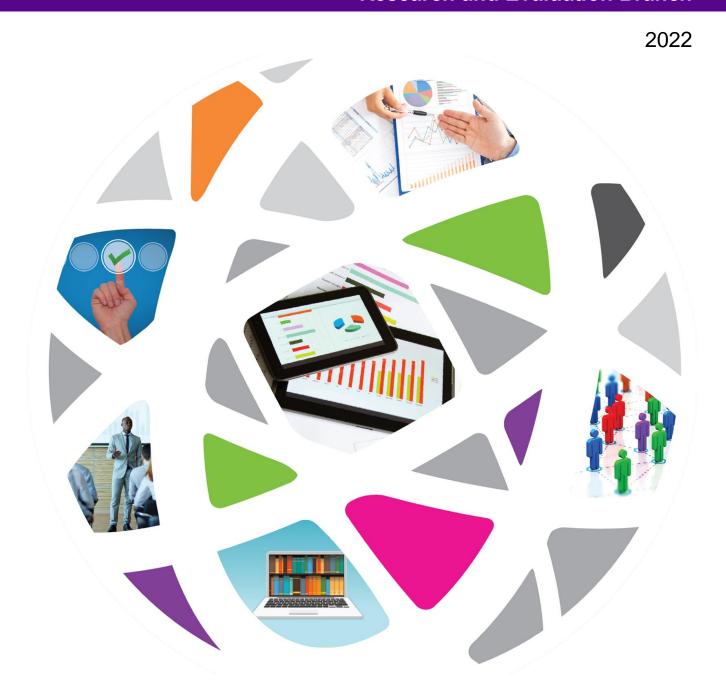
An examination of in-hospital deliveries in Canada outside Quebec: analytical report

Research and Evaluation Branch





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Executive summary

The issue of "birth tourism" has drawn considerable public attention in recent years. There have been frequent media reports on the issue 1 and there were also e-petitions 2 that called on the government to implement measures to reduce or eliminate the practice. However, which births/deliveries in Canada should be attributed to "birth tourism" has not been officially defined. Public discourse concerning "birth tourism" has used the number of in-hospital deliveries for which the services were billed under the "Other country resident self-pay" responsibility for payment (RFP) category in the hospital Discharge Abstract Database (DAD) to proxy the deliveries by short-term visitors and to inform the discussion on the extent of this practice. The number of hospital deliveries under the "Other country resident self-pay" RFP category has shown an increasing trend from around 1,500 in the early 2010s to around 3,600 in 2017. However, the deliveries under this payment category may include a broad range of situations which are worth further examination.

This report uses information from the record linkage between the hospital Discharge Abstract Database (DAD), the Longitudinal Immigration Database (IMDB) and the Derived Record Depository (DRD) to examine hospital deliveries (in the DAD) that occurred in Canada (outside of Quebec) by women's immigration status (in the IMDB) for fiscal years 2007-08 to 2017-18. The study focuses on deliveries for which services are registered under the RFP 08 category "Other country resident self-pay" in the DAD. Specifically, the advantage of this analysis is to identify and separate, when possible, the deliveries by Canadian citizens by birth, immigrants, temporary residents and short-term visitors.

Our results show that, for the period examined, around 92% - 93% of the total annual hospital deliveries in Canada outside of Quebec (approximately 265,000 of around 285,000 annually) were by Canadian citizens by birth or immigrants, whereas around 1% - 2% (approximately 6,000 annually in recent years) were by temporary residents in Canada: more specifically, around 4,000 births were by temporary foreign workers, more than 1,000 by international students, and around 1,000 by refugee claimants and TR permit holders, annually.³

The deliveries billed under the "Other country resident self-pay" RFP category accounted for a small percentage every year of the total deliveries in all RFP categories. In 2010, for example, these type of deliveries consisted of 0.5%; in 2017, they accounted for 1.3%. The analysis confirms that deliveries under the "Other country resident self-pay" RFP category indeed include a broad range of situations. A significant portion (around 30%) of the hospital deliveries registered under this RFP category is linked to the IMDB/DRD and can be attributed to women who were Canadian citizens by birth, immigrants and temporary residents in Canada.

https://policyoptions.irpp.org/magazines/november-2018/hospital-stats-show-birth-tourism-rising-in-major-cities/ https://globalnews.ca/news/4689506/birth-tourism-canada-data/ www.vancouverisawesome.com/vancouver-news/canada-birth-tourism-numbers-1939455 www.theglobeandmail.com/opinion/article-why-canada-should-end-our-unfair-birth-tourism-policies

https://petitions.ourcommons.ca/en/Petition/Details?Petition=e-397 https://petitions.ourcommons.ca/en/Petition/Details?Petition=e-1527

The remaining around 5% of deliveries could not be linked to the IMDB/DRD database.

For example, in recent years (2010-2017), among the deliveries billed under the "Other country resident self-pay" RFP category, about 6%-7% were by immigrants or Canadian citizens by birth and over 20% were attributable to temporary residents.⁴

By removing the linked deliveries by Canadian citizens, immigrants and temporary residents (around 30%), the derived number of "residual" deliveries (around two thirds) under the "Other country resident self-pay" RFP category provides a better estimate of the number of deliveries by short-term visitors than the total number of deliveries under the "Other country resident self-pay" payment category.

The number of estimated deliveries by short-term visitors (i.e., "residual" deliveries) shows an increasing trend in recent years, from around 800 annually in 2010 to around 2,500 in 2017.

Limitations

The study has certain limitations due to the information constraints in the DAD-IMDB/DRD record linkage.

First, the estimated numbers of deliveries by short-term visitors ("residual" deliveries) in this study may also include deliveries under a few other specific situations unrelated to birth tourism:

- 1. deliveries by spouses of international students or temporary foreign workers, if they came to Canada to accompany their permit holding partners in Canada, but they themselves never had a study or work permit;
- 2. deliveries by spouses of Canadian citizens or PRs who came to Canada on a visitor visa to give birth to their babies with Canadian fathers;
- 3. deliveries by Canadians usually living overseas returning to Canada to give birth; and
- 4. deliveries by diplomats or officials/employees of foreign governments.

The deliveries under these special situations may be relatively small. The "residual" number therefore provides a better estimate of deliveries by short-term visitors compared to the total number of deliveries registered under the RFP 08 category.

Finally, it is important to note that the DAD that is linked to the IMDB and DRD excludes deliveries in Quebec and deliveries out of hospital.

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⁴ For an explanation of why some immigrants or Canadian citizens by birth may be included in this category, please refer to the limitations section.

1. Introduction

The issue of "birth tourism" has drawn considerable public attention in recent years. There have been frequent media reports on the issue⁵ and there were also e-petitions⁶ that called on the government to eliminate the right of the soil as a means to end "birth tourism". However, which births/deliveries in Canada should be attributed to "birth tourism" has not been officially defined. In the public discourse, "birth tourism" often refers to the practice of expectant foreign women travelling to Canada (short-term visitors) to give birth in Canada in order to secure Canadian citizenship for their child by automatic operation of law.

The information on the true intention of the foreign women who give birth in Canada is not available. There is also no available administrative or survey data that can identify the births/deliveries by foreign women who entered Canada on a visitor visa (including Electronic Travel Authorization) and without any other immigration status (i.e., short-term visitors). Public attention has been given to births or deliveries by so called "non-residents" in the available statistics. Various numbers have been quoted and used to signify the extent of birth tourism. In the early media discussions of the issue, the numbers of live births under the category "Mother's residence outside Canada" in Statistics Canada's Vital Statistics—Birth Database were used to inform the discussion concerning the extent of "birth tourism". Although reporting of births in the Birth Database is virtually complete, the births identified as births by mothers whose address of residence is outside of Canada are likely under-counted due to self-reporting of a temporary address in Canada in the birth registration form by some foreign parents.

More recently, hospital discharge billing information for deliveries, extracted from the Canadian Institute for Health Information (CIHI)'s Discharge Abstract Database (DAD), has been used in the public discourse as the primary data source to demonstrate the extent of "birth tourism". The number of births attributed to "birth tourism" was proxied using the number of in-hospital deliveries for which the service is billed under the Responsibility for Payment category (RFP) of "Other country resident self-pay". With the additional information on mothers' health insurance coverage verified by hospital admission, compared to the Vital Statistics Birth Database, the DAD has a lower likelihood of misclassifying non-residents as Canadian residents. However, in the DAD, deliveries billed under the "Other country resident self-pay" category are not limited to deliveries by short-term foreign visitors and can in fact include deliveries billed to mothers with various immigration statuses, such as immigrants, international students and temporary foreign workers, in addition to short-term foreign visitors. Neither the Vital Statistics Birth Database nor the DAD captures the additional information needed to differentiate parents' immigration status and hence cannot really be used to assess the extent of births/deliveries by short-term visitors.

Fortunately, the existing linkage between the DAD and the Longitudinal Immigration Database (IMDB) via the Derived Record Depository (DRD) in Statistics Canada (hereafter referred to as the DAD-IMDB/DRD record linkage) can enhance the information contained in the DAD and, to some degree, mitigate the problem of missing information on mother's immigration status in the

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https://policyoptions.irpp.org/magazines/november-2018/hospital-stats-show-birth-tourism-rising-in-major-cities/. https://globalnews.ca/news/4689506/birth-tourism-canada-data/ www.vancouverisawesome.com/vancouver-news/canada-birth-tourism-numbers-1939455. www.theglobeandmail.com/opinion/article-why-canada-should-end-our-unfair-birth-tourism-policies/

⁶ https://petitions.ourcommons.ca/en/Petition/Details?Petition=e-397 https://petitions.ourcommons.ca/en/Petition/Details?Petition=e-1527

DAD, though not by the father's status, which is also relevant to the understanding of births occurring in Canada in relation to the issue of "birth tourism". In order to take advantage of the DAD-IMDB/DRD record linkage, the Research and Evaluation (R&E) Branch at Immigration, Refugees and Citizenship Canada worked with the Health Analysis Division at Statistics Canada to construct the data that identifies deliveries recorded in the DAD by immigrant and temporary resident mothers who are included in the IMDB. The data was then examined by R&E to break down hospital deliveries, particularly those billed under the "Other country resident self-pay" category, by mother's immigration status: Canadian citizens by birth and immigrants, temporary residents and those in the remaining not linked "residual" category which encompasses short-term visitors.

This report is organized as follows: Section 2 describes the data sources used for this study. Section 3 provides an overview of hospital delivery and birth records in the DAD between fiscal years 2007 and 2017. Section 4 examines characterization of hospital deliveries by women's immigration/permit status based on the DAD-IMDB/DRD record linkage. Section 5 summarizes the main findings, discusses the limitations of the study and highlights potential implications of the findings of this study.

2. Data

The DAD contains demographic, administrative and clinical data on all separations (with the exception of stillbirths and cadaveric donors) from acute-care inpatient facilities for all provinces and territories except Quebec. It also includes demographic, administrative and clinical data on all patient separations from day surgery facilities in some provinces and territories. The DAD is managed by CIHI with data received directly from acute care facilities or from their respective health/regional authority or ministry/department of health. Facilities in all provinces and territories except Quebec are required to report.⁷

CIHI's policy (at the time of this study) prohibits sharing Quebec data in requests to federal organizations. Neither the DAD-based tables that IRCC received from CIHI, nor the DAD that was used by Statistics Canada to link to the IMDB include Quebec data. Hence, in this report, Quebec is excluded from the analysis based on DAD or DAD-IMDB/DRD record linkage.

Information relevant to this study includes the records for hospital deliveries and newborns, including their admission province, provincial/territorial health card number, patient admission and discharge date, and hospital service billing information (e.g., RFP). Most of these data elements are self-explanatory, except for RFP, which is explained below.

The RFP data element describes the primary source responsible for payment of the service(s) rendered. The allowable categories for this data element are:

- 01 Provincial/territorial responsibility
- 02 Workers' Compensation Board/Workplace Safety and Insurance Board (WCB/WSIB), Workers' Service Insurance Board or equivalent
- 03 Other province/territory (resident of Canada)
- 04 Department of Veterans Affairs (DVA)/Veterans Affairs Canada (VAC)
- 05 First Nations and Inuit Health Branch (formerly called the Medical Service Branch [MSB])
- 06 Other federal government (Department of National Defence, Citizenship and Immigration), or penitentiary inmates
- 07 Canadian resident self-pay
- 08 Other country resident self-pay

Services rendered to patients for hospital deliveries are billed (registered) respectively under these eight RFP categories. A careful examination of information from the DAD Abstracting Manual and other sources reveals that deliveries registered under the RFP category 08 "Other country resident self-pay" can include a much broader range of situations than those that may be considered as "birth tourism" regardless how birth tourism is defined. The next section of this report provides more information.

The **IMDB** is a longitudinal database containing immigrants' and temporary residents' records, derived from the Immigration Landing Files (1980 to 2017), various permit files (from 1980 to

Quebec does not submit data to the DAD. Quebec's acute inpatient separations are reported to the Hospital Morbidity Database (HMDB). Data from Quebec is submitted to CIHI directly by the Ministère de la Santé et des Services sociaux du Québec. This data file is then merged with the DAD to create the national DAD-HMDB data file. For more details please see the *Discharge Abstract Database Abstracting Manual: 2018-2019* and information from CIHI's website: www.cihi.ca/en/discharge-abstract-database-metadata-dad

2017) including study permits, work permits, temporary resident permits and refugee claimant files. It contains information on immigrants and temporary residents with various permits. Types of information relevant to this study are immigration admission time, temporary residents' permit type, permit effective and expiration date.

The **DRD** is a national longitudinal database of individuals derived from a number of data files and contains only basic personal identifiers. The DRD is part of Statistics Canada's Social Data Linkage Environment (SDLE). It is the central depository of linkage keys through which Statistics Canada's research databases such as IMDB and DAD can be linked. Individuals who have some close connections to Canada (such as having a SIN) are likely to be included in the database⁸.

