



Pioneering pay-for-success in Canada

—

A new way to pay
for social progress

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About MaRS Centre for Impact Investing

MaRS Centre for Impact Investing works to unlock the power of private capital to tackle our toughest social challenges. As a non-profit, we work with governments, investors, service providers and ventures to create funding solutions for projects that deliver real social change.



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Introduction

No matter how good our intentions or how much money we spend, we continue to struggle with many of the same problems. Solutions to deep social ills—chronic disease, homelessness, children in government care—seem distant despite constant effort. Tying social spending to outcomes attempts to make our efforts more effective. Outcome funding pays social programs based on results rather than on activities or budgets. Pay-for-success (PFS), the most prominent outcome-funding tool, gives governments the chance to fix every dollar to social change.

Under a PFS arrangement (also known as a social impact bond), a nonprofit service provider asks private investors to lend money to finance a social program. The government repays the investors with interest if the program meets its outcome targets. PFS hypothesizes that attaching payment to outcomes will drive better program design and execution. Structuring a PFS contract forces the government, service providers and investors to precisely define and measure what they believe matters.

In October 2016, the Public Health Agency of Canada (PHAC), the Heart and Stroke Foundation of Canada (HSF) and the MaRS Centre for Impact Investing (MCII) launched the Community Hypertension Prevention Initiative (CHPI), a community intervention financed by a PFS contract. Through CHPI, HSF aims to persuade 7,000 pre-hypertensive people to adopt healthier lifestyles to stabilize or reduce their blood pressure. Investors will put up the funding, HSF will run the program and PHAC will pay out if the program meets its goals.

PFS has spread rapidly across the globe, in the process attracting countless papers debating its virtues and shortfalls. This paper will add to those pages only to tell the story of the Heart and Stroke project, the first large-scale PFS contract commissioned by the Government of Canada. It will explore the project's design from idea to launch and focus on the questions governments must answer to commission a program by PFS. By sharing our project's promising but imperfect example, the paper will guide governments to a better understanding of the tradeoffs, trials and merits of PFS development.

What is a pay-for-success contract?

A pay-for-success (PFS) contract is a tool to finance social programs. It specifies a program's outcome metrics (for example, the body mass index of diabetic people) and sets targets for those metrics (for example, a 20%

fall in body mass index over a four-month period). The contract requires the outcome payer (to date, always the government) to pay to the degree the service provider meets its outcome targets. The service provider asks investors for a loan to deliver the program. The government pays those investors if the program hits its outcome targets, and does not pay if the program misses its targets.

The Heart and Stroke PFS contract

The problem

Heart disease and stroke kill tens of thousands of Canadians every year and burden many more. Hypertension (systolic blood pressure ≥ 140 mmHg, or ≥ 130 mmHg for people with diabetes), the top risk factor for stroke and an important risk factor for heart disease, afflicts 53% of Canadians age 60 or older. Another 24% of Canadians age 60 or older are pre-hypertensive (systolic blood pressure between 120 and 139 mmHg, or 120 and 129 mmHg for people with diabetes).¹ If left untreated, a pre-hypertensive person's blood pressure will very likely rise, eventually above 140 mmHg. Small changes to adopt healthy behaviours, however, can flatten or reverse that trend.

The intervention

The Heart and Stroke PFS contract will fund the Community Hypertension Prevention Initiative (CHPI). The initiative begins when a person—say Shira, a 62-year-old woman—walks into a Shoppers Drug Mart and asks a peer health volunteer to measure her blood pressure. (While some people may ask for a blood pressure reading on their own initiative, we expect most to do so on a doctor's recommendation.) If Shira's blood pressure reads over 120 mmHg, the volunteer will help her identify her hypertension risk factors (such as inactivity or a poor diet) and set goals to reduce those risk factors. The volunteer will also show Shira how to use CHPI's online risk-management platform. The volunteer will then ask Shira to return to the pharmacy in six months for a second blood pressure reading.

Through the online platform, Shira can track her goals, take on weekly challenges and find tailored tips to keep her on pace. She can also connect to behaviour change coaches and learn about activities in her community; she can earn incentives like loyalty points for taking part in those activities. Six months later, the platform will prompt Shira to return to the pharmacy, where another volunteer will read her blood pressure and review her risk factors.

The volunteer will end the program by offering advice on how to maintain the lifestyle upgrades Shira has made so far.

Fig. 1: A user's experience through CHPI



The metrics

CHPI's two payment metrics cover pre-hypertensive people over the age of 40 who are not taking blood pressure medication. It also serves people who do not fit that category, but those people will not count toward the program's intake volume or blood pressure metrics.

Intake volume metric: The intake volume metric counts the number of people who submit to a blood pressure reading and sign up for the program.

Blood pressure metric: The blood pressure metric calculates the average change in blood pressure across all participants after six months.

The players

The Heart and Stroke Foundation is responsible for achieving the outcome targets. It managed the program's design, supported the capital raise and will staff, coordinate and deliver the intervention.

