcode being an "encouraging" screening area (OR=5.80, 95% CI= 2.11-15.90). Increasing remoteness was positively associated with "discouraging" screening areas (OR=4.47, 95%CI= 1.07-22.19).
18	Dunt, D, Temple-Smith, M & Johnson, KA 1991, Nursing outside hospitals: the working experience of community nurses: job characteristics, *International Journal of Nursing Studies,* vol. 28, no.1, pp. 27-37, viewed March 20 2011, from Elsevier SD Backfile Medicine and Dentistry	Primary	Journal Publication - Research	Questionnaire survey of working and educational experiences of 689 nurses working in community practice (outside hospitals/nursing homes) in Victoria. Data collected relating to working and educational experiences included information on practice settings, job titles, job content and working conditions.	ERA rank A*. Medical clinic nurses (MCNs) constituted largest community practice areas. Role and activities did not correspond with the roles and activities of other community nursing groups-most MSNs activities were determined by the fact that they worked alongside and under the direction of the GP (consistent with other diagnostic, pathology and medical clinic nurses who also work alongside medical practitioners).

19	Fiebig, DG, Haas, M, Hossain, I, Street DJ & Viney, R 2009, ‘Decisions about Pap tests: what influences women and providers? *Social Science and Medicine,* vol. 68, no. 1, pp.1766–1774 from Elsevier SD Freedom Collection	Primary	Journal Publication - Research	This paper reports the results of discrete choice experiments to investigate women’s choices and providers’ recommendations in relation to cervical screening in Australia. Separate experiments were conducted with women and general practitioners, with attributes selected to allow for investigation of how women and general practitioners differ in their preferences for attributes of screening programs.	ERA rank A*. The results indicate a considerable commonality in preferences, factors relevant to womens decisions about cervical screening includes doctors recommendations, previous experience with cervical abnormalities, availability of a female doctor, knowledge of screening recommendations and perceptions risk. The results also indicated women put relatively more weight on cost, chance of false positive and screening intervals.
20	Fraser, J 2006, ‘Professional autonomy: Is it the future of general practice’, *Australian Family Physician*, vol. 35, no. 5, pp. 353-355, viewed 18 January 2011, from Informit Health Collection	Primary	Analysis-Journal Publication	Internationally, rising financial costs and increasing expectations of health care delivery have increased regulation and decreased the autonomy of general practitioners and other health care professionals.	ERA rank B. Article explores professional autonomy within Australian general practice, and outlines the importance of autonomy in systems approaches to organisational change in general practice.
21	General Practice Victoria(GPV) 2010, *Nurse Pap test providers The benefits for general practice,* viewed 16 February 2011 from, http://www.gpv.org.au/files/downloadable_files/Programs/Nursing%20in%20General%20Practice/resources/PapScreen-brochure-GPV1.pdf	Secondary	Brochure		Describes the benefits of having a nurse Pap test provider in general practice including general practice income benefits; GP time saving befits; increased choice for patients and increased reach. Brochure addresses frequently answered questions. Presents a MBS financial model based on varied scenarios.
22	Gjerberg E, Kjølsrød L 2001, The doctor–nurse relationship: how easy is it to be a female doctor co-operating with a female nurse? *Social Science & Medicine*, vol. 52, no.2, pp.189-202, viewed 16 February 2011 from Elsevier SD Freedom Collection	Primary	Research-Journal Publication	The paper examines what happens to the doctor-nurse relationship when both are women: how do female doctors experience their relationship to female nurses? Includes two data sets qualitative interviews with 15 doctors and a nationwide survey of 3589 doctors.	ERA rank A*. The results show that in the experience of many doctors, male and female, the doctor-nurse relationship is influenced by the doctor's gender. Female doctors reported they often are met with less respect and confidence and are given less help than their male colleagues. The doctors' own interpretation of this is partly that the nurses' wish to reduce status differences between the two groups affects female doctors more than male, and partly that there is an "erotic game" taking place between male doctors and female nurses.

23	Godden, C, Dwan, K Derret, J & Cox, D 2010, What practice nurses do and what consumers are willing to let them do: an online survey of ACT health care consumers, *Health Issues,* no. 104, pp. 31-34, viewed 12 February 2011, from <http://search.informit.com.au/fullText;dn=518016215563239;res=IELHEA>	Primary	Research	An online survey (June 2009) was undertaken on the Health Care Consumers' Association website in the Australian Capital Territory. Inclusion criteria was live in Act and are either the primary carer of a child under five years or be aged between 65-75 years (study targeted groups who had already been exposed to PNs and was not intended to be representative of the ACT population.	ERA rank C Respondents who cared for young children and those aged over 65 years were unaware of many of the procedural roles that PNs perform. They overwhelmingly supported the use of nurses within a general practice for tasks such as immunisation and wound care. Respondents were least prepared to have a practice nurse perform a mental health assessment (31-34%); give results to patients .that require a follow up visit (24-22%)and provide medical advice over phone (17-22%).13-18% of respondents indicated that they did not support PNs undertaking Pap smear testing in general practice.
23	Gourlay, K, Jowsey, T, Glasgow, N, Yen, L & Jeon, Y-H , 2007*, Practice Nursing Development: Implications and Opportunities in the Management of Continuing Illness The Serious and Continuing Illness Policy and Practice Study* The Menzies Centre for Health Policy,viewed10 February 2011 from, <http://www.menzieshealthpolicy.edu.au/other_tops/pdfs_research/nursingpaper.pdf>	Primary	Review Funded NHMRC conducted at ANU	Study considers how the development of the NiGP relates to the potential of the PN to contribute to better care for people with chronic illness in Australia.	Good summary of the development of the NiGP including the role of the policy and divisions of general practice as well as the Rural Doctors Association of Australia. Also provided a list of barriers and enablers to employing a PN in general practice up to date of publication 2007.
24	Halcomb, EJ & Davidson, PM 2006, 'The role of practice nurses in an integrated model of cardiovascular disease management in Australian general practice', *Australian Journal of Primary Health,* vol. 12, no. 2, pp. 44-54, viewed 11 February	Primary	Journal Publication Research	This paper presents a multidisciplinary model of cardiovascular disease management, focused on Australian general practice, and identifies barriers and facilitators to its implementation.	ERA rank B Model was developed from data arising from a series of investigations that (1) examined the epidemiology and current general practice management of cardiovascular disease (2) explored the demographics and role of the practice nurse, and (3) established strategic recommendations for future practice development.
25	Halcomb, EJ, Patterson E & Davidson PM 2006, 'Evolution of practice nursing in Australia', *Journal of Advanced Nursing,* vol.55, no. 3 pp.376-387, viewed 16 December 2010, from EBSCOhost	Primary	Journal Publication - Review	Describes the evolution of Australian practice nursing and documents seminal events in the development of the role.	ERA rank A*- Definition of role expansion vs. role extension. Clinical evidence to support the role is paramount if the PN role is to advance. Argues contemporary funding models for Australian health service delivery have long been identified as significant impediments to providing service in general practice. Needs systematic evidence based evaluation on feasibility and clinical outcomes.