Adding immigration/permit status information from the IMDB/DRD to the DAD allows us to categorize deliveries not only by the RFP category, but also by the mother's immigration/permit status, though not by the father's status.

The **DAD-IMDB/DRD record linkage** used in this analysis is based on three sources: 1) DAD records of delivery admissions occurring between April 1, 2007 and March 31, 2018; 2) IMDB records of immigrants' landing files from 1980 to 2017 and temporary resident (TR) permit files from 1980 to 2017, and 3) DRD data sources updated to 2017 at the latest. To be linked to the IMDB, the hospital delivery records must pertain to women who were either immigrants who landed in Canada between 1980 and 2017, or were TRs who had at least one permit that had come into effect during that same period. DAD records that were not successfully linked to the DRD were not eligible for linkage to the IMDB.

Using the DAD-IMDB/DRD linked file, this report aims to examine hospital deliveries that occurred in Canada outside of Quebec for fiscal years 2007-08 through 2017-18 by the mother's immigration/permit status, paying particular attention to deliveries for which services are registered under the RFP 08 "Other country resident self-pay". Specifically, the analysis identifies deliveries by temporary residents and their permit type, such as study and work permits and deliveries by immigrants or Canadian-born citizens. By doing so, the analysis also derives a "residual" delivery category from the total deliveries under RFP 08 "Other country resident self-pay" by separating out, when possible, the above identified deliveries. This number of deliveries in the "residual" category is a better estimate of the deliveries by short-term visitors than the total number of deliveries under this payment category.

To be clear, the analysis using this data linkage can improve our understanding of the issue, but there are also limitations. Data gaps in the DAD-IMDB/DRD linkage and the complexity of linking each delivery record to mothers' immigration or permit status mean that not all deliveries can be identified and separated by mother's immigration and permit status. The following summarizes the limitations in the data:

• **DAD**: Includes only in-hospital deliveries and does not capture other deliveries (e.g., those at home or at birthing centers outside of hospitals) and the DAD used to link with IMDB does not have information for Quebec, hence the analysis does not provide a complete national picture.

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⁸ For detailed information on the DRD, please see the <u>Statistics Canada's website</u>.

- **IMDB/DRD**: Information truncation in more recent years (i.e., 2016 and 2017): some information for relatively new arrivals, such as landing records or health card information, may not be present to create their personal identifications. These individuals will not be reflected in the IMDB/DRD data or be eligible for the linkage to the DAD.
 - The information truncation can be a result of a lag in reporting of PR or TR information to the IMDB. In addition, because IMDB records contribute to the augmentation of the DRD, the order in which files are linked in SDLE may affect who is identified and eligible for linkage.
- **DAD-IMDB/DRD linkage**: Deliveries by recent immigrants or permit holders are less likely to be linked to the IMDB/DRD due to the information truncation in the IMDB/DRD file. This means that the breakdown of number and percentage of deliveries by immigration/permit status for the most recent years (i.e., 2016 and 2017) is less reliable than that for earlier years.
 - Deliveries in the "residual" category can include several situations broader than "birth tourism" as depicted in the public discourse including: 1) deliveries by spouses of international students or temporary foreign workers, if they came to Canada to accompany their permit holding partners in Canada, but they themselves never had a study or work permit; 2) deliveries by spouses of Canadian citizens or PRs who came to Canada on a visitor visa to give birth to their babies with Canadian fathers; 3) deliveries by Canadians usually living overseas returning to Canada to give birth; and 4) deliveries by diplomats or officials/employees of foreign governments.
 - The information of a newborn's father is not available in the linked file, hence the deliveries by spouses of international students or temporary foreign workers or by spouses of Canadian citizens or PRs could not be identified.

3. Setting the scene: hospital delivery and birth records in the DAD

The DAD captures all hospital deliveries (records pertaining to the woman giving birth) and births (records pertaining to newborns) in Canada outside of Quebec. Deliveries and births occurring outside of hospitals are not registered in the DAD. However, the proportion of deliveries/births occurring outside of hospitals is small in Canada. Statistics Canada's Vital Statistics - Birth Database covers all births in Canada including births outside hospitals and show that the total number of non-hospital births account for no more than 2% of the total births in Canada⁹. In addition, it is possible that "birth tourists" prefer hospital deliveries to home deliveries. In light of the above, missing the number of non-hospital deliveries/births may not lead to an important under-estimation of deliveries/births by "birth tourists" Births in Quebec, however, account for about 20% of total births in Canada. This study focuses on the Rest of Canada (ROC) but it would be logical to assume that Quebec exhibits the same behaviours as the ROC and therefore if needed, an approximate Canadian number or ratio could be inferred.

Since the linkage key between the mother and the newborn is not available in the DAD extract that was used to prepare the record linkage between the DAD and the IMDB/DRD at Statistics Canada, only deliveries, not newborns, can be linked to mothers in the IMDB/DRD. Hence, this record linkage only allows for the analysis of deliveries, not births, and deliveries only by mother's immigration/permit status, but not by newborn's father's status¹¹.

Table 3.1 presents the number of hospital deliveries in Canada (excluding Quebec) by the RFP category for fiscal years 2007-08 through 2017-18. To be succinct, henceforth in this report, fiscal years 2007-08, 2008-09, etc. will be written as 2007, 2008, etc.

⁹ Table: 13-10-0429-01 (formerly CANSIM 102-4516).

¹⁰ All the media reporting of birth tourism that we have seen focuses only on hospital deliveries.

Concerning the birth event, in the DAD, the number of deliveries should not be confused with the number of births; the total number of births (newborns) is slightly higher than the number of deliveries since multiple births such as twin births are only counted as one delivery based on the mother's delivery records.

Table 3.1: Number and percentage of hospital deliveries by "Responsibility for Payment" category, Canada (excluding Quebec)

Fiscal year	Provincial/territorial responsibility (01,03)	Canadian resident self- pay (07)	Other country resident self-pay (08)	Other (02, 04, 05, 06, ZZ*)	Total
2007	279,585 (98.2%)	1,805 (0.6%)	1,425 (0.5%)	1,760 (0.6%)	284,570 (100%)
2008	280,835 (98.2%)	1,840 (0.6%)	1,430 (0.5%)	1,970 (0.7%)	286,075 (100%)
2009	282,455 (98.2%)	1,760 (0.6%)	1,385 (0.5%)	1,995 (0.7%)	287,595 (100%)
2010	277,575 (98.3%)	1,725 (0.6%)	1,360 (0.5%)	1,765 (0.6%)	282,425 (100%)
2011	279,035 (98.2%)	1,875 (0.7%)	1,625 (0.6%)	1,740 (0.6%)	284,275 (100%)
2012	280,155 (98.2%)	1,865 (0.7%)	1,755 (0.6%)	1,610 (0.6%)	285,385 (100%)
2013	278,425 (98.2%)	1,765 (0.6%)	2,165 (0.8%)	1,040 (0.4%)	283,395 (100%)
2014	280,715 (98.1%)	1,815 (0.6%)	2,815 (1%)	925 (0.3%)	286,270 (100%)
2015	281,060 (98%)	1,940 (0.7%)	2,890 (1%)	1,000 (0.3%)	286,890 (100%)
2016	279,905 (97.8%)	2,085 (0.7%)	3,230 (1.1%)	1,100 (0.4%)	286,320 (100%)
2017	277,140 (97.5%)	2,050 (0.7%)	3,630 (1.3%)	1,315 (0.5%)	284,135 (100%)
Total	3,076,880 (98.1%)	20,520 (0.7%)	23,715 (0.8%)	16,215 (0.5%)	3,137,330 (100%)

^{*}ZZ is a combined category that includes a small number of cases with unknown, missing or invalid codes. Source: Data in all tables in this report are based on the DAD/IMDB/DRD record linkage file. All numbers in the tables are rounded to nearest 0 or 5.

The number and percentage of deliveries under RFP category 08 "Other Country resident self-pay", which have been used by some as a proxy for the number of births resulting from "birth tourism" have been relatively small, though they show an increasing trend since the early 2010s. From 2007 to 2010, the number of deliveries in this category was stable at around 1,400, but starting in 2010 the number has increased rapidly, reaching 3,630 in 2017. The percentage of deliveries under RFP 08 has also increased accordingly from around 0.5% in the late 2000s to over 1% in 2016 and 2017.

The examination of the DAD data dictionary and Abstracting Manuals, and the coverage of health care programs of Canadian provinces and territories reveals a few key details concerning the classification of the RFP categories in the DAD. First, "self-pay" in the DAD includes not only payments directly from patients, but also payments covered by various private insurance plans, for example, the University Health Insurance Plan (UHIP) in Ontario.

Second, there are variations across provinces/territories and over time within a jurisdiction regarding who is covered by provincial/territorial (P/T) health care programs (e.g., whether international students are covered), and how to differentially assign RFP values of either 07 "Canadian resident self-pay" or 08 "Other country resident self-pay". For example, most international students in British Columbia are covered by the provincial health care program, hence, their deliveries are paid for by the province and registered under RFP 01. In Ontario, however, the provincial health care program does not cover international students: hospital services (including deliveries) rendered to them are self-paid and, for many, by UHIP and registered under RFP 08. In some provinces, whether or not international students are covered by P/T health care plans has changed over time. Therefore, the assignment of values for the RFP data element is not consistent across jurisdictions or over time.

As a result of these variations, deliveries registered under the RFP 08 "Other country resident self-pay" can be associated with a much broader range of situations than those associated with "birth tourism" (as defined in the public discourse) such as:

- I. Expectant mothers with no connection to Canada travel to Canada on visitors' visa for the purpose of giving birth and obtaining Canadian citizenship for the child;
- II. International students and their spouses who are not covered by a P/T health care program (e.g., international students in Ontario);
- III. Some temporary foreign workers who are not covered by a P/T health care program;
- IV. Some refugee claimants and temporary resident permit (TRP) holders;
- V. New permanent residents who are still in their three-month waiting period to be covered by a P/T health care program;
- VI. Foreign diplomatic or consular officer, or other representative or employee of a foreign government in Canada;
- VII. Canadians living overseas returning to Canada to give birth;
- VIII. Undocumented migrants;
 - IX. Foreign women in spousal relations with Canadian residents entering Canada on a visitor visa, and giving birth to a child fathered by a Canadian resident;
 - X. Canadian citizens and PRs who are not covered by a P/T health care program due to some reasons:
 - XI. Women on visitors' visa travelling to Canada and happen to deliver babies in Canada without the intention of obtaining Canadian citizenship for their babies.

It is important to note that not all deliveries under the above scenarios (II to X) fall under RFP 08: some can also be registered under 07 "Canadian residents self-pay" or other payment categories. As mentioned above, the rules for assigning the RFP category to either RFP 08 or RFP 07 are not always clear. Examining the record linkage between the DAD and the IMDB/DRD can help sort this out, to some degree.

Table 3.2: Percentage distribution of hospital deliveries registered under RFP 08 "Other country resident self-pay" by province/region, Canada (excluding Quebec)

Fiscal year	Ontario	British Columbia	Prairies	Atlantic provinces & Territories	Canada excluding QC
2007	1,020 (71.6%)	175 (12.3%)	155 (10.9%)	75 (5.3%)	1,425 (100%)
2008	1,045 (73.1%)	180 (12.6%)	145 (10.1%)	65 (4.5%)	1,430 (100%)
2009	1,010 (72.9%)	130 (9.4%)	175 (12.6%)	70 (5.1%)	1,385 (100%)
2010	1,010 (74.3%)	140 (10.3%)	145 (10.7%)	65 (4.8%)	1,360 (100%)
2011	1,135 (69.8%)	190 (11.7%)	195 (12%)	100 (6.2%)	1,625 (100%)
2012	1,260 (71.8%)	190 (10.8%)	195 (11.1%)	115 (6.6%)	1,755 (100%)
2013	1,525 (70.4%)	305 (14.1%)	200 (9.2%)	135 (6.2%)	2,165 (100%)
2014	1,840 (65.4%)	535 (19%)	285 (10.1%)	155 (5.5%)	2,815 (100%)
2015	1,930 (66.8%)	460 (15.9%)	380 (13.1%)	120 (4.2%)	2,890 (100%)
2016	2,195 (68%)	575 (17.8%)	355 (11%)	105 (3.3%)	3,230 (100%)
2017	2,525 (69.6%)	690 (19%)	320 (8.8%)	100 (2.8%)	3,630 (100%)
Total	16,490 (69.5%)	3,570 (15.1%)	2,550 (10.8%)	950 (4%)	23,715 (100%)

Table 3.2 shows that at least two-thirds of hospital deliveries registered under the RFP 08 occurred in Ontario in almost all years examined, whereas Ontario accounts for just under half of the total hospital deliveries. The numbers increased over the period examined, from around 1,000 in 2010 to around 2,500 in 2017. This is not surprising since the provincial health care program does not cover international students and the number of international students is large and has increased significantly in the province. In other words, some of the increase in deliveries under RFP 08 in Ontario may be attributed to the increase in the number of international students. British Columbia has the second largest numbers and the fastest growth (rate) of deliveries under this RFP 08 category since 2010, accounting for around 10% before 2012 and nearly 20% in 2017 of the total hospital deliveries under RFP category 08 in Canada. By comparison, British Columbia accounts for around 1/7 of the total hospital deliveries. However, in British Columbia, except for some cases (such as short-term students), international students are covered under the provincial health care program; the increase in deliveries under RFP 08 in British Columbia is more likely to reflect a higher number of deliveries associated with short-term visitors than the corresponding increase in Ontario.