The Public Health Agency of Canada will pay investors if the program meets its targets.

The MaRS Centre for Impact Investing managed the capital raise, advised on the program's design and will support performance review during the intervention.

Miller Thomson LLP wrote the contracts.

Ten *investors* will fund the intervention upfront and review performance throughout.

The Social Research and Demonstration Corporation will independently validate the intervention's results.

Fig. 2 Heart and Stroke PFS structure

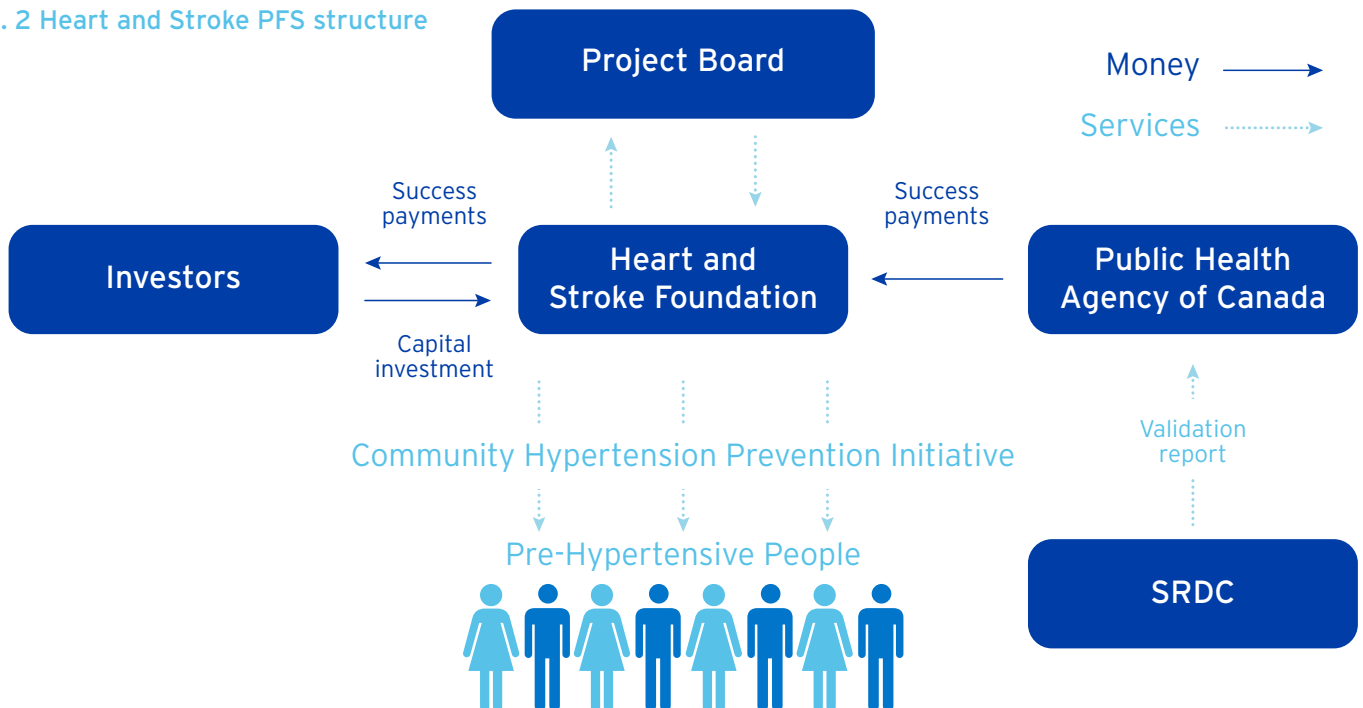


Table 1: Heart and Stroke PFS summary

	Key activities	The hard questions we faced
1	Signal the market	<ol style="list-style-type: none"> 1. Identify social problem 2. Solicit partnership and ideas 3. Build government support <ul style="list-style-type: none"> • Is a PFS contract the right tool to meet the government's goals?
2	Scrutinize the program	<ol style="list-style-type: none"> 1. Evaluate evidence 2. Assess service provider's capacity <ul style="list-style-type: none"> • Does the program have the right amount of evidence to meet the government's goals?
3	Specify the outcomes	<ol style="list-style-type: none"> 1. Define outcome metrics and targets 2. Select evaluation method <ul style="list-style-type: none"> • How long must a person maintain a behaviour change before the government can conclude that the change will last beyond the end of the intervention? • Can the government justify paying for results without measuring those results against a control group?
4	Structure the payments	<ol style="list-style-type: none"> 1. Set payments 2. Model cash flow <ul style="list-style-type: none"> • How should the government price a program's outcomes? • When can the government justify splitting payments between outcomes and outputs?
5	Raise the money	<ol style="list-style-type: none"> 1. Attract investors 2. Support due diligence <ul style="list-style-type: none"> • To what degree should the government direct the capital raise?
6	Negotiate contracts	<ol style="list-style-type: none"> 1. Negotiate legal structure 2. Arrange project board <ul style="list-style-type: none"> • When should the government and investors contract directly with the service provider (instead of with a third-party performance manager)?