26	Halcomb, EJ, Davidson, PM, Salamonson, Y, Ollerton, R, Griffiths, R 2008, 'Nurses in Australian general practice: implications for chronic disease management'. *Journal of Clinical Nursing,* vol. 17, no.5, pp. 6-15, viewed 11 February, from http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2702.2007.02141.x/pdf	Primary	Research-Journal Publication	Study described the demographic and employment characteristics of Australian practice nurses and explored the relationship between these characteristics and the nurses' role. A convenience sample of 284 practice nurses completed a postal survey during 2003–2004. Analysis descriptive statistics and quantitative factor analysis.	ERA rank A. Of PNs surveyed 16% undertook cervical smear or breast examination; 54% thought cervical screening and breast examination was an appropriate task for a nurse and 53% said these tasks required further education and training. Of the 'advanced practice skill tasks' nurses were significantly more likely to undertake these tasks if they worked outside general practice. Extrinsic factors such as legal and funding issues, lack of space, general practitioner attitudes and political context were identified as barriers to role expansion. Study data suggested there was an underutilization of the capacity of PNs and indicated that PNs were not constrained by lack of education (Watts)
27	Hallinan, CM 2010, 'Program logic: a framework for health program design and evaluation-the Pap nurse in general practice program', *Australian Journal of Primary Health,* vol. 16, no. 4, pp. 319-325	Primary	Research	Paper uses program logic as an evaluative tool for analysis of the Pap nurse in general practice incentive program. The paper provides insights into the world of general practice through the use of a logic map to create an increased awareness of the content, contexts and constructs in Australian general practice	ERA rank B. The application and critical analysis of the program logic framework enables analysis of assumptions underpinning Pap nurse program and internal/ external influences that promotes/inhibits Pap nurse activity. The analysis supports a greater understanding of the complex general practice activity triggers, and will also allow this greater understanding to be incorporated into policy to facilitate Pap PN activity and increase general practice cervical smear participation.
28	Healthcare Management Advisors 2005, *Evaluation of the 2001 Nursing in General Practice Initiative Final Report*, Canberra: Commonwealth of Australia, viewed 16 December 2010, from http://www.health.gov.au/internet/main/publishing.nsf/Content/638EA76A2353AC6BCA257070002AB1C8/$File/eval.pdf	Primary	DoHA-Published Report	Evaluation of the NGPI. Commissioned by Commonwealth Government Initiative evaluated against program objectives. Literature review and policy environment analysis undertaken.	Relevant up to 2005. Did not provide data on PNPap activity.
29	Hegney, D, Eley, R, Buikstra, E, Rees, S & Patterson, E 2006, 'Consumers' level of comfort with an Advanced Practice Role for Registered Nurses in General Practice: A Queensland, Australia, Study', *Australian Journal of Primary Health,* vol. 12, no. 3, pp. 44-51, viewed 10 February, from EBSCOhost	Primary	Journal Publication - Research	A q QLD study undertaken 2002 to assess consumers comfort with generic and extended PN role undertaken with a qualitative study (semi structured focus group) on consumer perceptions of the PN.. Self-report questionnaire from practices in all contexts in QLD. Participant cohort 106. Level of comfort rated in 5 point scale-1 most comfortable -5 very uncomfortable-2.5 neutral,. Questionnaire was piloted by 3 PNs. Analysis SPSS	ERA rank B-Good background on policy Results: Participants most comfortable with PNs giving vaccinations (1.09), wound care (1.19), providing education (routine tasks). Least comfortable with minor illness treatment (2.25), prescribing meds (2.26), health advice on phone, Pap smears (2.14). At time of survey MBS PN had not been introduced. Limitation: the meaning of 'comfort' and PNs educational preparedness was not made explicit. Published in 2006-data collected on 2002 before PN role further developed by policy.

30	Hegney, D 2007, 'Practice Nursing in Rural Australia'*, Contemporary Nurse*, vol. 26, no.1, pp. 74-82, from Informit Health Collection	Primary	Review-Journal Publication	Literature review reporting on findings relating to the role of the practice nurse in rural and remote Australia. The review also examined the impacts of the factors that impact on the practice nurse role such as (1)the health differential between rural and metropolitan communities; (2) the role of general practice in rural Australia; (3) the role of the rural nurse; and (4) consumer expectations of the role of practice nurses.	ERA rank C. Rural general practices and the services they diverse and differ not only between states and territories but within them. This variability is also reflected in the role of the PN. Data suggests that with increasing remoteness consumers were less likely to accept PNs in an expanded role or work independently and this is despite high GP turnover less continuity of care and less GP bulkbilling (2 studies Hegney et al., Cheek et al)
31	Howard, S & Eckermann, S 'PHC RIS: Practice nurses – Enhancing primary health care services in rural Australia', *Australian Journal of Rural Health*	Secondary	PHCRIS website	Figures and related PHC information are collated as Fast Facts from the Primary Health Care Research and Information Service (PHC RIS) and presented as 'snapshots'	Data collected from 'report of the 2006-07 Annual Survey of Divisions of General Practice' show that practice nurses are critical to the provision of high-quality health care in rural and remote areas. Data show that from 2003–2004 to 2006–2007, the number of known practice nurses working in Division of General Practice catchment areas has more than doubled This compares with a more moderate increase (less than 4%) in GP numbers over this time.
32	Jasiac, S & Passmore, E 2009, 'Enhancing the roles of practice nurses: outcomes of cervical screening education and training in NSW' Australian *Journal of Advanced Nursing,* vol. 27, no.2, pp. 40-45, viewed 16 December, from EBSCOhost	Primary	Research-Journal Publication	Aim to evaluate the usefulness and cost effectiveness of the cervical screening item number and funding for PNs cervical screening education. Convenience sample, postal survey to 292 participants who had complete Well women's screening course in NSW. Response rate 51%.	ERA rank C. PN contribution to Pap smear activity cannot be measured as no systematic national data collection. The most common barrier to Pap role expansion was GPs reluctance to delegate role. PNs working in all male practice significantly more likely to perform Pap test per week. 46% respondents indicated GP are claiming item numbers other than specific to PN. Limitation GP not surveys, small n.
33	Jepson, RG, Harris, FM, Platt, S & Tannahill, C, 2010, 'The effectiveness of interventions to change six health behaviours: a review of reviews'; *BMCPublicHealth*, viewed 16 March 2011, from <http://www.biomedcentral.com/content/pdf/1471-2458-10-538.pdf>	Secondary	Review	Reported findings of a review of reviews of behavioural change interventions to reduce unhealthy behaviours or promote healthy behaviours. The Cochrane Library, Database of Abstracts of Reviews of Effectiveness (DARE) and several Ovid databases were searched for systematic reviews of interventions for the six behaviours (updated search 2008).	ERA rank B. Despite limitations of the review of reviews approach evidence suggests GP interventions are effective in achieving behavioural change.