Table 3.3: Percentage of hospital deliveries registered under RFP 08 "Other country resident self-pay" (All RFP) by province/region, Canada (excluding Quebec)

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Fiscal year	Ontario	British Columbia	The Prairies	Atlantic provinces & Territories	Canada excluding QC
2007	0.7% (141,105)	0.4% (42,690)	0.2% (77,080)	0.3% (23,685)	0.5% (284,560)
2008	0.7% (140,220)	0.4% (43,020)	0.2% (78,755)	0.3% (24,080)	0.5% (286,075)
2009	0.7% (140,010)	0.3% (43,195)	0.2% (80,225)	0.3% (24,160)	0.5% (287,585)
2010	0.7% (137,545)	0.3% (42,110)	0.2% (79,275)	0.3% (23,500)	0.5% (282,425)
2011	0.8% (139,045)	0.4% (42,250)	0.2% (79,700)	0.4% (23,300)	0.6% (284,290)
2012	0.9% (138,215)	0.4% (42,460)	0.2% (81,985)	0.5% (22,735)	0.6% (285,390)
2013	1.1% (136,135)	0.7% (41,630)	0.2% (83,015)	0.6% (22,625)	0.8% (283,405)
2014	1.4% (136,115)	1.3% (42,240)	0.3% (85,305)	0.7% (22,600)	1.0% (286,260)
2015	1.4% (136,130)	1.1% (42,330)	0.4% (86,575)	0.5% (21,860)	1.0% (286,895)
2016	1.6% (136,660)	1.3% (43,060)	0.4% (84,805)	0.5% (21,805)	1.1% (286,330)
2017	1.8% (137,135)	1.6% (42,505)	0.4% (83,225)	0.5% (21,260)	1.3% (284,125)
Total	1.1% (1,518,315)	0.8% (467,495)	0.3% (899,930)	0.4% (251,600)	0.8% (3,137,335)

Table 3.3 shows that among the four provinces/regions examined, Ontario and British Columbia have the highest percentage of deliveries registered under RFP 08 (1.8% and 1.6%, respectively in 2017). The percentage in all four provinces/regions increased in recent years. For example, it increased from 0.4% in 2012 to 1.6% in 2017 for British Columbia.

4. Characterization of hospital deliveries by women's immigration/permit status: results based on the DAD-IMDB/DRD record linkage

According to Tables 4.1a and 4.3a, the deliveries not linked to the IMDB or the DRD increased each year since 2011, especially in the years after 2015; this increase can be associated with an actual increase in deliveries by women who were short-term visitors, but it could also be that fewer can be linked due to data truncation in the most recent years.

Results for Canada excluding Quebec

Hospital deliveries by women's immigration/permit status (all RFP categories combined)

Table 4.1a&b depict a general pattern of hospital deliveries by women's immigration/permit status for fiscal years 2007 to 2017: Table 4.1a provides the number of deliveries, while Table 4.1b presents the same information as a percentage distribution of the categories within a fiscal year.

Table 4.1a: Number of hospital deliveries by women's immigration/permit status, Canada (excluding Quebec)

		Had	Had at	least one poi	permit at : nt	some	Never had a		Linked to	
Fiscal year	Immigrant at time of delivery	permit(s) at delivery	Pre- permit delivery	Post- permit delivery	Delivery between permits	Total	permit (PR after delivery)	Linked to DRD, not IMDB	neither DRD nor IMDB	Total
2007	61,335	2,760	330	285	110	725	725	201,325	17,695	284,570
2008	62,200	3,310	355	235	115	705	740	201,910	17,210	286,075
2009	63,895	3,795	370	210	165	745	680	201,690	16,785	287,595
2010	64,685	4,125	305	250	230	785	600	196,320	15,905	282,425
2011	66,790	4,515	310	290	320	920	640	196,130	15,285	284,275
2012	70,330	5,125	365	300	230	895	655	195,840	12,535	285,385
2013	68,475	5,620	340	345	180	865	600	195,260	12,570	283,395
2014	70,880	5,960	385	355	235	975	565	194,810	13,075	286,270
2015	72,470	5,405	265	400	420	1085	390	194,405	13,140	286,890
2016	75,705	5,375	55	365	215	635	55	189,920	14,625	286,320
2017	73,280	3,910	0	410	85	495	0	184,570	21,880	284,135
Total	750,050	49,900	3,080	3,450	2,305	8835	5,655	2,152,185	170,710	3,137,330

Table 4.1b: Percentage distribution of hospital deliveries by women's immigration/permit status, Canada (excluding Quebec)

		Had	Had at	least one poi	permit at s nt	ome	Never had a	Linked	Linked to	
Fiscal year	Immigrant at time of delivery	permit(s) at delivery	Pre- permit delivery	Post- permit delivery	Delivery between permits	Total	permit (PR after delivery)	to DRD, not IMDB	neither DRD nor IMDB	Total
2007	21.6%	1.0%	0.1%	0.1%	0.0%	0.3%	0.3%	70.7%	6.2%	100.0%
2008	21.7%	1.2%	0.1%	0.1%	0.0%	0.2%	0.3%	70.6%	6.0%	100.0%
2009	22.2%	1.3%	0.1%	0.1%	0.1%	0.3%	0.2%	70.1%	5.8%	100.0%
2010	22.9%	1.5%	0.1%	0.1%	0.1%	0.3%	0.2%	69.5%	5.6%	100.0%
2011	23.5%	1.6%	0.1%	0.1%	0.1%	0.3%	0.2%	69.0%	5.4%	100.0%
2012	24.6%	1.8%	0.1%	0.1%	0.1%	0.3%	0.2%	68.6%	4.4%	100.0%
2013	24.2%	2.0%	0.1%	0.1%	0.1%	0.3%	0.2%	68.9%	4.4%	100.0%
2014	24.8%	2.1%	0.1%	0.1%	0.1%	0.3%	0.2%	68.1%	4.6%	100.0%
2015	25.3%	1.9%	0.1%	0.1%	0.1%	0.4%	0.1%	67.8%	4.6%	100.0%
2016	26.4%	1.9%	0.0%	0.1%	0.1%	0.2%	0.0%	66.3%	5.1%	100.0%
2017	25.8%	1.4%	0.0%	0.1%	0.0%	0.2%	0.0%	65.0%	7.7%	100.0%
Total	23.9%	1.6%	0.1%	0.1%	0.1%	0.3%	0.2%	68.6%	5.4%	100.0%

As shown by Table 4.1a&b, of annual hospital deliveries in Canada outside of Quebec, between 61,000 (22%) and 76,000 (26%) were by immigrant women who landed in 1980 or after, a few thousand (1% to 2%) hospital deliveries were by TRs — temporary foreign workers, international students, refugee claimants and temporary resident permit (TRP) holders — who had at least one of these types of permits valid at the time of delivery, and a few hundred deliveries annually by women who were not Canadian citizens or PRs and had no valid permit at the time of their delivery, but who had at least one permit at some point. These include deliveries occurring before the start date or after the expiry date of any permits or during a gap between different valid permits. These deliveries may have occurred under various situations. One example could be international students and workers or their spouses who had at least one study and/or work permit at some point, but their permit had expired at the time of their deliveries. Overall, the number and the percentage of deliveries associated with various permit holders almost doubled from 2007 to 2015.

A few hundred (under 0.3%) of the hospital deliveries each year were by women who never had a permit during the period and were not immigrants (or TRs prior to) at the time of their delivery, but who became PRs after their delivery (by 2017). This can include various situations including spouses of international students or temporary foreign workers who never had a study or work permit themselves, but later immigrated to Canada with their permit holder spouses. They could also be spouses of Canadian citizens and PRs who came to Canada to give birth to their babies with Canadian fathers, and later immigrated to Canada. Since the information of a newborn's father is not available in the linked file, we do not know the exact situations falling under this category. Due to information truncation, the number of the deliveries in 2017 by mothers who never had a permit, but were later admitted as PRs was zero because if these mothers transitioned to permanent residency in 2017 or later, this information would not be available in the linked file used in this study.

Deliveries that fell into the above situations were linked to the IMDB (as well as to the DRD). As shown by Table 4.1b, about two thirds of deliveries during the period are linked to the DRD, but not to the IMDB. These deliveries were most likely by women that are Canadian citizens by

birth or immigrants who landed in Canada as PRs before 1980. Overall, around 95% of deliveries were linked to the IMDB or the DRD. These linked deliveries were associated with women who were Canadian citizens, immigrants, or TRs with a permit at time of delivery or at some point before or after their delivery.

About 12,000 to 22,000 (or between 4% and 7%) of hospital deliveries in each year were not linked to DRD or, by extension, to the IMDB. Deliveries by short-term foreign visitors were most likely to fall into this unlinked category. However, not all not linked cases were by short-term foreign visitors. First, as mentioned earlier (Table 2.1), some not linked cases, especially in most recent years, can be attributed to information truncation. Second, breaking down the numbers further by RFP category shows that a majority of these not linked deliveries were covered by P/T healthcare cards (RFP 01/03) (Table 4.2), i.e., deliveries by women having a PT health care card. Over 10% of not linked deliveries in recent years were under RFP 08. There were also relatively small numbers of not linked deliveries in other RFP categories (or category groups).

Table 4.2: Percentage distribution of hospital deliveries registered in DAD but not linked to DRD (or, by extension, IMDB) by RFP category, Canada (excluding Quebec)

		The second second		•	•
RFP category	Provincial/territorial responsibility (01,03)	Canadian resident self- pay (07)	Other country resident self- pay (08)	Other (02, 04, 05, 06, ZZ*)	Total
2007	87.4%	4.7%	5.1%	2.7%	100.0%
2008	86.6%	5.2%	5.1%	3.1%	100.0%
2009	87.0%	4.6%	5.1%	3.2%	100.0%
2010	87.7%	4.2%	5.2%	2.9%	100.0%
2011	85.7%	4.9%	6.7%	2.7%	100.0%
2012	82.1%	6.2%	8.5%	3.2%	100.0%
2013	81.3%	5.9%	11.0%	1.8%	100.0%
2014	77.6%	6.3%	14.4%	1.6%	100.0%
2015	76.3%	6.8%	14.9%	1.9%	100.0%
2016	73.0%	7.6%	16.8%	2.6%	100.0%
2017	75.6%	6.6%	14.5%	3.3%	100.0%
Total	82.0%	5.7%	9.6%	2.7%	100.0%

^{*}ZZ is a combined category that includes a small number of cases with unknown, missing or invalid codes. Source: Data in all tables in this report are based on the DAD/IMDB/DRD record linkage file. All numbers in the tables are rounded to nearest 0 or 5.

Hospital deliveries under RFP 08 by women's immigration/permit status

From 2007 to 2017, the cumulative number of deliveries under RFP 08 was around 23,700, accounting for 0.8% of the total deliveries on average for the whole period examined. The number of deliveries under this RFP category has been used to demonstrate the extent of "birth tourism" in recent media discussions¹². Indeed, the DAD Abstracting Manual instructs coders to register services to foreign visitors under the RFP category 08. In terms of the record linkage, hospital deliveries by short-term foreign visitors should typically be registered under RFP 08 (as

https://policyoptions.irpp.org/magazines/november-2018/hospital-stats-show-birth-tourism-rising-in-major-cities/ https://globalnews.ca/news/4689506/birth-tourism-canada-data/ www.vancouverisawesome.com/vancouver-news/canada-birth-tourism-numbers-1939455 www.theglobeandmail.com/opinion/article-why-canada-should-end-our-unfair-birth-tourism-policies/

per DAD coding guidelines) and fall into the not linked category (Table 4.3a&b, column (6)) since these visitors are unlikely to have a record in the IMDB or DRD. However, not all deliveries under RFP 08 were not linked. Breaking down the number of deliveries by women's immigration/permit status shows that, overall, not linked deliveries made up the majority (about 70%) of the total deliveries under RFP 08 for the whole period examined, while those linked to the IMDB or the DRD accounted for about 30% and are likely attributable to Canadian citizens by birth, immigrants or temporary residents.

