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Physician Services Master Agreement

Program Evaluation

October 2013

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Executive summary

Eight physician incentive programs, which represented new approaches to remunerating physicians using incentive payments, targeting a variety of issues jointly considered and agreed by Doctors Nova Scotia (DNS), Department of Health and Wellness (DHW) and the District Health Authorities (DHAs) were included in the last (current) Physician Master Agreement (Agreement). Parties to the last Agreement faced many challenges in establishing the new programs once the principles of each were agreed given that programs of this nature were breaking new ground in the Province.

The Master Agreement Steering Group (MASG,) which oversees the implementation and management of the Master Agreement, engaged Deloitte to perform an evaluation of the eight incentive programs so that the findings could be used to inform upcoming negotiations toward the next Agreement or to improve existing programs during the term of the existing Agreement.

At the highest level, overall findings and observations that cut across the eight programs were as follows:

- The programs were partly intended as a compensation mechanism which directed funding into areas of strategic importance to DNS, DHW and the DHAs.
- The innovative nature of the eight programs brought with them many challenges.
- The lack of clear program objectives, intended results at program inception and baseline data made the program evaluation challenging.
- Awareness of the programs is low, in spite of efforts by DNS and DHW to communicate and educate physicians.
- Uptake of the programs increased over time and varied significantly by program.
- Physicians believe the incentives to be a good use of Master Agreement funds.
- While, by and large, the alignment between programs and strategic interests of key stakeholders is strong, many programs have struggled to meet their intended results and to deliver them in a cost effective manner.[1]

In general, the decision to create programs to change physician behaviour in the eight areas for which the programs were created was sound given the alignment between the programs and the strategic priorities of key provincial stakeholders. The programs by and large continue to remain representative of issues relevant to parties to the Agreement. Despite the best efforts of DHW and DNS to design an innovative incentive-based approach to physician compensation, the eight programs under review are not delivering all of their intended results. This is due, in large measure, to the absence of an understanding of the intended results, and no agreed baseline data at program outset. In some cases, programs were intended to encourage and recognize existing behaviour. However for programs where it was not the intention to do so, many programs were in fact rewarding existing behavior, which is in line with the experience of similar pay-for-performance initiatives implemented in other jurisdictions.

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[1] *Cost effectiveness was defined separately for each of the eight programs. The evaluation framework for each of the eight programs can be found in Appendix A.*

Deloitte makes the following recommendations:

- For all programs where program results do not, or only marginally, satisfy the evaluation criteria, consider discontinuing or making wholesale changes to the program.
- Consider having fewer programs and potentially combining existing programs (e.g., Chronic Disease Management Incentive Program, Comprehensive Care Incentive Program, and Complex Care Visit Fee) to more effectively target common areas of strategic priority.
- Payment amounts for each program should not be reverse engineered based on a program budget and estimated uptake, instead set at a level that will achieve the desired outcomes in the most cost efficient manner
- Attempt to quantify the benefits of any program to the broader health system in a robust business case. (For example, determine the cost of an unattached patient to the system). Recognize that incentive payments to physicians that generate savings to the health system as a whole represent a good return on investment. The payment to physicians should be at an agreed rate in keeping with overall system costs so that the impact on the system as a whole results in a net benefit.
- For all programs going forward, ensure the following design and payment elements are built in.

Table 1: Design and payment elements

Design	Payment
• Programs should look to target specific cohorts of physicians (e.g., specific DHAs or specialties) where there is the ability to pinpoint cohorts where behavior change is desired • Intended results are clear and quantifiable • Baseline data is available and agreed by DHW and DNS • Program design is simple and easily interpreted • Programs can be easily communicated (pre-test communication with a random sample of physicians) • If clinical practice guidelines are part of the program (e.g. CDM program), make use of the guidelines mandatory • Move toward fee for service design and away from payments not tied to physician behavior (e.g., Rural Specialist Incentive Program) • Eligibility requirements should be used to drive the highest program uptake possible and not to tackle issues outside the program (e.g. billing thresholds set at levels so to encourage 'part-time' GPs to work more)	• Effort required to receive payment is clearly communicated in advance of the program • Payment for completing the required effort is made shortly after the effort is expended • For any payment (including automatic payment) the reason for the payment amount should continue to be clearly communicated on a timely basis • Determine payment amounts in advance of the fiscal year and compensate physicians based on performance, moving away from the practice of paying out any remaining budget within a program to all eligible physicians • Improve transparency and communicate any payment thresholds in advance of the fiscal year

The table below summarizes the recommended improvements that are contained throughout this report for the eight programs under review.

Table 2: Recommended program improvements

Program	It was observed that…	Therefore Deloitte recommends that the MASG…
Comprehensive Care Incentive Program	• Threshold levels may not be appropriate to incent physicians to maintain proficiency in certain services (e.g., obstetrical deliveries) • Physicians expressed confusion regarding the calculation of thresholds for payment levels	• Ensure thresholds and service categories are aligned with current care guidelines • Improve threshold transparency
Complex Care Visit Fee	• There is a general lack of baseline data required to gauge the impact of the program • The requirement for three eligible conditions is a higher threshold than other jurisdictions • Number of individual visits for complex patients per year cannot be expected to decline, and in fact have increased over the life of the program	• Gather baseline data to assess performance • Program scope should reassess requirement for 3 eligible conditions • Remove billing restrictions and consider changes to the program's intended result of reducing the number of patient visits per year
Chronic Disease Management (CDM) Incentive Program	• A number of common chronic conditions were not included in the program due to insufficient funding to cover additional conditions • It is difficult for Medavie to assess adherence to current guidelines without the use of a flow sheet • Other jurisdictions with similar programs have mandatory flow sheets	• Increase the number of qualifying conditions • Make CDM flow sheet mandatory and integrated into EMRs
Long Term Care Clinical Geriatric Assessment	• Awareness of the program is limited outside of DHA 9 and within many long term care facilities • Focus group participants expressed confusion regarding the program's requirements • The assessment would enhance the level of care for aging individuals living outside of long term care facilities	• Enhance engagement and awareness with physicians and long term care facilities • Clarify, and make more specific, both information and direction on this program • Examine all policies, programs and forms applicable to residents of long-term care facilities to ensure alignment • Expand patient reach beyond those in long term care facilities
Electronic Medical Record (EMR) Incentive Program	• EMR adoption in Nova Scotia lags those of comparable programs in Canada, despite competitive funding • Comparable programs in other jurisdictions eventually shifted more focus to utilization from adoption • Specialist adoption has been a continuing challenge for the program • Currently, physicians are only required to declare that they have participated in EMR education courses to receive payment; however, this has not been audited • Physicians expressed confusion with the formula used to calculate the payment provided by Envelope C • Some physicians still express doubts regarding the efficiency gains provided by EMR use	• Shift program focus towards utilization • Better understand stakeholder requirements and provide more targeted adoption for specific physician cohorts (Investment Grant) • Examine current EMR educational offerings for effectiveness (Participation Grant) • Explore linking EMR education offerings to CME credits to enable easier measurement (Participation Grant) • Make changes to the Utilization Grant so it rewards for behavior, and does not distribute an unknown pot of funding among all eligible physicians • Take steps to educate physicians on the benefits of EMRs
Rural Specialist Retention Incentive Program	• Some jurisdictions provide a premium on fees for rural practitioners • There are very different drivers for retention and recruitment	• Change program focus to fee-for-service • Clarify the program's purpose
GP Surgical Assist Incentive Program	• There is a more acute shortage of GPs to perform surgical assists in rural DHAs • Physicians indicated that the incentive was insufficient when longer delays are encountered	• Develop a precise area of need and target funding in those areas • Payments should be time-based rather than procedure-based
Unattached Patient Incentive Program	• The program could have a greater impact on the health system if the requirement for a hospital visit was removed • Physicians indicated that a higher payment amount would be appropriate for incenting them to take on a new patient • There is currently no generally accepted way to track unattached patients	• Expand program scope • Examine the payment amount • Initiate tracking of unattached patients

The parties to the NS Master Agreement were breaking new ground in the province in 2008 by introducing programs intended to facilitate changes to physician behaviour. Deloitte acknowledges the effort required to design and structure new methods of compensation to the satisfaction of all stakeholders. The MASG has shown, over the course of the current Master Agreement, a willingness to make changes to the programs post inception in order to strengthen them and to address stakeholder feedback. We are hopeful that the contents of this review will provide the MASG with insight that can be used to help improve the current physician payment landscape.

Introduction

Background

The Physician Services Master Agreement is the formal contract between Doctors Nova Scotia (DNS) and the Nova Scotia Department of Health and Wellness (DHW) with respect to the majority of physician funding. The term of the current Master Agreement, originally a five-year agreement was extended by two years and will run for seven years from April 1, 2008 to March 31, 2015.

Unlike past master agreements that focused primarily on across-the-board percentage fee increases for physicians, the current contract included new approaches to remunerating physicians using incentive programs targeting a variety of issues jointly considered and agreed by DNS, DHW, and the District Health Authorities (DHAs).

The Master Agreement Steering Group (MASG,) which oversees the implementation and management of the Master Agreement, engaged Deloitte to perform an evaluation of eight incentive programs within the current agreement so that the findings could be used to inform upcoming negotiations toward the next Master Agreement or to improve existing programs during the current Master Agreement.

The eight programs were selected for evaluation as they were new programs introduced during the last Master Agreement, which were, in most cases, intended to incent changes to physician behaviour. Within the agreement there are other programs where additional funding was injected during the last agreement and some change made to guidelines (e.g., on-call, locum programs); however, these are not considered incentive programs and thus not included in this review.

The following table lists the eight programs under review, along with the purpose of each program.

Table 3: Programs under review

Program	Purpose
Comprehensive Care Incentive Program (CCIP)	• To encourage family physicians to provide a comprehensive range and volume of services within specific categories. CCIP is intended to both encourage physicians who previously did not offer comprehensive services to adopt this model of practice, and to encourage those physicians who already performed such services to continue to do so.
Complex Care Visit Fee (CCVF)	• To encourage and support family physicians in providing care in the office to "complex" patients with multiple chronic diseases. The program is intended to recognize the extra work and time required of family physicians to address the needs of these patients.
Chronic Disease Management Incentive Program (CDM)	• To align with the objective of the government and DNS to advance guideline-based care, and to recognize the additional work of family physicians, beyond office visits, of ensuring guideline-based care is provided to patients with specific chronic diseases and to support more comprehensive management of chronic disease at the primary care level.
Long Term Care Clinical Geriatric Assessment (CGA)	• To enhance the assessment, management, and care of nursing home residents in long-term care facilities.
Electronic Medical Record Incentive Program (EMR)	• To increase EMR adoption and usage.
Rural Specialist Retention Incentive Program (RS)	• To assist with the recruitment and retention of specialist physicians in rural areas of Nova Scotia. For the purposes of this incentive, a rural area is defined as District Health Authorities 1-8. The program is structured to encourage specialist physicians to practice in hospitals, and to provide on-call services for their district.
GP Surgical Assist Incentive Program (SA)	• To recognize GPs who lose office billings when performing surgical assists and to encourage GPs to perform surgical assists by providing an incentive for provision of the services.
Unattached Patient Incentive Program (UP)	• To assist hospitalized patients or patients treated in the emergency department, who require follow-up care in the community, and do not have a family physician.

About the physician population

For the most part, the eight incentive programs were aimed at General Practitioners with the exceptions being the Rural Specialist Retention Incentive Program, which was targeted at rural specialists, and the Electronic Medical Records Incentive Program which was available to both GPs and specialists. While GPs were the only physicians that could claim payment under the GP Surgical Assist Program, the program was intended to help specialists locate physicians to perform surgical assists. As context to our review, the following tables provide a profile of the physician population in NS as of October 2012. All physician demographic information is drawn from the DHW Physician Human Resources electronic Database (PHReD), unless otherwise noted.

We note the following points regarding our methodology for describing the physician population:

Physician Population: The total number of general practitioners (GPs) and specialists was calculated using PHReD (Physician Human Resource electronic Database), a DHW maintained physician roster, and represents numbers as of October 2012. PHReD relies on two data feeds, a weekly update from the College of Physicians and Surgeons which includes demographic, licensure, and registration status and a weekly update from Medavie MSI which adds information such as billing status and billing address.

Why was PHReD chosen? Of the options available, PHReD is the most current data set, reporting on physicians arriving or leaving during the year and those moving between DHAs. PHReD also provides numbers based on what the physicians are doing rather than their licensed specialty.
During the year, DHW staff validate functional specialty, FTE status and physician office location with the DHAs. Credentialing staff in the DHAs/IWK also provide updated information to Physician Services staff.

Licensed specialty: Licensed specialty is reported by the individual physician when registering for a license to practice medicine in Nova Scotia. A physician may register in a number of specialties, e.g., general internal medicine and haematology or general surgery and a surgical subspecialty but the first specialty recorded is typically provided in the College of Physicians and Surgeons of Nova Scotia (CPSNS) and Medavie MSI data updates. The College confirms specialty status.

Functional specialty: Functional specialty is the area of practice in which the physician works. It is assigned by DHW but this information is collected by the CPSNS. Initially, functional specialty was used to identify a specialist from another country who did not have RCPS(C) certification. It is now also used to also identify a FP who has a one year diploma from CCFP (Emergency Medicine, Palliative Care, Geriatrics) or to distinguish what a specialist is doing from what license he/she has; common examples are sub-specialists working in regional facilities, e.g., a nephrologist doing general internal medicine.

Table 4: Physician population – as of October 2012

Criteria	General Practitioners	Specialists*	Total
Active Physicians	1,005	1,494	2,499
Male / Female	55% / 44%	70% / 30%	64% / 36%
Average Age	52	51	51
Average Years of Practice	19	14	16

** The specialist physician totals in this table include GPs functioning as emergency medicine, geriatric or palliative care physicians as well as specialists who do not have RCPS(C) certification.*

Table 5: Physician population by DHA of practice – as of October 2012

DHA of Practice	General Practitioners	Specialists	Total	% of Total
1. South Shore Health	60	51	111	4.4%
2. South West Health	51	47	98	3.9%
3. Annapolis Valley Health Authority	87	110	197	7.9%
4. Colchester East Hants Health Authority	59	72	131	5.2%
5. Cumberland Health Authority	34	33	67	2.7%
6. Pictou County Health Authority	44	54	98	3.9%
7. Guysborough Antigonish Strait Health Authority	44	44	88	3.5%
8. Cape Breton District Health Authority	127	153	280	11.2%
9. Capital District Health Authority / IWK*	468	903	1,371	54.9%
Other / Unspecified	31	27	58	2.3%
Total	1,005	1,494	2,499	100.0%

We note the following points regarding Table 5:

1. *Totals in this table represent GP and specialist counts by functional specialty, i.e., the specialty in which the physician is working.*
2. *Family physicians with a functional specialty of 'emergency' are included in the specialist rather than GP totals.*
3. *General practitioners working primarily in palliative or geriatric care are also included in the specialist totals.*
4. *IWK physicians are included within the totals for CDHA.*
5. *'Other/unspecified' totals refer to:*
   - *physicians who have, for example, retired or left the province*
   - *physicians whose practice is limited to locum coverage in a number of DHAs*
   - *physicians residing out of province providing short term locum coverage*
6. *A physician's DHA of practice is identified through his/her office address.*
7. *A physician working in a number of districts is reported as working in the DHA of his/her most recent office address.*
8. *PHReD includes IWK physicians in the total count for CDHA.*

Objective of this document

This document details the assessments performed on the eight incentive programs, identifying improvement opportunities for each as well as general findings and overall recommendations spanning all programs.

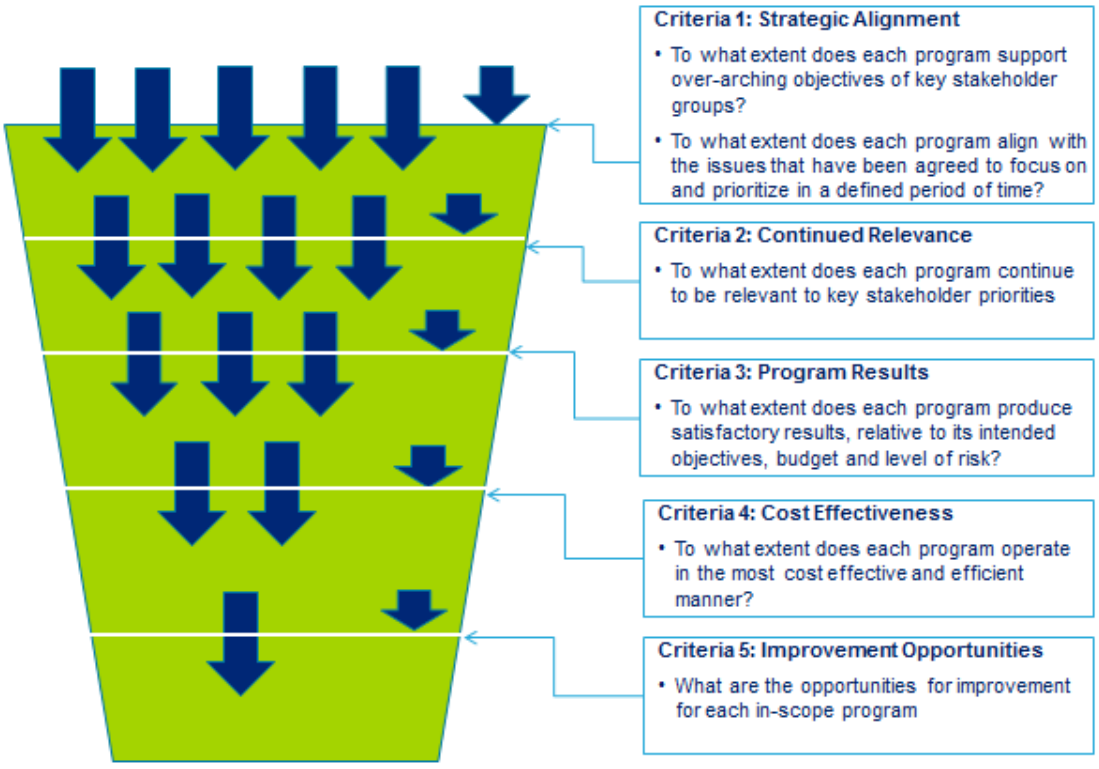
Evaluation process employed

In completing this assessment, Deloitte worked closely with a Steering Committee[2] made up of members of both DNS and DHW. Evaluation of the eight incentive programs can be classified into three distinct tasks.

1. Creating the evaluation frameworks for each program;
2. Gathering the data and information required to perform the evaluation; and
3. Evaluating each program against its evaluation framework.

Creating the Evaluation Frameworks for each program

Aided by members of the Steering Committee, Deloitte spent time understanding the eight programs, their background, eligibility requirements and purpose and, leveraging Deloitte's Program Evaluation Methodology, created evaluation frameworks for each program to guide the assessment of each. For many of the programs, time was spent with the Steering Committee clarifying, agreeing and, in some cases, defining the program's purpose and intended results. Deloitte's Program Evaluation Methodology, which assesses programs on the basis of five criteria as shown below, is provided for reference.



[2] *Steering Committee members: Angela Arsenault (DHW), Kevin Chapman (DNS), Stewart Gray (DNS), Barb Harvie (DHW), Alana Patterson (DNS), Carol Walker (DNS), Patrick Riley (DHW), Jason Sidney (DHW),*

For each program's evaluation framework, a series of questions relevant to each criterion was created to be addressed during the subsequent evaluation. Evaluation questions for each framework, and data source validation for each, were informed by:

- Interviews with key stakeholders from DNS and DHW, physicians and other stakeholders (listed in Appendix B);
- Examination of program payment data;
- Insights from related approaches in other Canadian provinces (AB, MB, SK, BC); and
- Advice and guidance from the project Steering Committee.

Evaluation frameworks for each program are included in Appendix A for reference.

Gathering the data and information required to perform the evaluation

Following the creation of the evaluation frameworks, Deloitte set out to evaluate each program. Efforts to do so were comprised of the following tasks:

- **Information gathering through stakeholder engagement** – A robust stakeholder engagement plan was developed that identified key stakeholder groups and the insight required from each to complete our assessment. A high level summary of the stakeholder engagement plan is included below:

Table 6: High level summary of the stakeholder engagement plan

Stakeholder Group	Objective	Means of Engagement
Physicians	• Seek insight on: − How physician behavior might have changed as a result of the programs − Understanding/awareness and satisfaction with programs − Potential impact on the healthcare system − Possible improvement opportunities	• Focus groups in each DHA • Survey of the physician population*
DHW/DNS/DHA Senior Stakeholders	• Gain input on continued program relevance and improvement opportunities	• Focus groups • Individual interviews
Provincial Programs	• Solicit input on improvement opportunities and perceived patient satisfaction	• Individual interviews
Medavie Blue Cross	• Understand audit/recovery process, and seek insight on potential improvements	• Individual interviews
Other healthcare providers (long term care & nursing homes)	• Gauge satisfaction, awareness and improvement opportunities for the CGA program	• Focus groups
Other jurisdictions	• Understand the strengths and weaknesses of their physician incentive programs	• Interviews and provision of documents

** The findings from the focus groups and interviews were used to inform the survey that was distributed to all physicians in the province.*

- **Data gathering** – Deloitte worked closely with DHW to gather necessary data for each program at the level of detail required to complete our assessment. The data included claims data for all programs, and service counts where appropriate. An encrypted physician roster was provided with a unique identifier for each physician. This identifier corresponded with claims data provided for each program for each physician. This allowed for an analysis of claims per physician as well as insights to be formed on the basis of physician demographics and DHA of practice. All program payment information was provided by Physician Services, Nova Scotia Department of Health and Wellness and/or the Medavie Blue Cross Decision Support System unless otherwise stated. All physician demographic information was drawn from the Department of Health and Wellness Physician Human Resources electronic Database (PHReD) unless otherwise noted. Deloitte also gathered audit data and information from Medavie Blue Cross to understand the impact that any recoveries had on each program and received information from relevant Provincial Programs.

  The second primary source of data was an electronic survey of all physicians in NS. The survey had a total of 418 respondents, which was comprised of 230 GPs and 188 Specialists. These figures equate to 24% of active GPs and 13% of specialists, for a total response rate of 17%. This represents a 95% confidence interval with a margin of error of 5.65% for GPs, 6.68% for Specialists, and 4.36% overall.

- **Jurisdictional scan** – Deloitte and the Project Steering Committee agreed to solicit input from five provinces as part of this review. The five provinces were chosen given they have programs in place that are comparable to those under the scope of this review. While Ontario was one of the five provinces chosen for comparison, we were unable to make contact with representatives from Ontario during the course of our review. Recognizing that there are differences in, among other things, program structure, payments and eligibility across each province, the following table illustrates where there are comparable programs to Nova Scotia in place for the four provinces contacted as part of this review.

Table 7: List of comparable programs within the four provinces surveyed as part of this review

Program	British Columbia	Alberta	Saskatchewan	Manitoba
Comprehensive Care Incentive Program	--	--	Yes	--
Complex Care Visit Fee	Yes	Yes	--	--
Chronic Disease Management Incentive Program	Yes	--	--	--
Clinical Geriatric Assessment	--	Yes	--	--
Electronic Medical Records	Yes	Yes	Yes	Yes
Rural Specialist Retention Incentive Program	Partial*	--	Yes	Yes
GP Surgical Assist Incentive Program	--	--	--	--
Unattached Patient Incentive Program (UP)	--	--	--	--

** BC's FPs4BC program ended in March 2012, and was focused on General Practitioners. BC also provides rural premiums on some fee codes.*

Analysis and evaluation of each program against its evaluation framework

Following stakeholder engagement and the gathering of all required data Deloitte spent time analyzing data and survey results.

- Payment and claims data provided by DHW, as well as audit and recovery data from Medavie, were analyzed to determine program uptake, to create a profile of physicians receiving payment under each program and to help inform the cost effectiveness assessment.
- The physician survey results were summarized and then analyzed to determine survey validity and to identify key insights.

Following the analysis of all data and information Deloitte assembled all relevant data, information and insights to perform the assessment of each program. All interviews, stakeholder meetings and relevant insights from the jurisdictional scan of programs in place within other provinces informed our assessment.

Strengths and limitations of the review

At the heart of any comprehensive, evidence-based evaluation are valid data and information. For the most part, the data and information underlying this evaluation were good. In particular, information provided through interviews and focus groups with stakeholders was thoughtful, honest, and helpful. All stakeholders made themselves available, which was greatly appreciated by the evaluators. Other jurisdictions also provided useful information in a timely manner, aside from Ontario who we were unable to make contact with.

The data underlying the evaluation – both claims data and physician survey data – were quite strong. We note, however, the following nuances or limitations with the data:

- Some programs were started late in their first year, resulting in less than 12 months of claims/payment data in year one. Thus, the year-over-year growth rate between the first and second years could be over-stated. However, we are confident that the data itself is correct.
- Because of the way in which physicians were paid under some programs, the effort took place in one fiscal year and payments were made in the next fiscal year. As a result, some of the claims/payment data reflected payment in a fiscal year following the one in which effort was expended. Best efforts were made to adjust for these instances and we are confident that the data is correct and makes sense over the life of the program.
- Payment amounts provided for CCVF reflect the total payment provided to the physician including the standard visit fee, while the budget reflects only the incremental amount above the standard visit fee. This distinction is reflected in the physician payment analysis for this program.
- The physician roster provided by DHW is a snapshot from October 2012. For the purposes of our analysis, we adjusted physician ages and years of practice accordingly to assess demographic data in previous years.
- At the time of the electronic survey of physicians, physicians were being asked to complete another survey on an unrelated topic. This could have led to survey fatigue. Despite this possibility, the response rate is sufficient to allow us to draw conclusions at the level seen in this report.

The evaluators are confident that the data and information are of sufficient quality and have been used in an appropriate manner to support the evaluation findings and conclusions.

General findings

In this chapter, we summarize overall findings and observations that cut across the eight programs. At the highest level, we observed:

- The programs were partly intended as a compensation mechanism which directed funding into areas of strategic importance to DNS, DHW and the DHAs.
- The innovative elements of the Agreement brought with them many challenges.
- The lack of clear program objectives, intended results at program inception and baseline data made the program evaluation challenging.
- Communications about the programs were challenging.
- Uptake of the Agreement increased over time and varied significantly by program.
- Physicians believe the incentives to be a good use of Master Agreement funds.
- While, by and large, strategic alignment and continued relevance of the programs are strong, many programs have struggled to meet intended results and to deliver them in a cost effective manner.

These points are explained in the sections below. The chapters that follow provide the evaluations of individual programs.

The innovative elements of the Agreement brought with them many challenges

At the time of negotiating the 2008 Master Agreement in Nova Scotia, most Canadian jurisdictions were providing incentive programs for physicians, albeit to varying degrees. It is foreseen that many, although not all, of these programs will be included in subsequent negotiated settlements across the country. As well, experience with “pay-for-performance” initiatives for physicians had been substantial internationally, especially in the United States and the United Kingdom, albeit with mixed evaluations.

The key challenges faced by DNS and DHW in the establishment of the new programs were:

- Estimating uptake of each program and allocating incentive funds appropriately.
- Communicating effectively to physicians, as incentives were entirely new and fundamentally different from previous agreements.

As a result of these challenges, certain elements of the Agreement reduced the direct linkage to the specific incentive. For example:

- In some cases (EMR Envelopes B & C, CCIP, and Rural Specialist Retention Incentive Program), the incentive payment was received months after the desired behaviour was exhibited, diminishing the impact of the incentive.
- In cases where the activity thresholds tied to the incentive payments would change year-over-year, physicians were unclear of the expectations of the program.
- In a number of programs (CCIP, GP Surgical Assist Incentive Program and Rural Specialist Retention Incentive Program), physicians were paid the incentive without having to “apply”; consequently, the linkage between the program and the payment was not as obvious.
- The incentive pay-out levels were perceived to be too low in some programs to warrant the effort required to receive payment.
- In programs where audits resulted in frequent and significant recoveries, physicians lost interest in the program for fear of audit.
- In some cases (EMR Envelope C and CCIP) the incentive was paid out to budget, with a division of available funds distributed to eligible physicians based on an established formula. This resulted in a

variable incentive payment that was not directly linked to individual physician activity, but rather their activity in relation to their peers.

The following table provides a summary of how each program was structured.

Table 8: Summary of how each program was structured

Program	Defined Budget	Payment
Comprehensive Care Incentive Program	Yes	Automatic
Complex Care Visit Fee	No	Claim Required
Chronic Disease Management Incentive Program*	Yes	Claim Required
Long Term Care Clinical Geriatric Assessment*	Yes	Claim Required
Electronic Medical Record Incentive Program	Yes	Claim Required
Rural Specialist Retention Incentive Program	Yes	Automatic
GP Surgical Assist Incentive Program	No	Automatic
Unattached Patient Incentive Program*	No	Claim Required

** Alternative Payment Plan physicians receive delayed incentive payment by cheque.*

The lack of clear program objectives, intended results at program inception, and baseline data made the program evaluation challenging

An incentive induces action or motivates effort and requires clarity on the desired action or effort. In the course of developing the evaluation frameworks for the eight Master Agreement incentive programs under review, it was evident that, while the purpose of each program was clear, the specific program objectives and intended results were not. The parties to the agreement were able to articulate, in retrospect, what the programs were intended to accomplish, but the failure to have those agreed in writing at the outset of the programs reduced the likelihood that intended results would be achieved.

Similarly, baseline data provides a critical reference point for assessing change by establishing a basis for comparing the situation pre-program and post-program launch, thus enabling better inferences to be made as to the effectiveness of the program. Baseline data should include the kind of information that would be appropriate for measuring changes in accordance with the objectives and intended results of the program.

In the case of the Master Agreement programs, aside from Envelope A of the EMR program, there was a lack of clearly defined intended results or establishment of baseline data at program outset. This made it challenging to evaluate each program as, in many cases, intended results had to be defined during program evaluation and the absence of baseline data meant conclusions were made based on data and trends observed during the life of the program.