34	Jolly, R 2007, *Practice Nursing in Australia*, Research Paper Parliament of Australia, Department of Parliamentary Services viewed 10 December 2010, from http://www.aph.gov.au/library/pubs/rp/2007-08/08rp10.pdf	Primary	Research	Research explored aspects of the development of practice nursing in Australia, particularly relating to government initiatives from 2001-2007. The paper also discusses some of barriers which may inhibit the further development of practice nursing, and makes some comment on how these could be addressed.	Early development of a practice nurse specialisation has required a number of actions: promotion of the specialty to nurses, general practitioners and patients; provision of incentives to nurses to embrace the specialty as a legitimate nursing alternative, incentives to GPs so that they recognise the benefits to their practice and to patients; education and support for nurses to undertake practice nursing work. Practice nursing development which requires cooperation between the nursing and medical professions and the support of government programs. Barriers remain for the further development of practice nursing practice into the future and to contribute to better and safer patient care.
35	Joyce CM & Piterman, L 2010, 'Nurse-patient encounter in general practice: patterns in general practitioner involvement and use of nurse-specific Medicare items', *Australian Journal of Primary Health,* viewed 10 February 2011, from EBSCOhost	Primary	Journal Publication Research	The paper explores the extent of direct general GP involvement in nurse–patient consultations, and compares consultations where nurse-specific MBS items were claimable with consultations with no MBS PN items. Data from the Practice Nurse Work Survey, a national cross-sectional survey conducted between May 2007 and May 2008, were analysed	ERA rank A:Encounters where no such item applied were more likely to involve medical examinations, blood tests, electrical tracings, physical function tests, removal of sutures, test results, assisting at operations and preparing for procedures. The results confirm that existing data collections do not capture the extent and nature of GPNs' clinical work.
36	Joyce, CM & Piterman, L 2011, 'The work of nurses in Australian general practice: A national survey', *International Journal of Nursing Studies*, vol. 48, pp.70-80,viewed 16 December 2010, from Elsevier	Primary	Journal Publication - Research	Study aimed to describe the patient consultations undertaken by nurses (Div.1, Div. 2, NP) in Australian general practice. National, descriptive, cross sectional survey-convenience sample(n=50)	ERA rank A- Data classified using International Classification Primary Care as does BEACH-Did not specifically not record cervical smear encounters. Recorded female genitalia
37	Keleher, H, Parker, R, Abdulwadud, O, Francis, K, Segal, L, Dalziel, K 2007a, *Review Of Primary And Community Care Nursing,* Department of Health Science, Monash University, viewed 10 February 2011 from, <http://www.anu.edu.au/aphcri/Domain/Workforce/Keleher_3_final.pdf>	Primary	APHCRI Review	Review had a focus on the emerging specialism of practice nursing in general practice setting. Aim of review to assess impact of community care nursing on health outcomes compared to doctor or led/usual care; assess education models/policy frameworks that support primary nursing role; assess economic options (actual/possible) that support practice nurse role. Multi-strategy approach-scoping search	Modest evidence, nurses in primary care settings can provide effective care and achieve positive health outcomes for patients similar to that provided by doctors. Nurse-led care may involve higher levels of patient satisfaction and QoL in primary care settings Some studies demonstrated higher resource use with nurse led care. There is no evidence that nurses working as supplements have better impact on patient outcomes of mortality, hospitalisation or readmission, than usual care. PIP supports a broader role for nurses than the Medicare items numbers alone recommend PIP payments for PN cervical screening. Policy frameworks are driving change in nursing practice.

38	Keleher, H, Joyce, CM, Parker, R & Piterman, L 2007b 'Practice nurses in Australia: current issues and future directions', *Medical Journal of Australia*, vol. 187, no. 2, pp.108-110, viewed 16 December 2010, from Miscellaneous Ejournals(UMELB)	Primary	Journal Publication - Review	Policy vacuum around developments in practice nursing. High quality collection of data to enable comprehensive analysis	ERA rank A-No methodology for review, state the paper aims to 'raise issues' Makes assumptions about ambivalence of GP and PBs to PN activity. Incorrect re: inability to track PNPIP for smears
39	Kidd, MR 2010, 'General practice and the Australian Government's National Health Reform Plan' Medical Journal of Australia, vol. 193, no. 2, pp.71-74, viewed 16 December 2010, from Miscellaneous Ejournals(UMELB)	Primary	Commentary- Health reform	Commentary considered the progression and impact of promised health care reforms that focused on 'the vital role of general practice' delivered by the 2007 elected Labor government.	ERA rank A This has now been followed in 2010 by a federal Budget announcement of $390.3 million… to better support practice nurses and, for the first time, provide funding for GPs in urban areas to help employ practice nurses. Annual incentive payments of $25,000 per full time GP for a registered nurse and $12,500 per full time GP for an enrolled nurse will be made available to eligible accredited general practices. While general practice organisations have been calling for an increase in support for practice nurses since practice incentive payments were introduced for nurses in rural practices in 2001, introduction of these new payments, if accompanied by removal of existing incentives, could see a reduction in federal funding for nurses in many general practices. Rushed team based care may put at risks the trusting advocacy role of single provider to patient.
40	Kidd, MR, Watts, IT, Christopher D Mitchell, CD, Lynton G Hudson, LG, Beres C Wenck, BC & Cole NJ 2006, 'Principles for supporting task substitution in Australian general practice', *Medical Journal of Australia*, vol. 185, no. 1, pp. 20-22	Secondary	Commentary- Task transfer	Proposal delivering principles for supporting task distribution in Australian general practice.	Authors suggest principle GPs to guide new roles in general practice include the requirement to support the relationship between patients and their GPs; roles to be clearly defined, aligned with competency and professional registration; roles to be supported by practice systems providing safeguards against medical error; roles to be underpinned by a system ensuring informed patient Consent; to be supported by effective medical indemnity insurance and be supported with appropriate financing. Change is likely to fail if it is not acceptable to GPs.