Table 4.3a: Number of hospital deliveries registered under RFP category 08 "Other country resident self-pay" by women's immigration/permit status, Canada (excluding Quebec), (for RFP 07, or 01/03, see Appendix)

			Had at	Had at least one permit at some point		Never		Linked to		
Fiscal year	Immigrant at time of delivery	Had permit(s) at delivery	Pre- permit delivery	Post- permit delivery	Delivery between permits	Total	had a permit (PR after delivery)	Linked to DRD, not IMDB	neither DRD nor IMDB	Total
2007	45	175	75	35	15	125	125	50	905	1,425
2008	70	180	75	35	25	135	135	30	885	1,430
2009	55	150	75	35	25	135	145	40	860	1,385
2010	50	165	70	45	25	140	135	45	830	1,360
2011	70	185	65	40	50	155	140	50	1,020	1,625
2012	75	230	95	45	30	170	160	55	1,070	1,755
2013	85	265	100	55	35	190	160	80	1,385	2,165
2014	65	385	130	70	40	240	135	100	1,885	2,815
2015	95	390	80	70	85	235	90	115	1,960	2,890
2016	75	395	20	70	50	140	15	145	2,460	3,230
2017	55	225	0	70	15	85	0	85	3,175	3,630
Total	740	2,750	780	575	400	1,755	1,240	795	16,435	23,715

Table 4.3b: Percentage distribution of hospital deliveries registered under RFP category 08 "Other country resident self-pay" by women's immigration/permit status, Canada (excluding Quebec)

			Had at	Had at least one permit at some point		some	Never		Linked to	
Fiscal year	Immigrant at time of delivery	Had permit(s) at delivery	Pre- permit delivery	Post- permit delivery	Delivery between permits	Total	had a permit (PR after delivery)	Linked to DRD, not IMDB	neither DRD nor IMDB	Total
2007	3.2%	12.3%	5.3%	2.5%	1.1%	8.8%	8.8%	3.5%	63.5%	100.0%
2008	4.9%	12.6%	5.2%	2.4%	1.7%	9.4%	9.4%	2.1%	61.9%	100.0%
2009	4.0%	10.8%	5.4%	2.5%	1.8%	9.7%	10.5%	2.9%	62.1%	100.0%
2010	3.7%	12.1%	5.1%	3.3%	1.8%	10.3%	9.9%	3.3%	61.0%	100.0%
2011	4.3%	11.4%	4.0%	2.5%	3.1%	9.5%	8.6%	3.1%	62.8%	100.0%
2012	4.3%	13.1%	5.4%	2.6%	1.7%	9.7%	9.1%	3.1%	61.0%	100.0%
2013	3.9%	12.2%	4.6%	2.5%	1.6%	8.8%	7.4%	3.7%	64.0%	100.0%
2014	2.3%	13.7%	4.6%	2.5%	1.4%	8.5%	4.8%	3.6%	67.0%	100.0%
2015	3.3%	13.5%	2.8%	2.4%	2.9%	8.1%	3.1%	4.0%	67.8%	100.0%
2016	2.3%	12.2%	0.6%	2.2%	1.5%	4.3%	0.5%	4.5%	76.2%	100.0%
2017	1.5%	6.2%	0.0%	1.9%	0.4%	2.3%	0.0%	2.3%	87.5%	100.0%
Total	3.1%	11.6%	3.3%	2.4%	1.7%	7.4%	5.2%	3.4%	69.3%	100.0%

Depending on the year up to 2015 (the linkage for 2016 and 2017 is less reliable due to the potential data truncation), about 50 to 100 (or 2% to 5%) of annual hospital deliveries registered under RFP 08 were by immigrant women (column 1), whereas between 200 and 400 (or nearly 10%) were by temporary resident women with a valid permit at the time of delivery (column 2). There were also around 150 to 250 deliveries annually by women who had a permit at some point, but not at the time of their delivery (column 3). The number of deliveries by women who had never had a permit but were later admitted as PRs was around 100 to 150 per year (column 4). All these deliveries under RFP 08 (columns 1 through 4) are linked to the IMDB.

A small number of deliveries per year (50 to 150) were by women who can be linked to the DRD, but not to the IMDB. These deliveries were likely by Canadian-born citizen women or immigrant women who landed in Canada before 1980 (i.e., out of scope of the IMDB), or women in other situations who have some connections to Canada so that they have a record in a DRD data source. One possible situation for this could be Canadians living overseas and returning to Canada to give birth. These women may have a Social Insurance Number to be identified in the DRD, but they do not have a P/T health care card and, hence, fall under RFP 08. This type of situation may also be registered under the RFP category 07.

Removing all the above linked deliveries from the total deliveries under RFP 08, what remains is the not linked "residual" deliveries. These numbers show an increasing trend, from below 1,000 per year since the beginning of the 2010s, to nearly 2,000 per year in the mid-2010s. In fact, the significant increase in the number of the total deliveries under RFP 08 is mainly attributable to the increase in the number of these not linked deliveries.

The percentage of not linked or "residual" deliveries between 2007 and 2012 was under 64%, or around 1,000. In 2015, about 68% (or 1,960) of deliveries registered under RFP 08 were by women who cannot be linked to the DRD or the IMDB. In 2016, the corresponding number was about 76% or 2,460 respectively. In 2017, the number increased sharply to 87.5% or 3,175 respectively. The large increase in the "residual" number in the most recent years (such as in 2016 and 2017) may be partly attributable to information truncation in the DAD-IMDB/DRD linkage. The percentage of "residual" deliveries in 2015 (68%) was used to obtain the adjusted estimates of the "residual" number of deliveries under RFP 08 in 2016 and 2017. The adjusted "residual" number was around 2,200 and 2,470 for the two years respectively. These are likely conservative estimates since the proportion of "residual" deliveries has increased since the early 2010s.

To summarize, about one third of deliveries registered under RFP 08 in more recent years were linked to the IMDB/DRD and were by women who were Canadian citizens, immigrants, or TRs with at least one permit around or at the time of their deliveries. The remaining two-thirds are the not linked or "residual" deliveries. Deliveries by "birth tourists" (as depicted in the public discourse) are likely to fall under this specific category.

The derived "residual" category under RFP 08 certainly is an improved estimate of short-term visitors over the total number of deliveries under RFP 08 "Other country resident self-pay" category. However, as mentioned earlier, not all not linked deliveries (i.e., "residual deliveries") can be attributed to potential "birth tourists". Deliveries by foreign women in some special

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¹³ The adjusted estimates of the "residual" numbers of deliveries under RFP 08 in 2016 and 2017 are derived using the total number of deliveries in each of these years multiplied by 68%.

situations may also be included in the not linked "residual" category under RFP 08. For example, deliveries by women entering Canada on visitor visas who are the spouses of Canadian citizens or PRs, by those born to a parent who is a diplomatic or consular officer, or other representative or employee of a foreign government or by Canadian women living overseas and returning to Canada to give birth. At this point, no available information can show the extent of deliveries under these special situations.

Hospital deliveries (all RFP) by type of women's permit (for temporary residents)

The discussion below further examines the deliveries by type of women's permit. It shows the contribution of deliveries by women with various permit types to the total number of deliveries.

Figure 4.1 shows the percentages of deliveries by type of women's permit among those who had at least one permit between 1980 and 2017 (at the time of delivery, before or after delivery, or during permit gaps). Since one person can have multiple permits over time and can also have different types of permits valid at the same time, business rules were applied to assign only one permit type to a mother in relation to each of the linked deliveries (see the Technical Report for the assigning rules). The purpose of using the business rules is to classify a woman's permit type in relation to each delivery based on the main purpose of obtaining the permit. A woman is classified as a work permit holder if the main purpose of her work permit type is for work and not for other purposes, such as for supporting study or the livelihood of asylum claimants. A woman is classified as a study permit holder if her main purpose for entering Canada is for study, even if she also received a work permit. Since the same woman may have permits of different types over time, different permit types may be linked to different deliveries by the same woman during the period.

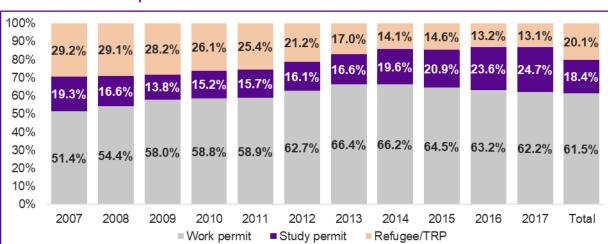


Figure 4.1: Percentage of deliveries by permit type among women who had at least one permit at some point

Table 4.4a: Number of hospital deliveries by women's immigration/permit status and permit type, Canada (excluding Quebec)

	Immigrant	Had at le	ast one p	ermit at sor	ne point	Never had a permit	Linked to	Linked to neither	
Fiscal year	at time of delivery	Work Permit	Student Permit	Refugee/ TRP	Total	(PR after delivery)	DRD, not IMDB	DRD nor IMDB	Total
2007	61,335	1,795	675	1,020	3,490	725	201,325	17,695	284,570
2008	62,200	2,180	665	1,165	4,010	740	201,910	17,210	286,075
2009	63,895	2,635	625	1,280	4,540	680	201,690	16,785	287,595
2010	64,685	2,885	745	1,280	4,910	600	196,320	15,905	282,425
2011	66,790	3,200	855	1,380	5,435	640	196,130	15,285	284,275
2012	70,330	3,775	970	1,280	6,025	655	195,840	12,535	285,385
2013	68,475	4,310	1,075	1,105	6,490	600	195,260	12,570	283,395
2014	70,880	4,590	1,360	980	6,930	565	194,810	13,075	286,270
2015	72,470	4,185	1,355	950	6,490	390	194,405	13,140	286,890
2016	75,705	3,795	1,420	790	6,005	55	189,920	14,625	286,320
2017	73,280	2,740	1,090	575	4,405	0	184,570	21,880	284,135
Total	750,050	36,090	10,835	11,805	58,730	5,655	2,152,185	170,710	3,137,330

Table 4.4b: Percentage distribution of hospital deliveries by women's immigration/permit status and permit type, Canada (excluding Quebec)

	Immigrant	Had at le	ast one p	ermit at sor	ne point	Never had a permit	Linked to	Linked to neither	
Fiscal year	at time of delivery	Work Permit	Student Permit	Refugee/ TRP	Total	(PR after delivery)	DRD, not	DRD nor IMDB	Total
2007	21.6%	0.6%	0.2%	0.4%	1.2%	0.3%	70.7%	6.2%	100.0%
2008	21.7%	0.8%	0.2%	0.4%	1.4%	0.3%	70.6%	6.0%	100.0%
2009	22.2%	0.9%	0.2%	0.4%	1.6%	0.2%	70.1%	5.8%	100.0%
2010	22.9%	1.0%	0.3%	0.5%	1.7%	0.2%	69.5%	5.6%	100.0%
2011	23.5%	1.1%	0.3%	0.5%	1.9%	0.2%	69.0%	5.4%	100.0%
2012	24.6%	1.3%	0.3%	0.4%	2.1%	0.2%	68.6%	4.4%	100.0%
2013	24.2%	1.5%	0.4%	0.4%	2.3%	0.2%	68.9%	4.4%	100.0%
2014	24.8%	1.6%	0.5%	0.3%	2.4%	0.2%	68.1%	4.6%	100.0%
2015	25.3%	1.5%	0.5%	0.3%	2.3%	0.1%	67.8%	4.6%	100.0%
2016	26.4%	1.3%	0.5%	0.3%	2.1%	0.0%	66.3%	5.1%	100.0%
2017	25.8%	1.0%	0.4%	0.2%	1.6%	0.0%	65.0%	7.7%	100.0%
Total	23.9%	1.2%	0.3%	0.4%	1.9%	0.2%	68.6%	5.4%	100.0%

Deliveries by work permit-holding women accounted for more than half of the total deliveries by women who had at least one permit (regardless of type). The number of deliveries by work permit-holding women more than doubled from around 1,800 in 2007 to over 4,000 in 2015 (Table 4.4a), and their percentage of the deliveries by those who had at least one permit increased from over half in 2007 to over 60% after 2012 (Figure 3.1). This is not surprising given the large and increasing number of temporary foreign workers in Canada during the period. The number of work permit holders (for work purposes) more than doubled from around 171,000 in 2007 to around 367,000 in 2017. That being said, the deliveries associated with

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¹⁴ IRCC, TR data cube, November 30, 2020.

work permit holders accounted for only between 0.6% and 1.6% of the all total deliveries per year during the period.

Of the total deliveries by work permit holders, only about 4% fall under RFP 08 (compared to Table 4.4a): the majority (more than 90%) were paid by a P/T health care program and registered under the RFP categories 01/03 (i.e., under P/T responsibility; see Appendix Table A.2.2 for the numbers under RFP 01/03).

The percentage of deliveries by women who had one or more study permits fluctuated between 14% and 25% of all deliveries during this period by women who had at least one TR permit since 1980. The number of deliveries also increased significantly since the end of the 2000s, from around 650 per year at the end of 2000s to around 1,400 by the mid-2010s (Table 4.4a). This likely reflects the significant increase in the number of international students in Canada during the period. Despite the rapid increase in number of deliveries associated with study permit holders, their percentage in the total deliveries was only at 0.5% or less during the period.

For the period examined, between 13% and 29% of deliveries by women who had at least one TR permit were by women who were refugee claimants or had a TRP at some point since 1980¹⁵. The number of such deliveries fluctuated around 1,000 in all years except 2017 (Table 4.4a&b). It seems that the number has been lower in more recent years (2013 to 2016) compared to the end of the 2000s and the beginning of the 2010s (2009-2012). The percentage of deliveries by refugee claimants/TRPs in the total deliveries was also small, at a maximum of 0.5% in any of the years during the period.

The sharp decreases in numbers of deliveries associated with all categories of TR permit-holding women in the most recent years, particularly in 2017, are likely the result of information truncation.

¹⁵ The total number of deliveries by temporary resident permit holders has been very small relative to other permit types in any of the years during the period examined. Therefore, deliveries associated with this permit type should be small. The deliveries in the category combining refugee claimants and temporary resident permit holders should

be mainly composed of refugee claimants. Our examination of the data confirms this (number not shown due to confidentiality requirements).

