

## Context

- In response to pressure on provincial and territorial health systems (e.g., surgical backlogs arising from the COVID-19 pandemic), there has been a resurgence of interest in dual public/private practice.
- In the Canadian context, dual practice typically means healthcare professionals working in one or both of: 1) not-for-profit organizations like hospitals and in for-profit organizations like high-volume surgical centres that provide additional capacity when needed; and 2) publicly and privately financed organizations and practices.
- Understanding the impacts of dual private/public practice can help to inform discussions about whether to pursue such an approach.

## Impacts of dual private/public practice by healthcare professionals on equity-centred quadruple-aim metrics

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## Question

- What is known about the impacts of dual private/public practice by healthcare professionals on equity-centred quadruple-aim metrics?

## High-level summary of key findings

- We identified six evidence syntheses as well as three primary studies that focused on common comparator countries and were published in the last 10 years.
- The existing literature on dual practice:
  - is scarce, incomplete in its coverage of professionals (e.g., beyond physicians and nurses) and sectors (beyond specialty care), and silent on categories of conditions, treatments, populations, and delivery modalities (see Table 1)
  - typically relies on theoretical and modelling studies rather than ‘real-world’ data
  - often focuses on low- and middle-income countries, where the context for dual practice may differ significantly from Canada
  - provides insights about impacts primarily in relation to provider experiences (e.g., satisfaction, remuneration), with less on patients’ care experiences (e.g., wait times and quality of care) and per-capita costs (with most about the cost of regulating dual practice and little on care costs), and none explicitly about health outcomes.
- Most of the identified impacts focused on dual practice in separate environments (both physically separate – as opposed to, private for-profit sections of private not-for-profit hospitals – and separately funded) and point to:
  - unclear impacts on care experiences (wait times and quality of care)
  - improvements in provider experiences in some domains – including increases in provider income and professional satisfaction and (when appropriately regulated) continued working in public practice – and concerns in others (e.g., dual-practice physicians engaging in self-referral and perceiving a greater obligation to ‘private’ patients; dual-practice nurses working fewer hours in their primary public employment, which increased communication challenges with medical residents and the risk of clinical accidents)
  - costs for ensuring compliance with dual practice regulations, as well as the potential for inefficiencies in the use of medical equipment and supplies and the transfer of supplies from public to private practices.
- More ‘real-world’ evidence is needed about the impacts of dual practice, including rigorous evaluations of the impacts of the dual-practice models now being deployed in Canada including dual-practice in virtual care environments.

## Framework to organize what we looked for

- Healthcare professionals
  - Physicians
  - Nurses
  - Pharmacists
  - Allied health professionals
  - Lay/community health workers
  - Other types
- Sectors
  - Home and community care
  - Primary care
  - Specialty care
  - Rehabilitation care
  - Long-term care
  - Public health
- Conditions
  - Mental health and addictions
  - Other conditions
- Treatments
  - Prescription drugs
  - Drug prescriptions (e.g., HIV PrEP)
  - Medical authorization (e.g., cannabis)
  - Dental services
  - Blood products
  - Other treatments
- Populations
  - Indigenous
  - Other BIPOC
  - Low-income groups
  - Other equity-deserving groups
- Delivery modality
  - Telephone versus video versus email versus text (chat)
  - Select versus comprehensive virtual care
  - Digital only versus hybrid (bricks and mortar)
  - Direct-to-patient versus via employer (enterprise companies) versus via insurer
- Quadruple-aim metrics examined
  - Health outcomes
  - Care experiences
  - Provider experiences
  - Per-capita costs

## Box 1: Approach and supporting materials

We identified evidence addressing the question by searching Health Systems Evidence and PubMed. All searches were conducted on 12 May 2023. The search strategies used are included in Appendix 1. In contrast to synthesis methods that provide an in-depth understanding of the evidence, this profile focuses on providing an overview and key insights from relevant documents.