41	Kottke, TE & Trapp MA 1998, 'The quality of Pap test specimens collected by nurses in a breast and cervical cancer screening clinic', *American journal of preventative medicine,* 1998, vol. 14, no.3, pp.196-200, from Elsevier SD Freedom Collection	Primary	Research-Journal Publication	Retrospective cohort analysis of all Pap tests submitted to a commercial pathology laboratory in Dakota USA between January 1, 1996 and July 31, 1996. Pap tests collected by the nurses at Rosebud Hospital (N = 404) were compared to the Pap tests collected by other providers at the Rosebud Hospital (N = 118) and the Pap tests collected by providers from all other sites (N = 22,696). Eight nurses who had been trained to collect Pap test specimens.	The proportion of specimens that lacked endocervical cells was 6.4% (95% CI = 4.0-8.8) for Rosebud nurses, 8.5% for other Rosebud providers (95% CI = 3.5-13.5), and 7.9% for non-Rosebud providers (95% CI = 7.6-8.2). Researcher conclude that after one week of training, nurses can collect Pap test specimens that are of the same quality as the specimens collected by physicians, nurse practitioners, and physician assistants.
42	Kreuter, MW, Strecher, VJ, Harris, R Kobrin SC & Skinner CS 1995, 'Are patients of women physicians screened more aggressively? A prospective study of physician gender and screening', Journal of Internal Medicine, vol. 10, no. 3, pp. 119-125,	Primary	Research-Journal Publication	To determine the effects of physician gender on rates of Pap testing, mammography, and cholesterol testing when identifying and adjusting for demographic, psychosocial, and other patient variables known to influence screening rates. A prospective design with baseline and six-month follow-up assessments of patients' screening status	ERA rank A. In general, patients of female physicians were screened at a higher rate than were the patients of male physicians, even after adjusting for important patient variables. These findings were not limited to gender-specific screening activities e.g., Pap testing.
43	Lauder, W, Sharkey, S & Reel, S, 2003,The development of family health nurses and family nurse practitioners in remote and rural Australia', *Australian Family Physician*, vol. 32, no. 9, pp.750-752, viewed 10 February, from Informit	Primary	Journal-Commentary	Authors argue that a fundamental reorganisation of primary health care practices in remote and rural Australia needs to be undertaken. They also purport that nurses have been shown to be equally effective and less costly than general practitioners (RCTs-UK and USA)	ERA rank B. RCTs compared the activities of nurse practitioners) rather than practice nurse-differences in skill level and differences in capacity to undertake tasks. Authors concluded that policy should focus on the opportunities for role interchangeability between nurses and GPs particularly in Australian rural and remote areas, where emphasis is placed on the competency of the practitioner (nurse or GP) rather than on the rights of a particular discipline (medicine) to fulfil role.

44	Laurant, M, Reeves, D, Hermens, R, Braspenning, J, Grol, R & Sibbald, G 2004, Substitution of doctors by nurses in primary care (Review), Cochrane database of Systematic Reviews, vol. 4, pp. 1-39, viewed 16 December 2010, from The Cochrane Library, doi:10.1002/14651858.CD001271.pub2 .	Primary	Research-Cochrane Review	Aim of review was to evaluate the impact of doctor-nurse substitution in primary care on patient outcomes, process of care, and resource utilisation including cost. Patient outcomes included: morbidity; mortality; satisfaction; compliance; preference. Process of care outcomes included: practitioner adherence to clinical guidelines; standards or quality of care; and practitioner health care activity such as provision of advice. Resource utilisation was assessed by: frequency and length of consultations; return visits; prescriptions; tests and investigations; referral to other services; direct or indirect costs. Review content assessed as up to date 15 July 2004.	Authors concluded that appropriately trained nurses can produce as high quality care and achieve as good health outcomes for patients as doctors. Patients were more satisfied with care provided by nurses who gave longer consultations and more information however review research available at time was limited and results should be viewed with caution given only one study was powered to assess equivalence of care, methodological limitations of studies and short patient follow-up (12 months or less). Cost impact on task substitution of doctors by nurses included salary differences between nurses and doctors, differences in productivity caused by longer PN consultations and time spent delivering services (e.g. health education).
45	Lewis, JM & Marjoribanks, T 2003, 'The impact of financial constraints and incentives on autonomy', *International Journal of Health Planning and Management,*	Primary	Research Journal Publication	Paper examined the impact of financial constraints and incentives introduced during the 1990s on Australian GPs' perceptions of autonomy. A total of 25 GPs in four focus groups An existing seven component definition of autonomy and six themes that emerged from reviewing publications were used to construct focus group questions.	ERA rank C. Those who participated believe that their financial autonomy has been diminished by policy changes and consumer expectations. They also perceive that their ability to control clinical decisions, which they regard as the most important aspect of professional autonomy, has been reduced along with financial autonomy. .
46	McDonald J, Harris MF, Cumming, J, Powell Davies, G and Burns, P 2008, 'The implementation and impact of different funding initiatives on access to multidisciplinary primary health care and policy implications', *Medical Journal of Australia,* vol. 188, no. 8, S69-72, viewed 16 December 2010, from Miscellaneous Ejournals(UMELB)	Primary	Journal Publication - Review	Systematic review involving three stages with methodology incorporating an understanding of Literature review methodology designed for complex interventions (Pawson, Greenhlagh & Harvey, 2005). Stage 1-Initiative description between 1995-2005 (include key informants) Stage 2-Systematic review across data bases from 1995-2006. Stage3-reviewed articles from key journals 2006-2007.	ERA rank A -Review the implementation and impact of funding initiatives across UK, NZ and Australian health systems on multidisciplinary teams. Policy implications in Australian context.

47	Marjoribanks, T & Lewis, JM 2003, 'Reform and autonomy: perceptions of the Australian general practice community', *Social Science and Medicine,* vol. 56, pp. 2229-2239, viewed 12 February 2011, from Elsevier SD Freedom Collection	Primary	Research-Journal Publication	Research suggests that the professional autonomy of GPs is declining and is related to policy reform processes in the Australian context over the last decade as well as challenges from other actors. The research attempts to conceptualise GP autonomy and the perceptions that GPs of their own autonomy. Using a multi-component model of autonomy, which separates out micro, meso and macro dimensions of autonomy, researchers undertook an analysis of 343 items on autonomy and reform collected from 3 key general practice journals.	ERA rank A*. The researchers argue that members of the GP community profess an enjoyment for general practice, and operate with an ideal of what it means to be a GP. However, the reform process is perceived to challenge this enjoyment and the ideal of professional practice. In particular, there exists uncertainty as to what it means to be a GP, with members of the GP community expressing a loss of control across important dimensions of autonomy. While numerically most discussion focused on control over earnings and control over clinical practice.
48	Martin, CM & Sturmberg, JP 2005,' 'General practice-chaos, complexity and innovation', *Medical Journal of Australia,* vol. 183, no. 2, pp. 106-109, viewed 16 December 2010, from Miscellaneous Ejournals(UMELB)	Primary	Commentary-Reform	Commentary based on primary health care reforms and the impact of these reforms on general practice.	ERA rank A. Author suggests the reforms are typically based on scant evidence obtained from the most accessible and easily known PHC domains and argues that in fact PHC is not only complex but is also poorly understood. Ignoring the historical highly developed roles of GPs could lead to the irreversible decline of the unique combination of general practice. Author asks 'how GPs and other PHC professional can build on their simple, complicated and complex knowledge, historical strengths and relationships to improve quality innovation'.
49	Mills, J & Fitzgerald, M 2008, The Changing role of practice nurses in Australia: an action research study, *Australian Journal of Advanced Nursing*, vol. 26, no. 1, pp.16-20, from EBSCOhost	Primary	Journal Publication - Research	Action research to identify barriers to the development of cervical screening services from a general practice setting. Three PNs engaged in six reflective group meetings over a period of six months, meeting were facilitated by the lead researcher.	ERA rank C- Barriers relate to the myth of multidisciplinary practice including resistance from female GPs where cervical screening is viewed as the province of female GPs. Very small sample size, author believes the theories from research may be generalizable if they are viewed and appear to fit another context. Provide a list of questions for general practice teams to ask prior to implementing a new model of practice.
50	Mills, J & Hallinan CM 2009, "The social world of Australian practice nurses and the influence of medical dominance: an analysis of the literature', *International Journal of Nursing Practice*, vol. 15, pp. 489-494	Primary	Review-	The paper aims to provide a construction of the social world of Australian practice nurses and aims to identify the stakeholders and their influence on the business of practice nursing. Literature is analysed for the influence of medical dominance on the role, image, power and politics of practice nursing.	ERA rank A. A culture of medical dominance in Australian general practice influences the content and context of practice nursing, and is under pinned by a task –based model of primary care funding that incorporates the concerns of the dominant group and the business case of general practice.

