February 2009

Value for Money: Making Canadian Health Care Stronger

www.CanadaValuesHealth.ca

Health Council of Canada
Conseil canadien de la santé

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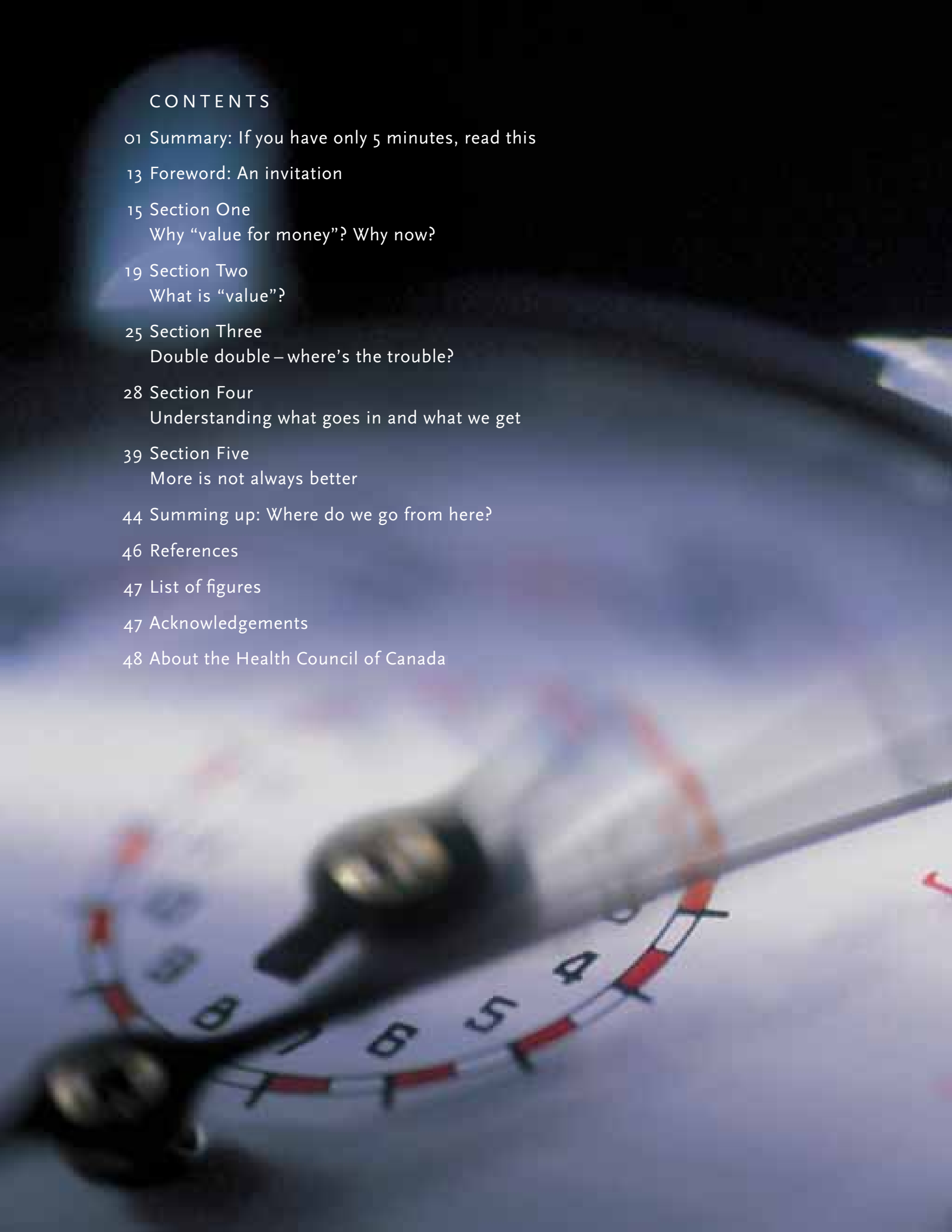



IF
YOU HAVE
ONLY
5 MINUTES
READ THIS

Are you concerned about our ability to sustain health care in Canada? Can we pay for spending increases year after year?

- The Health Council of Canada wants Canadians to get involved in this issue—to ask what value we get for our health care money, and to offer ideas and solutions that ensure we use these dollars wisely.
- We currently spend about $172 billion a year on health care, an average of more than $5,000 per Canadian. Yet we know little about what we get for that investment. We have a fairly accurate picture of what services are delivered, but we don't know much about the benefits or outcomes of those services.
- Thinking about value for money raises challenging questions. What do we want to achieve with our health care investments? How much does health care contribute to people's health, and how does it compare to other worthy causes such as education and the environment that also need public dollars and also contribute to health?
- By looking at health care through the value-for-money lens, we can begin to make choices about how to improve and sustain our health care system. Ethically, there is no room for waste.

2

We need to examine and confirm what we want the system to achieve.

- Canadians value many aspects of health care. It can contribute to good health and a good quality of life. We value the system's role in comforting and caring for people when they are in poor health. We value a system built on principles of fairness, equity, and universality.
- Beyond those basic values, tougher questions emerge. How do we resolve ethical dilemmas such as how best to care for extremely premature newborns or people at the end of their lives? How do we act compassionately when expenses are extreme?
- We have to begin the value-for-money exercise by defining our goals – what we want the system to achieve. This goes beyond technical outcomes. It will also include social values that are not easily quantified – values like compassion and fairness.

3

Are we using our resources well to produce services? And more importantly, are we using services well to foster a healthy population?

