

# Nurse Practitioner Productivity and National Comparison of Nurse Practitioner Salaries in Primary Health Care

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### Background

- Nurse practitioners (NPs) implemented in primary healthcare (PHC) in all Canadian jurisdictions
- Important to consider relationship between health outcomes achieved & health human resources inputs such as time, efforts, skills & knowledge required (Evans, Schnieder, & Barer, 2010)
- Information needed to inform what is an appropriate NP patient panel size & productivity



## Study Purpose

 To identify timely evidence regarding workload/caseload, patient panel size, and pay scales for NPs in community-based primary healthcare settings.



### Productivity

- refers to measure of work completed in specific time period (Rhoads et al., 2006)
- depends on many factors including how work is organized, who provides or shares work, & availability of technical resources (Birch et al., 2009)

# McMaster University Canadian Centre for Advanced Practice Nursing Research

### Panel size

- refers to the number of patients under the care of a full-time equivalent (FTE) provider (Murray et al., 2007)



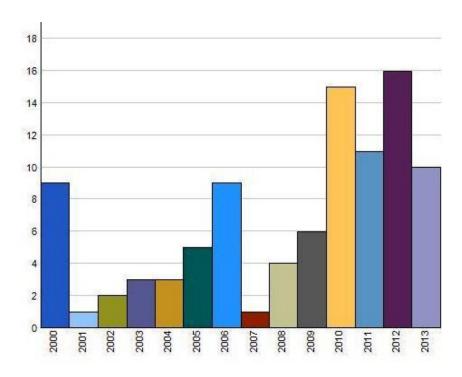
#### Methods

- A scoping literature review was conducted between March and May 2013.
- Published and Grey Literature
  - English or French
  - Between January 2000 and February 2013
- Descriptive statistics; content analysis
- 97 Articles/Reports included



### **Annual Publications**

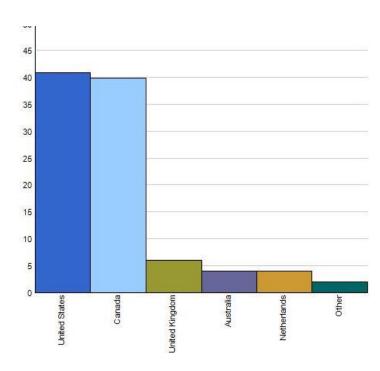
Publications on workload/caseload, patient panel & productivity have peaked in the last 3 years.





# Country of Publication

Majority of articles were from Canada & the United States.





### **Average # of Patients/Day**

**UK & Netherlds** 

12.75 (Wijers et al., 2012)

**United States** 

14-28 (Am. Assoc. NPs, 2011)

**British Columbia** 

14 (Sangster-Gormley et al., 2012)

**Ontario** 

13 & 5 phone (Mian et al., 2012)

**New Brunswick** 

15-18 (Horizon Health , 2012)

Nova Scotia

14 (Martin-Misener et al., 2010)



### **Productivity: Factors to Consider**

- Patient visits
- Number of new patients
- Total number of referrals from medical doctors
- Average visits per diagnoses
- Numbers of cancellations or no-shows
- Average wait time per patient

(Rhoads et al., 2006, p. 37)



### **Canadian Panel Sizes**

Province	Number of Patients	Reference
British Columbia	334 patients rostered to a FTE NP	Sangster-Gormley et al., (2012)
Saskatchewan	NP in Spiritwood has 1,000 patients	Prince Albert Parkland Regional Health Authority (2008)
Ontario	Each FTE NP in an NP-led clinic is expected to roster 800 patients.	DiCenso et al. (2010); Thibeault (2011); Rosser et al., (2010)
Quebec	500-1000 patients	Charland (2013)
New Brunswick	minimum of 800 patients depending on setting & their experience.	Horizon Health Network (2012)
Nova Scotia	Proposed in physician resource plan 626-800 patients	Social Sector Metrics Inc. et al., (2011)



# Patient Factors that Influence NP Panel Size

- Age
- Sex
- Socio-economic status
- Health status



### Provider Factors that Influence NP Panel Size

- Experience
- Employment status (e.g., fulltime)
- Role clarity



### **Organizational Factors**

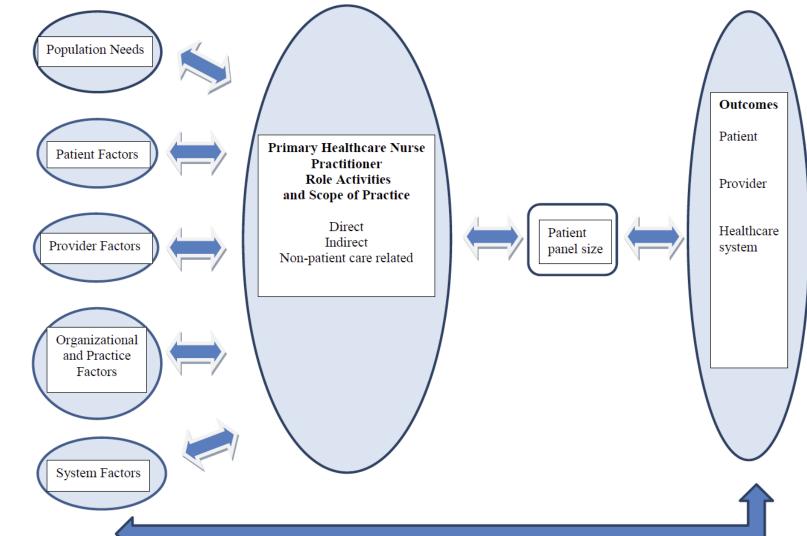
- Time spent in NP role components
- Practice setting/model (e.g. FHT, NP-led)
- Location & size of practice
- Support personnel (e.g. clerical)
- # and type of other team members
- Focus & expectations of the NP role
- Level of NP autonomy

# McMaster University System Factors

- Scope of practice
- Source of funding
- Case mix health/illness conditions
- Multimorbidity



# Factors to Consider When Determining Patient Panel Size





### Sample of Annual Salaries

**British Columbia** 

Alberta

Ontario (ONA)

Ontario (FHT)

Quebec

Prince Edward Island

Northwest Territories / Nunavut

\$ 74,665 - \$107, 328

\$ 80,975 - \$124,247

\$101,185 - \$115, 108

\$ 78,054-\$89,203

\$ 48,029 - \$ 85,635

\$ 86,919 - \$101,337

\$ 99,806 - \$117,955



### Discussion

- Number of patients seen per day varies across and within countries but averages 9-15 patients per day.
- Limited information about NP patient panel size
- Variation across contexts making it difficult to estimate panel size
- Can only identify factors affecting NP panel size at present time



### Conclusion

- Methods to identify appropriate patient panel sizes for NPs and other healthcare providers are required
- Systems to track and measure their activities and workload are needed



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