51	Muñoz, N, Bosch, FX, Castellsagué, X, Díaz, M, de Sanjose, S, Hammouda, D, Shah, KV & Meijer CJ 2004, 'Against which human papillomavirus types shall we vaccinate and screen? The international perspective', International journal of cancer	Primary	Research Clinical	At least 15 types of HPV have been associated with cervical cancer, current HPV vaccines confer only type-specific immunity. Research undertook to determine geographic variations in HPV type distribution in cervical cancer, using pooled analysis of data from an international survey of HPV types in cervical cancer and from a multicentre case-control study	ERA rank A
52	Parker, RM, Keleher, HM, Francis, K & Abdulwadud 2009, 'Practice nursing in Australia: A review of education and career pathways', *BMC Nursing*, pp. 1-6, from BioMed Central open Access Free	Primary	Review	The paper reports on a systematic review undertaken to establish the available evidence on education models and career pathways with a view to enhancing recruitment and retention of practice nurses in primary care in Australia. Underpinning study is the acknowledgement that the Australian government has invested in an ad hoc manner educational incentives for general practices to employ practice nurses.	ERA rank C. There were no studies found that demonstrated impact and outcomes from government expenditures on education and training. Whilst there is support for the development of a training and support strategy for practice nurses to date of review the authors conclude there is no development of consistent training standards and models of career pathways.
53	Pap Screen 2010 Media release 4 May http://www.papscreen.org.au/article.asp?ContentID=nurse-pap-test-providers-boost-cervical-screening	Primary	Media Release		"Many women tell us that they prefer to see a female provider for health issues such as Pap tests. As such, nurses have become an integral part of the national cervical screening program, because they largely tend to be female. This is particularly the case in more rural areas, where there can be a shortage of female GPs."
54	Pasco, T, Hutchinson, R, Foley, E, Watts, I Whitecross, L & Snowdon 2007, 'The Educational Needs of Nurses Working in Australian General Practice', *Australian Journal of Advanced Nursing*, Vol. 24, no 3, pp. 33-37	Primary	Journal Publication - Research	Research set out to describe the educational needs of working in general medical practice in Australia. Survey design: combining qualitative and quantitative data collected via telephone interview. N=222 enrolled (RN Division 2 in Victoria) and registered nurses (RN Division 1 in Victoria) working in general practice in rural and urban areas of Australia	ERA rank C. The education areas that were rated as important by a high number of the nurses appeared to relate directly to the activities nurses currently undertake in general practice. Barriers to education reflected the workforce characteristics of PNs and/or the capacity of general practices to finance training for employees.

55	Patterson, E, Del Mar, C & Naijman 1999 , 'Nursing's contribution to general practice: General practitioners' and practice nurses' views, *Collegian,* vol., 6, no. 4, pp. 33-39	Primary	Journal Publication - Research	Research was undertaken to assess PNs contribution to overall functioning, preventative care activities and autonomous practice in general practice Small study in urban area-2 phases. Phase 1-Phone survey to practices in one Division of GP-SE QLD. Convenience sample-GP principals and PNs to provided their views on the current and potential PN contributions to general practice in the context of general practice within the Division. Phase 2- A follow up qualitative study (piloted) questionnaire to gain further understanding and clarification on the outcomes of the Phase 1 survey(5 GPs and 5PNs).	ERA rank B. Collaborative relationship is non-hierarchical in nature and allows autonomous functioning of those involved. Explores the development of the PN role in UK-many GPs agreeable to extended role/additional delegated tasks-under their control. Health promotion in Aust. G practice difficult given demands of clinical aspects and constraints of fee-for-service which favours short treatment service against longer time required HP activities.
56	Patterson, E, Price K & Hegney, D 2005, 'Primary health and general practice nurses: What is the nexus?', *Australian Journal of Primary Health,* vol. 11, no. 1, pp. 47-54, viewed 10 February, from EBSCOhost	Primary	Journal Publication - Research	Reviewed the QLD GP and PN study and the National and Queensland consumer study.	ERA rank B-The QLD GP-PN study indicated the clinical role was very much dependent on medical delegation/direction; educative role to other PNs and opportunistic when directed to patients. Administrative-supporting admin. Processes in the general practice. Supportive of GPs time, clinical practice and workload were functions explicitly identified./articulated by GPs The review of the studies identified that nursing contribution to health promotion and preventative care was limited in the general practice arena.
57	Pearce, C, Phillips, C, Hall S, Sibbald, B, Porritt, J, Yates, R, Dwan, K & Kljakovic, M 2009, 'Contributions from the lifeworld: quality, caring and the general practice nurse', *Quality in Primary Care*, vol. 17, pp.5-13, viewed 10 February 2011, from PubMED	Primary	Journal Publication - Research	The paper incorporated data from Phase 1 of the AGPN study and explored the roles of PNs in relation to quality and safety in general practice. Quality was articulated in two domains, reflecting external and intrinsic determinants. External determinants includestructural, procedural or regulatory processes (eg accreditation-OHS), Intrinsic determinants related mostly to PNs perception of their own quality behaviour.	ERA rank C-Not all elements of quality and safety are acknowledged in general practice. Habermas-tension between system and lifeworld, with system threatening to overwhelm lifeworld, with the emergence of a 'pathological social form'. Nurses are driven by both the rules of their hierarchy and their own construction of quality-however tension between system and lifeworld in not conceived by PNs as a battle Quality and safety is demonstrated by quality Pap smears films.

