

UPTAKE AND IMPACT OF REGULATED PHARMACY TECHNICIANS IN ONTARIO COMMUNITY PHARMACIES

Paul Grootendorst, PhD

Associate Professor - University of Toronto Leslie Dan Faculty of Pharmacy

Jimmy Tieu, PharmD

Registered Pharmacist

CONFLICTS OF INTEREST

- None

LEARNING OBJECTIVES

- Describe the history of and rationale for pharmacy technician regulation in Canada (focus on Ontario).
- Compare and contrast the difference in roles for pharmacy assistants vs regulated pharmacy technicians.
- Analyze regulated pharmacy technician workforce data in the province of Ontario.
- Assess the value provided by pharmacy technicians on the provision of professional clinical services (i.e. MedsChecks).

STATUS OF PHARMACY TECHNICIANS ACROSS CANADA

- In December 2010, Ontario became the first province in Canada to regulate pharmacy technicians
- Rationale: free up time for pharmacists to pursue expanded “scope of practice” activities
- As of 2018, 9/10 Canadian provinces have regulated pharmacy technicians (RPTs)



**REGULATED PHARMACY
TECHNICIAN
VS
PHARMACY ASSISTANT**

PHARMACY TECHNICIANS VS PHARMACY ASSISTANTS IN ONTARIO

Roles and Responsibilities:

Pharmacy Technicians	Pharmacy Assistants
<ul style="list-style-type: none">• Order entry, filling, compounding• Answer phone calls• Inventory management • Accept verbal prescriptions* and provide prescription transfers• Complete the technical check of new and refilled prescriptions	<ul style="list-style-type: none">• Order entry, filling, compounding• Answer phone calls• Inventory management

*excluding narcotics, controlled drugs, benzodiazepines and other targeted substances

Source: <http://www.ocpinfo.com/practice-education/practice-tools/support-materials/technician-role/>

PHARMACY TECHNICIANS VS PHARMACY ASSISTANTS IN ONTARIO

Regulation

Pharmacy Technicians	Pharmacy Assistants
<ul style="list-style-type: none">• Are regulated healthcare professionals• Must complete an accredited training or bridging program• Must pass the Pharmacy Examining Board of Canada (PEBC) qualifying exam• Are licensed by a provincial College of Pharmacists	<ul style="list-style-type: none">• Non regulated personnel• No accreditation program or registration with a provincial college of pharmacy required

WHY WOULD A PHARMACY OWNER HIRE A TECHNICIAN?

- Allows technicians to do jobs previously performed solely by pharmacists
- Why would this be beneficial to owner? 3 possibilities
 - Technician wage is less than that of pharmacist
 - One can imagine situations where owner can earn same amount of revenue for less wage cost
 - Specialization
 - Techs focus on a few tasks and become very good at what they do - more productive than pharmacists in these tasks
 - Gives pharmacist more flexibility in tasks & schedule
 - Pharmacist could provide more clinical pharmacy services under their expanded scope of practice.

PHARMACIST EXPANDED SCOPE OF PRACTICE IN CANADA

- Medication prescribing
- Adapt or manage prescriptions
- Administer injections
- Order and interpret lab tests
- MedsCheck (Ontario)
- Pharmaceutical opinion (Ontario)

MEDSCHECKS

- One to one consultation between a patient and pharmacist
- Goals:
 - Help patients better understand their medication regimens
 - Identify and correct potential drug therapy problems
 - Ensure medication compliance
- Types of MedsChecks
 - MedsCheck Annual
 - MedsCheck for Diabetes
 - MedsCheck at Home
 - MedsCheck Long-Term Care (LTC)
 - MedsCheck Follow-up

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Canadian Pharmacists Journal/Revue des pharmaciens du Canada

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Uptake and impact of regulated pharmacy technicians in Ontario community pharmacies

Paul Grootendorst, PhD, Minsup Shim, PhD, and Jimmy Tieu, PharmD

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Abstract

Go to:

Background:

Go to:

Since 2010, most provincial Colleges of Pharmacists have licensed pharmacy technicians. The colleges hoped this would give pharmacists time to provide “expanded scope” activities such as medication reviews. Little is known, however, about the uptake and impact of pharmacy technicians on pharmacists’ provision of such services. We address these questions using data for Ontario community pharmacies.

Methods:

Go to:

Data on pharmacists and pharmacy technicians were obtained from the Ontario College of Pharmacists website in September 2016. Their place of employment was used to calculate the number of full-time equivalent (FTE) pharmacists and technicians employed at each community pharmacy. Pharmacy claims data for the 12-month period ending March 31, 2016, were obtained from the Ontario Public Drug Programs (OPDP). These data included number of MedsChecks performed, type of MedsCheck and number of prescriptions dispensed to OPDP beneficiaries.

