Report of the
Physician Compensation Model Expert Panel

December 31, 2010

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Acknowledgements

The Panel wishes to acknowledge Jim Aikman and Victoria Watson (BCMA), Jeremy Higgs (Ministry of Health Services) and Pat Melia (Health Employers Association of BC) for their support, expertise and advice, all cheerfully rendered over the last fourteen months.

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Report of the Physician Compensation Model Expert Panel
Executive Summary

1. Background and Terms of Reference

The Physician Compensation Model Expert Panel (the Panel) was established pursuant to Article 3 of the April 2009 Memorandum of Agreement between the British Columbia Medical Association (BCMA) and the Government of British Columbia and the Medical Services Commission (MSC). The Panel members are Darrell Thomson (representing the BCMA), Rick Roger (representing the Government) and John Horne (Chair).

As stated in its Terms of Reference, the Panel was established by the Parties "to develop an interprovincial physician compensation model that can be used to inform future negotiations on general compensation changes for physicians in B.C. In more specific terms, the stated objective "is to develop an interprovincial physician compensation model that will:

a) establish an evidence-based approach to calculating the average of overall compensation paid to physicians and physician groups in Alberta and Ontario as key reference points for the recruitment and retention of physicians in BC;

b) be available to calculate the average of overall compensation paid to physicians and physician groups in BC and for other provinces where their compensation has a significant effect on the recruitment and retention of physicians by BC."

2. Meeting Summary

The Panel held fourteen face-to-face meetings and eight teleconferences over the period November 2009 to December 2010. These included: a teleconference (Dec 10/2009) with staff at the Canadian Institute for Health Information (CIHI); a teleconference (Aug 4, 2010) with the Alberta Secretariat, comprising senior officials from the Alberta Medical Association (AMA), Alberta Health and Wellness (AHW) and Alberta Health Services (AHS); a meeting (Toronto, Sept 9, 2010) with staff from the Ontario Medical Association (OMA) and the Ontario Ministry of Health and Long-Term Care (OMOHLTC); and a videoconference (Nov 8, 2010) with staff designated by the Alberta Secretariat from the AMA, AHW and AHS. Resource staff from the BCMA (Jim Aikman and Victoria Watson), the Ministry of Health Services (Jeremy Higgs) and the Health Employers Association of BC (Pat Melia) supported and/or attended all meetings of the Panel.

3. Work Plan

Through its early deliberations, the Panel agreed to develop and progress a work plan based on a comprehensive definition of "physician compensation", inclusive of all payments from the Ministry of Health (and Health Authorities). It also decided to frame its understanding of the assignment in a simple concept model, and to develop a master template encompassing all modalities and/or categories of physician compensation in BC. The concept model and its various identity equations served as a framework for progressing the Panel's efforts to develop

an "evidence-based" model of average overall compensation. The master template identified three major categories of compensation available to BC physicians, namely, Fee-for-service (FFS), Non-FFS (including salary, sessional and service contracts), and Targeted Funding (including a variable mix of FFS and non-FFS payments). Each of these three categories was further detailed and sub-categorized by specific payment source, largely defined on an administrative agency and/or official program basis. The Panel agreed this table would be an appropriate template to guide initial data-gathering efforts in BC, Alberta and Ontario.

4. Summary of Panel Activities Related to Methods and Data for Inter-Provincial Comparisons of Physician Compensation

The Panel conducted various investigations regarding the methods and datasets currently available for jurisdictional comparisons of physician compensation. Included were: (i) a review of two distinct methodological approaches to comparing compensation, one termed "Interprovincial Fee Comparisons with Adjustments", the other "Interprovincial Average Payment Comparison with Adjustments"; (ii) a scan of medical associations and ministries of health in other provinces to identify the methods and models they are currently using to analyze physician compensation; (iii) a review and assessment of CIHI's National Physician Database (NPDP) as an informational resource to the Panel; (iv) a description and qualitative assessment of the BC administrative databases that populate our master template; and (v) focused investigations of the Alberta and Ontario data-bases to assess their potential for comparisons of compensation with BC physicians.

As a result of these investigations, it became clear to the Panel that, due to a variety of data constraints and methodological challenges, it would not be possible to operationalize a rigorous model of compensation comparisons fully adjusted for jurisdictional differences in clinical workloads and fee schedules. The alternative, based on the available data, was a more "pragmatic" approach to profiling "average overall compensation".

5. The Panel's Pragmatic Approach to Model Development

In the absence of explicit fee and workload factors, the Panel's first challenge was to determine how best to *indirectly* adjust for workload differences to ensure the compensation profiles would relate to a relatively homogeneous group of *clinically active* FFS physicians. The second challenge was to determine how best to supplement and/or adjust these profiles to include the major sources of non-FFS compensation. Regarding the first challenge, the Panel considered several ways to identify the "clinically active" physician in FFS datasets. After various exploratory analyses, the Panel decided this sub-group of physicians should demonstrate the following general characteristics: a) they should be well established in practice; b) work a significant portion of the year; and c) generate significant levels of billings during the majority of the available working days.

Looking solely at BC data (data for the other provinces was not available at the time), the Panel began examining a series of progressively tighter definitions of the "reasonably active" physician. The first characteristic was that of the "well-established" practitioner. As defined by the Panel, this is a physician who had submitted FFS billings to the medical plan in a minimum

of 9 months in the current year, and in each of the previous two years. The second characteristic, i.e., one who worked a significant portion of the year, was defined to be a physician who billed an annual minimum of 167 days. The third characteristic, i.e., one who generated significant billings during the majority of available working days, was defined to be a physician who billed at or above a threshold value of daily billings.

After some experimentation, we determined that at a minimum of 167 days with billings above $200 per day, approximately 50% of the physician population would be deemed "reasonably active". Based on the FY2008-09 data, physicians fulfilling these composite trim criteria worked an overall average of 245 total days (roughly comparable to the expected work year of a salaried employee), served an average patient load of 2008, and earned an average gross FFS income that falls between the 80th and 90th percentiles of all physician earnings.

Having effectively excluded the "low earners" by application of the above trim criteria, it remained to define a supplementary trim criterion to exclude the "high earners" in each specialty and/or specialty group whose average daily billings and/or days worked were significantly higher than all the others in their corresponding majority group of "reasonably active" practitioners. Since there was no one combination of days billed and average daily billings that served to identify the upper "exclusion" threshold, the Panel decided it appropriate and justifiable to revert to the simple dollar cutoffs of $600K for GPs, $700K for Medical Specialists, and $800K for Surgical Specialists; after applying these thresholds, individual earnings for physicians included in the (now smaller) group of "reasonably active" FFS clinicians falls between the 30th and 95th percentiles of all physician earnings.

The Panel recommends the use of these composite trim criteria, inclusive of the lower and upper exclusion thresholds, to profile the FFS component of compensation.

The second challenge was to determine how best to supplement and/or adjust these profiles to include the major sources of non-FFS compensation for this sub-group of "reasonably active" physicians. Given the heterogeneity of such "alternative" (non-FFS) programs and payments between the provinces, and the fact not all such payments are identifiable by physician in BC, Alberta and Ontario, calculation of non-FFS compensation requires serious attention to detail in each of the following categories: salary, sessional and service contracts; targeted funding (involving mixtures of FFS and non-FFS); MOCAP; rural programs; and benefits. Where category specific payments data are available by physician in all three provinces, the Panel proposes a "post-trim" adjustment to the earnings of the individual physicians included in the sub-group of "reasonably active" FFS physicians; where category specific payments are not identifiable by physician, the Panel proposes methods to estimate the average payment for these physicians based on plausible assumptions about the distribution of payments and/or eligibility criteria.

6. Summary of Primary Considerations in our "Pragmatic Approach"

To summarize, the primary considerations which have guided our efforts to develop a pragmatic "evidence-based" approach to jurisdictional comparisons of average overall compensation are as follows:

a) We should have physician workload data, and a workload measurement tool that is portable between provinces. Although we are aware that CIHI is re-working its current systems which are intended to facilitate such comparisons, we can only work with the system currently in place. Nationally sanctioned workload measurement systems, as currently deployed, are considered inadequate for our purposes.

b) We should have an ability to enter a price variable into our inter-provincial FFS income comparisons, allowing us to move towards "fee adjusted" income levels. Again, while there is some basis for optimism with regard to future developments at the national level, we are left without an important input to our identity equations. Methodological issues associated with fee schedule comparability are an exceptional current challenge.

c) The panel has concluded that a BC-based template of physician types and modes of payment is a necessary starting point. A suitable template has been developed, which can be tuned to future and emerging practice and payment modes, and adjusted to facilitate comparison with other jurisdictions. The panel is confident that the template developed can be fully "populated" within BC with all Ministry of Health (and Health Authority) payments identified by source and application of funds to a sufficient level of materiality. We should be able to draw in all sources of qualified income, including payments made by health care delivery organizations (Health Authorities or hospitals) and we should be able to "net out" potential double counting. We are confident that, with a little extra effort, this can be done in BC, less confident of immediate progress elsewhere. Ontario may be a particular challenge.

d) The Panel has agreed on a method to trim physicians from the dataset to be used for comparative purposes. We have developed and endorsed the concept of the "reasonably active" physician. This is an essential first stage adjustment of workload variation possible with existing data sources. Although this "trimming convention" may or may not be sufficient for adequate and appropriate "workload adjusted" jurisdictional comparisons (and may well require further refinement for comparisons at the specialty level), in our view, it is a clear step forward.

e) At all stages of the data retrieval and analysis, the Panel has remained focused on the total, or gross compensation to physicians, with no attempt to factor in the associated practice overhead costs. The Panel realizes that to ignore overhead costs creates potential distortions when interpreting the *overall compensation* of physicians between jurisdictions; however, the Panel can offer no practical advice to the Parties with respect to how this might be factored into the calculation. The complexities of practice, variations in payment modalities, intricacies of incorporation and tax laws, and the absence of usable data preclude any irrefutable commentary from the Panel. Although the Panel acknowledges this may be a controversial conclusion, we have no alternative but to suggest that the Parties will need to make their own determinations as to how and when the overhead factor might be considered.

f) The Panel is aware that previous attempts at jurisdictional compensation comparisons have, in some cases, considered "cost of living" as one of the adjustment factors. In the Panel's opinion, this would only be relevant if the "benefits of living" were also considered.

However, both can be logically excluded from consideration on the basis that potential physician migrants undertake their own analysis of "living" in different provinces (or communities within provinces), freely deciding to move or not after a notional calculation of the marginal cost-benefit ratio.

g) While the Panel agrees that Ontario and Alberta are the most appropriate provinces for income comparison, there is a significant degree of concern associated with the short term availability of a fully comparable dataset from Ontario. We are optimistic that a suitable agreement with Ontario could be developed in a short period of time, allowing the application of the basic elements of our proposed model. Release of physician specific FFS billings per day and days of billing information is the key condition for successful application of our "pragmatic" model. The Panel is optimistic that steps could be taken now to develop an appropriate, upgradeable three province dataset with accompanying methodological conventions to enhance comparability.

7. Recommendations

While recognizing that data availability is limited, and that data sharing arrangements will need to be developed, the Panel believes that a structured and appropriately disciplined approach will provide useful comparative data which can be refined over time. The Panel proposes the following staged approach:

Stage One: BC FFS Dataset

1. Designate a base year for comparison. The panel has been "test driving" BC datasets from FY2008/09.

2. Assemble a BC FFS dataset with ICBC payments and fee-based GPSC and SSC (activated April 1/10) included. Excluded are payments for out-of-province, rural fee premiums, WCB, midwife referral claims and form fees.

3. Scrub the FFS dataset, removing payments funding the diagnostic specialties (radiology, pathology, nuclear medicine, and medical microbiology), payments to physicians involved in CASC agreements, and payments supporting emergency medicine.

4. Divide the remaining baseline BC FFS data set into the broad specialty groups: general practice, medical specialties and surgical specialties. This data set should add to an "all but specified removals" total.

5. Further delineate the BC FFS data base using the trim points and conditions to identify "reasonably active" physicians, i.e., nine months billing in the reference year and the two preceding years, and an annual minimum of 167 days FFS billing at a minimum of $200 per day in the reference year (2008/09 at present). High end trims to be specified as follows: $600K, $700K,$800K for GPs, medical and surgical specialists respectively.

6. Augment the "trimmed" FFS data for BC with delineated rural fee premiums, sessional and service contract activity, and MOCAP payments, identified at the best achievable level of granularity, physician specific in most instances.

7. Factor benefits at the average cost per physician level. Benefits to be incorporated include: physician disability insurance program, CME fund (including rural CME), CMPA, Contributory Professional RSP, maternity leave, and the Physician Health Program.

Stage Two: Comparative FFS Dataset

8. Initiate and establish data sharing agreements with Alberta and Ontario identifying data elements needed for consistency.

9. Specify inclusions/exclusions and adjust the Alberta and Ontario datasets where necessary for comparability purposes. Issues related to "post-trim" adjustments include physician specific on-call payments, rural/remote premiums, sessional and service contracts, and the identification of equivalents to GPSC and SSC funding.

10. Confirm a matching protocol with other provinces involved, seeking physician specific comparison datasets as a first order initiative, with specialty and broad specialty and comparisons as a fallback.

11. Refine the augmented FFS data sets drawn from Alberta and Ontario to the point that counterpart averages can be validated and understood. It is recognized that these adjustment metrics will be iterative, informed by evolving data availability, and subject to development over time.

Stage Three: Extended FFS Income Computation

12. Compute aggregate average (mean, median) "trimmed" BC, Alberta and Ontario income levels for this extended FFS data set, for general practice, medical specialties and surgical specialties.

13. Divide the data set into suitable income thresholds or ranges.

14. Develop and validate measures of "spread" in the trimmed data set (e.g. inter-quartile range, % between 40-60%, etc).

15. Develop and apply "sensitivity tests" as necessary to quantify the possible extent of any observed or potential distortions in the dataset or data capture methodology.

16. Adjust the trims where advisable, targeting at least a 50% physician inclusion rate in all three provinces.

Stage Four: Ongoing Development

17. Continue efforts to improve workload measurement and fee indexing systems, articulating and sustaining a strong BC voice at the national (pan-Canadian) level.

18. Work specifically with Alberta and Ontario on the comparison of non-FSS incomes (service contracts and salaries) starting first in organizational practice venues without extensive academic (teaching and research) elements; initial specialties of interest might be emergency medicine, oncology, public health, rehab medicine, primary care salaried (or service contracted) physicians and hospitalists.

19. Extend the models developed for comparison of service contracts and salaries to other areas including diagnostic services, and academic health service centres.

8. Concluding Comments

While the Panel is of the opinion that the above recommendations represent a discernable advance in inter-provincial compensation comparison methodology, this report is best considered a "work in progress" towards a more rigorous "evidence-based" approach.

Whatever the eventual balance between pragmatism and rigor, there are other considerations the Panel deems worthy of final note:

a) Payment systems function within the environmental constraints of a "complex adaptive system" in which relationships between payer and payee are "coloured by context" and not always fully predictable. The broader components of the funding system can interact in unexpected ways, particularly under conditions of significant stress on the system or motivation to change performance, behaviour or outcome. For example, performance pay intended to drive more volume in the acute care sector will have implications for physician compensation and perhaps inter-provincial comparability. Participants in the system learn and adapt quickly and constantly; under these circumstances, compensation comparisons will tend to date very quickly.

b) Planning a course towards an evidence-based system of jurisdictional compensation comparisons requires the Parties within BC and beyond to be mindful that successful execution of our recommended approach presupposes a sense of common purpose, and a willingness to engage in coordinated efforts to implement and maintain such a system.

c) The Parties will need to decide how to maintain a system which will not progress without cost. Frequent updates will be needed, and further movement towards blended payment modes may eventually compel a reworking of the Panel's recommended methodology.