Steps to the Heart and Stroke PFS contract

While this paper presents the following steps in a linear fashion, PHAC, HSF and MCII actually cycled through the steps many times. At this stage in their evolution, PFS contracts do not submit to an easy process.

All parties should understand the costs and challenges of the process before embarking on PFS development. This paper aims in part to help that understanding.

STEP 1: SIGNAL THE MARKET

Key activities

- 1) Identify the social problem.
- 2) Solicit ideas and partnerships to address the root causes of the problem.

- 3) Build support within the government for a PFS approach.

The hard question we faced

- 1) Is a PFS contract the right tool to meet the government's goals?

The contributions by which government funds most social problems feature a few weaknesses: short timelines, scarce cross-sector partnerships and little emphasis on evidence collection. PHAC created the Multi-Sectoral Partnerships to Promote Healthy Living and Prevent Chronic Disease fund to minimize some of these weaknesses. Within the fund's cross-sector context, PHAC searched for models that would focus contributions more tightly on reducing chronic disease risk factors and that would pay for programs only if those risk factors fell. To accomplish these goals, PHAC decided to try the PFS model.

At the same time, HSF sought to expand its work on blood pressure. HSF looked for community programs that would

Table 2: PFS procurement methods

<p>Request for Quotations Outcome payer or intermediary designs intervention, and service providers bid to deliver intervention</p>	<p>Rikers Island SIB: The City of New York, MDRC, an intermediary, and Bloomberg Philanthropies, a foundation, developed a social impact bond to reduce adolescent recidivism through cognitive behavioural therapy. After selecting Moral Reconciliation Therapy as the intervention, MDRC issued a Request for Quotations to five respected youth organizations.</p>
<p>Co-Development Outcome payer or intermediary specifies issue area, and service providers bid to co-create intervention</p>	<p>Peterborough SIB: Social Finance UK, an intermediary, began looking into costly social problems. They narrowed on recidivism, an area of exceptional need and not enough attention. Social Finance created One* Service to coordinate and contract between an outcome payer, service providers and investors. They persuaded the Ministry of Justice to pay One* Service for outcomes and contracted service providers to deliver those outcomes.</p>
<p>Request for Proposals Outcome payer or intermediary specifies issue area, and service providers bid to deliver own intervention</p>	<p>Massachusetts Juvenile Justice PFS Initiative: Massachusetts issued a Request for Information to identify issues where PFS could improve outcomes or reduce costs. Roca, a youth recidivism organization, and Third Sector Capital Partners, an intermediary, submitted a youth recidivism idea. Nine months later, Massachusetts issued a Request for Responses to help youth aging out of the juvenile corrections system. Roca and Third Sector Capital Partners won the contract and used it to expand Roca's services.</p>
<p>Rate Card Outcome payer publishes list of outcomes and payments for each outcome, and service providers bid to deliver own intervention</p>	<p>Department for Work and Pensions Innovation Fund: The Department for Work and Pensions created an outcome fund to help disadvantaged youth improve their employment prospects. It published a list of outcome metrics and what it would pay for each one. Service providers bid to deliver interventions against those outcomes.</p>

satisfy PHAC's emphasis on early-stage prevention. MCII put together an independent PFS advisory board to assess service provider proposals solicited through a selective call. The advisory board chose HSF's proposal, an enhanced version of the Cardiovascular Health Awareness Program (CHAP), from a number of PFS proposals in homelessness and health.

At the same time, PHAC began consulting internal stakeholders on a PFS approach. PHAC knew the new approach would attract scrutiny, but its early start and its success in past experiments let it persuade internal stakeholders to try the PFS model. PHAC believed that designing and measuring a program directly against its priority outcomes would give it greater insight into the program's quality. Attaching money to those outcomes would force painstaking design and measurement and improve the chances of real results. By taking the time to explain each

advantage to its colleagues, PHAC fostered the problem-solving attitude that PFS demands from governments.

Commentary

Define your motive (it will influence the choices you make later).

Unlike some PFS commissioners, PHAC did not select PFS to save public money. Provincial governments pay the bulk of healthcare costs in Canada's federal system. PHAC, a federal agency, did not emphasize provincial savings. Instead, it commissioned a PFS contract to better understand the degree to which its programs help people and to test a payment model that can drive results. Through the Heart and Stroke contract, PHAC hopes to demonstrate strategies that increase the adoption of healthy habits.

Select a program.

Governments can unearth PFS-worthy programs in many different ways. For this first deal, PHAC looked to its existing partners and relied on MCII to identify a credible candidate. Other governments, particularly in the more developed markets of the United Kingdom and United States, use more formal methods. PHAC's process most closely followed the co-development approach described above.

STEP 2: SCRUTINIZE THE PROGRAM

Key activities

- 1) Evaluate the program's evidence.
- 2) Assess the service provider's ability to deliver.

The hard question we faced

- 1) Does the program have the right amount of evidence to meet the government's goals?