58	Pearce, C, Phillips, C, Hall, S, Sibbald, B, Porritt, J, Yates, R, Dwan, K, Kljakovic, M 2011, 'Following the funding trail: financing, nurses and teamwork in Australian General Practice', *BMC Health Services Research,* vol. 11, no. 38, pp. 1-9, viewed 16 January 2011, from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3050696/pdf/1472-6963-11-38.pdf	Primary	Journal Publication - Research	Explores the impact of current funding mechanisms on the employment and work of PNs in Australia-Data collected as part of Australian General Practice Nursing Study Phase 1:Multi method study rapid appraisal of 25 general practices (2005-2006) Phase 2: Year- long qual data of 7 general practices (ethnography)	ERA rank B-Despite specific fee for service funding only **20%** of tasks undertaken by PN is generated by MBS. to focus nurses activity on areas that (they)-who is they…. perceived were peripheral to the roles within the practice. Inter professional relationships and organisational climate in general practices are highly influential in terms of the ability of practices to respond to and utilities funding mechanisms.
59	Peters, K 2010, 'Reasons why women choose a medical practice or a women's health centre for routine health screening: worker and client perspectives' *Journal of Clinical Nursing*, vol. 19, pp. 2557-2564, doi:10.1111/j.1365-2702.2010.03245.x	Primary	Research-Journal Publication	Qualitative narrative rich research to explore the stories and perceptions of 15 consumers (including health care workers) in an area with a low uptake rate of women's health screening.	ERA rank A. The study found that women seek women friendly and woman centred service, a safe environment and continuity of care. Access to a female health professional was seen as essential. The high demand for women centred services not met because of the shortage of female GPs and Pap nurses. Limitations for continuity of care in large medical centres. Lack of access to appropriate services positions the woman as non-compliant disguises issues of inequity in the health sector.
60	Phillips, C & Dwan, K 2007,'Time to talk, time to see: Changing microeconomies of professional practice among nurses and doctors in Australian general practice', *Contemporary Nurse*, vol. 26, no.1, pp. 136-144, from Informit Health Collection	Primary	Journal Publication - Research	Research informed by data collected by rapid, intensive multi-method studies of 25 general practices to exploring the ways in which the labour of nurses and doctors was structured, and the implicit decisions made about the values placed on different ways of working and on their time	ERA rank C- Data collected here part of Phase 1 of cross sectional mapping study of the Australian General Practice Nursing Study. Views general practice as complex adaptive system. Defines professional microeconomy as decision making about the rationing of variables such as time, personal contact and investment in patients. Also describes the fluid nature of nurses work/time and sees this as a commodity that value adds to general practice
61	Phillips, C, Pearce, C, Dwan, K, Hall, S, Porritt, Yates, R, Kljakovic & Sibbald, B 2008, *Charting new roles for Australian general practice nurses: Abridged report of the Australian General Practice Nurses Study*, Canberra: Australian Primary Health Care Institute, viewed 16 December 2010, from <http://www.anu.edu.au/aphcri/Domain/PracticeNursing/3pp_aphcri_nurses.pdf>	Primary	APHCRI Report funded by DoHA	Report outlines the findings of an ethnographic study of 32 Australian general practices. Undertaken in two phases between mid-2005 and late 2008 aimed to examine nurses' contribution to general practice organisations and to use these findings to inform the development of a series of incremental change management projects. Phase 1cross-sectional, multi-method descriptive study-25 practices exploring scope and context underpinning nurses role. Phase 2: longitudinal change study of 7 practices	Draws on two theoretical frameworks: critical interpretivism and complex adaptive systems theory. After synthesis of data report describes: Six roles of nurses in general practice-(including nursing as agents of connectivity); Nursing in social context: structural determinants; Nursing role in a small organisation-practice determinants; Individual determinants of nursing role; Quality, safety and the general practice nurse; Nursing for change: facilitating change in general practice; Teamwork in general practice; The role of divisions of general practice; Policy implications.

62	Phillips, C, Pearce, C, Hall, S, Kljakovic, M, Sibbald, B, Dwan, K, Porritt, J & Yates, J 2009, ‘Enhancing care, improving quality: the six roles of the general practice nurse’, *Medical Journal of Australia,* vol. 191, no. 2, pp. 92-97, viewed16 December 2010, from Miscellaneous Ejournals(UMELB)	Primary	Journal Publication - Research	Identification and description of evoking roles of PNs. Design, setting and participants as per Australian General Practice Nurses study (AGPN study). The diverse datasets collected in Phase 1gathered data (using interviews, observations, photographs, field notes and practice maps).Analysis team probed data from two phases for emergent themes. Coded NVivo-triangulated data interpretation.	ERA rank A. The research was designed to illuminate relationships between nurse roles and practice’s physical/managerial structure, as well as nurse, GP, manager perspectives on roles .Emergent themes: structural elements-health care policy, environment, gender, nursing culture. Practice level elements-inter professional relationships, time-use patterns, spatial structures individual factors. 21% of clinical activities undertaken by nurse funded by Medicare.
63	Pirkis, JE, Jolley, D & Dunt, DR 1998, ‘Recruitment of women by GPs for Pap tests: a meta-analysis’, *British Journal of General Practice*, viewed April 28 2011, from<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1313228/pdf/9830190.pdf>	Primary	Journal Publication - Meta-Analysis	The primary objective of review was to determine the effectiveness of patient reminder systems and GP reminder systems in the promotion of Pap tests uptake.	ERA rank B. Meta-analysis results indicated that both GP reminders and patient reminders were effective tools for use to encourage women to have a Pap test. Patient reminders appeared to be more effective than GP reminders when compared with normal care, with risk differences of 10.8% and 7.9% respectively.
64	Powell Davies, G, Hu W, McDonald, J, Furler, J, Harris, E & Harris, M 2006, ‘Developments in Australian general practice 2000–2002: what did these contribute to a well-functioning and comprehensive Primary Health Care System?’, *Australia and New Zealand Health Policy*,3:1, viewed 16 December 2011, from doi:10.1186/1743-8462-3-1	Primary	Journal Publication - Review	Reviews the extent to which general practice initiatives as at 2002 contribute to improvements in Australian PHC. Methods included lit review; document analysis; semi-structured telephone interviews, workshop and expert panel review. Findings confirmed through triangulation, feedback in repeat interviews and workshops.	ERA rank C. It was found that a number of initiatives, at both state/territory and national level focused on individual care, particularly for chronic disease, rather than population health approaches. There was little evidence of integration across programs: each program tended to be based in and focus on a single jurisdiction, and build capacity chiefly within the services funded through that jurisdiction. As a result, the overall effect was patchy. Similar difficulties were noted across all jurisdictions and little evidence to suggest any gain in overall system capacity for effective primary health care
65	Richardson, G 1999, ‘Identifying, evaluating and implementing cost-effective skill mix’, *Journal of Nursing Management*, vol. 7, no.5, pp. 265-268, viewed 12 February 2011, from EBSCOhost Academic Search Complete	Primary	Research		ERA rank C. It has been demonstrated that nurses and other health professionals can substitute for doctors without detrimental effect on patient outcomes in a variety of settings. Economic evaluation demonstrates that skill mix changes reduce cost and improve or maintain patient outcomes.