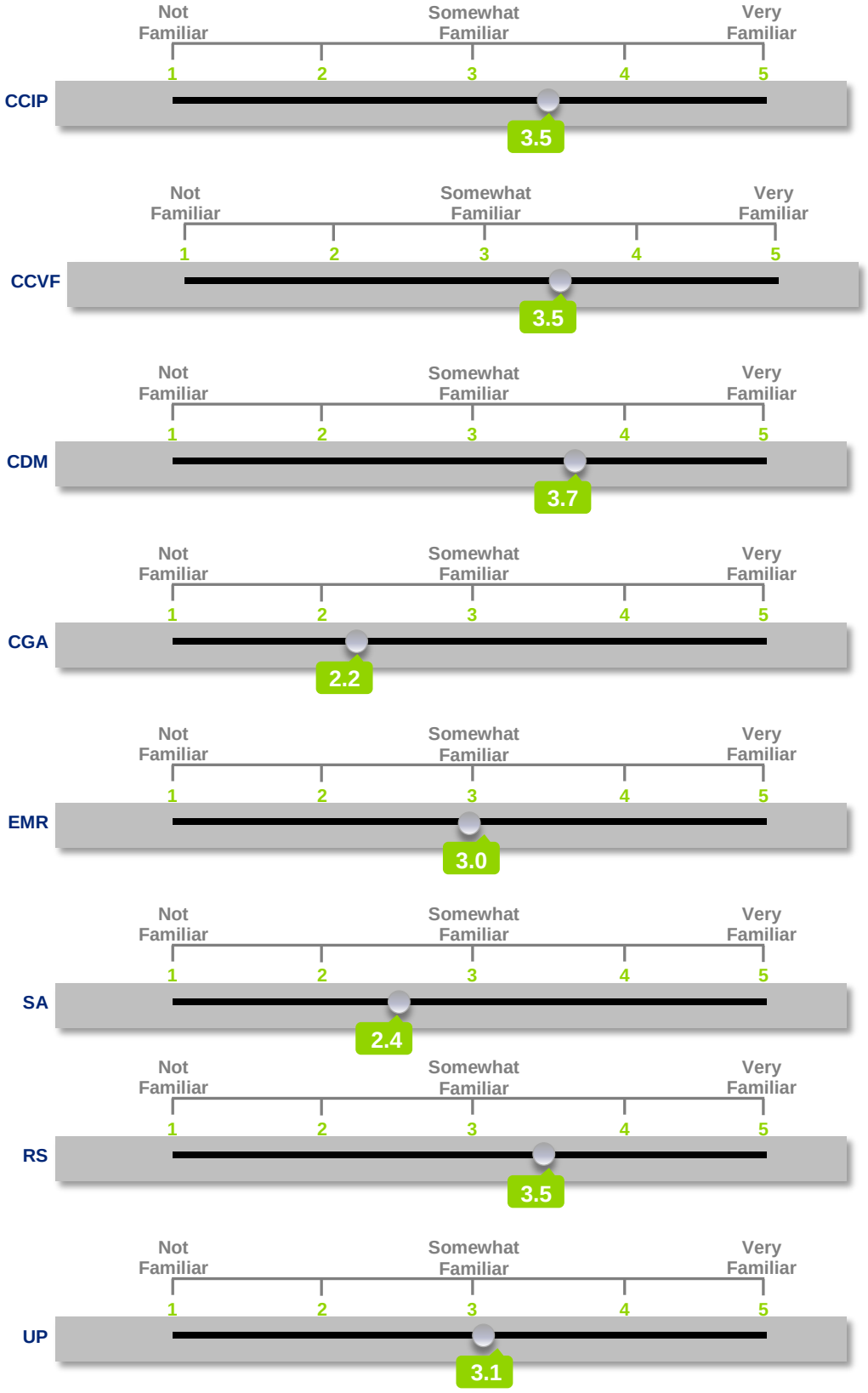
In a number of cases a program did not achieve its intended results, in part because intended results were not defined clearly at the outset of the program. Many of these programs made perfect sense and were aligned to strategic priorities of stakeholders, yet without clearly articulated objectives or defined metrics for a subsequent evaluation.

Awareness of the programs is low, in spite of efforts by DNS and DHW to communicate and educate physicians

Unlike a typical fee increase, incentive programs, by their nature, require recipients to understand how the incentive works. Physicians were therefore required to understand the intent and payment requirements of each program for which they were eligible. Physicians were asked in the survey to rate their familiarity with each program under review. The reader should keep in mind that most of these programs had been

in place a minimum of four years at the time of the survey. As can be seen in the results below, average familiarity ranges from 2.2 to 3.7 out of 5. Physicians are most familiar with CDM, CCIP, CCVF and Rural Specialist Retention Incentive programs.

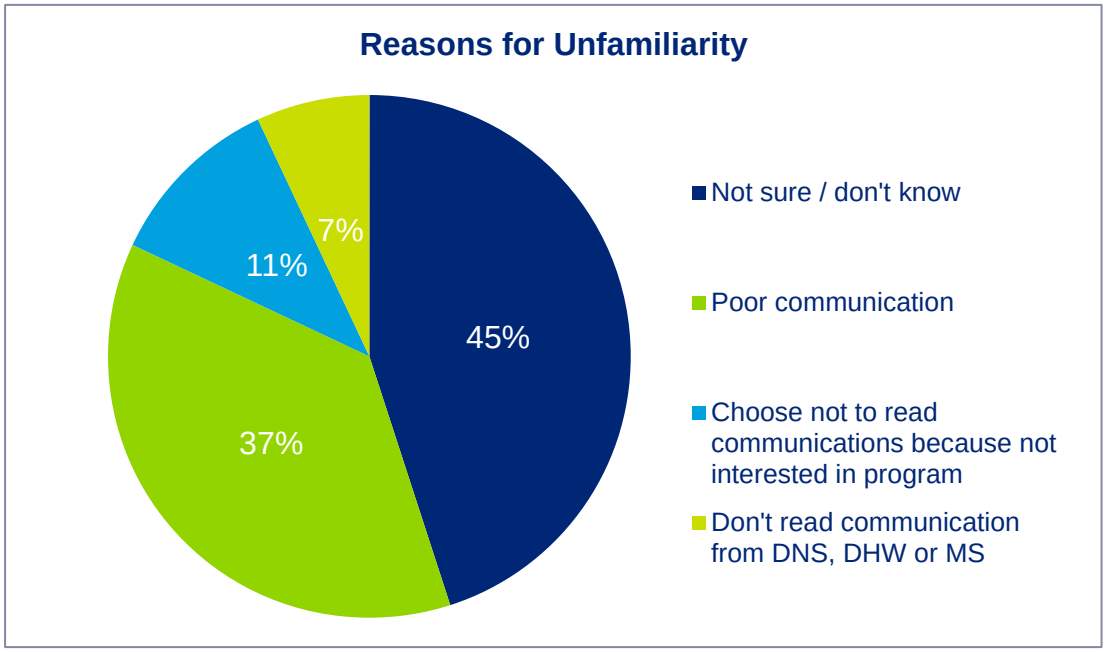
Program familiarity



Looking further at the familiarity data reveals additional insights:

- In the case of the EMR program, further analysis of survey results indicate that GPs reported average familiarity of 3.5 out of 5 while non-rural specialists reported only 2.1, likely due to their use of hospital-based systems. Rural specialists reported 2.9.
- Familiarity with the GP Surgical Assist Incentive program varied significantly by gender, with females and males reporting 2.1 and 2.7 respectively out of 5.

Explanations were sought from all physicians who were unfamiliar with a program. The results, as shown below, indicate that poor communication was cited as the primary reason for unfamiliarity.



During focus groups, physicians outside CDHA had very low awareness of the CGA program. Those who were aware were unfamiliar with details of the program. In addition there was considerable confusion with respect to the Master Agreement EMR Incentive program versus the Primary Health Care Information Management (PHIM) program separately administered by DHW.

Uptake of the Agreement increased over time and varied significantly by program

Based on all claims data for all programs evaluated, a total of 948 individual physicians took advantage of at least one of the eight incentive programs over the life of the program. This represents a penetration rate of 47% of an estimated eligible physician population of 2,000. On average, these physicians accessed 3.2 out of the eight programs.

As one would expect, uptake of all programs (with the exception of SA) increased over the life of the program, as shown in the table below. Rural Specialist Retention Incentive Program, CCVF and CCIP had the highest penetration rates. The reader should note that not all GPs were eligible for GP programs; however, we are unable to quantify the number of ineligible physicians. Hence, the actual penetration would be higher than is reported below.

Table 9: Physician uptake by program (as measured by number of physicians receiving payment)

Program	2008/09	2009/10	2010/11	2011/12	2012/13	CAGR[1]	Total Individual Physicians Participating	% of Targeted Physicians	Potential Target Physician Population
Comprehensive Care Incentive Program	**397**	**574**	**631**	**622**	**642**	**13%**	**775**	**84%**	**918**
Complex Care Visit Fee	**504**	**550**	**567**	**562**	**561**	**3%**	**785**	**86%**	**918**
Chronic Disease Management Incentive Program	**-**	**383**	**475**	**525**	**548**	**13%**	**661**	**72%**	**918**
Long Term Care Clinical Geriatric Assessment	**-**	**-**	**33**	**125**	**130**	**4%**	**170**	**19%**	**918**
Electronic Medical Record Incentive Program	**381**	**574**	**507**	**615**	**707**	**17%**	**816**	**51%**	**1590**
Rural Specialist Retention Incentive Program	**250**	**288**	**266**	**283**	**304**	**5%**	**377**	**77%**	**487**
GP Surgical Assist Incentive Program	**191**	**243**	**241**	**225**	**203**	**2%**	**352**	**38%**	**918**
Unattached Patient Incentive Program	**19**	**93**	**110**	**134**	**126**	**11%**	**247**	**27%**	**918**

[1] *CAGR is Compound Annual Growth rate. Year 1 for the purposes of calculating the CAGR is the first full year each incentive program was in place*

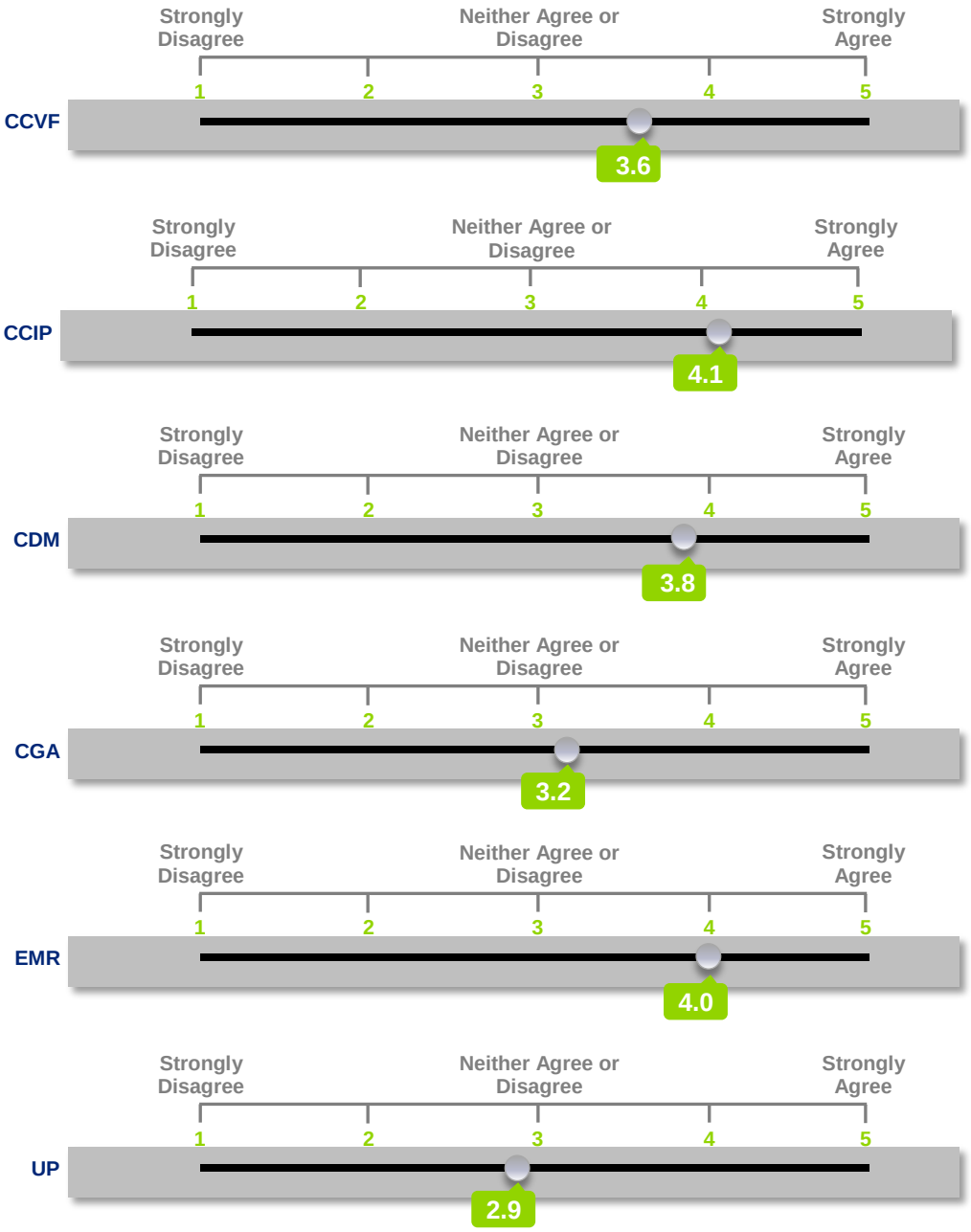
We note the following points regarding the figures in Table 9:

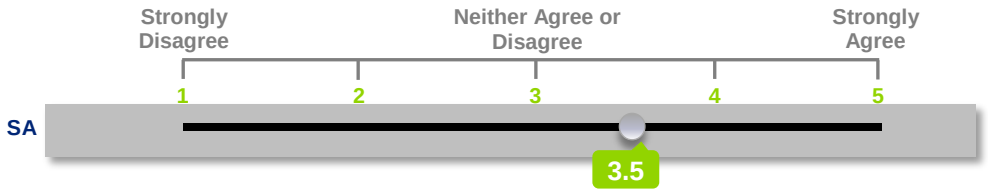
- Potential population of GPs is limited to physicians whose licensed specialty is family practice, and whose billings, regardless of location, are ≥$20,000.
- The minimum billing threshold has been applied to exclude data outliers, physicians who may have worked in the province for a short period of time, are not actively practicing, or working in a non-clinical setting.
- Three of the incentive programs – Comprehensive Care Incentive Program, Complex Care Visit Fee, and Unattached Patient Incentive Program are limited to GPs working in an office practice. No adjustments have been made to the GP potential population.
- Rural Specialist Retention Incentive Program includes all physicians with licensed specialty other than family medicine. Included are specialists working in Districts 1 through 8 and those working at Hants Community Hospital. GPs with a functional specialty of emergency, geriatric or palliative care medicine have been excluded from the potential population. Specialists who do not have a DHA assigned (27) are excluded.
- The potential target population for the GP Surgical Assist Incentive Program is also the total physicians with a licensed specialty of GP, billing ≥ $20,000.
- The potential target population for the EMR incentive program has been based on a number of data sources. DNS and DHW staff agreed that the potential population is 1,000 GPs and 590 specialists.

- EMR incentive program uptake volumes are higher than the number of physicians currently using an EMR; the uptake totals do not account for physicians who have moved from the province or retired or have stopped using an EMR.

Physicians believe the incentives to be a good use of Master Agreement funds

Despite the challenges, physicians generally believe the programs are a good use of negotiated Master Agreement funding. Physicians gave the lowest rating to the Unattached Patient Program when asked if they agree with the statement: “This program is a good use of negotiated Master Agreement funding.”





While, by and large, strategic alignment and continued relevance of the programs are strong, many programs have struggled to meet intended results and to deliver them in a cost effective (as defined in the evaluation frameworks) manner

A detailed evaluation of each program against pre-defined evaluation criteria is provided in the sections that follow, however Table 10 provides an overview of the results for each program. The frameworks, and specific criteria, used to evaluate the eight programs are presented in Appendix A. By and large there was good alignment between the programs and the strategic priorities of key provincial stakeholders and the programs remain representative of issues relevant to parties to the agreement. As such the decision to create programs to change physician behaviour in these areas was sound. The programs have however struggled to meet intended results due in large part to the absence of clear objectives and targets at program outset.

Table 10: Summary of program assessment by evaluation criteria

Program	Strategic Alignment	Continued Relevance	Program Results	Cost Effectiveness
Comprehensive Care Incentive Program (CCIP)	●	●	◑	◔
Complex Care Visit Fee (CCVF)	●	●	◔	◔
Chronic Disease Management Program (CDM)	●	●	◔	◑
Long-Term Care Clinical Geriatric Assessment Program (CGA)	●	●	◑	◑
Electronic Medical Records (EMR)	●	◕	◑	◑
Rural Specialist Retention Incentive Program (RS)	●	●	◔	◔
General Practice Surgical Assist Incentive Program (SA)	◔	◔	◔	◑
Unattached Patient Incentive Program (UP)	●	●	◔	◕

Legend	○	◔	◑	◕	●
	Does not satisfy evaluation criterion	Marginally satisfies evaluation criterion	Partially satisfies evaluation criterion	Mostly satisfies evaluation criterion	Completely satisfies evaluation criterion

Evaluation of Comprehensive Care Incentive Program (CCIP)

Introduction

Purpose

The purpose of the Comprehensive Care Incentive Program (CCIP) is to encourage family physicians to provide a comprehensive range and volume of services within specific categories. CCIP is intended to both encourage physicians who previously did not offer comprehensive services to adopt this model of practice, and to encourage those physicians who already performed such services to continue to do so.

The eligible service categories for CCIP are:

- Nursing home visits (since year 1).
- Inpatient hospital care (since year 1).
- Obstetrical deliveries (since year 1).
- Maternity/newborn visits (since year 1).
- Home visits (added in 2009/10 with additional funding).
- All office visits for children under two years (added in 2009/10 with additional funding).
- Selected GP procedures (added in 2010/11 with additional funding).
- Pap smears for women ages 40 to 75 years (added in 2012/13 with no additional funding).

Three activity thresholds are set for each service category. These thresholds are calculated annually based on aggregate billings and using a standard statistical methodology.

Payments to individual physicians are calculated based on:

- The total amount of CCIP funding available.
- Total CCIP-eligible services provided.
- The number of physicians who qualify for a payment.
- The number of service categories and activity levels per service provided by the individual physician.

To qualify for an annual CCIP payment, a family physician must have minimum total fee-for-service and/or shadow billings of $100,000, including minimum office billings of $25,000, during the 12-month CCIP calculation period; and reach the first activity threshold for at least two CCIP-eligible service categories.

Program uptake

The number of physicians who received payment and the amount of their payments are shown in the tables that follow. Some key points related to program uptake include:

- The number of physicians receiving CCIP payments has increased year over year.
- Both males and females participate in the program at rates that are comparable to their overall populations.
- A total of 775 individual physicians received a CCIP payment in at least one year of the program, representing 84% of the GP population.[3]
- On average, individual physicians received payment in four of the five years during which the program was in place.
- Individual physicians earned up to $22,711/year under the program.

Table 11: CCIP Program uptake by year (as measured by the number of physicians receiving payment)

	2008/09	2009/10	2010/11	2011/12	2012/13
GPs	397	574	631	622	642

Year over year uptake rates, as defined by the number of physicians participating in the program, has grown steadily, with a compound annual growth rate (CAGR) of 13%. Growth has tapered off in recent years with only a 3.2% increase in 2012/13 over the previous year.

Table 12: CCIP budget/funding and expenditures by fiscal year

	2008/09	2009/10	2010/11	2011/12	2012/13	Total
Budget / funding	$600,000	$2,000,000	$4,000,000	$4,000,000	$4,000,000	$14,600,000
Actual program spend	$683,000	$1,978,875	$3,977,785	$3,996,690	$3,990,487	$14,626,837
Variance from budget	$83,000	($21,125)	($22,215)	($3,310)	($9,513)	$26,837
Average $ per individual GP	$1,720	$3,448	$6,304	$6,425	$6,216	--
Max earned by an individual GP	$6,000	$9,750	$18,532	$22,711	$22,600	$78,518

There have been significant payment outliers, and the difference between the average and maximum payment to individual physicians has grown in recent years. While the average payment to physicians has remained between $1,720 and $6,425, in each year of the program individual physicians have been compensated upwards of $20,000 through CCIP.

[3] *Eligible GPs are defined as those billing >$20,000 regardless of location of practice.*

Jurisdictional context

The jurisdictional scan for this evaluation found a program in Saskatchewan with similarities to CCIP.

Province	Year of Inception	Payment Amount	Eligible Service Categories	2012/13 Funding
Saskatchewan	2012	Physicians meeting thresholds for eligible service categories per 100 patients served receive a premium of 4.5 - 5.5% on their base earnings Rural practitioners receive an additional 5% rural index premium	• Hospital / Supportive Care • Nursing Home Care / House Calls • Pre-/Post-Natal, Deliveries, Well Baby Care • Complete Assessments and Pap Tests • Chronic Disease Management • Phone Calls from Allied Health Personnel	• $9.83 Million
Nova Scotia	2008	Calculated annually based on number of physicians attaining thresholds across the eight categories	• Nursing home visits • Inpatient hospital care • Obstetrical deliveries • Maternity/newborn visits • Home visits • All office visits for children under two years • Selected GP procedures • Pap smears for women ages 40 to 75 years	• $4 Million

Program evaluation

The CCIP was evaluated against the four criteria included in the evaluation framework developed for the program (included in Appendix A). For each evaluation criterion, a rating was assessed using the following scale to denote the degree to which the program is delivering against each criterion.

Legend	○	◔	◑	◕	●
	Does not satisfy evaluation criterion	Marginally satisfies evaluation criterion	Partially satisfies evaluation criterion	Mostly satisfies evaluation criterion	Completely satisfies evaluation criterion

Strategic alignment

Question: How does the purpose of the CCIP align with the documented strategic interests of DHW and DNS?

At the time CCIP was conceived, the purpose of the program aligned with interests identified in the September 2007 Strategic Interests document issued by the DNS/DOH/DHA Issues Steering Committee. Specifically, the CDM program aligned with Strategic Interest #2 relating to optimizing the physician role in primary health care. The need for incenting comprehensive care was called out as a specific interest:

> *The breadth of services provided by individuals or groups of family physicians that are necessary to meet patient and health system needs - both in and out of their primary practice settings - recognizing the potential impact on personal and professional lives for physicians (e.g., hospital-based care, evening and weekend coverage, responsibility for unattached patients, emergency care, etc.).*

Comprehensive care was also noted as a specific Master Agreement goal in the January 30, 2008 document from the Nova Scotia Department of Health entitled, *Towards a New Master Agreement*. Goal #4 specifically identifies two points related to comprehensive care:

i. Incentives to achieve improved performance and outcomes.
ii. Alternative payment modalities as part of a comprehensive primary care compensation strategy for both FFS and non-FFS physicians.

Continued relevance

Question: Does the purpose of CCIP continue to be relevant to DHW and DNS?

Available evidence suggests that encouraging comprehensive care is still relevant to both DNS and DHW. Interviews with representatives of both organizations have indicated that there have been no changes to strategic interests with regard to comprehensive care. The specific service categories may change over time to address emerging needs; however, incenting comprehensive care remains relevant to DNS and DHW.

Program results

Question: To what extent is the program achieving its intended results:

a. Individual physicians providing increased types and volume of services year over year (full-time and part-time practitioners)

b. Overall increase or a reduction in the year over year declines in the volume of each service being performed in the province

c. Physician satisfaction with the program, as currently constructed

a. Individual physicians providing increased types and volume of services year over year (full-time and part-time practitioners)

An analysis of individual physician activity levels (which follows) indicates that, on average, growth rates have decreased for many service categories since program inception. The following table represents an average of service counts by category. Of the seven service categories for which service counts were provided, only three, nursing home visits, obstetrical deliveries and selected GP procedures have increased since the inception of CCIP as evidenced by the 5 year growth rates provided below. The remaining service categories continue to decline post program inception. Over the same time period, the average number of service categories offered by physicians receiving CCIP payments remained relatively constant.

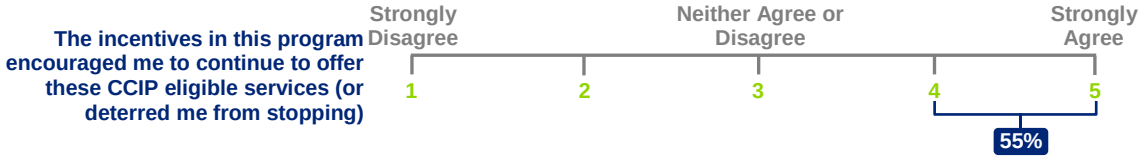
Table 13: Average service count by individual qualifying physician by fiscal year and category

Eligible Service Category	2006/ 07	2007/ 08	2008/ 09	2009/ 10	2010/ 11	2011/ 12	2012/ 13	CAGR 2006-2012	CAGR 2008-2012
Nursing home visits	223	226	247	240	274	319	318	6%	7%
Obstetrical deliveries	30	34	33	34	33	37	37	4%	3%
Maternity care/newborn visits	139	145	137	130	128	132	126	(2%)	(2%)
Office visits for children under 2 years	173	168	177	171	165	164	154	(2%)	(3%)
Home visits	47	45	44	40	36	39	40	(3%)	(2%)
Selected GP procedures	41	43	43	45	49	52	54	5%	6%
Pap smears (Women age 40-75 years)*	87	78	73	72	70	67	61	(6%)	(4%)

** During the period of the current Master Agreement, there have been changes to clinical practice guidelines that were intended to reduce the recommended frequency of pap smears for this age range.*

Note: No service counts for 'inpatient hospital care' were provided. Only data on the amounts paid was provided for this service category.

Similarly, regarding the decline of some services, 55% of survey respondents indicate that CCIP funding dissuaded them from reducing their service offerings.



On balance, we conclude that CCIP has not been effective in encouraging individual physicians to offer a broader range or volume of services.

b. Overall increase or a reduction in the year over year declines in the volume of each service being performed in the province

The data indicates that service volumes are decreasing for all but two CCIP eligible services (nursing home visits and Selected GP procedures). However it is acknowledged that some of this growth may be driven by external factors such as demography.

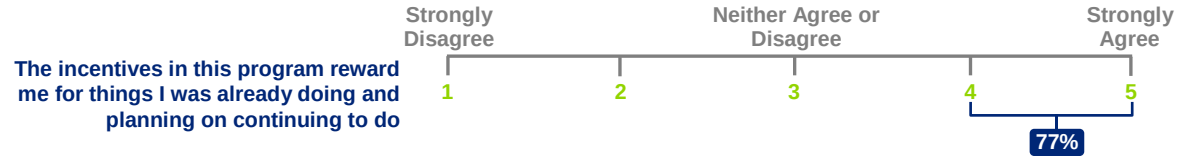
Table 14: Total service counts – all physicians - by fiscal year and category

CCIP Eligible Service Categories	2006/ 07	2007/ 08	2008/ 09	2009/ 10	2010/ 11	2011/ 12	2012/ 13	CAGR 2006-2012	CAGR 2008-2012
Nursing home visits	83,963	85,370	90,720	90,915	102,955	108,105	102,887	3%	3%
Obstetrical deliveries	3,910	4,377	4,225	4,121	4,018	4,092	3,781	(1%)	(2%)
Maternity care/newborn visits	70,599	74,621	72,086	70,178	69,347	71,391	65,239	(1%)	(2%)
Office visits for children under 2 years	110,300	111,870	122,209	120,475	117,811	115,253	105,704	(1%)	(3%)
Home visits	24,082	22,896	22,158	20,388	18,344	19,147	19,512	(3%)	(3%)
Selected GP procedures	23,517	25,493	26,879	28,997	31,971	33,703	33,682	6%	5%
Pap smears (Women age 40-75 years)	53,264	49,627	48,656	47,411	46,387	44,052	38,924	(5%)	(4%)
TOTAL	369,635	374,254	386,933	382,485	390,833	395,743	369,729	0%	(1%)

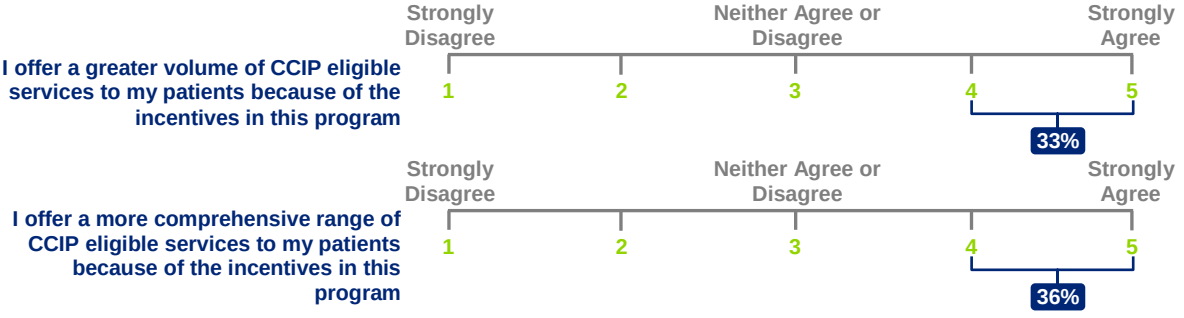
Note: No service counts for 'inpatient hospital care' were provided. Only data on the amount paid was provided for this service category.

Service categories showing the highest growth rates were nursing home visits and selected GP procedures. It is also important to note that, while some service categories saw reductions in volume, the decline in growth for pap smears was reduced during the life of the program compared to the growth that includes fiscal years prior to program inception. This is despite changes to clinical practice guidelines for pap smears aimed at reducing their recommended frequency.

Focus group participants indicated that they have always offered CCIP eligible services, and would continue to do so regardless of the incentive program being in place. Survey respondents confirmed this, with 77% indicating that their practice remained unchanged despite the program. This is the highest level of agreement for any survey question asked for this program.

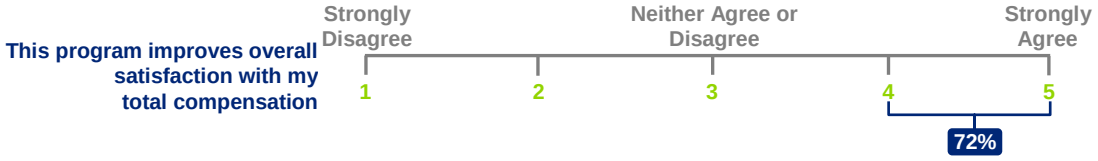


The above point notwithstanding, almost one third of survey respondents indicated that they changed their services offerings or increased the volume of their services in eligible categories due to the program.