The Cardiovascular Health Awareness Program (CHAP), CHPI's predecessor, aims to stabilize and reduce participants' blood pressure through education and information flow. CHAP's pharmacy-based volunteers take walk-in and doctor-referred participants. A volunteer records the participant's blood pressure, explains the participant's hypertension risk factors and offers ways to combat those risk factors. With the participant's consent, the volunteer forwards the blood pressure data to the participant's doctor and pharmacist.² CHAP works in part by connecting hypertensive people to pharmacists and doctors who can recommend medication. The program reduced hospital admissions related to cardiovascular disease by 9% in an Ontario community cluster randomized trial.³

PHAC appreciated CHAP's strengths, but wanted a program that would catch people before they turned hypertensive and needed medication. HSF built on CHAP's strong evidence base to create CHPI, which works exclusively through behaviour change. HSF chose an online platform as CHPI's core behaviour change tool because research indicates that online interventions work well for people around the age of 60 who are attempting to alter their lifestyles.⁴

Commentary

Decide how much evidence you want.

A government setting an evidence standard for a PFS program must answer at least two questions. First, the government must decide its goal. Does it want to test a promising but unproven program (and likely pay a higher return to investors) or does it want to scale a proven program (and likely pay a lower return to investors)? If it decides to pay a lower return to scale a proven program, the government should not accept a proposal with too little evidence. If it decides to pay a higher return to

test an unproven program, the government should not accept too much evidence—though the program will need enough evidence to persuade investors to take the risk.

Second, the government must decide what counts as evidence. Compiling evidence is not as simple as tallying studies. A program made up of different elements, each alone backed by evidence, does not offer the same assurance as a program already proven to work as one piece. Different target populations or contexts can also change evidence's weight. Experts can help assess the quality and applicability of evidence.

The Heart and Stroke project occupies a middle ground between more and less evidence. HSF started with CHAP and added non-financial incentives, coaching and a personalized online platform, relying on behavioural economics and public health literature for those supplements. The project combines a proven base with somewhat novel strategies to test if a community program can prompt healthier habits. That combination of evidence and experiment supplied enough data to set modest outcome targets and to attract investors eager to evaluate a low-cost, scalable answer to a health problem.

Know your service provider.

PFS demands highly capable and flexible service providers able to convince investors to trust their plans. A service provider without an execution record and without evidence to support its outcome targets will struggle to raise capital. The service provider must also define (and probably redefine) its program to target precise, measurable and meaningful outcomes, a requirement that may deter those unwilling to adapt their vision.

HSF is a capable and flexible service provider. It played an indispensable part in pulling the PFS contract together. It has the expertise, the volunteer network and the national reach to implement CHPI. HSF also carries the brand power to comfort the government and investors, an important factor at this early stage in the PFS market. The government must take the time to evaluate its proposed service provider before starting the demanding PFS process.

STEP 3: SPECIFY THE OUTCOMES

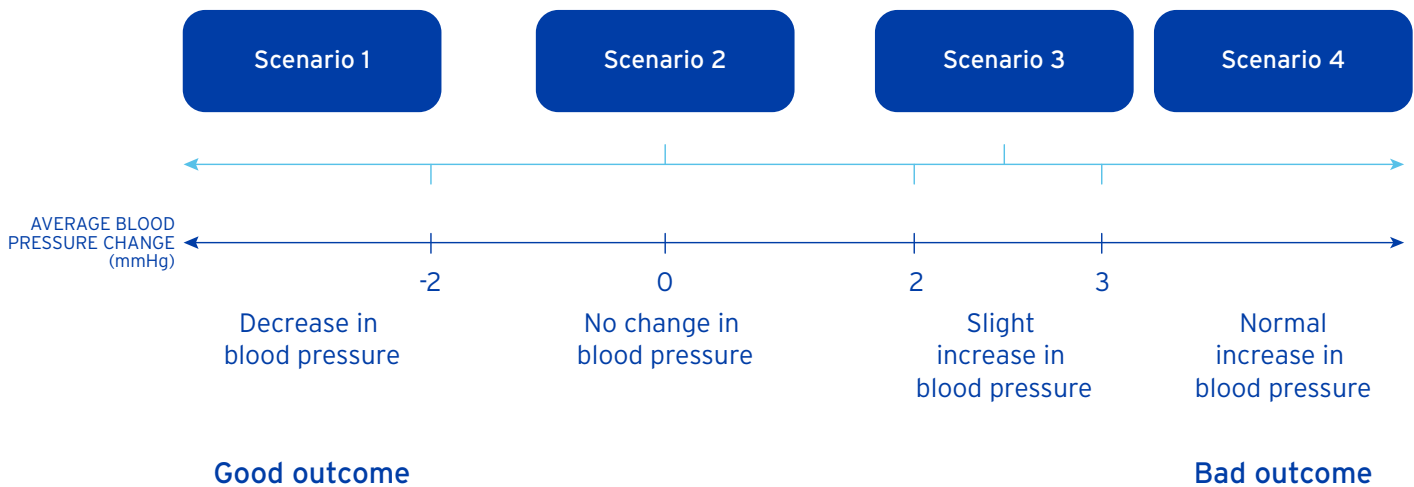
Key activities

- 1) Define the outcome metrics and targets.
- 2) Select an evaluation method.