We searched for full evidence syntheses (or synthesis-derived products such as overviews of evidence syntheses) and protocols for evidence syntheses. We also conducted a targeted search for single studies from Canada and common comparator countries (Australia, Denmark, France, Germany, the Netherlands, New Zealand, Norway, Sweden, Switzerland, the United Kingdom, and the United States).

We appraised the methodological quality of evidence syntheses that were deemed to be highly relevant using AMSTAR. AMSTAR rates overall quality on a scale of 0 to 11, where 11/11 represents a review of the highest quality. The AMSTAR tool was developed to assess reviews focused on clinical interventions, so not all criteria apply to evidence syntheses pertaining to delivery, financial or governance arrangements within health systems or to broader social systems.

A separate document contains three appendices:

- 1) background and methods for preparing this document
- 2) details about each identified synthesis
- 3) documents that were excluded in the final stages of review.

This rapid evidence profile was prepared in the equivalent of three days of a ‘full-court press’ by all involved staff.

## What we found

We identified six evidence syntheses as well as three primary studies that focused on common comparator countries and were published in the last 10 years. We outline in narrative form below our key findings.

The existing literature on dual practice is scarce, incomplete in its coverage of professionals (e.g., beyond physicians and nurses) and sectors (e.g., beyond specialty care), and silent on categories of conditions, treatments, populations, and delivery modalities, all of which makes it difficult to draw conclusions about its impacts. The identified evidence typically relies on theoretical and modelling studies rather than ‘real-world’ data. The recently published literature (from the last 10 years) often originates in low- and middle-income countries, where the incentives and regulation around dual practice typically differ from Canada and other high-income countries.

The literature that we identified focuses almost exclusively on physicians and relatively little of it differentiates between different specialties or sectors. We did identify one evidence synthesis focused on dual-practice nurses; however, it again does not differentiate between the sectors where these nurses work.(5)

Of the quadruple-aim metrics, the identified literature provides insights about impacts primarily in relation to provider experience (i.e., satisfaction, remuneration), with less on care experiences (i.e., wait times and quality of care) and per-capita costs (with most focused on the cost of regulating dual practice and little on care costs). No cost estimates were provided in the literature. We did not identify any literature that explicitly addressed health outcomes.

**Table 1:** Mapping of available evidence related to dual-practice health workers in high-income countries (with evidence syntheses noted with an ES after the citation and single studies with a SS)

Focus	Quadruple-aim metrics examined			
	Health outcomes	Care experiences	Provider experiences	Per-capita costs
<b>Healthcare professionals</b>				
• Physicians		<u>1</u> (ES) – effects on specialty wait times <u>2</u> (ES) – access to services; quality of care <u>3</u> (ES) – no studies identified in review <u>4</u> (ES) – access to services; quality of care <u>7</u> (SS) – wait times	<u>1</u> (ES) – clinical autonomy; productivity <u>2</u> (ES) –satisfaction; remuneration <u>3</u> (ES) – no studies identified in review <u>4</u> (ES) – physician satisfaction <u>6</u> (ES) – physician satisfaction; remuneration <u>7</u> (SS) – physician satisfaction, remuneration	<u>1</u> (ES) – costs associated with regulation of dual practice <u>4</u> (ES) – efficiency in use of medical equipment and supplies
• Nurses		<u>3</u> (ES) – no studies identified in review <u>5</u> (ES) – access to care	<u>3</u> (ES) – no studies identified in review <u>5</u> (ES) – satisfaction remuneration	
• Pharmacists		<u>3</u> (ES) – no studies identified in review	<u>3</u> (ES) – no studies identified in review	
• Allied health professionals		<u>3</u> (ES) – no studies identified in review	<u>3</u> (ES) – no studies identified in review	
• Lay/community health workers				
<b>Sectors</b>				
• Home and community care (e.g., paramedics, homecare,				

