



UBC CENTRE FOR
HEALTH SERVICES AND
POLICY RESEARCH

Alternative Payment Plan Remuneration Trends in British Columbia

September 2020



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Contents

2	About CHSPR
3	Abstract
4	Introduction
5	Methods
6	Results
11	Discussion
12	Conclusion
13	References
14	Appendix



About CHSPR

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Abstract

Background

Total alternative clinical payments received by British Columbia (BC) physicians have remained stable since 2002/03. However, it is unclear if this stability is consistent among the different types of alternative payments and medical specialties.

Methods

Using administrative health data, we compare proportions of fee for service and alternative payments across Canadian provinces. Within BC, we disaggregate payments by type and physician specialty for clinical and non-clinical services between 2005/06 and 2011/12.

Results

Alternative payments changed less than 1% across four alternative payment plans (APPs) in BC (clinical, on-call, rural incentives, and other). Within physician specialties, laboratory and surgical specialties had slightly larger changes over time than medical, imaging, and family practice.

Conclusion

There is stability among the different types of alternative payments and medical specialties in BC, with minor changes in medical and surgical specialists. A lower proportion of physician payments are by APPs in BC than in most other provinces.



Introduction

Historically, fee-for-service (FFS) has been the predominant form of physician remuneration in Canada, whereby physicians are reimbursed for the individual clinical services provided to their patients according to a set fee schedule. Alternative payment plans (APPs), which include salary, capitation, sessional and blended payment models, received increasing attention during a period of health care reform in the mid 1990s.¹ Though the majority of physicians in BC, as in the rest of Canada, are paid mainly through FFS, there is ongoing interest in the option of APPs.

APPs consist of various payment plans to compensate physicians for both clinical (e.g. salary, sessional, capitation, block funding, contract, blended, psychiatry, northern and underserved areas, emergency and on call²) and non-clinical services (e.g. educational benefits and rural access to health services). All Canadian provinces and territories have APP models to compensate physicians; however, each province and territory has different classifications and methods for funding their APP programs.¹ APP programs in BC are divided into service contracts/salary arrangements, sessions, and population based funding programs for primary health care (blended model).³

Within Canada, APPs aim to improve care by providing the financial support and stability that are not available for certain services under the traditional FFS model.¹ For instance, providing salaries for physicians in underserved areas can improve patients' access to care while providing physicians with financial stability.⁴

The purpose of this study is to describe the long-term trends (from 1999/00 to 2015/16) in total APP across Canada, and in BC specifically. Within BC, this study describes changes among the different types of APP categories or medical specialties between 2005/06 and 2011/12.



Methods

This is a descriptive analysis examining physician remuneration for all Canadian provinces from 1999/00 to 2015/16, with a focus on BC. We use the National Physician Database (NPDB) from the Canadian Institute for Health Information (CIHI) to determine the breakdown between APP and FFS payments to physicians across Canadian provinces.³ Within BC, we use additional administrative sources which allow us to disaggregate APP spending by different types of APP payments and by physician specialty. We look at all BC physicians receiving payment for clinical and non-clinical services during 2005/6 and 2011/12 (the most recent year available for detailed APP data).⁵ We used BC's Medical Services Plan (MSP) physician payment file to determine the FFS payments received by physicians during 2005/06 and 2011/12.⁶ In addition, we used the Ministry of Health's APP database to determine the APP payments received by physicians not paid under the traditional FFS system in 2005/06 and 2011/12.⁷ Together, these two datasets capture all public clinical and non clinical payments made to physicians over our study period.

Population Data BC provided the data for the study with unique identifiers used for practitioners to prevent identification of specific individuals. All inferences, opinions, and conclusions drawn in this manuscript are those of the authors, and do not reflect the opinions or policies of the Data Stewards. The University of BC's Behavioral Research Board approved this research study.



Results

Across Canada, between 1999 and 2008, there was a nationwide shift in clinical payments to physicians from FFS to APPs (Table 1, Figure 1). Starting at 10.6% of national total clinical payments in 1999/2000, alternative clinical payments continued to increase until leveling off at around 27% of clinical payments in 2008/09, and remaining at approximately this level through to 2015/16.¹

BC started at a lower level than most provinces (9.4% of payments in 1999/2000). Payments climbed to 19.1% in 2002/03 and remained around this level through to 2015/16 (Table 1, Figure 1). BC has a lower percentage of alternative clinical payments than all other provinces and territories, with the exception of Alberta, where the proportion of alternative clinical payments has been both stable and relatively low.