The hard questions we faced

- 1) How long must a person maintain a behaviour change before the government can conclude that the change will last beyond the end of the intervention?
- 2) Can the government justify paying for results without measuring those results against a control group?

Fig. 3: The four blood pressure outcome scenarios



A person's blood pressure rises with age and rises faster if it's already high to begin with.⁵ CHPI will succeed if, between the first and second reading, it flattens or reverses blood pressure's climb. CHPI's blood pressure metric looks at the average blood pressure change across all participants.

Exertion, stress and other short-term factors influence blood pressure readings but do not affect long-term blood pressure. To account for these factors, experts advised CHPI to tie outcome payments to ranges of blood pressure, rather than to specific values. For example, CHPI will consider average blood pressure unchanged (and will pay for a flattened trajectory) if, on average, participants who return for a second reading score within 2 mmHg of the first reading. If average blood pressure across all participants increases by more than 2 mmHg, CHPI will know that long-term pressure increased; if average blood pressure declines by more than 2 mmHg, CHPI will know that long-term pressure decreased. CHPI aims to reduce blood pressure as much as possible.

HSF intends to enroll 7,000 pre-hypertensive people in CHPI. To reach that target, HSF plans to screen 29,000 people (based on population data, HSF expects 10,000 of those people to score more than 140 mmHg and 12,000 to score less than 120 mmHg). The intake volume target reflects CHPI's goal of sharing knowledge on the risks of high blood pressure and on strategies to reduce blood pressure. If HSF meets its mark, 29,000 people will better understand their blood pressure and how they can get or stay healthy.

PHAC and HSF decided to evaluate CHPI's effect on participants' blood pressure by comparing CHPI's results against a historic population baseline for pre-hypertensive people, rather than against a control group. Randomized control trials offer better evidence of an intervention's influence, but they cost a lot of money to run and, in this context, require twice the number of participants to help the same number of people.

The population baseline derives from the Framingham Heart Study. The Framingham Heart Study has tracked thousands of people over decades and forms the bedrock of much heart science. Data from the Framingham Heart Study says the blood pressure of pre-hypertensive people rises with time.⁶ Experts advised that a blood pressure change after six months reflects a lifestyle change, such as more exercise or a healthier diet, and not a seasonal or short-term fluctuation. If CHPI stabilizes or reduces blood pressure, it may assert an effect.

Commentary

Decide how long to wait before the evaluator measures results and you pay (or do not pay) investors.

PFS contracts must often strike a balance between waiting enough time for participants to embed a behaviour change, but not so much time as to exceed the deadlines of the government, investors and other stakeholders. CHPI hypothesizes that people who change their habits—and likely enjoy noticeable health benefits as a result—will not immediately drop those habits after six months of practice. That hypothesis is based on expert advice. To test the hypothesis, CHPI will continue to monitor participants after their second blood pressure reading. This data will not influence investor payments, but it will help PHAC understand how long it can expect healthy habits to last.

Pick a few, precise, meaningful outcomes.

Useful outcome metrics rarely capture a program's full story because, in performance management, useful means few, simple and quantifiable. Advocates for outcome targets believe that narrowing focus to a few clear numbers will improve public services, even if they miss some of the complexity. They believe that service providers will perform better if they know exactly what is wanted and

for what they must account. That belief, of which PFS is one incarnation, lies at the heart of modern government's emphasis on delivery and results.⁷

Outcome metrics, however, must never incent the wrong behaviour. Had payment turned on the number of people HSF moved from hypertensive to pre-hypertensive, the PFS contract would have encouraged HSF to concentrate on participants with blood pressure readings just above 140 mmHg. PFS' intense focus on outcomes demands careful analysis to defend against perverse incentives. Those selecting outcome metrics should consider the extent to which the metrics will encourage service providers to cherry-pick participants, end monitoring early (to avoid detecting relapse), focus too narrowly on the outcome (for example, by teaching to the test), or otherwise skew the program against long-term, broad-based change.

Weigh the pros and cons of a control group.

PFS design depends on how the government chooses to measure results. A randomly-selected control group best proves causation, but it also takes resources that could otherwise extend the intervention to more people. A government that chooses not to pay for a control group should survey past data to determine if it can construct a reliable counterfactual from historic trends. The less definite the trend in the baseline data, the more the government should lean toward a control group.⁸

STEP 4: STRUCTURE THE PAYMENTS

Key activities

- 1) Set payments for the outcome targets.
- 2) Model cash flow and expected return.