Report of the
Physician Compensation Model Expert Panel (CMEP)

1. Background and Terms of Reference

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As stated in its Terms of Reference (attached as Appendix 1), the Panel was established by the Parties "to develop an interprovincial physician compensation model that can be used to inform future negotiations on general compensation changes for physicians in BC. In more specific terms, the stated objective "is to develop an interprovincial physician compensation model that will:

a) establish an evidence-based approach to calculating the average of overall compensation paid to physicians and physician groups in Alberta and Ontario as key reference points for the recruitment and retention of physicians in BC;

b) be available to calculate the average of overall compensation paid to physicians and physician groups in BC and for other provinces where their compensation has a significant effect on the recruitment and retention of physicians by BC."

2. Meeting Summary

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3. Work Plan

Through its early deliberations, the Panel agreed to develop and progress a work plan based on a comprehensive definition of "physician compensation", inclusive of all payments from the Ministry of Health (and Health Authorities) through fee-for-service (FFS) and all non-FFS modalities (salary, sessional, and service contracts). It also decided: (a) to frame its

understanding of the assignment in a simple concept model; (b) to develop a master template encompassing all modalities and/or categories of physician compensation in BC; (c) to develop some work-plan principles to guide all data gathering and subsequent analyses; and later (d) to submit a status report to the Parties clarifying the work plan, proposing a set of "deliverables", identifying "issues" requiring further discussion and resolution, and requesting feed-back to confirm the Panel's action plan complied with their intent. Each of these topics warrant some elaboration and will be discussed in turn.

(a) The Concept Model

In its initial form, the model consists of a simple "identity" equation defining total public expenditure on physician services as the product of "overall compensation" per physician times the number of physicians, i.e.,

Identity Equation 1:
Total Physician Expenditures = Compensation per Physician x Number of Physicians

The equation is termed an "identity" to reflect the fact that since each side defines the other, they must remain equal in any numerical calculation. Refinements involving other variables are permitted provided they maintain the strict equality. To illustrate, dividing both sides by the general population yields an identity which expresses both Total Physician Expenditures and the Number of Physicians in per capita terms, i.e.,

Identity Equation 2:
Total Physician Expenditures per capita = Compensation per Physician x Physicians per capita

In this form, the identity decomposes per capita expenditures on physician services (left-side) into two (right-side) components, namely, compensation per physician and physicians per capita, the latter commonly termed the "physician-population ratio".

Were the Panel's mandate to develop a model to compare interprovincial differences in per capita spending on physician services, this identity would provide an appropriate point of departure for the investigation.

However, since the Panel's assigned purpose is to focus on compensation per physician, this component will be extracted from the above identity and itself decomposed into various components closer to the realities of payment and practice. So considered, this new identity may be initially expressed as:

Identity Equation 3:
Compensation per Physician = (Fee-for-service Payments + Non-FFS Payments) per physician

Refining further, the fee-for-service component of this identity may be decomposed into "price" and "quantity" components, defined by the average payment per service and number of services per physician respectively. In turn, the number of services per physician may be decomposed into more practice relevant terms defined by the number of (discrete) patients per physician and

the number of services per (discrete) patient. With these refinements, the FFS component of the previous identity becomes:

Identity Equation 4:
FFS Payments per physician = Average payment per service
x (Services per patient x patients per physician)

The left-side of this equation captures what may be termed "average overall FFS compensation per physician", while the right-side decomposes this compensation into a "price" component (i.e., the average payment per service) and a "quantity" component, the latter jointly defined (multiplicatively) by the average number of services per patient and the average number of patients per physician

The Panel deemed the simple concept model and its various identity equations to be useful as a framework for progressing its efforts to develop an "evidence-based" interprovincial physician compensation model. In particular, Equations 3 and 4 served to focus discussion on various "threats to validity" in any attempt to operationalize these equations for the purpose of comparing compensation across jurisdictions. To illustrate, Equation 3 makes clear that "overall compensation" (left-side numerator) needs to be consistently defined and accurately measured in both FFS and non-FFS modalities, as does the number of physicians (both left and right-side denominators). For its part, Equation 4 makes clear that since interprovincial differences in FFS payments per physician can reflect differences in average payment per service, number of services per patient and number of patients per physician, there is an additional premium on consistent definition and accurate measurement of numerators and denominators. Note too that inter-provincial differences in "average payment per service" can in turn reflect differences in payment rates for otherwise identical services (i.e., different "fee schedules") *and/or* differences in the mix of services provided (i.e., different service patterns). Thus, two provinces with *identical* fee schedules could exhibit differences in average payment per service due entirely to differences in the mix of services provided by their physicians.

Clearly, any model (or method) aiming to provide meaningful comparisons of "average overall compensation per physician" between jurisdictions should: (i) define and reliably measure the components of compensation (FFS, non-FFS and other categories as appropriate); (ii) define and reliably measure the number of physicians so compensated; and (iii) permit decomposition and/or analysis of FFS compensation in terms which distinguish the effects of different fee schedules from differences in physicians' clinical activities (affecting the volume and/or mix of their services).

(b) The Master Template

The Panel's early decision to develop a master template encompassing all modalities and categories of physician compensation in BC was a practical next step in moving from concept model to "real world". While the terminology of "overall compensation" could be broadly defined to include payments from both the public and private sectors, the Panel understood its

mandate was to focus on the former, albeit on a comprehensive definition of public payments taking into account all (Ministry of Health) sources and modalities of payment.

Based on this definition, a generic table was developed identifying three major categories of compensation available to BC physicians, namely, Fee-for-service (FFS), Non-FFS (including salary, sessional and service contracts), and Targeted Funding (including a variable mix of FFS and non-FFS payments). Each of these three categories was further detailed and sub-categorized by specific payment source, largely defined on an administrative agency and/or official program basis. The Panel agreed that, so constructed, this table (detailed and discussed in section 4.d) would be an appropriate template to guide initial data-gathering efforts in BC, Alberta, Ontario and, where feasible, other provinces.

(c) Work-Plan Principles

In addition to the template, the Panel agreed upon the following principles to guide the data-gathering process and subsequent analyses:

i. Comprehensiveness. Data should comply with the adopted definition of "overall compensation" (i.e., public payments from all sources);
ii. Feasibility. Components of compensation must be operationally definable in the available datasets for BC, Alberta, and Ontario;
iii. Face-validity. All components of compensation must be understandable;
iv. Reproducibility. all components of compensation must admit to reliable calculation (repeatable by others);
v. Adaptability. The compensation template and its components must be able to accommodate changing (policy) environments.

(d) Status Report (April 26/2010)

In its Status Report to the Parties dated April 26, 2010 (attached as Appendix 2), the Panel clarified its interpretation of the Terms of Reference and the term "average overall compensation", described the compensation categories comprising the template, and set out the principles underlying its work plan (all as discussed above). It also proposed a set of "deliverables" based on a more refined template featuring a classification of BC physicians according to the "predominant" modality of their compensation; identified "issues" requiring further discussion and resolution; and requested feed-back to confirm the Panel's action plan complied with their intent.

The proposed refinement of the compensation template would sub-divide BC physicians into groups as reflected in the formal Agreements between the BCMA and the Government. The Panel understood "it should be possible to assign physicians to one (and only one) of FFS, Sessional, Salary and Service Contract based on the 'predominant' payment modality, and to reflect this in the Master Table". Payments to physicians *within each payment modality* would still be tallied using the master template, counting payments not only via the "predominant" modality, but also any payments received through the other modalities and/or categories. Thus, "overall" payments to physicians assigned to the FFS modality would include all FFS payments

plus any payments sourced in the various Non-FFS and Targeted Funding categories (as listed in the Master Table). The total of all-source compensation for these FFS physicians would be termed "adjusted income", as would the all-source compensation of physicians assigned to the other payment modalities. Applying this methodology to the datasets for Alberta and Ontario would allow the Panel to generate a corresponding set of estimates of "total overall compensation" for physicians in these provinces, grouped using the same criterion of "predominant" payment modality.

The Panel acknowledged it would face challenges in developing estimates of "average overall compensation" within each of these groupings *that would facilitate meaningful inter-provincial comparisons.* The first and most basic challenge would be defining and counting the number of physicians who would comprise the denominator used to translate "total" into "average" compensation. Counting *all* physicians would yield an average defined by a heterogeneous mix of full and part-time practitioners. Without some adjustment for "part-timers" (and their compensation), or some other adjustment for "workload" differences, any comparison of "average overall compensation" would be seriously flawed. The second challenge, at once basic and complex, would be identifying and adjusting for "price differences" (in fees per service and payment rates per session, per hour, etc.) that can confound compensation comparisons between the provinces. The Panel briefly referenced several approaches that could be used to make such adjustments, but allowed none offered problem-free application. Third, the Panel flagged several issues of "exclusion/inclusion", exampled by differences between BC, Alberta and Ontario in the accounting of payments to physicians in Lab Medicine and Radiology (posing problems of double-counting), and to General/Family Practitioners (some of whom qualify for various incentive payments via one or more payment modalities). Finally, it noted the ambiguity of the term "physician groups" in its Terms of Reference, and requested clarification from the Parties that would allow the Panel to allow for any modifications that might be required in its proposed approach to defining "average overall compensation".

In response to the Status Report, staff representing the Parties provided a number of helpful comments, clarifications and suggestions at the Panel's meeting on May 21, 2010. As summarized in the Minutes of that meeting:

> "The Government perspective is that the Panel is on the right track. The Government does not expect the Panel to develop a new model of inter-provincial comparison given limited time and resources currently available. The Government suggests that the Panel could focus on interprovincial fee-for-service comparisons, including considerations of price, volume and workload, with subsequent extrapolation to alternative payment modes within BC. Regarding laboratory and diagnostic imaging, government suggests a comprehensive survey of Canadian jurisdictions".
>
> "The BCMA indicated that the general direction outlined by the Panel was consistent with its expectations. The model should be developed in a fashion that will allow it to be used for different modes of remuneration or sections, however, the primary focus should be on a global model".

The Ministry provided more detailed comments in a subsequent letter to the Panel Chair (dated June 17, 2010 attached as Appendix 3). Included were the following suggested approaches to the 'issues' related to the proposed deliverables:

- "The model should be as inclusive as possible and make attempts to understand the differences in those areas that have typically been more difficult to compare. With respect to the example of laboratory medicine and radiology, a compensation survey of the jurisdictions for payments to those physicians could yield the required information".

- "Workload definitely needs to be considered. It may be possible to 'triangulate' by considering a range of benchmarks or information sources already published. In addition, the relative physician supply levels are relevant to comparative compensation and workload".

- "The Ministry's meaning behind the phrase 'Physician groups' was the specialty groupings (GPs, Medicine, Surgery, Diagnostic), and at a specialty specific level. It is at this level that issues of recruitment and retention are raised by particular physicians and physician groups".

In the Ministry's summary view, "the Panel's tasks should be:

1. to come up with a relatively straightforward approach to compare average total compensation across provinces that aligns with your stated principles, using as many readily available data sources as possible and taking into account the physician supply, workload and the population being served; and
2. to identify in a more detailed manner (i.e., at the physician group level), the factors contributing to the differences in average total compensation and how these factors specifically impact recruitment and retention."

Based on this feedback from the Parties, the Panel reflected on its concept model, master template, proposed "deliverables" and work plan. Regarding the concept model, it was noted that its various Identity Equations could accommodate multiple perspectives on "comparative compensation". For example, the Ministry's interest in "broad level" comparisons involving "per capita measures" can be captured in Identity Equation 2 where physician expenditures per capita are decomposed into compensation per physician and physicians per capita. Interprovincial differences in the empirical version of this identity would reveal the relative contributions of these two (right-side) factors to the observed difference in per capita spending (on the left-side). As well, the same identity could be operationalized at a sub-provincial level (e.g., Rural vs. urban) to determine how these same two factors contribute to interprovincial variations in per capita spending in these (or smaller area) geographic dimensions where the issues of recruitment and retention may differ significantly. For their part, Identity Equations 3 and 4 facilitate not only "global" comparisons of compensation per physician defined at the "aggregate" all- physician level, but also comparisons defined at a group and/or specialty level. In short, the concept model is very flexible and can be defined at the aggregate or disaggregate level, where the latter may include various "physician groups" identified by different inclusion/exclusion criteria appropriate to the granularity of the compensation comparisons being sought.

Regarding the master template, the Panel reconfirmed its value as the organizing framework to capture the totality of public payments to BC physicians, and for the "sorting and sifting" of these payments by modality and by physician groups defined by "predominant modality", per the Panel's proposed "deliverables". But it also noted the template allows for refinements of the modality-based classification to distinguish physicians whose compensation is entirely FFS, entirely non-FFS (Salary, Sessional or Service Contract), or a blend of FFS and non-FFS. The Panel deferred decisions on the appropriate fine-tuning of the template until it better understood the strengths and weaknesses of the available provincial and national datasets. Suffice to say, the template (and its derivative estimates of "average overall compensation per physician") shares the same flexibility as the concept model regarding levels of aggregation, i.e., it may be "scaled up or down" as various definitions of physician groups and/or payment modality may require.

4. Summary of Panel Activities Related to Methods and Data for Inter-Provincial Comparisons of Physician Compensation

In this section, we report on our investigations and deliberations regarding the methods and datasets currently available for physician compensation comparisons. In 4.a, we briefly describe the methodological options and data issues within two distinct approaches to comparing compensation between jurisdictions, one termed "Interprovincial Fee Comparisons with Adjustments", the other "Interprovincial Average Payment Comparison with Adjustments". In 4.b we report the results from our scan of medical associations and ministries of health in other provinces to identify the methods and models they are currently using to analyze physician compensation. In 4.c, we offer our "all things considered" assessment of CIHI's National Physician Database (NPDP) as an informational resource to the Panel. In 4.d, we discuss the BC administrative databases that populate our master template and offer some assessments of their quality. In 4.e, we summarize findings from our more focused investigations of the Alberta and Ontario data-bases to assess their potential for comparisons of compensation with BC physicians.

(a) Methodological Options and Data Issues for Physician Income Comparisons

The Panel was briefed on two primary approaches to analyzing and comparing physician compensation between jurisdictions, generically termed "fee comparisons" and "average payment comparisons". Each approach may employ several distinct methodologies, summarized below.

A. Interprovincial Fee Comparison with Adjustments

Three generally recognized methods to perform interprovincial fee comparisons are:

i) Basket of Goods and Service Categories (e.g., CIHI's Physician Services Benefits Rates or PSBR methodology).

This method involves comparisons based on major service groups. This is done by first calculating each province's (service weighted) average payment per service within each of 96 service categories defined by the National Grouping System (NGS); these province-specific rates are then combined into 10 (NGS) strata using national weights

based on the 10 province total of services in each category. The resulting PSBR "benefit rate" is an indicator of how fees would compare if the distribution of services across categories and strata were the same in all provinces, i.e., if (NGS defined) service patterns were the same and only fees varied.

ii) "Typical Day" Comparison

This method relies on various "scenarios", each of which includes one or more patient services provided by a physician during a "typical" day for each specialty section. The scenarios would attempt to reflect the average or overall workload of physicians, in BC or elsewhere. The results would suggest payment amounts based on each of the comparator province's most recent fee-for-service payment schedules; any difference in these payment amounts provides a measure of the pure "price effect" i.e., the jurisdictional difference in fee schedules.

iii) Fee by Fee Comparison

A fee by fee comparison would link each related fee code by province. Adjustments are required for differences in description (i.e., bundling) and payment rules.