Physician satisfaction with the program, as currently constructed

Over 70% of survey respondents agreed that the program increased their satisfaction with their overall compensation.



Written comments from respondents to the physician survey supported the idea that, while physicians appreciate the incentive payment, it would not encourage them to offer new services that they otherwise would not have offered.

- "This rewards and recognizes the FP/GP for the full scope of their practice and has made me feel that my "cradle to grave" contributions were being seen for the valuable services they truly are."
- "The compensation is a way of making up for deficiencies in the fees for routine care that is provided by family doctors. That money is required in order to maintain a practice; however, the incentives are not enough to encourage a doctor to provide services that they do not want to provide, such as nursing home or hospital visits, because the compensation for those services is poor to begin with."
- "It gives payment for some things that are not well remunerated in the fee-for-service model - hospital visits and house calls especially."

We conclude that physicians are generally satisfied with the program as currently constructed. That said, they do not believe that it encourages them to offer a broader range of services.

Summary – Program results

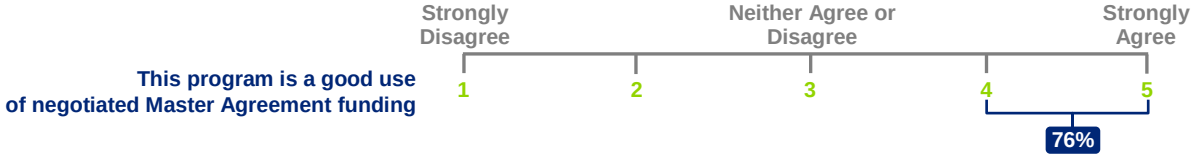
Achievement of CCIP's intended results was mixed. CCIP has not been effective in encouraging individual physicians to offer a broader range or volume of services and service volumes are decreasing for all but two CCIP eligible services (nursing home visits and selected GP procedures). That said, physicians payments under this program may have contributed to slowing the decline of some services. Physicians are generally satisfied with CCIP as currently constructed. Physicians appreciate that the program rewards activities that some felt they were previously under-compensated for.

Cost effectiveness

Question: **Is this program as currently designed the most cost effective way to achieve the program's purpose?** [4]

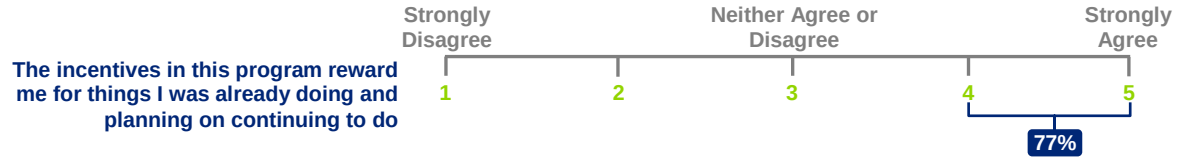
CCIP does not appear to be a cost-effective method to incent physicians to expand their practice, it appears to reward existing behaviour and has only partially achieved its intended results with the program funding available to it. It does appear to have been effective in preventing a decline in service volumes for eligible categories.

A majority of respondents to the physician survey indicated that they thought that CCIP was a good use of Master Agreement funding.

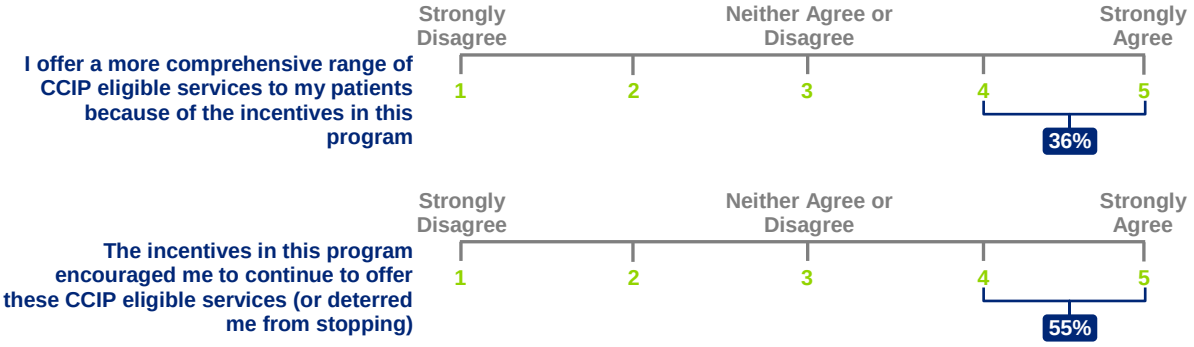


[4] *The criteria used to evaluate cost effectiveness for each program can be found in Appendix A.*

However, 77% of physicians responding to the physician survey agreed that the program rewards existing behaviour.



The results of our stakeholder consultation process and focus groups have indicated that payments under this program do not significantly influence physicians' decision to expand their range of services. That said, CCIP appears to effectively incent physicians to continue to provide comprehensive services if they had already offered such services, and responses to a number of survey questions supports this notion:



Summary assessment – All criteria

Program	Strategic Alignment	Continued Relevance	Program Results	Cost Effectiveness
Comprehensive Care Incentive Program (CCIP)	●	●	◑	◔

Improvement opportunities – CCIP

Question: How can this program be improved?

During the course of our review, stakeholders raised a number of improvement ideas. We did not put forward all ideas received in our report and, instead, applied judgment to identify as improvement opportunities those that we believed had merit in the context of this assessment. As well, we added improvement opportunities that resulted from our evaluation, but were not recommended by an engaged stakeholder.

Based on the priorities of DHW and DNS, we believe there is a continuing need to encourage comprehensive primary health care services.

1. Ensure thresholds and service categories are aligned with current care guidelines

- It is recommended that DNS and DHW regularly review a number of the eligible service categories to ensure that they are aligned with current guidelines, for example:
  - The often changing recommendations for the frequency and age related recommendations of pap smears (we acknowledge that the MASG has done this to date).
  - The content of a maternity pre-natal chart and the content of a well-baby chart. Many of the visits for those <2 years of age are linked to guidelines, such as immunization schedules.
  - For obstetrical deliveries, the threshold for competence can be considered a factor of experience, location, and continuing education; generally the accepted number has been 20, annually, although, recently, some have suggested the target to be closer to 30. Incentivizing a physician to perform fewer deliveries than an accepted threshold can be argued as contrary to the system goal of quality care.
- In addition, it is recommended that DNS and DHW examine all volume thresholds, perhaps with an eye to reducing the maximum threshold levels for some categories to ensure that these are set to encourage the right frequency of individual patient care. Physicians in many focus groups voiced concern that volume thresholds were encouraging activity in certain service categories that is above and beyond what is required by the patient.

2. Enhance transparency of program thresholds

- Incentives should provide clear direction and expectations for performance in order to elicit the desired behavior. It is recommended that DNS and DHW make efforts to make the thresholds for service counts and the corresponding payment amounts transparent to physicians at the outset of the fiscal year. Physicians in focus groups and surveys expressed concern that the thresholds were ambiguous, and not an effective incentive as there was limited explanation as to how the volume and breadth of services provided corresponded with the value of the incentive payment.

Evaluation of Complex Care Visit Fee (CCVF)

Introduction

Purpose

The purpose of the Complex Care Visit Fee (CCVF) is to encourage and support family physicians in providing care to “complex” patients with multiple chronic diseases. The program is intended to recognize the extra work and time required of family physicians to address the needs of these patients while in their office.

Eligibility and claims

All family physicians are eligible to claim the CCVF in the office only. Walk in clinics are ineligible to claim the CCVF. A CCVF claim is paid at a rate of 21 MSUs ($49.98, as of April 1, 2012).

A CCVF may be claimed a maximum of four times per patient per fiscal year (April 1-March 31) by the family physician providing ongoing comprehensive care to a patient who is under active management for three or more of the following chronic diseases:

- Asthma
- COPD
- Diabetes
- Chronic liver disease
- Hypertension
- Chronic renal failure
- Congestive heart failure
- Ischaemic heart disease
- Dementia
- Chronic neurological disorders
- Cancer

For the purposes of this incentive program, “active management” means that the physician is providing monitoring, maintenance, or intervention to control, limit progression, or palliate a qualifying chronic disease.

Physicians claiming the fee must spend a minimum of 15 minutes with the patient and the start and stop times of the visit must be noted on the patient’s chart. The visit must address at least one of the above conditions either directly, or indirectly.

Program changes since inception

This program’s requirements and eligibility have remained unchanged since its inception. However, in the first year of its implementation, the MSI billing system tracked claims on the basis of the calendar year, rather than the government fiscal year, as was intended by the MASG. This error was corrected on July 22, 2010.

Program uptake

The CCVF has seen a higher claim rate than was anticipated at its inception. Since 2009/10, CCVF claims have exceeded the program's budget. The following table shows CCVF payments by DHA. Despite CDHA and IWK representing 48% of eligible phsycians for the program, over 60% of payments were made to phsycians from other DHAs.

Table 15: CCVF program uptake by DHA (cumulative, 2008/09 to 2012/13)

DHA	Total Service Count	Total CCVF Payments (Gross)*	Percent of Total CCVF Funds Paid
1. South Shore Health	12,741	$613,409	6%
2. South West Health	13,807	$667,831	6%
3. Annapolis Valley Health	21,322	$1,024,284	10%
4. Colchester East Hants Health Authority	25,128	$1,215,561	12%
5. Cumberland Health Authority	7,990	$383,479	4%
6. Pictou County Health Authority	4,218	$204,285	2%
7. Guysborough Antigonish Strait Health Authority	12,631	$608,087	6%
8. Cape Breton District Health Authority	34,695	$1,692,917	16%
9. Capital District Health Authority/IWK	83,367	$4,022,430	39%
Not Specified / Unknown	217	$10,551	0%
Total	216,116	$10,442,835	

** Individual physician payment data reflects the total payment to the physician, rather than the incremental amount of additional funding outlined above the standard visit fee shown in the budget.*

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Jurisdictional context

Of the jurisdictions reviewed as part of our work, both BC and Alberta have programs comparable to the CCVF program. The primary difference between the BC, Alberta and NS programs is that the former provinces require patients to exhibit only 2 complex conditions. There are also differences in the eligible conditions across each province. NS also offers a lower available payment per patient per year than the other provinces. The table that follows provides a high level overview of the programs in place within the three provinces.

Table 16: Overview of complex care programs in other provinces

Province	Year of Inception	Payment Amount	Maximum available payment per patient per year	Eligible Conditions and Requirements	Number of Patients Served
British Columbia	2003	$315 annually, per patient* plus up to four $15 payments per year, per patient for follow-up calls	$375	Any two of the following: • Diabetes mellitus (type 1 and 2) • Chronic renal failure with eGFR values less than 60 • Congestive heart failure • Asthma • Chronic obstructive pulmonary disease (emphysema and chronic bronchitis) • Cerebrovascular disease • Ischemic heart disease, excluding the acute phase of myocardial infarct • Chronic neurodegenerative disease • Chronic liver disease of at least 6 months, with the exception of: 1. Self-limiting conditions, 2. Hepatitis carrier states normal liver function tests, 3. Benign conditions with elevation of liver function tests.	138,714 patients in FY2011/12
Alberta	2009	$213.80 for the development, documentation, and administration of a comprehensive annual care plan for a patient with complex needs	$213.80	• Two diagnoses from Group A: − HT, COPD, Asthma, DM, CHF, IHD • OR one from group A and one or more from Group B: − Mental health issues, Obesity with BMI definitions, Addictions, tobacco use	108,976 patients in FY2011/12
Nova Scotia	2008	A CCVF claim is paid at a rate of 21 MSUs ($49.98, as of April 1, 2012).	$199.92 (Incremental payment above standard visit fee, based on 4 visits per year at $49.98 per visit)	Undergoing active management for three or more of the following chronic diseases: • Asthma • COPD • Diabetes • Chronic liver disease • Hypertension • Chronic renal failure • Congestive heart failure • Ischaemic heart disease • Dementia • Chronic neurological disorders • Cancer	200,366 Patients in FY 2012/13

Program evaluation

The CCVF program was evaluated against the four criteria included in the evaluation framework developed for the program (included in Appendix A). For each evaluation criterion a rating was assessed using the following scale to denote the degree to which the program is delivering against each criterion on the basis of the evidence assembled as part of our review.

Legend					
	Does not satisfy evaluation criterion	Marginally satisfies evaluation criterion	Partially satisfies evaluation criterion	Mostly satisfies evaluation criterion	Completely satisfies evaluation criterion

Strategic alignment

Question: How does the purpose of the CCVF align with the documented strategic interests of DHW and DNS? 

At the time the CCVF program was established, the purpose of the program aligned with interests identified in the September 2007 Strategic Interests document issued by the DNS/DOH/DHA Issues Steering Committee. Specifically, the CCVF program aligned with Strategic Interest #2 relating to optimizing the physician role in primary health care. Chronic disease management was called out as a specific interest and the need was identified for providers to be "….*supported with the necessary resources and expertise to better assist their patients in managing their illness.*" The complex care office visit was identified through Doctors Nova Scotia's internal consultation with members as a top priority for family physicians, along with an incentive program for guidelines-based chronic disease management.

The need for greater focus on chronic disease management was also articulated in the January 30, 2008 document from the Nova Scotia Department of Health entitled, *Towards a New Master Agreement*. Section 5 of that document references the PHSOR report, and notes that chronic diseases affect 70% of the population, and consume 60-70% of Nova Scotia's health care spending.

Continued relevance

Question: Does the purpose of the CCVF continue to be relevant to DHW and DNS? 

Available evidence suggests that the issue of complex patients with multiple chronic conditions is still relevant to both DNS and DHW.

- It is clearly documented on the Government of Nova Scotia website that Nova Scotians continue to have higher than average mortality rates related to chronic disease than other Canadians.
- Chronic diseases cost the health system in Nova Scotia more than $3 billion each year.[5]
- In Nova Scotia, chronic diseases account for almost three-quarters of all deaths, and are the largest cause of premature death and hospitalization.[6]
- Risk factors for chronic disease are also problematic in Nova Scotia, with higher than national average rates of obesity, smoking and physical inactivity.
- In 2009 Statistics Canada reported that 36% of people aged 60 to 70 have two or more chronic diseases and 35% have one.

Deloitte agrees that the CCVF program continues to be relevant to DHW and DNS.

[5] *http://www.gov.ns.ca/ohp/cdip/*
[6] *Ibid.*

Program results

Question: To what extent is the program achieving its intended results:

a. Reduction in the number of visits per patient, per year
b. Patient satisfaction with the time spent with physicians
c. Program uptake
d. Fewer ER visits for complex patients
e. Physician satisfaction with the program, as currently constructed

a. Reduction in the number of visits per patient, per year

Analysis of data for patients for which the CCVF was claimed indicates that there has not been a reduction in the average number of visits per year. As the following table illustrates, the average number of visits per year has actually increased for both Fee For Service and APP physicians over the life of the program.

Table 17: Average number of visits per patient by physician payment method

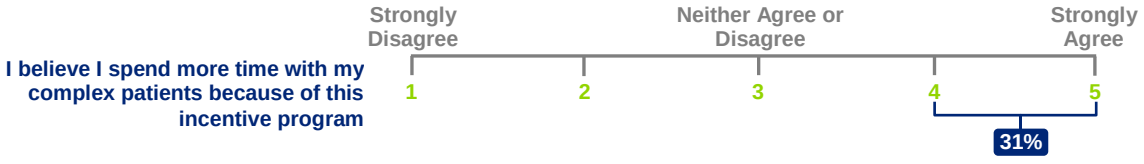
Calendar Year	2008	2009	2010	2011	2012
Fee For Service Physicians	9.3	9.5	10.5	9.9	9.8
Alternative Payment Plan Physicians	5.6	6.1	6.6	6.6	6.4

b. Patient satisfaction with the time spent with physicians

It was agreed that the evaluation team would not directly contact patients. In lieu of this, physicians were consulted regarding the amount of time they spend with their complex patients.

Physician focus group participants were asked their opinions regarding the amount of time spent with complex patients. It was generally agreed that physicians would have spent the same amount of time with complex patients regardless of the fee, and in many cases physicians reported needing to spend significantly more than 15 minutes with such patients in order to provide appropriate care.

Just under one third of survey respondents indicated that they spent more time with their complex patients due to the CCVF program.



c. Program uptake

An analysis of program uptake by DHA was performed to assess the use of the CCVF both regionally and at an aggregate level. The CCVF has generally been claimed more by physicians outside of DHA 9/IWK. Seven of the remaining eight DHAs have seen claim rates that are higher than their proportion of the physician population (the exception is DHA 6). Conversely, DHA 9/IWK, which represents almost 55% of the physician population, has received only 38% of total claims.

Year-over-year utilization of the CCVF has been modest, with a compound annual growth rate of 6%. Given the comparatively slow growth of the program so far, it would be reasonable to infer that modest growth will continue.

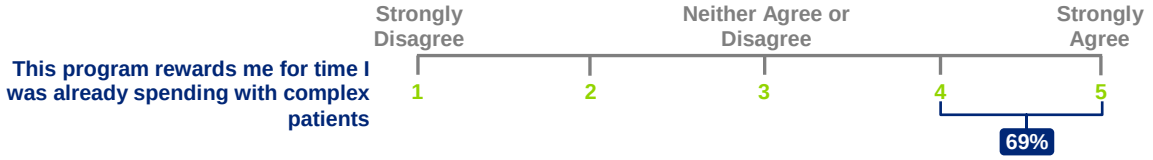
This DHA-level analysis also serves as a base for comparison to Ambulatory Care Sensitive Conditions (ACSCs) statistics as will be discussed in the following section.

d. Fewer ER visits for complex patients

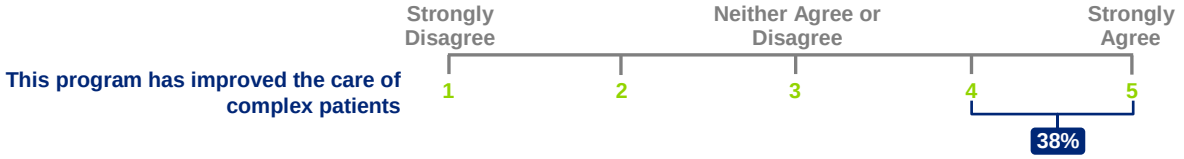
Data on ER visits was not available, thus we attempted to use a proxy for discrete patient ER visits, by examining Ambulatory Care Sensitive Conditions (ACSC) rates which are useful in determining access to effective primary care. ACSCs are conditions for which timely and effective outpatient care could reduce the risk of hospitalization through prevention, control of an acute episode, or management of a chronic condition. In essence, ACSCs are an indicator of timely access to primary care. Given that many of the conditions tracked by ACSC statistics qualify for the CCVF, it was reasonable to examine this as a measure of the impact of the program; however, we were unable to find a direct correlation between CCVF and ACSCs.

e. Physician satisfaction with the program, as currently constructed

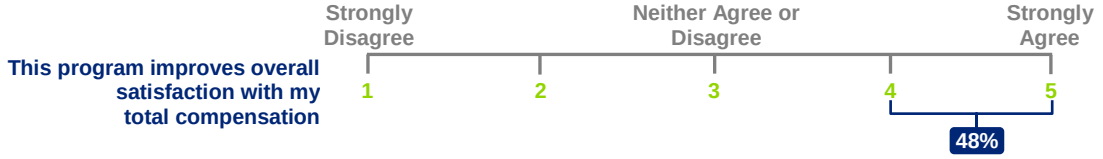
The CCVF program was generally well received by focus group participants. While many commented that they would spend more time with their complex patients anyway, physicians appreciated the fee as recognition of this added time required to provide appropriate care. The survey confirmed this statement with 69% of respondents agreeing with the opinion of the focus groups.



Physicians did not have a consistently positive view of the CCVF program. 38% of survey respondents believe that the program has had a positive impact on the care of complex patients. This corresponds with the fact that a majority of respondents felt that they were already spending an appropriate amount of time with their complex patients.



Regarding the amount of the payment, survey respondents had generally positive opinions. 48% agreed that the program improved their satisfaction with their overall compensation.



Criticisms of the CCVF generally involved the requirement to record start and finish times for the visit, despite the reasonableness of this requirement for a time-based service. Physicians also questioned the rationale of the specific eligible conditions, as well as the requirement that a patient have three or more eligible conditions. These sentiments were encompassed in the written comments provided by survey respondents:

- "I don't use this much because the reporting requirements are cumbersome and the amount paid is too low. The fee difference gets lost in the additional time I spend documenting the visit."
- "We can't bill it frequently enough and criteria are too restrictive."
- "I just don't think about it when I'm seeing the patients, and then later in the day when it occurs to me, I've already signed off the chart without documenting the in/out time, so it's too late."

Summary – Program results

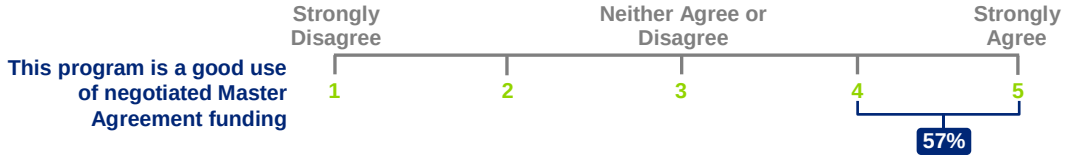
While physicians are generally satisfied with CCVF, the program did not succeed in reducing the number of patient visits per year. The program's other intended results, patient satisfaction and reduction in ER visits, were difficult to assess given lack of data. However, for the former item, physicians surveyed do not believe the program has had a positive impact on care for complex patients. Overall we conclude that, on the basis of available information, the program is marginally achieving its intended results as they were defined.

Cost effectiveness

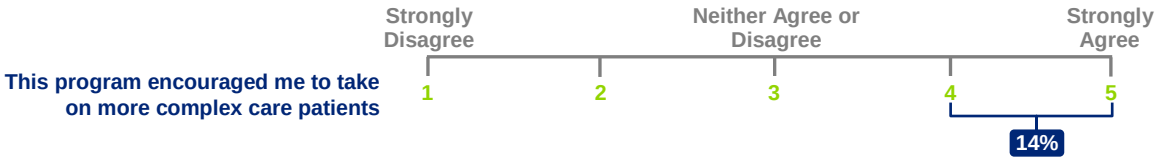
Question: Is this program as currently designed the most cost effective way to achieve the program's purpose?[7]

The CCVF program has been marginally cost effective as it has recognized the time spent by physicians treating complex patients by primarily rewarding existing behaviour and has not had success in encouraging physicians to spend more time with complex patients.

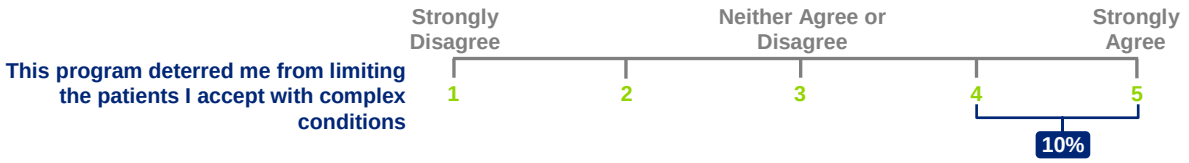
57% of physicians agree that the program is a good use of Master Agreement Funding.



However the program has been mostly rewarding existing behaviour (as noted previously, 69% of physicians agreed with a survey question that asked if it rewards them for time they were already spending with complex patients). An important element of the program was to encourage physicians to spend more time with complex patients and the program has had limited success doing do. Judging by responses to the physician survey the program does not appear to be encouraging physicians to take on more complex patients or in limiting the number of patients that physicians accept with complex conditions, both of which are elements of the program's purpose that have not been successfully addressed.



[7] *The criteria used to evaluate program cost effectiveness of each program can be found in Appendix A.*



Summary assessment – All criteria

Program	Strategic Alignment	Continued Relevance	Program Results	Cost Effectiveness
Complex Care Visit Fee (CCVF)	●	●	◔	◔

Improvement opportunities – CCVF

Question: How can this program be improved?

During the course of our review a number of improvement ideas were raised by stakeholders. We did not put forward all ideas received in our report and instead applied judgment to identify, as improvement opportunities, those that we believed had merit given our assessment. As well, we added improvement opportunities that resulted from our evaluation and were not recommended by any stakeholder.

Based on the priorities of DHW and DHAs, we believe there is a continuing need to provide evidence-based primary care to complex patients with multiple chronic illnesses. There are a number of areas of potential improvement, relating to baseline data, the scope of the program and billing restrictions. Expansion of the list of eligible conditions would fall under established processes and committees and we did not find the arguments for expansion compelling.

1. Baseline data should be gathered to assess performance

- Other jurisdictions that have implemented complex care incentives have established, to varying degrees, baseline data sets to facilitate assessing the performance of the program. We recommend that Nova Scotia establish a baseline for this program going forward.
  - Alberta bases its assessment of program performance on population health indices, utilization data from benchmark jurisdictions, a definition of the target population, and baseline expenditures.

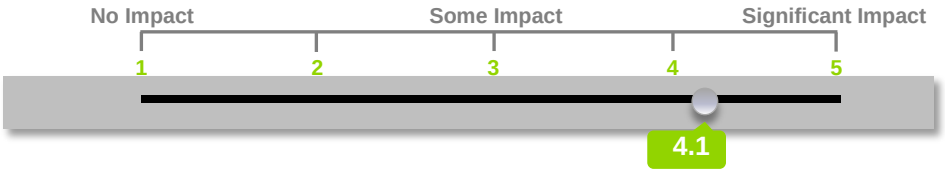
2. Program scope should reassess requirement for 3 eligible conditions

- Many of the eligible conditions for this program are complex; a patient with even 1 or 2 of these conditions often requires additional time from a GP. The nature of complex care is such that the number of conditions of an individual patient is less important than the time required to manage any one of them. If DHW and DNS wish to improve physician satisfaction with the program, and the recognition of physicians for added time spent with patients, it may consider relaxing the requirement that a patient have 3 qualifying conditions and enable a physician to make a claim for a patient that exhibits either 1 or 2 of the conditions.
  - Findings from the jurisdictional scan indicate that both Alberta and BC required a patient to exhibit only 2 conditions.
    - Alberta requires one of the following criteria to be met for a claim to be made: two diagnoses from Group A (HT, COPD, Asthma, DM, CHF, IHD) or one from group A and one or more from Group B (mental health issues, obesity with BMI definitions, addictions, tobacco use).
    - This arrangement was agreed upon to balance the need to address a range of complex conditions with the financial realities necessitating restrictions on eligibility. While many patients may have one of the conditions, two was deemed to be useful definition for the purposes of the program.

3. *Consider changes to the program's intended results and examine billing restrictions*

- One intended result of the program is that there will be a reduction in the number of GP visits per year of complex care patients as a result of this program. It should not be anticipated that complex patients will require fewer GP visits even with an incentive program. The average complex care patient in Nova Scotia sees a GP 9 times per year. Deloitte recommends that DNS and DHW remove this intended result of the program to reflect that complex patients will not necessarily visit their family physician fewer times per year as a result of CCVF visits
- Respondents to our physician survey recommended removing the restrictions on the number of times they can bill for this program each year.

Remove restrictions on number of times per year that the code may be billed per qualifying patient



- Deloitte acknowledges that the CCVF program was never intended to cover all visits of a complex patient as that patient will see their GP for more regular/routine visits during the year and the 4 visit figure was meant to estimate the number of visits where the GP will spend extra time on the complex conditions. BC pays the visit fee 4 times per year; however, the BC figure appears to be chosen to manage budgetary constraints more than to reflect the number of patient visits for which their complex care condition was treated. Deloitte recommends that DHW and DNS ascertain the number of patient visits for which the complex condition is managed by the physician and assess whether to increase the number of annual visits for which the physician can claim to a figure closer to this level to ensure the figure is reflective of the challenges of complex care patients, especially those with multiple complex conditions.

Evaluation of Chronic Disease Management Program (CDM)

Introduction

Purpose

The purpose of the Chronic Disease Management (CDM) program is to align with the objective of the government and DNS to advance guideline-based care, and to recognize the additional work of family physicians, beyond office visits, of ensuring guideline-based care is provided to patients with specific chronic diseases and to support more comprehensive management of chronic disease at the primary care level.

Eligibility and claims

Eligible family physicians are paid a base incentive annually for each patient they manage for one qualifying chronic disease. An additional incentive amount may be paid if the patient has an additional qualifying condition. In order to claim the CDM incentive, specific guidelines-based indicators must be addressed at a required frequency as part of the annual cycle of care. In addition the following conditions must be met to claim the incentive:

- The patient has been seen by the family physician claiming the CDM incentive in relation to their chronic disease(s) at least once during the fiscal year that the incentive is being claimed; and
- The patient has had at least one other appointment with the family physician or another licensed health-care provider (includes physicians) in relation to the chronic disease(s) in the previous 12 months; and
- A record supporting the CDM incentive claim must be kept either through the clinical record or the optional Chronic Disease Management Incentive Flow Sheet.

Fee-for-service physicians are paid when their claims are submitted. Family physicians on alternative payment plan contracts are paid by cheque every six months on aggregated shadow billings. The payment rates have changed since the start of the program. Originally, the payment rates and eligibility requirements were, respectively, set lower and higher than other provinces with similar programs to ensure the program would stay within its budgeted funding. Following the first year of claims, the payment rate was increased given confidence that the program's funding could support such an increase.

Program changes since inception

When the program was first introduced, eligible chronic conditions were diabetes mellitus and post-myocardial infarction up to five years. Since April 2010, the conditions eligible under CDM have been re-categorized as diabetes mellitus and ischaemic heart disease. In 2010, an additional $2M was allocated to the CDM program to support this expansion.

Program uptake

Program uptake data is displayed in tables 18 and 19. Some key points related to program uptake include:

- The number of physicians participating in the CDM program has increased year-over-year during the life of the program.
- Male and female physicians participate at rates that reflect the physician population.
- A total of 661 individual physicians made claims over the life of the program, representing 72% of the eligible GP population in the province.[8]
- On average, individual physicians made claims in three of the four years during which the program was in place.
- The maximum earned by an individual physician in a given year was $35,927 under the program.