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Hospital deliveries under RFP 08 by type of women's permit (for temporary residents)

Table 4.5a: Number of hospital deliveries registered under RFP 08 "Other country resident selfpay" by women's immigration/permit status and permit type, Canada (excluding Quebec)

	Immigrant	Had at le	ast one p	ermit at soı	ne point	Never had a permit	Linked to	Linked to neither	
Fiscal year	at time of delivery	Work Permit	Student Permit	Refugee/ TRP	Total	(PR after delivery)	DRD, not	DRD nor IMDB	Total
2007	45	90	165	45	300	125	50	905	1,425
2008	70	95	170	50	315	135	30	885	1,430
2009	55	90	145	50	285	145	40	860	1,385
2010	50	95	180	30	305	135	45	830	1,360
2011	70	125	185	35	345	140	50	1,020	1,625
2012	75	135	215	50	400	160	55	1,070	1,755
2013	85	140	260	55	455	160	80	1,385	2,165
2014	65	190	375	55	620	135	100	1,885	2,815
2015	95	230	355	40	625	90	115	1,960	2,890
2016	75	190	320	25	535	15	145	2,460	3,230
2017	55	90	210	15	315	0	85	3,175	3,630
Total	740	1,470	2,585	455	4,510	1,240	795	16,435	23,715

Table 4.5b: Distribution of hospital deliveries registered under RFP 08 "Other country resident self-pay" by women's immigration permit status and permit type, Canada (excluding Quebec)

	Immigrant	Had at le	ast one p	ermit at sor	ne point	Never had a permit	Linked to	Linked to neither	
Fiscal year	at time of delivery	Work Permit	Student Permit	Refugee/ TRP	Total	(PR after delivery)	DRD, not IMDB	DRD nor IMDB	Total
2007	3.2%	6.3%	11.6%	3.2%	21.1%	8.8%	3.5%	63.5%	100.0%
2008	4.9%	6.6%	11.9%	3.5%	22.0%	9.4%	2.1%	61.9%	100.0%
2009	4.0%	6.5%	10.5%	3.6%	20.6%	10.5%	2.9%	62.1%	100.0%
2010	3.7%	7.0%	13.2%	2.2%	22.4%	9.9%	3.3%	61.0%	100.0%
2011	4.3%	7.7%	11.4%	2.2%	21.2%	8.6%	3.1%	62.8%	100.0%
2012	4.3%	7.7%	12.3%	2.8%	22.8%	9.1%	3.1%	61.0%	100.0%
2013	3.9%	6.5%	12.0%	2.5%	21.0%	7.4%	3.7%	64.0%	100.0%
2014	2.3%	6.7%	13.3%	2.0%	22.0%	4.8%	3.6%	67.0%	100.0%
2015	3.3%	8.0%	12.3%	1.4%	21.6%	3.1%	4.0%	67.8%	100.0%
2016	2.3%	5.9%	9.9%	0.8%	16.6%	0.5%	4.5%	76.2%	100.0%
2017	1.5%	2.5%	5.8%	0.4%	8.7%	-	2.3%	87.5%	100.0%
Total	3.1%	6.2%	10.9%	1.9%	19.0%	5.2%	3.4%	69.3%	100.0%

Table 4.5a&b shows deliveries under RFP 08 by women's immigration/permit status and also by permit type for mothers who had at least one permit at some point. This provides further details regarding the situations of deliveries that fall under RFP 08.

Although the total number of deliveries by women who had at least one permit were a few thousand per year during the period (Table 4.4a), only between 300 and 620 (or about 10%) fell under RFP 08. Of these deliveries under RFP 08, between 51% and 60% were by study permit holders, around one third by work permit holders and around 10% by women who were refugee

claimants or had TRPs (Figure 4.2). Together they accounted for about 20% of the total deliveries under RFP 08.

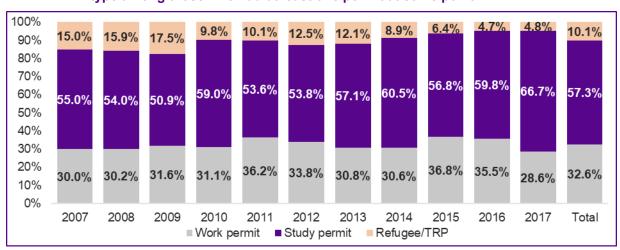


Figure 4.2: Percentage of deliveries under RFP 08 "Other country resident self-pay" by permit type among those who had at least one permit at some point

For the period examined, the number of deliveries under RFP 08 by women who had at least one work permit ranged between 90 and 230 per year, accounting for 6% to 8% of the deliveries under RFP 08.

The number of deliveries registered under RFP 08 by women who had one or more study permits ranged between 165 and 375 per year (Table 4.5a), accounting for between 6% and 13% of all deliveries under RFP 08. Of the total deliveries associated with study permit holders (10,835), close to one quarter (2,585) fell under RFP 08 (Table 4.4a and 4.5a).

About 50 or fewer deliveries per year by women who were refugee claimants or had a TRP were registered under the RFP 08 category. The number of TRPs relative to that of refugee claimants was small, so the number of deliveries associated with TRPs should also be relatively small. Refugee claimants' health care, including delivery services, should typically be covered by the Interim Federal Health Program (IFHP)¹⁶ and registered in the DAD under the RFP 06 "Other federal government (Department of National Defence, Citizenship and Immigration), or penitentiary inmates" category.

In Section 2, we listed some potential situations where deliveries may fall under the RFP 08 payment category. Our analysis based on the DAD-IMDB/DRD record linkage confirms that deliveries under RFP 08 indeed included some deliveries to international students (situation II), temporary foreign workers (situation III), as well as refugee claimants and TRP holders (situation IV). Deliveries by women who had a study permit were the most frequent among the three permit types. After removing deliveries by these TRs from the total number of deliveries registered under RFP 08, the "residual" provides us a better estimate of the number of deliveries by potential "birth tourists" (as expressed in the public discourse) to Canada.

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www.canada.ca/en/immigration-refugees-citizenship/services/refugees/help-within-canada/health-care/interim-federal-health-program/coverage-summary.html, accessed January 13, 2021.

5. Conclusion and discussion

Public discourse concerning "birth tourism" has used the number of in-hospital deliveries (as reported in the DAD) for which the services were registered under the Responsibility for payment (RFP) category 08 "Other country resident self-pay" to inform the extent of this practice. However, deliveries registered under RFP 08 may include a broader range of situations than just those related to "birth tourism" as interpreted in the public discourse.

This study seeks to improve our understanding of the issue by using the information available in the DAD-IMDB/DRD record linkage. Specifically, it links deliveries (in the DAD) to women's immigration and TR status (in the IMDB/DRD) in order to mitigate the problem of lack of information on parental immigration status in the DAD. The report examines hospital deliveries that occurred in Canada (outside of Quebec) for fiscal years 2007 through 2017 by women's immigration/permit status, with a special focus on deliveries that were registered under RFP category 08 "Other country resident self-pay".

Our results show that for the period examined, of the annual hospital deliveries in Canada outside of Quebec (around 285,000), around 92%-93% (approximately 265,000) were by Canadian citizens by birth or immigrants, around 1%-2% (approximately 6,000) were by temporary residents in Canada and around 4%-6% (or around 15,000) could not be linked to the IMDB or the DRD.

Among the total hospital deliveries in Canada outside of Quebec, a small percentage were billed under the RFP 08 category "Other country resident self-pay". However, both the number and percentage of deliveries under this RFP category has seen an increasing trend since the early 2010s, from 0.5% in 2010 to 1.3% in 2017 (or from 1,385 to 3,630).

Our analysis confirms that deliveries registered under RFP 08 "Other country resident self-pay" indeed include some deliveries by Canadian citizens by birth, immigrants and temporary residents in Canada, not just deliveries by short-term visitors. For example, in 2015, around 30% of the hospital deliveries registered under RFP category 08 are linked to the IMDB/DRD and can be attributed to women who were Canadian citizens by birth or immigrants (around 6%-7%); around 20% were TRs in Canada (mainly international students and temporary foreign workers).

The number of deliveries registered under RFP 08 that were linked to Canadian citizens by birth or immigrants ranged from around 100 to 200 per year. The number linked to women with various temporary resident permits while in Canada ranged from around 300 to 600 per year during the period. Among deliveries registered under RFP 08 linked to women with various TR permits, it was most common for women to hold a study permit (more than 50%) than other types of permits (e.g., work permit, refugee claimant or TRP).

Over this same time period, there were also over 100 deliveries each year that were registered under RFP category 08 that were among women who were not Canadian citizens or immigrants, and never had a TR permit before their delivery but who subsequently became PRs (by 2017); these women were also likely to have some connections to Canada at the time of their deliveries, such as being spouses of Canadian-born citizens, immigrants or temporary residents (permit holders).

By separating out these linked deliveries, the remaining around two thirds of deliveries under RFP 08 (i.e., the "residual" deliveries) are more likely to be related to short-term foreign visitor women. From the beginning of the 2010s to the mid-2010s, the number of "residual" deliveries

increased, from just below 1,000 per year to nearly 2,000 per year in 2015 (the most recent reliable year in the linkage data). Using the proportion of "residual" deliveries in 2015 (68%) to estimate the "residual" number of deliveries in 2016 and 2017, around 2,200 and 2,470 deliveries respectively should fall under the residual category. These estimates for "residual" numbers are likely conservative since the proportion of "residual" deliveries showed an upward trend from the early 2010s until 2015.

Using the linkage data allowed us to remove deliveries by women who were Canadian citizens by birth, immigrants, or TRs from the total under RFP 08 and derive the "residual" deliveries under RFP 08. The number of "residual" deliveries gives a better estimate of the number of deliveries by "birth tourism" (as interpreted in the public discourse) than the total number of deliveries under the RFP 08 payment category.

To address "birth tourism", various policy changes have been suggested in the public discourse in Canada and around the world. For example, in Canada, the 2016 E-petition concerning birth tourism calls on the government to "fully eliminate birthright citizenship in Canada unless one of the parents of the child born in Canada is a Canadian citizen or permanent resident of Canada" as a means to halt birth tourism.

Australia (1986), New Zealand (2005) and the UK (1983) have moved away from a policy of unrestricted jus soli and require at least one of the child's parents to be a citizen or legal permanent resident of the state to receive citizenship by automatic operation of law upon birth of a child in that territory, with some provisions concerning children of some TRs.

This data exercise is not intended to suggest any policy changes or restrictions to jus soli, which would ultimately affect every birth as it would require an assessment and/or confirmation of citizenship status on every child born in Canada. However, the analysis does show the number of births that may no longer have an automatic birthright to Canadian citizenship if jus soli was restricted in Canada, as suggested in the 2016 E-petition. For example, the analysis shows that, in recent years nearly 2,000 annual births in Canada (outside of Quebec) were likely born to short-term visitor women. If the trend continues, eliminating the right of the soil for births by foreign visitors could impact the right to Canadian citizenship for around 2,000 births in Canada (outside Quebec) each year.

Additionally, restricting jus soli by requiring that at least one parent have Canadian citizenship or PR status, as suggested by the 2016 petition, would affect around 6,000 births to TRs annually in Canada (outside of Quebec) if the numbers of TRs in Canada remains similar to those seen in recent years. More specifically, it would impact the right to Canadian citizenship for around 4,000 births by temporary foreign workers, more than 1,000 by international students, and around 1,000 by refugee claimants and TR permit holders annually.

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¹⁷ https://petitions.ourcommons.ca/en/Petition/Details?Petition=e-397

6. Limitations and potential for improvement

The study has certain limitations due to the following main information constraints in the DAD-IMDB/DRD record linkage: the impossibility to distinguish and remove deliveries in some other potential scenarios unrelated to "birth tourism" from the "residual" due to lack of information, the information truncation in the linkage file, and more importantly, the incomplete coverage by the DAD of the deliveries in Canada. The discussion below examines these limitations in more detail and identifies ways for further improving the estimate.

First, deliveries in the "residuals" are still not limited to deliveries by short-term foreign visitors with little connection to Canada and can, in fact, include deliveries under a few other specific situations: 1) deliveries by spouses of international students or temporary foreign workers, if they came to Canada to accompany their permit holding partners in Canada, but they themselves never had a study or work permit; 2) deliveries by spouses of Canadian citizens or PRs who came to Canada on a visitor visa to give birth to their babies with Canadian fathers; 3) deliveries by Canadians usually living overseas returning to Canada to give birth; and 4) deliveries by diplomats or officials/employees of foreign governments.

The deliveries by spouses of international students or temporary foreign workers or by spouses of Canadian citizens or PRs could be identified if the immigration status of newborns' fathers were available in the record linkage. However, the lack of such information does not allow us to examine the deliveries by father's immigration status and to further refine the estimate of "residual" deliveries.

Second, due to the information truncation in the linked file, the "residual" estimate is less accurate for the most recent years and hence cannot reflect the most recent trend of "birth tourism". Given that deliveries by the more recently arrived immigrants or permit holders are perhaps less likely linked to the IMDB/DRD, the breakdown of number and percentage of deliveries by immigration/permit status for the most recent years (e.g., 2016 and 2017) is less accurate and the number of "residual" deliveries is likely to be overestimated. As a result, the number of "residual" deliveries are not comparable across years. In the data, the deliveries falling under the "residual" category increased each year since 2011, especially in the years after 2015; the increase during the earlier years was more likely to be an actual rise in deliveries by women who were short-term visitors than by data truncation whereas the sharp increase in most recent years may be, to some extent, related to data truncation.

Finally, the DAD excludes deliveries in Quebec and out of hospital deliveries. This leaves knowledge gaps in this analysis based on the record linkage.

Since the DAD does not include deliveries/newborns outside hospitals or from Quebec, the analysis of deliveries/newborns based on the DAD would not be able to provide a complete national picture. Statistics Canada's Vital Statistics—Birth Database on the other hand contains all live births in Canada and the coverage is virtually complete. The source for the Birth Database is the birth registration. Collecting new information on both parents' immigration status within the birth registration process would also allow for identification of parents' immigration status more accurately. This would require parents to provide documents to prove their citizenship, immigration status, various permits (work or study), and visitor visa status since relying on self-reported information may result in unreliable statistics.