Issues with fee comparisons:

- There are numerous differences between fee guides in the various jurisdictions, primarily based on preambles, billing rules and fee code descriptions, including (but not limited to), pre and post-operative rules, add-on fees, bundling, consultation rules, technical and professional fees, billing frequencies and multiple procedures. The PSBR only partially adjusts for these differences; and while the typical day and fee by fee comparisons provide superior adjustments, they are laborious and require significant resources.

B. Interprovincial Average Payment Comparisons with Adjustments

Various methodologies may be used to conduct an average payment comparison. Each involves some form of adjustment for differences in physicians' clinical activities or workload. The most common are:

i) Payments Per Full-time Physician

CIHI has used the NPDP to calculate average payment per full-time physician counting as "full-time" only those physicians whose FFS payments were above the lower benchmark (40^{th} percentile). CIHI no longer publishes this series.

ii) Payments Per Full-time Equivalent Physician

CIHI's also uses the NPDP to calculate average FFS payments per full-time equivalent (FTE) physician. The FTE methodology adjusts for workload differences by assigning weights to a physician's gross fee-for-service income. Physicians with payments less

than the lower benchmark (40th percentile) are counted as fractions of a FTE (linear relationship); physicians within the 40th the 60th percentiles are counted as one; and physicians above the upper benchmark (60th percentile) are counted as more than one FTE (using a log-linear relationship).

iii) Payments Per Physician earning above an Income Threshold

CIHI's $60,000 lower threshold excludes physicians who received less than $60,000 as a proxy estimate of those in part-time FFS practices. Average amounts are then calculated as the sum of all gross fee-for-service payments made to physicians who receive at least $60,000, divided by the number of physicians who receive at least $60,000.

Issues with Payment Comparisons:

- Each of the methods has its own advantages and disadvantages and unique issues. For example, CIHI recently acknowledged that files received from Alberta resulted in miscalculation of the number of FTE anaesthesiologists.
- CIHI's FTE calculation relies on the PSBR methodology to adjust the national 40th-60th percentiles up or down to reflect interprovincial differences in fee schedules; however, the PSBR is unable to fully adjust for interprovincial differences in the structure and application of fee schedules (as noted above and as will be later discussed in more detail).
- CIHI grouping of physicians (GPs/FPs and 16 specialty categories) is not as detailed as the "sectional" groupings used by the provincial medical associations (BC has over 32 specialty sections).
- All three of these CIHI methodologies apply only to FFS payments
- More comprehensive payment comparisons require supplementary data on non-FFS clinical payments (salary, sessional and service contracts), benefits, and inclusion/exclusion of medical services provided through other agencies (e.g. WCB, ICBC).

(b) Scan of Selected Ministries/Departments of Health and Medical Associations in other provinces.

(i) Alberta Health and Wellness (AHW) and Alberta Medical Association (AMA)

- AHW does not have a model for inter-provincial physician compensation comparisons. However, they have used CIHI data for comparisons with Ontario and the other western provinces, and they have also compared fees for the top billed codes by section. AHW is comfortable with the quality of the CIHI data.
- AHW looks at total compensation within Alberta and also reviews the distribution of physicians by payment range by section.
- The most recent financial agreement (2008/09 to 2010/11) did not use inter-provincial comparisons, as the focus was on increasing overhead costs in Alberta.

- The AMA does not have a particular model for comparing physician compensation (though, at the staff level, it has previously shown some interest in developing a model that would take into consideration the different programs in place in each province in addition to average payment information).

(ii) Saskatchewan Ministry of Health and Saskatchewan Medical Association (SMA)

- Sask Health uses CIHI as a significant source for physician information (e.g., average payments, counts/FTEs, schedule comparisons) with an Ontario and west focus.
- Sask Health has no specific inter-provincial physician compensation model but they will estimate the value of benefit programs in other provinces.
- The SMA does not have an interprovincial compensation comparison model.

(iii) Manitoba Health (MH) and Manitoba Medical Association (MMA)

- MH does not have or use a comprehensive model of income-expenditure comparisons
- MH undertakes ad hoc income comparisons for specialty specific issues using data from CIHI and information gathered from other jurisdictions
- The MMA has constructed a tariff by tariff assessment of Manitoba fees compared to a common competitive benchmark (termed the OPA, defined as the average of Ontario, Saskatchewan and Alberta); this assessment is the basis for their FFS negotiations as well as for macro and micro allocations.

(iv) Ontario Ministry of Health and Long-Term Care (MOHLTC) and Ontario Medical Association (OMA)

- The MOHLTC does not have a model for inter-provincial income comparisons.
- The MOHLTC and OMA jointly proposed a fee comparison by province in past years, most recently in 2007 where the fee comparison was based on a basket of services, not all services.

Note: The following information for Nova Scotia, Newfoundland and Labrador, and New Brunswick was obtained from their provincial medical associations.

(v) Doctors Nova Scotia (DNS)

- DNS does not currently have a specific model for comparing or analyzing physician compensation.
- When negotiating fee changes/additions, the value of similar fees in other provinces will normally be researched by DNS and/or the Nova Scotia Department of Health (NSDOH) for comparative purposes. Similarly, when negotiating alternative funding programs (AFPs) or other alternative payment programs (APPs), available comparative information will be requested from other provincial medical associations by DNS and from other ministries of health by NSDOH). Once

comparative information has been obtained, agreement will occasionally be reached on a specific methodology to set a payment rate.

(vi) Newfoundland and Labrador

- NL does not have a specific model for inter-provincial comparisons of physician compensation.

(vii) New Brunswick

- Fee-for-service codes are usually compared with counterpart codes in the Nova Scotia schedule.
- Most APP/AFP arrangements involve salary payment.
- Specialists' salaries are set to be nationally competitive, among the "best" and typically benchmarked by the salaries paid to pathologists or oncologists in other provinces; notably, all APP/AFP specialists receive the same salary (however benchmarked) with a supplement based on 22% of their shadow billings.
- GPs salaries are usually incremented at the same rate as specialists, although a higher rate may sometimes apply to narrow the salary gap with specialists.

Based on this selective scan of other provinces, it is evident that no ministry or medical association has developed a comprehensive model or methodology for inter-provincial comparisons of physician compensation. In jurisdictions where comparisons are sometimes made, they are typically of an *ad hoc* nature (e.g., specific fee codes), and/or limited purpose comparisons (e.g., non-FFS payment rates such as salaries). It is also apparent that the CIHI data-bases are used on a limited basis, usually in conjunction with other databases.

(c) CIHI's National Physician Database (NPDB)

In this section, we offer our "all things considered" assessment of CIHI's National Physician Database (NPDB) and its derivative FTE and PSBR methodologies. We do so mindful of its status as the only *national* database available to inform discussions on inter-provincial differences in FFS physician compensation, fees, billings, and workloads.

Briefly described, the NPDB dates from 1987 when the Conference of Deputy Ministers of Health approved its creation on the recommendation of the Advisory Committee on Health Human Resources. It was developed and managed by Health Canada until August 1995 when it was transferred to CIHI. Since 1996, CIHI has received guidance on data quality, methodology and product development from the Advisory Group on Physician Databases whose membership includes provincial and territorial representatives.

NPDP data are derived from physicians' billings, including fee codes and service counts, in files submitted to CIHI by the provinces and territories from their own administrative datasets. Files submitted are subject to a variety of edits and checks to ensure compliance with the NPDB Data Submission and Specifications Manual. FFS data are compiled on a "payments basis", defined as the amount actually paid to the physician for a particular fee code item (regardless of the

amount the physician may have billed). To supplement the NPDP with data for non-FFS ("alternative payments"), CIHI uses a variety of sources, including the provincial and territorial representatives on the Advisory Group; these data have been and continue to be excluded from the NPDB because they are insufficiently complete and comprehensive.

Based on the NPDB, CIHI has developed indicator methodologies and measures of average payments per physician (APP), full-time physicians (FTE), and payment rates (PSBR). In section 4.a above, we briefly mentioned some issues and concerns regarding the FTE and PSBR indicator methodologies, but more comment is warranted.

Regarding the FTE indicator, CIHI may fairly claim that the lower (40^{th} percentile) and upper (60^{th} percentile) benchmarks within which physicians are defined as full-time provides a more refined adjustment for "workload" differences than does an arbitrary lower bound on gross billings (e.g., $40K). However, for specialty-specific information on FTEs, the NPDB defines only19 specialty categories (including Family Medicine, 7 Medical Specialties, 9 Surgical Specialties, and 2 Technical/Diagnostic Specialties), significantly fewer than the more detailed "sectional" and/or certified specialty divisions recognized by the BCMA (and other provincial medical associations). A second concern relates to the use of the PSBR to adjust the lower and upper benchmarks for fee-schedule differences between the provinces. Thus, any "soft spots" in the PSBR (and its NGS grouper methodology) will carry over into the FTE counts, in addition to compromising the accuracy of the PSBR indices per se.

In its briefing documents and discussions, the Panel gained important perspective on PSBR's limitations. That it applies only to FFS compensation and not to any of the non-FFS alternatives is an obvious limitation on its role in "comprehensive" compensation comparisons. More problematic is its limited ability to adjust for differences in provincial fee schedules regarding preambles, billing rules, fee code definitions, and service (un)bundling provisions, all of which can affect the accuracy of the NSG grouper and the derivative PSRB indices.

As CIHI has acknowledged: "Provincial fee schedules contain preambles that detail billing rules, which are often the subject of government and medical association negotiations. Some preamble rules may place limitations on the frequency of specific services or the conditions under which services are or are not payable. It is beyond the scope of the PSBR system to measure the effects of all preamble rules on average reimbursement levels". (Physician Services Benefit Rate Report Canada, 2001/02, CIHI, page 15.)

To clarify further, there are numerous differences in the billing rules between provinces that have a significant effect on physician compensation. Many of these differences are not captured in the CIHI fee comparison and, therefore, the PSBR does not adequately reflect variations in payment practices among the provinces. For example, there are considerable variations in the frequency at which hospital visits, nursing home visits, office visits, (i.e. upper daily volume limit in BC.) and supportive care services can be billed. In addition, surgical fees in most provinces typically include all concomitant services necessary to perform the surgery during a specified pre and post operative period. For example, in one province services rendered after 14 days of a surgical procedure may be billed to the plan while, in another province, the same services cannot be billed until forty - two days after the procedure. Physicians practicing in provinces with shorter

pre and post-operative periods are able to bill for services that are not billable in other provinces. Therefore, although the average cost of the procedure may be the same in two provinces, total compensation may be higher in the province with the shorter pre and post operative periods. The PSBR does not fully adjust for these and other billing rules and hence, does not accurately capture the full extent of fee schedule differences among the provinces.

Finally, as previously noted, PSBR first calculates the average benefit rate (i.e. average payment per service) for 96 categories of service for each province (and 17 specialty groups) using *provincial* service weights. It then applies *national* service weights to these rates to calculate an overall average benefit rate for each province. Indices comparing these rates are intended to capture "price" differences among the provinces. However, because the first step of the calculation relies upon provincial weights, the mix of services or service pattern in each province influences the results of the calculation. As we earlier noted in discussion of Identity Equation 4, two provinces could have identical fee schedules, but due to differences in their mix of services, the average benefit rates determined by the PSBR will deem them to have different "prices".

The extent to which these shortcomings of the PSBR result in material distortions of jurisdictional fee differences is presently unknown and remains an empirical question. Sensitivity analyses involving different *assumptions* about measurement errors associated with preamble issues, bundling, and average payment rates, etc. might well provide important insight on this question and, as well, serve to identify the consequential "soft spots" in PSBR that warrant special remediation efforts.

It should be noted that CIHI initiated a project in January 2010 to review and assess the NPDP and all related indicator methodologies (NGS, APP, FTE, and PSBR). The project is due for completion in March 2012. Based on the results, CIHI "will validate or modify and complement the current indicators, or seek alternative physician related indicators and methods" (Panel communication with Geoff Ballinger, Manager, Health Human Resources, CIHI, Nov 18, 2010).

Meanwhile, and "all things considered", the Panel does not consider the NPDB and its key indicator methodologies (NGS, APP, PSBR, FTE) to provide the timely, accurate and comprehensive information required for high-quality inter-provincial comparisons of physicians' "average overall compensation". NPDP lacks important detail on physician (specialty) "groups" and excludes some non-FFS compensation; as well, the PSBR and FTE indices are problematic in their respective adjustments for interprovincial differences in fee schedules and physician workload.

(d) The BC Databases

In this section, we discuss the BC administrative databases that populate our master template and offer some assessments of their quality.

The master template (as earlier noted in 3.b) enabled the Panel to understand the various categories of physician compensation and associated data sources in BC. The three major categories identified in the template are: Fee-for-service (FFS); non-FFS (including salary, sessional and service contracts); and Targeted Funding (including a mix of FFS and non-FFS

payments). Each of these three categories was further detailed and sub-categorized by specific payment source, largely defined on an administrative agency and/or official program basis. Based on this template, a table entitled "British Columbia Physician Compensation Categories (Draft version 1.1), dated and received January 28.2010), dimensioned the various categories using payments data for FY2008/09. In subsequent discussions, the Panel referred to this as the Master Table.

Attached as Appendix 3, the Master Table shows "overall compensation" received by BC physicians from Ministry of Health sources in FY2008/09 totaled $3,159.4 million. Sub-totals for the three major "modality" categories are: FFS at $2,348.3 million (section 1.1); non-FFS at $361.3 million (section 1.2); and Targeted Funding (section1.3) at $449.8 million. (As will be noted below, these figures are subject to adjustments to eliminate any double-counting across the sub-categories.)

In reviewing this table, the Panel identified several sub-categories inviting careful attention to embedded detail. Regarding FFS, it was noted that payments received from ICBC (line 1.1.2) and Worksafe BC (line 1.1.3) could pose problems for interprovincial comparisons if the administrative inclusion/exclusion criteria differ among jurisdictions. Regarding non-FFS, it is clear that alternative payments are made by both the Ministry and the Health Authorities (HAs) in all of the salary, sessional and service contract sub-categories; and, since the HAs may recover some or all of their payments (for salaries and service contracts) by submitting fee-for-service claims to the Medical Services Plan, there is some risk of "double counting" if adjustments are not made at the appropriate (physician group) level. Regarding Targeted Funding, the 14 listed sub-categories encompass a diverse range of payment sources mixing FFS and non-FFS modalities. For example, payments of $115.5 million sourced in the General Practice Services Committee (GPSC) target general/family practitioners, adding to their FFS and other compensation in an amount which warrants careful and consistent accounting (inclusion/exclusion) when comparing their compensation with GPs/FPs in Alberta and Ontario. Similar requirements for appropriate inclusion/exclusion apply to any comparisons involving the Rural Programs (line 1.3.5), Medical On-Call Availability Program (MOCAP, line 1.3.6), Benefits (line 1.3.7), and the other sub-categories (lines 1.3.8-1.3.14) comprising a miscellany of relatively small targeted payments.