Other provinces are stable at much higher rates (e.g. Newfoundland, Manitoba) or increasing (e.g. Saskatchewan, Ontario) (Table 1).

Translating these percentages into their dollar values, the gross clinical payments to physicians (payments for insured medical services through provincial/territorial medical plans) in BC in 2015/16 were \$25.68 billion, with \$18.52 billion paid through FFS and \$7.16 billion through APPs.¹

The BC administrative data used in this study expands on the types of payments listed in the NPDB to include both clinical and non-clinical payments under APPs and FFS by specialty. In BC’s administrative data, the proportion of physician remuneration from APP and FFS payments changed very little

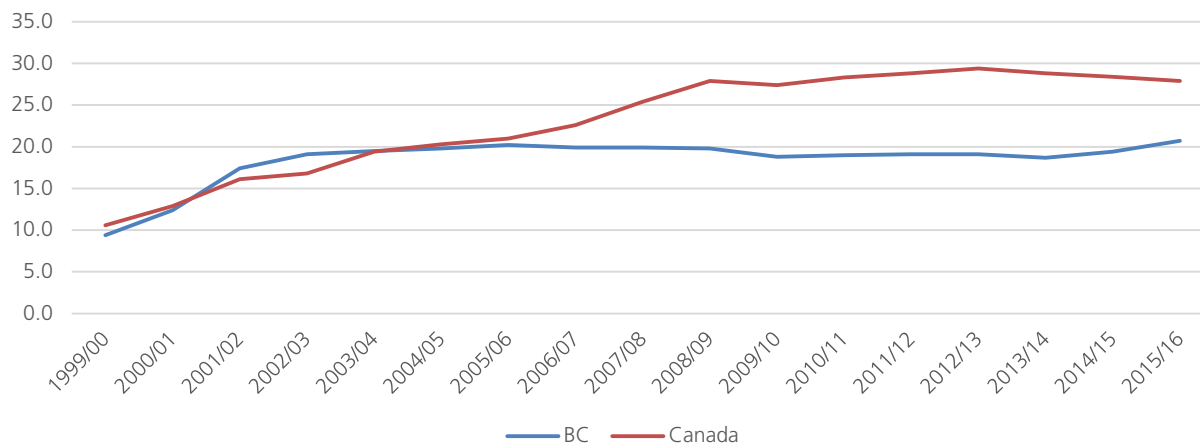
Table 1. Alternative clinical payments as a percentage of total clinical payments, by province/territory, 1999/00 to 2015/16 (excluding laboratory and imaging specialists)

	NFLD	PEI	NS	NB	QC	ON	MB	SK	AB	BC	YT	NWT	Total
1999/00	27.6	22.4	27.3	16.4	16.4	6.7	26.1	8.3	1.3	9.4	-	-	10.6
2000/01	29.6	15.9	28.4	16.3	19.5	8.2	27.0	21.0	2.8	12.4	-	-	12.9
2001/02	36.7	15.9	29.8	17.8	20.7	11.9	28.0	23.3	6.8	17.4	4.6	-	16.1
2002/03	39.6	21.9	32.1	18.3	21.8	11.4	29.4	26.2	8.7	19.1	7.8	-	16.8
2003/04	37.6	26.6	35.9	21.9	22.9	15.9	29.8	24.9	9.1	19.5	11.2	97.4	19.4
2004/05	35.7	29.0	41.9	23.2	23.7	16.7	29.4	25.3	10.8	19.8	16.0	94.4	20.3
2005/06	33.2	32.0	43.5	24.9	23.9	18.3	28.7	24.8	12.2	20.2	15.6	96.1	21.0
2006/07	31.6	36.4	46.4	23.3	24.0	22.2	29.2	25.9	11.6	19.9	13.8	94.4	22.6
2007/08	32.4	39.7	47.2	24.2	25.6	27.4	31.9	26.3	13.4	19.9	13.6	93.8	25.4
2008/09	34.0	39.9	49.2	27.9	26.3	32.1	31.6	28.5	14.7	19.8	-	96.3	27.9
2009/10	33.6	41.1	42.9	30.1	24.9	32.6	30.7	28.6	14.4	18.8	-	96.3	27.4
2010/11	32.7	41.6	44.3	35.4	24.3	34.4	30.7	30.6	14.8	19.0	-	93.8	28.3
2011/12	34.5	41.0	45.1	35.1	23.6	35.4	30.5	33.7	14.4	19.1	-	94.5	28.8
2012/13	34.6	38.1	46.0	36.2	24.5	36.6	30.2	34.7	14.0	19.1	-	95.5	29.4
2013/14	33.2	37.5	46.6	34.8	22.9	36.8	29.8	34.8	13.9	18.7	38.7	96.5	28.8
2014/15	35.8	37.2	47.0	38.2	22.5	36.1	28.7	35.5	13.4	19.4	39.7	95.6	28.4
2015/16	34.9	37.2	48.2	33.2	21.3	36.1	28.9	35.8	13.2	20.7	38.5	94.6	27.9

