In the Matter of an Adjudication

Under Appendix F, Section 1.6

of the

2019 Physician Master Agreement

Between

Doctors of BC

And

Ministry of Health

Government of British Columbia

And

Medical Services Commission

Decision

April 8, 2020

Robert L Brick, PMP, MBA

Adjudicator

Objective

Under the terms of the 2019 Physician Master Agreement, I have been appointed to adjudicate the allocation of $42.73 million to address intersectional and interprovincial disparities among fee-for-service specialists.

As per Appendix F, Section 1.6, of the 2019 Physician Master Agreement, the objectives are as follows:

1.6 Specialist Disparity Funding

(a) The Government will provide the following funding to be allocated to new or existing Fees and paid to Specialist Sections in order to address interprovincial and intersectional disparity among fee-for-service specialists:

(i) $9.73 million per year made available effective April 1, 2019;

(ii) an additional $16.5 million per year made available effective April 1, 2020; and

(iii) an additional $16.5 million per year made available effective April 1, 2021.

(b) The gross allocation of the funds described in this section 1.6 among Specialist Sections for Fiscal Years 2019/20, 2020/21, and 2021/22 will be adjudicated by a third-party adjudicator who will:

(i) consider the effect of both intersectional and interprovincial disparities in compensation;

(ii) ensure that allocations to address interprovincial disparities do not significantly exacerbate intersectional disparities; and

(iii) allocate 80% of the funds in each Fiscal Year toward addressing intersectional disparities in compensation and 20% of the funds in each Fiscal Year toward addressing interprovincial disparities in compensation.

(c) The adjudication described in this section 1.6 will be conducted in accordance with procedures as determined by the adjudicator and will include an opportunity for the Specialist Sections, the Government and the Doctors of BC to make submissions on the allocation of the funds over all three Fiscal Years. The adjudication process will commence no later than October 1, 2019 and will conclude by March 31, 2020, unless otherwise agreed to by the parties.

Listing of Doctors of BC Specialist Sections as of July, 2019

01 Dermatology
02 Neurology
03 Psychiatry
05 Obstetrics and Gynaecology
06 Ophthalmology
07 Otolaryngology
08 General Surgery
09 Neurosurgery
10 Orthopaedic Surgery
11 Plastic Surgery
12 Cardiac Surgery
13 Urology
14 Paediatrics
15 General Internal Medicine
16 Radiology
17 Pathology
18 Anaesthesia
20 Physical Medicine
24 Geriatric Medicine
26 Cardiology
28 Emergency Medicine
33 Nuclear Medicine
44 Rheumatology
45 Allergy and Immunology
47 Vascular Surgery
48 Chest Surgery
49 Respirology
51 Endocrinology
53 Critical Care Medicine
54 Pain Medicine
56 Gastroenterology
59 Nephrology
67 Infectious Diseases
74 Hematology/Medical Oncology
Palliative Medicine

Guiding Principles

The following guiding principles were provided to all participants by me on July 5th, 2019:

- Common sense, transparency, fairness, and natural justice will form the cornerstones of this process
- The previous rulings and methodology will be reviewed for lessons learned
- I will endeavor to listen to all points of view
- Although it would be ideal to have agreement from all the sections on factors to be used in the assessment, that may not be achievable, and lack of unanimity will not hold up the process
- An opportunity to meet with all the sections ahead of time will be provided – this will be in a group environment.
    - Meeting with sections individually can be problematic, can impact transparency and can unfairly advantage those sections who have a charismatic presenter, as such individual meetings with sections will be discouraged
- Information provided to one section, will be provided to all sections
- All sections will be given access to the presentation materials of their colleagues
- It is anticipated that the amount of funds available for disbursement will be less than the needs required to satisfy all of the sections
- As much as quantitative measures would help to create an objective process, the reality is that many measures will not be purely quantitative and my subjective judgement will be required
- During the face-to-face meetings, I will encourage the sections to respectfully challenge or support their colleagues' positions as they will be in the best position to understand the context and efficacy of the arguments

The following additional principles were provided by me to all participants on November 21st, 2019 in advance of our final November 30th meeting:

- There is currently no one model or data set that can precisely measure intersectional and interprovincial disparities. Therefore, I will rely upon more than one model and/or data set to assess both of these disparities and as a check for alignment. The quality of the data will influence the weight given to any model or data set.
- Given there is no precise measure of disparity, the funds will be applied more broadly across a number of sections than targeted to a few sections.
- The allocation will be applied on a dollar per full-time equivalent (FTE) basis instead of a percentage increase to better address disparities.
- I will give greater weight to submissions that are data driven with appropriate references over those that rely on anecdotal information.

Process

Based upon feedback regarding the previous adjudications, I was driven by a desire to oversee a more consultative approach in an attempt to allow each section to better understand the perspectives of their colleagues and to provide me with an improved understanding of each section's issues. To this end, the following process was utilized:

- A set of pre-meeting questions was sent out to all participants with a due date of Aug 30th, 2019
- Three in-person meetings were held with input from requested participants; the dates of these meetings were: Sep 21st, 2019, Oct 26th, 2019 and Nov 30th, 2019
- Formal submission deadline of Jan 15th, 2020
- Rebuttal submission deadline of Jan 31st, 2020
- Second rebuttal submission deadline of Feb 21st, 2020

During the meetings with the section representatives and through their submissions, it was noted that there is not a single data source that can be used due to data issues and concerns. The concerns varied by section and included items such as defining core hours of work, total hours of work/total days worked differences between sections, statistical reliability of the data, appropriate treatment of shift and after hours work, inclusion of various sources of income (e.g. WorkSafe BC, private/third party income), incomplete inter-provincial comparisons among others.

