Does the Longitudinal Family Physician Payment Model improve health care, including sustainability?

The Longitudinal Family Physician Payment Model holds promise for improved access to and quality of primary care medicine in BC and provides an opportunity to be more efficient in the use of resources.

Gerald J.M. Tevaarwerk, MD, FRCPC

ABSTRACT: The aim of the Longitudinal Family Physician Payment Model is to provide enhanced primary care for all British Columbians. It addresses the lost capacity caused by inadequate remuneration and poor work–life conditions. Its innovative approach triples net remuneration, which has the potential to restore the productivity of existing family physicians to their 44% greater average number of patients per physician of a decade ago. It remains to be seen how much of the loss was due the introduction of electronic medical record keeping during that decade. Capacity is further stimulated by making family medicine a more attractive career choice. From an overall health care improvement perspective, the increased time per patient permits greater use of traditional physician skills, which fulfills both the first and second of the quadruple aims: improving the health of populations and enhancing the patient experience of care. The third aim, reducing per capita cost, may occur through the use of fewer tests, investigations, and referrals, and the prevention of more complicated downstream interventions. The Ministry of Health expects to achieve those goals through the fourth aim: improving the working life of health care providers. As such, the new model holds the promise of a return to the family physicians of yore: available, accomplished, affable, and admired. However, it does not include incentives to build primary care teams to increase capacity or specific incentives to be more frugal with the resources put at the disposal of clinicians. It is also silent on how contiguous primary care is to be provided on a 24-hour basis, 7 days per week. Also missing is a projection of how to sustain the increased expenses and find the funds for the much-needed upgrading of secondary and tertiary medical care. Compared with the countries of mainland northwestern Europe, British Columbia's MSP costs are similar, but fewer goods and services are delivered. This raises the question of whether we can afford to introduce new programs that may not be sustainable. The cause of the gap in benefits requires investigation and attempts to recover it if we wish to attain the world-leading status in medical care of our European colleagues.

Dr Tevaarwerk is a professor emeritus at the University of Western Ontario.

Corresponding author: Dr Tevaarwerk, gerald.tevaarwerk@gmail.com.

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In fall 2022, in response to progressively worsening difficulty finding a family physician in British Columbia, the Ministry of Health announced the Longitudinal Family Physician Payment Model, developed in consultation with BC Family Doctors and Doctors of BC.[1] It addresses the lack of adequate paid time per patient encounter as a possible cause of the difficulty finding a family physician. **Table 1** presents a comparison of fee-for-service in 1982 versus 2022[2] (several oral communications with Drs Charles Faulkner, Paul Nehra, Geoffrey Inman, and Jill Norris in fall 2022). It shows a near doubling of fees and gross remuneration, yet net hourly compensation increased only from $44 to $48, the latter worth $16 in 2022 dollars after correcting for the 200% general inflation during those 40 years.[3] In 2022, operating expenses had increased to more than 30% of gross earnings because of the rising costs of office space[4] and staff[5] and the introduction of electronic medical record keeping (several oral communications with Drs Charles Faulkner, Paul Nehra, Geoffrey Inman, and Jill Norris in fall 2022). Physicians responded to the reduction in net income by increasing gross earnings by seeing more patients for shorter periods. This resulted in more time spent catching up on charting, which was made worse by the adoption of electronic medical record keeping (several oral communications with Drs Charles Faulkner, Paul Nehra, Geoffrey Inman, and Jill Norris in fall 2022). The stress of learning electronic medical record-keeping skills and the increased workload led to exhaustion, depression, and