Table 3: Techniques for pricing outcomes

	Technique	Advantages	Disadvantages
Cost-Plus	Tally the cost of the program and find a return that meets both government and investor interests.	An outcome payer does not need to know more than a program's costs to calculate cost-plus payments.	A program's cost does not necessarily say anything about the program's value. Cost-plus does not help government compare programs.
Government Savings	Calculate how much government will save at different levels of success. Set returns to match or fall below the government savings curve.	An outcome payer will more easily gain public support if it can show that the PFS will always save more than it pays to investors.	Many worthwhile outcomes do not save the government money. Too strict a focus on government savings will understate the value of many social programs.
Economic Cost-Benefit Analysis	Compare the costs of a program against its economic benefits, such as the wages a person may earn if he stays out of prison. Set returns to fall below the cost-benefit curve.	An outcome payer can better compare programs and fix a reasonable return if it understands a program's economic costs and benefits.	Gathering enough data to forecast economic benefits is difficult and expensive. Economic cost-benefit excludes hard-to-monetize outcomes.
Social Cost-Benefit Analysis	Compare the costs of a program against its economic and social benefits, such as the happiness a person may experience if he stays out of prison. Set returns to fall below the cost-benefit curve.	An outcome payer who grasps the full extent of a program's costs and benefits can most easily compare programs and decide what return it is willing to pay.	Gathering enough data to forecast social benefits is even more difficult than gathering economic data. Forecasts require imperfect measures such as disability-adjusted life years. Social cost-benefit may overstate the returns government should pay to investors.

A program's benefits often take much longer to realize than its costs. PFS contracts that price outcomes on government savings or cost-benefit analysis must discount costs and benefits to account for the mismatch.

The hard questions we faced

- 1) How should the government price a program's outcomes?
- 2) When can the government justify splitting payments between outcomes and outputs?

As savings did not motivate PHAC to pay for outcomes, PHAC did not rely on those savings to assign payments. To emphasize the blood pressure component of the PFS contract, PHAC capped the intake volume payments at approximately 40% out of an authorized allocation of \$4 M. PHAC then assessed CHPI's evidence, analyzed the program's risk and decided a reasonable return is less than 10%. The Heart and Stroke PFS deal will pay a maximum internal rate of return of 8.8%.

The parties took the maximum outcome payments and the maximum return and put together a budget of \$3.4 M to deliver the program. Approximately 800,000 people over the age of 60 (CHPI's most important age group) live in Toronto and Vancouver, the program cities. HSF consulted CHAP experts, collected evidence on urban health programs, reviewed outreach costs against its budget and estimated a 3.1% penetration rate (CHAP hit approximately 10% in a rural setting). HSF therefore plans to screen 25,000 people over 60 (29,000 people total). As 24% of Canadians over 60 are pre-hypertensive and as its outreach tactics will appeal to pre-hypertensive people, HSF expects at least 7,000 of the 29,000 people it screens will fit its target population.

Combining that participant target, the 40% cap on intake volume payments and the \$4 M maximum outcome payment yields a per-head intake volume payment of \$230 (to a maximum of 7,000 people). If HSF enrolls 7,000 pre-hypertensive people and stabilizes their blood pressure, PHAC will pay investors \$1.6 M on the intake volume metric and \$2.25 M on the blood pressure metric. PHAC, however, will pay only 50% on the blood pressure metric if fewer than 1,000 participants return for their six-month follow-up.

Investors put \$2.9 M into CHPI (reinvested intake volume payments will cover the difference between the \$3.4 M budget and the \$2.9 M raise). PHAC has guaranteed \$1 M of investor capital. Investors therefore stand to lose up to \$1.9 M and to earn up to \$600,000.

Commentary

Select a pricing method that reflects your PFS motive.

Many PFS contracts, like the Massachusetts Juvenile Justice PFS Initiative,⁹ derive their investor payments from the government's savings curve. But a government savings curve is not the only way to calculate payments. Other methods may cost less or may better capture the benefits of an outcome. The table above details the advantages and disadvantages of four methods by which

PHAC will pay \$2.4 M if the blood pressure trajectory is reversed, \$2.25 M if the blood pressure trajectory is flattened, \$1.75 M if the blood pressure trajectory is slowed and \$0 if the blood pressure trajectory does not change.

a government can decide how much it values an outcome.

The Heart and Stroke PFS contract set payment terms by the cost-plus technique. The intake volume payment of \$230 per participant derives from HSF's intake estimates, which in turn depend on CHPI's outreach costs. The blood pressure payments reflect the balance of program costs plus a reasonable return. Cost-plus offers a relatively simple method for governments in young markets to define mutually acceptable financial terms.

Decide whether and, if so, why you will pay on an output (rather than only on outcomes).

Where a government decides to pay on an output, such as intake volume, success on the output should drive success on the outcome. All else equal, HSF will change more behaviour and stabilize or reduce more blood pressure if it recruits more people into its program. By that token, the intake volume metric credits HSF (and its investors) for impact that the blood pressure metric ignores.

Output metrics, of course, can also ease the financial challenges of a PFS partnership. In CHPI's case, the metric allows for early payments at intake milestones, a feature that investors found very attractive. CHPI will reinvest some of the early payments into the program, a move that reduced the minimum capital raise.