Appendix A

Table A.1a: Number and percentage of deliveries by women who had work permit(s) at some point by RFP category, Canada (excluding Quebec)

Fiscal year	Provincial/Territorial responsibility (RFP 01/03)	Canadian resident self-pay (RFP 07)	Other country resident self-pay (RFP 08)	Other RFP 02/04/05/06	Total
2007	1,600 (89.1%)	100 (5.6%)	90 (5.0%)	5 (0.3%)	1,795 (100%)
2008	1,980 (90.8%)	100 (4.6%)	95 (4.4%)	5 (0.2%)	2,180 (100%)
2009	2,430 (92.2%)	115 (4.4%)	90 (3.4%)	0 (0.0%)	2,635 (100%)
2010	2,675 (92.7%)	115 (4.0%)	95 (3.3%)	0 (0.0%)	2,885 (100%)
2011	2,905 (90.8%)	170 (5.3%)	125 (3.9%)	0 (0.0%)	3,200 (100%)
2012	3,490 (92.5%)	145 (3.8%)	135 (3.6%)	5 (0.1%)	3,775 (100%)
2013	4,045 (93.9%)	125 (2.9%)	140 (3.2%)	0 (0.0%)	4,310 (100%)
2014	4,245 (92.5%)	155 (3.4%)	190 (4.1%)	0 (0.0%)	4,590 (100%)
2015	3,760 (89.8%)	190 (4.5%)	230 (5.5%)	5 (0.1%)	4,185 (100%)
2016	3,455 (91.0%)	145 (3.8%)	190 (5.0%)	5 (0.1%)	3,795 (100%)
2017	2,570 (93.8%)	75 (2.7%)	90 (3.3%)	5 (0.2%)	2,740 (100%)
Total	30,3150 (91.9%)	1,430 (4%)	1,470 (4.1%)	40 (0.1%)	36,090 (100%)

Table A.1b: Number and percentage of deliveries by women who had study permit(s) at some point by RFP category, Canada (excluding Quebec)

Fiscal year	Provincial/Territorial responsibility (RFP 01/03)	Canadian resident self-pay (RFP 07)	Other country resident self-pay (RFP 08)	Other RFP 02/04/05/06	Total
2007	435 (64.4%)	60 (8.9%)	165 (24.4%)	15 (2.2%)	675 (100%)
2008	440 (66.2%)	45 (6.8%)	170 (25.6%)	10 (1.5%)	665 (100%)
2009	425 (68.0%)	50 (8.0%)	145 (23.2%)	5 (0.8%)	625 (100%)
2010	495 (66.4%)	65 (8.7%)	180 (24.2%)	5 (0.7%)	745 (100%)
2011	565 (66.1%)	100 (11.7%)	185 (21.6%)	5 (0.6%)	855 (100%)
2012	665 (68.6%)	85 (8.8%)	215 (22.2%)	5 (0.5%)	970 (100%)
2013	715 (66.5%)	95 (8.8%)	260 (24.2%)	5 (0.5%)	1,075 (100%)
2014	875 (64.3%)	105 (7.7%)	375 (27.6%)	5 (0.4%)	1,360 (100%)
2015	890 (65.7%)	95 (7.0%)	355 (26.2%)	15 (1.1%)	1,355 (100%)
2016	985 (69.4%)	110 (7.7%)	320 (22.5%)	5 (0.4%)	1,420 (100%)
2017	805 (73.9%)	75 (6.9%)	210 (19.3%)	0 (0.0%)	1,090 (100%)
Total	7,295 (67.3%)	890 (8.2%)	2,585 (23.9%)	65 (0.6%)	10,835 (100%)

Table A.1c Number and percentage of deliveries by women who were refugee claimants or had a TRP at some point by RFP category, Canada (excluding Quebec)

Fiscal year	Provincial/Territorial responsibility (RFP 01/03)	Canadian resident self-pay (RFP 07)	Other country resident self-pay (RFP 08)	Other RFP 02/04/05/06	Total
2007	385 (37.7%)	80 (7.8%)	45 (4.4%)	510 (50.0%)	1,020 (100%)
2008	350 (30.0%)	90 (7.7%)	50 (4.3%)	675 (57.9%)	1,165 (100%)
2009	385 (30.1%)	105 (8.2%)	50 (3.9%)	740 (57.8%)	1,280 (100%)
2010	435 (34.0%)	95 (7.4%)	30 (2.3%)	720 (56.3%)	1,280 (100%)
2011	550 (39.9%)	100 (7.2%)	35 (2.5%)	695 (50.4%)	1,380 (100%)
2012	525 (41.0%)	130 (10.2%)	50 (3.9%)	575 (44.9%)	1,280 (100%)
2013	530 (48.0%)	140 (12.7%)	55 (5.0%)	380 (34.4%)	1,105 (100%)
2014	510 (52.0%)	100 (10.2%)	55 (5.6%)	315 (32.1%)	980 (100%)
2015	495 (52.1%)	70 (7.4%)	40 (4.2%)	345 (36.3%)	950 (100%)
2016	425 (53.8%)	50 (6.3%)	25 (3.2%)	290 (36.7%)	790 (100%)
2017	310 (53.9%)	30 (5.2%)	15 (2.6%)	220 (38.3%)	575 (100%)
Total	4,890 (41.4%)	985 (8.3%)	455 (3.9%)	5,475 (46.4%)	11,805 (100%)

Table A.2a: Number of hospital deliveries registered under RFP category 07 "Canadian resident self-pay" by immigration/permit status, Canada (excluding Quebec)

		Had at lea	st one perm point	nit at some	Never had a permit	Linked to	Linked to	
Fiscal year	Immigrant	Work permit	Student permit	Refugee /TRP	(PR after delivery)	DRD, not	neither DRD nor IMDB	Total
2007	205	100	60	80	140	375	840	1,805
2008	225	100	45	90	160	325	900	1,840
2009	180	115	50	105	165	370	775	1,760
2010	260	115	65	95	140	385	665	1,725
2011	275	170	100	100	130	350	755	1,875
2012	245	145	85	130	135	345	780	1,865
2013	205	125	95	140	105	355	745	1,765
2014	195	155	105	100	95	345	825	1,815
2015	220	190	95	70	85	385	900	1,940
2016	220	145	110	50	10	440	1,110	2,085
2017	80	75	75	30	0	345	1,445	2,050
Total	2,310	1,430	890	985	1,165	4,010	9,730	20,520

Table A.2b: Number of hospital deliveries registered under RFP categories 01 or 03 "Provincial/territorial responsibility" by immigration/permit status, Canada (excluding Quebec)

		Had at leas	st one perm point	it at some	Never had a permit (PR	Linked to	Linked to	
Fiscal year	Immigrant	Work permit	Student permit	Refugee /TRP	after delivery)	DRD, not IMDB	neither DRD nor IMDB	Total
2007	61,025	1,600	435	385	445	200,225	15,470	279,585
2008	61,850	1,980	440	350	435	200,875	14,900	280,835
2009	63,615	2,430	425	385	370	200,625	14,605	282,455
2010	64,335	2,675	495	435	320	195,360	13,955	277,575
2011	66,400	2,905	565	550	365	195,155	13,100	279,035
2012	69,975	3,490	665	525	355	194,865	10,290	280,155
2013	68,155	4,045	715	530	335	194,430	10,220	278,425
2014	70,595	4,245	875	510	330	194,010	10,150	280,715
2015	72,125	3,760	890	495	215	193,555	10,025	281,060
2016	75,375	3,455	985	425	30	188,960	10,670	279,905
2017	73,105	2,570	805	310	0	183,800	16,545	277,140
Total	746,560	33,150	7,295	4,890	3,200	2,141,855	139,925	3,076,880

Appendix B: Results by province/region

Hospital deliveries by women's immigration/permit status

Tables B.1a&b to B.4a&b provide results based on hospital deliveries by women's immigration/permit status during the fiscal years of 2007 to 2017 in the four provinces/regions including Ontario, British Columbia, Alberta-Manitoba-Saskatchewan (the Prairie Provinces), and Atlantic Provinces-Territories (Atlantic-Terr)¹⁸.

Among the provinces/regions listed above, Ontario had the highest number of hospital deliveries, followed by the Prairie Provinces, and then British Columbia, and Atlantic-Terr the least. From 2007 to 2017, as expected, almost half of hospital deliveries in Canada (excluding Quebec) occurred in Ontario.

According to Tables B.1a&b, in Ontario between 2007 and 2015 (the linkage for 2016 and 2017 is less reliable due to the potential data truncation), around 28% to 29% (or 40,000 to 42,000) of the about 140,000 annual deliveries were by women who were immigrants at the time of delivery (column 1), whereas only about 1 to 2 percent (or 2,000 to 3,000) were by women who were TRs with at least one permit at or around the time of their deliveries (columns 2 & 3 together). The portion that were linked neither to the DRD nor the IMDB was about 3% to 4% (or 4,000 to 5,000) each year in Ontario.

Table B.1a: Number of hospital deliveries by women's immigration/permit status, Ontario

Fiscal year	Immigrant at the time of delivery	Had a permit(s) at delivery	Had at least one permit at some point	Never had a permit, but PR after delivery	Linked to DRD but not IMDB	Linked to neither DRD nor IMDB	Total
2007	40,425	1,675	350	325	93,245	5,085	141,100
2008	39,920	1,860	340	355	92,805	4,935	140,220
2009	40,305	1,935	350	355	92,155	4,930	140,030
2010	40,715	2,075	360	335	89,535	4,535	137,550
2011	41,180	2,320	390	325	90,050	4,765	139,025
2012	42,025	2,520	385	345	88,525	4,400	138,205
2013	40,355	2,480	415	310	88,145	4,430	136,130
2014	40,435	2,500	445	250	87,610	4,870	136,115
2015	40,565	2,405	440	175	87,285	5,255	136,125
2016	41,720	2,465	310	30	85,795	6,320	136,640
2017	40,520	1,890	265	-	84,515	9,945	137,135
Total	448,175	24,130	4,050	2,795	979,665	59,465	1,518,275

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¹⁸ The provinces/regions examined are province/regions of hospitalization. They are not necessarily the province of residence.

Table B.1b: Percentage distribution of hospital delivers by women's immigration/permit status, Ontario

Fiscal year	Immigrant at the time of delivery	Had a permit(s) at delivery	Had at least one permit at some point	Never had a permit, but PR after delivery	Linked to DRD but not IMDB	Linked to neither DRD nor IMDB	Total
2007	28.6%	1.2%	0.2%	0.2%	66.1%	3.6%	100.0%
2008	28.5%	1.3%	0.2%	0.3%	66.2%	3.5%	100.0%
2009	28.8%	1.4%	0.2%	0.3%	65.8%	3.5%	100.0%
2010	29.6%	1.5%	0.3%	0.2%	65.1%	3.3%	100.0%
2011	29.6%	1.7%	0.3%	0.2%	64.8%	3.4%	100.0%
2012	30.4%	1.8%	0.3%	0.2%	64.1%	3.2%	100.0%
2013	29.6%	1.8%	0.3%	0.2%	64.8%	3.3%	100.0%
2014	29.7%	1.8%	0.3%	0.2%	64.4%	3.6%	100.0%
2015	29.8%	1.8%	0.3%	0.1%	64.1%	3.9%	100.0%
2016	30.5%	1.8%	0.2%	0.0%	62.8%	4.6%	100.0%
2017	29.5%	1.4%	0.2%	0.0%	61.6%	7.3%	100.0%
Total	29.5%	1.6%	0.3%	0.2%	64.5%	3.9%	100.0%

The total number of hospital deliveries in British Columbia was less than a third of that of Ontario. British Columbia saw a slightly lower share of hospital deliveries linked to the IMDB and a moderately higher share of hospital deliveries not linked to the DRD or IMDB (Tables B.2a&b). Between 2007 and 2015, around 24% to 28% (or 10,000 to 12,000) of annual hospital deliveries in British Columbia were by women who were immigrants at the time of delivery and around 4% to 6% (or 2,000) were not linked to the DRD or the IMDB. Around 2% to (or 600 to 1,100) deliveries were by women who were TRs with at least one permit at or around the time of their deliveries.

Table B.2a: Number of hospital deliveries by women's immigration/permit status, British Columbia

Fiscal year	Immigrant at the time of delivery	Had a permit(s) at delivery	Had at least one permit at some point	Never had a permit, but PR after delivery	Linked to DRD but not IMDB	Linked to neither DRD nor IMDB	Total
2007	10,295	435	160	140	29,185	2,480	42,695
2008	10,520	520	140	140	29,365	2,340	43,025
2009	10,875	585	145	115	29,345	2,130	43,190
2010	10,695	675	135	80	28,565	1,955	42,115
2011	11,170	715	155	110	28,205	1,905	42,255
2012	11,920	750	145	110	27,690	1,855	42,465
2013	11,030	880	160	85	27,465	2,015	41,630
2014	11,375	965	180	105	27,245	2,375	42,245
2015	11,620	860	155	65	27,400	2,240	42,335
2016	12,275	1,000	95	15	27,105	2,570	43,060
2017	11,650	680	80	-	26,115	3,990	42,515
Total	123,430	8,060	1,550	965	307,685	25,850	467,535

Table B.2b: Percentage distribution of hospital deliveries by women's immigration/permit status, British Columbia

Fiscal year	Immigrant at the time of delivery	Had a permit(s) at delivery	Had at least one permit at some point	Never had a permit, but PR after delivery	Linked to DRD but not IMDB	Linked to neither DRD nor IMDB	Total
2007	24.1%	1.0%	0.4%	0.3%	68.4%	5.8%	100.0%
2008	24.5%	1.2%	0.3%	0.3%	68.3%	5.4%	100.0%
2009	25.2%	1.4%	0.3%	0.3%	67.9%	4.9%	100.0%
2010	25.4%	1.6%	0.3%	0.2%	67.8%	4.6%	100.0%
2011	26.4%	1.7%	0.4%	0.3%	66.7%	4.5%	100.0%
2012	28.1%	1.8%	0.3%	0.3%	65.2%	4.4%	100.0%
2013	26.5%	2.1%	0.4%	0.2%	66.0%	4.8%	100.0%
2014	26.9%	2.3%	0.4%	0.2%	64.5%	5.6%	100.0%
2015	27.4%	2.0%	0.4%	0.2%	64.7%	5.3%	100.0%
2016	28.5%	2.3%	0.2%	0.0%	62.9%	6.0%	100.0%
2017	27.4%	1.6%	0.2%	-	61.4%	9.4%	100.0%
Total	26.4%	1.7%	0.3%	0.2%	65.8%	5.5%	100.0%

In the Prairie Provinces (Tables B.3a&b), the share of deliveries by women who were immigrants at the time of delivery was around 19% on average, about 8 to 10 percentage points lower than that in Ontario or British Columbia, and the share of the deliveries linked to the DRD but not to the IMDB was around 75%, about 10 percentage points higher than that in Ontario or British Columbia. The result is a reflection of the lower share of immigrants in the Prairie Provinces.