burnout.[6,7] Family medicine productivity fell from an average of 1730 patients per practitioner in 2012 to 1203 in 2020, a 30% reduction.[8] Less time for history taking and physical examination led to ordering more tests and increasing referrals. The Ministry of Health announced the new Longitudinal Family Physician Payment Model as "an alternative to the Fee-For-Service and the Alternative Payments Program." It is "a blended payment model which compensates the physician for (a) physician time; (b) physician-patient interactions; and (c) the physician's patient panel."[1] The new model compensates family physicians with a guaranteed hourly salary and added bonuses to stimulate productivity. To assist physicians in predicting their annual compensation, the Ministry of Health has provided a compensation calculator.[1] **Table 2** is a completed version, which demonstrates how "$385 000 for a full-time equivalent physician" may be earned by spending 7 hours on patient encounters 4.5 days per week, with an average of 20 minutes per patient and an additional 9.8 minutes for charting and clinical administration at $130 per hour, and providing longitudinal primary care for 1203 patients by working 41 hours per week, 45 weeks per year. **Table 3** compares the Longitudinal Family Physician Payment Model and the fee-for-service model: assuming the time spent per patient for indirect care and clinical administration is 9.8 minutes each, the net compensation per hour of $146 for the Longitudinal Family Physician Payment Model is 3 times more than the $48 for the fee-for-service plan.

Appraisal

The aim of the Longitudinal Family Physician Payment Model is to provide longitudinal primary care for all British Columbians where and when it is needed.[1] It encourages medical students and family physicians to choose longitudinal family medicine care as a career and appears to recognize that inadequate remuneration is a cause of the current lack of capacity in family medicine. The introduction of electronic medical record keeping may have been a factor,[6-13]

TABLE 1. Family physician fee-for-service remuneration and operating expenses, 1982 versus 2022.

Activity/remuneration	Year	No.	Per day	Per year	Fee	Annually
Patient encounters per hour*	1982	4.5	32	6278	$17.00	—
	2022	4.0	28	5580	$31.72	—
Hours of direct patient care per week†	1982	31	—	1395	—	—
	2022	31	—	1395	—	—
Hours of indirect care and clinical administration per week	1982	7*	—	315*	—	—
	2022	14†	—	630†	—	—
Active longitudinal care (panel) patients	1982	Unknown	—	—	—	—
	2022	1203	—	—	—	—
Weeks worked per year	1982	45	—	—	—	$106 718 (in 1982 dollars
	2022	45	—	—	—	$176 998 (in 2022 dollars
Estimated net hourly compensation after deducting 30% operating expenses‡	1982	—	—	—	$44.00 (= $132.00 in 2022 dollars)	—
Estimated net hourly compensation after deducting $80 000 annual operating expenses	2022	—	—	—	$48.00	—

* Estimated.
† As in the Longitudinal Family Physician Payment Model.
‡ Estimated as 30% of gross earnings.
§ Adjusted for threefold general inflation plus extra cost increases for office space and staff, electronic medical record keeping, voice recognition software and hardware, Internet, security, and technical troubleshooting costs at estimated $80 000.[3]

TABLE 2. Projected average patient care activities and remuneration under the Longitudinal Family Physician Payment Model.

Activity/remuneration	No.	Per year	Fee	Per	Annually
Patient encounters per hour	3	4185	$25	Encounter	$104 625
Hours of direct patient care per week	31	1395	$130	Hour	$181 350
Hours of indirect care and clinical administration per week	10	450	$130	Hour	$58 500
Active longitudinal care (panel) patients	1203	—	$34	Patient/year	$40 902
Weeks worked per year	45	—	—	—	$385 377
Net hourly compensation after deducting the $115 610 annual operating expenses*	—	—	—	—	$146

* Estimated at 30% of gross earnings. For 52 weeks, the annual gross compensation would be $445 325.

with its new demands contributing to a "loss of motivation"[12] and a state of "vital exhaustion,"[13] which led Bodenheimer and Sinsky to suggest adding a fourth aim in the analysis of health care innovations: care of the patient requires care of the provider.[14,15] I contend that sustainability should be the fifth aim.

Aim 1: Improving the health of populations

The capacity to provide medical care is a function of the number of physicians and their average productivity. At the current average of 1203 patients per practitioner, it would take 4400 family physicians to provide longitudinal care for all 5.3 million British Columbians;[16] if the increased paid time returns productivity to the average of 1730 patients a decade ago,[8] it would take only 3064 of the 7229 licensed family physicians in BC.[17] The resulting improved access to longitudinal primary care may succeed in improving the health of BC's population. It is suggested that failure to increase productivity would warrant an inquiry into the factors preventing it. The new model has no incentives to build primary care teams, a way of increasing capacity at lower cost.[18,19] Family physician–led teams could provide practice-generated salaried positions for nurses, physician assistants, nurse practitioners, and family physicians who prefer annual salaries.[20]