As the datasets are imperfect, I have determined that any single methodology for inter-sectional disparity is problematic. As such, the following process for determination of inter-sectional disparity was utilized:

- A number of methodologies were considered, including Modified Adjusted Net Daytime Income (MANDI), $150,000 net payments cut-off, 75% percentile net (as a proxy for 'busy' physicians), along with a look at previous adjudication awards, time-based fee analysis, Medical Services Plan (MSP) days worked and the multitude of data requests from the various sections. For some sections, the results were consistent, for most sections, the above methodologies produced results that were not consistent.
- I then assigned a ranking based upon these methodologies that formed the 'starting position'.
- It should be noted that I also looked at Hourly Adjusted Net Income (HANI). However, I did not use it in my rankings, as I felt it had too many strong arguments against its usage. Nonetheless, I was extremely impressed at the work and diligence that went into HANI, especially over such a short window of time. I hope that the proponents of HANI can see fit to work with the Disparity Data and Overhead Working Group (DDOWG) and leverage the intellectual horsepower of both groups to work towards an improved model for disparity.
- I then read and re-read and re-read again every submission, email, rebuttal, etc. and made adjustments to this 'starting position' based upon the arguments presented.

- This adjustment from the 'starting position' was the most difficult and contentious part of my work. My goal was to utilize objective criteria to adjust rankings. I strived to eradicate subjectivity from my decision-making and utilized both quantitative and objective data. Unfortunately, there is very little truly objective and universally agreed upon data to assess the disparity ranking. Two different sections could and did on many occasions, make intelligent but contradictory data arguments. And so, in the end I had to look at and weigh all the facts and based on a balance of assumptions and probabilities decide which argument to accept.
- To repeat, although I endeavored to utilize strictly objective criteria, the reality is that the information presented was often partially subjective itself, in that certain assumptions were made that at their core, had a subjective element to them. I do believe that most sections truly believed that their submissions were based upon objective criterion. However, the vast differences in their preferred data sets and methodologies indicates that subjectivity guided at least some of the participants thought processes.
- In the end, I believe it is my job and my responsibility to not simply make this a mathematical exercise. Rather I needed to integrate the voluminous perspectives that were raised along with my own expertise and on a balance of probabilities exercise my best judgement.

General thoughts

This a very challenging task as some of the data is limited / missing, imperfect, and perceived differently.

The objective is an important one: to pay specialists with similar years of training similarly for working similar hours and performing similar work. However, similar work and similar hours are not easily defined. One hour of a certain type of work is not the same as an hour of a different type of work (e.g. intensity and complexity). Unfortunately, this adjudicator does not possess the wisdom to evaluate intensity of work between specialists. Yet, this is an important criterion because specialists performing less intense work can work longer hours and conversely specialists performing highly intensive work can work less hours.

However, it would be inaccurate to then presume that those specialists working less hours are performing more intense workloads and vice versa. Quite frankly, many specialists perform highly intensive work and still work extremely long hours.

It was raised by many participants, including myself, that having accurate hours of work data would make this job much easier. And although this seemed to be a valid point, it is not the complete picture. This is because an hour is not hour (because of intensity, complexity or time of day) and so hours of work data by themselves could potentially provide inaccurate disparity data.

The bottom line is that there is no model that accurately delineates disparity data. MANDI, which has been in use and revamped many times is as close as we have to a critically assessed model and as close as it is, it has significant flaws which limits its efficacy.

As stated in the Anesthesiologists submission, this adjudicator is in the enviable position of being able to positively influence the future direction of specialty medical care, and improving British Columbians' access to the services that they need.

I believe it is vitally important to the physicians of BC and the patients you serve to address income disparity. Income disparity, if not addressed can inadvertently create different 'classes' of physicians and can negatively impact the profession.

I have had the privilege of working with physicians for many years and I am honoured to be a part of this process. Virtually every doctor I have worked with works EXTREMELY hard and works very long hours. I am sure there are a few exceptions to this rule, but I haven't met them. The Doctors I've worked with have very challenging work-life balances. And so, although I accept the premise that some sections probably work more hours / days than other sections, I do not believe that the differences are as great as some of the arguments made within the submissions. As such, until we have better hours of work data, it is difficult for me to place significant weight on hours worked, most particularly when one looks at daytime billing hours which is the focus of a significant number of the models / data.

It is very challenging to adjudicate income disparity when there are such passionate differences of opinion with respect to the data. Whether it's the hours of work, the validity of the overhead figures, the validity of the trims, the differences in after-hour workload, the definition of daytime hours, the amount of unpaid time, the amount of part-time vs full-time practitioners within a section and whether their billings influence the average income for that section, how private income should be counted, etc., etc. The differences of opinion on these issues are real and cause wildly different perceptions as to where sections rank relative to each other. I did not find a single submission to be 'way off base'. That is not to say, that I did not have some disagreements of opinion, but it is to validate that the arguments made within the submissions were reasonably made and accurate from one's individual perspective.

Key Points made by sections

The following key points were raised by sections and are I believe important to highlight. It is important to note that many of these arguments are contradictory to each other and as such, their inclusion here is not an acceptance of their position. As a matter of fact, I was unable to accept many of these points. However, I still believe strongly that these were important and fair points worthy of my deep thought and consideration. I'll begin with the Ministry of Health's submission and continue with the individual sections that made submissions thereafter.