To better understand "problem areas" specific to FFS and Non-FFS payments, the Panel reviewed more detailed tables showing FFS payments (line 1.1.1) and Non-FFS payments (lines 1.2.1 and 1.2.2) by physician specialty, drawing on both the Medical Services Plan (MSP) and Health Authority Physician Reimbursement (HAPR) databases. Two specialties posing known problems for interprovincial comparisons are Radiology and Laboratory Medicine. In particular, combining the FFS and Non-FFS payments from the two databases can produce significant problems of "double-counting" due to the aforementioned cost-recoveries made by the HAs. (In Alberta, pathologists salaries are paid by the HA without FFS recovery.) Radiologists pose additional problems due to the differential treatment of their activities and billings (professional vs. technical fees) depending on venue, i.e., acute care facilities (inpatient and outpatient) and out-of-hospital private clinics. For these reasons, the Panel deemed physicians in Lab Medicine and Radiology to be high on the list of potential exclusions from any interprovincial compensation comparisons.

At the Panel's request, staff representing the Parties provided notional evaluations of the data in each of the compensation categories and sub-categories, expressed by their confidence level (low, fair, high) in the data and its relevance (low, moderate, high) for interprovincial comparisons, and by their supplementary identification of "issues". To summarize the BCMA perspective, categories rated "high" in both confidence and relevance terms include: FFS payments in the MSP files; sessional payments made by the Ministry in the HAPR files; and Rural Program payments, MOCAP and Doctor of the Day payments as recorded in the Public Accounts of BC; however, for interprovincial specialty-level comparisons using the FFS data, there are problems with Radiology and Lab Medicine (as noted above) and, potentially, Emergency Medicine and Critical Care. Categories rated low in confidence with moderate to high relevance include the other categories of non-FFS relating to the salary and service contracts recorded in the HAPR database, where there are potential problems of double-counting and/or interprovincial comparability.

In a draft evaluation of the HAPR database tabled and discussed with the Panel (on July 14/10), the Ministry representative generally agreed with the BCMA ratings and comments, and provided additional detail on problem areas. Regarding "diagnostic services" (as defined by HAPR), clinical payments are reported across multiple payment sources, namely, FFS, Diagnostics, Alternative Payments Plan (APP) and Health Authority (HA) sourced salary and service agreements, notwithstanding that HAPR was intended to capture these payments in a single "diagnostics" category (for each specialty group). In addition, since the HAs do not have access to all the physician-specific records of compensation for diagnostic contracts (administered by a physician leader), HAPR is only able to allocate approximately 50% of "diagnostics" payments to the appropriate physician specialty group, lumping the other 50% into a non-specific category termed "physician groups or unclassified". Since the Diagnostic Specialties and Emergency Medicine are most affected, this provides additional reason to exclude Radiology and Lab from inter-provincial comparisons, and to attempt supplementary adjustments to clinical payments in Emergency Medicine. There was also acknowledgement that the data on salaries and service contracts in the Ministry's Alternative Payments Plan (APP) files was not as accurate and complete as it should be (especially for interprovincial comparisons), but that overall confidence in these data would increase with the exclusion of the Diagnostic Specialties and some more precise accounting of payments for Emergency Medicine and other practice areas where FFS offsets are applied against Health Authority payments. As well, there was agreement that data on academic and administrative stipends, and clinical academic service contracts (CASCs) are not easily verified and/or are double counted (in FFS), and would be highly problematic for comparative purposes, thus rating low in both confidence and relevance. Regarding payments to Hospitalists (as explicitly identified in the detailed table of payments by physician specialty and clinical payment category), there was recognition that HAPR provides good information, but requires some cross-matching with the FFS data to adjust for double-counting. And lastly, it was agreed the GPSC and Rural Program payments are well documented, although potentially problematic for comparative purposes with Alberta and Ontario who have progressed their own primary care initiatives using quite different funding models and methods. (As noted in our Status Report: "GP/FPs in BC, Alberta and Ontario may qualify for various incentive payments related to geography [rural/remote], target patient populations [e.g., patients with multiple chronic conditions], and/or practice organization exampled by Integrated Health Networks [IHN] in BC, Primary Care Networks [PCN] in Alberta

and Family Health Groups [FHG], Family Health Teams [FHT], etc. in Ontario. In BC, incentives for rural/remote practice and targeted patient populations are identifiable in 'targeted' payments from MSP involving both FFS and non-FFS modalities; in contrast, payments for targeted patient populations in Alberta are capitation-funded through PCNs without explicit differentiation of payments to GP/FPs from other PCN providers/staff members.").

From the above assessments, it is clear that the Master Table and its more detailed variants contain data of varying quality. On a notional continuum ranging from low to high quality, FFS and sessional payments rank "high" due to the accuracy, completeness and verifiability of records in the MSP and HAPR databases respectively. It is also clear that the other clinical compensation categories (involving salary, service contracts, and/or targeted payments) are of lesser quality (low to mid-range) due to problems of double-counting and/or lack of information for accurate assignment to physician groups. That these problems primarily affect Radiology and Lab Medicine, provides compelling reason to treat them as special cases warranting exclusion from any interprovincial compensation comparisons.

(e) The Alberta and Ontario Databases

In this section, we summarize findings from our more focused investigations of the Alberta and Ontario data-bases to assess their potential for comparisons of "average overall" compensation with BC physicians. In addition to further clarifying how both jurisdictions utilize their FFS databases for analytical purposes, the Panel wanted to better understand the nuances of their payment methods and information management in areas encompassed by the non-FFS and Targeted Funding categories identified in our Master Table. Equally, the Panel wanted to understand whether these data would support compensation comparisons disaggregated to the level of physician specialty.

To structure these investigations, the Panel developed a questionnaire (attached as Appendix 4) for review by officials in both provinces in advance of the on-site meetings requested by the Panel. As noted in section 2 above, the Panel met in Toronto (Sep 9, 2010) with staff from the Ontario Medical Association (OMA) and the Ontario Ministry of Health and Long-Term Care (OMOHLTC); and, in lieu of a site visit, in a videoconference (Nov 8, 2010) with staff designated by the Alberta Secretariat from the Alberta Medical Association (AMA), Alberta Health and Wellness (AHW) and Alberta Health Services (AHS). What follows are summaries of their responses and comments, collated by the sectional structure of the questionnaire, namely, FFS data and analyses, alternative payment plans, designated rural programs, on-call payments, targeted funding and benefit programs, diagnostic (lab medicine and radiology) services, workers compensation, academic physicians, and recoveries related to motor vehicle accident claims.

(i) *The FFS data and analyses*: It may be safely generalized that both provinces have confidence in the accuracy, completeness and verifiability of the payment records and the file versions thereof submitted to CIHI for inclusion in the NPDP. However, in neither province do the ministries or medical associations make regular use of the CIHI indicators (APP, FTE, PSBR) for compensation, workload and/or fee comparisons with other provinces. More commonly, the FFS data are used for internal analyses and specialty-level comparisons using various "trim points" for workload adjustments that are

more refined than the FTE methodology, although in neither province have the stakeholders finalized methodological decisions in this area. All recognize that the FFS data will support a wide variety of "trims" (e.g., threshold numbers of days billed, daily billings, number of patients) for both intra and inter-provincial adjustments of physicians' workloads at the specialty or other levels.

(ii) *Alternative payment plans*: The two provinces share some generic features but differ in the specifics of their arrangements. In Alberta, there is a formal trilateral agreement between AHW, AHS and the AMA which applies to most of the so-called "alternative relationship plans" (ARPs). ARPs covered by this agreement flow payments from AHW directly to the participating physicians without involving AHS. For ARPs outside the agreement, AHW may flow the funds to AHS or other agencies (e.g. the Alberta Cancer Board) for subsequent distribution to individual physicians or groups of physicians. AHW can provide data on the total amounts spent on ARPs, along with the number of participating physicians. In Ontario, the MOHLTC and OMA have negotiated a template contract for alternative payment plans. Individual physicians or groups of physicians are signatories to the contract with the Ministry. Funding flows to the physicians directly from the Ministry. For specialists, the Ministry can account for APP payments to individual physicians (with the exception of academic physicians). For GPs/FPs, the contracts are tailored to the specifics of the various primary care practice models (Community Health Centres, Family Health Groups, Family Health Networks, etc.) that are wholly or partially funded via alternative payments; some, but not all of these contracts enable the Ministry to account for payments to individual physicians. To summarize, both Alberta and Ontario host a variety of APP plans and programs, the funding of which is well documented in ministry databases but only at the aggregate and/or broad categorical level.

(iii) *Designated rural programs*: Alberta has a rural and remote northern (RRNP) program similar to the BC program. Administered by AHW, it provides FFS premiums and a flat fee for physicians practicing and living in qualifying communities. As well, there is a Rural Locum Program providing income guarantees, and a Rural Physician Action Plan (RPAP) to assist communities in recruiting and retaining physicians: no detailed data are available for these two programs. In Ontario, there are various programs targeted to rural and remote communities rather than one overall program as in BC and Alberta. Physicians may receive payments from the MOHLTC under the Northern APP program, the RNPVA (salary) program, the Rural Recruitment and Retention program (4 year practice grants), and the Locum program; they may also qualify for payments under the NPRI (retention initiative) and CME (based on a rurality score), both administered by the OMA. Payment data are available at the program level, but not at the physician level.

(iv) *On-call payments*: In Alberta funding flows from AHW to AHS. AHS administers payments to physicians; data on payments and call groups are available by specialty, but cannot be linked to other physician income information. In Ontario, on-call is administered by MOHLTC with funds flowing to hospitals for local distribution. Payment data are available at the specialty group level but corresponding physician counts are not accurate; data are not available at the individual physician level.

(v) *Targeted funding*: Alberta has fee codes for GPs/FPs that are similar to those in BC's GPSC (for complex care and chronic disease management, etc). As well, Alberta provides capitation-based payments to primary care physicians belonging to the PCNs, but the payments are internally shared with nurses, allied health and support staff in amounts and proportions that are not documented with AHW. In Ontario, there is no counterpart to the GPSC (or SSC) in BC. Thus, for jurisdictional comparisons of GP/FP compensation, the FFS portion of GPSC payments should be included in the BC data.

(vi) *Diagnostic services*: In Alberta the AHS contracts with lab physicians to provide hospital-based services covering ambulatory, inpatient and outpatient testing; their salaries are funded out of AHS's global budget. AHS also contracts with groups of radiologists to provide in-hospital imaging services, but individual payments are not documented in the AHW database; insured imaging services provided outside hospitals in private clinics are paid on a FFS basis and (the professional and technical payments) are included in the AHW database. In Ontario, lab physicians provide services in hospital labs and commercial labs. Salaries for the hospital-based physicians vary by site, but the current annual minimum is $350K. MOHLTC establishes (capped) budgets and service agreements with the commercial labs, but there are no data on their payments to lab physicians in the database. Radiologists providing imaging services within Ontario hospitals bill FFS for the professional and technical components (except where the latter is funded for inpatients by the hospital's operating budget). Radiologists providing insured services outside the hospital in private clinics bill FFS for facility fees and professional fees. Due to the complexities of compensation and informational deficits for lab physicians and radiologists in both provinces (and in BC), any jurisdictional comparisons using existing data sources would be easily invalidated; hence, Lab Medicine and Radiology should be excluded.

(vii) *Workers compensation*: In Alberta the AHW does not receive any WCB data. The AMA negotiates directly with the WCB and all claims are processed by the WCB. In Ontario, the MOHLTC acts as the processing agent for the Workplace Safety and Insurance Board (WSIB), but does not include the paid claims in its FFS database. To ensure consistency, WCB payments in BC should be excluded from the FFS datasets.

(viii) *Academic physicians*: APP arrangements are prevalent in both Alberta and Ontario. However, the type and amount of alternative payments to individual physicians and/or to specialty groups are not documented in the AHW and MOHLTC databases.

(ix) *Recoveries*: both Alberta and Ontario include the paid-claims arising from motor vehicle accidents in their FFS databases. AHW and MOHLTC attempt to recover these payments from the private insurance companies, but there are no data on such recoveries. In any event, since the paid-claims remain in their FFS databases, it is important that the ICBC data in BC be included in any jurisdictional comparisons of compensation, especially at those (surgical and medical) specialty levels where these claims may be concentrated.

5. Towards an Evidence-informed Method/Model for Interprovincial Compensation Comparisons

Mindful of the limitations of the existing databases that must be addressed in any and all jurisdictional comparisons of physician compensation, the Panel was challenged to identify an "evidence-based" approach that would not be over-ridden by implementation and data availability/quality issues. We begin this section by summarizing these data deficiencies in the context of our simple concept model (specifically Identity Equations 3 and 4), highlighting areas where the model's full activation is currently precluded by data constraints. We then suggest how these deficiencies might be prospectively corrected and/or minimized through improvements in both the FFS and non-FFS databases (all designed to better support the Panel's agreed definition of "overall compensation", i.e., payments to physicians in all modalities from all Ministry of Health and Health Authorities sources).

With regard to the FFS data, we propose improvements in the measurement of physicians' "workloads" to allow more refined jurisdictional comparisons of compensation among "full-time" practitioners. Our preferred approach to FFS workload measurement is described and detailed under the rubric of "reasonably active" physicians using composite trim points to delineate days billed and daily payments representative of full time involvement in clinical activity. Turning to the non-FFS data, we propose improvements in the accounting for payments in the salary, sessional and service contract categories which would reduce or eliminate problems of double-counting and allow for more accurate comparisons with other jurisdictions. These improvements are clearly feasible in the BC environment, and should be achievable in Alberta and Ontario.

a) Data issues specific to Identity Equation 3

As previously presented, the Panel's assigned focus on "overall' compensation per physician is conceptualized in Identify Equation 3:

Compensation per Physician = (Fee-for-service Payments + Non-FFS Payments) per Physician

Equation 3 obliges that "overall compensation" (left-side numerator) needs to be consistently defined and accurately measured in both FFS and non-FFS modalities, as does the number of physicians (both left and right-side denominators). Both FFS payments and non-FFS payment have definitional and methodological issues.

For both FFS and non FFS numerators, the Panel agrees that we are seeking to measure earnings derived from or directly related to clinical activity and from the planning of patient care activity, but not from general administrative duties. In this context, paid time to organize group therapy sessions qualifies as physician income while paid time of a medical director dealing with a variety of medical administration issues does not. The paid time of an Emergency room physician dealing with the shifting of colleagues and overseeing departmental activities qualifies; paid time in ER education and outreach roles is considered more of an administrative or educational expenditure. Recognizing that these distinctions

can be problematic, the Panel suggests that parameters used to gauge eligibility for sessional payments in BC are a workable starting point.

Regarding non-FFS payments, the Panel has also agreed to focus on payments made to physicians, eliminating to the fullest possible extent, payments passed through to other professional groups. For example, nursing staff paid in a primary care environment as fully participating team members are not considered part of the medical compensation envelope as contemplated by the Panel.

Regarding FFS payments, diagnostic services (medical imaging, laboratory medicine, and selected diagnostic activities in other specialties such as cardiology) frequently involve technical costs encompassed in a blended fee supporting non-physician health science professionals, other support staff, capital amortization and, in some cases, profit on investment. While acknowledging that diagnostic services comprise a major cost category in provincial systems, the Panel recommends that physicians in the diagnostic specialties be considered separate and apart from the compensation comparison framework, as payment practices vary from province to province. For our purposes, diagnostic specialties include radiology, pathology, nuclear medicine and medical microbiology.

Medical research and teaching compensation can be incorporated in certain academic service agreements paid, in various provinces, through medical schools, health delivery organizations and medical services plans. An additional complication arises when FFS income is captured by delivery organizations to offset payments to individual physicians for integrated teaching, research and clinical activities. As with diagnostic services, the Panel recommends development of a separate approach for clinical income comparisons in academic health service delivery environments (exclusive of academic and administrative stipends) outside our basic model.