Results:

Go to:

Pharmacy technicians were employed in 24% of the pharmacies in our sample. Technician employment rates were highest in Central Fill pharmacies and pharmacies serving long-term care facilities. In general, pharmacies employing 1 or fewer technician full-time equivalents (FTEs) had a slightly higher probability of providing MedsChecks and, of those that did provide Meds Checks Annuals, provided more of them. Pharmacies that hired 3 or more technician FTEs were markedly less likely to provide MedsChecks.

Conclusions:

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Pharmacies differ in their employment of technicians and in the apparent impact of technicians on the provision of MedsChecks. However, these represent associations. Additional research is needed to assess the causal effect of technician employment on the provision of MedsChecks.

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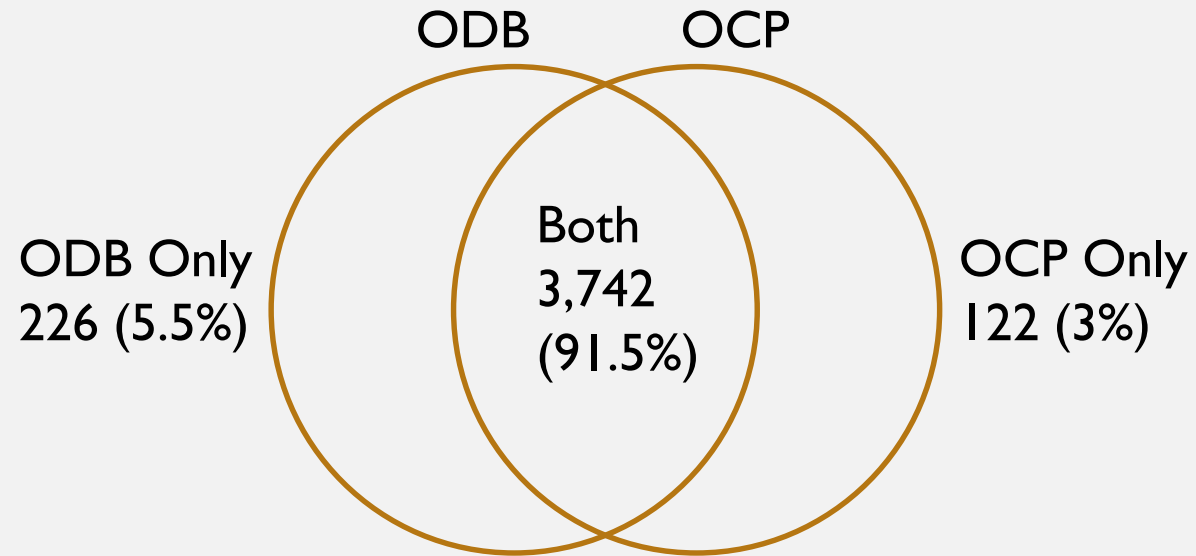
RESEARCH QUESTIONS

- What are the characteristics of pharmacy technicians working in Ontario?
- What kinds of pharmacies hire technicians?
- Do pharmacies that employ technicians provide more MedsChecks?

DATA

- Ontario College of Pharmacists (OCP) maintains publicly available data on approved community pharmacies
- OCP also identifies licensed pharmacists and pharmacy technicians and where they work
- These data were obtained in Sept 2016
- Manually determined pharmacy business type (independent, chain, etc.)
- Ontario Ministry of Health drug plan (the ODB) provided pharmacy level data on # Medschecks and # rx's dispensed in FY ending March 2016

ODB OCP DATA MATCH



Removed 25 pharmacies with missing pharmacists info leaving $3742 - 25 = 3717$ pharmacies