- Ministry of Health commented: As overall context, Government has responsibility for ensuring that quality, appropriate, cost effective and timely health services are available for all British Columbians. The contributions of specialists are significant in enabling Government to fulfill this responsibility. The Ministry of Health has established a policy framework to achieve a person-centered, integrated health care system that is sustainable in the long term. There is considerable work being done to reshape the entire system to deliver services that meet the needs of the population in both urban and rural settings.
- The Section of Anesthesiology writes: The time-based fee analysis completed by Dr. Tuyp shows that Anesthesiology, as well as Psychiatry, have average net hourly fees that are below the lowest sections in both MANDI and HANI. The recognized and long-standing shortage of anesthesiologists across B.C. has resulted in longer work hours. Individual anesthesiologists will work longer days, and work more hours per year; both in relation to their own workload in prior years, and in comparison, to the average in other jurisdictions. This needs to be kept in mind when analyzing datasets that purport to compare incomes, without directly comparing work hours.
- The Section of Allergy and Immunology made the point: Disparities occur between sections (intersectional), between jurisdictions (provincial) and even within sections due to the type of work they perform. The reasons behind this include sections that do not perform procedures tend to have a lower income…The opportunity to receive new monies is much less frequent with sections such as Allergy and Immunology, whose income is primarily in consultations. Another way of saying this is new procedures provide opportunity to increase sectional incomes.
- The Section of Cardiac Surgery writes: To summarize, on average cardiac surgeons work longer hours than virtually all other specialists. This fact must be recognized and accounted for when comparing income… The amount of time spent performing this peri-operative patient care in the hospital is undoubtedly at least equivalent to the number of hours spent in the operating room, and may be much more for patients who stay longer. Simplistically, one can consider an intra-operative technical component (several hours in the OR) and a peri-operative non-technical component (several hours of direct patient care over a week's inpatient stay on the ward) of roughly equal value (50:50) for OHS (open heart surgery) fees. This reduces the amount of daytime work income for inclusion in MANDI and HANI by 50% for all OHS, by excluding the after hours non-technical work… Sections such as Critical Care, Anesthesiology, Obstetrics, and Emergency Medicine also have very unique situations, with work days extending beyond 10 hours; this legitimately needs to be considered in your deliberations. These groups need special consideration. We believe an analogous situation exists for cardiac surgeons where much of our work extends beyond daytime hours, but is paid via daytime surgical fees.
- The Section of Cardiology points out that: Cardiology has a significant hospital practice and has large on-call demands on the weekends and out of hours. In addition, we are closely regulated by the ministry with respect to wait-time targets. This mandates work to be done during evenings, nights and weekends. That work is not associated with the 'call-out' surcharges that can be tracked. But it is still required to meet patient demand and clinical need. As a result, cardiologists work more days than any other section.

- The Section of Critical Care Medicine discusses weekend and after hour surcharges and adjustment by a ratio of 10/24 vs 16/24, including: The current DDOWG MANDI model removes weekend and holiday fee items based on attached after-hours surcharges. Critical Care fee codes are not allowed to be attached to afterhours surcharges and these fee codes are the primary billing codes used by Critical Care physicians. Therefore, the current DDOWG MANDI model unfairly includes our weekend and holiday billing in our calculated net daytime income but does not do the same for other specialties. We believe the critical care fee codes that are dated on holidays and weekends should be removed from the section of Critical Care Medicine's calculated annual net daytime income.
- The Section of Dermatology presented a comprehensive assessment of disparity. Although I did not follow all Dermatology's suggestions, I was extremely impressed with their level of detail and their unselfish focus with respect to inter-sectional disparity. One suggestion I did agree with was: One can simply derive the variance for inter-provincial fee comparison and the variance for inter-provincial payments comparison. To then add these together and determine an average does a disservice to those that have great variance with one method but not the other as a simple average may sideline them. It seems more reasonable to determine who would be eligible for disparity funds if all of the funds were allocated to one methodology at a time. Then, after this is done, one could award just a fraction of those funds to each methodology. That way a section that has a disparity with just one method will still receive an allocation, a section with disparity with both methods will receive allocations from both methodologies (which seems just if two separate methodologies corroborate disparity), and since only a fraction of the award is allocated to each methodology, more sections will receive an allocation than if a portion of the funds were distributed to each methodology from the top down. This allows for a greater number of sections to receive an allocation than otherwise which is in line with the fact that there is some potential error associated with the data. An interesting point raised by Dermatology with respect to Health Match BC: When one looks at the number of entry level residents for the specialties, it is apparent that all of the specialties could have their postings filled with one or two years' of graduating residents except for Psychiatry, Gastroenterology, Anesthesiology, Respirology, and Pathology (need three years of grads), and most challenged, Dermatology, which would require at least eight years of grads.
- The Section of Emergency Medicine points out: It is important to recognize much like pilots within the airline industry, emergency physicians and other critical care specialists working mainly after-hours require time for recovery. This results in a decreased ability to work the same hours as many of our primarily daytime working specialist colleagues. Reviewing the top 10 % of billing in all specialties provides a surrogate for the number of maximum hours one may work within that specialty. We recognize that the Section of Emergency Medicine Disparity Application outliers may be the exception, but they provide some insight into each specialty's capacity for work and hence a proxy for potential earnings. In addition, they illustrate how: Overcrowding decreases the ability to earn income and increases stress – the greatest impact of hospital overcrowding is in the ED. Occasionally hospitals, which run consistently overcapacity, will close other departments due to extreme circumstances and this can affect other services.

However, this only occurs when the Emergency Department (ED) has run out of care spaces and has become gridlocked. Surgical areas are not closed to house elderly admitted patients, nor are they used for overflowing mental health and substance use patients. These patients remain for days at a time in busy ED hallways and this problem continues to worsen. Other specialists will simply close their offices to further referral far before the stress of feeling overwhelmed is reached, while EDs must continue to accept patients despite the strain it puts on resources and the stress placed upon its' physicians and nurses. The end result of this overcrowding is fewer beds available to care for patients and the ability to earn income is decreased.