Regarding the denominators in Equation 3, at the broadest possible level, physician income can be divided by the total count of physicians to calculate an income per physician. For both FFS and non-FFS modes, adjustments are necessary to determine a realistic physician count for interprovincial comparative purposes. The Panel is confident that the "count issues" can be addressed. It is recognized, however, that granularity is an issue: the degree to which payments can be related to individual recipients is critical. The BC dataset is quite helpful in this regard. Data in Alberta and Ontario are more limiting at present (for example, medical on-call payments are awarded to practitioner groups without individual level tracking).

b) Data issues specific to Identity Equation 4

Reliance on the higher quality databases in the FFS category with a companion focus on those physicians who are compensated on a "predominantly" FFS basis would seem the obvious option to operationalize Identity Equation 4:

FFS Payments per physician= Average payment per service
X (Services per patient x patients per physician)

In an ideal environment, the Panel would simply recommend populating the various components of this identity, allowing the parties to further decompose and/or aggregate or disaggregate the resulting calculations as required. Unfortunately, data availability and quality, both within and external to British Columbia, render the environment far less than ideal.

FFS earnings are a function of fees (price) and workload. The Panel has found that neither of these factors is measurable in a manner that would permit "evidence-based" inter-provincial comparisons. This finding was as much as a surprise as it was disappointing. Although the Panel understood from the outset that alternative (APP) payment arrangements would resist exact comparisons, we were more optimistic on the fee-for-service side.

As we first examined the workload parameters that could be teased out of the BC data, we were encouraged by the depth and breadth of the available data, and optimistic that Equation 4 could be operationalized. Our enthusiasm was short-lived, however, as we digested the information obtained from our interviews in Alberta and Ontario. Although the data necessary for comparisons based on our conceptual model are present in those provinces, there are issues in accessing their data. We were advised that, in most cases, special resource intensive data runs would be required; that the resulting data would not generally be available on a timely basis; and, in the case of at least Ontario, would require a data sharing agreement between the provinces. Although the officials we met during these interviews were both forthright and helpful, it was obvious to the Panel that the degree of enthusiasm for sharing such a detailed level of information was not very high. Indeed, we sensed a general level of discomfort with the very notion of a more evidence-based comparison of physician incomes across provinces, lest it become an impediment to their own negotiations. Hence, detailed workload comparisons were judged by the Panel to be problematic at best.

Fee comparisons proved to be even more elusive. In fact, the lack of any useful proxy for fee differences across the provinces is quite startling. Given that fee levels represent a significant factor in determining incomes, and that a major conclusion of negotiations is an adjustment to a province's fee schedule in an effort to influence those incomes, the Panel was expecting to see something of value on this front.[1] Indeed, the Panel questions how anyone would be able to develop a truly "evidence-based" approach to income comparisons in the absence of data on such an essential variable.

Although we explored the possibility of developing a comprehensive inter-provincial fee comparison that would account for differences in preambles and payment rules, the Panel has concluded that such a task is, in the short term, too resource intensive to be practical when viewed at the aggregate level of all physicians. *Consequently, we have no alternative but to ignore fee differences in the aggregate and rely on the parties to be creative in addressing this issue as required.* We do believe, however, that such fee comparisons are within the

[1] We were advised that while the Ontario Medical Association (OMA) intermittently creates a fee comparison taking into account preamble and payment rule differences, the Ontario Government does not endorse these comparisons, nor is the OMA prepared to share the information.

realm of possibility at an individual specialty level and, in the event that negotiations target specific specialty groups as a "recruitment and retention" challenge, that such fee comparisons should be considered. (See Appendix 5, "A Suggested Approach for Identifying "Price Effects" [Interprovincial fee schedule differences] on a Standard Workload".)

Clearly, real progress will not occur until there are reliable and timely data shareable among jurisdictions. To this end, the Panel would strongly urge the parties to begin work on rectifying these data deficiencies at the earliest opportunity. Meanwhile, the Panel is left to consider how best to discharge its mandate in the face of these severe data constraints.

c) A pragmatic "evidence-based" approach based on the available data

Notwithstanding data barriers to a "best practice" approach, the Panel believes there is an opportunity to apply our conceptual model in ways that would increase understanding of jurisdictional differences in overall compensation, in aggregate and at various levels of granularity, across specialties and different practice settings.

In developing a pragmatic approach to comparing compensation across provinces, the Panel acknowledged it would not be possible to fully and accurately quantify the underlying differences in fee schedules and workloads. Indeed, with no option but to ignore fee differences, any progress toward "better" compensation comparisons would rest on improved measurement of workload differences.

Workload variations can arise for any number of reasons and in consideration of the context in which this Panel was struck, i.e., to examine overall compensation differences for recruitment and retention purposes, the multitude of causes cannot be ignored. If one province were to have a disproportionate number of semi-retired physicians, income distributions may be skewed towards the lower end of the income spectrum. In another, the skewing may be to the higher end of earnings if more support resources, such as operating room time, were available. Other factors under consideration might include the relative shortage/surplus of physicians, the age and health status of the population, practice styles, the availability/accessibility of referral physicians, the availability/accessibility of non-physician providers, the introduction of incentive programs such as waitlist shortening, and cost of practice considerations to name just a few.

The potential list is long, and each of the factors will have a bearing on the relative levels of physician earnings between jurisdictions, some positive and some negative. And in most cases, a definitive attribution of cause would require its own detailed study. To be sure the application of Identity Equation 4 would provide important insights into how differences in fees and workloads contribute to compensation differences, but even that seemingly less ambitious option is not currently feasible for the reasons cited above.

In the circumstances, the Panel decided to refocus on Identity Equation 3 and its constituent FFS and non-FFS compensation components. Notwithstanding the data issues noted above and the absence of explicit fee and workload factors, Equation 3 does lend itself to a pragmatic profiling of "overall compensation". The Panel's first challenge was to determine

how best to *indirectly* adjust for workload differences to ensure the profiles would relate to a relatively homogeneous group of *clinically active* FFS physicians. The second challenge was to determine how best to supplement and/or adjust these profiles to include the major sources of non-FFS compensation.

Regarding the first challenge, the Panel considered several ways to identify the "clinically active" physician in FFS datasets. Mindful that others, including CIHI, have defined "full-time" activity over a range of earnings rather than a single "threshold" value, the Panel explored the application of various "trim" criteria to identify a sub-set of physicians who share some common practices and workload features. In essence, the objective was to eliminate some of the obvious sources of heterogeneity, including the "outliers" (at both ends of the compensation distribution), and simultaneously, to develop a framework based on Equation 3 that would be both feasible and fruitful for jurisdictional comparisons.

Although simple in concept, the design of such a subset posed some difficulties. Most importantly, the lack of detailed data from Alberta and Ontario severely constrained our ability to test a series of working premises. Therefore, we began by examining the FFS payment distributions for physicians in the three provinces, searching for any relative congruity. In fact, as shown in Table 1 below, there was no consistency in the distributions. Surprisingly, Ontario had the largest proportion of physicians with annual earnings below $100,000 at 31.9%; Alberta had the largest proportion of higher earners (above $400,000) at 23.6% and BC demonstrated the largest percentage of mid-range earners ($100,000 – $400,000) at 57.5%. These variations in the general distribution roughly held even as we increased the mid-range parameters up to $700,000. In addition, as the data were disaggregated into specialty sub-groupings, the Alberta propensity to demonstrate disproportionate percentages in the higher ranges became even more pronounced, influenced no doubt by the variety of factors noted above. With no ready way of identifying either the price or workload effects on these distributions, we further investigated the use of dollar cut-offs and other approaches in an effort to advance an "evidence-based" approach per our Terms of Reference.

Table 1
Distribution of Physicians by Payment Range, 2008/09
British Columbia, Alberta and Ontario

Payment Range	BC		Alberta		Ontario	
	#Docs	%Dist	#Docs	%Dist	#Docs	%Dist
Less than $39,999	1,335	14.84%	811	12.94%	n/a	17.03%
40,000- 59,999	345	3.83%	191	3.05%	n/a	5.67%
60,000- 79,999	398	4.42%	194	3.10%	n/a	4.74%
80,000- 99,999	349	3.88%	239	3.81%	n/a	4.43%
100,000-119,999	401	4.46%	230	3.67%	n/a	4.15%
120,000-139,999	372	4.13%	210	3.35%	n/a	4.14%
140,000-159,999	383	4.26%	243	3.88%	n/a	3.83%
160,000-179,999	399	4.43%	256	4.09%	n/a	3.76%
180,000-199,999	426	4.73%	233	3.72%	n/a	3.72%
200,000-299,999	1,931	21.46%	1,199	19.14%	n/a	16.61%
300,000-399,999	1,259	13.99%	979	15.62%	n/a	11.63%
400,000-499,999	570	6.34%	616	9.83%	n/a	8.21%
500,000-599,999	280	3.11%	302	4.82%	n/a	4.87%
600,000-699,999	157	1.75%	183	2.92%	n/a	2.79%
700,000-799,999	108	1.20%	113	1.80%	n/a	1.76%
800,000-899,999	73	0.81%	60	0.96%	n/a	0.98%
900,000-999,999	36	0.40%	53	0.85%	n/a	0.67%
1,000,000 & Over	175	1.95%	154	2.46%	n/a	1.01%
Total	8,997	100.00%	6,266	100.00%	n/a	100.00%

NOTES:

Alberta:

1. SOURCE: Alberta Health Insurance Plan: Statistical Supplement.
2. Alberta data reflect fee-for-service data only.

Ontario:

1. SOURCE: Ontario Ministry of Health, Physician Summary Data. Supplied by OMA.
2. Ontario data includes all physicians but only their FFS billings.

BC

1. SOURCE: MSP Claims File, 2008/09.
2. The distribution is based on fee-for-service payments which were compiled on a date-of-service basis for the fiscal year ended March 31 and include claims paid up to and including June 30.
3. Physician counts represent the number of BC physicians who rendered at least one service during the fiscal year for which they received payment.

The Panel then considered various ways of "trimming" the distributions to include a more homogeneous sub-set of physicians. The objective was to apply trim criteria that would eliminate the outliers noted above, while providing the Panel with a comfort level that the remaining sub-group of physicians could be considered to be "reasonably active", who would provide a sound basis for comparison with other provinces, and whose counterparts in Alberta and Ontario could be identified in those provinces' administrative databases.

The Panel decided this sub-group of physicians should demonstrate the following general characteristics: a) they should be well established in practice; b) work a significant portion of the year; and c) generate significant levels of billings during the majority of the available working days. Looking solely at BC data (data for the other provinces was not available at the time), the Panel began examining a series of progressively tighter definitions of the "reasonably active" physician.

The first characteristic was that of the "well-established" practitioner. As defined by the Panel, this is a physician who had submitted FFS billings to the medical plan in a minimum of 9 months in the current year, and in each of the previous 2 years. The second characteristic, i.e., one who worked a significant portion of the year, was defined to be a physician who billed an annual minimum of 167 days (representing a minimum of 4 days a week for 52 weeks, less 11 statutory holidays, 20 days of vacation and 10 days for continuing medical education). The third characteristic, i.e., one who generated significant billings during the majority of available working days, was defined to be a physician who billed at or above a threshold value of daily billings.

The main results of this examination are detailed in Table 2 on the following page.

After some experimentation, we determined that at a minimum of 167 days with billings above $200 per day, approximately 50% of the physician population would be deemed "reasonably active". Based on the FY2008-09 data, physicians fulfilling these composite trim criteria worked an overall average of 245 total days (roughly comparable to the expected work year of a salaried employee), served an average patient load of 2008, and earned an average gross FFS income that falls between the 80th and 90th percentiles of all physician earnings, with individual earnings falling between the 30th and 100th percentiles.

Included in this group are exceptionally "high earners" (those with FFS payments at the outlying edges of the earnings distribution curve). As noted above, the relative distribution of these outliers varies by province and can have a distorting effect on the data when comparisons are attempted. (The proportion of high earners is markedly higher in Alberta and Ontario for reasons that are not well understood in the absence of more detailed information concerning workload and fees.) Having effectively excluded the "low earners" by application of the above trim criteria, it remained to define a supplementary trim criterion to exclude the "high earners" in each specialty and/or specialty group whose average daily billings and/or days worked were significantly higher than all the others in their corresponding majority group of "reasonably active" practitioners.

Examination of the 2008/09 BC and Alberta earnings data suggested that the critical point at which the reasonably active and high earning groups diverged was readily apparent, but varied by specialty group. For GPs it was $600,000, for Medical Specialists it was $700,000, and for Surgical Specialists, $800,000. Using these points as notional boundaries, the Panel examined the workday activity of each BC physician (previously identified by the trimming criteria) who exceeded those boundaries. By examining their total days billed and average daily billings the Panel sought to determine trim criteria that were conceptually consistent to the approach used for the lower earner category.

Table 2
Number of Physicians, Total Payments, and Average Number of Total Days Billed by Broad Specialty Category
Fiscal 2008/09

	Medical Specialists					Surgical Specialists					Family Medicine/GPs					All Physicians (Excluding Diagnostics)				
	#Docs	Payments	Average	Median	Average of Total # of Days	#Docs	Payments	Average	Median	Average of Total # of Days	#Docs	Payments	Average	Median	Average of Total # of Days	#Docs	Payments	Average	Median	Average of Total # of Days
Set 1: All Drs	2,424	$548,996,369	$226,484	$194,188	170	1,211	408,782,399	337,558	309,204	183	4,907	$911,105,849	$185,675	$176,600	187	8,542	1,868,884,617	218,788	194,322	181
Set 2: Drs with claims in 9+ months	2,058	$532,793,878	$258,889	$228,618	192	1,060	$399,464,743	$376,854	$340,621	202	4,147	$882,794,653	$212,875	$203,866	212	7,265	$1,815,053,274	$249,835	$224,894	205
Set 3: Drs with claims in 9+ months AND 9+ months of the 2 previous years	1,767	$479,444,859	$271,333	$239,140	199	915	$359,929,556	$393,366	$357,135	206	3,576	$798,189,801	$223,207	$216,487	219	6,258	$1,637,564,216	$261,675	$235,499	211
Set 4: Drs with claims in 9+ months AND 9+ months of the 2 previous years AND >$200/day	1,764	$479,431,749	$271,787	$240,008	199	914	$359,921,273	$393,787	$357,282	206	3,563	$798,164,575	$224,015	$216,931	220	6,241	$1,637,517,597	$262,381	$235,873	212
Set 5: Drs with claims in 9+ months AND 9+ months of the 2 previous years AND >$500/day	1,755	$479,364,926	$273,142	$240,345	199	910	$359,895,879	$395,490	$358,490	206	3,529	$797,688,283	$226,038	$218,366	221	6,194	$1,636,949,088	$264,280	$237,090	213
Set 6: Drs with claims in 9+ months AND 9+ months of the 2 previous years AND >$1000/day	1,713	$477,952,856	$279,015	$244,317	202	893	$359,409,962	$402,475	$365,190	209	3,383	$791,110,576	$233,849	$223,734	225	5,989	$1,628,473,393	$271,911	$242,824	216
Set 7: Drs with claims in 9+ months AND 9+ months of the 2 previous years AND 167+ days	1,289	$425,071,102	$329,768	$290,119	231	733	$332,852,827	$454,097	$389,473	228	2,848	$737,244,052	$258,864	$245,308	247	4,870	$1,495,167,982	$307,016	$272,607	240
Set 8: Drs with claims in 9+ months AND 9+ months of the 2 previous years AND 167+ days AND >$200/day	1,165	$401,815,124	$344,906	$303,274	236	665	$316,372,671	$475,748	$408,594	232	2,530	$694,293,396	$274,424	$258,486	253	4,360	$1,412,481,191	$323,964	$287,964	245
Set 9: Drs with claims in 9+ months AND 9+ months of the 2 previous years AND 167+ days AND >$500/day	952	$363,600,853	$381,934	$331,738	242	580	$294,086,523	$507,046	$427,991	236	2,095	$627,315,068	$299,434	$279,447	259	3,627	$1,285,002,444	$354,288	$312,505	251
Set 10: Drs with claims in 9+ months AND 9+ months of the 2 previous years AND 167+ days AND >$1000/day	512	$244,057,793	$476,675	$422,611	252	405	$237,902,548	$587,414	$487,353	243	898	$344,005,372	$383,079	$362,174	275	1,815	$825,965,714	$455,078	$397,284	261

1. SOURCE: Medical Services Plan Claims file.
2. The data are compiled on a date-of-service basis and include claims paid up to June 30, 2009, for the fiscal year ending March 31, 2009.
3. Payments are distributed based on each physician's most recent specialty (specialty at the end of the fiscal year).
4. Payments include GPSC incentives, and ICBC payments and exclude Rural Retention Premiums, out-of-province, reciprocal, WCB, midwife referred claims, interest payments, and form fees.
5. Data excludes Diagnostic Specialties.
6. Only Physicians who had Fee-for-Service Payments are included.