Table 18: Physician uptake of CDM program by gender[9] (as measured by the number of physicians receiving payment)

	2009/10		2010/11		2011/12		2012/13	
Female	185	48%	228	48%	252	48%	266	49%
Male	198	52%	247	52%	273	52%	282	51%
Total	383	100%	475	100%	525	100%	548	100%

For any new program, it is difficult to predict the degree of uptake. However, it is fair to say that uptake for the CDM program has been below the expected level. With more physicians participating in the program each year, payments have increased annually. However, as shown in Table 19 that follows, while $14M was budgeted for the program for the first four years, less than $10M has been spent. Actual spending was below the budgeted level in each year. It is noted that actual program spending has been adjusted to account for recoveries resulting from program audits.

Given low uptake in the first year, and based on an examination of other jurisdictions with similar programs, incentive rates were doubled for subsequent years. Despite the higher incentive rate, actual expenditures continued to be well below the budgeted levels.

Table 19: CDM program budget/funding and expenditures by fiscal year

	2009/10	2010/11	2011/12	2012/13	Total
Budget/funding	$2,000,000	$4,000,000	$4,000,000	$4,000,000	$14,000,000
Actual program spend	$843,909	$2,621,876	$3,010,209	$3,293,493	$9,769,487
Variance from budget	($1,156,091)	($1,378,124)	($989,791)	($706,507)	($4,230,513)
Average $ per individual GP	$2,203	$5,520	$5,734	$6,010	$14,870
Max earned by an individual GP	$12,220	$30,804	$31,847	$35,927	$105,079

[8] *Eligible GPs are defined as those billing >$20,000 regardless of location of practice*
[9] *Ibid.*

Jurisdictional context

British Columbia was the only jurisdiction with a comparable program to Nova Scotia's CDM program. In addition to having 2 more eligible conditions for its CDM program than Nova Scotia, BC provides a higher payment to its physicians. However, BC also makes a flow sheet mandatory to be eligible for the claim. For the billing of the hypertension bonus payment it is mandatory to provide the patient with a copy of their flow sheet and for billing of the COPD incentive payment, there is no flow sheet, however it is mandatory to provide the patient with a copy of a jointly developed COPD patient action plan. A high level overview of both the BC and Nova Scotia programs is provided in the following table.

Table 20: Comparable programs to Chronic Disease Management Incentive Program

Province	Year of Inception	Payment Amount	Eligible Conditions and Requirements	Number of Patients Served in FY2011/12
British Columbia	2003	$125* per patient, per condition per year on all conditions except hypertension • $50 bonus payment for hypertension management if patient does not have a diagnosis of diabetes or congestive heart failure	• Diabetes mellitus • Congestive Heart Failure • COPD • Hypertension	• Diabetes: 184,158 • CHF: 23,607 • HT: 273,244 • COPD: 43,159
Nova Scotia	2009	$80 to manage first condition $40 for all other conditions	• Diabetes • Ischaemic heart disease	• Diabetes: 27,988 • Ischaemic heart disease: 6,561

Program evaluation

The CDM program was evaluated against the four criteria included in the evaluation framework developed for the program (included in Appendix A). For each evaluation criterion a rating was assessed using the following scale to denote the degree to which the program is delivering against each criterion on the basis of the evidence assembled as part of our review.

Legend					
	Does not satisfy evaluation criterion	Marginally satisfies evaluation criterion	Partially satisfies evaluation criterion	Mostly satisfies evaluation criterion	Completely satisfies evaluation criterion

Strategic alignment

Question: How does the purpose of the CDM program align with the documented strategic interests of DHW and DNS?

At the time the CDM program was conceived, the objective of the program aligned with interests identified in the September 2007 Strategic Interests document issued by the DNS/DOH/DHA Issues Steering Committee. Specifically, the CDM program aligned with Strategic Interest #2 relating to optimizing the physician role in primary health care. Chronic disease management was called out as a specific interest and the need was identified for providers to be "….*supported with the necessary resources and expertise to better assist their patients in managing their illness."*

The need for greater focus on chronic disease management was articulated in the January 30, 2008 document from the Nova Scotia Department of Health entitled, *Towards a New Master Agreement*. That document noted that chronic disease was consuming 60-70% of Nova Scotia's total health care spending and reinforced the need for ongoing primary care reform. Specifically, it identified the need to move away from the brief visit, acute care model to family practitioners also providing preventive care and chronic illness management.

DNS also identified "Implementation of new Chronic Disease Management (CDM) Incentives for specific disease entities to recognize the additional work, beyond office visit payments, of providing guidelines-based care to patients with certain chronic diseases" as an important documented negotiations priority for DNS based on input from their GP membership.

Continued relevance

Question: Does the purpose of the CDM program continue to be relevant to DHW and DNS?

Available evidence suggests that it continues to be relevant to have a physician incentive compensation program focused on more comprehensive management of chronic disease at the primary care level, given:

- It is clearly documented on the Government of Nova Scotia website that Nova Scotians continue to have higher than average mortality rates related to chronic disease than other Canadians.
- Chronic diseases cost the health system in Nova Scotia more than $3 billion each year.[10]
- In Nova Scotia, chronic diseases account for almost three-quarters of all deaths, and are the largest cause of premature death and hospitalization.[11]
- Risk factors for chronic disease are also problematic in Nova Scotia, with higher than national average rates of obesity, smoking and physical inactivity.

Program results

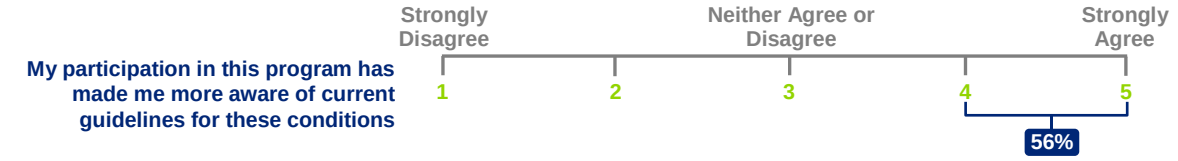
Question: To what extent is the program achieving its intended results:

a. **Consistent provision of guideline-based care across the province, according to program guidelines**
b. **Physicians managing chronic disease patients more actively**
c. **Physician satisfaction with the program, as currently constructed**

a. Consistent provision of guideline-based care across the province, according to program guidelines

Physicians claim the program has had a reasonable impact on their awareness of current guidelines. Survey results shown below indicate that 56% of respondents agree that their participation in the program has made them more aware of current guidelines for eligible conditions.

[10] *http://www.gov.ns.ca/ohp/cdip/*
[11] *Ibid.*

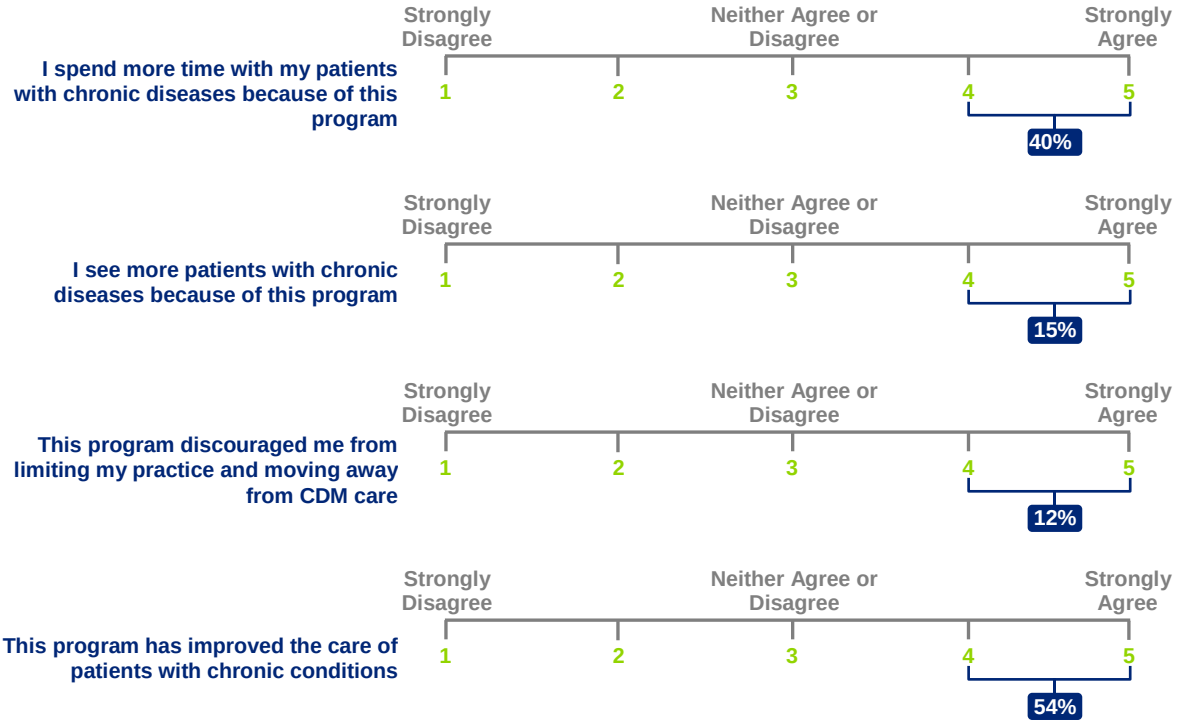


It was difficult to assess consistent provision of guideline based care for eligible conditions because the use of the Chronic Disease Management Incentive Flow Sheet was optional thus many physicians chose not to use it. We attempted to look at MSI audit findings from 35 audits conducted since 2011/12. It is acknowledged that the impetus for the audits was due to payment irregularities and not related to physician adherence to guideline based care. During its audits MSI found it challenging to confirm that specific guidelines-based indicators are being addressed at the required frequency as part of the annual cycle of care and the MSI auditor noted that some physicians claim for every patient with the eligible condition, whether or not the guidelines are being followed. The audit results raise the concern that there may not be consistent provision of guideline-based care occurring across the province.

In summary, it is difficult to assess where the CDM program has resulted in consistent provision of guideline based care across the province.

b. Physicians managing chronic disease patients more actively

Physicians were asked a number of questions in the survey to assess whether they are managing chronic disease patients more actively. As can be seen from the results below, physicians were honest in admitting that, for the most part, they are not doing things differently because of the program. 40% of physicians say they are spending more time with their patients with chronic disease because of the program; only 15% say they see more patients with chronic disease; and only 12% said the program discouraged them from limiting their practice and moving away from CDM care. That said, 54% said the program has improved the care of patients with chronic conditions.

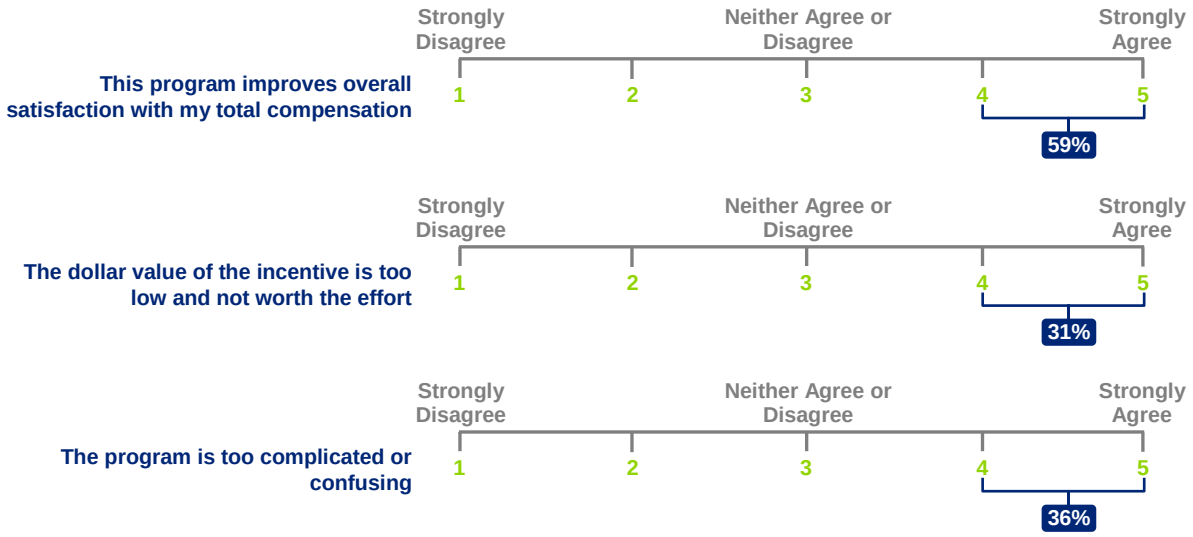


One could make an argument that more active management of chronic disease patients should result in fewer hospitalizations caused by Ambulatory Care Sensitive Conditions (ACSC). In Nova Scotia, the Department of Health and Wellness has measured ACSCs, by DHA and by facility, that are aligned with the CDM program (and other programs). When ACSC rates were examined, by DHA, over the life of the CDM program we note a reduction in ACSC rates in most DHAs, most notably in DHA 4 and the IWK.

When we overlay uptake of the CDM program by DHA, we do not observe a correlation; i.e., DHAs that were heavier users of CDM (DHAs 4 and 8) did not experience a greater reduction in ACSCs.

Physician satisfaction with the program, as currently constructed

Physicians are reasonably satisfied with the program. 59% of survey respondents say the program improves their overall satisfaction with total compensation. Just under a third of respondents say the incentive is too low. However, just over one third of respondents agree that the program is complicated or confusing.



Some physicians responding to the survey were highly satisfied and strongly supportive of the program. We note the following quotes:

- "A great idea and a move in the right direction, as our aging patients have increasing co-morbidities and complex management"
- "The best incentive program so far"
- "A difficult experience is improving"
- "I think it does encourage family doctors to practice better quality chronic care management"

Summary – Program results

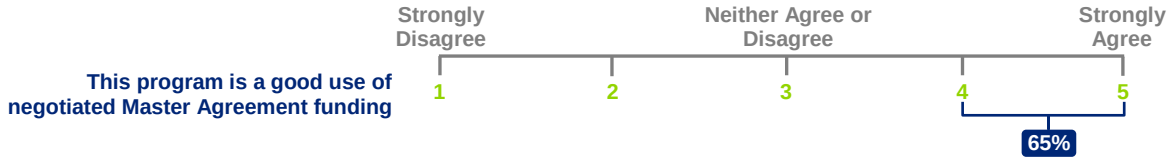
While physicians are reasonably satisfied with the program, there is little evidence that CDM achieved its intended results with respect to consistent provision of guideline based care or managing chronic patients, however just over half of physicians indicated that the program made them more aware of current guidelines for care.

Cost effectiveness

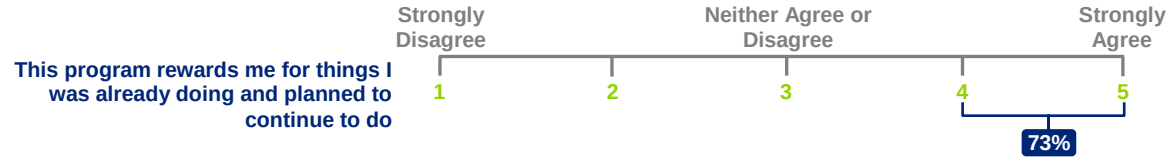
Question: Is this program as currently designed the most cost effective way to achieve the program's purpose? [12]

Most physicians (65%) agree that the CDM incentive program is a good use of negotiated Master Agreement funding and compared to the other programs only EMR and CCIP have higher scores for this question.

[12] *The criteria used to evaluate program cost effectiveness for each program can be found in Appendix A.*



There was strong agreement that the program rewards physicians for things they were already doing and planned to continue doing. 73% of survey respondents agreed with that statement.



Recognizing physicians for work that they are already doing was part of the program's purpose, however given we cannot conclude that other elements of the program's purpose were achieved we cannot conclude that spending on CDM was the most effective way to achieve the program's purpose.

Summary assessment – All criteria

Program	Strategic Alignment	Continued Relevance	Program Results	Cost Effectiveness
Chronic Disease Management Program (CDM)	●	●	◔	◑

Improvement opportunities

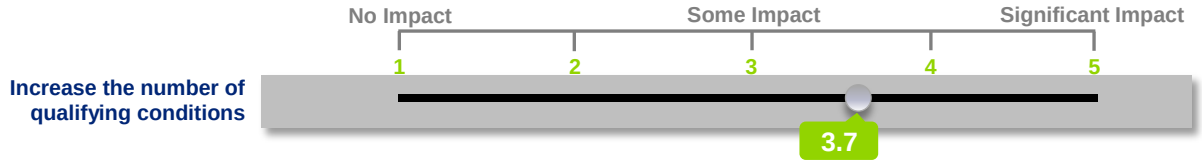
Question: How can this program be improved?

During the course of our review a number of improvement ideas were raised by stakeholders. We did not put forward all ideas received in our report and instead applied judgment to identify as improvement opportunities those that we believed had merit given our assessment. As well we added improvement opportunities that resulted from our evaluation and were not recommended by any engaged stakeholder.

Based on the priorities of the Department of Health and Wellness, we believe there is a continuing need for an incentive program focused on chronic disease management. The merits of the program are clearly defensible and efforts to enhance it are supportable. The following suggested improvements would expand the uptake and results achieved from the CDM program:

1. Increase the number of qualifying conditions

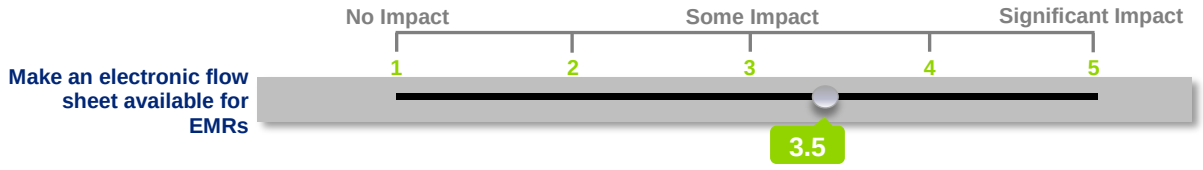
- During focus groups throughout the province, physicians suggested expanding the list of qualifying conditions. This was confirmed in the survey, where physicians felt that increasing the number of qualifying conditions would have a positive impact.



- Specifically, physicians recommended that the list of qualifying conditions be expanded to include COPD, congestive heart failure, depression, anxiety, and dementia.
  - British Columbia maintains a registry of chronic diseases in order to assess performance of its Chronic Disease Management program. Maintaining similar records would assist in managing the expansion of the program to include other conditions.
- Deloitte recommends that:
  - The list of qualifying conditions be expanded in recognition that there are chronic diseases outside the current program scope that require attention in order to deliver on the program's purpose to support more comprehensive management of chronic disease at the primary care level.
  - Consideration should be given to having the CDM program incent the principles of good chronic disease management such as patient education and patient action plans tied to clinical practice guidelines).

2. Make CDM flow sheet mandatory and integrated into EMRs

- Experience in other jurisdictions would suggest that use of the Chronic Disease Management Incentive Flow Sheet should be mandatory. Many stakeholders in Nova Scotia, with the exception of some physicians, made the same recommendation.
- A scan of peer jurisdictions reveals that British Columbia requires the use of a flow sheet in order to make a claim under the program.
- Deloitte recommends that the use of the CDM flow sheet be mandatory. Further, the flow sheet should be integrated into EMRs. This will help address the issue of program complexity, will support the goal of consistent use of guidelines, and will simplify the audit process. According to the physician survey, most physicians believe that making an electronic flow sheet available for EMRs would have a positive impact.



Evaluation of Long-Term Care Clinical Geriatric Assessment Program (CGA)

Introduction

Purpose

The purpose of the Long Term Care Clinical Geriatric Assessment (CGA) program is to enhance the assessment, management, and care of nursing home residents in long-term care facilities.

Eligibility and claims

Since January 1, 2011, family physicians have been remunerated through a new fee (HSC CGA1, cat DEFT, paid at 26.32 MSUs or $60 in 2010/11) for the completion of the CGA for residents of provincially licensed nursing homes and residential care facilities. The specific billing rules are as follows:

- The CGA may be billed twice per fiscal year, per resident. The initial CGA is recommended to be completed as soon as possible following Nursing Home or RCF admission, once the physician and clinical team have had time to become familiar with the resident/patient.
- The CGA is normally completed through a collaborative team process involving the family physician and other licensed long-term care healthcare providers. The physician claiming the manner the medication section, and providing the final overall opinion of the frailty level of the resident once the other disciplines have completed their assessment. Other sections of the CGA may be completed by the physician or by other licensed healthcare providers.
- The CGA requires one direct service encounter with the resident by the physician on the date of the final completion and signing of the CGA. This service encounter is included in the CGA fee.
- The CGA evaluation process may involve additional service encounters (visits) which would be paid separately from the CGA per the preamble requirements. The dates of all physician service encounters associated with the completion of the CGA must be tracked on the CGA form.
- Prior to claiming the CGA fee, the physician must review, complete and sign the CGA form in the long-term care facility on the date of the final CGA service encounter and place a note in the resident's clinical record (progress notes) corroborating that the CGA has been completed.
- The date of service is the date when the final CGA service encounter occurs and the CGA form is completed and signed by the physician.
- The CGA fee is billable by eligible fee-for service physicians and by eligible APP contract physicians, based on shadow billings.

Fee-for-service physicians are paid for the CGA through the submission of claims. Family physicians on alternative payment plan contracts are paid by cheque every six months based on the aggregated shadow billings.

The CGA program is an evidence-based clinical process that supports and encourages interdisciplinary input to best assess and review the complexity of the patient. The CGA form itself is simply a mandatory tool to help facilitate this process. Information about the CGA program and the CGA form has been provided to long-term care facilities by Health Association of Nova Scotia to encourage uptake and participation by physicians and nursing homes.

Program uptake

The CGA program was approved in January (Quarter 4) of the 2010/11 fiscal year, and the fee was introduced on April 1, 2011; therefore results from 2010/11 are significantly lower than subsequent years. Some key points related to program uptake include:

- The number of physicians participating in the CGA program has been virtually static for the two full years it has been in place.
- ~60% of physicians participating in the program are male (male physicians represent approximately 53% of the NS physician population).
- A total of 170 individual physicians made claims over the life of the program, representing 19% of eligible GPs in the province.[13]
- The maximum received by an individual physician in a given year was over $24,000 under the program, while the average earned per GP was approximately $2,000.

Table 21: Physician profile - CGA program uptake

Program Uptake	2010/11	2011/12	2012/13
Female GPs	13	47	54
Male GPs	20	78	76
Unknown	--	1	--
Total GPs	33	125	130
Average Age	54	53	53
Average Years of Practice	21	22	22
Average $ per individual GP	$1,121	$2,199	$1,982
Max earned by GP	$6,541	$19,797	$24,668

It is difficult to estimate uptake for any new program; however, it is fair to say that uptake for the CGA program has been below expectations, demonstrated by program spending at approximately 50% of the budgeted amount each year as shown in Table 22.

Table 22: CGA program budget/funding and expenditures by fiscal year

	2010/11*	2011/12	2012/13	Total
Budget/funding	$150,000	$700,000	$700,000	$1,550,000
Actual program spending	$34,746	$270,493	$255,719	$560,958
Variance from budget	($115,254)	($429,507)	($444,281)	($989,042)

** 2010/11 figures are for three months only.*

[13] *Eligible GPs are defined as those billing >$20,000 regardless of location of practice*

When examining uptake by DHA against the percentage of physicians practising within each DHA, it could be expected to see a correlation, such that DHAs with more physicians would be expected to have a greater uptake. For the most part, DHAs are utilizing the program as expected, except for CBDHA whose uptake is significantly below what one would expect when considering the number of physicians in the DHA. Many stakeholders felt that the CGA program was primarily a CDHA program, which is somewhat supported by the data. CDHA accounts for 57% of program payments, and it represents 48% of all practising physicians in the province. However, it should be noted that the CGA program was most extensively promoted and supported in CDHA given the CDHA's Care by Design program.

Table 23: Physician payments by DHA

DHA	2010/11	2011/12	2012/13	Total	Percent of Total CGA Funds Paid
1. South Shore Health		$12,471	$9,098	$21,569	3.6%
2. SouthWest Health	$720	$14,348	$12,578	$27,646	4.9%
3. Annapolis Valley Health	$6,721	$44,194	$35,232	$86,147	13.8%
4. Colchester East Hants Health Authority	$660	$13,743	$18,684	$33,087	7.3%
5. Cumberland Health Authority	$780	$15,861	$17,585	$34,227	6.9%
6. Pictou County Health Authority	--	$4,722	$6,411	$11,133	2.5%
7. Guysborough Antigonish Strait Health Authority	--	$4,843	$4,702	$9,545	1.8%
8. Cape Breton District Health Authority	--	$16,649	$4,030	$20,678	1.6%
9. Capital District Health Authority	$25,864	$141,785	$146,788	$314,437	57.4%
Unspecified	--	$1,877	$611	$2,487	0.2%
Total	$34,746	$270,493	$255,719	$560,958	100%

** Based on a total number of 918 eligible GPs in the province*

Jurisdictional context

Alberta was the only jurisdiction with a comparable program to Nova Scotia's CGA program. The Alberta incentive pays $300 for an initial assessment visit and follow-up visits and/or phone calls with the patient may be billed separately, subject to a cap of seven consultations with the patient. The following table provides a high-level overview of the program in comparison to the CGA.

Table 24: Comparable Programs to Chronic Disease Management Incentive Program

Province	Year of Inception	Payment Amount	Eligible Conditions and Requirements	Number of Patients Served in FY2011/12
Alberta	2009	• $300 for first full 90 minute visit	• May only be claimed when performed in a regional facility • May only be claimed for patients aged 75 years or older • May only be claimed by general practitioners, internal medicine specialists or geriatric medicine specialists • May only be claimed once per patient per year; • Each subsequent 15 minutes, or major portion thereof, may be claimed at the rate specified on the Price List, to a maximum of 7 calls • Assessment must include the following components: a) Medical includes but is not limited to a complete physical examination, a problem list, co morbidity conditions and disease severity, a medication review and nutritional status b) Functional includes but is not limited to a review of basic activities of daily living, instrumental activities of daily living, activity/exercise status, gait and balance c) Cognitive/psychological includes but is not limited to review of mental status, administration of the Mini Mental State Examination (MMSE) and mood/depression testing through Geriatric Depression Scale (GDS) d) Social includes but is not limited to a review of informal support needs and assets, care resource eligibility and a financial assessment e) Environmental includes but is not limited to a review of current living situation, home safety and transportation Evidence that all components were completed must be documented in the patient's records. This includes physician notes and copies of the MMSE and GDS.	• 2,317
Nova Scotia	2010	• 26.32 MSUs or $60 in 2010/11	a) Intended to improve the assessment, management and care of nursing home residents b) Evidence based process, which includes at least one patient visit and completion of the mandatory CGA form, gives a point-in-time assessment of the medical, functional and psychosocial needs of the resident c) The CGA is normally carried out through a collaborative team process involving the family physician and other licensed long-term care healthcare providers involved in the resident's care d) The physician is directly responsible for completing the medication list, diagnostic categories, cognition, emotional, behaviors, and provides the final overall opinion of the frailty level of the resident once the other disciplines have completed their assessments e) The CGA form should be near the front of every nursing home chart and serve as the lead clinical document that will travel with the resident when a transfer (ER, other facility, etc.) occurs f) The CGA may be billed twice per fiscal year, per resident, initial CGA should be completed when the resident admitted and the physician becomes familiar with the resident g) Fee for service physicians are paid for the CGA when their claims are submitted h) Family physicians on alternative payment plan contracts are paid by cheque every six months based on their aggregated shadow billings	• 4,468

Program evaluation

The CGA program was evaluated against the four criteria included in the evaluation framework developed for the program (included in Appendix A). For each evaluation criterion a rating was assessed using the following scale to denote the degree to which the program is delivering against each criterion on the basis of the evidence assembled as part of our review.

Legend					
	Does not satisfy evaluation criterion	Marginally satisfies evaluation criterion	Partially satisfies evaluation criterion	Mostly satisfies evaluation criterion	Completely satisfies evaluation criterion

Strategic alignment

Question: How does the purpose of this program align with the documented strategic interests of DHW and DNS? 

At the time the CGA program was conceived, the purpose of the program was aligned with interests of DHW and DNS as evidenced by:

- The September 2007 Strategic Interests document issued by the DNS/DOH/DHA Issues Steering Committee. Specifically, the CGA program aligned with Strategic Interest #2 relating to optimizing the physician role in primary health care. Specifically:

  > *'Primary Health Care is defined as a full range of health promotion, community and facility-based care that is provided by an interdependent group of health care professionals who have a shared responsibility for health outcomes. Key components of this strategic interest are system redesign and facilitation of delivery teams and care networks'.*

Continued relevance

Question: Does the purpose of the Long-Term CGA program continue to be relevant to DHW and DNS? 

Available evidence suggests that it continues to be relevant to have a physician incentive program focused on geriatrics. In the January 30, 2008 document from the Nova Scotia Department of Health entitled, *Towards a New Master Agreement* the authors noted that:

- 'Atlantic Canada has a relatively higher proportion of elderly than the rest of Canada. In 1996 those over 65 years of age accounted for 13.1% of the population. In 2006 this increased to 15.1%. In 15 years this population cohort is expected to make up over 23% of the Nova Scotia population. In general, age and health care spending are directly proportionate. Health care costs for those over the age of 85, for example, are 15 times higher than for those less than 65 years of age'.
- 'Health status in Nova Scotia has not improved over the past decade and the Province continues to compare less than favourably with the rest of Canada.'

Provincial demographics remain similar, today, to when this document was published and, as such, improved geriatric care will continue to be relevant to both DHW and DNS.

Program results

Question: To what extent is the program achieving the intended results:

a. Service providers across the province feel that the CGA enables a more collaborative approach to patient care
b. Creation of a baseline of patient frailty levels via completed CGAs
c. Use of CGA as a clinical tool by other service providers
d. Nursing home satisfaction with program
e. Physician satisfaction with the program, as currently constructed

a. Service providers across the province feel that the CGA enables a more collaborative approach to patient care

Service providers, as well as physicians contacted as part of this work, believe that the CGA program and the CGA form enable a more collaborative approach to patient care. Deloitte held focus groups with the following groups to gauge their views on this item.