- The Section of Endocrinology and Metabolism suggests an improvement to the MANDI methodology to account for low billing specialties: We suggest a small alteration of the current model because very low-billing specialties have a rate of excluded physicians that is unreasonably high- 21% in Endocrinology's case. We propose exclusion based on removing the lowest 10% of physicians in a section, rather than a dollar-based $150K cut-off. This would be more representative of the membership of lower-billing groups. Reducing the trim of remaining billers from 40% to 30% would be sensible for the same reason.
- The Section of General Internal Medicine provided a comprehensive review of Specialist Physician remuneration providing context and history. A couple of quotes from their submission worth repeating include: In the simplest form, one can compare gross MSP Billings. This is fraught with significant methodological problems for a myriad of reasons which was addressed by the Disparity Allocation Committee of the Specialists of BC, culminating in the development of the MANDI formula. Gross MSP data fails to address the numerous factors that influence the income of specialists between specialty groups. Gross MSP data does not consider the number of days physicians work, does not discriminate between daytime and after-hours work (evenings, nights and weekends), and does not consider important aspects of one's income including non-FFS (Fee-for-Service) income including private billing and overhead ratios. And: We will always search for the facts and can respectfully disagree with some or even all of you but at the end of the day, we all have an important job to go back to once this arbitration process is completed which includes working with each other and serving the needs of the public.
- Section of General Surgery makes no claim for inter-sectional disparity; however, they made an argument to allocate 50% of the inter-sectional disparity to the Section of Anesthesiology. They also highlighted: There is no sound methodology to compare sectional income. Every method has its flaws and discussing the merits of one methodology over another has been, is, and always shall be divisive.
- The Section of Geriatric Medicine makes an interesting point regarding cognitive specialist: Geriatricians are not proceduralists; we are "cognitive specialists" and so our expertise lies in taking the time to get the details correct and then making judgements of how to deal with our patients and their presenting illnesses which often rob them of their mobility, vitality, judgement and insight. We are not fully advantaged by technology moving forward and find ourselves in the same situation as other "cognitive specialists" (e.g. Rheumatology, Endocrinology, Physiatry, Infectious Diseases); human interaction and time spent seeing patients

forms the bulk of what we do. And they closed with: The dedication to good patient care and the professionalism with which opposing views were argued in this process solidified my faith in my colleagues.

- The Society of Hematology and Oncology points out that: the low number of FFS physicians render MSP payment data incredibly sensitive to skew by a small number of high-income physicians. Additionally, they ask the question: What happens if Hematology is analyzed separately from Medical Oncology? And through their analysis, they conclude that the net average income for Hematology is significantly lower than when Hematologists and Medical Oncologists are analyzed together.
- The Section of Infectious Diseases makes an argument regarding the cutoff levels within MANDI and how it impacts their section's ranking, including: At all levels and at all cut offs our average income ranks in the bottom third of specialist sections in BC. In fact, a substantial number of our full-time members bill under $150k per year. In the distribution of physicians by payment ranges for 2017/18, appendix D of the MANDI report, you can see that a third of our members are billing less than $150k per year and that our section is significantly shifted to the left on the graph.
- The Section of Neurology provided a concise and easy to follow explanation of inter-sectional disparity and the strengths and imperfections of the new MANDI formula. To borrow a quote from their submission that highlights the challenges of accurately measuring disparity: Measuring disparity between different specialty groups (sections) has proven exceedingly difficult. The various specialties have significantly different working schedules, on-call requirements, and mix of income types. For example, some specialists derive most or all of their income from FFS, salaries, or sessional arrangements funded by the government trough the MSP. Other specialists have significant income from WorkSafe BC or ICBC payments. And yet others have medico-legal, private, or cosmetic, components to their incomes. Furthermore, the overhead expenses of running a practice differ significantly as well. Regarding inter-provincial disparity, the Section of Neurology states: for any BC specialty to make a case for being in disparity with colleagues across Canada, that specialty must produce data to support it. If no/little data exists, then that specialty is essentially unable to show an interprovincial disparity. For the specialties where data is available, we could then compare average annual incomes, or do a detailed fee-code comparison (e.g. Dr. Evert Tuyp data). Recognizing the difficulty in obtaining good data, we recommend that the two approaches be averaged.
- The Section of Nuclear Medicine is not asking for any disparity funds and instead makes a compelling argument for the need for additional PET scanners in BC. As stated, currently with 2 public PET scanners in Vancouver, approximately 30 patients/month are being sent to Bellingham Washington for PET scans and only 40% of patients (BC Cancer Agency data) are undergoing PET examinations within current timeline guidelines. However, this is only in oncology. Demand for PET is now increasing in cardiology, neurology, infectious disease, and there are new therapeutics coming in Prostate Cancer, therapy of neuroendocrine tumours, and likely breast cancer, and new immunotherapies which will require access to PET. (see Belgium paper on guidelines for PET). Their point is further raised in the section of General Internal

Medicine rebuttal: We have no qualms with the legitimate concerns made by the Section of Nuclear Medicine regarding the lack of PET scanners and access to this technology in the province. This does not require any consideration of funding from this arbitration process but is an important policy issue which hopefully the section will be successful in addressing in the future.