STEP 5: RAISE MONEY

Key activities

- 1) Attract investors.
- 2) Support due diligence.

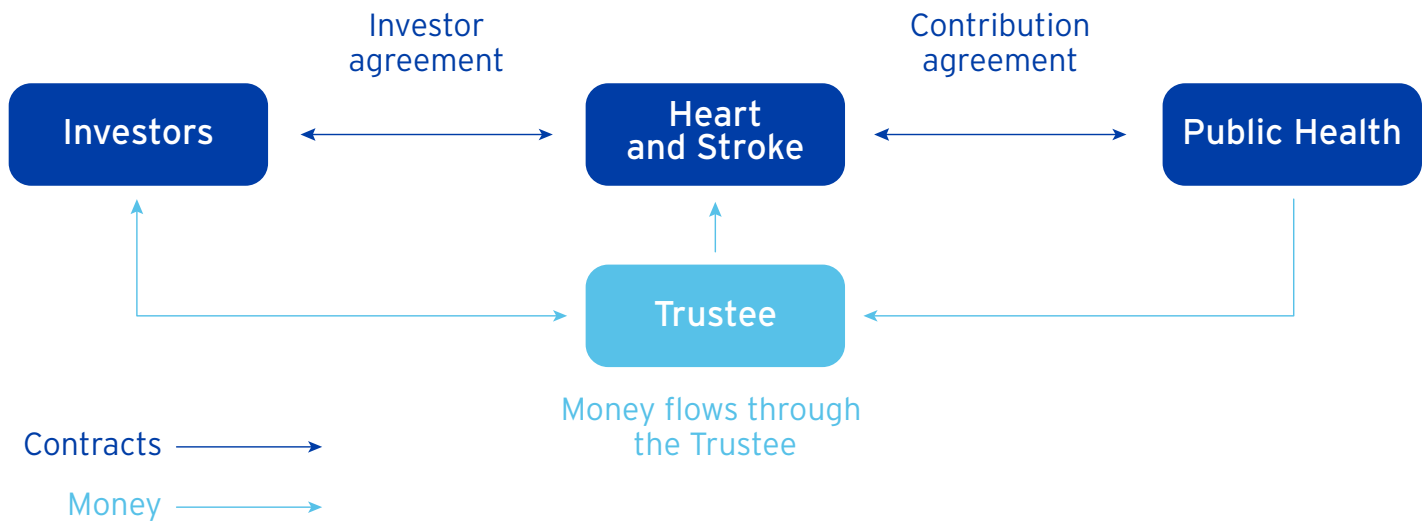
The hard question we faced

- 1) To what degree should the government direct the capital raise?

HSF and MCII began talking to key investors early on to test their interest and solicit their feedback. Early contact let MCII assure PHAC that HSF and MCII could raise enough money. The early meetings also helped PHAC, MCII and HSF learn what features might attract other investors.

As in other PFS deals, PHAC took a backseat during the capital raise, participating only to reassure investors of its commitment to the project. Four foundations, two high-net-worth individuals and three companies invested in the Heart and Stroke PFS

Fig. 4: Contract arrangements



project. To signal its conviction, HSF invested \$100,000 from its own balance sheet.

Commentary

Inspire investor confidence by committing to the budget and signing the contribution agreement.

To avoid overlap and to leave each partner to its specialty, the government should let the service provider and the intermediary handle the capital raise. The government can improve its partners' chances, however, by signing the contribution agreement at the outset of the raise. Otherwise, investors may wonder at the risk of investing in an arrangement to which an essential party has not yet agreed. A complete contribution agreement, finished before the service provider and the intermediary approach investors, will reassure investors, quicken due diligence and put the program on the ground faster.

Foundations, philanthropists and companies are moving ever more money into impact investing. PFS, however, is still new, and its unfamiliarity instills caution even in investors for whom social impact is as important as financial return. Investors put about \$290,000 on average into the Heart and Stroke PFS deal. The relatively small ticket size emphasizes the importance of reaching out early to collect enough investors.

STEP 6: NEGOTIATE CONTRACTS

Key activities

- 1) Negotiate a legal structure.
- 2) Arrange a board to govern the project.

The hard question we faced

- 1) When should the government and investors contract directly with the service provider (instead of with a third-party performance manager)?

The Heart and Stroke PFS project requires two main contracts. The first contract, between PHAC and HSF, is a contribution agreement conditioned on intake volume and blood pressure. The second contract, between HSF and the investors, is a loan agreement outlining payment schedules on intake volume and blood pressure. Investor capital to HSF and outcome payments to investors will flow through a trustee. PFS' novelty in Canada meant that Miller Thomson wrote the contracts from scratch, a time-consuming process for all parties.

A project board will monitor HSF's performance over the life of the program. HSF will report performance to this board on a regular basis, instilling a level of rigour not normally seen in social service contracts. HSF must request the project board's approval if it wants to divert resources or change the plan in a major way. The board's five voting members are two investors, one HSF board member, one MCII representative and an independent chair. HSF executives and PHAC will observe.