- Representatives from long-term care facilities across the province.
- The Provincial Council of District Medical Directors of Continuing Care.
- Physician focus groups in each DHA.

There was confusion in many circles surrounding the number of forms and apparent competing policies and priorities in long-term care facilities; it was felt that this backdrop may be limiting the CGA program's ability to enhance a collaborative approach to patient care.

b. Creation of a baseline of patient frailty index via completed CGAs

The CGA program enables creation of a baseline patient frailty index, which was acknowledged by all parties engaged during the review. The number of completed CGA forms, the actual program funding falling short of budget each year, and feedback from many long-term care facilities and physicians that the program suffers from a lack of awareness and usage, suggest that the program has fallen short of this intended result.

c. Use of CGA as a clinical tool by other service providers

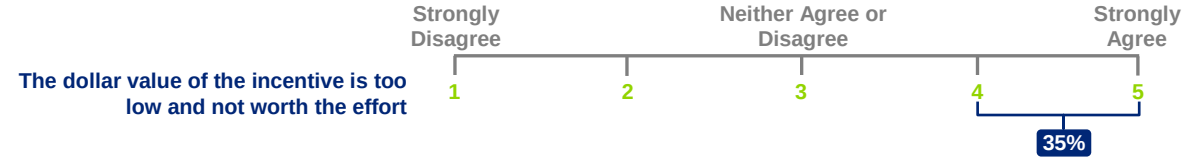
Representatives from many long-term care facilities indicated that much of the information contained in the CGA form is found in other places (profile sheets, ADLs, etc.) and, as such, they relied on other sources for clinical information on patients. In addition, they indicated that provincial policy dictated that they use other tools, such as the NS Provincial Discharge/Transfer Tool, for ER and facility transfers, which resulted in less reliance and usage of the CGA form. It is acknowledged that experiences shared in the focus groups may not be representative of all long-term care facilities in the province; as such, it was difficult to assess this intended result during the course of our review.

d. Nursing home satisfaction with program

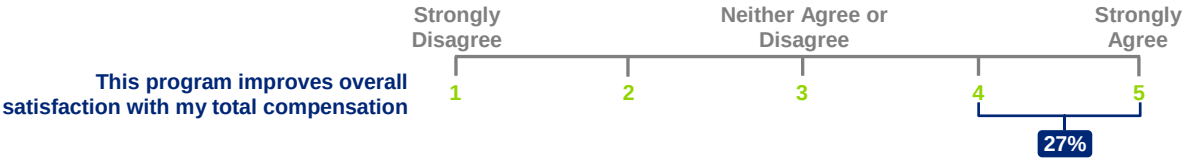
Representatives of long-term care facilities who attended our focus group approved of the CGA form and were supportive of the program's purpose. They felt the form was straightforward, easy to use, and was not onerous to complete. They did, however, voice frustration at physician engagement with the program. Many reported slow uptake due to lack of physician interest in the program, and felt that, in cases where the physician does complete the CGA form, the physician does not refer to the form on a regular basis.

e. Physician satisfaction with the program, as currently constructed

By and large, focus group physicians were supportive of the program's purpose and with the merits of the CGA form, despite many learning about the program for the first time during the sessions. Any dissatisfaction was aimed at poor engagement and awareness of staff at long-term care facilities and with the payment amount. Many felt that the payment amount for the program was too low given the time required to complete the form and the time to travel to/from long-term facilities for a patient appointment. Survey results support the latter point.



Judging by survey responses, physicians are not satisfied with the program as a means of compensation. Just over one-quarter of physicians agreed that the program improves their overall satisfaction with total compensation.



Summary – Program results

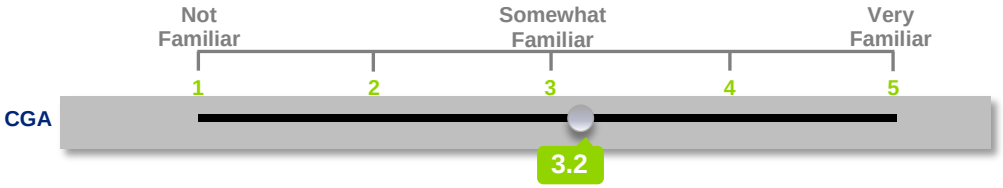
Overall, achievement of the CGA program's intended results was deemed inconsistent. Service providers feel that, in and of itself, the program is set up to enable a collaborative approach to patient care, albeit there is room for improvement in the program's execution (evidenced by lower than expected program take-up and awareness, as well as its usage as a clinical tool by both physicians and other services providers). Satisfaction of both physicians and staff at long-term care facilities was good; however, each group voiced dissatisfaction around the other's engagement in the program. Physicians also felt that payment amounts were too low. It was difficult to assess how widespread the CGA form was being used as a tool by other service providers; however, feedback suggests that there is room for improvement in this area given overlap and confusion surrounding existing forms, tools, and policies pertaining to residents of long-term care facilities which has resulted in limited usage of the form.

Cost effectiveness

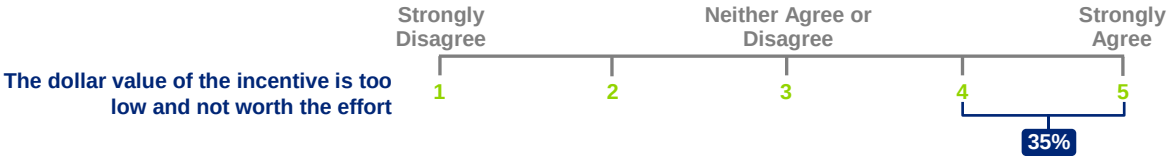
Question: Is this program as currently designed the most cost effective way to achieve the program's purpose? [14]

Relative to the eight programs under review, the CGA program was considered by many physicians to be one of the least appropriate uses of Master Agreement funding as measured by the following survey question. The Unattached Patient program was the only program with a lower score on this survey question.

[14] *The criteria used to evaluate program cost effectiveness for each program can be found in Appendix A.*



35% of physicians either agreed or strongly agreed with a survey question that asked whether the dollar value of the incentive is too low and not worth the effort, suggesting that the payment level is appropriate for the effort expended by physicians.



Although the majority of respondents did not feel the program was a good use of funding this is likely due to the fact that many do not have patients in long-term care facilities and would prefer a program for which they were eligible to receive payment. Judging by survey responses, and with comments made during stakeholder engagement, this program appears to be structured in a cost effective way so as to achieve its purpose. In addition we also heard much about this program driving reductions in ER visits for residents of long-term care facilities as well as shifts in prescription habits. While we did not review evidence to support these items, any degree of reduction in either case would strengthen the cost effectiveness of the program given its contribution to reducing overall costs to the system.

Summary assessment – All criteria

Program	Strategic Alignment	Continued Relevance	Program Results	Cost Effectiveness
Clinical Geriatric Assessment (CGA)	●	●	◑	◑

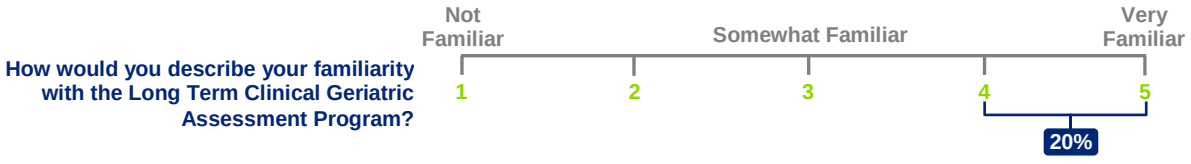
Improvement opportunities

Question: How can this program be improved?

During the course of our review, a number of improvement ideas were raised by stakeholders. We did not put forward all ideas received in our report and instead applied judgment to identify as improvement opportunities those that we believed had merit given our assessment. As well, we added improvement opportunities that resulted from our evaluation and were not recommended by any stakeholder.

1. Enhance engagement and awareness with both physicians and long-term care facilities

- Despite a number of efforts by DNS and DHW to promote the CGA to physicians, 80% of survey respondents indicated they were only somewhat or not very familiar with the program, consistent with feedback from the focus group participants. This made the CGA program one of the least familiar to physicians of all programs; particularly those outside of CDHA.



- Many physicians attending the focus groups were hearing about the program for the first time, and virtually all were supportive of the concept and the notion of funding directed to geriatrics. As a result, enhanced awareness could have a significant impact on program uptake.
- Similarly, representatives from many of long-term care facilities engaged as part of this review acknowledged that many of their staff are unfamiliar with the CGA form and do not rely upon it as a clinical tool.

2. Clarify, and make more specific, both information and direction on this program

- Many physicians attending the focus groups felt that the information contained within the MSI bulletin on this program has been confusing. A number commented that the information is unclear to the point that they would not risk involvement for fear of misinterpreting and becoming subject to an MSI audit. Strengthening and clarifying existing information on this program could drive improved uptake.

3. Examine all policies, programs and forms applicable to residents of long-term care facilities to reduce overlap and ensure alignment

- There appear to be a number of current forms, policies and/or programs applicable to residents of long-term care facilities that may together be creating confusion and contributing to the low take-up and usage of the CGA form, given overlap or conflicting direction among them. Some examples include:
  - We were told that DHW policy is to use the NS Provincial Discharge/Transfer tool when moving a resident from a facility so staff often do not rely on the CGA form
  - We were told that much of the information on the CGA form (ADLs, etc.) exists in other forms/places so staff at long-term facilities often rely on other sources instead of the CGA form.
- It may be worthwhile for DNS and DHW to examine the above items, and any other programs impacting residents of long-term care facilities, in an effort to reduce any overlap and to ensure that current policies in this area do not conflict.

4. Expanding patient reach beyond those in long-term care facilities

- DHW/DHS should consider expanding the program beyond those in long-term care facilities. There are many individuals in the province that, while not living in long-term care facilities, would benefit from frailty assessments or additional care from physicians, given the financial burden that elderly patients place on the health care system. Frailty indices are of equal importance in the office care of the growing cohort of elderly patients.
- This program stands out from most of the others in terms of untapped potential given the costs of geriatric care to the system. Incentivizing GPs to address geriatric patients is important, to encourage both new and seasoned GPs to practice in this area. Adding an additional program focused on geriatrics or increasing funding and support for this program is recommended to allow more of Nova Scotia's senior population to be served.

Evaluation of Electronic Medical Records Incentive Program (EMR)

Introduction

Purpose

The purpose of the Master Agreement Electronic Medical Records Incentive Program is to increase EMR adoption and usage.

- Note that there is separate incentive funding for EMRs under the Primary Healthcare Information Management (PHIM)/Nightingale program. Although the scope of this review does not pertain to the PHIM program or its funding, it is noted that the 2 programs were not aligned and therefore caused some confusion for physicians. The Master Agreement EMR Incentive Program supports physicians who use any EMR solution (that meets certain specifications), while the PHIM/Nightingale program only supports physicians who implemented the PHIM/Nightingale solution. It should be noted that the metrics in this analysis include all EMR solution adoptees.
- The scope of this initiative did not include an in-depth assessment or evaluation of any aspect of the EMR program (i.e. quality of EMR solutions, training or support), other than the financial Incentive Program.

Grants available within the program

Three payment envelopes exist within the Master Agreement EMR program, and physicians are eligible to receive payment from each envelope provided they meet a set of eligibility requirements distinct to each:

- **EMR Investment Grant (Envelope A):** a one-time payment of $5,300 to assist physicians with out-of-pocket implementation costs to adopt an EMR system.
- **EMR Participation Grant (Envelope B):** an annual physician-specific amount of $2,000 intended to help offset investments in both time and effort by physicians in educational and peer support activities that promote continued growth and adoption of EMR functionality.
- **EMR Utilization Grant (Envelope C):** a payment amount that is determined annually based on available funds and self-reported utilization survey results to encourage and recognize physicians financially for the extent of their efforts in the use of an eligible EMR in their practice.

Once the EMR Investment and Participation Grant (Envelopes A and B) payments are determined each year, the remaining program funding is allocated out to qualifying physicians via a Utilization Grant (Envelope C).

Program changes since inception

While the EMR Investment and Participation Grants (Envelopes A and B) were effective March 31st and April 1st 2008 respectively, the EMR Utilization Grant (Envelope C) was not introduced until April 1st 2009.

Program uptake

Some key points related to program uptake, as summarized in the tables below, include:

- A total of 816 individual physicians made claims over the life of the program (633 GPs and 183 Specialists).
- The number of physicians receiving payment from the program has increased year-over-year during the life of the program at a compound annual growth rate of 17%.
- Male and female physicians participate at rates that reflect the physician population.
- The average age of participating physicians at 48 was 3 years lower for EMR than the average age of the physician population.
- Individual physicians earned an average of $6,272/year under the program.
- The maximum claimed over the life of the program by an individual physician was $42,235.

Table 25: Uptake statistics – all envelopes

	2008/09	2009/10	2010/11	2011/12	2012/13
Physicians receiving payment (GPs and Specialists)	381	574	507	615	707
Average Age	49	47	46	48	49
Average Years of Practice	20	19	16	17	16
Average $ per individual GP	$3,826	$4,982	$8,959	$7,418	$6,234
Max earned by individual physician	$7,300	$13,520	$17,177	$14,970	$12,217

Spending on the EMR program has been close to each year's budget/funding, with any variances relating to small timing differences, given all program funding is paid out to physicians each year. Envelope A spending has generally been declining since 2008-09, with a CAGR of -2%. Payments from Envelopes B and C have increased over the life of the program by 14% and 17% respectively.

Table 26: Payments to physicians by envelope

Envelope	2008/09	2009/10	2010/11	2011/12	2012/13	CAGR
A	$726,100	$460,450	$576,240	$686,350	$675,750	(2%)
B	$731,583	$878,000	$924,000	$1,134,000	$1,216,000	14%
C	$0.00	$1,521,504	$3,041,771	$2,741,845	$2,465,850	17%
Contingency for Appeals					$50,000	--
Total	**$1,457,683**	**$2,859,954**	**$4,542,011**	**$4,562,195**	**$4,407,600**	32%

Table 27: EMR program budget/funding and expenditures by fiscal year

All Envelopes	2008/09	2009/10	2010/11	2011/12	2012/13	Total
Actual program spend	$1,457,683	$2,859,954	$4,542,011	$4,562,195	$4,407,600	$17,829,443
Budget/ funding	$1,500,000	$3,000,000	$4,500,000	$4,500,000	$4,500,000	$18,000,000
Variance from budget	($42,317)	($140,046)	$42,011$	$62,195	($92,400)	($170,557)

In terms of the average payment received by physicians, while Envelopes A and B are set amounts, payments from Envelope C may vary year to year as they are paid as an allocation of remaining budget after Envelope A and B payments are made. The average payment from Envelope C peaked in 2010-11, and has since been declining. This is mainly attributable to an increase in the number of physicians qualifying for Envelope C payments.

Table 28: Envelope C payments by year

2009/10	2010/11	2011/12	2012/13
$4,800	$7,548	$5,233	$3,984

Jurisdictional context

Several provinces have similar incentive programs to encourage EMR adoption and usage. Table 29 provides a brief overview of uptake that other provinces have achieved using various funding formulas including capped or maximum reimbursements. Each of the provinces surveyed surpassed Nova Scotia's EMR adoption rates.

Table 29: Uptake of EMRs by province[15]

Province	GPs	Specialists	Total
British Columbia*	--	--	80%
Alberta	80%	67%	75%
Saskatchewan*	--	--	63%
Manitoba**	72%	52%	65%
Nova Scotia***	55%	27%	45%

** BC and Saskatchewan did not provide a breakdown of uptake by specialty.*
*** Manitoba did not provide physician counts to calculate total uptake percentage.*
**** The potential target population for the EMR incentive program is been based on a number of data sources. DNS and DHW staff agreed that the potential population is 1,000 family practitioners and 590 specialists.*

[15] *Ibid.*

Program evaluation

The EMR program was evaluated against the four criteria included in the evaluation framework developed for the program (included in Appendix A). For each evaluation criteria a rating was assessed using the following scale to denote the degree to which the program is delivering against each criterion on the basis of the evidence assembled as part of our review.

Legend					
	Does not satisfy evaluation criterion	Marginally satisfies evaluation criterion	Partially satisfies evaluation criterion	Mostly satisfies evaluation criterion	Completely satisfies evaluation criterion

Strategic alignment

Question: How does the purpose of this program align with the documented strategic interests of DHW and DNS? 

At the time the EMR program was conceived, the purpose of the program was aligned with interests of DHW and DNS as evidenced by:

> The September 2007 Strategic Interests document issued by the DNS/DOH/DHA Issues Steering Committee. Specifically, the EMR program aligned with Strategic Interests 4 and 5 surrounding …*'the provision of practice supports to deliver operational, functional and economic efficiencies as well as system wide use of information management & technology to facilitate health care provision and infrastructure management.*'

Continued relevance

Question: Does the purpose of the Master Agreement EMR Incentive Program continue to be relevant to DHW and DNS? 

Available evidence suggests that it continues to be relevant to have a physician incentive compensation program focused on EMRs.

- DNS's current strategic plan has a strategic priority that includes supporting physicians with EMR adoption so that 'the majority of our members are using EMRs in the delivery of health care'
- A focus on targeted adoption for specialists and towards increased EMR utilization for all physicians in future years may be warranted given that many DHW stakeholders who were interviewed as part of this review indicated that while increasing EMR adoption was still an objective of DHW, in future years additional focus should be given to EMR utilization and inter-operability

Nova Scotia is still lagging compared to EMR adoption in other Canadian jurisdictions, particularly among specialists, although given that the province has experienced a material increase in the number of physicians adopting EMRs over the last five years, previous levels of funding set aside for adoption may not be required going forward.

Program results

Question: To what extent is the incentive program achieving the intended results:

a. Achieve the agreed targeted adoption rate of 180 physicians per year (GPs and Specialists)

b. Use of education dollars for EMR education

c. Increase in utilization of EMRs by physicians

◑

a. Achieve the agreed targeted adoption rate of 180 physicians per year (GPs and Specialists)

EMR adoption has been below the program's adoption targets in all but one year, and given the variance to budget to date, it is unlikely that the program will meet its overall adoption targets. That said, the targets for the program provide a useful metric for measuring adoption. We also acknowledge that achieving community-based specialist adoption was challenging and continues to be given that a significant portion of specialists believe that there are no suitable EMR systems available currently in the province. Challenges with specialist adoption may not have been foreseen at the time that EMR program targets were set.

At the end of 5 years of the EMR incentive program, 644 additional physicians now have EMRs in place, including 152 specialists. This represents approximately 33% of the total eligible physician population as estimated by DHW. It should also be noted that the total number of physicians with EMRs may be higher if physicians did not make claims under the MA EMR program.

It is acknowledged that other potential, non-incentive related program factors such as fit and quality of the available EMR solutions, quality and timeliness of training and support, etc. may have contributed to Nova Scotia's sub-optimal EMR adoption however these factors were not within scope of this assessment.

Table 30 shows uptake by physician type. Total adoption over the life of the program to date was 75.3% of target.

Table 30: Envelope A uptake figures by physician type (as measured by the number of physicians receiving payment)

	2008/09	2009/10	2010/11	2011/12	2012/13	Total	CAGR
Target	135	180	180	180	180	855	**7.5%**
Actual							
GPs	84	74	113	112	78	461	**(2%)**
Specialists	53	32	22	26	50	183	**(1%)**
Total*	137	106	135	138	128	644	**(2%)**
Variance from Target	2	(74)	(45)	(42)	(52)	(211)	

** Total adoption was 75.3% of target*

b. Use of education dollars for EMR education

Physicians receive an EMR Participation Grant for satisfying a number of eligibility requirements, one of which pertains to EMR education:

- 'Participation in an EMR change management program, or EMR peer support program for EMR users group or other EMR related education by March 31st of the government fiscal year.'

Physicians must complete an eligibility form as part of the annual EMR participation/utilization survey and be prepared to submit relevant documentation to prove that they participated in eligible educational programs. The number of physicians receiving a Participation Grant has increased over the life of the program, (5 year CAGR of 14%) thus it is inferred that education dollars are being used toward EMR education and the program is meeting this intended result.

Table 31: Number of participation grants paid by year (Envelope B)

	2008/09	2009/10	2010/11	2011/12	2012/13	CAGR
Participation Grants	366	439	462	567	608	14%

c. Increase in utilization of EMRs by physicians

EMR utilization is measured using results of a self-assessed annual survey issued by DNS. There are 28 questions for GPs and 30 for Specialists in the survey which are organized across the following eight topics:

- Administration
- Statistics and Reporting
- Privacy, Security and Confidentiality
- Clinical Information Integration
- Clinical Decision Support
- Patient Charting
- Medication Management
- Consultation/Specialist Specific

Judging by average survey scores, normalizing for a change in the scoring system in 2011/12, the average self-reported physician utilization has remained relatively flat (1% compounded annual growth rate) since inception of the EMR Utilization Grant. However, the median score has increased slightly over the course of the program. Although it was anticipated that new adoptees of EMRs would achieve lower levels of utilization in the first year or two after implementation, a higher median score increase was expected over the life of the program. As a result we conclude that the program has not succeeded in meeting its intended result of increasing physician utilization.

Table 32: Self-reported utilization scores by year

	2009/10	2010/11	2011/12 Normalized[16]	CAGR Normalized 2011/12
Average Score – Percentage	77%	77%	77%	0%
Minimum Score Achieved – All Respondents	20%	24%	9%	(33%)
Median Score Achieved – All Respondents	79%	80%	83%	3%
Average Score – First Time Respondents	--	74%	70%	(5%)
Average Score – Excluding First Time Respondents	--	79%	80%	1%

[16] *Normalizing the 2011/12 scores was accomplished by counting responses of "5", "3" and "1" as "2", "1" and "0" respectively to be consistent with previous years' scoring*.

Summary – Program results

Achievement of the EMR program's intended results has been mixed, with evidence suggesting that the program has fully achieved only one of its three intended results. The program has only reached its annual adoption target in one year and while physicians do appear to be using Envelope B funds to engage in EMR related education, average physician utilization had been flat with only a modest increase in the median utilization score.

Cost effectiveness

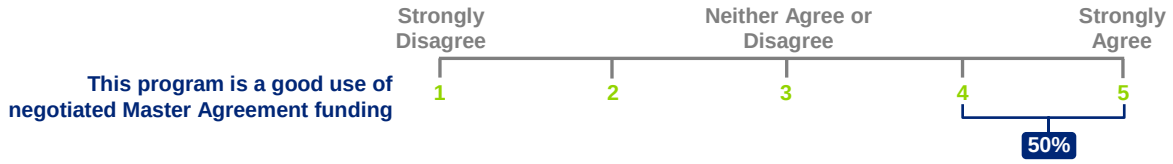
Question: Is this incentive program as currently designed the most cost effective way to achieve the program's purpose? [17]

To assess cost effectiveness Deloitte looked at physicians' view of effectiveness with current EMR funding grants as well as what other jurisdictions are providing in incentive to physicians to implement an EMR.

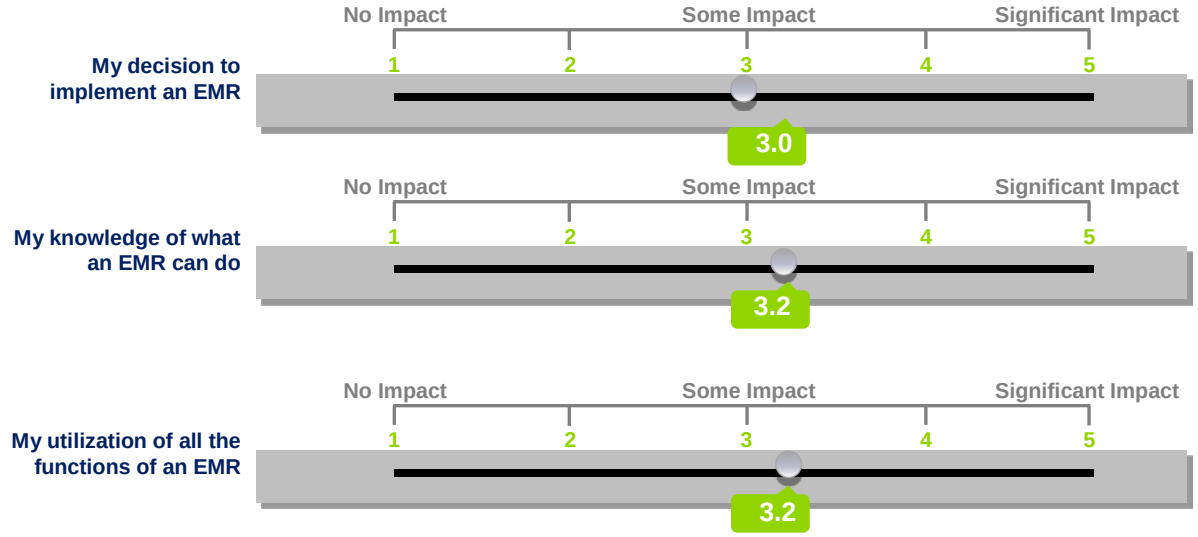
Physician view of cost effectiveness

Using the survey as a gauge, physicians were mixed as to whether the program has been cost effective.

While 50% of physicians agreed that the EMR incentive program is a good use of negotiated Master Agreement funding; only the CGA and Unattached Patient Programs scored lower on this survey question

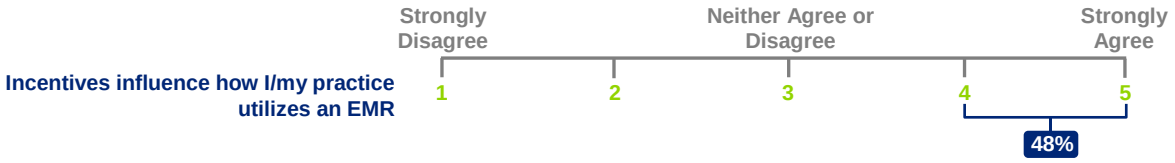


When physicians were asked to what extent they agreed with a number of statements surrounding the impact of the EMR program, responses indicated that the program had only some impact on their decision to implement (Investment Grant), knowledge of what an EMR can do (Participation Grant) and utilization of all functions (Utilization Grant)



[17] *The criteria used to evaluate program cost effectiveness for each program can be found in Appendix A.*

Furthermore, 48% of physicians agreed that EMR incentives influence how their practice utilizes an EMR, indicating that the utilization grant as currently structured is having mixed success as an effective way to encourage utilization.



To ascertain whether the Master Agreement funding levels were appropriate, and whether other provinces were achieving uptake and improved utilization through their EMR incentive programs, Deloitte performed a jurisdictional scan of four other provinces with EMR incentive programs. Each jurisdiction surveyed targeted at 70/30 cost share between physicians and the province for the costs associated with EMRs owing to their universal belief that 70% of the benefit of an EMR should accrue to the system (province) and 30% to the physician through improved efficiency.

Table 33: EMR incentive programs by province[18]

Province	BC	AB	SK	MB
% of EMR costs reimbursed	70%	70%	70%	70%
Maximum reimbursement to an individual physician (lifetime)	$43,820	$35,000	$29,500*	$20,000

** Includes average reimbursement of $7,900 for implementation/adoption, based on estimated implementation cost of $11,300, and monthly bonus payments of $200 year for first 18 months. To enable comparison to the MA EMR program this figure includes 5 years' worth of system fees of $300/month which physicians are eligible for provided they meet service targets. Excluded from this figure are $1 transaction fees for EMR eligible services that physicians may qualify for.*

As Table 29 (Uptake of EMRs by Province) indicated previously, Nova Scotia's EMR adoption trails British Columbia, Alberta, Saskatchewan and Manitoba. The following table shows the maximum funding paid to individual physicians in each year of the Master Agreement EMR Program and suggests that Nova Scotia is offering available funding that is in excess of other jurisdictions.

Table 34: Maximum payment per physician – all envelopes

	2008/09	2009/10	2010/11	2011/12	2012/13	Total
Envelope A	$5,300					$5,300
Envelope B	$2,000	$2,000	$2,000	$2,000	$2,000	$10,000
Envelope C		$6,220	$9,877	$6,503	$4,606	$27,206
Total	$7,300	$8,220	$11,877	$8,503	$6,606	$42,506*
Average earned by physicians (all envelopes): $16,277 **Maximum earned by a single physician (all envelopes): $42,235**						

** Includes maximum earned by a physician for Envelope C each year, plus an annual participation grant and the initial implementation payments.*

[18] *Source: Interviews with provincial health ministry representatives.*

Another important data point to examine is the estimated cost to a physician of implementing an EMR. Research suggests that these costs are between $30,000 and $50,000.[19] Using an average of $40,000 as the cost to implement, the MA EMR program offers a low level of investment or adoption funding ($5,300 via Envelope A) against these costs; however, the total compensation to physicians available across all envelopes is in excess of the cost to implement. Nova Scotia should be applauded for tackling both education and utilization with its EMR program and not directing all funding towards adoption. Physicians in many focus groups complained that available funding was not enough to incent them to implement an EMR, and this sentiment was echoed in the physician survey. The EMR program, across all payment envelopes, offered available funding in excess of the 70/30 cost sharing principle in place in other provinces and available funding in excess of the average cost ($40,000) to implement an EMR. It should be noted, however that these figures, as well as funding under the MA EMR program, do not factor in the cost to physicians of periodic information technology upgrades.

Physicians in many focus groups complained that available funding was not enough to incent them to implement an EMR, and this was confirmed in the physician survey. The EMR program, across all payment envelopes, offered available funding in excess of the 70/30 cost sharing principle in place in other provinces and available funding in excess of the $40,000 (average) cost to implement an EMR. When examining payments to physicians over the life of the program, 38% earned in excess of $28,000 (70% of $40,000) in funding.

Table 35: Total payments received by individual physicians – all program years

	<$10,000	$10-19,999	$20-27,999	>$28,000	Total
Number of Physicians (GPs and Specialists)	151	223	134	309	816
% of total	18%	27%	16%	38%	

In isolation, ignoring funding available under the PHIM program, and other factors related to the delivery of the EMR program, the EMR program is a cost effective program to incent physicians to adopt an EMR given the amount of funding available versus the estimated costs of implementing an EMR, as well as comparisons to other jurisdictions. If physicians received funding under both PHIM and the MA EMR program, the cost effectiveness of this program to the province is diminished. Enhanced linkage between these payments to actual EMR education and utilization (given payments are based on self-reported not actual education or utilization) would strengthen the cost effectiveness of the program.