- A point made by the Section of Obstetricians and Gynecologists related to working to an income: The point has been made that although previous financial allocations to our section have been frequent and generous, the Section of Obstetrics and Gynecology has not realized the financial gain that would be calculated or anticipated by the size of the fee increase. The implied suggestion is that Ob/Gyns are working to an income, and not taking advantage of the opportunity to increase our economic well-being. In this next section of our submission, we will show that is not the case. In fact, Obstetrician/Gynecologists are working as hard as ever.
- The Section of Orthopaedics writes: Orthopaedics does not appear disparate because there is no measure of total hours worked or comparison of a comparable FTE. In addition, the need to be cognizant of the limits of any model is highlighted with their comment: In another example, Orthopaedics has a 28% overhead based on the Overhead Report, and Plastics 42%. This alone drastically changes the ranking in both the MANDI and HANI formulas. However, it is hard to believe that surgeons in both specialties, performing only fee for service work, with privileges in public hospitals and running offices, would have such a major difference in overhead. The income data from the Overhead Report and the methodology for determining overhead must therefore be questioned. Underestimating overhead will also contribute to disparity. Another interesting point is: We strongly object to the inclusion of after-hours billings in the overhead ratio. On call work is unpredictable and because of this, most call physicians don't cancel days or take more days off because they work call. The Specialists of BC DDOWG recently looked at this issue and compiled data from the busy on call surgical specialties (orthopaedics, general surgery, and obs/gyn) and found that they all work the equivalent of fulltime hours the day after taking call.
- The Section of Pediatrics identifies three potential models and points out: Our calculations show that whichever model is used, there is a consistent group of eleven to twelve sections (comprising approximately 40% of all specialists) that track well below the other sections and should receive disparity funds using our suggested distribution of funds.
- The Section of Physical Medicine and Rehabilitation point out that: Using 'across the board' arbitrary cut offs such as $150 or $200K for all specialists, places physiatry at a statistical disadvantage compared to higher income generating specialties. Cut offs at these levels may be more applicable to differentiate between part and full-time colleagues in higher earning sections. Technically, the current process overestimates full-time physiatry income data and may lower the income data of the higher income sections.
- The Section of Plastic Surgery provided a set of eight variables that I believe would be ideal to consider if such information existed: 1. Number of hours worked; 2. the intensity of the work; 3. the difficulty of the work; 4. overhead expenses; 5. the timing or scheduling of the work; 6. the training required to accomplish the work; 7. recruitment and retention issues; and 8. number of

FTEs. The Section of Plastic Surgery also points out the hazard of generalizing the amount of private practice performed by all members of a section: We have many surgeons engaged in fulltime MSP practice. The table below demonstrates that there are 46 surgeons billing MSP $300,000 or more annually – that's 46 surgeons that meet any reasonable criteria for full-time MSP practice. By continuing to include private income in the MANDI model, the MSP FFS income of our section is reduced relative to our surgical peers. This ongoing disparity has the unwanted effect of driving members of our section into private income streams to make up for chronically low MSP fees compared to our peers.

- The Section of Psychiatry states: There is a ceiling on psychiatrists that is impermeable to any ambition, technology, or innovation. Psychiatrists can prove its hourly income.
- The Section of Respiratory Medicine argues in favor of MANDI, even with its flaws: MANDI has evolved as the only majorly Peer reviewed attempt to aide you in your determination of disparity and potentially point to where you need to try to make correctional adjustments. It was evolved out of a process and committee that had been formed by our Specialist's Society. MANDI has all of its' discussed flaws and issues. Yet, it is the only one that has been longitudinally reviewed by an unbiased group, many members whom joined because of a concern of possible unfairness. It undergoes a constant re-review and attempt to decrease ambiguity where possible.
- The Section of Rheumatology makes points for not considering past disparity awards: Receiving previous disparity payments should not influence whether a group receives disparity adjustments in this process. Those disparity funds were intended to correct disparity between specialties, especially if disparity issues continue to exist. Taking into account previous disparity payments would disadvantage many specialties who still struggle with legitimate disparity concerns, and may in fact exacerbate future disparity.
- The Section of Urology illuminates the changes in MANDI over the years: First, there is a false and deceptive notion that MANDI has come to be accepted over time as conventional wisdom. The only consistency about the MANDI formula over time is the name MANDI. Every arbitration that refers to MANDI refers to a different formula but all share a common name, MANDI. In fact, this latest iteration of MANDI is only a few months old when compared to the MANDI formulas used in prior arbitrations. There has never been a historic or broad acceptance of any given MANDI formula. Second, no matter which MANDI equation is referenced there is a substantial element of subjectivity as to what are the relevant elements of the formula that together make up the equation. The only unwavering conclusion about the acceptability of MANDI is that specialties that gain from the application of MANDI are in favour of MANDI being the final arbiter of fund allocation. Specialties that do not gain from the application of MANDI oppose MANDI as the final arbiter of the fund allocation. This demarcation of opinion is not a coincidence.
- It is equally relevant that there are disagreements with the above perspective; in the Section of General Internal Medicine rebuttal when discussing the above point from Urology, they noted: The 2008 award did consider MANDI but in the end it obviously was not used to ensure that Income disparity did not worsen (it did). However, the 2010, 2012 and 2015 awards all used

MANDI. The formula was identical for each with the exception that prior to the 2015 award, a number of iterations were done on the formula to improve its accuracy by a Committee in 2014-15.

- The Section of Vascular Surgery points out the challenges with vascular care in BC: The combination of high intensity work, extra required training, long working hours and compensation disparity are affecting the future of vascular care in our province. In the previous four years, 3 of the new graduates from UBC have elected to leave BC relocating to Alberta, Saskatchewan and Ontario respectively.
- The Section of Palliative Medicine highlight their need for disparity funding: We did ask the staff at the Doctors of BC to run our data through the MANDI model and as you may know we are at the bottom of the league in terms of remuneration; according to that model an FTE income is around $230,000.