66	Senior, E 2008, 'How general practice nurses view their expanding role', *Australian Journal of Advanced Nursing*, vol. 26, no. 1, pp.8-15, from EBSCOhost	Primary	Journal Publication - Research	Exploratory research with descriptive design (questionnaire) aimed to explore the barriers and enablers that nurses working in general practice experience in relation to the Australian Government driven expansion of their roles. Data was collected from 22 PNs in general practices in Victoria. Outcome measures: PNs attitude to role expansion; PN numbers in expanded roles; adoption; barriers; enablers.	ERA rank C-Flawed interpretation of evidence gained from literature review Reasons given for barriers to role expansion-lack of space; too busy. Role expansion-Health Assessments 86%, EPC 50%, WOUND 68% , Pap 4.5%. Research on homogenous group, not generalizable.
67	Schiffman, M, Castle, PE, Jeronimo, J, Rodriguez, AC & Wacholder, S 2007. 'Human papillomavirus and cervical cancer', Lancet, vol 370, no. 9590, pp. 890-907, from ProQuest	Primary	Research-Journal	Cervical cancer is the second most common cancer in women worldwide, and knowledge regarding its cause and pathogenesis is expanding rapidly. Persistent infection with one of about 15 genotypes of carcinogenic human papillomavirus (HPV) causes almost all cases..	Each genotype of HPV acts as an independent infection, with differing carcinogenic risks linked to evolutionary species. Our understanding has led to improved prevention and clinical management strategies, including improved screening tests and vaccines. The new HPV-oriented model of cervical carcinogenesis should gradually replace older morphological models based only on cytology and histology. If applied wisely, HPV-related technology can minimise the incidence of cervical cancer, and the morbidity and mortality it causes, even in low-resource settings.
68	Smith, C & Heartfield, M 2009, 'Australian practice nurses immunisation scholarships: an evaluation study', *Australian Journal of Advanced Nursing*, vol. 27, no. 1, pp.6-13	Primary	Research-Journal Publication	An evaluation of the immunisation training scholarships made available to Australian PNs. Satisfaction and effectiveness was evaluated via an online survey to 27 immunisation scholarship recipients and focus group interviews to 64 Division of General Practice staff.	ERA rank C. Majority of PNs satisfied with Scholarship program. Limited by lack of input from GPs, practice managers and observational data.
69	Stewart, R & Thistlewaite 2010, 'Pap tests: What do women expect?', *Australian Family Physician,* vol. 39, no 10, pp. 775-778, from Informit Health Collection	Primary	Research-Journal Publication	A descriptive qualitative study exploring patient expectations and experiences regarding Pap tests. Opportunistic recruitment through women's health information sessions, advertisements in GP surgeries, divisional newsletter and through schools of health at James Cook University Queensland. Convenience sample n=24	ERA rank B. Literature review described barriers including patient factors, practitioner factors and health service factors. Participants described barriers as perceptions of rushed GP and lack of access to female practitioners. Limitations small study, no practice nurse providers in study. GPs reject 2 yearly testing guidelines

70	Taylor, MJ, Horey, D, Livingstone, C & Swerissen, H 2010, 'Decline with a capital D: long term changes in general practice consultation patterns across Australia', *Medical Journal of Australia*, vol. 193, no. 2, pp. 80-83, viewed16 December 2010, from Miscellaneous Ejournals(UMELB)	Primary	Research-Journal Publication	Considering the Federal governments increased reliance MBS items to guide GP's behaviour the study undertook a review of data sets of Medicare care claims (1994–2009) to determine (1) changes in the pattern of use of standard general practice consultations and (2) the degree to which changes are offset by the use of special Medicare Benefit Schedule (MBS) items.	ERA rank A. Results indicated that utilisation rates of Level C and D (long) consultations increased from 1994 to 2004, but by 2009 long consultations declined considerably. This pattern was reversed for Level A (short) consultations. The use of special items offset the decline in long consultations; however this compensating effect weakened in the past 2 years. This pattern is at odds with health policy objectives that rely on long consultations to provide preventive care and chronic disease management. Practice nurse items will also have an impact on general practice MBS item utilisation.
71	Wain, GV,2006, Cervical cancer prevention: the saga goes on, but so much has changed!', *Medical Journal of Australia,* vol. 185, no. 9, pp.476-477, viewed 16 December 2010, from Miscellaneous Ejournals(UMELB)	Primary	Editorial MJA-Journal Publication	Author comments that the major changes to the cervical screening environment brought about by the HPV vaccination program dictates a review of the National Cervical Screening Program.	ERA rank A. Wain suggests the introduction of mass vaccination requires more than simple variation to policy on screening interval. Clinicians and consumers do not appear willing to accept any potential increase in cancer rates. Wain concludes cervical screening survives on a complex interaction of emotional, professional and commercial interests which are intertwined and sometimes in conflict.
72	Walboomers, JM, Jacobs, MV, Manos, MM, Bosch, FX, Kummer, JA, Shah, KV, Snijders, PJF, Peto, J, Meijer, CJ & Muñoz, N 1999, 'Human papillomavirus is a necessary cause of invasive cervical cancer worldwide' , *The Journal of Pathology,* viewed 16 December 2010, from Wiley Online Library	Primary	Clinical Research	The study was designed to investigate the extent of true HPV-negative cervical cancer by retesting the cases originally classified as HPV-negative in a worldwide study of HPV prevalence in cervical carcinomas	ERA rank A* The results the study indicated that virtually all cervical cancers contain HPV DNA, suggesting HPV necessary cause for cervical cancer. Result consistent with other studies demonstrating same.
73	Watts, I, Foley, E, Hutchinson, R, Pasco, T, Whitecross, L & Snowden, T 2004, *General Practice Nursing in Australia,* Royal College of General Practitioners & Royal College of Nursing, Canberra, viewed 10 February 2011, from <http://www.racgp.org.au/Content/NavigationMenu/Advocacy/IssuesinGeneralPractice/GeneralPracticeNurses/gpna_entirereport.pdf>	Primary	RACGP & RCNA joint report. Report funded by DoHA	The project explored the current (2004) and future roles of nurses in general practice, educational needs of nurses and General Practitioners current educational programs for PNs. Based on an action research methodology using a triangulation of quantitative and qualitative data collection activities. Included lit review of published and unpublished research, literature and commentary from both Australian and international contexts on the role of the nurse in general practice, the development of general practice nursing as a professional career option, and collaborative team work in GP.	Concluded the current model of PNs role is characterised and underpinned by flexibility and adaptability-this is consistent with recent research.. The responsibilities nurses undertake in general practice are not static and prioritised differently for each PN and practice. The current (2004) role of general practice nurses is shaped/ impacted by factors, including: 1. professional characteristics of the nurse, 2. practice's patient population 3. business orientation of the practice, 4. localised practice and community resources, 5. structural arrangements at a national level. PNs and GPs who participated in project expressed a view of the future role of general practice nurses that appeared similar to the current role.