ODB = Ontario Drug Benefit
OCP = Ontario College of Pharmacists

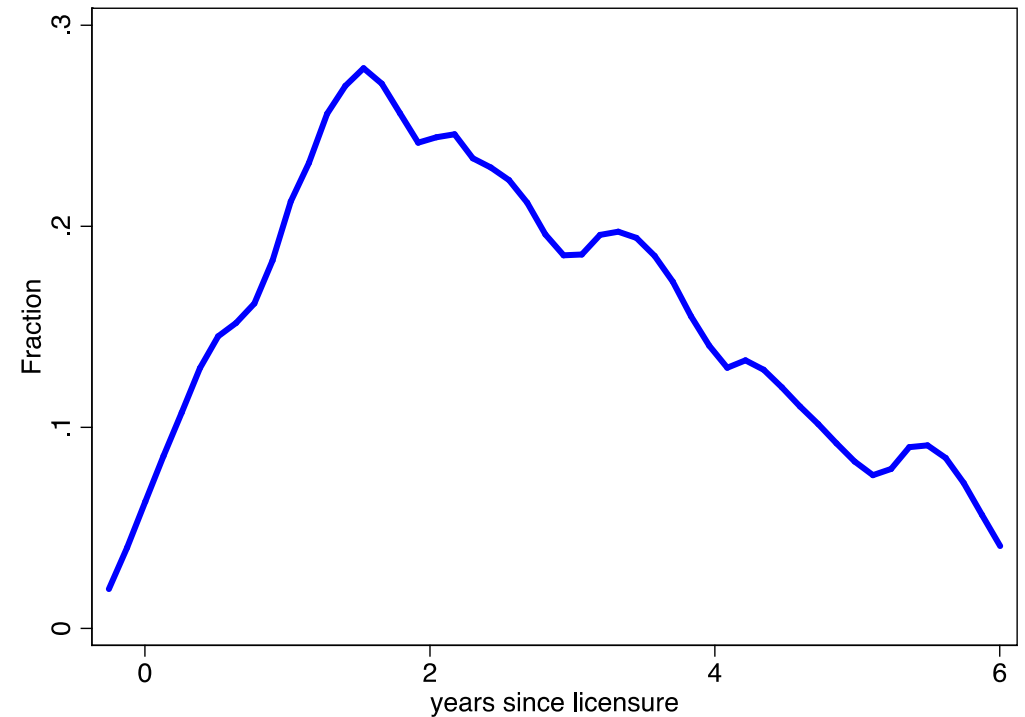
CHARACTERISTICS OF PHARMACY TECHNICIANS IN ONTARIO

- 4,143 employed in September 2016
- Most (92%) are female
- Most 87% work in just one pharmacy; 11% work in two

number of work sites: technicians	Freq.	Percent	Cum.
1	3,592	86.70	86.70
2	441	10.64	97.34
3	67	1.62	98.96
4	27	0.65	99.61
5	6	0.14	99.76
6	1	0.02	99.78
9	2	0.05	99.83
10	1	0.02	99.86
11	5	0.12	99.98
13	1	0.02	100.00
Total	4,143	100.00	

CHARACTERISTICS OF PHARMACY TECHNICIANS IN ONTARIO

- Average # years since licensure (at September 2016): 2.6
- Median 2.4

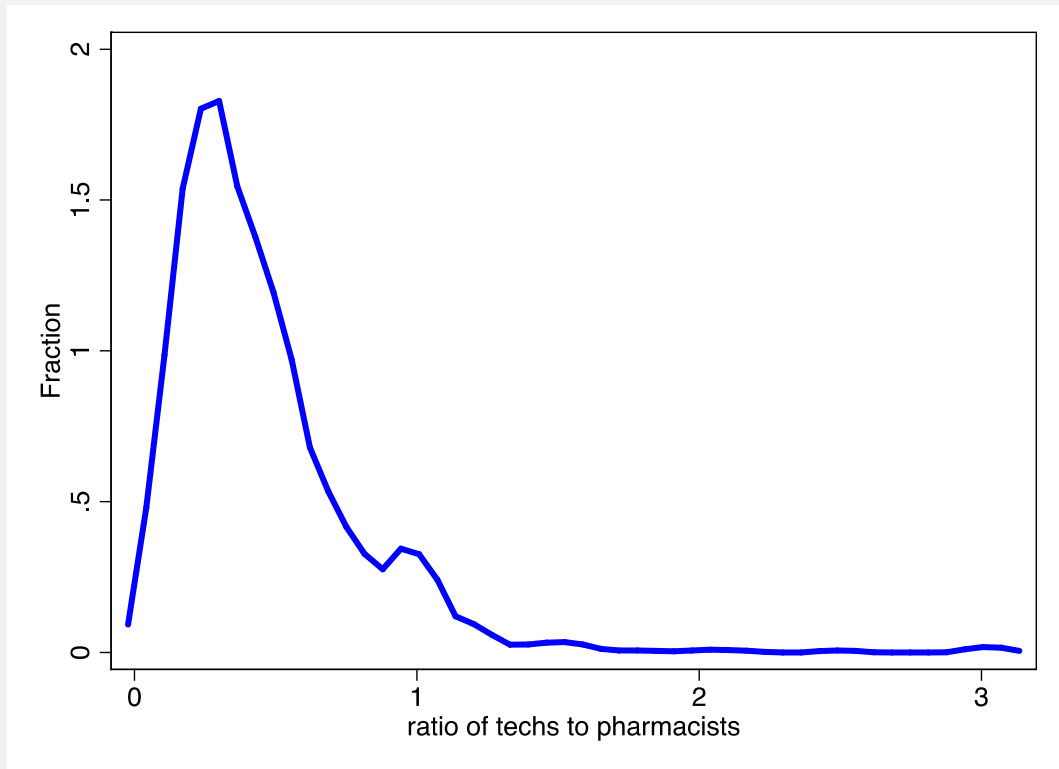


Histogram of average # years since licensure

WHERE DO TECHS WORK?