Summary assessment – All criteria

Program	Strategic Alignment	Continued Relevance	Program Results	Cost Effectiveness
Electronic Medical Record Incentive Program (EMR)				

[19] *http://www.itbusiness.ca/news/cost-data-ownership-reliability-issues-plague-canadas-emr-program/16587# http://www.cbc.ca/news/background/healthcare/records.html*

Improvement opportunities

Question: How can this program be improved?

During the course of our review, stakeholders raised a number of improvement ideas. We did not put forward all ideas received in our report and instead applied judgment to identify as improvement opportunities those that we believed had merit given our assessment. As well we added improvement opportunities that resulted from our evaluation and were not recommended by any engaged stakeholder.

1. Shift program focus towards utilization

- Given levels of adoption achieved of late via the EMR program and via funding available under PHIM, DHW and DNS should further analyze whether to continue to incent GPs for adoption and whether to shift available funding to targeted participation and utilization. This analysis will need to include the effect of incentives and policy outside this EMR program. Many of the provinces surveyed during this assessment believe that the benefit of EMRs should be primarily to the system and patient, not to the physician, and that future incentive programs should move away from adoption. If the participation and utilization incentives were sufficient, it might provide enough incentive for remaining physicians to adopt.
- DHW has provided significant funding, through the PHIM and MA EMR program, to assist physicians to adopt EMRs. DHW and DNS should eventually take steps to harness patient information from EMRs. To do this it will be important to ensure that there is the right information residing within EMRs and suitable data sharing agreements must be in place to ensure that patients' personal health information is being protected according to the Personal Health Information Act. This practice is a long-term goal in many other jurisdictions examined for this review, and encouraging increased physician utilization is an important part of building this data set. By mining de-identifiable patient information from EMRs, DHW can understand what is happening within the province, by DHA, by condition, and can tailor future incentive programs to target problem areas within the province (e.g. where are most diabetics located, etc.). By adequately involving clinicians in the process, the conclusions reached from such information and analysis will result in added credibility throughout the health system

2. Better understand stakeholder requirements and provide more targeted adoption for specific physician cohorts (Investment Grant)

- Experience with other jurisdictions, and other types of incentive programs, suggests that after a certain period of time, programs need to become more targeted and move from an appeal to the general population, to those that are tailored to a certain type of physician. This follows the notion that those who have taken up the program under its current form have likely already done so; therefore in order to appeal to those who have yet to take up the program, a different approach is needed. That said, there are a substantial number of physicians that have not adopted EMRs due to the lack of suitable solutions, particularly specialists. Data provided earlier in this section appears to confirm this notion as the 5 year compound annual growth rate for both GP and specialist adoption is negative (-2%, and -1% respectively) indicating a slow-down in the number of physicians willing to adopt an EMR.
- The starting point in determining how to better target adoption funding is to examine the physician profile of those who have not yet adopted as that will inform future plans to encourage that subset to adopt. DHW and DNS may consider funding targeted at increasing specialist adoption, given specialist adoption trailed GPs over the past five years.
- Targeting segments of the physician population may enable DHW and DNS to reduce budget/funding and/or to use it more effectively to target physicians without an EMR.
- DNS and DHW should ensure that the Investment Grant (Envelope A) aligns with the direction the province is taking with EMRs, notably the move to EMRs that are Application Service Provider (ASP) compliant and the integration of personal health records and other health information systems (e.g., clinical reports) with EMRs. Future funding may be considered to support migration to ASP compliant EMRs and/or to limit adoption funding to ASP compliant EMRs only.

3. Examine current EMR educational offerings for effectiveness (Participation Grant)

- Given that both spending on EMR education, and the number of physicians participating in EMR education, has increased over the life of the incentive program, yet average self-assessed EMR utilization has remained flat, it is worthwhile examining the available EMR solutions and their ease of use as well as current EMR educational offerings to ascertain their effectiveness in educating physicians on the use of EMRs.
- It is recommended that DHW and DNS establish an EMR curriculum with approved courses for physicians at varying levels of physician EMR proficiency and usage, and then add specificity to the eligible educational offerings. DHW and DNS could use the available funding for this envelope to advance proficiency and usage in areas that represent priority to both organizations.

4. Explore linking EMR education offerings to CME credits to enable easier measurement (Participation Grant)

- It is also recommended that DHW and DHS consider whether it is possible to convert EMR education sessions to CME credits to more easily track EMR education

5. Make changes to the Utilization Grant so it rewards for behavior, and does not distribute a pot of funding among all eligible physicians

Funding for the Utilization grant (Envelope C) is made up of funds remaining after Envelopes A and B are paid out. Of the available funding, physicians receive an allocation from Envelope C based on their responses to a self-reported survey, in comparison to their peers. Given the manner in which funding is determined, and how individual payments are calculated and made, it is unlikely that the EMR Utilization Grant operates as much of an incentive, nor is it a cost effective way to compensate physicians or use available funding. The following changes to the Utilization Grant are recommended:

- Discontinue the practice of awarding an unknown amount of money across all eligible physicians, and publicizing the range of payment dollars after the fact.
- Incentive payments from Envelope C should be determined in advance of the fiscal year, and structured to ensure that physicians are receiving an incentive that is consistently commensurate with their utilization of the EMR system. Ideas include:
  - Offer transaction fees, other provinces such as Saskatchewan award $1.00, for each EMR eligible service documented in the qualifying EMR in order to achieve broader utilization.
  - Choose reports that are indicative of utilization and tie remuneration to these reports, like patient migration, lab results accessed, etc. Before measuring, baselines will need to be established.
- Payments should be made as soon after the desired behaviour as possible to act as a true incentive
- Should the DNS-administered survey continue to be used to measure utilization:
  - Be clear on how utilization is measured given many physicians revealed confusion over this in focus groups and via the physician survey.
  - The program should ensure that a physician that has a higher utilization score year over year should receive a higher incentive payment accordingly, rather than the payment being dependent on the results of their peers.

6. Take steps to educate physicians on the benefits of EMRs

In both the physician survey and in focus groups, it was clear that many physicians do not believe that an EMR will drive efficiencies to their practice. Efforts on behalf of DHW and DNS to demonstrate the efficiencies that EMRs can bring to a physician's practice may help to improve EMR adoption and utilization. Some ideas include:

- Publishing quick tips and EMR timesavers throughout the year.
- Communicate and educate physicians on the benefits of EMR utilization to their practice.
- Demonstrate, via test cases or profiling other physicians, that physicians are using EMRs to drive efficiencies to their practice.

Evaluation of Rural Specialist Retention Incentive Program (RS)

Introduction

Purpose

The purpose of the Rural Specialist Retention Incentive (RS) program is to assist with the recruitment and retention of specialist physicians in rural areas of Nova Scotia. For the purposes of this incentive, a rural area is defined as District Health Authorities 1-8. The program is structured to encourage specialist physicians to practice in hospitals, and to provide on-call services for their district.

Eligibility and claims

Eligible specialist physicians are paid an incentive annually once the minimum requirements of the program have been met. For the purposes of this program, a specialist physician is defined as someone who is registered as a licensed specialist with the Medical Specialist Register of Nova Scotia, or someone who is recognized as a functional specialist. To qualify for a payment the specialist physician must:

- Maintain DHA privileges for a minimum of three (3) years in a rural DHA (defined as DHAs 1-8);
- Meet a minimum income threshold of $125,000 in the previous year;
- Provide on-call services if required by the DHA; and
- Be “actively practicing” in Nova Scotia on April 1 of the year of payment.

For newly-eligible physicians, the incentive payment is pro-rated from the third anniversary of the physician beginning practice in a rural DHA.

The incentive payment amount has increased over the life of the program.

Table 36: Rural Specialist Retention Incentive Program payment amounts by year

Year	2008/09	2009/10	2010/11	2011/12	2012/13
Payment Amount	$3,000	$3,000	$5,000	$5,000	$5,000

Payments for the RS program are made by MSI in the autumn of each year, along with an explanatory note. This procedure is the same for both fee-for-service and Alternative Payment Plan physicians.

Program changes since inception

Due to lower than expected expenditures for the program in 2008/09, $300,000 was unspent. In a special decision, the MASG authorised an additional one-time payment of $2,000 to each physician that qualified for the program in 2008/09. This initiative cost a total of $514,000 and was paid for by re-allocating unspent funds from other Master Agreement programs.

Program uptake

Program uptake data is displayed in tables 37 and 38. Key points related to program uptake include:

- The number of physicians participating in the RS program has increased year-over-year during the life of the program.
- Male and female physicians participate in the program, however female physicians are under-represented compared to the overall demographics of the specialist population.
- A total of 377 individual physicians received payments over the life of the program, representing 77% of rural specialists in the province.[20]
- On average, individual physicians received payment in three of the five years during which the program was in place.

Table 37: Program uptake by year and gender (as measured by the number of physicians receiving payment)

Uptake by Gender	2008/09		2009/10		2010/11		2011/12		2012/13	
Female	48	19%	47	19%	54	20%	60	21%	64	21%
Male	202	81%	221	81%	212	80%	223	79%	240	79%
Total	250	100%	268	100%	266	100%	283	100%	304	100%

Table 38: Rural Specialist Retention Incentive Program budget/funding and expenditures by fiscal year

	2008/09	2009/10	2010/11	2011/12	2012/13	Total
Budget*	-	-	-	-	-	-
Actual program spend	$1,283,000	$809,000	$1,338,000	$1,415,000	$1,520,000	$6,365,000

** New MASG funding however no specific budget*

Jurisdictional context

Approaches to the issue of rural specialist recruitment and retention vary across the country. Several jurisdictions offer incentives to rural physicians. Saskatchewan, for example offers a 5% rural index premium on base billings to recognize the differences in service levels and on-call requirements of practicing in a rural community. British Columbia offers a 10% rural practice premium as part of its Full Service Family Practice Program.

In terms of actual recruitment incentives, Saskatchewan offers a generous bursary program to specialist residents. Residents are paid $25,000 per year for a maximum of 3 years. Recipients commit to one year of return-of-service for each year of funding received.

[20] *The calculation for eligible physicians for the Rural Specialist Retention Incentive Program includes all physicians with a licensed specialty other than family medicine. Included are specialists working in Districts 1 through 8 and those working at Hants Community Hospital. Family physicians with a functional specialty of emergency, geriatric or palliative care medicine have been excluded from the potential population. Specialists who do not have a DHA assigned (27) are excluded.*

Table 39: Saskatchewan Specialist Residency Bursary Program payments by year

	Prior Years	2007-08	2008-09	2009-10	2010-11	2011-12	Total
Number of Recipients	120	15	15	14	9	15	**188**
Cost per Recipient	N/A*	$25,000	$25,000	$25,000	$25,000	$25,000	
Total Cost	$2,755,000	$375,000	$375,000	$350,000	$225,000	$375,000	**$4,455,000**

** Not available.*

It should be noted, however, that the remoteness of some locations in other jurisdictions is not comparable to the remoteness of rural locations in Nova Scotia.

Program evaluation

The RS program was evaluated against the four criteria included in the evaluation framework developed for the program (included in Appendix A). For each evaluation criteria a rating was assessed using the following scale to denote the degree to which the program is delivering against each criterion on the basis of the evidence assembled as part of our review.

Legend	Does not satisfy evaluation criterion	Marginally satisfies evaluation criterion	Partially satisfies evaluation criterion	Mostly satisfies evaluation criterion	Completely satisfies evaluation criterion

Strategic alignment

Question: How does the purpose of the RS program align with the documented strategic interests of DHW and DNS?

At the time the RS program was conceived, the purpose was aligned with interests of DHW and DNS as evidenced by:

a. The September 2007 Strategic Interests document issued by the DNS/DOHDHA Issues Steering Committee. Specifically, the RS program aligned with Strategic Interest #6 relating to physician recruitment and retention strategy. The document referenced previous studies recognizing the need to "*address the needs of groups where health inequities are evident such as for Aboriginal peoples, people living in rural, remote, northern and isolated communities, and where shortages of providers are predicted.*"
b. Recruitment and retention of rural specialists was articulated in the January 30, 2008 document from the Nova Scotia Department of Health entitled, Towards a New Master Agreement. That document specifically referenced the difficulty in recruiting certain specialties, such as General Internal Medicine and Anesthesiology to practice in rural areas of the province. The document also notes that, in some cases, there are too few physicians of a given specialty to effectively maintain on-call rotas.

Continued relevance

Question: Does the purpose of the RS program continue to be relevant to DHW and DNS?

Available evidence suggests the continuing relevance of an incentive program focused on recruitment and retention of specialist physicians. Given the shortage of specialists identified in MASG strategy documents and the fact that the compound annual growth rate for specialist physicians in DHAs 1, 5, and 7 remained flat or negative from 2006-2011 (see table below), there is cause for continuing attention to both the recruitment and retention of rural specialists. Indeed, the only rural DHA that has seen significant growth in its population of specialist physicians was DHA 2 at 9%. All other DHAs have had growth rates of 2-3% over the same time period.

Table 40: Number of specialist physicians by DHA (1-8)

DHA	2006	2007	2008	2009	2010	2011	CAGR (2006-2011)	CAGR (Since 2008)
1. South Shore Health	48	46	46	48	51	43	(2%)	(2%)
2. SouthWest Health	39	41	39	46	48	51	6%	9%
3. Annapolis Valley Health	86	88	94	93	100	99	3%	2%
4. Colchester East Hants Health Authority	53	59	62	59	57	58	2%	(2%)
5. Cumberland Health Authority	37	31	30	35	25	31	(3%)	1%
6. Pictou County Health Authority	40	47	42	48	47	44	2%	2%
7. Guysborough Antigonish Strait Health Authority	45	46	45	45	50	44	0%	(1%)
8. Cape Breton District Health Authority	136	141	140	147	144	152	2%	3%
Total	484	499	498	521	522	522	2%	2%

Program results

Question: To what extent is the program achieving its intended results:

a. Increase or no change to the percentage (or absolute number) of specialist physicians practising in rural areas
b. Reduction in vacancy rates for rural specialists within each DHA
c. Reduction in the duration of vacancy periods for open rural specialist positions
d. Physician satisfaction with the program, as currently constructed

a. Increase or no change to the percentage (or absolute number) of specialist physicians practicing in rural areas

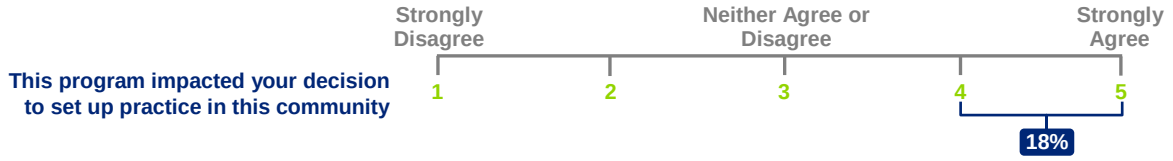
Table 40 (presented previously) provides the number of specialists in each DHA. Comparing the compound annual growth rate (CAGR) of each DHA before and after the introduction of the incentive program shows that there has been no discernible change in the number of specialist physicians. The notable exception to this finding is DHA 2, where there has been a significant increase in the growth rate of physicians since the program was implemented. However, there are often other factors influencing the growth rate. Interviews with DHW stakeholders indicated that DHAs, including DHA 2, often offer additional 'community incentives' to attract specialists.

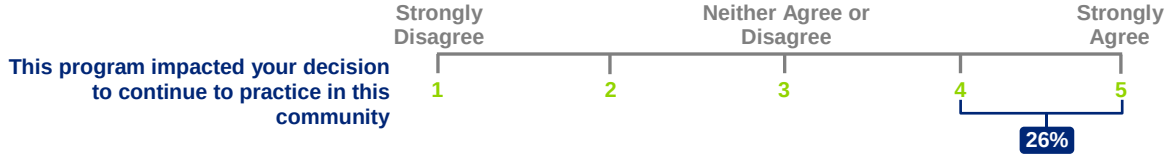
Overall, there has not been a discernible impact on the number of specialist physicians practising in rural areas of the province since the introduction of the program.

b. Reduction in vacancy rates for rural specialists within each DHA; and

c. Reduction in the duration of vacancy periods for open rural specialist positions

Consultations with relevant stakeholders at DHW indicated that vacancy rates for all specialist physicians are not readily available. Only Alternative Payment Plan physician vacancy rates are monitored by DHW, and the evaluation team was cautioned against drawing inferences based solely on this sub-set of the physician population. To address the lack of data in this area, we draw on the results of the physician survey to speak to the impact of the program on recruitment and retention. As shown below, only 18% of survey respondents agreed that the incentive had an impact on their decision to set up practice in a rural community and 26% agreed that it impacted their decision to continue to practice in the community.





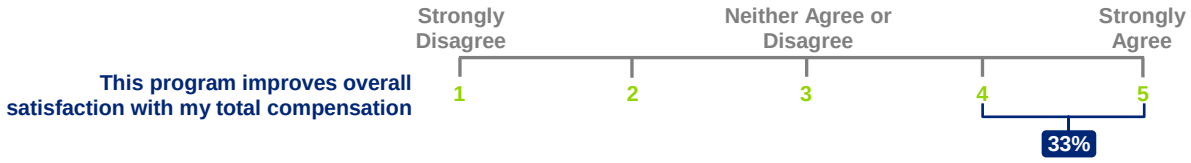
Survey findings were consistent with comments from physicians in focus groups conducted across the province. During the focus groups, many physicians indicated that the incentive amount was not significant in the context of their total compensation. In many cases, the incentive payment is less than 5% of their total earnings and, as such, was not a deciding factor in their career planning decisions.

Physicians, as well as DHW stakeholders close to the physician recruitment process, indicated that non-financial concerns are often more pressing issues for physician recruitment to rural areas. Issues such as spousal employment opportunities are often of significant concern for candidates. In addition, some DHAs do not promote the incentive program to prospective candidates, preferring instead to focus on debt assistance programs and relocation allowances.

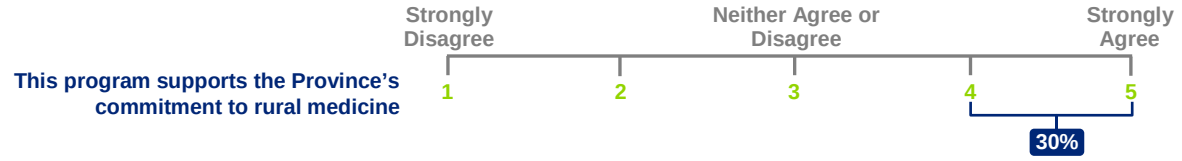
Responses from the survey, in conjunction with interviews with relevant stakeholders, indicate that the incentive program has not been an effective tool in managing vacancy rates.

d. Physician satisfaction with the program, as currently constructed

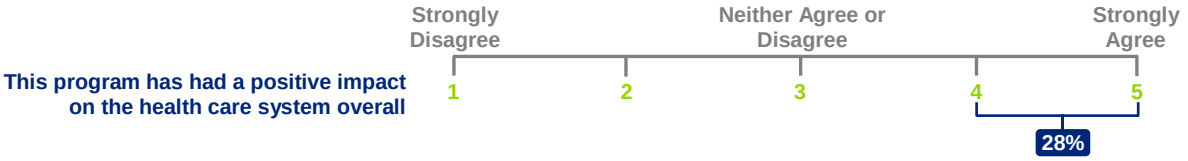
Survey respondents were asked to what extent they agreed with a series of statements regarding the impact of this program. For all program impact questions, approximately one quarter of respondents indicated that the either agreed or strongly agreed with the statement.



One third of respondents thought that the program indicated that the Province was committed to rural medicine.



A similar proportion of respondents believed that the program has made a positive impact on the health care system overall.



Overall, 33% of respondents agreed that the incentive payment improved satisfaction with the total compensation. This fits with the findings from the focus groups and stakeholder interviews which indicated that while physicians welcomed the recognition that the incentive represents, the payment was not significant enough to factor into overall financial decision making process. These sentiments are echoed in the two subsequent questions regarding the impact of the program on rural medicine and the healthcare system overall.

About one third of physicians agreed that the province is committed to rural medicine. Just over one quarter of physicians agreed that program is having a positive impact on the health care system overall.

The written comments provided by survey respondents were mostly critical of the program, with many physicians pointing to the amount of the payment as a problem:

- "When compared to similar incentives in other jurisdictions it is, to say the least, inadequate and is not having the desired effect. A yearly payment of approximately $50,000 would be required to start to make a difference."
- "$5,000 makes no impact whatsoever in recruitment or retention. There needs to be a SIGNIFICANT increase in this program --to have any effect at all—i.e.--$25,000 or tax deductions or a combination of offerings."
- "$5,000 is not enough to keep a physician in an area if they have other reasons to leave."

Nova Scotia's rural recruitment and retention programs pay significantly less than comparable programs in other provinces, however the larger payment amounts available in other provinces are driven in part by the need to recruit and retain physicians in more remote locations than those which exist in Nova Scotia.

Table 41: Comparable programs to the Rural Specialist Retention Incentive Program

Province	Payment Amount	Program Requirements
British Columbia*	1. Student Debt repayment - up to $40,000. 2. Funding to set up or join a group practice up to $40,000 per physician. 3. A New Practice Supplement for the first 26 weeks of practice of $2,000/week	• Three year return-of-service commitment (minimum 180 qualifying days per year)
Saskatchewan	• $25,000	• 15 bursary spots per year to residents • Residents are eligible for a maximum of three years funding • Commitment to provide one-year return-of-service for each year of funding received.
Manitoba	• Between $30,000-$40,000 • Most physicians receive $15,000 through the Specialist Fund, and $5,000-$10,000 through the Resettlement Fund	• Medical Student/Resident Financial Assistance Program (MSRFAP) provides conditional grants to eligible medical students, and the recipient is required to return service in a rural community in MB at the completion of their training • Provincial Specialist Fund and the Provincial Resettlement Fund provide grants to physicians to incent them to move to communities with identified needs for their services

** Focus of British Columbia's Family Physicians for BC program was General Practitioners.*

Overall, we conclude that physicians are not satisfied with the program as currently constructed and that the incentive payment has limited, if any, impact on physician satisfaction with their compensation.

Summary – Program results

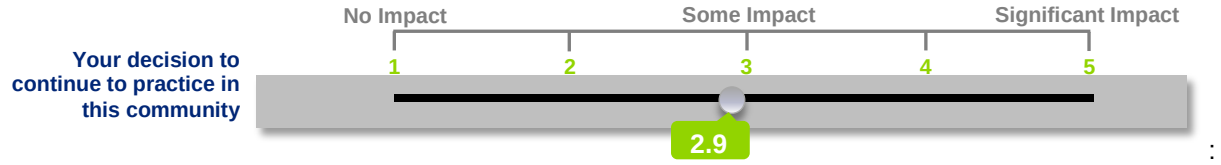
Overall, the RS program has not achieved its intended results. The specialist physician counts per year have not changed significantly since the inception of this program and a reduction in vacancy rates or a reduction in the duration of vacancies for rural specialist positions could not be confirmed during this assessment. Furthermore, physicians consulted through focus groups and by survey indicated that the incentive did not impact their choice to set up, or continue to practice in, a rural community.

Cost effectiveness

Question: Is this program as currently designed the most cost effective way to achieve the program's purpose?[21]

We cannot conclude that spending on RS was the most effective way to achieve the program's purpose, given:

- The payment amount for the program was widely criticized by survey respondents and focus group participants alike. Survey respondents were asked the impact they believed the program has had in the following items:



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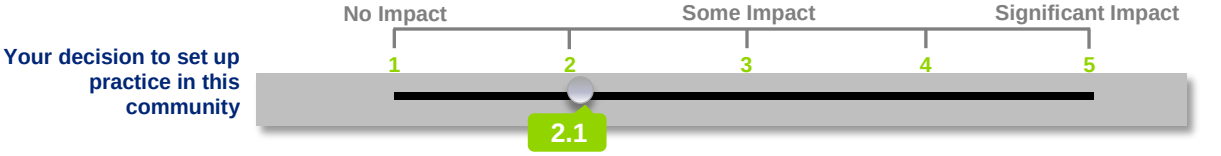


- It should be noted that there are more acute needs for certain specialties in the province, namely General Internal Medicine, Anesthesia, General Surgery, and General Psychiatry. With this in mind, a targeted approach to generalist incentives might be more cost effective than a common program for all specialties.
- Finally, in speaking with relevant stakeholders, it is clear that there are non-financial factors involved in the decision to set up practice in a rural area; issues such as geographic distance, cultural adjustment, and spousal employment opportunities. Thus we would speculate that the quantum of the incentive may make it an irrelevant factor.

Summary assessment – All criteria

Program	Strategic Alignment	Continued Relevance	Program Results	Cost Effectiveness
Rural Specialist Retention Incentive Program (RS)				

[21] *The criteria used to evaluate program cost effectiveness for each program can be found in Appendix A.*

Improvement opportunities

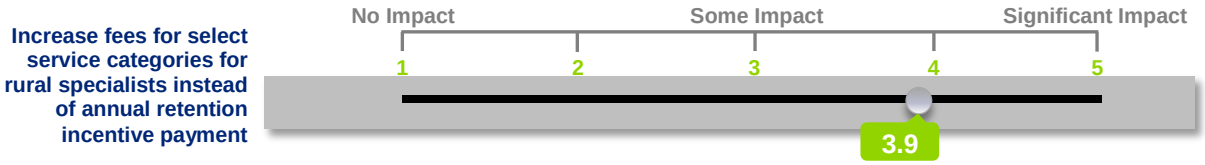
Question: How can this program be improved?

During the course of our review a number of improvement ideas were raised by stakeholders. We did not put forward all ideas received in our report and instead applied judgment to identify as improvement opportunities those that we believed had merit given our assessment. As well we added improvement opportunities that resulted from our evaluation and were not recommended by any engaged stakeholder.

Based on the priorities of DHW and DNS, there is a continuing need to encourage specialist physicians to set up practice and continue to practice throughout the province. The main areas identified for improvement were related to program focus, payment process and clarification of program purpose.

1. Explore changing program focus to fee for service

- During focus groups throughout the province, physicians suggested increasing fees for some specialist services, rather than a single annual incentive payment. Physicians voiced a preference for a fee-for-service type model/program. This was confirmed by the survey, where the average of all responses indicated that increasing fees for select service categories would have an impact on achieving program's purpose of physician recruitment and retention.
  - In particular, focus group participants emphasized the importance of recognizing the increased strains of on-call work for rural specialists. Suggestions from focus groups included linking payments to the number of on-call shifts performed.



- While many rural specialists are compensated via Alternative Payment Plans and not via Fee For Service, consideration would need to be given as to how such a change to a fee for service type remuneration for specialist services would compensate physicians receiving both types of compensation. Shadow billings for specialist services by APP physicians could be used as a mechanism to track and compensate via a fee for service type incentive program, acknowledging that this and other options to change to a fee for service type incentive would need further exploration.
- It should be noted that while the majority felt that a shift to fee increases for specialist services would be beneficial, there were also written comments that expressed concern that if these increases were applied to all specialists, urban physicians could benefit disproportionately. One alternative could be a premium on fees based on an index or measure of rurality; the challenge with this approach is that rurality differentials in Nova Scotia would be low.

2. Clarify the program's purpose

- Recruitment and retention have different drivers and thus they should be separated, at least in concept, and remunerated via separate mechanisms. DHW/DNS need to confirm that they are aiming at both recruitment and retention with this program and, if so, create different incentives targeting each element.

Evaluation of General Practice Surgical Assist Incentive Program (SA)

Introduction

Purpose

The purpose of the GP Surgical Assist Program (SA) program is to recognize GPs who lose office billings when performing surgical assists and to encourage GPs to perform surgical assists by providing an incentive for provision of the services.

Eligibility and claims

As of fiscal year 2009/10, all GPs who provide surgical assists during the year received an incentive payment for providing elective (non-premium time) surgical assists. Qualifying surgical assist billings up to a maximum of $30,000 per physician per year are eligible for an incentive payment, using the following payment formula.

a. GPs who meet the criteria of total billings/payments of $75,000 during the year, including office billings of $25,000 or more, will receive an incentive payment of 40 per cent of their individual qualifying surgical assist billings.
b. GPs who don't meet the criteria of total billings/payments of $75,000 during the year, including office billings of $25,000 or more, will receive an incentive payment of 20 per cent of their individual qualifying surgical assist billings.

Surgical assist incentive payments are based on qualifying surgical assist billings (fee-for-service and shadow billings) for the fiscal year (April 1 to March 31), and are paid out in the second quarter of the following fiscal year.

Program changes since inception

The MASG agreed to re-structure the Program for 2009/10 to include all family physicians that provided qualifying surgical assists. When the program was initiated in 2008/09, it required family physicians that provided surgical assists to have a minimum total income of $75,000 and office billings of $25,000, in order to qualify for an incentive payment. During the 2008/09 fiscal year the budgeted funding for this program was distributed on a pro rata basis to all physicians who met the minimum income and billing thresholds. Physicians performing surgical assists but not meeting the minimum billing threshold were compensated directly by DNS in the first year of the program.

Program uptake

Some key points related to program uptake, as shown in the tables that follow, include:

- A total of 352 individual physicians received payment over the life of the program.[22]
- During the life of the program, the number of physicians who received payment peaked in 2009/10 and has declined in the following years.
- Average uptake for female physicians over the life of the program (female 41%, male 59%) was slightly below that of the physician population (female 47%, male 53%); however, the percentage of female physicians receiving payment increased year-over-year, rising to 45% of the total in 2012/13.
- Individual physicians earned up to $12,000/year under the program.