* Data not available for Nunavut, and data missing for some years for Yukon and Northwest Territories.



Figure 1. Alternative clinical payments as a percentage of total clinical payments for BC and Canada, 1999/2000 to 2015/16



between 2005/06 and 2011/12. As shown in Table 2, the proportion of total APP payments (clinical and non-clinical) decreased by -0.5% (from 20.3% of total physician payments in 2005/06 to 19.8% in 2011/12).

The proportions in Table 2 include both clinical and non-clinical services; whereas, those referenced from the NPDB in Table 1 are limited to clinical services only. Table 3 shows the proportion of total APP payments (clinical only) for BC.

Another important difference between our data sources and the NPDB is the absence of payments to laboratory and imaging specialists under FFS clinical payments in the NPDB. Because payments to laboratory and imaging specialists are included in our data, the sum of FFS clinical payments is larger than that reported by CIHI, and the proportion of alternative clinical payments out of total clinical payments reported in Table 3 is smaller for both time points.

Table 2. Alternative payment plan as a percentage of total physician payments in BC, 2005/06 and 2011/12

	2005/06		2011/12	
	N		N	
Physicians total	9,186		10,557	
		\$ %		\$ %
APP total	537,958,958	20.3	655,813,596	19.8
APP Clinical Payments	363,499,291	13.7	497,407,621	15.0
APP On Call Payments	123,967,077	4.7	124,974,224	3.8
APP Rural Incentives	21,353,476	0.8	33,431,751	1.0
APP Other Payments	29,189,113	1.1	0	0.0
FFS clinical payments total	2,109,269,441	79.7	2,653,624,580	80.2
Total physician payments (clinical and non clinical)	2,647,228,399	100	3,309,438,176	100



Table 3. Alternative payment plan as a percentage of total clinical payments in BC, 2005/06 and 2011/12

	2005/06		2011/12	
	\$	%	\$	%
APP clinical payments	363,499,291	14.7	497,407,621	15.8
FFS clinical payments	2,109,269,441	85.3	2,653,624,580	84.2
Total clinical payments	2,472,768,732	100	3,151,032,201	100

Looking more specifically within the APP categories in BC (Table 2), there is a very small increase of +1.3% in clinical payments, a decrease of -0.9% in on-call payments, an increase of +0.2% in rural incentives, and a decrease of -1.1% for other payments (e.g. professional fees/membership allowance, continuing medical education and other education expenses, administrative and academic stipends, overhead—office support, accidental death and dismemberment, and other).

Figure 2 shows that when comparing APP payments across physician specialties there are both increases and decreases in APP payments. The largest changes are within surgical specialists, which fell from 20.3% to 15.8%, and laboratory specialists, which rose from 8.1% to 13.0%. Smaller changes occurred for medical specialists, which fell from 32.9% to 29.5%, and imaging specialists, which rose from 24.8% to 28.1%. There was little difference for family practitioners, which fell from 16.4% to 15.9%.

Figure 3 shows that when disaggregating APP payments into four main categories (clinical payments, on-call, rural incentives, and other), “other payments” were eliminated for all specialties, and rural payments remained fairly stable for all specialties. Other analysis looking at alternative payments in rural vs. urban settings shows no notable pattern by geography (data not shown). There was a minimal

decrease in alternative on call payments for almost all specialties with the largest decrease occurring under surgical and medical specialists.

As for alternative clinical payments, changes in the proportions varied across specialties. Alternative clinical payments increased across all specialties except for surgical specialists where it slightly decreased between 2005/06 and 2011/12. Relative to other changes in alternative clinical payments across specialties, the largest increase was among imaging and laboratory specialists (Figure 3).