There were a number of rebuttal submissions and in the interests of brevity, I will not comment on all of them however, I did appreciate:

- …the common elements found from the Section of Urology rebuttal including: We conclude that all these claims in all the submissions are genuine. However, none of it is helpful in the distribution of funds.
- The Section of General Internal Medicine comments regarding the ability of sections to allocate or reallocate funds to their own fee codes: We do not feel that it is productive to compare the value of various fee codes amongst sections as this does not necessarily reflect the time, complexity, historical values, and the provision of where new funds are applied.
- An overarching point worthy of repeating is: What we should never do is pretend that it is we alone who work harder than our peers or are part of a system which doesn't pay us for all of the work we do…..it is built into the system and always has been. It may be imperfect, but unless all Physicians embrace an Alternate Payment contract, we all must deal with both the tremendous financial benefits as well as the inadequacies in the current FFS model.

Sections that did not have enough data to adjudicate a disparity award

The following three sections did not have enough payment data to allow me to effectively adjudicate disparity awards:

- Section of Palliative Medicine – no fees in place and a lack of historical data
- Section Radiology – a lack of comparable payment data
- Section of Pathology – a lack of comparable payment data and largely on an alternate payment arrangement

With respect to the Section of Palliative Medicine, although I can not be sure, because of the lack of data, it appears that this section may be in need of disparity funding. As such, I strongly encourage the members of this section to work to get fees in place and to develop data so that they are well positioned should there be disparity adjudications in the future.

Disparity Awards

Although I fully agree with the principle and corrective impact of providing the entirety of the disparity funds to the few sections at the bottom of the disparity rankings, this will not occur. The reason is simple, I do not have objective data that is widely accepted to make such a determination with respect to who are the 'few' most deserving sections. Between the overlapping error bars, the vastly different perspectives and determinates as to which data elements should be counted, the rankings become opaque.

However, I believe it is my responsibility to still make bold judgements as to where the lines are drawn between sections, so that there is sufficient differentiation and dollar award between the categories of sections. This will no doubt cause passionate differences of opinion which unfortunately can not be avoided.

The inter-sectional disparity will be awarded as follows:

- There will be four groups: 0, 1, 2, and 3
- Sections categorized as "0" will get no disparity funding
- Sections categorized as "1" will get the lowest amount of disparity funding: $4,304.17 / FTE
- Sections categorized as a "2" will get a middle amount of disparity funding: $ 8,608.34 / FTE, and
- Sections categorized as a "3" will get the highest amount of disparity funding: $12,912.51 / FTE

Inter-sectional categorizations:

The following sections are categorized as “0”

- 06 - Ophthalmology
- 26 - Cardiology
- 56 - Gastroenterology
- 59 - Nephrology

The following sections are categorized as “1”

- 01 - Dermatology
- 07 - Otolaryngology
- 08 - General Surgery
- 09 - Neurosurgery
- 11 - Plastic Surgery
- 12 - Cardiac Surgery
- 13 - Urology
- 49 - Respirology
- 53 - Critical Care

The following sections are categorized as “2”

- 10 - Orthopaedics
- 15 - General Internal Medicine
- 24 - Geriatric Medicine
- 45 - Allergy and Immunology
- 47 - Vascular Surgery
- 51 - Endocrinology
- 74 - Hematology / Oncology

The following sections are categorized as a “3”

- 02 - Neurology
- 03 - Psychiatry
- 05 - Obstetrics & Gynecology
- 14 - Paediatrics
- 18 - Anesthesiology
- 20 - Physical Medicine
- 28 - Emergency Medicine
- 44 - Rheumatology
- 67 - Infectious Diseases

Inter-Provincial Disparity Award

General thoughts

The data for the inter-provincial disparity awards is even more limited than the data for the inter-sectional disparity awards.

There has been tremendous work on inter-provincial fee comparison by Dr. Tuyp, however, it does have some limitations as pointed out in many of the submissions.

I know of no other inter-provincial data set as comprehensive and detailed as this inter-provincial fee comparison data. As such, my suggestion for the future is that the sections work together on improving the efficacy of this data and this model.

The inter-provincial payment data ($150K cut-off) is advantageous as it comes from the partner medical associations across Canada and I assume is produced by Health Economists. However, it has limitations for a number of reasons, not the least of which is that it is gross data and many of the sections are not directly comparable across the provinces.

Regardless, the above two data sources were seen as the best two sources to evaluate inter-provincial disparity. I did not heed the advice from some submissions to divide up the 20% of funds designated for inter-provincial in some equal manner. This was proposed by some because of the limitations of the data. And although that is a worthy argument, given the challenges with the data, I felt that would not honour my responsibility to adjudicate these designated funds.

To reiterate a previous point, a mandate of mine was to: “ensure that allocations to address interprovincial disparities do not significantly exacerbate intersectional disparities”. As such:

- any section that was categorized as a “0” (the lowest ranking) in inter-sectional rankings was ineligible to receive any inter-provincial awards
- any section that was categorized as a “1” (the second lowest ranking) in inter-sectional rankings had their inter-provincial awards reduced by 50%
- any section that was categorized as a “2” in inter-sectional rankings had their inter-provincial awards reduced by 25%
- any section that was categorized as “3” (the highest ranking) in inter-sectional rankings received their full inter-provincial awards

Disparity Awards

The inter-provincial disparity will be awarded as follows:

- There are two methodologies utilized to determine the inter-provincial disparity:
    - Inter-provincial fee comparison (50% of funds)
    - Inter-provincial gross average payments with a cutoff greater than $150,000 (as provided by the other medical associations across Canada) (50% of funds)