Table 3
Number of Physicians by Number of Days Billing and by Average Daily Amount Billed
Fiscal 2008/09

For GPs > $600,000					
Days Billing			**Avg. Daily Billed Amount**		
	<$2000	$2000 - $2300	$2301 - $2600	$2601 - $2900	>$2900
<200	0	0	0	0	
200 - 225	0	0	0	0	0
226 - 250	0	0	0	0	0
251 - 275	0	0	0	1	1
275 +	13	10	3	0	0
For Medical Spec > $700,000					
Days Billing			**Avg. Daily Billed Amount**		
	<$2400	$2400 - $2700	$2701 - $3100	$3101 - $3500	>$3500
<200	0	0	0	0	2
200 - 225	0	0	0	0	1
226 - 250	0	0	2	0	4
251 - 275	0	2	3	2	4
275 +	7	10	12	6	5
For Surgical Spec > $800,000					
Days Billing			**Avg. Daily Billed Amount**		
	<$2700	$2700 - $3100	$3101 - $3500	$3501 - $4000	>$4000
<200	0	0	0	0	1
200 - 225	0	0	0	3	4
226 - 250	0	0	6	3	9
251 - 275	0	1	4	9	11
275 +	1	3	1	2	6

1. SOURCE: Medical Services Plan Claims file.
2. The data are compiled on a date-of-service basis and include claims paid up to June 30, 2009 for the fiscal year ending March 31, 2009.
3. Payments are distributed based on each physician's most recent specialty (specialty at the end of the fiscal year).
4. Payments include GPSC, ICBC, and exclude Rural Retention Premiums, out-of-province, reciprocal, WCB, midwife referred claims, interest payments and form fees.

As shown in Table 3, among the 151 BC physicians who earned above the notional dollar cutoffs, some combined relatively low numbers of billing days with high daily billings, while others had the reverse combination. Hence, there was no one combination of days billed and average daily billings that served to identify the upper "exclusion" threshold. In the circumstances, the Panel believes it appropriate and justifiable to revert to the simple dollar cutoffs of $600K for GPs, $700K for Medical Specialists, and $800K for Surgical Specialists; after applying these thresholds, individual earnings for physicians included in the (now smaller) group of "reasonably active" FFS clinicians falls between the 30th and 95th percentiles of all physician earnings.

We are recommending the use of these composite trim criteria, inclusive of the lower and upper exclusion thresholds, to dimension the FFS component of Equation 3.

While the Panel would wish for a more scientific outcome derived from fee and workload data, the absence of detailed and comparable information places significant restrictions on what can be accomplished. Nonetheless, we are confident that application of the trim criteria described above provides an appropriate proxy adjustment for workload differences and a corresponding measure of FFS income for a physician who could be considered "reasonably active" in BC; it is also a methodology that should be readily reproducible in both Alberta and Ontario based on the information obtained from our interviews.[2]

Having defined the FFS component of Equation 3, the Panel turned its attention to methods of incorporating non-FFS compensation for this subgroup of physicians, and the attendant challenges associated with that task given the variability of such programs and payments between the provinces.

Cross-referencing Identity Equation 3 with the Panel's Master Table, it is clear that "non-FFS" in the former must be understood in the latter to include: (i) the salary, sessional and service contract payments identified in the Non-FFS category (line 1.2); and (ii) the non-FFS components of payments identified in the Targeted Funding category (line 1.3).

(i) Salary, Sessional and Service Contracts: Regarding salary payments, very few salaried physicians in BC would have FFS earnings sufficient to be included in the trimmed FFS dataset; reciprocally, very few if any physicians with FFS earnings sufficient to be in the trimmed dataset would have any significant salary income. For those who are compensated on a predominantly salary basis (e.g. GPs in community health centres), compensation comparisons should be made with their counterparts in other jurisdictions, referencing the applicable salary scales and/or grids; thus, they are excluded from further consideration.

Regarding sessional payments, in FY2008/09, 1412 physicians in BC received both FFS and sessional payments, the latter mainly for mental health services, geriatric care and general practice support in specialty areas such as cancer care. These payments are identifiable at the individual physician level, but because they are recorded on a monthly not daily basis, they cannot be included in the database and related trim criteria used to identify the subset of "reasonably active" FFS physicians; the feasible alternative is to add these payments to the FFS earnings of the individual physicians who are included in the trimmed FFS dataset as part of their "post-trim" non-FFS compensation. In Alberta, geographic and/or specialty based sessional contracts are available under fifteen programs, mainly for psychiatry, shared care and geriatrics.

[2] It should be noted that for certain specialties, such as Emergency Medicine, application of the trim criteria will exclude physicians who did not bill $200/day for the minimum 167 days, but whose total annual hours of clinical activity (involving fewer days and longer hours) might otherwise qualify them as full-time and/or "reasonably active". (Another group of EM physicians in BC whose remuneration is received wholly through service contracts will be completely excluded from the FFS dataset, regardless of their clinical activity). Since this problem of "false negatives" may also apply to EM physicians in both Alberta and Ontario who are predominantly FFS, the simplest solution is to exclude them from all the FFS datasets and option jurisdictional comparisons of their compensation through more in-depth study, similar to that required for the diagnostic specialties.)

Where these contract payments are identifiable by physician they should be added as a component of non-FFS income to those physicians included in Alberta's trimmed FFS database; where these payments are not identifiable by physician, then the adjustment would necessarily involve an estimation process, which could be as simple as a proportional calculation. Other provinces, including Ontario, use the FFS system to distribute time-based payments corresponding to the BC sessional grid. To electively exclude these time-based payments from Ontario's trimmed FFS dataset (as we must for BC) would require accurate matching of the fee codes with BC's half- day sessional payments. Since this is likely impossible, these codes and corresponding payments are best left in the trimmed FFS dataset for Ontario.

Regarding service contracts, we have previously noted that in some cases in BC the Health Authorities may recover some or all of these payments via FFS billings. Without some adjustment for the resultant "double-counting", the inclusion of these payments would overstate compensation and weaken if not invalidate jurisdictional comparisons. Exclusion of the diagnostic specialties and Emergency Medicine from the FFS database (as we propose) resolves much of this problem, but there may be some residual double-counting, involving physicians such as hospitalists and those academic physicians covered by a Clinical Academic Service Contract (CASC). Close inspection of the service contract payments data would assist in determining whether this has material significance. In any event, it will not be possible to include the "net" individual salaries and service contracts in the payments data used to identify our trimmed sub-set of "reasonably active" physicians because the contract payments do not permit a designation of actual daily earnings in a manner that the trimming protocol requires. By default, an estimate of the "net" service contract payments, whether FFS recoveries are involved or not, will need to be made (after consultation with the Health Authorities) and included as an "adjustment" to non-FFS income. Similar problems exist in Alberta and Ontario, and in fact are magnified since the ability to track contract earnings at the individual physician level is more problematic than in BC. Consequently, an estimate of the impact of service contract payments on the overall compensation level is required, and will need to be determined by the Parties.

(ii) Targeted Funding: As referenced in the Master Table, this broad compensation category encompasses numerous sub-categories, involving a mix of FFS and non-FFS modalities. Regarding the General Practices Services Committee (GPSC), the majority of the payments are FFS and these have been included above in the FFS dataset used to identify the "reasonably active" FFS physicians; the minority portion largely relates to non-clinical activity (mainly the Physician Support Program and Practice Enhancement) and should be excluded from non-FFS compensation (Similar considerations should apply to payments made by the more recently established Specialist Services Committee).

In Alberta, the first approximation to BC's GPSC fee payments are the capitation payments ($50 per patient) to physicians in Primary Care Networks (PCNs); however, as noted previously, these payments should be adjusted to exclude the amounts internally allocated to other health professionals (e.g. nurses, social workers, etc.). At this time, since it is not sufficiently known how these PCN payments are actually used

in practice, an arbitrary allocation of 50% of PCN payments should be added to the total GP fee pool, with the PCN share of the augmented pool (e.g. 5%) used to augment the FFS earnings of GPs in the trimmed FFS dataset.

In Ontario, the GPSC "equivalents" would include payments to primary care physicians in Family Health Groups (FHGs) and Comprehensive Care Models (CCM) for solo practitioners, where FFS is the primary payment modality, and Family Health Organizations (FHOs and FHNs) involving blended capitation/FFS. FHGs and CCMs should be included in the Ontario trimmed dataset. Physicians practicing in these models are eligible for a variety of additional and/or bonus payments (mostly lump sum payments at the individual physician level and hence assignable), which are recommended for inclusion as a non-FFS post-trim adjustments. These payments include preventive care bonuses, activity threshold bonuses, comprehensive care capitation fees, unattached patient "Q" codes and chronic disease management codes**.** FHOs are a blend of FFS and capitation; and ideally, an estimate of average earnings for these physicians should be added as part of the post trim non-FFS adjustments. However, in the absence of individual level daily activity information these payments should only be brought into the calculation following a review of the level of payment detail that can be made available to the Parties.

Regarding MOCAP, these payments are identifiable at the individual physician level in BC but not in Alberta and Ontario. Two alternative approaches are possible. The first, most laborious approach would require identifying the "reasonably active" physicians who received MOCAP payments, determining the amount of the payments, and then calculating the amount they would receive were they on the Alberta and Ontario MOCAP programs. For example, if by applying the Alberta MOCAP rates, BC surgeons would receive 5% less, then the Alberta trimmed average FFS income would be increased by the relative BC MOCAP amount plus 5%. A second, more expeditious approach would first determine how much the trim criteria (and the prior exclusion of physicians in emergency medicine and diagnostic specialties) subtracts from the BC MOCAP base of $126 million (FY2008/09), and then divide the residual payments into GP, medical specialty and surgical specialty groups. For example, if the MOCAP distribution in BC is 10% emergency medicine and diagnostic specialties, 10% other "trimmed" (i.e., physicians not deemed "reasonably active"), 25% GP, 25% medical specialties, and 30% surgical specialties, this distribution could be applied to the Alberta and Ontario MOCAP totals to estimate the MOCAP compensation of physicians in their counterpart categories. The Panel has concluded that the second approach is the more feasible option.

Regarding Rural Programs (line 1.3.5 per Master Table), the Rural retention fee premiums account for approximately 50% of the rural program total and these payments should be excluded from the trimmed FFS database in BC because they have no counterpart in Ontario. These amounts should be subsequently included as an adjustment to the compensation of recipient physicians in the trimmed FFS dataset as a "post-trim" adjustment. In both BC and Alberta (where rural premiums also apply), this adjustment can be made at the individual physician level. In Ontario, the "post-trim" adjustment would not be physician specific, but would be an estimate of the

"average" payment per physician from the following sources: the rural premium (based on a "rurality"score) for physicians in one of the primary care models (FHGs, FHOs, etc); the Rural medicine incentive program (lump sum payable annually to full-time active physicians, subject to a "hard cap" on available dollars); and the Northern Physician Retention initiative (for physicians with hospital privileges who have practiced in qualifying northern urban centres for at least four years).

The other half of the BC rural program is unevenly spread over eight different non-FFS sub-categories. Of these, only isolation allowances and recruitment incentive funds are relevant and these amounts should be assignable to individual physicians within our subset of "reasonably active" FFS physicians and included in their non-FFS compensation.

Benefits (line 1.3.7 per Master Table) including physician disability insurance, CME (including rural CME), CMPA, RSP, maternity leave and the physician health program comprise another component of non-FFS compensation which ought to be included in Equation 3 and thereby added to "overall compensation"; for rural CME and for CMPA, the calculation should be done a broad specialty basis (GP, medical and surgical); for all others (including non rural CME), the calculation should be based on the ratio of benefits to total payments for all physicians Other benefits, namely, the information technology program, (and their equivalents in Alberta and Ontario) should be excluded.

6. Summary of Primary Considerations in our "Pragmatic Approach"

To summarize, the primary considerations which have guided our efforts to develop a pragmatic "evidence-based" approach to jurisdictional comparisons of average overall compensation are as follows:

a) We should have physician workload data, and a workload measurement tool that is portable between provinces. Although we are aware that CIHI is re-working its current systems which are intended to facilitate such comparisons, we can only work with the system currently in place. Nationally sanctioned workload measurement systems, as currently deployed, are considered inadequate for our purposes.

b) We should have an ability to enter a price variable into our inter-provincial FFS income comparisons, allowing us to move towards "fee adjusted" income levels. Again, while there is some basis for optimism with regard to future developments at the national level, we are left without an important input to our identity equations. Methodological issues associated with fee schedule comparability are an exceptional current challenge.

c) The panel has concluded that a BC-based template of physician types and modes of payment is a necessary starting point. A suitable template has been developed, which can be tuned to future and emerging practice and payment modes, and adjusted to facilitate comparison with other jurisdictions. The panel is confident that the template developed can be fully "populated" within BC with all Ministry of Health (and Health Authority) payments identified by source and application of funds to a sufficient level of materiality. We should be

able to draw in all sources of qualified income, including payments made by health care delivery organizations (Health Authorities or hospitals) and we should be able to "net out" potential double counting. We are confident that, with a little extra effort, this can be done in BC, less confident of immediate progress elsewhere. Ontario may be a particular challenge.

d) The Panel has agreed on a method to trim physicians from the dataset to be used for comparative purposes. We have developed and endorsed the concept of the "reasonably active" physician. This is an essential first stage adjustment of workload variation possible with existing data sources. Although this "trimming convention" may or may not be sufficient for adequate and appropriate "workload adjusted" jurisdictional comparisons (and may well require further refinement for comparisons at the specialty level), in our view, it is a clear step forward.

e) At all stages of the data retrieval and analysis, the Panel has remained focused on the total, or gross compensation to physicians, with no attempt to factor in the associated practice overhead costs. The Panel realizes that to ignore overhead costs creates potential distortions when interpreting the *overall compensation* of physicians between jurisdictions; however, the Panel can offer no practical advice to the Parties with respect to how this might be factored into the calculation. The complexities of practice, variations in payment modalities, intricacies of incorporation and tax laws, and the absence of usable data preclude any irrefutable commentary from the Panel. Although the Panel acknowledges this may be a controversial conclusion, we have no alternative but to suggest that the Parties will need to make their own determinations as to how and when the overhead factor might be considered.

f) The Panel is aware that previous attempts at jurisdictional compensation comparisons have, in some cases, considered "cost of living" as one of the adjustment factors. In the Panel's opinion, this would only be relevant if the "benefits of living" were also considered. However, both can be logically excluded from consideration on the basis that potential physician migrants undertake their own analysis of "living" in different provinces (or communities within provinces), freely deciding to move or not after a notional calculation of the marginal cost-benefit ratio.

g) While the Panel agrees that Ontario and Alberta are the most appropriate provinces for income comparison, there is a significant degree of concern associated with the short term availability of a fully comparable dataset from Ontario. We are optimistic that a suitable agreement with Ontario could be developed in a short period of time, allowing the application of the basic elements of our proposed model. Release of physician specific FFS billings per day and days of billing information is the key condition for successful application of our "pragmatic" model. The Panel is optimistic that steps could be taken now to develop an appropriate, upgradeable three province dataset with accompanying methodological conventions to enhance comparability.