Aim 2: Enhancing the patient's experience of care

The improved compensation and work–life conditions of family physicians will surely be transmitted to the patient's experience, with the extra face time per encounter offering an opportunity for less rushed appointments and more time for explanations and counseling. It is an opportunity to improve disease self-management where appropriate. Not to ensure 24/7 longitudinal family physician care may be a missed opportunity, while the average annual complexity panel fee of $34 is too modest an incentive to maximize patient retention and recruit new patients.[21]

Aim 3: Reducing per capita costs

The new model provides an average gross compensation of $385 000 for 45 weeks[1] and $445 000 for a full year. It adds $200 per patient per year to the $120 of the fee-for-service model, or $900 million for 4.5 million BC citizens. For the 1 million citizens who are currently without a physician, the annual cost is $200 plus the $120—an additional $320 million. However, for those 1 million citizens, the cost is greater yet, because for each patient, the BC MSP provides clinicians with access to the resources needed to conduct their professional activities. The actual cost of physicians' use of resources in BC is not known but may be as much as the clinician's professional compensation[22] (see Aim 5: Sustainability). It doubles the cost of care for those 1 million citizens to $640 million, for a total of $1.54 billion annually based on the new model. The calculations are theoretical predictions only: although everyone may wish to sign on as a longitudinal family physician panel patient, many would require little if any medical care in any given year, which would greatly reduce the cost. The new model has other potential per capita cost savings, discussed in Aim 5: Sustainability.

Aim 4: Improving the work life of health care providers

The Longitudinal Family Physician Payment Model, with its compensation for time, is a major step toward improving the life of longitudinal family physicians.[15]

TABLE 3. Patient care activities, overhead costs, and remuneration under the Longitudinal Family Physician (LFP) Payment Model versus the fee-for-service (FFS) model.

Activity/remuneration	Model	No.	Per day	Per year	Fee	Per	Annually
Patient encounters per hour	LFP	3	21	4185	$25	Hour	$104 625
	FFS	4	28	5580	$31.72†	Encounter	$176 998
Hours of direct patient care per week	LFP	31*	6	1395	$130	Encounter	$181 350
	FFS	31*	6	1800	$0	—	—
Hours of indirect care and clinical administration per week	LFP	10	2.0	450	$130	Hour	$58 500
	FFS	13.3	2.7	600	$0	—	—
Active longitudinal care (panel) patients	LFP	1203	—	—	$34	Patient/ year	$40 902
	FFS	1203	—	—	$0	—	—
Weeks worked per year	LFP	45	Annual gross compensation =				$385 377
	FFS	45	Annual gross compensation =				$176 998
Estimated net hourly compensation after deducting 30% annual operating expenses	LFP	—	—	—	—	—	$146
Estimated net hourly compensation after deducting $80 000 annual operating expenses‡	FFS	—	—	—	—	—	$48§

* 4 × 7 + 1 × 3 hours.
† Time-consuming age and/or complexity adjusted average fee payment of $31.72 per 15 minutes.
‡ As advised.
§ Would be more if less time spent "after hours" on indirect care and clinical administration.

The **Figure** shows the blended remuneration consisting of three-quarters hourly pay plus one-quarter commission pay. **Table 3** shows how it may generate a net hourly pay of $146, more than 3 times that of the current fee-for-service model of as little as $48. It is a return to the family practice equivalent incomes of the 1970s[2] **[Table 1]**, and it is a major step toward improving the work–life balance of family physicians and the time to rediscover the joy of practising medicine.