- The inter-provincial fee comparison with BC utilized the following methodology:
    - An overall average percent differential was determined by calculating the average of the following 4 provincial groupings:
        - Alberta percent
        - Ontario percent
        - Manitoba/Saskatchewan average percent
        - Nova Scotia / New Brunswick average percent (excludes Quebec, Newfoundland Labrador and PEI as data was not available or limited).
    - The overall average for each section was then categorized as follows:
        - Category “0” received no funds and had an inter-provincial disparity of 5% or less
        - Category “1” received $4,510.50/FTE and had an inter-provincial disparity of greater than 5% and less than 15%
        - Category “2” received $6,314.70/FTE (40% higher) and had an inter-provincial disparity greater than 15%

- The inter-provincial gross average payments comparison utilized the following methodology:
    - An overall average percent differential was determined by calculating the averages for the following 4 provincial groupings:
        - Alberta percent
        - Ontario percent
        - Manitoba/Saskatchewan average percent (as long as there was data for at least one of the pairings)
        - Nova Scotia / New Brunswick / Newfoundland Labrador average percent (as long as there was data for at least one of the pairings and excludes Quebec and PEI as data was not available or limited).
    - Data had to be available from at least 3 of the above 4 groupings to be counted. However, if data was only available from 3 of the groupings then a sensitivity analysis was performed to ensure that the aggregate data from the three available sources showed significant disparity to allow for the usage of the information.
    - The overall average for each section was then categorized as follows
        - Category “0” received no funds and had an inter-provincial disparity of less than 5% difference or only had data for 2 or fewer provincial groupings

        - Category “1” received $1,652.12/FTE and had an inter-provincial disparity of more than 5% difference based on data from 3 or 4 of the provincial groupings

- The two methodologies were then added together to achieve an overall inter-provincial disparity award.

Tables

The following table highlights the combined inter-sectional and inter-provincial disparity awards.

Note: this tables use figures rounded to the nearest dollar (vs showing the cents) and so may contain very slight rounding differences.

Table 1: Inter-sectional disparity award table:

		Inter-Sectional		
Section	**2017/18 FTEs**	**Group**	**Allocation / FTE**	**Total Allocation**
01 – Dermatology	55.38	1	$4,304	$238,365
02 – Neurology	108.95	3	$12,913	$1,406,818
03 – Psychiatry	545.77	3	$12,913	$7,047,261
05 – Obs/Gyn	239.68	3	$12,913	$3,094,870
06 – Ophthalmology	184.27	0	$0	$0
07 – Otolaryngology	80.16	1	$4,304	$345,022
08 – General Surgery	215.99	1	$4,304	$929,658
09 – Neurosurgery	30.31	1	$4,304	$130,459
10 – Orthopaedics	173.30	2	$8,608	$1,491,825
11 – Plastic Surgery	51.74	1	$4,304	$222,698
12 – Cardiac Surgery	27.42	1	$4,304	$118,020
13 – Urology	86.50	1	$4,304	$372,311
14 – Paediatrics	232.90	3	$12,913	$3,007,324
15 – General Internal Medicine	235.07	2	$8,608	$2,023,562
18 – Anesthesiology	564.00	3	$12,913	$7,282,656
20 – Physical Medicine	35.42	3	$12,913	$457,361
24 – Geriatric Medicine	20.12	2	$8,608	$173,200
26 – Cardiology	154.14	0	$0	$0
28 – Emergency Medicine	217.21	3	$12,913	$2,804,726
44 – Rheumatology	62.57	3	$12,913	$807,936
45 – Allergy and Immunology	22.10	2	$8,608	$190,244
47 – Vascular Surgery	28.57	2	$8,608	$245,940
49 – Respiratory Medicine	81.97	1	$4,304	$352,813
51 – Endocrinology	48.14	2	$8,608	$414,405
53 – Critical Care	63.68	1	$4,304	$274,090
56 – Gastroenterology	78.30	0	$0	$0
59 – Nephrology	61.46	0	$0	$0
67 – Infectious Diseases	38.16	3	$12,913	$492,741
74 – Hematology and Oncology	30.17	2	$8,608	$259,714
Total out of a potential: $34,184,000				**$34,184,019**

Table 2: Inter-provincial disparity award table:

		Inter-Provincial					
Section	**2017/18 FTEs**	**Group**	**IP* Fees**	**Group**	**IP* Payments**	**Total / FTE**	**Total Allocation**
01 – Dermatology	55.38	2	$3,157	1	$826	$3,983	$220,601
02 – Neurology	108.95	0	$0	1	$1,652	$1,652	$179,998
03 – Psychiatry	545.77	1	$4,511	1	$1,652	$6,163	$3,363,373
05 – Obs/Gyn	239.68	0	$0	1	$1,652	$1,652	$395,980
06 – Ophthalmology	184.27	0	$0	0	$0	$0	$0
07 – Otolaryngology	80.16	1	$2,255	1	$826	$3,081	$246,998
08 – General Surgery	215.99	1	$2,255	1	$826	$3,081	$665,532
09 – Neurosurgery	30.31	0	$0	1	$826	$826	$25,038
10 – Orthopaedics	173.30	0	$0	1	$1,239	$1,239	$214,734
11 – Plastic Surgery	51.74	1	$2,255	1	$826	$3,081	$159,427
12 – Cardiac Surgery	27.42	1	$2,255	1	$826	$3,081	$84,490
13 – Urology	86.50	1	$2,255	1	$826	$3,081	$266,533
14 – Paediatrics	232.90	0	$0	1	$1,652	$1,652	$384,779
15 – General Internal Medicine	235.07	0	$0	1	$1,239	$1,239	$291,273
18 – Anesthesiology	564.00	0	$0	1	$1,652	$1,652	$931,796
20 – Physical Medicine	35.42	0	$0	1	$1,652	$1,652	$58,518
24 – Geriatric Medicine	20.12	1	$3,383	0	$0	$3,383	$68,063
26 – Cardiology	154.14	0	$0	0	$0	$0	$0
28 – Emergency Medicine	217.21	0	$0	1	$1,652	$1,652	$358,857
44 – Rheumatology	62.57	0	$0	0	$0	$0	$0
45 – Allergy and Immunology	22.10	2	$4,736	0	$0	$4,736	$104,666
47 – Vascular Surgery	28.57	2	$4,736	1	$1,239	$5,975	$170,709
49 – Respiratory Medicine	81.97	1	$2,255	1	$826	$3,081	$252,575
51 – Endocrinology	48.14	0	$0	0	$0	$0	$0
53 – Critical Care	63.68	0	$0	0	$0	$0	$0
56 – Gastroenterology	78.30	0	$0	0	$0	$0	$0
59 – Nephrology	61.46	0	$0	0	$0	$0	$0
67 – Infectious Diseases	38.16	0	$0	0	$0	$0	$0
74 – Hematology and Oncology	30.17	1	$3,383	0	$0	$3,383	$102,061
Total out of a potential $8,546,000:							**$8,546,002**