Table 42: Physician Profile - GP Surgical Assist Incentive Program uptake

Profile of Physicians Receiving Payment for Program	2008/09	2009/10	2010/11	2011/12	2012/13
Total Physicians	191	243	241	225	203
% Female	40%	40%	38%	42%	45%
% Male	60%	60%	62%	58%	55%
Average Age	50	51	51	51	51
Average Years of Practice	18	20	20	20	19
Average $ per individual GP	$1,207	$919	$1,788	$2,942	$2,537
Maximum earned by GP	$11,239	$11,239	$12,000	$12,000	$12,000

Table 43: GP Surgical Assist Incentive Program funding and expenditures by fiscal year

	2008/09	2009/10	2010/11	2011/12	2012/13	Total
Actual program[23] spend	$230,451	$483,026	$448,739	$468,061	$515,400	$2,398,677
Funding	$250,000	$250,000	$500,000	$500,000	$500,000	$2,000,000
Variance from allocated funding	($19,549)	$233,026	($51,261)	($31,939)	$15,400	$398,677

The overall number of surgical assists performed was provided by DHW (see Table 44), but it was not possible to link those numbers to the actual incentive payments with the data provided to determine growth in the number of assists performed since program inception. The SA incentive program applies to qualifying surgical assist billings up to a maximum of $30,000 and many physicians bill in excess of that amount but only receive payment (either 40% or 20%) depending on the first $30,000 in qualified billings; as well, the figures, as provided, included all surgical assists, rather than only those qualifying for an incentive payment. These counts were included for context, given the decline in the number of surgical assists performed in the province since program inception.

[22] *The potential target population for the Surgical Assist Incentive Program is the total number of physicians with a licensed specialty of GP, billing > $20,000, regardless of location.*
[23] *Actual program spending has been adjusted to account for changes in payments due to administrative corrections.*

Table 44: Number of all surgical assists performed by year

	2009/10	2010/11	2011/12	2012/13	CAGR
Total - all GPs	**20,579**	**20,566**	**19,612**	**18,607**	**(3%)**

Program evaluation

The SA program was evaluated against the four criteria included in the evaluation framework developed for the program (included in Appendix A). For each evaluation criteria a rating was assessed using the following scale to denote the degree to which the program is delivering against each criterion on the basis of the evidence assembled as part of our review.

Legend	 Does not satisfy evaluation criteria	 Marginally satisfies evaluation criteria	 Partially satisfies evaluation criteria	 Mostly satisfies evaluation criteria	 Completely satisfies evaluation criteria

Strategic alignment

Question: How does the purpose of the GP Surgical Assist program align with the documented strategic interests of DHW and DNS? 

At the time of its introduction, the GP Surgical Assist program was created in response to a need identified by rural surgeons. It appeared to have limited alignment with the strategic interests of DHW and DNS. While the program is generally aligned with one of DHW/DNS strategic interests (noted below), there is not a specific linkage of the program's purpose to the strategic interests of key stakeholders.

- The September 2007 Strategic Interests document issued by the DNS/DOH/DHA Issues Steering Committee lists 9 areas of strategic interest. The GP Surgical Assist program best aligns with Strategic Interest #3 related to Sustainability of the delivery of specialty care in rural areas, including the education and training of an adequate supply of physicians who are prepared for and willing to work in these practice settings.

Question: Does the purpose of the GP Surgical Assist program continue to be relevant to DHW and DNS? 

Papers and studies[24], issued subsequent to the Strategic Interests document and reviewed as part of this assessment, do not contain specific linkage to this program or its purpose. The continued relevance of the program is rooted in its alignment with the Strategic Interests document and the degree to which the strategic interests of each party with respect to Strategic Interest #8 are still relevant and as to whether there is a strong connection between this Strategic Interest #8 and the purpose of the program.

[24] *TOWARDS A NEW MASTER AGREEMENT, Physician Services Branch Nova Scotia Department of Health; January 30, 2008 OPTIMIZING THE FAMILY PHYSICIAN ROLE IN PRIMARY HEALTH CARE, Dr. David Gass, Victoria Goldring; October 15, 2007*

Program results

Question: To what extent is the program achieving its intended results:

a. Increase in the overall number of GPs performing surgical assists (both with and without office billings)

b. Satisfaction of the physicians providing the assist with the program, as currently constructed

c. Satisfaction of surgeons with the program, as currently constructed

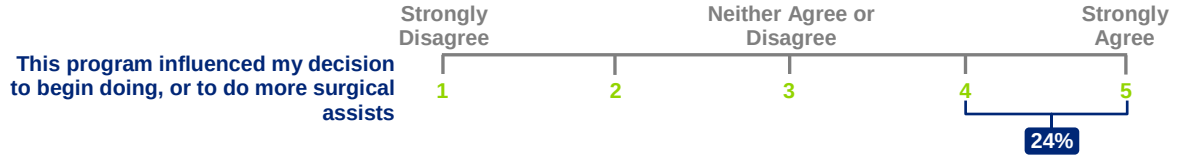
a. Increase in the overall number of GPs performing surgical assists

Over the life of the program, there has only been a modest increase in the number of GPs performing surgical assists, as evidenced by the following table:

Table 45: Physicians receiving payments by year

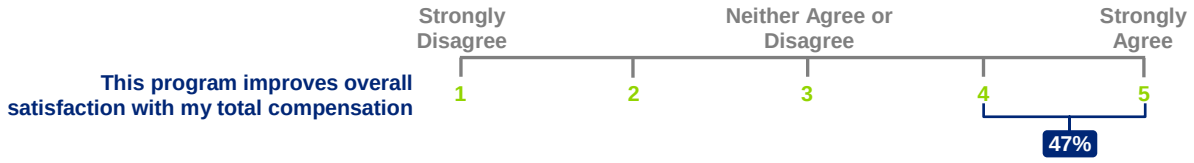
	2008/09	2009/10	2010/11	2011/12	2012/13	CAGR
Physicians receiving payment from the program	191	243	241	225	203	2%

Since 2010/11, there has been a general decline in the number of physicians receiving payments from the SA program. Approximately one quarter of survey respondents agreed with a question asking whether the program influenced their decision to perform surgical assists. Surgical assist data prior to 2008/09 was collected according to different criteria, and as such, was not directly comparable to the future years' figures. Without any baseline data to indicate how many physicians performed what would have been qualifying assists prior to program inception, the survey responses could be an indication that the program has had moderate success driving increasing numbers of GPs to perform assists. As well, qualitative elements of the study indicated that, for some physicians, no financial program would incent them to resume surgical assists. And finally, the current state in some communities is that all surgical assisting is being provided exclusively by a small number of semi-retired physicians.



b. Satisfaction of the physicians providing the assist with the program, as currently constructed

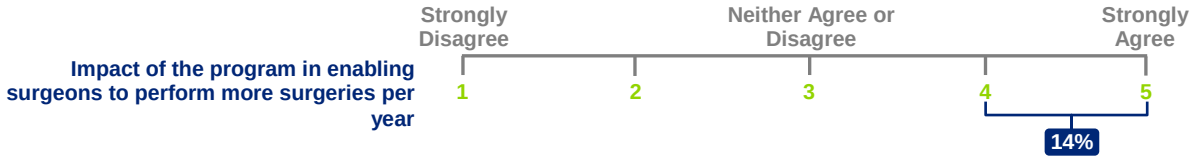
47% of GPs responding to the survey indicated that the program improved their overall satisfaction with their total compensation.



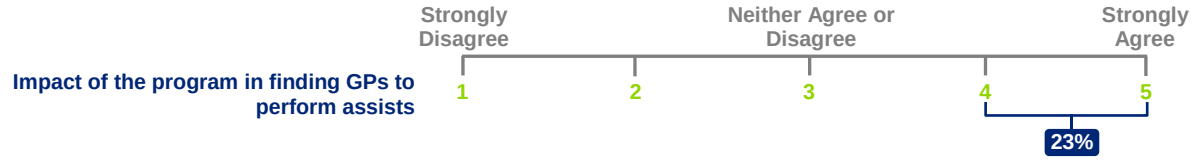
In addition, focus group participants generally felt strongly that assists should be compensated by time spent out of the office and not by the procedure type. Overall, based on survey responses and feedback from focus groups, we conclude that the program as currently constructed has had mixed results in achieving the intended result of satisfying GPs.

c. Satisfaction of surgeons with the program, as currently constructed

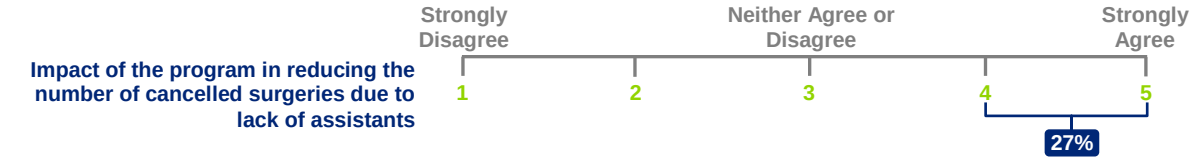
Surgeons were not asked the same satisfaction question as GPs as they do not quality for payment from the program. Instead, specialists who indicated they perform surgical procedures where they use a GP as an assistant were asked questions to gauge the impact the program has had in helping them. Only 14% of respondents agreed that the program was having an impact on the items polled. This is consistent with the conclusions drawn from evaluating the GP use of the program.



Less than a one quarter of respondents agreed that the program impacted their ability to find GPs to perform surgical assists.



Just over a quarter of respondents agreed that the program reduced the number of cancelled surgeries due to lack of assistants.



Overall we conclude that the program as currently constructed is not achieving the intended result of satisfying surgeons as evidenced by survey results.

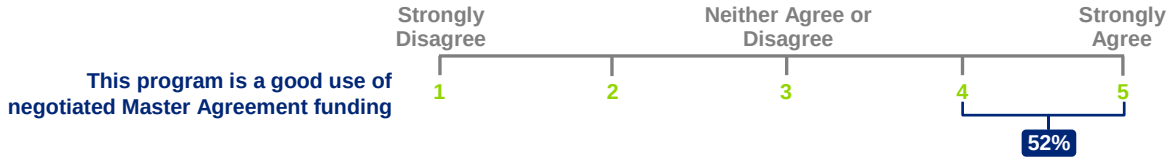
Summary – Program results

Overall, it is concluded that the GP Surgical Assist program has not achieved its intended results. The number of individual physicians receiving payments from the SA program has declined year over year since 2009/10, and while roughly half of GPs surveyed felt that the program improved their satisfaction with their overall compensation, surgeons did not believe that the program contributed to any increase in their ability to find GPs to perform surgical assists.

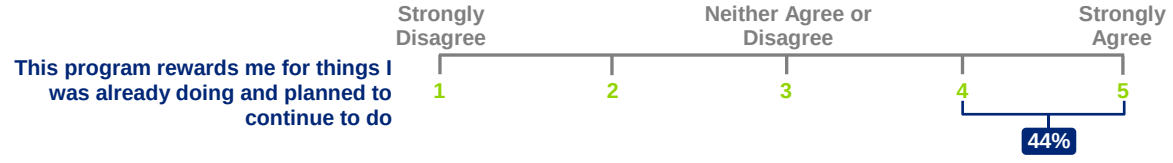
Cost effectiveness

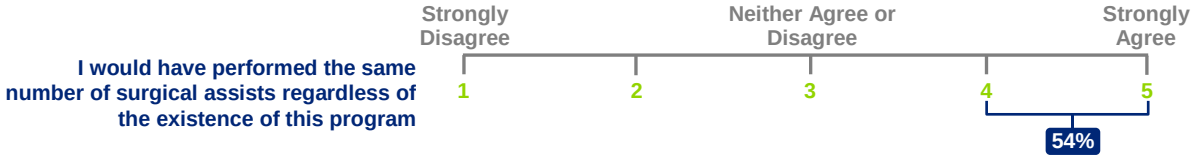
Question: Is this program as currently designed the most cost effective way to achieve the program's purpose?[25]

The program was considered by the majority of physicians to be an effective use of Master Agreement funding.



However, over 40% of respondents indicated that the program is rewarding them for things they were already doing, and planned to continue doing, and 54% indicated that the program had no impact on the number of assists they perform.





Notwithstanding the results of the two previously listed survey questions, results are mixed as to whether the program as currently constructed is the most effective way to achieve the program's purpose. While the program appears somewhat successful in rewarding physicians for lost office billings, it does not appear to be a cost effective way of encouraging physicians to perform assists.

Summary assessment – All criteria

Program	Strategic Alignment	Continued Relevance	Program Results	Cost Effectiveness
GP Surgical Assist Incentive Program (SA)				

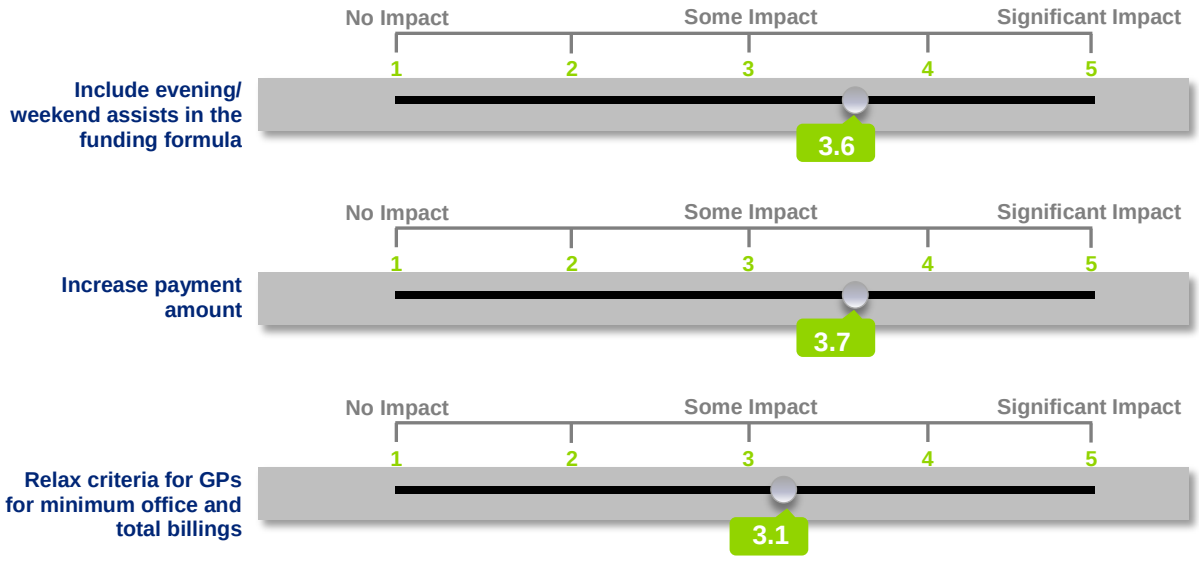
[25] *The criteria used to evaluate program cost effectiveness for each program can be found in Appendix A.*

Improvement opportunities

Question: How can this program be improved?

Based on our assessment of the program, changes to the program as currently constructed are recommended.

During focus groups throughout the province, physicians suggested a number of improvement opportunities that were then tested via the survey. By and large none of the improvement ideas put forward in the physician survey were thought to have more than a mild impact on improving the program, as evidenced by responses to the question that follow:



The following improvement opportunities are recommended for consideration:

1. Develop a precise area of need and target funding in those areas

- Focus group participants indicated that issues finding GPs to perform assists may be confined to rural DHAs. It is recommended that DHW/DNS validate this hypothesis using data and, if proven correct, allocate funding to DHAs that have difficulty finding GPs to assist surgeries, to provide a more cost effective use of Master Agreement funding.
- Focus group sessions indicated that it is easier to find individuals to perform assists in CDHA, given the number of GPs in CDHA and the prevalence of interns, nurse practitioners, and others who can provide assists. Rural DHAs indicated that they had a difficult time finding GPs to assist and were able to locate GPs by relying on relationships with other physicians.
- Focus group participants indicated that it was difficult in many rural DHAs to find GPs to perform late afternoon procedures (given GPs feel late afternoon procedures will run late/be canceled) or evening procedures. If data indicates that this is where the biggest issue finding GPs to assist resides, DHW/DNS may consider increasing the payment amount for GPs assisting during these times.

2. Payments should be time-based rather than procedure-based

- Physicians attending focus groups generally preferred fee for service arrangements, and many GPs indicated during focus groups that the program does not effectively compensate for time out of the office due primarily to frequent Operating Room (OR) delays. Until it does so, there appears to be a large cohort of GPs who will not perform assists. DHW/DNS should consider revisiting the linking of the payment to time of procedure, and including compensation for OR delays.
  - It is acknowledged that DNS and DHW explored this linkage previously, and in order to accomplish this, it would be necessary to have metrics, documentation and tracking of OR delays in place and available.
- Alternatively DHW could determine the average number of appointments a GP provides in one hour and compensate GPs using an average visit fee corresponding to the time spent performing an assist. DHW could also use average OR delays for the DHA to compensate for lost time due to OR delays should the procedure be delayed.

Evaluation of Unattached Patient Incentive Program (UP)

Introduction

Purpose

The purpose of the Unattached Patient Incentive (UP) program is to assist hospitalized patients or patients treated in the emergency department, who require follow-up care in the community, and do not have a family physician.

Eligibility and claims

All family physicians are eligible to claim under the UP program. In order to qualify for the payment, the following eligibility requirements must be met:

- The physician has had an established community-based family practice for at least one year prior to taking the unattached patient;
- The physician agrees to take the unattached patient into his/her practice following a qualifying inpatient or emergency department hospital encounter where the patient has been identified as unattached. The hospital encounter may have been directly with the physician making the claim, or by referral from the responsible hospital-based physician; and
- The physician maintains an open chart for the unattached patient for a minimum of one year.

The unattached patient is considered to have joined the community practice at the time of the initial visit. Claims for UP are submitted along with the standard billing fees associated with the visit. Evidence of the qualifying hospital visit is required as part of the record-keeping for claims under the program.

The incentive payment is set at $150. Fee-for-service physicians receive payment through the regular claims submitted. Alternative Payment Plan physicians receive payment by cheque every six (6) months. Locum physicians are not eligible for the program.

Program changes since inception

The guidelines for the UP program were not finalized until after the current Master Agreement had come into effect. As a result, physicians were permitted to claim the fee retroactively for the first year, with reduced record-keeping requirements. Since July 14, 2009, the record-keeping requirements have been enforced.

In addition, a clarification was issued after the inception of the program, advising physicians not to refer patients to the emergency department in order to claim under UP. Physicians were further cautioned that MSI would audit patient records to ensure that a medically necessary hospital visit did occur prior to the claim being submitted.

Program uptake

Some key points related to program uptake, as outlined in the tables below, include:

- With the exception of 2012/13, the number of physicians participating in the UP program has increased year-over-year during the life of the program.
- Male physicians demonstrated a greater uptake in the first year of the program. More recently, both male and female physicians participate at rates comparable to the physician demographics in the province.
- A total of 247 individual physicians received payments over the life of the program, representing 27% of the GP population in the province.[26]
- On average, individual physicians received payment in two of the five years during which the program was in place.
- The maximum earned by an individual physician in a single year was $50,717/year under the program.

Table 46: Unattached Patient Program uptake by year

Uptake by Gender	2008/09		2009/10		2010/11		2011/12		2012/13	
Female	7	37%	39	42%	55	50%	60	45%	60	48%
Male	12	63%	54	58%	55	50%	74	55%	66	52%
Total	19	100%	93	100%	110	100%	134	100%	126	100%

For any new program, it is difficult to predict uptake. The UP program has experienced significant growth over the first half of the current Master Agreement, and has been in decline since 2011/12.

Table 47: Unattached Patient Program funding and expenditures by fiscal year

	2008/09	2009/10	2010/11	2011/12	2012/13	Total
Funding*	-	-	-	-	-	-
Actual program spend**	$12,451	$135,617	$179,283	$112,374	$92,256	$531,981
Patients taken in by physicians	83	904	1195	749	615	3,546
Average $ per individual GP	$732	$1,507	$1,676	$845	$756	--
Max earned by an individual GP	$3,150	$50,717	$27,150	$ 11,701	$9,151	

** This program does not have a specified budget. It is paid though existing funding.*
*** Figures represent the gross amount paid by DHW. Two significant audit recoveries of approximately $30,000 each occurred in 2010/11 which have not been removed from the gross figures in the table above.*

Jurisdictional context

Of the four jurisdictions examined for this evaluation, Deloitte found no comparable programs to Nova Scotia's Unattached Patient Incentive program

[26] *Eligible physicians defined as GPs billing >$20,000 regardless of location.*

Program evaluation

The UP program was evaluated against the four criteria included in the evaluation framework developed for the program (included in Appendix A). For each evaluation criteria a rating was assessed using the following scale to denote the degree to which the program is delivering against each criterion on the basis of the evidence assembled as part of our review.

Legend	 Does not satisfy evaluation criteria	 Marginally satisfies evaluation criteria	 Partially satisfies evaluation criteria	 Mostly satisfies evaluation criteria	 Completely satisfies evaluation criteria

Strategic alignment

Question: How does the purpose of the UP program align with the documented strategic interests of DHW and DNS? 

At the time the UP program was conceived, its purpose was aligned with interests of DHW and DNS as evidenced by:

- The September 2007 Strategic Interests document issued by the DNS/DOH/DHA Issues Steering Committee. Specifically, the UP program aligned with Strategic Interest #2 “Optimizing the Physician Role in Primary Health Care.” The document specifically references responsibility for unattached patients in the comprehensive care component of Strategic Interest # 2.

Continued relevance

Question: Does the purpose of the UP program continue to be relevant to DHW and DNS? 

Available evidence suggests that the issue of unattached patients is still relevant to both DNS and DHW. Interviews with representatives of both organizations have indicated that there have been no changes to strategic interests with regard to unattached patients.

Program results

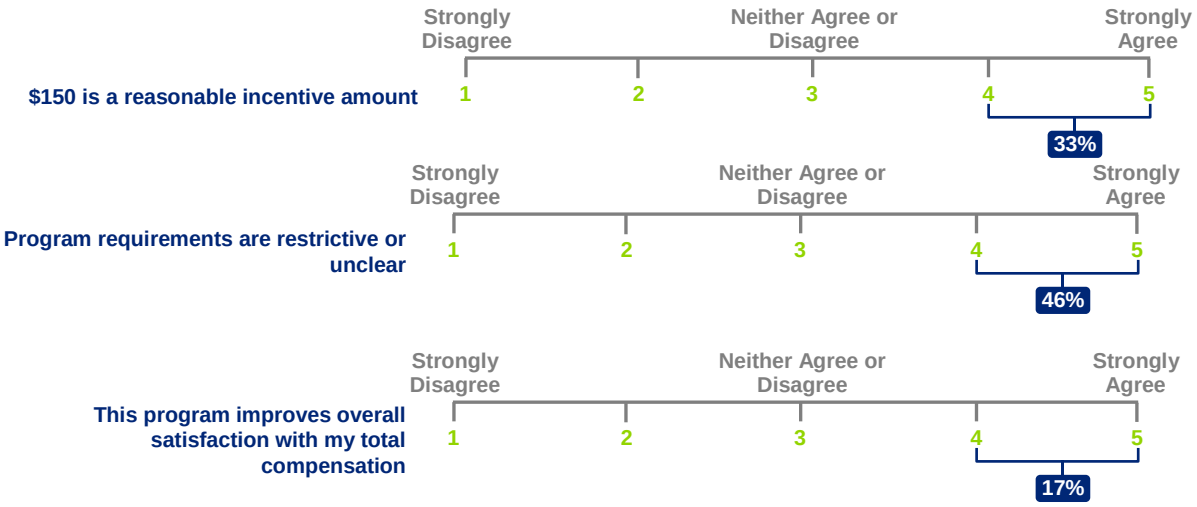
Question: To what extent is the program achieving its intended results:

a. Physician satisfaction with the program, as currently constructed 

Physicians are not satisfied with the UP program, as currently constructed, as evidenced below.

a. Physician satisfaction with the program, as currently constructed

Survey respondents were asked to what extent they agreed with a series of statements regarding their satisfaction with this program.



Only one third of respondents found that the incentive amount of $150 was sufficient to have a physician take on an unattached patient. This sentiment was echoed in stakeholder interviews and focus groups. However, it should also be noted that some focus group participants said that Emergency Department physicians appreciated the program, as it allowed them to feel better about referring a patient to a family physician, knowing that there would be some incentive involved.

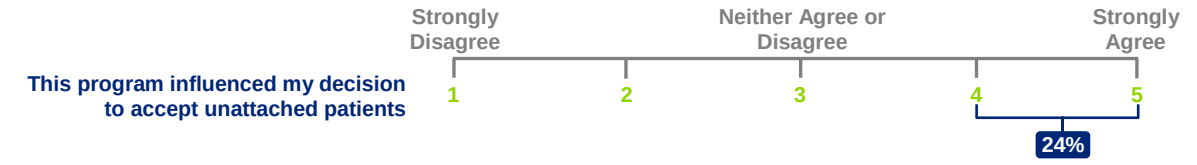
Just under a half of respondents indicated confusion regarding the requirements of the program. Focus group participants also raised this concern, noting that the program only addresses unattached patients discharged from hospitals, rather than all unattached patients.

Only 17% of survey respondents indicated that the UP program improved their satisfaction with their overall compensation. The average response for this question was 2.3. It is fair to say that respondents are not satisfied with the compensation received under this program.

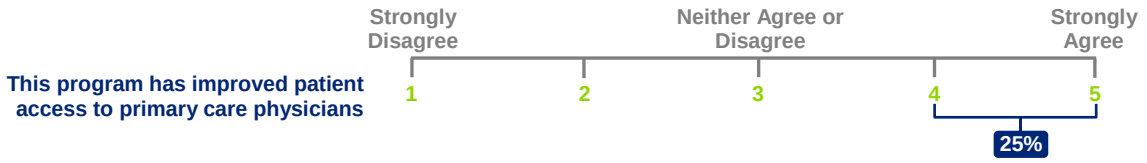
The written comments provided by survey respondents were mostly critical of the program:

- "Most unattached patients in our community have traits that make them challenging patients for primary care."
- "If you already have a full practice, I don't think the incentive will greatly influence you one way or another; if you are building up a practice, you may find this helpful."
- "The requirement for a hospital visit or [emergency] visit (with associated documentation) is silly - an unattached patient is an unattached patient, end of story! The requirement for a "referral" and the documentation to go with it is also silly. Creates a lot of busy work for no real purpose, other than to be restrictive."

The low satisfaction levels may relate to the fact that during focus groups, physicians demonstrated significant scepticism regarding the effectiveness of the program. Physicians often commented that they would normally take such patients into their practice – if their practice had capacity to do so – and the payment was not an incentive. This statement was confirmed by the survey, where only 24% of respondents indicated that the incentive influenced their decision to take on unattached patients.



Similarly, survey respondents were highly sceptical of the program's impact on patient access to primary care. Only 25% of respondents believed that the program had improved access.



The results of the physician survey also complement the anecdotal evidence provided by DNS and DHW stakeholders. Interviews with stakeholders have indicated that while the program had greater uptake in the early years, following a series of audits, many physicians stopped making claims for the program due to the risk or perception of recoveries. This is not to say that physicians did not continue to take in unattached patients; however, the incentive payment was not claimed routinely.

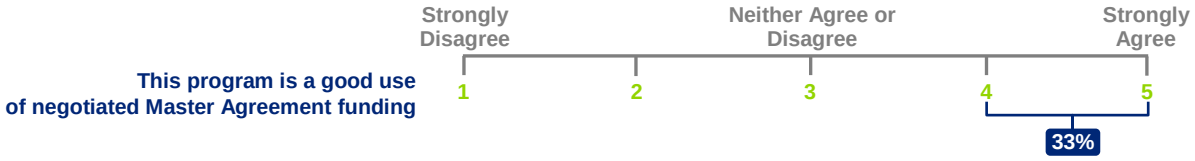
Summary – Program results

There was only one intended result for this program and we conclude that the program has only marginally delivered against it. Physicians are not satisfied with the program as currently constructed. The incentive payment has limited, if any, impact on physician satisfaction with their compensation. Only approximately one quarter of surveyed physicians indicated that the program payment would influence their decision to take on an unattached patient.

Cost effectiveness

Question: Is this program as currently designed the most cost effective way to achieve the program's purpose?[27]

We note below that only one third of survey respondents agreed that the UP program was a good use of Master Agreement funding.



Physicians in focus groups indicated that they felt the $150 fee for this program was too low and responses to the survey could be due to this sentiment. We do note, however, that more than 3,000 formerly unattached patients in NS have a family doctor as a result of this program. While data on the total number of unattached patients in the province is unavailable, we believe a reduction of 3,000 to be significant for $150/patient and for the overall amount spent over the life of the program.

Summary assessment – All criteria

Program	Strategic Alignment	Continued Relevance	Program Results	Cost Effectiveness
Unattached Patient Incentive Program (UP)				

[27] *The criteria used to evaluate program cost effectiveness for each program can be found in Appendix A.*

Improvement opportunities

Question: How can this program be improved?

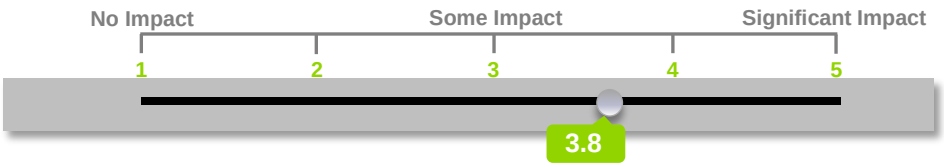
During the course of our review a number of improvement ideas were raised by stakeholders. We did not put forward all ideas received in our report and instead applied judgment to identify as improvement opportunities those that we believed had merit given our assessment As well we added improvement opportunities that resulted from our evaluation and were not recommended by any engaged stakeholder.

Based on the priorities of DHW and DHAs, there is a continuing need to provide primary care to unattached patients. The improvement areas suggested below are primarily related to the scope of the program.

1. Expand program scope

- Many physicians recommended that the program be expanded in scope to include all unattached patients, rather than requiring a patient to have a hospital encounter. The result of the survey question posed to physicians is included below.

Relax requirement that patients be taken into a community office practice following an Emergency Department or Inpatient care encounter



- Focus group participants felt:
  - The definition of unattached patient and eligibility requirements, particularly the discharge referral, are both too onerous and unclear and as such many physicians choose not to participate in the program.
  - Concern that the UP program was not addressing the larger issue of unattached patients or that of retiring physicians and practices that are closing.
  - The requirement of a practice being open for one year can disadvantage some physicians, and communities, from attracting new physicians or in establishing their practice in the community. Physicians who open new practices could ease the patient load of others by taking unattached patients yet are restricted from claiming under the program due to eligibility requirements.
  - Shifting the program to provide a one-time fee for a physician taking on a new patient from any source would provide a better impact to the system.
- Expanding the scope of the program to include a broader definition of unattached patients and/or relaxing the eligibility requirements should be considered to improve take-up and impact on the system of unattached patients.