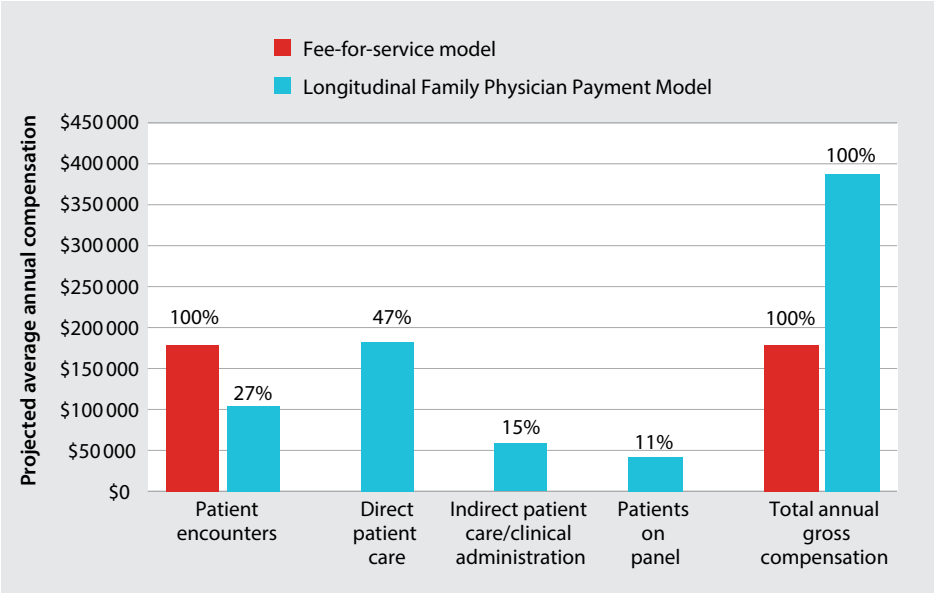

FIGURE. Projected average annual compensation by the fee-for-service model versus the new Longitudinal Family Physician Payment Model. In the latter, hours spent taking care of patients directly and indirectly plus clinical administration account for 74% of remuneration at $130 per hour. The number of patient encounters and panel patients are commission payments, which account for the remaining 26%.

Aim 5: Sustainability

The new Longitudinal Family Physician Payment Model could cost $1.54 billion annually. Even though the actual costs may be much less because some people make little use of medical services, those costs may not be sustainable unless there is an improvement in the health of the population that leads to downstream savings. For that to occur, the increase in paid time per patient encounter may be the most important factor. However, an increase in the efficiency of how that extra time is used may also be needed to ensure sustainability. There are at least three additional ways to improve cost-effectiveness: (1) providing 24/7 longitudinal family physician care, (2) reducing physicians' use of resources, and (3) using efficient electronic medical record keeping.[9-13]

Providing 24/7 longitudinal family physician care could offset the costs of emergency departments that are no longer overrun with patients needing primary care. In some jurisdictions, family physicians who are obliged to provide 24/7 primary care for panel patients have created cooperatives to provide after-hours care in rotation.[19,23] Using conveniently located facilities, usually a local hospital, care is facilitated by all members of the cooperative having the same electronic medical records, which are switched to the after-hours facility upon leaving the office for the day. This has been met with high satisfaction from both family physicians and patients.[23]

A potentially rich source of savings is the more frugal use of clinician-accessible resource expenditures for services and products provided by third parties, such as tests, hospital use, investigations, referrals, drugs, and supplies.[22] As initiators of clinical activities, physicians may be responsible for two-thirds of health care budgets. There are large variations in the use of resources for identical clinical outcomes.[22] Choosing Wisely Canada identified many tests and investigations as being of low value for the purpose for which they were ordered.[24] However, after more than 10 years, that information has been largely unsuccessful in reducing the use of low-value diagnostic interventions.[25,26] The additional time available to family physicians is an opportunity to renew that effort, including explaining to patients the futility, cost, and risks of excessive testing, including that the "normal" definition for test results uses the 95% reference range, which renders 5% of all test results false positive. This promotes additional investigations, with each additional test again having a 5% probability of being false positive.[27] Supposing that 66% of BC's 2023 health care budget of $28.3 billion spending is clinician initiated, a 20% reduction in physicians' use of resources would yield 0.2 × 0.66 × $28.3 billion = $3.7 billion in savings, a potentially major contribution to the sustainability of proven diagnostic and therapeutic interventions.