* IP: Inter-provincial

Table 3: Combined inter-sectional and inter-provincial table:

		Inter-Sectional		Inter-Provincial				Total Award	
Section	**2017/18 FTEs**	**Group**	**Allocation / FTE**	**Group**	**IP* Fees**	**Group**	**IP* Pay**	**Total / FTE**	**Total Amount**
01 – Dermatology	55.38	1	$4,304	2	$3,157	1	$826	$8,288	$458,966
02 – Neurology	108.95	3	$12,913	0	$0	1	$1,652	$14,565	$1,586,816
03 – Psychiatry	545.77	3	$12,913	1	$4,511	1	$1,652	$19,075	$10,410,634
05 – Obs/Gyn	239.68	3	$12,913	0	$0	1	$1,652	$14,565	$3,490,851
06 – Ophthalmology	184.27	0	$0	0	$0	0	$0	$0	$0
07 – Otolaryngology	80.16	1	$4,304	1	$2,255	1	$826	$7,385	$592,020
08 – General Surgery	215.99	1	$4,304	1	$2,255	1	$826	$7,385	$1,595,190
09 – Neurosurgery	30.31	1	$4,304	0	$0	1	$826	$5,130	$155,497
10 – Orthopaedics	173.30	2	$8,608	0	$0	1	$1,239	$9,847	$1,706,560
11 – Plastic Surgery	51.74	1	$4,304	1	$2,255	1	$826	$7,385	$382,125
12 – Cardiac Surgery	27.42	1	$4,304	1	$2,255	1	$826	$7,385	$202,510
13 – Urology	86.50	1	$4,304	1	$2,255	1	$826	$7,385	$638,844
14 – Paediatrics	232.90	3	$12,913	0	$0	1	$1,652	$14,565	$3,392,102
15 – General Internal Medicine	235.07	2	$8,608	0	$0	1	$1,239	$9,847	$2,314,835
18 – Anesthesiology	564.00	3	$12,913	0	$0	1	$1,652	$14,565	$8,214,451
20 – Physical Medicine	35.42	3	$12,913	0	$0	1	$1,652	$14,565	$515,879
24 – Geriatric Medicine	20.12	2	$8,608	1	$3,383	0	$0	$11,991	$241,263
26 – Cardiology	154.14	0	$0	0	$0	0	$0	$0	$0
28 – Emergency Medicine	217.21	3	$12,913	0	$0	1	$1,652	$14,565	$3,163,583
44 – Rheumatology	62.57	3	$12,913	0	$0	0	$0	$12,913	$807,936
45 – Allergy and Immunology	22.10	2	$8,608	2	$4,736	0	$0	$13,344	$294,910
47 – Vascular Surgery	28.57	2	$8,608	2	$4,736	1	$1,239	$14,583	$416,649
49 – Respiratory Medicine	81.97	1	$4,304	1	$2,255	1	$826	$7,385	$605,388
51 – Endocrinology	48.14	2	$8,608	0	$0	0	$0	$8,608	$414,405
53 – Critical Care	63.68	1	$4,304	0	$0	0	$0	$4,304	$274,090
56 – Gastroenterology	78.30	0	$0	0	$0	0	$0	$0	$0
59 – Nephrology	61.46	0	$0	0	$0	0	$0	$0	$0
67 – Infectious Diseases	38.16	3	$12,913	0	$0	0	$0	$12,913	$492,741
74 – Hematology and Oncology	30.17	2	$8,608	1	$3,383	0	$0	$11,991	$361,775
Total out of a potential $42,730,000:									**$42,730,022**

* IP: Inter-provincial

Final thoughts

These awards shall be provided in approximately equal parts as per the following schedule, i.e. all sections will receive their funds at the same time:

i. $9.73 million per year made available effective April 1, 2019;
ii. an additional $16.5 million per year made available effective April 1, 2020; and
iii. an additional $16.5 million per year made available effective April 1, 2021.

It has been my great privilege and honour to listen to and read all of the different perspectives. I have always been impressed by individuals who have the discipline, aptitude and caring nature to become physicians. Given the current COVID 19 pandemic, I am even more respectful and impressed with the tremendous sacrifices you all make to serve your patients and the citizens of British Columbia.

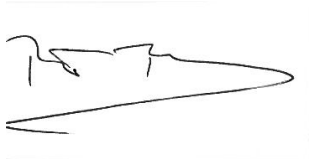
Legalese verbiage

I remain seized of any dispute with respect to the interpretation and application of this decision.

I wish you all to stay healthy.

Sincerely,

April 8, 2020



Robert Brick, Adjudicator