Further analysis looking at the distribution between APP and MSP payments for individual specialties within the five larger specialty groupings (family practice, medical specialists, surgical specialists, imaging specialists, and laboratory specialists) is shown in the Appendix, and confirms that, despite some small movement, APP has remained stable between 2005/06 and 2011/12.

Among imaging specialists, total alternative payments increased more for radiology compared to nuclear medicine. For laboratory specialists, pathology increased more compared to medical microbiology.

We observed movement in the distribution of alternative and fee for service payments among the individual specialties under medical specialists. The



Figure 2. Alternative payment plan and fee-for-service payments as a percentage of total BC physician remuneration, 2005/06 and 2011/12

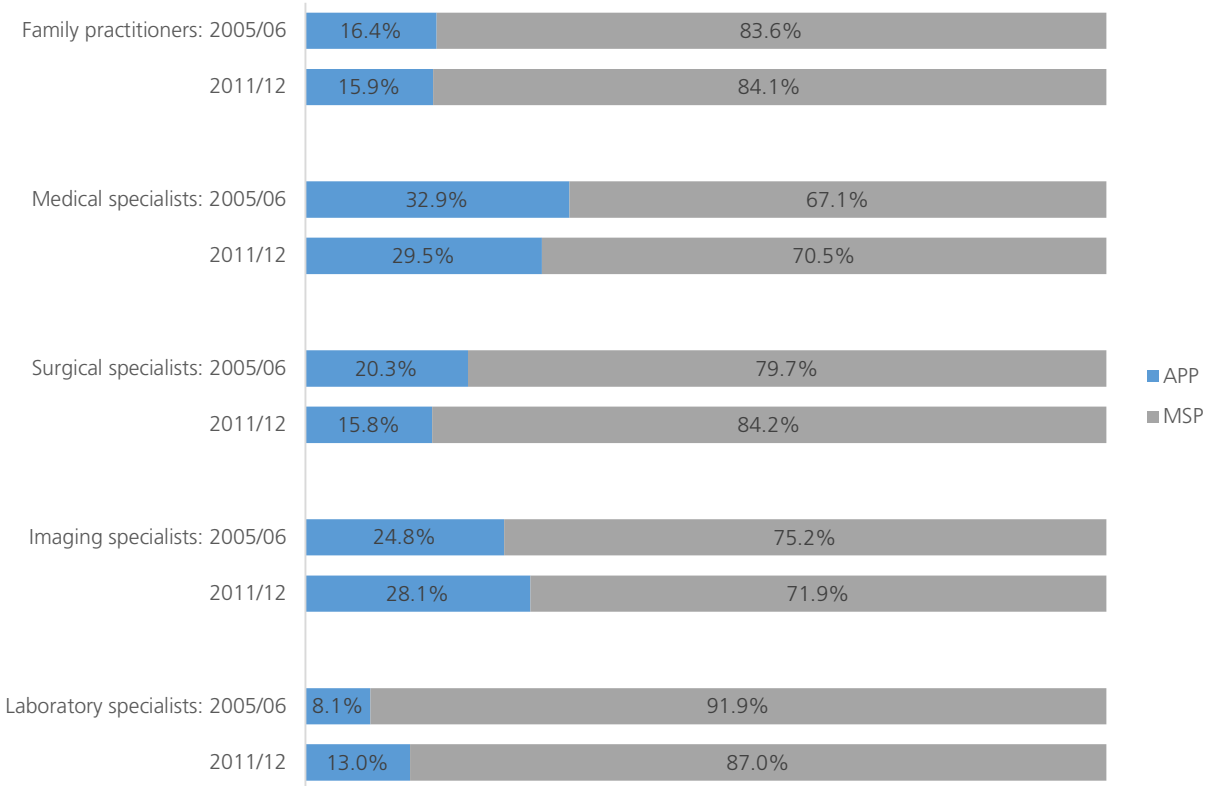
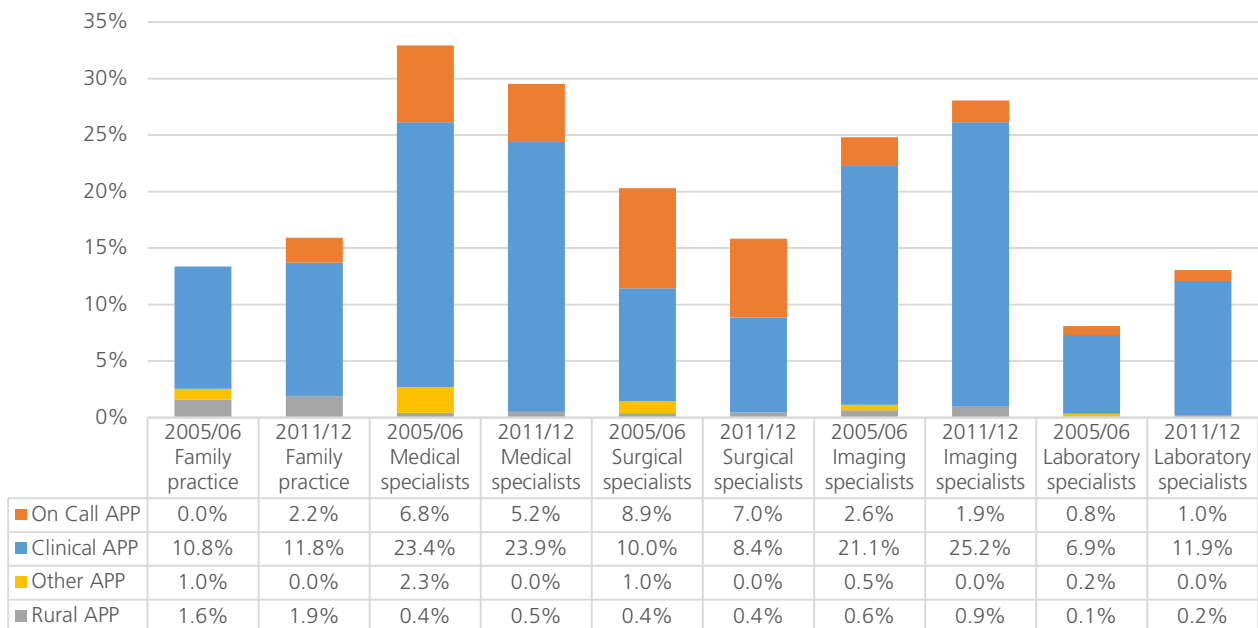