In the following and final section of this report, we translate the above considerations into specific recommendations for consideration by the parties.

7. Recommendations

While recognizing that data availability is limited, and that data sharing arrangements will need to be developed, the Panel believes that a structured and appropriately disciplined approach will provide useful comparative data which can be refined over time. The Panel proposes the following staged approach:

Stage One: BC FFS Dataset

3. Designate a base year for comparison. The panel has been "test driving" BC datasets from FY2008/09.

4. Assemble a BC FFS dataset with ICBC payments and fee-based GPSC and SSC (activated April 1/10) included. Excluded are payments for out-of-province, rural fee premiums, WCB, midwife referral claims and form fees.

3. Scrub the FFS dataset, removing payments funding the diagnostic specialties (radiology, pathology, nuclear medicine, and medical microbiology), payments to physicians involved in CASC agreements, and payments supporting emergency medicine.

4. Divide the remaining baseline BC FFS data set into the broad specialty groups: general practice, medical specialties and surgical specialties. This data set should add to an "all but specified removals" total.

5. Further delineate the BC FFS data base using the trim points and conditions to identify "reasonably active" physicians, i.e., nine months billing in the reference year and the two preceding years, and an annual minimum of 167 days FFS billing at a minimum of $200 per day in the reference year (2008/09 at present). High end trims to be specified as follows: $600K, $700K,$800K for GPs, medical and surgical specialists respectively.

6. Augment the "trimmed" FFS data for BC with delineated rural fee premiums, sessional and service contract activity, and MOCAP payments, identified at the best achievable level of granularity, physician specific in most instances.

7. Factor benefits at the average cost per physician level. Benefits to be incorporated include: physician disability insurance program, CME fund (including rural CME), CMPA, Contributory Professional RSP, maternity leave, and the Physician Health Program.

Stage Two: Comparative FFS Dataset

8. Initiate and establish data sharing agreements with Alberta and Ontario identifying data elements needed for consistency.

9. Specify inclusions/exclusions and adjust the Alberta and Ontario datasets where necessary for comparability purposes. Issues related to "post-trim" adjustments include physician specific on-call payments, rural/remote premiums, sessional and service contracts, and the identification of equivalents to GPSC and SSC funding.

10. Confirm a matching protocol with other provinces involved, seeking physician specific comparison datasets as a first order initiative, with specialty and broad specialty and comparisons as a fallback.

11. Refine the augmented FFS data sets drawn from Alberta and Ontario to the point that counterpart averages can be validated and understood. It is recognized that these adjustment metrics will be iterative, informed by evolving data availability, and subject to development over time.

Stage Three: Extended FFS Income Computation

12. Compute aggregate average (mean, median) "trimmed" BC, Alberta and Ontario income levels for this extended FFS data set, for general practice, medical specialties and surgical specialties.

13. Divide the data set into suitable income thresholds or ranges.

14. Develop and validate measures of "spread" in the trimmed data set (e.g. inter-quartile range, % between 40-60%, etc).

15. Develop and apply "sensitivity tests" as necessary to quantify the possible extent of any observed or potential distortions in the dataset or data capture methodology.

16. Adjust the trims where advisable, targeting at least a 50% physician inclusion rate in all three provinces.

Stage Four: Ongoing Development

17. Continue efforts to improve workload measurement and fee indexing systems, articulating and sustaining a strong BC voice at the national (pan-Canadian) level.

18. Work specifically with Alberta and Ontario on the comparison of non-FSS incomes (service contracts and salaries) starting first in organizational practice venues without extensive academic (teaching and research) elements; initial specialties of interest might be emergency medicine, oncology, public health, rehab medicine, primary care salaried (or service contracted) physicians and hospitalists.

19. Extend the models developed for comparison of service contracts and salaries to other areas including diagnostic services, and academic health service/science centres.

8. Concluding Comments

While the Panel is of the opinion that the above recommendations represent a discernable advance in inter-provincial compensation comparison methodology, this report is best considered a "work in progress" towards a more rigorous "evidence-based" approach.

Whatever the eventual balance between pragmatism and rigor, there are other considerations the Panel deems worthy of final note:

a) Payment systems function within the environmental constraints of a "complex adaptive system" in which relationships between payer and payee are "coloured by context" and not always fully predictable. The broader components of the funding system can interact in unexpected ways, particularly under conditions of significant stress on the system or motivation to change performance, behaviour or outcome. For example, performance pay intended to drive more volume in the acute care sector will have implications for physician compensation and perhaps inter-provincial comparability. Participants in the system learn and adapt quickly and constantly; under these circumstances, compensation comparisons will tend to date very quickly.

b) Planning a course towards an evidence-based system of jurisdictional compensation comparisons requires the Parties within BC and beyond to be mindful that successful execution of our recommended approach presupposes a sense of common purpose, and a willingness to engage in coordinated efforts to implement and maintain such a system.

c) The Parties will need to decide how to maintain a system which will not progress without cost. Frequent updates will be needed, and further movement towards blended payment modes may eventually compel a reworking of the Panel's recommended methodology.

APPENDIX 1
Compensation Model Expert Panel
Terms of Reference

1.0 Mandate

The Compensation Model Expert Panel ("the Panel") is established under Article 3 of the 2009 Memorandum of Agreement between the Government of British Columbia, the British Columbia Medical Association (BCMA) and the Medical Services Commission. The Panel was established by the Parties to develop an interprovincial physician compensation model that can be used to inform future negotiations on general compensation changes for physicians in BC.

2.0 Objectives

The objective of the Panel is to develop an interprovincial physician compensation model that will:

a) Establish an evidence-based approach to calculating the average of overall compensation paid to physicians and physician groups in Alberta and Ontario as key reference points for the recruitment and retention of physicians by BC.

b) Be available to calculate the average of overall compensation paid to physicians and physician groups in BC and for other provinces where their compensation has a significant effect on the recruitment and retention of physicians by BC.

How the model will be used for compensation changes will be decided through negotiations between the parties as part of the renegotiation of the Physician Master Agreement in 2011/12.

3.0 Structure

3.1 Members. The Panel consists of three members. The BCMA and Government will each appoint one member to the panel and it will be chaired by a person that is agreed to by the parties. If the parties are unable to agree upon the Chair, either of them may request one of the arbitrators in the Physician Master Agreement to make the appointment and the person so appointed will service as the Chair.

3.2 Resources. Resource staff designated by the BCMA and the Government may regularly attend the Panel meetings. The Panel may obtain consulting services if approved by the BCMA and Government.

3.4 Secretariat. The Government will provide secretariat services to the Panel and will be responsible for:

- Arrangement of meetings
- Agenda distribution
- Minute taking and distribution
- Other administrative functions as determined by the committee.

4.0 Costs

a) Each of the parties will be responsible for the costs of their nominee and they will share the costs of the Chair and other panel expenditures on a 50/50 basis.
b) Costs for employees of the parties to participate in Panel meetings will be covered by the respective party.

5.0 Meetings

5.1 Meeting Frequency. The Panel will commence its work by not later than June 1, 2009 and conclude its work by December 31, 2010. Meetings will be held as frequently as necessary.

5.2 Meeting Location. Meetings will take place in Victoria (Ministry offices) but may be changed with agreement of the members of the Panel.

6.0 Decision-Making

6.1 If the Panel is not able to reach agreement on the model by December 31, 2010, any outstanding matters will be determined by the Chair.

7.0 Confidentiality

Panel members may review and discuss information or documentation of a confidential nature. Such information will not be disclosed to persons other than members of the committee, support staff of the committee, or individuals within their reporting structures without consultation and agreement of the Panel.

Support staff may be asked to leave the Panel deliberations if an extremely sensitive or confidential issue arises.

APPENDIX 2
Physician Compensation Model Expert Panel
Status Report, April 26/2010

The Physician Compensation Model Expert Panel (the Panel) was established pursuant to the April 2009 Memorandum of Agreement between the British Columbia Medical Association (BCMA) and the Government of British Columbia and the Medical Services Commission (MSC). The Panel members are Darrell Thomson (representing the BCMA), Rick Roger (representing the Government) and John Horne (Chair).

The Panel has held six meetings over the last six months. At its most recent meeting on April 16, the Panel decided it would be timely to prepare a brief status report on its deliberations to date, and the progress being made in pursuing its Terms of Reference to "develop an interprovincial physician compensation model that can be used to inform future negotiations on general compensation changes for physicians in BC."

More specifically, the Panel intends this status report to:

1. clarify our interpretation of the Terms of Reference;
2. set out the principles underlying our work-plan, as developed and on-going;
3. propose a specific set of "deliverables" consistent with 1 and 2 above;
4. identify "issues" associated with the deliverables which require further discussion and resolution; and
5. provide the basis for further discussion and eventual agreement on the appropriate "evidence-based" approach to calculating/comparing the "average of overall compensation" anticipated in our Terms of Reference.
6. permit formal approval from the Government and the BCMA that the directions outlined herein reflect the parties intent.

1. Re Terms of Reference

The Panel reviewed the Terms of Reference at its first meeting on November 2, 2009. In discussion, it was clarified that the wording of "Purposes and Objectives" (Section 1.0) was taken directly from the 2009 Memorandum of Agreement between the BCMA and the Government. Specifically:

> "The objective of the Panel is to develop an interprovincial physician compensation model that will:
>
> (a) establish an evidence-based approach to calculating the average of overall compensation paid to physicians and physician groups in Alberta and Ontario as key reference points for the recruitment and retention of physicians by BC
> (b) be available to calculate the average of overall compensation paid to physicians and physician groups in BC and for other provinces where there compensation has a significant effect on the recruitment and retention of physicians by BC."

In discussing this objective, the Panel noted the wording allowed for some flexibility in how to approach the development of a work-plan. While the explicit emphasis on "overall

compensation" invited consideration of an all-source definition including payments from both the public and private sectors, the Panel agreed that its mandate was to focus on the former, albeit on a broad definition of public payments taking into account all sources and all modalities of payment, i.e., fee-for-service (FFS), salary, sessional, and service contracts (the latter three summarily termed Non-FFS or "alternative payments").

Based on this definition, a generic table was developed identifying three major categories of compensation available to BC physicians, namely, Fee-for Service, Non Fee-for-Service, and Targeted Funding (including a variable mix of FFS and Non-FFS payments). Each of these three categories was further detailed and sub-categorized by specific payment source, largely defined on an administrative agency and/or official program basis. The Panel agreed that, so constructed, this generic table would be an appropriate template to guide initial data-gathering efforts on "broadly-defined" physician compensation from public sources in BC, Alberta, Ontario and, where feasible, other provinces.

Finally, the Panel's understanding of the Terms of Reference suggests that a unique compensation comparison model is to be developed for each of the payment modalities for which a negotiated contract currently exists.

2. Work-Plan Principles

At its meeting on April 16, the Panel agreed it would be helpful to ground its work-plan in some principles which reinforce its interpretation of the Terms of Reference and, as well, provide a composite rationale for all data-gathering and subsequent analyses. After discussion, the following five principles were deemed appropriate:

vi. Comprehensiveness. Data should comply with the adopted definition of "overall compensation" (i.e., public payments from all sources);
vii. Feasibility. Components of compensation must be operationally definable in the available datasets for BC, Alberta, and Ontario;
viii. Face-validity. All components of compensation must be understandable;
ix. Reproducibility. All components of compensation must admit to reliable calculation (repeatable by others);
x. Adaptability. The compensation template and its components must be able to accommodate changing (policy) environments.

3. Proposed Deliverables

Guided by the above principles and the compensation template for BC physicians, the Panel decided (on April 16) to describe some "proposed deliverables" pursuant to its mandate. To do so, it first reviewed the various categories and sub-categories of compensation listed in the Table entitled "British Columbia Physician Categories (Draft Version 1.1), dated and received January 28/10, hereafter termed the Master Table (attached). At $3.159.4 billion, the total of all such compensation is taken to be a reasonably accurate (but not perfect) measure of "overall compensation" received by BC physicians from public sources in FY 2008-09. With some refinement, it also provides the basis for the "proposed deliverables".

The required refinement is the addition of a new axis to classify BC physicians according to the "predominant" source of their compensation. The definition of "predominant" will require further discussion, but the Panel's intent is to sub-divide BC physicians into groups as they are now reflected by the formal Agreements between the BCMA and the Government. Accordingly, the Panel understands it should be possible to assign physicians to one (and only one) of FFS, Sessional, Salary, and Service based on their "predominant" payment modality, and to reflect this in the Master Table by adding the four columns so defined. "Overall" payments within each modality would include any and all FFS payments (category 1.1) plus any payments from non-FFS (category 1.2) and Targeted Funding (category 1.3), defining a compensation total may be termed "adjusted income" where the adjustment involves the inclusion of all other public payments.

Based on this information, the Panel proposes to "deliver" an estimate of "average overall compensation" for each physician category. Calculation of the "average" will require a count of physicians in each of the four categories (and the Panel allows the appropriate counting method and trim points will require discussion). Each "average" so calculated provides an estimate of compensation from all public sources received by the "average" physician in each "predominant payment" category. Thus, for physicians who receive compensation on a predominantly FFS basis, the Panel proposed to deliver an estimate of "average adjusted FFS income"; and equivalent deliverables for the other three groups whose compensation is predominantly Salary, Sessional, or Service.

Applying this same methodology to the datasets for Alberta and Ontario (and potentially other provinces) adds to the list of "proposed deliverables" a corresponding set of estimates of "average overall compensation" for comparable physician groups in these provinces (defined again by "predominant" payment source/modality). The Panel recognizes that compiling a comparable interprovincial data set poses significant challenges and we will need to rely heavily on the parties existing expertise to identify and address those challenges.

While the Panel believes this approach to defining "deliverables" is consistent with the language of its Terms of Reference, it also understands that the development of an "interprovincial physician compensation model that can be used to inform future negotiations" (as explicitly anticipated therein) will require a variety of supplementary data allowing for more refined calculations and comparisons. In particular, since differences in compensation can reflect underlying differences in both "price" (payment rates per unit, per service, per session, per hour, etc.) and "quantity"(as "workload" and/or volume and mix of services may be variously defined), the quality of any inter-provincial comparison will depend on how and to what these differences are taken into account. For example, to compare the FFS income of physicians (whose compensation is primarily FFS), adjustments should be made to adjust for workload differences in the "price effect" of different fee schedules. This adjustment may be made most directly by pricing the service volume of physicians in BC using the fees prevailing in another province (as set out in the memo from DLT entitled "Approach to Examining Standard Workload Compensation, reviewed at the Panel meeting on Jan 28/10). The Panel has piloted this approach in comparing FFS earnings of Dermatologists in BC with their counterparts in Alberta and Ontario. Notwithstanding significant difficulties in matching the various fee codes and associated rules of application across these jurisdictions, the Panel believes this approach should be further considered for inclusion among the methodologies comprising the eventual

"model". The Panel intends further investigation of this approach to better gauge its operational limitations and resource requirements.