Another promising way to improve sustainability may be through increasing the efficiency of electronic medical record keeping. The current platforms have made the practice of medicine less efficient, possibly contributing to the 30% loss in the average number of patients per practitioner in the decade prior to the COVID-19 pandemic.[10,12,13,17,28] In support thereof, Rudoler and colleagues[29] reported a slowly decreasing rate in the average number of patients per practitioner from 2001 to 2010 and an increase in the rate of decline from 2010 to 2017, a period that corresponded to the widespread introduction of electronic medical record keeping in BC. If there is no return to greater productivity under the improved conditions of the new model, this may suggest that there is something at fault with current electronic medical record keeping. In that case, instead of the multiple clinician-centred electronic medical record applications that are independent of

each other, consideration should be given to using a standardized patient-centred electronic health record for common use by clinicians, one that informs and teaches and has proven benefits for clinical outcomes.[9]

Sustainability and the BC MSP

It is widely recognized that BC (and the rest of Canada) has too few hospital beds and advanced imaging facilities.[30-32] Wait lists are too long. Why, as a rich country with a well-developed economy, have those needs not been met? Comparing BC with the peer jurisdictions of mainland northwestern Europe, the Netherlands, Denmark, Norway, Sweden, Finland, Iceland, and Germany shows that they have universal health care with annual per capita costs similar to those of BC but provide better benefits.[18,31-33] For example, the Netherlands' 2019 health care budget of C$6855 per capita (10.2% of GDP) was almost identical to that of BC at C$6548 (10.8% of GDP) **[Table 4]**.[33] On the annual Euro Health Consumer Index,[18] of 35 countries that assessed overall performance based on 49 indicants, the Netherlands was first for the decade 2008–2017, during which its costs decreased by 0.5% of GDP. In 2019, the Netherlands had 3.7 physicians per 1000 capita, of which 23% were family physicians,[19] whereas BC had 2.5 physicians per 1000 capita, of which 50% were family physicians.[17,30] In the Netherlands, 7800 family physicians operated family medicine practices that provided longitudinal care for an average of 2200 patients per "huisart" (literally "home doctor"; a longitudinal family physician).[19] In contrast, in 2019, the average number of patients per practitioner in BC was 1459, with care provided by 6256 primary care physicians.[8] The longitudinal family physicians in the Netherlands were paid using a blended system of rostering fees plus fee-for-service. Most operated private practices using a team-based approach; hired family physicians, psychologists, and nurses as assistants; and provided 24/7 after-hours in-person longitudinal primary care.[23] The benefits its citizens received were the same "free" hospital and physician services as in BC. However, in the Netherlands, prescription drugs, hearing aids, dental care, and physiotherapy for children until age 18 are also covered **[Table 4]**. For the same money per capita, the Netherlands paid 1.5 times (50%) more physicians and 33% more hospital costs than BC.[19,32,33] By having three times more specialists than family physicians, there were no wait lists for secondary and tertiary care.

TABLE 4. Comparison of 2019 health care spending in British Columbia versus the Netherlands.

		The Netherlands	British Columbia
Cost	National gross domestic product	10.2% of GDP	10.8% of GDP*
		C$6855	C$6548
C$7000	50% more physicians paid		Benefits gap
C$6500			
C$6000	Free hearing aids†		
C$5500	Free physiotherapy until age 18†		
	Free dental care until age 18†		
C$5000	No fees until age 18†		
C$4500	Free prescription medications†		
C$4000			
C$3500			
C$3000	Hospital costs		
C$2500			
C$2000			
C$1500			
C$1000	Physician payments		
C$500	Administration and sundry costs		

* Canadian GDP.
† Estimated.

Summary

The introduction of the Longitudinal Family Physician Payment Model holds promise for improved access to primary care in BC. The quality of primary care medicine may also improve, because the increased time per patient encounter allows for the practice of "slow medicine," defined as "a careful evaluation of medical evidence and a desire not to 'overdiagnose' or 'overtreat.'"[34,35] The new model provides an opportunity to be more efficient in the use of resources; from my perspective, this is essential to sustainability. Compared with peer jurisdictions, BC has a gap in benefits that urgently needs to be addressed, because it does not bode well for the sustainability of new programs, ones that are urgently needed to eliminate the long wait lists for secondary and tertiary medical care. The introduction of the Longitudinal Family Physician Payment Model offers a real-life opportunity to collect evidence to test the hypothesis that the gap in benefits is the result of our inefficient use of resources. ■

Competing interests
None declared.

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The new model provides an opportunity to be more efficient in the use of resources; from my perspective, this is essential to sustainability.

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