74	Willis, E, Condon, J & Litt, J 2000, 'Factors impacting on shared care working relationships between Practice Nurses and General Practitioners: a literature review', *Contemporary Nurse*, vol. 9, no. 2, pp.120-131	Primary	Review	This study reviews the literature on practice nurses in Britain and Australia within the framework of the health reforms in general practice in both countries	ERA rank C. Practice nurses have worked in general practice for many years. Australian health care reforms up to 2000 (establishment of the Divisions of General Practice and the National GP Strategy 1991-97) resulted in an increase in the role of practice nurses. GPs are cautious about the role of practice nurses. Much of this caution arises from reform in general practice in Britain particularly the establishment of fund-holding for general practice.
75	Willis, E, Condon, J & Litt, J 2000, 'Working relationships between practice nurses and general practitioners in Australia: a critical analysis', *Nursing Enquiry,* vol. 7, no. 4, pp. 239-247, viewed 10 February, from EBSCOhost	Primary	Journal Publication - Research	Research explored findings from prior study and critiqued these findings against the literature. Aims of prior study investigated the working relationships between GPs and PNs, in particular to the concept of shared care, the barriers and facilitators. Method: naturalistic enquiry, semi structured, in depth interviews with a purposeful, convenience sample-10 PNs, 8 GPs and 2 NP's-SA	ERA rank A*- Assumptions: Power differences in shared care practice are assumed to be overcome through collaboration. Shared care incorporates a PNs and GPs role that is complementary and autonomous. Reality: Shared care vs. division of labour. GP initiator/supervisor –PN largely dependent on flow of work from GP.PN seen as experts/specialists in wound care** Wound care appeared to be the only area where genuine shared care was in operation at time (1999). Tension between the concept of PNs.as specialists or generalists. PN adjuncts to the GP. Power and status differences. GP believed PNs would not be indemnified for autonomous practice. PNs did not attend practice meetings
76	Yong, C 2006, 'Task substitution: the view of the Australian Medical Association' *Medical Journal of Australia*, vol. 185, no. 1, pp. 27-28, viewed16 December 2010, from Miscellaneous Ejournals(UMELB)	Primary	Commentary-Task transfer-Australian Medical Association		ERA rank A. Author challenges the 2005 Productivity Commission report and the recommendation for increasing scope of task substitution to enable alternate health professional to undertake doctor's tasks. Articulates concerns regarding task substitution and patient safety/patient choice. Suggests there is minimal scientific evidence in the form of economic evaluation that demonstrates effectiveness of substitution.
77	Young JM & Ward JE 2003, 'Randomised trial of intensive academic detailing to promote opportunistic recruitment of women to cervical screening by general practitioners', *Australian and New Zealand Journal of Public Health,* vol. 27, no. 3, pp.273-281, from Wiley Online Library	Primary	Research-Journal Publication	Cluster randomised controlled trial undertaken in 1999; intervention GP academic detailing cervical screening, control was academic detailing on alternate topic. Self-administered questionnaire studied GP self-report of knowledge, opportunistic enquiry and perception of competence (pre and post)and women's recall of GP behaviour. Participation of women n=1090, GP participation n=60	ERA rank B. General practice is a key area for recruitment of patients for opportunistic screening. Few rigorous evaluations have been undertaken to analyse and overcome GP barriers. Academic detailing made minimal difference in contrast co location of a specialised women's health nurse promoted cervical screening participation. Politically based strategies have displaced evidence based approaches.

Appendix 2 - Key Informant Outline Script

A pilot study of the practice nurse Pap testing initiatives: an evaluation of their impact on cervical screening activity in Grampians general practices.

Thank you for agreeing to this interview, the information gained from the interview will be used to inform key questions in an evaluation relating to the influence of practice nurse incentives on Pap smear activity in general practice. You are one of a few selected key informants who I believe will provide valuable insight relating to issues within and around general practices in the Wimmera, and as key informants are the only source of qualitative data in the evaluation, I will be looking for answers rich in detail (to inform future policy in this area).

- As I am interested in practice nursing and Pap smear activity please tell me what you know about the financial incentives that were directed toward practice nursing and Pap smear activity between 2005 and 2011?

- Incentives provide financial benefits directly to GPs and general practices, what is your opinion of the effectiveness of incentives in influencing the activities and behaviours of general practitioners? What do you believe are the factors that impact on incentive uptake on general practices?

- Considering the remuneration for all PN items is identical, in your opinion what are the obvious (and not so obvious) reasons why practice nurses engage in less Pap test activity compared with other activities such as immunisation and wound care?

- Moving on to Pap testing please describe the all the factors (within and outside of general practice) that you believe may impact on cervical screening in general practice?

- For nurses to become credentialed and maintain credentialed Pap test provider status, they need to (1) initially undertake further training, (2) demonstrate competency and (3) undertake a minimum number of Pap tests, what are your thoughts on how these requirements may affect PN Pap provision?

- Considering that practice nurses as credentialed Pap test providers, can undertake Pap testing in general practice, what are the things that influence the <u>delegation</u> of this task to nurses by GPs?

- Policy around general practice has a focus on financial incentives to improve general practice access and quality, I am interested to hear about your thoughts about the values of incentives driving PN Pap activity and would like some overall comments and recommendations about incentive driven policy in general practice.

Appendix 3 – HREC Approval

Extension Approval

Human Research Ethics Committee

University of Ballarat
Learn to succeed

Principal Researcher:	Christine Hallinan
Other/Student Researcher/s:	N/A
School/Section:	Horsham Research Precinct
Project Number:	B11-091
Project Title:	A pilot study of the practice nurse Pap testing initiatives: An evaluation of their impact on cervical screening activity in Grampians general practices
For the period:	4/4/2012 **to** 13/6/2012

Please quote the Project No. in all correspondence regarding this application.

REPORTS TO HREC:

A final report for this project must be submitted to the Ethics Officer on:
13 July 2012
http://guerin.ballarat.edu.au/ard/ubresearch/hdrs/ethics/humanethics/docs/final_report.doc

Lauraelunlan

Ethics Officer
4 April 2012

Please see attached 'Conditions of Approval'.

CRICOS Provider No. 00103D

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