Focus	Quadruple-aim metrics examined			
	Health outcomes	Care experiences	Provider experiences	Per-capita costs
community-based care in general)				
• Primary care (PC) (e.g., family physicians, primary-care teams)				
• Specialty care (e.g., diagnostic services, procedures, specialty assessments)		7 (SS) – wait times for specialists generally and for ophthalmology and otolaryngology 2 (SS) – quality of care	7 (SS) – satisfaction; remuneration 8 (SS) – satisfaction 2 (SS) – satisfaction	
• Rehabilitation care				
• Long-term care				
• Public health				
<b>Conditions</b> (e.g., mental health and addictions)				
<b>Treatments</b> (e.g., prescription drugs, medical authorizations)				
<b>Populations</b> (e.g., Indigenous, other BIPOC, low-income groups)				
<b>Delivery modality</b> (e.g., telephone versus video versus email versus text)				

### *What existing syntheses tell us about the impacts of dual private/public practice*

The included evidence syntheses and single studies noted that there are many different forms that dual practice can take, including:

- in separate environments
- in private wards or clinics physically associated with a public facility but run separately
- within public settings where private services are offered outside of public operating hours
- integrated alongside public services where fees are charged for either a faster or ‘higher-quality’ service.

Despite these many options, most of the literature is focused on dual practice in separate environments.

With respect to care experiences, the effects on public wait times for specialty services and quality of care remain unclear. Some syntheses reported no significant effect on wait times, while others reported a positive association between mean private income of dual practitioners and length of wait times across specialties.(1; 2; 7) Similarly, evidence syntheses were unable to provide conclusive statements on the impacts of dual practice on quality of care, as such impacts are largely dependent on the regulations in place.(1; 2; 4; 7; 8) However, one evidence synthesis and two single studies reported that dual-practice specialty physicians frequently engaged in self-referral and reported feeling a greater obligation to their ‘private’ patients who they knew were paying them directly.(1; 8; 9)

Improvements in provider experiences were reported in some domains, including in provider income, provider satisfaction and (when appropriately regulated) continued working in public practice.(2; 5; 6) However, concerns were reported in other domains, including dual-practice physicians engaging in self-referral and perceiving a greater obligation to their ‘private’ patients.(1; 8; 9)

The literature also noted differences between physician and nurse dual practice.(5) While physicians most likely to engage in dual practice were found to be older, male and nearing retirement, nurses most likely to engage in dual practice were found to be younger and of lower income.(5; 7; 8) An additional body of literature relating to the impacts of multiple employments was identified and – though beyond the scope of our work when the focus was multiple employers in the ‘public’ system – one evidence synthesis noted that ‘moonlighting’ nurses in the private sector tended to work fewer hours in their primary public employment, had increased communication challenges with medical residents, and were reported to have an increase in the risk of clinical accidents.(5) The differences between the effects of dual practice for nurses and physicians was in part attributed to nurses’ limited autonomy in the public sector (often working as part of a team) as compared to their physician colleagues.(5)

Finally, two syntheses reported on impacts of dual practice on per-capita costs. The first evidence synthesis noted that dual practice may lead to inefficiencies in the use of medical equipment and supplies, with some dual job holders transferring supplies from public to private practices, particularly when private services are provided in public facilities.(4) The second noted that the costs associated with ensuring compliance with dual practice regulations should be taken into account when they are being developed.(1)

*What key gaps in existing syntheses should be prioritized to address areas of significant policy attention in Canada*

Given the lack of identified literature, more ‘real-world’ evidence and capacity for rapid evaluation to learn from natural experiments is needed to understand the impacts of dual practice. This includes rigorous evaluations of the impacts of dual-practice models now being deployed in Canada, including dual-practice in virtual-care environments.

Waddell K, Wilson MG, Ali A, Demaio P, Soueidan S, Lavis JN. Rapid evidence profile #49: Impacts of dual private/public practice by healthcare professionals on equity-centred quadruple aim metrics, 18 May 2023.

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