Other less elegant methods of adjusting for workload differences are also available and merit further investigation. Specifically, workload for FFS physicians may be proxied by various indicators such as discrete patient counts, services per patient, total services, and number of billed days. For physicians whose compensation is predominantly non-FFS, workload may be proxied by number of sessions, hours per session, hours per year, etc. Again, questions arise concerning the comparability of definitions across jurisdictions, but the Panel proposes that these workload indicators (or variations thereon) warrant more specific consideration and possible inclusion in the set of "deliverables" comprising the "model".

The Panel has also discussed the use of the CIHI methodology to compare "physician services benefit rates" (PSBR) between provinces. In principle, the PSBR provides the basis for comparing fee schedules/payments across the country and, by extension, isolating the "price effect" inherent in (and/or confounding) inter-provincial comparisons of FFS physician incomes. However the Panel has heard that, as currently developed, the quality of such comparisons is suspect due to incomplete adjustment for coding differences, rules of application and practice variations. Whether and to what extent the PSBR should be included as part of the eventual "model" requires further discussion.

4. Summary of "Issues" relative to Proposed Deliverables

In proposing the Master Table as the fundamental template for developing and comparing estimates of "average of overall compensation", the Panel understands from discussions to-date that it raises three important issues.

First, there are known differences in how BC, Alberta and Ontario account for payments to physicians in Lab Medicine and Radiology. For example, in BC pathologists salaries are paid by the Regional Health Authorities (RHAs) and subsequently recovered (and potentially double-counted) through fee-for-service billings submitted to the Medical Services Plan (MSP). In Alberta, pathologists salaries are paid by the RHAs without a FFS recovery, and without explicit identification in their financial statements. Radiologists also pose problems due to the differential treatment of their activities and billings depending on venue, i.e., acute care facilities (inpatient and outpatient) and out-of-hospital private clinics. While such differences (and others) argue for excluding all payments to physicians in Lab Medicine and Radiology from the Master Table, it is unclear that there is an easy and accurate way to do so for all payment modalities under consideration.

Another example where the issue of "exclusion/inclusion" is potentially quite important involves General/Family Practitioners. For example, GP/FPs in BC, Alberta and Ontario may qualify for various incentive payments related to geography (rural/remote), target patient populations (e.g., patients with multiple chronic conditions), and/or practice organization (IHNs in BC, PCNs in Alberta and FHGs, FHTs, etc in Ontario). In BC, incentives for rural/remote practice and targeted patient populations are identifiable in "targeted" payments from MSP (involving both FFS and non-FFS modalities); in contrast, payments for targeted patient populations in Alberta

are capitation-funded through PCNs (Primary Care Networks) without explicit differentiation of payments to GP/FPs from other PCN providers/staff members.

Second, the issue of "workload" adjustment is real and significant. At the most aggregate "all-physician" level, the Master Table masks any and all inter-provincial variations in workload (however defined). The Panel's proposal to refine (disaggregate) this Table according to the physicians "predominant" payment source yields a superior comparative measure of "average overall compensation", but leaves the underlying workload differences intact. These differences are theoretically mitigated to some extent when the Table is disaggregated to specialty groups, (as was done in the tabulations prepared for the Panel's review at its meetings on March 30 and April 9), but specialty-specific workload differences would still confound interprovincial compensation comparisons.

Methods to adjust for these differences are available, including the alternatives discussed above (p.3), but none offer problem-free application.

Finally, the issue cross-cutting much of this status report concerns the ambiguity of the term "physician groups" in the Terms of Reference. In the absence of explicit reference to geographic, specialty or institutional dimensions of the physician population, it may be difficult to design a "model" fully capable of "informing future negotiations on general compensation changes for physicians in BC", as anticipated in the Terms of Reference. While the Master Table and various proposed refinements thereof offer "deliverables" involving credible estimates of "average overall compensation", it remains to be discussed what extensions and modifications (e.g., workload adjustments) are required to inform negotiations at the level of physician "groups".

APPENDIX 3
Compensation Model Expert Panel
British Columbia Physician Compensation Categories (Draft Version 1.1) January 28, 2010

1.0 Public

1.1 Fee-for-service	2008-09 Millions ($)	Source:
1.1.1 Medical Services Plan	2,288.0	Medical Services Plan
1.1.2 ICBC	7.0	Public Accounts of The Province of British Columbia
1.1.3 Worksafe BC	24.0	Public Accounts of The Province of British Columbia
1.1.4 Nurse Practitioner & Midwife Referrals	4.5	Public Accounts of The Province of British Columbia
1.1.5 Out-of-province (reciprocal)	24.0	Public Accounts of The Province of British Columbia
1.1.6 Form Fees (e.g. Social Services)		
1.1.7 Interest	0.8	Public Accounts of The Province of British Columbia
Subtotal FFS	**2,348.3**	

1.2 Non-Fee-for-Service		
1.2.1 Alternative Payments (Ministry of Health Services)		
Salary	53.0	Health Authority Physician Reimbursement Database
Service Contract	153.1	Health Authority Physician Reimbursement Database
Sessions	69.5	Health Authority Physician Reimbursement Database
1.2.2 Alternative Payments (Health Authority)		
Salary	30.4	Health Authority Physician Reimbursement Database
Service Contract	49.5	Health Authority Physician Reimbursement Database
Sessions	5.8	Health Authority Physician Reimbursement Database
Subtotal Non-Fee-for Service Alternative Payments	**361.3**	

1.3 Targeted Funding (Fee-for-Service or Non-Fee-for-Service)		
1.3.1 General Practice Services Committee	115.5	Public Accounts of The Province of British Columbia
1.3.2 Specialist Services Committee	4.0	Physician Master Agreement
1.3.3 Shared Care Scope of Practice Committee		
1.3.4 Primary Care Blended Funding	13.0	Public Accounts of The Province of British Columbia
1.3.5 Rural Programs		
Rural retention fee premiums	38.0	Medical Services Plan
Retention Flat Fees	15.2	Annual Health Authority Reporting
Rural Retention Prem Equivalent Paid	5.9	Annual Health Authority Reporting
Rural Continuing Medical Education/ Rural Education Action Plan	8.2	Public Accounts of The Province of British Columbia
Isolation Allowance	0.6	Public Accounts of The Province of British Columbia
Locum Programs	5.4	Public Accounts of The Province of British Columbia
Recruitment Incentive Fund	1.1	Annual Health Authority Reporting
Recruitment Contingency	0.2	Annual Health Authority Reporting
Subtotal Rural	**75.0**	Public Accounts of The Province of British Columbia
1.3.6 Medical On-Call Availability Program/Doctor of the Day	128.0	Public Accounts of The Province of British Columbia
1.3.7 Benefits		
Physician Disability Insurance Program	12.9	Public Accounts of The Province of British Columbia
Continuing Medical Education Fund	7.1	Public Accounts of The Province of British Columbia
Canadian Medical Protective Association	10.5	Public Accounts of The Province of British Columbia
Contributory Professional RSP	28.3	Public Accounts of The Province of British Columbia
Maternity leave	1.3	Public Accounts of The Province of British Columbia
Physician Health Program	0.6	Public Accounts of The Province of British Columbia
Subtotal Benefits	**60.6**	**Public Accounts of The Province of British Columbia**
1.3.8 Academic Stipend (2006/07)	0.7	Health Authority Physician Reimbursement Database
1.3.9 Administration (administrative stipend; 2006/07)	27.0	Health Authority Physician Reimbursement Database
1.3.10 FP's 4 BC	4.0	
1.3.11 Physician Information Technology Office	22.0	
1.3.12 Length of Service Compensation		
1.1.13 One-Time Bonuses		
1.3.14 Other (new programs)		
Total	**3,159.4**	

2.0 Private (fee-for-service or non-fee-for-service)

2.1 Non-insured services
2.2 3rd Party
2.3 Medico-legal
2.4 Out-of-country
2.5 Military
2.6 Royal Canadian Mounted Police

APPENDIX 4
Questionnaire re Alberta and Ontario Databases (as worded for the Ontario site-visit)

A. Context

The task of the Panel:

- provide a comprehensive method for computing an average gross income figure for BC fee-for-service physicians, taking into account all their sources of payment, and to compare that to the average income of the same set of physicians in Alberta and Ontario.
- specialty breakdowns are desirable.
- under ideal conditions, all payments would be identifiable by individual physician and specialty, allowing for a comprehensive numerator and an accurate denominator for the average income calculation.
- public funding sources are the primary goal, however, private sources could be included.

B. General

1. What method(s) of calculating physician income do you employ when making inter-provincial comparisons?
2. Do these methods differ if/when they are employed for the purpose of contract negotiation?
3. Do you utilize the standard income reports prepared by CIHI?
    a. If not, why not?
    b. Could the CIHI data be improved so that it could be used? If so, how?
4. Do you utilize the database compiled by CIHI in order to prepare specialized income reports?
5. When comparing incomes inter-provincially, do you consider workload variations as a specific factor?
    a. If not, why not?
    b. If yes, what methods do you employ for measuring workload differences?
    c. From where is the data obtained for these comparisons?
6. Are you able to provide information on the number of unique patients and patient/physician pairs?
    a. If yes, at what level of detail?
7. Are you able to provide data on the number of days for which fee-for-service billings are received for any given doctor?
8. Can data be provided that would permit an assessment of any differences in type of practice between the two provinces (e.g. – physician profiles)?
9. Can age/sex utilization data be obtained? By specialty?
10. Do you ever compare fees between the provinces?
    a. Would this be for a specific fee item, a particular specialty, or as a global indicator?
    b. How are these comparisons completed?

C. Alternate Payment Plans (APP)

11. Do all APP payments flow through the OMHLTC?
    a. If not, what other agencies are involved?

12. Are APP payments identifiable by physician? By specialty?
    a. If not identifiable, can the total number of physicians receiving payment be determined?
13. Can it be determined which of the physicians receiving APP payments have also received any fee-for-service payments?
14. Are there top-up payments or other forms of APP payments made by LHINs and/or hospitals out of their global budgets? If yes, are data available regarding these payments?
15. Are there any other unique issues that make allocating APP payments difficult?
16. If data problems prevent a refined calculation, what suggestions would you have for estimating an average APP income component for fee-for-service physicians?

D. Designated Rural Programs

17. Which of your payment programs would you consider to be exclusively or primarily rural in nature?
18. What are the details of these programs?
19. What agency is involved in paying physicians under these programs?
20. Are the payments identifiable by physician and/or specialty?
    a. If not identifiable, can the total number of physicians receiving payment be determined?
21. Can it be determined which of the physicians receiving "rural" payments have also received any fee-for-service payments?
22. Are there payments or other incentives provided to physicians in rural communities by OMHLTC that are not part of a provincial program? If yes, are data available regarding these payments?
23. Are there any other unique issues that make allocating rural payments difficult?
24. If data problems prevent a refined calculation, what suggestions would you have for estimating an average "rural" income component for fee-for-service physicians?

E. On Call Payments

25. What agency is involved in paying physicians on call?
26. Are the payments identifiable by physician and/or specialty?
    a. If not identifiable, can the total number of physicians receiving payment be determined?
27. Can it be determined which of the physicians receiving on call payments have also received any fee-for-service payments?
28. Are there any other unique issues that make allocating on call payments difficult?
29. If data problems prevent a refined calculation, what suggestions would you have for estimating an average on call component for fee-for-service physicians?

F. Targeted Funding (e.g. Primary Care) and Benefit Programs

30. What agency is involved in paying physicians under these programs?
31. Are the payments identifiable by physician and/or specialty?
    a. If not identifiable, can the total number of physicians receiving payment be determined?

32. Can it be determined which of the physicians receiving target/benefit funding have also received any fee-for-service payments?
33. Are there any other unique issues that make allocating these payments difficult?
34. If data problems prevent a refined calculation, what suggestions would you have for estimating an average target/benefit income component for fee-for-service physicians?

G. Diagnostic Services

Lab

35. What agency is responsible for paying for Laboratory (pathologist) services for each of ambulatory, outpatient and inpatient testing?
36. Does that agency also pay for anatomical pathology and other pathology services?
37. Which of the payments involve fee-for-service?
38. Can the payments (testing vs non-testing) be separated?
39. Can the payments be identified by individual physician?
    a. If not identifiable, can the total number of physicians receiving payment be determined?
40. If data problems prevent a refined calculation, what suggestions would you have for estimating an average income for pathologists that would compare to BC fee-for-service pathologists?

Radiology

41. What agency is responsible for paying for radiologist services for each of ambulatory, outpatient and inpatient testing?
42. Which of the payments involve fee-for-service?
43. Can the payments be identified by individual physician?
    a. If not identifiable, can the total number of physicians receiving payment be determined?
44. Which other specialties are now providing diagnostic imaging services that were previously the domain of radiologists?
    a. Can these groups be identified?
    b. Is there a way of determining an average income from diagnostic imaging for these groups?
45. If data problems prevent a refined calculation, what suggestions would you have for estimating an average income for radiologists that would compare to BC fee-for-service radiologists?

H. Workers Compensation

46. What suggestions would you have for estimating an average WCB income component for fee-for-service physicians?

I. Academic Physicians

47. What suggestions would you have for estimating an average academic income component for fee-for-service physicians?

J. Recoveries

48. How are recoveries from third parties (e.g. MVAs, inappropriate billings, etc) captured in reported in reported payment information? Is there any "netting" of recorded payments?

APPENDIX 5
A Suggested Approach for Identifying "Price Effects" (Interprovincial fee schedule differences) on a Standard Workload

1. Use date-of-service file, already adjusted for any retroactive fee increases.
2. Identify a set of physicians who have practiced continuously in a single location for a minimum of three years.
3. From that set, and for any given specialty, select a subset of the 60^{th} – 70^{th} percentile group of physicians (this range could be contracted down to a random sample of individuals if the following analysis does not fully lend itself to automation).
4. Calculate an average "workload profile" for this subset of physicians, by individual fee code.
5. For each fee code in this average profile, show the actual fee and the actual paid value for service. This will give us an aggregate value of adjustments due to payment assessment rules for that fee item.
6. Map the corresponding fee items against the relevant items from other provincial schedules.
7. Calculate the hypothetical fee payments if the schedules from those other jurisdictions were applied to the BC average workload profile.
8. Apply whatever additional compensation adjustments as required/desired.

Notes:

1. Clearly a resource intensive approach. The mapping would require expert input from both BC and the comparison province. This mapping would need to be reviewed each time a comparison was made.
2. The analysis may mask the effect of combinations of payment assessment rules that could be applied on a regular basis. In order to assess this aspect, an actual paid claims file would need to be created and reviewed on a claim specific basis. This could be a real issue for procedural practices.
3. Ideally, an identical file and calculation would be useful from the comparison province, which may be difficult to obtain. This would be useful, as fees are not set in isolation of payment rules. As an extreme example, a fee may be listed at twice its real value where it is always paid at 50% because of payment rules. Simply comparing fees may lead to erroneous conclusions.
4. This type of comparison does not reflect any real income differences between provinces that might exist due to workload differences, or other system (such as variability in the availability of OR time), practice, or human resource (excess vs. short supply) factors between provinces for any given specialty.