Table B.3a: Number of hospital deliveries by women's immigration/permit status, Alberta-Manitoba-Saskatchewan (the Prairie Provinces)

Fiscal year	Immigrant at the time of delivery	Had a permit(s) at delivery	Had at least one permit at some point	Never had a permit, but PR after delivery	Linked to DRD but not IMDB	Linked to neither DRD nor IMDB	Total
2007	10,160	585	185	235	62,535	3,385	77,085
2008	11,195	850	200	220	63,025	3,255	78,750
2009	12,115	1,195	225	190	63,390	3,100	80,215
2010	12,690	1,280	255	160	61,980	2,895	79,260
2011	13,790	1,350	335	185	61,250	2,790	79,695
2012	15,530	1,665	335	185	61,525	2,735	81,980
2013	16,195	2,020	255	180	61,475	2,885	83,010
2014	18,090	2,240	310	185	61,325	3,155	85,310
2015	19,220	1,915	435	135	61,455	3,415	86,570
2016	20,495	1,650	195	10	58,965	3,495	84,815
2017	19,885	1,145	135	-	56,535	5,525	83,225
Total	169,370	15,895	2,865	1,685	673,465	36,625	899,915

Table B.3b: Percentage distribution of hospital deliveries by women's immigration/permit status, Alberta-Manitoba-Saskatchewan (the Prairie Provinces)

Fiscal year	Immigrant at the time of delivery	Had a permit(s) at delivery	Had at least one permit at some point	Never had a permit, but PR after delivery	Linked to DRD but not IMDB	Linked to neither DRD nor IMDB	Total
2007	13.2%	0.8%	0.2%	0.3%	81.1%	4.4%	100.0%
2008	14.2%	1.1%	0.3%	0.3%	80.0%	4.1%	100.0%
2009	15.1%	1.5%	0.3%	0.2%	79.0%	3.9%	100.0%
2010	16.0%	1.6%	0.3%	0.2%	78.2%	3.7%	100.0%
2011	17.3%	1.7%	0.4%	0.2%	76.9%	3.5%	100.0%
2012	18.9%	2.0%	0.4%	0.2%	75.0%	3.3%	100.0%
2013	19.5%	2.4%	0.3%	0.2%	74.1%	3.5%	100.0%
2014	21.2%	2.6%	0.4%	0.2%	71.9%	3.7%	100.0%
2015	22.2%	2.2%	0.5%	0.2%	71.0%	3.9%	100.0%
2016	24.2%	1.9%	0.2%	0.0%	69.5%	4.1%	100.0%
2017	23.9%	1.4%	0.2%	-	67.9%	6.6%	100.0%
Total	13.2%	0.8%	0.2%	0.3%	81.1%	4.4%	100.0%

The distribution of hospital deliveries in the Atlantic region or the Territories (Atlantic-Terr) was very different (Tables B.4a&b). The portion of unlinked deliveries in this province was extremely high at about 20% on average. There is no clear explanation about this high percentage based on the information available to us. Moreover, partially due to a small share of immigrants and TRs in the Atlantic-Terr, the share of deliveries linked to the IMDB was dramatically low in this region, only about 5% for the whole period examined.

Table B.4a: Number of hospital deliveries by women's immigration/permit status, Atlantic Provinces and Territories (Atlantic-Terr.)

Fiscal year	Immigrant at the time of delivery	Had a permit(s) at delivery	Had at least one permit at some point	Never had a permit, but PR after delivery	Linked to DRD but not IMDB	Linked to neither DRD nor IMDB	Total
2007	460	65	30	30	16,360	6,745	23,690
2008	565	75	20	25	16,715	6,680	24,080
2009	600	85	30	20	16,800	6,625	24,160
2010	580	95	35	25	16,240	6,525	23,505
2011	650	135	35	25	16,625	5,825	23,300
2012	850	185	35	15	18,100	3,540	22,730
2013	890	240	45	25	18,175	3,245	22,625
2014	975	255	40	25	18,625	2,680	22,595
2015	1,065	225	55	15	18,265	2,235	21,855
2016	1,210	255	35	-	18,055	2,245	21,805
2017	1,220	190	15	-	17,405	2,425	21,260
Total	9,075	1,815	370	210	191,365	48,770	251,605

Table B.4b: Percentage distribution of hospital deliveries by women's immigration/permit status, Atlantic Provinces and Territories (Atlantic-Terr.)

Fiscal year	Immigrant at the time of delivery	Had a permit(s) at delivery	Had at least one permit at some point	Never had a permit, but PR after delivery	Linked to DRD but not IMDB	Linked to neither DRD nor IMDB	Total
2007	1.9%	0.3%	0.1%	0.1%	69.1%	28.5%	100.0%
2008	2.3%	0.3%	0.1%	0.1%	69.4%	27.7%	100.0%
2009	2.5%	0.4%	0.1%	0.1%	69.5%	27.4%	100.0%
2010	2.5%	0.4%	0.1%	0.1%	69.1%	27.8%	100.0%
2011	2.8%	0.6%	0.2%	0.1%	71.4%	25.0%	100.0%
2012	3.7%	0.8%	0.2%	0.1%	79.6%	15.6%	100.0%
2013	3.9%	1.1%	0.2%	0.1%	80.3%	14.3%	100.0%
2014	4.3%	1.1%	0.2%	0.1%	82.4%	11.9%	100.0%
2015	4.9%	1.0%	0.3%	0.1%	83.6%	10.2%	100.0%
2016	5.5%	1.2%	0.2%	0.0%	82.8%	10.3%	100.0%
2017	5.7%	0.9%	0.1%	-	81.9%	11.4%	100.0%
Total	3.6%	0.7%	0.1%	0.1%	76.1%	19.4%	100.0%

Hospital deliveries under RFP 08 by women's immigration/permit status

According to Tables B.5 to B.8, over the time period examined, the shares of the hospital deliveries under the RFP category 08 "Other country self-pay" were higher in Ontario (1.1%) and British Columbia (0.8%) than in other provinces/regions. In Ontario, about 0.7% of hospital deliveries were registered under RFP 08 between 2007 and 2010, and the share has increased since 2011: by 2016, the share had more than doubled to 1.6%. In British Columbia, the share increased fourfold, from 0.4% in 2007 to 1.6% in 2017, with evident increases in 2013 and thereafter. By comparison, the shares in both the Prairie Provinces and Atlantic-Terr were always below 1 percent across years.

The percentage distributions of deliveries registered under RFP 08 by women's immigration/permit status varied considerably by province/region: differences in P/T health care coverage may be an underlying cause of this variation. This can be examined by investigating the permit type associated with these deliveries for each province. However, due to the confidentiality requirement regarding small counts, the corresponding results cannot be included in this report.

Table B.5: Number and percentage of hospital deliveries by RFP category and by fiscal year, Ontario

Fiscal year	Provincial/Territorial responsibility (01, 03)	Canadian resident self-pay (07)	Other country resident self- pay (08)	Other (02, 04, 05, 06, ZZ)	Total
2007	137,470 (97.4%)	1,305 (0.9%)	1,020 (0.7%)	1,305 (0.9%)	141,100 (100%)
2008	136,380 (97.3%)	1,350 (1.0%)	1,045 (0.7%)	1,445 (1.0%)	140,220 (100%)
2009	136,310 (97.3%)	1,290 (0.9%)	1,010 (0.7%)	1,420 (1.0%)	140,030 (100%)
2010	134,115 (97.5%)	1,225 (0.9%)	1,010 (0.7%)	1,205 (0.9%)	137,550 (100%)
2011	135,330 (97.3%)	1,325 (1.0%)	1,135 (0.8%)	1,230 (0.9%)	139,025 (100%)
2012	134,500 (97.3%)	1,385 (1.0%)	1,260 (0.9%)	1,060 (0.8%)	138,205 (100%)
2013	132,565 (97.4%)	1,300 (1.0%)	1,525 (1.1%)	735 (0.5%)	136,130 (100%)
2014	132,425 (97.3%)	1,225 (0.9%)	1,840 (1.4%)	625 (0.5%)	136,115 (100%)
2015	132,110 (97.1%)	1,385 (1.0%)	1,930 (1.4%)	695 (0.5%)	136,125 (100%)
2016	132,160 (96.7%)	1,500 (1.1%)	2,195 (1.6%)	790 (0.6%)	136,640 (100%)
2017	132,145 (96.4%)	1,450 (1.1%)	2,525 (1.8%)	1,015 (0.7%)	137,135 (100%)
Total	1,475,520 (97.2%)	14,740 (1%)	16,485 (1.1%)	11,530 (0.8%)	1,518,275 (100%)

Table B.6: Number and percentage of hospital deliveries by RFP category and by fiscal year, British Columbia

Fiscal year	Provincial/Territorial responsibility (01, 03)	Canadian resident self-pay (07)	Other country resident self- pay (08)	Other (02, 04, 05, 06, ZZ)	Total
2007	42,120 (98.7%)	240 (0.6%)	175 (0.4%)	160 (0.4%)	42,695 (100%)
2008	42,475 (98.7%)	200 (0.5%)	180 (0.4%)	170 (0.4%)	43,025 (100%)
2009	42,675 (98.8%)	215 (0.5%)	130 (0.3%)	170 (0.4%)	43,190 (100%)
2010	41,570 (98.7%)	230 (0.5%)	140 (0.3%)	170 (0.4%)	42,115 (100%)
2011	41,655 (98.6%)	260 (0.6%)	190 (0.4%)	155 (0.4%)	42,255 (100%)
2012	41,890 (98.6%)	230 (0.5%)	190 (0.4%)	160 (0.4%)	42,465 (100%)
2013	41,050 (98.6%)	235 (0.6%)	305 (0.7%)	40 (0.1%)	41,630 (100%)
2014	41,335 (97.8%)	330 (0.8%)	535 (1.3%)	45 (0.1%)	42,245 (100%)
2015	41,535 (98.1%)	295 (0.7%)	460 (1.1%)	50 (0.1%)	42,335 (100%)
2016	42,070 (97.7%)	335 (0.8%)	575 (1.3%)	75 (0.2%)	43,060 (100%)
2017	41,380 (97.3%)	380 (0.9%)	690 (1.6%)	65 (0.2%)	42,515 (100%)
Total	459,750 (98.3%)	2,950 (0.6%)	3,570 (0.8%)	1,265 (0.3%)	467,535 (100%)

Table B.7: Number and percentage of hospital deliveries by RFP category and by fiscal year, Alberta-Manitoba-Saskatchewan (the Prairie Provinces)

Fiscal year	Provincial/Territorial responsibility (01, 03)	Canadian resident self-pay (07)	Other country resident self- pay (08)	Other (02, 04, 05, 06, ZZ)	Total
2007	76,510 (99.3%)	240 (0.3%)	155 (0.2%)	180 (0.2%)	77,085 (100%)
2008	78,120 (99.2%)	265 (0.3%)	145 (0.2%)	220 (0.3%)	78,750 (100%)
2009	79,530 (99.1%)	230 (0.3%)	175 (0.2%)	275 (0.3%)	80,215 (100%)
2010	78,625 (99.2%)	245 (0.3%)	145 (0.2%)	245 (0.3%)	79,260 (100%)
2011	78,995 (99.1%)	270 (0.3%)	195 (0.2%)	235 (0.3%)	79,695 (100%)
2012	81,320 (99.2%)	240 (0.3%)	195 (0.2%)	230 (0.3%)	81,980 (100%)
2013	82,435 (99.3%)	210 (0.3%)	200 (0.2%)	160 (0.2%)	83,010 (100%)
2014	84,640 (99.2%)	230 (0.3%)	285 (0.3%)	155 (0.2%)	85,310 (100%)
2015	85,805 (99.1%)	230 (0.3%)	380 (0.4%)	160 (0.2%)	86,570 (100%)
2016	84,080 (99.1%)	230 (0.3%)	355 (0.4%)	145 (0.2%)	84,815 (100%)
2017	82,560 (99.2%)	195 (0.2%)	320 (0.4%)	150 (0.2%)	83,225 (100%)
Total	892,620 (99.2%)	2,585 (0.3%)	2,550 (0.3%)	2,160 (0.2%)	899,915 (100%)

Table B.8: Number and percentage of hospital deliveries by RFP category and by fiscal year, Atlantic Provinces and Territories (Atlantic-Terr.)