DESCRIPTIVE STATISTICS

- Pharmacies that use techs: 24%
- Of these pharmacies, ratio of techs to pharmacists is right skewed.



FRACTION USING TECHS, BY PHARMACY GROUP

Pharm group	uses tech	tech/phm\geq1
Central Fill	1.00	0.00
Hospital outpatient specialized	1.00	0.00
Costco	0.97	0.07
Medical Pharmacy LTC	0.90	0.00
LTC/institutional	0.88	0.00
Hospital outpatient general	0.73	0.27
Jean Coutu	0.67	0.00
Specialty rx	0.59	0.05
Medical Pharmacy	0.49	0.00

FRACTION USING TECHS, BY PHARMACY GROUP

Pharm group	uses tech	tech/phm\geq1
Shoppers Drug Mart	0.35	0.00
Homecare	0.33	0.00
Lovell Drugs	0.33	0.00
Mail Order	0.33	0.00
Loblaws	0.33	0.01
Pharmasave	0.32	0.04
Pharmachoice	0.30	0.04
Total Health Pharmacy	0.29	0.03
Remedy's Rx	0.23	0.02
IDA	0.21	0.02
Guardian	0.21	0.01
Rexall	0.20	0.01

FRACTION USING TECHS, BY PHARMACY GROUP

Pharm group	uses tech	tech/phm\geq1
IDA IND	0.18	0.06
Medicine Shoppe	0.16	0.00
Prince Theodore Group	0.16	0.00
Metro	0.15	0.01
Walmart	0.15	0.00
Independent	0.13	0.02
Main Drug Mart	0.09	0.02
Morelli's	0.09	0.00
FreshCo	0.07	0.00
Sobeys	0.05	0.00
Ben's	0.00	0.00
Janzen's Pharmacy	0.00	0.00

FRACTION OF PHARMACIES USING PHARMACY TECHNICIANS, BY QUINTILE OF TOTAL ODB PRESCRIPTIONS DISPENSED

Quintile of total ODB prescriptions dispensed	Fraction using techs	Fraction using more techs than pharmacists
Lowest 20%	0.07	0.01
Second quintile	0.11	0.01
Third quintile	0.22	0.02
Fourth quintile	0.32	0.02
Top 20%	0.46	0.03

**DO PHARMACIES THAT EMPLOY TECHS
PROVIDE MORE MEDSCHECKS?**

DO PHARMACIES THAT EMPLOY TECHNICIANS PROVIDE MORE MEDSCHECKS?

- A regression model was used to estimate the impact of RPTs on:
 1. The likelihood that a community pharmacy will provide a MedsCheck
 2. The volume of MedsChecks a community pharmacy provided (given it provides at least 1 MedsCheck)
- The model was estimated using data from community pharmacies
 - Data on pharmacies without a storefront, specialty pharmacies and hospital pharmacies were excluded

RESULTS FROM REGRESSION MODEL

- The use of up to 1 RTP full time equivalent did not impact the likelihood a pharmacy provides at least one MedsCheck
 - Of pharmacies already providing MedsChecks, those that employed up to 1 RTP FTE were more likely to provide MedsChecks than pharmacies without RTPs
- Pharmacies that employ more than 2 RPT FTEs are 9% less likely to provide a MedsCheck Annual than pharmacies that do not employ any RPTs
 - Of pharmacies already providing MedsChecks, larger RPT volumes reduced the number of MedsChecks provided

RESULTS FROM REGRESSION MODEL

- Separate regression models were estimated for each of the other types of MedsChecks
- For MedsCheck Follow-up, Diabetes, Home and Hospital, pharmacies employing up to one RPT are more likely to provide a MedsCheck than pharmacies that do not employ any RPTs.
 - Pharmacies hiring more than 3 RPTs were less likely to provide these types of MedsChecks and reduced the volume of MedsChecks provided
- The likelihood of providing a MedsCheck LTC, as well as the number of MedsChecks provided, was greater the more RPTs were employed

DISCUSSION

- Approximately 25% of pharmacies in our sample employed RPTs
- Pharmacies processing large volumes of prescriptions were more likely to employ RPTs
 - Independent pharmacies were among those least likely to employ RPTs
- The presence of an RPT increased the likelihood a pharmacy provided certain types of MedsChecks
- Pharmacies employing 3 or more RPTs were less likely to provide MedsChecks

STUDY LIMITATIONS

- Our models represent associations and do not necessarily imply causal effects
- Non-licensed pharmacy personnel are not controlled for (i.e. pharmacy assistants)
- Only one type of pharmacy clinical service was measured
- Timing of data obtained from the OCP and the Ontario Ministry of Health differ by 6 months

QUESTIONS/DISCUSSION