Commentary

Identify and solve your policy and administrative barriers.

PHAC had to answer three questions before signing the PFS contract. Answering the questions took close interpretation of PHAC's policies.

- 1) Does PHAC have the program authority to pay based on outcome targets? Yes, the Terms and Conditions of PHAC's programs let PHAC pay for outcomes (or 'pay for performance') on a cost-per-person basis.
- 2) Does PHAC have the program authority to pay a return on investment? Yes, PHAC can pay a return on investment by setting its outcome payments to include that return.
- 3) Does PHAC have the program authority to pay in the

future? Yes, the Multi-Sectoral Partnerships to Promote Healthy Living and Prevent Chronic Disease fund, recognizing that behaviour change may take several years, lets PHAC allocate future budget space to pay for outcomes.

Answering these big questions took time. The government can speed up the contracting process if it knows to what it can and cannot agree. This knowledge will spread as PFS contracting becomes commonplace but, in the meantime, government program staff should talk to their legal and financial teams early on. Program staff should aim to identify hurdles as soon as possible, especially if those hurdles might rise so high as to defeat the deal. The terms and conditions that govern grants and contributions are often fertile ground for problems.

Decide if you will contract directly or indirectly with the service provider.

The government will sometimes contract with the intermediary or a special purpose vehicle rather than directly with the service provider. A PFS contract structured this way can swap out service providers to fix flagging performance. The Heart and Stroke PFS contract, however, would fall apart without HSF, even if it was structured differently. No other organization has the capacity and expertise to step into HSF's shoes, at least not without a massive delay. PHAC and HSF therefore decided to contract directly.

Let the project board manage execution.

The project board will maintain the outcome emphasis and ultimately hold HSF to account. Investors want to protect their investments. The loan agreement allows investors to withdraw under certain circumstances if HSF is missing its targets. The project board, with its investor representatives, has the motive and the tools to apply outcome-based scrutiny throughout the project. In a PFS contract, the government does not need to monitor the service provider as closely to feel confident in its efforts.

CONCLUSION

PFS turns attention, especially government attention, to outcomes. It compels meticulous and exhaustive program design by attaching financial consequences to results. That design does not come easy, but at the program's close the government knows what the program is worth.

The Heart and Stroke PFS deal took three years to arrange. The novelty of the concept to everyone involved made for a long process. If outcome funding is to take root, however, the development process must become shorter and cheaper. Governments can and should transform PFS into but one more tool for social progress.

Behind the contracts and financial models, PFS tries to help people. The government does not need PFS to build evidence-

based, outcome-focused programs, but ordinary contributions often miss these necessities. PFS responds to the gap between our universal intention to help and our comparatively paltry action to make sure we're helping. For governments intent on results, PFS is another arrow in the quiver.

FOOTNOTES

1. A blood pressure reading consists of a (higher) number for systolic blood pressure (arterial pressure at the heartbeat) and a (lower) number for diastolic blood pressure (arterial pressure between heartbeats). In this paper, the term "blood pressure" refers to systolic blood pressure.
2. CHAP Sessions. (September 15, 2016). Retrieved: <http://chaprogram.ca/what-is-chap/chap-sessions/>
3. Kaczorowski, J. et al. (2011). Improving cardiovascular health at population level: 39 community cluster randomized trial of Cardiovascular Health Awareness Program (CHAP). *BMJ*, 342:d422.
4. See, for example, Cicolini G. et al. (2014). Efficacy of a nurse-led email reminder program for cardiovascular prevention risk reduction in hypertensive patients: a randomized controlled trial. *International Journal of Nursing Studies*, 51(6), 833-43; McMahan, G. et al. (2005). Web-based care management in patients with poorly controlled diabetes. *Diabetes Care*, 28(7), 1624-29.
5. See Wu, M., Ware, J.H. and Manning, F. (1980). On the relation between blood pressure change and initial value. *Journal of Chronic Diseases*, 33(10), 637-44.
6. See Vasan R. et al. (2001). Assessment of frequency of progression to hypertension in non-hypertensive participants in the Framingham Heart Study: a cohort study. *The Lancet*, 358(9294), 1682-86.
7. See, for example, Barber, M. (2015). *How to Run a Government So That Citizens Benefit and Taxpayers Don't Go Crazy*. London: Penguin.
8. The PFS field has debated at length how to measure attribution. For a review of evaluation methods, see So, I. and Jagelewski, A. (2013). Social Impact Bond Technical Guide for Service Providers. Retrieved: <https://www.marsdd.com/mars-library/social-impact-bond-technical-guide-for-service-providers/>
9. Kodali, S., Grossman, J. and Overholser, G. (2014). The Massachusetts Juvenile Justice PFS Initiative. Retrieved: http://www.thirdsectorcap.org/wp-content/uploads/2015/02/TSCP_MAJJ-PFS-Project-Brief.pdf