Figure 3. BC alternative payments disaggregated by type, 2005/06 and 2011/12





percentage of total alternative payments significantly decreased in emergency medicine (77.1% to 59.1%), physical medicine and rehab (37.1% to 20.8%), public health (88.9% to 81.1%), and geriatric medicine (56.6% to 43.4%). There were increases in internal medicine (28.4% to 33.1%), clinical immunization and allergy (5.1% to 9.1%) and rheumatology (18.4% to 22.0%). Changes in other individual medical specialties had smaller changes or remained stable. In addition, the the list of specialties expanded in 2011/12 to include cardiology, endocrinology, critical care, gastroenterology, nephrology, infectious diseases, and hematology/oncology. These new specialty categories contained between 8.4% and 58.9% alternative payments, but no comparison values for 2005/06 are available.

We also observed movement in the distribution of alternative and fee for service payments among the individual specialties under surgical specialists. The percentage of total alternative payments significantly decreased in neurosurgery (40.8% to 31.1%), otolaryngology (14.2% to 7.1%), orthopaedic surgery (23.9% to 9.6%). There were increases in thoracic surgery (60.6% to 73.4%) and vascular surgery (16.7% to 29.7%).



Discussion

Our findings show that total alternative payments remained stable between 2005/06 and 2011/12 within BC, in contrast to most other Canadian provinces. Despite some movement in specific types of alternative payments among individual specialties, on an aggregate level changes in the distribution of payments in the five larger specialty groupings remained fairly stable between the two time points. On a national scale, BC has the second lowest proportion of APP payments, with only Alberta being lower.

The findings of this study add to the existing literature on payment distributions in Canada by providing a more comprehensive description of clinical and non-clinical alternative and FFS payments to BC physicians across a wide range of medical specialties, including laboratory and imaging specialists.

A recent Cochrane review found that compared to capitation, FFS models result in fewer hospital referrals and repeat prescriptions, but more primary care and specialist visits, diagnostic, and curative services.⁸ Compared to salaried payments (a form of alternative payment), FFS payments result in more patient visits, better continuity of care, greater compliance with the recommended number of visits, but lower patient satisfaction with access to their physician.⁸

The C.D. Howe Institute⁹ also suggests that capitation (a form of alternative payment), or a per patient payment model for primary care physicians fits more with technological advancement, and the evolution of primary care. In addition, a blended model such as capitation with a small portion of FFS, can reduce the risks of capitation only. While these models might be suitable for some primary care physicians, they are not necessarily appropriate for medical specialists.