Fiscal year	Provincial/Territorial responsibility (01, 03)	Canadian resident self-pay (07)	Other country resident self- pay (08)	Other (02, 04, 05, 06, ZZ)	Total
2007	23,485 (99.1%)	15 (0.1%)	75 (0.3%)	110 (0.5%)	23,690 (100%)
2008	23,860 (99.1%)	20 (0.1%)	65 (0.3%)	135 (0.6%)	24,080 (100%)
2009	23,935 (99.1%)	25 (0.1%)	70 (0.3%)	130 (0.5%)	24,160 (100%)
2010	23,265 (99.0%)	25 (0.1%)	65 (0.3%)	145 (0.6%)	23,505 (100%)
2011	23,060 (99.0%)	20 (0.1%)	100 (0.4%)	120 (0.5%)	23,300 (100%)
2012	22,445 (98.7%)	15 (0.1%)	115 (0.5%)	160 (0.7%)	22,730 (100%)
2013	22,370 (98.9%)	15 (0.1%)	135 (0.6%)	100 (0.4%)	22,625 (100%)
2014	22,310 (98.7%)	30 (0.1%)	155 (0.7%)	100 (0.4%)	22,595 (100%)
2015	21,610 (98.9%)	35 (0.2%)	120 (0.5%)	95 (0.4%)	21,855 (100%)
2016	21,595 (99.0%)	20 (0.1%)	105 (0.5%)	90 (0.4%)	21,805 (100%)
2017	21,055 (99.0%)	20 (0.1%)	100 (0.5%)	80 (0.4%)	21,260 (100%)
Total	248,990 (99.0%)	240 (0.1%)	1,105 (0.4%)	1,265 (0.5%)	251,605 (100%)

According to Tables B.9a&b, between fiscal years 2007 and 2017 in Ontario, about one third of the deliveries registered under RFP 08 were linked to the IMDB, with over a half of them by women who were immigrants or TRs at the time of delivery. Specifically, the number of Ontario deliveries registered under RFP 08 that were linked to the IMDB was greater than 5,000 for the whole period (or between 325 and 640 on a yearly basis). Of these Ontario deliveries linked to IMDB, nearly 3,000 in total (or between 190 and 405 per year) were deliveries by immigrant or TR women. Also, the annual numbers in Ontario increased significantly during the first eight years. Our examination of the Ontario data suggests that a growing number of study permit holders constituted a dominant portion of the increased deliveries by TR permit holders in Ontario (number not shown due to confidentiality requirement).

Table B.9a: Number of hospital deliveries registered under RFP category 08 "Other country resident self-pay" by women's immigration/permit status, Ontario

Fiscal year	Linked to DRD	Linked to IMDB	Immigrant or had at least one permit at delivery	Linked to neither DRD nor IMDB	Total (Linked + Not linked)
2007	395	365	190	625	1,020
2008	435	415	215	605	1,045
2009	395	375	170	615	1,010
2010	425	390	190	585	1,010
2011	465	435	225	670	1,135
2012	530	500	270	725	1,260
2013	605	550	290	920	1,525
2014	710	640	375	1,130	1,840
2015	695	620	405	1,235	1,930
2016	605	505	405	1,590	2,195
2017	390	325	260	2,135	2,525
Total	5,650	5,115	2,995	10,835	16,485

Table B.9b: Percentage distribution of hospital deliveries registered under RFP category 08 "Other country resident self-pay" by women's immigration/permit status, Ontario

Fiscal year	Linked to DRD	Linked to IMDB	Immigrant or had at least one permit at delivery	Linked to neither DRD nor IMDB	Total (Linked + Not linked)
2007	38.7%	35.8%	18.6%	61.3%	100.0%
2008	41.6%	39.7%	20.6%	57.9%	100.0%
2009	39.1%	37.1%	16.8%	60.9%	100.0%
2010	42.1%	38.6%	18.8%	57.9%	100.0%
2011	41.0%	38.3%	19.8%	59.0%	100.0%
2012	42.1%	39.7%	21.4%	57.5%	100.0%
2013	39.7%	36.1%	19.0%	60.3%	100.0%
2014	38.6%	34.8%	20.4%	61.4%	100.0%
2015	36.0%	32.1%	21.0%	64.0%	100.0%
2016	27.6%	23.0%	18.5%	72.4%	100.0%
2017	15.4%	12.9%	10.3%	84.6%	100.0%
Total	34.3%	31.0%	18.2%	65.7%	100.0%

By comparison, in British Columbia, about one-seventh of deliveries were coded as RFP 08 (Table B.10b), and less than one-third were by women who were immigrants or TR permit holders at the time of delivery. The corresponding numbers were 470 and 155 respectively, negligible when broken down by year, with the maximum at 60 and 35 respectively (Table B.10a).

Table B.10a: Number of hospital deliveries registered under RFP category 08 "Other country resident self-pay" by women's immigration/permit status, British Columbia

Fiscal year	Linked to DRD	Linked to IMDB	Immigrant or had at least one permit at delivery	Linked to neither DRD nor IMDB	Total (Linked + Not linked)
2007	50	50	X	125	175
2008	60	60	20	120	180
2009	45	35	10	90	130
2010	45	35	X	95	140
2011	50	40	X	140	190
2012	50	45	Χ	140	190
2013	65	55	15	240	305
2014	55	45	10	475	535
2015	70	60	35	390	460
2016	45	30	25	530	575
2017	15	10	X	670	690
Total	550	470	155	3,020	3,570

x: suppressed to meet the confidentiality requirements of the *Statistics Act*.

Table B.10b: Percentage distribution of hospital deliveries registered under RFP category 08 "Other country resident self-pay" by women's immigration/permit status, British Columbia

Fiscal year	Linked to DRD	Linked to IMDB	Immigrant or had at least one permit at delivery	Linked to neither DRD nor IMDB	Total (Linked + Not linked)
2007	28.6%	28.6%	X	71.4%	100.0%
2008	33.3%	33.3%	11.1%	66.7%	100.0%
2009	34.6%	26.9%	7.7%	69.2%	100.0%
2010	32.1%	25.0%	Χ	67.9%	100.0%
2011	26.3%	21.1%	Χ	73.7%	100.0%
2012	26.3%	23.7%	Χ	73.7%	100.0%
2013	21.3%	18.0%	4.9%	78.7%	100.0%
2014	10.3%	8.4%	1.9%	88.8%	100.0%
2015	15.2%	13.0%	7.6%	84.8%	100.0%
2016	7.8%	5.2%	4.3%	92.2%	100.0%
2017	2.2%	1.4%	X	97.1%	100.0%
Total	15.4%	13.2%	4.3%	84.6%	100.0%

x: suppressed to meet the confidentiality requirements of the Statistics Act.

Similarly to British Columbia, the Prairie Provinces also provided provincial health coverage policy to international students during the period examined. As such, the distributions of the deliveries under RFP 08 by immigration/TR permit status were more comparable between the Prairie Provinces and British Columbia. According to Tables B.11a&b, in the Prairie Provinces, less than a quarter (24.3% or 620) of deliveries were linked to the IMDB and only about 6% (145) were by women who were immigrants or had at least one permit at the time of delivery. However, unlike British Columbia where the share of deliveries linked to the IMDB declined over time, the corresponding share of IMDB-linked deliveries in the Prairie Provinces somewhat increased between 2007 and 2015. Results based on our unreleased data suggest that many deliveries linked to the IMDB in the Prairies were by women who had at least one temporary foreign worker permit around or at the time of their deliveries.

Table B.11a: Number of hospital deliveries registered under RFP category 08 "Other country resident self-pay" by women's immigration/permit status, Alberta-Manitoba-Saskatchewan (the Prairie Provinces)

Fiscal year	Linked to DRD	Linked to IMDB	Immigrant or had at least one permit at delivery	Linked to neither DRD nor IMDB	Total (Linked + Not linked)
2007	45	35	X	110	155
2008	40	35	X	105	145
2009	65	60	10	110	175
2010	50	45	10	95	145
2011	65	55	10	135	195
2012	70	65	15	120	195
2013	70	60	20	135	200
2014	100	85	20	185	285
2015	120	100	20	260	380
2016	85	55	15	275	355
2017	35	20	Χ	285	320
Total	740	620	145	1,810	2,550

x: suppressed to meet the confidentiality requirements of the Statistics Act.

Table B.11b: Percentage distribution of hospital deliveries registered under RFP category 08 "Other country resident self-pay" by women's immigration/permit status, Alberta-Manitoba-Saskatchewan (the Prairie Provinces)

Fiscal year	Linked to DRD	Linked to IMDB	Immigrant or had at least one permit at delivery	Linked to neither DRD nor IMDB	Total (Linked + Not linked)
2007	29.0%	22.6%	X	71.0%	100.0%
2008	27.6%	24.1%	X	72.4%	100.0%
2009	37.1%	34.3%	5.7%	62.9%	100.0%
2010	34.5%	31.0%	6.9%	65.5%	100.0%
2011	33.3%	28.2%	5.1%	69.2%	100.0%
2012	35.9%	33.3%	7.7%	61.5%	100.0%
2013	35.0%	30.0%	10.0%	67.5%	100.0%
2014	35.1%	29.8%	7.0%	64.9%	100.0%
2015	31.6%	26.3%	5.3%	68.4%	100.0%
2016	23.9%	15.5%	4.2%	77.5%	100.0%
2017	10.9%	6.3%	X	89.1%	100.0%
Total	29.0%	24.3%	5.7%	71.0%	100.0%

x: suppressed to meet the confidentiality requirements of the Statistics Act.

In Atlantic-Terr, about a quarter (280) of the deliveries coded as RFP 08 were linked to the IMDB: among them, over three quarters (195) were by women who were immigrants/TR permit holders at the time of delivery (Tables B.12a and B.12b). The results may be attributed to health coverage policies in specific provinces within the region: for example, two Atlantic provinces (i.e., New Brunswick and Prince Edward Island) did not provide provincial health coverage to international students during the period, and PEI also did not provide provincial health coverage for most temporary foreign workers, hence deliveries by women who held study or work permits in these two provinces were likely to be coded as RFP 08.

Table B.12a: Number of hospital deliveries registered under RFP category 08 "Other country resident self-pay" by women's immigration/permit status, Atlantic Provinces and Territories (Atlantic-Terr.)

Fiscal year	Linked to DRD	Linked to IMDB	Immigrant or had at least one permit at delivery	Linked to neither DRD nor IMDB	Total (Linked + Not linked)
2007	30	25	15	50	75
2008	15	10	Χ	50	65
2009	20	20	15	45	70
2010	15	15	X	50	65
2011	25	20	Χ	75	100
2012	30	20	X	85	115
2013	45	35	25	90	135
2014	65	55	40	95	155
2015	45	40	25	75	120
2016	35	30	25	70	105
2017	15	10	10	85	100
Total	340	280	195	765	1,105

x: suppressed to meet the confidentiality requirements of the Statistics Act.

Table B.12b: Percentage distribution of hospital deliveries registered under RFP category 08 "Other country resident self-pay" by women's immigration/permit status, Atlantic Provinces and Territories (Atlantic-Terr.)

Linked to DRD	Linked to IMDB	Immigrant or had at least one permit at delivery	Linked to neither DRD nor IMDB	Total (Linked + Not linked)
40.0%	33.3%	20.0%	66.7%	100.0%
23.1%	15.4%	Χ	76.9%	100.0%
28.6%	28.6%	21.4%	64.3%	100.0%
23.1%	23.1%	X	76.9%	100.0%
25.0%	20.0%	Χ	75.0%	100.0%
26.1%	17.4%	Χ	73.9%	100.0%
33.3%	25.9%	18.5%	66.7%	100.0%
41.9%	35.5%	25.8%	61.3%	100.0%
37.5%	33.3%	20.8%	62.5%	100.0%
33.3%	28.6%	23.8%	66.7%	100.0%
15.0%	10.0%	10.0%	85.0%	100.0%
30.8%	25.3%	17.6%	69.2%	100.0%
	23.1% 28.6% 23.1% 25.0% 26.1% 33.3% 41.9% 37.5% 33.3% 15.0%	DRD IMDB 40.0% 33.3% 23.1% 15.4% 28.6% 28.6% 23.1% 23.1% 25.0% 20.0% 26.1% 17.4% 33.3% 25.9% 41.9% 35.5% 37.5% 33.3% 33.3% 28.6% 15.0% 10.0%	Linked to DRD Linked to IMDB at least one permit at delivery 40.0% 33.3% 20.0% 23.1% 15.4% X 28.6% 28.6% 21.4% 23.1% 23.1% X 25.0% 20.0% X 26.1% 17.4% X 33.3% 25.9% 18.5% 41.9% 35.5% 25.8% 37.5% 33.3% 20.8% 33.3% 28.6% 23.8% 15.0% 10.0% 10.0%	Linked to DRD Linked to IMDB at least one permit at delivery Linked to neither DRD nor IMDB 40.0% 33.3% 20.0% 66.7% 23.1% 15.4% X 76.9% 28.6% 28.6% 21.4% 64.3% 23.1% X 76.9% 25.0% 20.0% X 75.0% 26.1% 17.4% X 73.9% 33.3% 25.9% 18.5% 66.7% 41.9% 35.5% 25.8% 61.3% 37.5% 33.3% 20.8% 62.5% 33.3% 28.6% 23.8% 66.7% 15.0% 10.0% 10.0% 85.0%

x: suppressed to meet the confidentiality requirements of the Statistics Act.

After linking DAD deliveries to the DRD (and the IMDB), between 65% and 85% of deliveries coded as RFP 08 were left unlinked, depending on the province or region being examined.

Results at the provincial/regional level show that, overall, over the 11 years examined, Ontario had the highest number (16,485) of deliveries in the "residual" category under RFP 08, followed by British Columbia (3,020), and then the Prairie Provinces (1,810) and Atlantic-Territories (765). British Columbia saw the greatest growth between 2007 and 2015 among all the provinces/regions.

Across all provinces/regions, Ontario had the highest number (16,485) of deliveries in the "residual" category under RFP 08, followed by British Columbia (3,020), and then the Prairie Provinces (1,810) and Atlantic-Terr (765). During the period examined, all provinces/regions saw their numbers increase in a similar pattern, where the level of the "residual" deliveries under RFP 08 were consistent or with modest decline for the first four years and began to increase after 2010. British Columbia saw the greatest growth between 2007 and 2015 among all the provinces/regions (Figure B.1). The number of deliveries in the "residual" category for British Columbia increased threefold, from 125 in 2007 to 390 in 2015, compared to a twofold increase in Ontario, from 625 in 2007 to 1,130 in 2015. The number in British Columbia exceeded that in the Prairies after 2010, and the gap grew over time and reached the highest point in 2014 (490 vs. 185).

Figure B.1 Number of the hospital deliveries under RFP 08 "Other country self-pay" payment category, linked to neither the DRD nor the IMDB, by province/region