2. Examine the payment amount

- Survey respondents indicated that the $150 payment amount was insufficient to incent physicians to take on an unattached patient. When asked what amount would incent them to take an unattached patient, responses ranged from acceptance of the status quo to $1,000. The average of suggested amounts was $350. DHW should consider estimating the cost to the Province of an unattached patient visit(s) to the ER or CEC as a reference point and consider the payment amount relative to this cost in future Master Agreement negotiations. Awareness of the cost to the system of an unattached patient (even an ER or CEC visit) is vital to understanding cost effectiveness of the program.

3. Initiate tracking of unattached patients

- It would be beneficial to examine whether, province wide, there has been a decline in unattached patients being discharged from ERs and CEC's since program inception. However, given the absence of baseline data regarding unattached patients discharged from hospitals, it is difficult to assess the impact of this program. Going forward, DHW should consider tracking the following in order to measure program success:
  - The number of ER visits for patients for which the unattached patient bonus was claimed.
  - The number of ER patients and inpatients declaring no family physician.
  - Many physicians, during focus group sessions, suggested tracking patients for which the UP program was claimed to study if their usage of the healthcare system changed after being taken in by a physician.

Overall conclusions and recommendations

By and large there was good alignment between the programs and the strategic priorities of key provincial stakeholders and the programs remain representative of issues relevant to parties to the agreement. As such the decision to create programs to change physician behaviour in these areas was sound. Despite the best efforts of DHW and DNS to design an innovative incentive-based approach to physician compensation, the eight programs under review are not delivering all of their intended results. This is due, in large measure, to the absence of an understanding the intended results, and no agreed baseline data at program outset. In many cases, programs were rewarding existing behavior, which is in line with the experience of similar pay-for-performance initiatives implemented in other jurisdictions. It is acknowledged that these programs were partly intended to serve as a compensation mechanism to direct funding to areas of strategic interest to all key parties to the Agreement and it was clear from this review that Nova Scotia physicians are cognizant that clinical initiatives in these areas are being recognized and rewarded.

Overall recommendations

Deloitte makes the following recommendations:

- For all programs where program results do not, or only marginally, satisfy the criteria, consider discontinuing or overhauling the program.
- Consider having fewer programs and potentially combining existing programs (e.g., CDM, CCIP, and CCVF) to more effectively target areas of strategic priority.
- Payment amounts for each program should not be reverse engineered based on a program budget and estimated uptake, instead set at a level that will achieve the desired outcomes in the most cost efficient manner
- Attempt to quantify the benefits of any program to the broader health system in a robust business case (For example, determine the cost of an unattached patient to the system). Recognize that incentive payments to physicians that generate savings to the health system as a whole represent a good return on investment. The payment to physicians should be at an agreed rate in keeping with overall system costs so that the impact on the system as a whole results in a net benefit.
- For all programs going forward, ensure the following design and payment elements are built in:

Table 48: Design and payment elements

Design	Payment
• Programs should look to target specific cohorts of physicians (e.g., specific DHAs or specialties) where there is the ability to pinpoint cohorts where behavior change is desired • Intended results are clear and quantifiable • Baseline data is available and agreed by DHW and DNS • Program design is simple and easily interpreted • Programs can be easily communicated (pre-test communication with a random sample of physicians) • If clinical practice guidelines are part of the program (e.g. CDM program), make use of the guidelines mandatory • Move toward fee for service design and away from payments not tied to physician behavior (e.g., Rural Specialist Incentive Program) • Eligibility requirements should be used to drive the highest program uptake possible and not to tackle issues outside the program (e.g. billing thresholds set at levels so to encourage 'part-time' GPs to work more)	• Effort required to receive payment is clearly communicated in advance of the program • Payment for completing the required effort is made shortly after the effort is expended • For any payment (including automatic payment) the reason for the payment amount should continue to be clearly communicated on a timely basis • Determine payment amounts in advance of the fiscal year and compensate physicians based on performance, moving away from the practice of paying out any remaining budget within a program to all eligible physicians • Improve transparency and communicate any payment thresholds in advance of the fiscal year

Program-specific recommendations

The table below summarizes the recommended improvements that are contained throughout this report for the eight programs under review.

Table 49: Recommended program improvements

Program	It was observed that…	Therefore, Deloitte recommends that the MASG…
Comprehensive Care Incentive Program	• Threshold levels may not be appropriate to incent physicians to maintain proficiency in certain services (e.g., obstetrical deliveries) • Physicians expressed confusion regarding the calculation of thresholds for payment levels	• Ensure thresholds and service categories are aligned with current care guidelines • Improve threshold transparency
Complex Care Visit Fee	• There is a general lack of baseline data required to gauge the impact of the program • The requirement for three eligible conditions is a higher threshold than other jurisdictions • Number of individual visits for complex patients per year cannot be expected to decline, and in fact have increased over the life of the program	• Gather baseline data to assess performance • Program scope should reassess requirement for 3 eligible conditions • Remove billing restrictions and consider changes to the program's intended result of reducing the number of patient visits per year
Chronic Disease Management (CDM) Incentive Program	• A number of common chronic conditions were not included in the program due to insufficient funding to cover additional conditions • It is difficult for Medavie to assess adherence to current guidelines without the use of a flow sheet • Other jurisdictions with similar programs have mandatory flow sheets	• Increase the number of qualifying conditions • Make CDM flow sheet mandatory and integrated into EMRs
Long Term Care Clinical Geriatric Assessment	• Awareness of the program is limited outside of DHA 9 and within many long term care facilities • Focus group participants expressed confusion regarding the program's requirements • The assessment would enhance the level of care for aging individuals living outside of long term care facilities	• Enhance engagement and awareness with physicians and long term care facilities • Clarify, and make more specific, both information and direction on this program • Examine all policies, programs and forms applicable to residents of long-term care facilities to ensure alignment • Expand patient reach beyond those in long term care facilities
Electronic Medical Record (EMR) Incentive Program	• EMR adoption in Nova Scotia lags those of comparable programs in Canada, despite competitive funding • Comparable programs in other jurisdictions eventually shifted more focus to utilization from adoption • Specialist adoption has been a continuing challenge for the program • Currently, physicians are only required to declare that they have participated in EMR education courses to receive payment; however, this has not been audited • Physicians expressed confusion with the formula used to calculate the payment provided by Envelope C • Some physicians still express doubts regarding the efficiency gains provided by EMR use	• Shift program focus towards utilization • Better understand stakeholder requirements and provide more targeted adoption for specific physician cohorts (Investment Grant) • Examine current EMR educational offerings for effectiveness (Participation Grant) • Explore linking EMR education offerings to CME credits to enable easier measurement (Participation Grant) • Make changes to the Utilization Grant so it rewards for behavior, and does not distribute an unknown pot of funding among all eligible physicians • Take steps to educate physicians on the benefits of EMRs
Rural Specialist Retention Incentive Program	• Some jurisdictions provide a premium on fees for rural practitioners • There are very different drivers for retention and recruitment	• Change program focus to fee-for-service • Clarify the program's purpose
GP Surgical Assist Incentive Program	• There is a more acute shortage of GPs to perform surgical assists in rural DHAs • Physicians indicated that the incentive was insufficient when longer delays are encountered	• Develop a precise area of need and target funding in those areas • Payments should be time-based rather than procedure-based
Unattached Patient Incentive Program	• The program could have a greater impact on the health system if the requirement for a hospital visit was removed • Physicians indicated that a higher payment amount would be appropriate for incenting them to take on a new patient • There is currently no generally accepted way to track unattached patients	• Expand program scope • Examine the payment amount • Initiate tracking of unattached patients

Concluding remarks

The parties to the NS Master Agreement were breaking new ground in the province in 2008 by introducing programs intended to facilitate changes to physician behaviour. Deloitte acknowledges the effort required to design and structure new methods of compensation to the satisfaction of all stakeholders. The MASG has shown, over the course of the current Master Agreement, a willingness to make changes to the programs in order to strengthen them and to address stakeholder feedback. We are hopeful that the recommendations contained herein will provide the MASG with insight that can be used to help improve the current physician payment landscape.

Appendix A – Evaluation Frameworks

Table 1A: GP Comprehensive Care Incentive Program Evaluation Framework

GP Comprehensive Care Incentive Program			
Evaluation Criteria	**Evaluation Question / Objective**	**Information Required**	**Data and Information Sources**
Strategic Alignment	1. The purpose of the CCIP is to provide incentives to family physicians for providing a comprehensive breadth (different locations, patient populations and service types), and depth (volume) of services for their patients and the broader health care system in addition to their office practice. The program is also intended to encourage family physicians, who are already providing comprehensive care, to continue to do so as well as to encourage all physicians to expand the services they provide. a. How does the purpose of this program align with the documented strategic interests of DHW and DNS?	(a) Identification of strategic interests of DHW and DNS as it relates to comprehensive care	(a) Interviews with agreed stakeholders (a) Strategic Interests document, Sept 2007
Continued Relevance	2. Does the purpose of the CCIP program continue to be relevant to DHW and DNS?	(a) Identification of any changes to the strategic priorities of DHW and DNS as it relates to comprehensive care (documentation or otherwise)	(a) Interviews with agreed stakeholders (a) Documentation from DHW and DNS
Program Results	3. To what extent is the program achieving the intended results: a. Individual physicians providing increased types and volume of services year over year (full-time and part-time practitioners) b. Overall increase or a reduction in the year over year declines in the volume of each service being performed in the province c. Physician satisfaction with the program, as currently constructed	(a) Evidence that physicians are increasing comprehensive service delivery (activity levels from 2005-present) (b) Whether billings for these services have increased since program inception (activity levels from 2005-present) (c) Degree of satisfaction of physicians with the program	(a) (b) DHW (billing and chart audit results) (c) Survey of physicians
Cost Effectiveness	4. Is this program as currently designed the most cost effective way to achieve the program's purpose, considering: • Payments to physicians (amount of bonus payment, overall amount of payments; payments to individual physicians; and allocation of budget)	(a) Payments to individual physicians (budget, payment and claims; annual, and over lifetime of program)	(a) DHW (a) Information from other jurisdictions
Improvement Opportunities (Thought Starters)	5. How can this program be improved, for example in areas such as: • Remuneration process (threshold transparency for physicians, timeliness, etc.) • Efforts to communicate and educated physicians on the program • Is the amount of the incentive appropriate? Does it encourage behaviour in line with intended results of the program?	• Ideas and Insights	• Interviews with DNS and DHW administrators • Interviews with Medavie Blue Cross • Interviews with provincial programs • Jurisdictional scan • Physician focus groups • Survey of physicians

Table 2A: Complex Care Visit Fee Evaluation Framework

Complex Care Visit Fee Payments			
Evaluation Criteria	**Evaluation Question / Objective**	**Information Required**	**Data and Information Sources**
Strategic Alignment	1. The purpose of this program is to acknowledge the increased time and effort required by family physicians to address the needs of 'complex' patients with multiple chronic illnesses. a. How does the purpose of this program align with the documented strategic interests of DHW and DNS?	(a) Identification of strategic interests of DHW and DNS as it relates to complex care	(a) Interviews with agreed stakeholders (a) Strategic Interests document, Sept 2007
Continued Relevance	2. Does the purpose of the CCVF program continue to be relevant to DHW and DNS?	(a) Identification of any changes to the strategic priorities of DHW and DNS as it relates to complex care	(a) Interviews with agreed stakeholders (a) Documentation of current priorities of DHW and DNS
Program Results	3. To what extent is the program achieving the intended results: a. Reduction in the number of visits per patient, per year b. Patient satisfaction with the time spent with physicians and a reduced number of visits c. Program uptake d. Fewer ER visits for complex patients e. Physician satisfaction with the program, as currently constructed	(a) Number of discreet visits per year per patient (b) Patient satisfaction (c) Code claims (d) Data on patients for which fees are claimed and whether emergency room visits have decreased. (e) Satisfaction of physicians with the program	(a) DHW (b) Interviews with provincial programs (c) DHW (d) DHW (e) Survey of physicians
Cost Effectiveness	4. Is this program as currently designed the most cost effective way to achieve the program's purpose, considering: • Payments to physicians (amount of bonus payment, overall amount of payments; payments to individual physicians; and allocation of budget)	(a) Payments to individual physicians (budget, payment and claims; annual, and over lifetime of program)	(a) DHW (a) Information from other jurisdictions
Improvement Opportunities (Thought Starters)	5. How can this program be improved, for example in areas such as: • Remuneration process (as applicable: e.g., determining eligibility, processing, timeliness, etc.) • Efforts to communicate and educated physicians on the program • Is the number of qualifying conditions appropriate? • Is the amount of the incentive appropriate? Does it encourage behaviour in line with the intended results of the program?	• Ideas and Insights	• Interviews with DNS and DHW administrators • Interviews with Medavie Blue Cross stakeholders • Interviews with provincial programs • Jurisdictional scan • Physician focus groups • Survey of physicians

Table 3A: Chronic Disease Management Incentive Program Evaluation Framework

Chronic Disease Management Incentive Program			
Evaluation Criteria	**Evaluation Question / Objective**	**Information Required**	**Data and Information Sources**
Strategic Alignment	1. The purpose of this program is to align with the desire of the government and DNS to move toward guideline-based care, and to recognize the additional work of family physicians, beyond office visits, of ensuring guideline-based care is provided to patients with specific chronic diseases and to support more comprehensive management of chronic disease at the primary care level. a. How does the purpose of this program align with the documented strategic interests of DHW and DNS?	(a) Identification of strategic interests of DHW and DNS as it relates to CDM	(a) Interviews with agreed DNS & DHW stakeholders (a) Strategic Interests document, Sept 2007
Continued Relevance	2. Does the purpose of the CDM program continue to be relevant to DHW and DNS?	(a) Identification of any changes to the strategic priorities of DHW and DNS as it relates to CDM	(a) Interviews with agreed DNS & DHW stakeholders (a) Documentation of current and emerging priorities from DHW and DNS
Program Results	3. To what extent is the program achieving its intended results: a. Consistent provision of guideline-based care across the province, according to program guidelines b. Physicians managing chronic disease patients more actively c. Physician satisfaction with the program, as currently constructed	(a) Evidence that patients are being treated in accordance with guideline-based care (b) Billings for service codes related to chronic diseases (pre and post program: 2006-present) (c) Satisfaction of physicians with the program	(a) Results/findings of Medavie Blue Cross claims assessments (a) Interviews with provincial programs (Diabetes Care Program of Nova Scotia & Cardiovascular Health Nova Scotia) (b) DHW (c) Survey of physicians
Cost Effectiveness	4. Is this program as currently designed the most cost effective way to achieve the program's purpose, considering: a. Payments to physicians (amount of bonus payment, overall amount of payments; payments to individual physicians; and allocation of budget)	(a) Payments to individual physicians (budget, payment and claims; annual, and over lifetime of program)	(a) DHW (a) Information from other jurisdictions
Improvement Opportunities (Thought Starters)	5. How can this program be improved, for example in areas such as: • Remuneration process (as applicable: e.g., determining eligibility, processing, timeliness, etc.) • Efforts to communicate and educate physicians on the program • Is the amount of the incentive appropriate? Does it encourage behaviour in line with the intended results of the program?	• Ideas and Insights	• Interviews with DNS and DHW stakeholders • Interviews with Medavie Blue Cross stakeholders • Interviews with Diabetes Care Program of Nova Scotia & Cardiovascular Health Nova Scotia • Jurisdictional scan • Physician focus groups • Survey of physicians

Table 4A: Long Term Care Clinical Geriatric Assessment Program Evaluation Framework

Long Term Care Clinical Geriatric Assessment Program			
Evaluation Criteria	**Evaluation Question / Objective**	**Information Required**	**Data and Information Sources**
Strategic Alignment	1. The purpose of this program was to help improve the assessment, management and care of nursing home residents in long term care facilities. a. How does the purpose of this program align with the documented strategic interests of DHW and DNS?	(a) Identification of strategic interests of DHW and DNS as it relates to geriatric care	(a) Interviews with agreed stakeholders (a) Strategic Interests document, Sept 2007
Continued Relevance	2. Does the purpose of the Long Term CGA program continue to be relevant to DHW and DNS?	(a) Identification of any changes to the strategic priorities of DHW and DNS as it relates to geriatric care	(a) Interviews with agreed stakeholders (a) Documentation of current priorities from DHW and DNS
Program Results	3. To what extent is the program achieving the intended results: a. Service providers across the province feel that the CGA enables a more collaborative approach to patient care b. Creation of a baseline of patient frailty levels via completed CGAs c. Use of CGA as a clinical tool by other service providers d. Nursing home satisfaction with program e. Physician satisfaction with the program, as currently constructed	(a) Service provider satisfaction (b) CGA completion rates year over year (Program uptake) (c) Usage by other service providers (d) Nursing home satisfaction (e) Physician satisfaction	(a) Sampling of service provider satisfaction via interviews (b) DHW (c) Service provider/ stakeholder interviews (d) Nursing home survey/interviews (e) Physician survey
Cost Effectiveness	4. Is this program as currently designed the most cost effective way to achieve the program's purpose, considering: a. Payments to physicians (amount of bonus payment, overall amount of payments; payments to individual physicians; and allocation of budget)	(a) Payments to individual physicians (budget, payment and claims; annual, and over lifetime of program)	(a) DHW (a) Information from other jurisdictions
Improvement Opportunities (Thought Starters)	5. How can this program be improved, for example in areas such as: • Remuneration process (as applicable: e.g., determining eligibility, processing, timeliness, etc.) • Efforts to communicate and educated physicians on the program • Is the amount of the incentive appropriate? Does it encourage behaviour in line with the intended results of the program?	• Ideas and Insights	• Interviews with DNS and DHW administrators • Interviews with Medavie Blue Cross stakeholders • Interviews with provincial programs • Jurisdictional scan • Physician focus groups • Survey of physicians

Table 5A: Electronic Medical Records Incentive Program Evaluation Framework

Electronic Medical Records Incentive Program			
Evaluation Criteria	**Evaluation Question / Objective**	**Information Required**	**Data and Information Sources**
Strategic Alignment	1. The purpose of the Master Agreement EMR Incentive Program is to increase EMR adoption and usage of EMRs. a. How does the purpose of this program align with the documented strategic interests of DHW and DNS?	(a) Identification of strategic interests of DHW and DNS as it relates to EMRs	(a) Interviews with agreed stakeholders (a) Strategic Interests document, Sept 2007
Continued Relevance	2. Does the purpose of the Master Agreement EMR Incentive Program continue to be relevant to DHW and DNS?	(a) Identification of any changes to the strategic priorities of DHW and DNS as it relates to electronic medical records	(a) Interviews with agreed stakeholders (a) Documentation of current priorities from DHW and DNS
Program Results	3. To what extent is the incentive program achieving the intended results: a. Achieve the agreed targeted adoption rate of 180 physicians per year (GPs and Specialists) b. Use of education dollars for EMR education c. Increase in utilization of EMRs by physicians	(a) Uptake rate of EMRs among physicians via MA Program (b) Envelope B spending analysis (year-over-year funding by DHA and physician) (c) Level of utilization of EMRs (self-reported)	(a) (b) DHW (c) DNS Survey
Cost Effectiveness	4. Is this incentive program as currently designed the most cost effective way to achieve the program's purpose, considering: a. Payments to physicians (amount of bonus payment, overall amount of payments; payments to individual physicians; and allocation of budget) b. Amount of funding that DHW is providing to cover implementation and ongoing costs of EMRs to individual physicians	(a) Payments to individual physicians (budget, payment and claims; annual, and over lifetime of program) (b) Total amounts of DHW funding for implementation and ongoing costs of EMRs – MASG and other sources	(a) (b) DHW (a) Information from other jurisdictions
Improvement Opportunities (Thought Starters)	5. How can this program be improved, for example in areas such as: • Remuneration process (as applicable: e.g., determining eligibility, processing, timeliness, etc.) • Efforts to communicate and educated physicians on the program • Is the amount of the incentive appropriate? Does it encourage behaviour in line with the intended results of the program?	• Ideas and Insights	• Interviews with DNS and DHW administrators • Interviews with Mediavie Blue Cross stakeholders • Interviews with provincial programs • Jurisdictional scan • Physician focus groups • Survey of physicians

Table 6A: Rural Specialist Retention Incentive Program Evaluation Framework

Rural Specialist Retention Incentive Program			
Evaluation Criteria	**Evaluation Question / Objective**	**Information Required**	**Data and Information Sources**
Strategic Alignment	1. The purpose of this program is to address the strategic issue of physician recruitment and retention. a. How does the purpose of this program align with the documented strategic interests of DHW and DNS?	(a) Identification of strategic interests of DHW and DNS as it relates to Rural Specialists	(a) Interviews with agreed stakeholders (a) Strategic Interests document, Sept 2007
Continued Relevance	2. Does the purpose of the Rural Specialist Retention Incentive Program continue to be relevant to DHW and DNS?	(a) Identification of any changes to the strategic priorities of DHW and DNS as it relates to rural specialists	(a) Interviews with agreed stakeholders (a) Documentation of current priorities from DHW and DNS (e.g., Physician Resource Plan)
Program Results	3. To what extent is the program achieving the intended results: a. Increase or no change to the percentage (or absolute number) of specialist physicians practicing in rural areas b. Reduction in vacancy rates for rural specialists within each DHA c. Reduction in the duration of vacancy periods for open rural specialist positions d. Physician satisfaction with the program, as currently constructed	(a) Percentage of physicians practicing in rural areas (pre/post program inception) (b) Data on physicians practicing in rural areas (c) Vacancy information from DHAs (e) Physician satisfaction	(a) (b) DHW (c) DHAs (e) Physician survey
Cost Effectiveness	4. Is this program as currently designed the most cost effective way to achieve the program's purpose, considering: a. Payments to physicians (amount of bonus payment, overall amount of payments; payments to individual physicians; and allocation of budget)	(a) Payments to individual physicians (budget, payment and claims; annual, and over lifetime of program)	(a) DHW (a) Information from other jurisdictions
Improvement Opportunities (Thought Starters)	5. How can this program be improved, for example in areas such as: • Remuneration process (as applicable: e.g., determining eligibility, processing, timeliness, etc.) • Efforts to communicate and educated physicians on the program • Is the amount of the incentive appropriate? Has it made a difference in recruitment or retention?	• Ideas and Insights	• Interviews with DNS and DHW administrators • Interviews with Medavie Blue Cross stakeholders • Interviews with provincial programs • Jurisdictional scan • Physician focus groups • Survey of physicians

Table 7A: GP Surgical Assist Incentive Program Evaluation Framework

GP Surgical Assist Incentive Program			
Evaluation Criteria	**Evaluation Question / Objective**	**Information Required**	**Data and Information Sources**
Strategic Alignment	1. The purpose of this program is to recognize GPs who lose office billings when performing surgical assists and to encourage GPs to perform surgical assists by providing some incentive for them to do so. a. How does the purpose of this program align with the documented strategic interests of DHW and DNS?	(a) Identification of strategic interests of DHW and DNS as it relates to GP Surgical Assists	(a) Interviews with agreed stakeholders (a) Strategic Interests document, Sept 2007
Continued Relevance	2. Does the purpose of the Surgical Assist Incentive Program continue to be relevant to DHW and DNS?	(a) Identification of any changes to the strategic priorities of DHW and DNS as it relates to surgical assists	(a) Interviews with agreed stakeholders (a) Documentation of current priorities from DHW and DNS
Program Results	3. To what extent is the program achieving the intended results: a. Increase in the overall number of GPs performing surgical assists (both with and without office billings) b. Satisfaction of the physicians providing the assist with the program, as currently constructed c. Satisfaction of surgeons with the program, as currently constructed	(a) Evidence that office-based GPs are performing surgical assists (e.g., office billings associated with SA fee code; activity levels 2005-present) (b) Satisfaction of physicians with the program (c) Satisfaction of surgeons with the program (re: surgeries cancelled, delays)	(a) DHW (b) Survey of GPs (c) Survey of surgeons
Cost Effectiveness	4. Is this program as currently designed the most cost effective way to achieve the program's purpose, considering: a. Payments to physicians (amount of bonus payment, overall amount of payments; payments to individual physicians; and allocation of budget)	(a) Payments to individual physicians (budget, payment and claims; annual, and over lifetime of program)	(a) DHW (a) Information from other jurisdictions
Improvement Opportunities (Thought Starters)	5. How can this program be improved, for example in areas such as: • Remuneration process (as applicable: e.g., determining eligibility, processing, timeliness, etc.) • Efforts to communicate and educated physicians on the program • Is the amount of the incentive appropriate? Does it-encourage behaviour in line with the intended results of the program?	• Ideas and Insights	• Interviews with DNS and DHW administrators • Interviews with Medavie Blue Cross stakeholders • Interviews with provincial programs • Jurisdictional scan • Physician focus groups • Survey of physicians

Table 8A: Unattached Patient Incentive Program Evaluation Framework

Unattached Patient Incentive Program			
Evaluation Criteria	**Evaluation Question / Objective**	**Information Required**	**Data and Information Sources**
Strategic Alignment	1. The purpose of this program was to address the specific issue of hospitalized patients or patients treated in the emergency department for medical problems who require follow-up in the community and who don't have a family physician. a. How does the purpose of this program align with the documented strategic interests of DHW and DNS?	(a) Identification of strategic interests of DHW and DNS as it relates to unattached patients	(a) Interviews with agreed stakeholders (a) Strategic Interests document, Sept 2007
Continued Relevance	2. Does the purpose of the Unattached Patient program continue to be relevant to DHW and DNS?	(a) Identification of any changes to the strategic priorities of DHW and DNS as it relates to unattached patients	(a) Interviews with agreed stakeholders (a) Documentation of current priorities from DHW and DNS
Program Results	3. To what extent is the program achieving the intended results: a. Physician satisfaction with the program, as currently constructed	(a) Satisfaction of physicians with the program	(a) Survey of physicians
Cost Effectiveness	4. Is this program as currently designed the most cost effective way to achieve the program's purpose, considering: a. Payments to physicians (amount of bonus payment, overall amount of payments; payments to individual physicians; and allocation of budget)	(a) Payments to individual physicians (budget, payment and claims; annual, and over lifetime of program)	(a) DHW (a) Information from other jurisdictions
Improvement Opportunities **(Thought Starters)**	• How can this program be improved, for example in areas such as: • Remuneration process (as applicable: e.g., determining eligibility, processing, timeliness, etc.) • Efforts to communicate and educated physicians on the program • Is the amount of the incentive appropriate? Does it encourage behaviour in line with the intended results of the program?	• Ideas and Insights	• Interviews with DNS and DHW administrators • Interviews with Medavie Blue Cross stakeholders • Interviews with provincial programs • Jurisdictional scan • Physician focus groups • Survey of physicians

Appendix B – Interview and Focus Group List

Aside from the aforementioned Steering Committee who played an active role during the course of our work providing insight, data and information, we met with the following persons during the course of our work to specifically discuss aspects of the Master Agreement incentive programs.

Table 1B: List of stakeholder interviews

Name	Position	Organization
Dr. Bruce Wright Dr. Don Pugsley Dr. Cindy Forbes Dr. Jane Brooks (Joint meetings)	Former MASG member MASG member MASG member Former Chair of the GP Comprehensive Care Working Group	Doctors Nova Scotia
Nancy MacCready-Williams	CEO	Doctors Nova Scotia
Kevin Chapman	Director, Health Policy & Promotion	Doctors Nova Scotia
Stewart Gray	Director, Information Management & Strategy	Doctors Nova Scotia
Samantha Holmes	Director, Physician Engagement	Doctors Nova Scotia
Alana Patterson	Director, Physician Compensation & Negotiations	Doctors Nova Scotia
Carol Walker	Compensation Manager, Master Agreement	Doctors Nova Scotia
Patrick Riley	Manager, Physician Master Agreement	Department of Health and Wellness
Dr. Shaun MacCormick	Chief of Staff, Colchester East Hants Health Authority - Former DHA representative on the MASG	Department of Health and Wellness
Lisa Grandy	Director, Primary Health Care	Department of Health and Wellness
Angela Purcell	Director of Physician Services	Department of Health and Wellness
Dr. David Gass	Physician Advisor	Department of Health and Wellness
Ian Bower	Executive Director. Emergency Health Services & Primary Health Care	Department of Health and Wellness
Eleanor Hubbard	Chief, Partnerships & Physician Services	Department of Health and Wellness
Sandra Cascadden	Chief Information and Health Transformation Officer	Department of Health and Wellness
John Buckley	Project Lead, Electronic Medical Record Adoption Project	Department of Health and Wellness
Joanne MacKinnon	Physician Recruiter, Physician Services	Department of Health and Wellness
Dr. Barry Clarke	District Medical Director	Continuing Care Services, CDHA
Neala Gill	Program Manager	Cardiovascular Health Nova Scotia
Peggy Dunbar	Program Manager	Diabetes Care Nova Scotia
Twyla Taylor	Contract Manager, NS Public Programs	Medavie Blue Cross
Dr. Rhonda Church	Medical Consultant	Medavie Blue Cross

In addition to interviews, Deloitte held a number of focus groups during the course of our work, including physician focus groups in each DHA (two in HRM). Below is a list of the focus groups held during the course of our work.

Table 2B: List of focus group sessions

Group	Date
Doctors Nova Scotia IT Steering Committee	January 9, 2013
DHA VPs of Medicine / Chiefs of Staff	January 11, 2013
The Provincial Council of District Medical Directors of Continuing Care	January 25, 2013
DHA 1 – South Shore Health Authority Physicians	February 19, 2013
DHA 2 – South West Health Authority Physicians	February 12, 2013
DHA 3 – Annapolis Valley Health Authority Physicians	January 30, 2013
DHA 4 – Colchester East Hants Health Authority Physicians	February 5, 2013
DHA 5 – Cumberland Health Authority Physicians	February 11, 2013
DHA 6 – Pictou County Health Authority Physicians	January 29, 2013
DHA 7 – Guysborough Antigonish Strait Health Authority Physicians	February 13, 2013
DHA 8 – Cape Breton District Health Authority Physicians	January 29, 2013
DHA 9 – Capital District Health Authority / IWK Physicians	January 31, 2013 (Two Sessions)
Directors of Care/Nurse Managers – Long Term Care Facilities	June 4, 2013

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