With the lack of a conclusive model of physician remuneration in the academic literature, the results of this study are important to inform policy decision makers when evaluating physicians' incentives and designing payment models to support specific policy objectives.

These findings are also important for BC researchers to keep in mind when making inferences about APP payments to physicians. APP data in BC are only available on an aggregated physician level, rather than at the patient level, making it difficult for researchers to infer what they are missing in physician payments/services provided to patients. The stability of the payments is good news for BC researchers that have assumed as much in their research to date. However, researchers should be careful to note if they are looking at specific specialties, (e.g. emergency medicine) where the proportional split between FFS and APP has shifted over time. Overall, the stability can be seen across medical specialties, which limits the potential for bias to affect analyses in the absence of more specific and up to date APP data.

Limitations

One of the limitations to this descriptive study is the lack of consecutive and up to date data on the different types of alternative payments. Given the lack of data on alternative payments in BC since 2011/12, the assumptions made in this paper are based on the data available for two fiscal years only. We were unable to include more recent data than 2011/12, but given the stability in APP funding overall we do not anticipate that more recent data would materially affect the conclusions, especially as CIHI figures have remained steady since 2011/12.¹



Conclusion

There is stability in alternative payments to physicians in BC across the different medical specialties and types of alternative payments. Between 2005/06 and 2011/12 there were only small changes across medical specialties and the different alternative payment programs. A lower proportion of physician payments are by APPs in BC than in most other provinces.



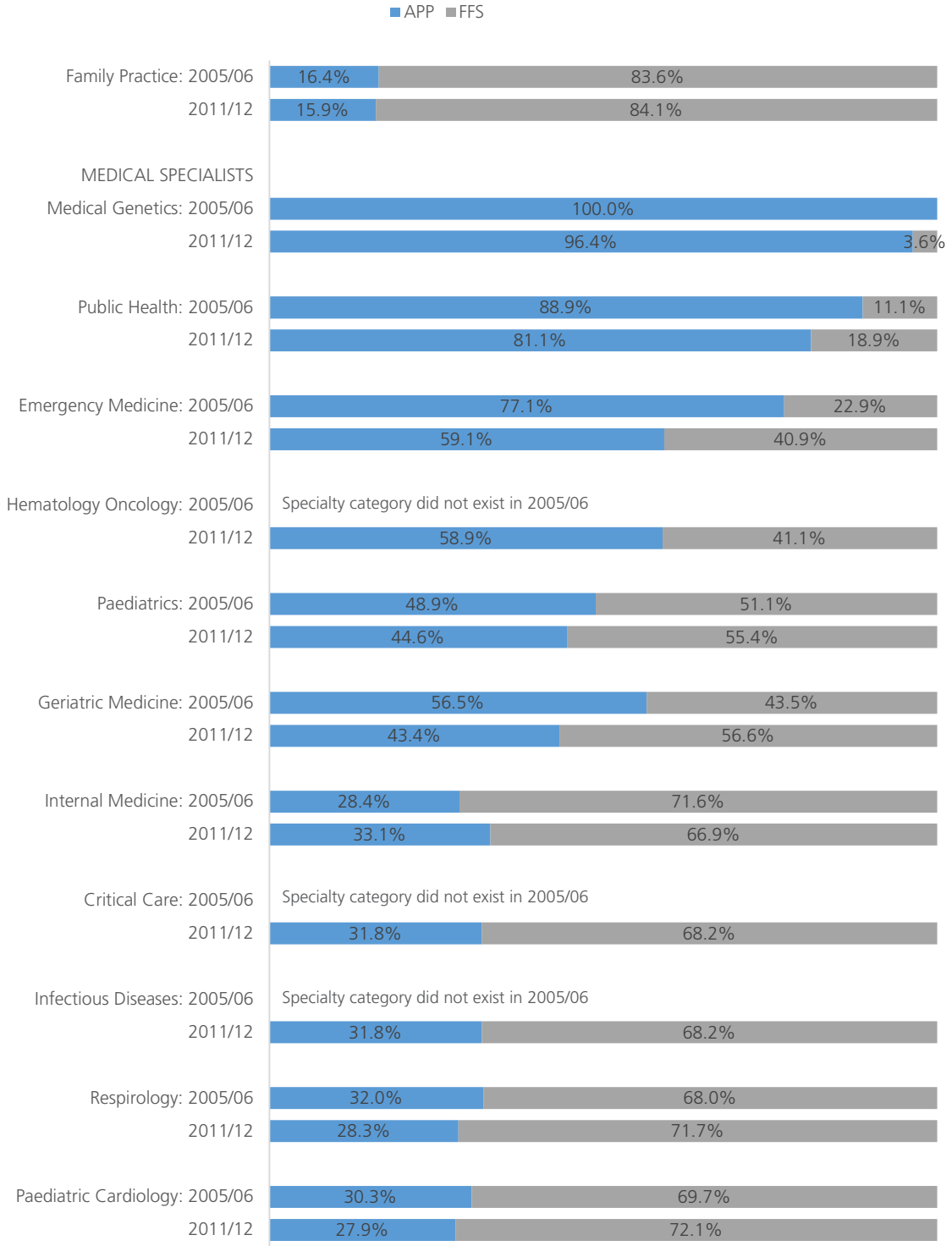
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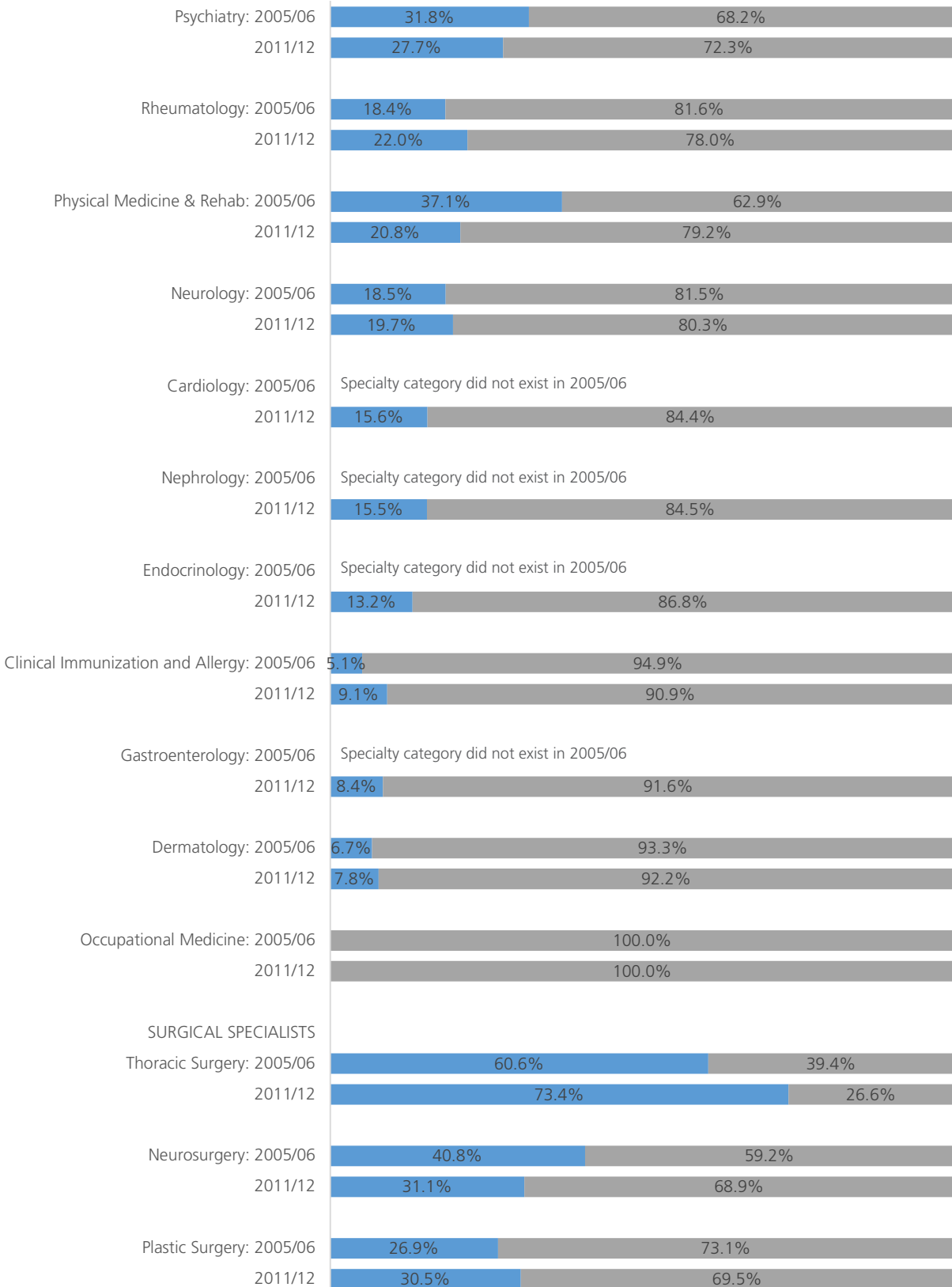
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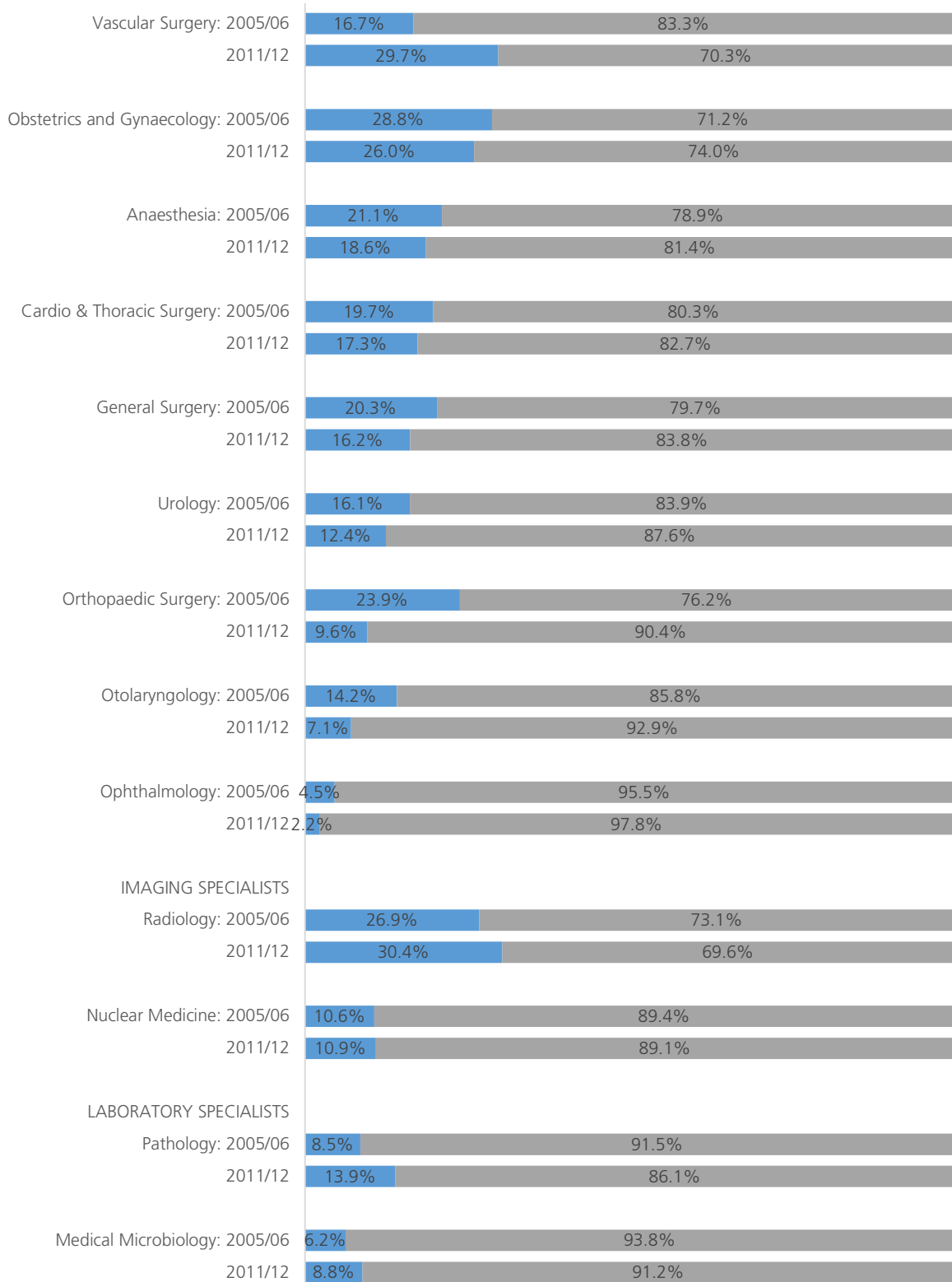


Appendix

Alternative payment plan and fee-for-service payments as a percentage of total BC physician remuneration, by specialty, 2005/06 and 2011/12







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