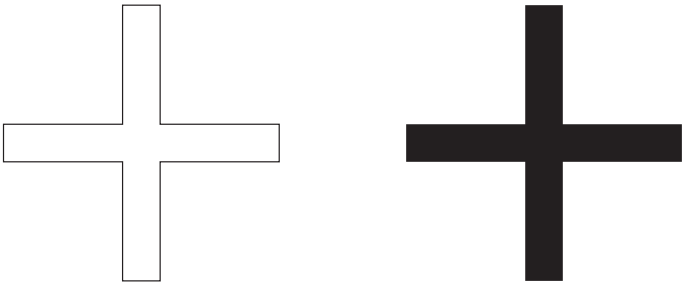
We need better information to answer these questions. Assessing value for money requires knowing what care is effective, for whom, and under what circumstances; and finding out whether that care actually has the desired effects.

For example, let's ask...

Are we using resources well when we see a specialist instead of a family doctor who could provide the same service? Or when we use a doctor instead of a nurse or nutritionist who could be just as helpful?

Are we using services well when cataract surgery is performed on people with little loss of vision, as it sometimes is? In these cases, the procedure may not help and can even harm them. Cataract surgery is great value for money; but not always.

4



More health care is not always better, for individuals or for populations.

- Sometimes more care or newer services do not produce better health. More and new are often simply more expensive. Sometimes it's possible to spend less – by using less expensive drugs or technology, or by choosing not to operate – and produce at least equal if not better outcomes for patients.
- As a society, we continue to demand more and more of the system. *Contrary to popular belief, aging and population growth are not the major causes of the rise in Canada's health care spending.* The largest factor is our increasing use of services. On average, we are all getting more care, undergoing more tests, and receiving more prescriptions. Are we healthier as a result? If we aren't, are we prepared to continue to pay more anyway?
- A number of countries with populations as healthy as Canada's spend far less than we do on health care. Within Canada, health care practices can vary widely. What accounts for these differences? Is there a right way to do things that achieves the best value for money?

5

Assessing value for money in health care is a complex but critical challenge. How do we get there from here?

- We need to consider what we value about health and care, about the way health care gets delivered, and about the relationships between providers and patients.
- We need to ponder the limits to care, the ethical and practical implications of having finite resources and, in many cases, uncertain knowledge.
- We need more and better evidence to guide our decision-making. More evidence-based health care will reduce variations in practice and outcomes, lead to greater use of standards of care, and enhance value for money. But for health care practice guidelines to be effective, providers have to use them. In day-to-day health care, guidelines can be and are often ignored.

This paper is meant to be just a beginning. We hope it will start a conversation, or rather many conversations, about getting better value for our money.

This national dialogue is *not* about budget cuts or shifting costs from the public to the private sector. It *is* about how to improve and sustain our universal system so that it can meet Canadians' needs into the future.


"Because of the increase in paperwork, we see fewer clients. I find it unintelligent and a waste of taxpayers' money. The client/patient pays the price ultimately for poor planning."
Canadian health care provider
"My impression has been complete surprise at how many people the system deals with, at how seamlessly the system handles the flow of all these people."
Canadian patient
"Time is wasted. Doctors and nurses do not have time to get a clear understanding of the patients' health issues. The result? Too many unnecessary doctor visits."
Canadian patient

FOREWORD: AN INVITATION

Our goal – one shared by Canada's governments and the overwhelming majority of Canadians – is a high-quality and sustainable health care system for all. Is this achievable? Yes, in the Health Council's view. In 2008, total public and private spending on health care across Canada reached $172 billion a year, an average of over $5,000 per person. Canadians don't need to spend vastly more, but we *do* need to spend smarter.

This paper is the first in a series of activities that we hope will get Canadians thinking and talking about *value for money* in health care. What do we expect from our health care system? What do we hope to achieve? What kinds of questions should we be asking? In short, how can we as Canadians make the best possible use of the billions we spend?

Canada can and does put a lot of resources into health care. But regardless of how much money is spent, studies show there's a threshold beyond which populations get only marginally healthier. At the same time, serious inequities in health and in access to services persist in this country. And, as everyone involved in funding and delivering health care knows, demands and expectations continue to rise.

The notion of value for money matters very much to Canadians. We know this from responses to "Taking the Pulse," the poll on the Health Council's website, where people share their experiences, both good and bad. The wise use of taxpayer dollars is a recurrent theme.

You may be a patient, a health professional, or a policy-maker. But no matter where you fit in the system, you will see yourself in the pages of this paper. Some parts are about you; others are about everyone else. Our intent is to provide a vantage point, from which you'll be able to see how interconnected the opportunities to improve and sustain our health care system are. Emergency room waits, doctor shortages, overworked nurses, and the cost of drugs do not exist in isolation. When we can look at the system in an integrated way, we'll be better equipped and more successful at facing these and other challenges.

The role of the Health Council of Canada is to help connect the dots – to share good ideas across the country, and constructively elicit new thinking. This paper is meant to be a beginning. We hope it will start a conversation, or rather many conversations, about getting better value for our money. The paper raises many questions and lays out some key facts and concepts.

What happens next is in all of our hands. The Health Council hopes to stimulate the conversation, but it is up to you to imagine how you can be part of the discussion. Governments, service providers, your neighbour who came home from hospital last week – we all have a stake in a sustainable system. Learn more, ask questions, and consider your role in the choices that have to be made. Then, think more broadly about how to make a difference, collectively as well as individually.

This paper is meant to be a beginning. We hope it will start a conversation, or rather many conversations, about getting better value for our money.

In upcoming work, the Health Council of Canada will explore in more depth some of the issues introduced in this paper. We'll ask: What does equity in health care really mean? What is the role of health care providers in achieving greater value for money? And more.

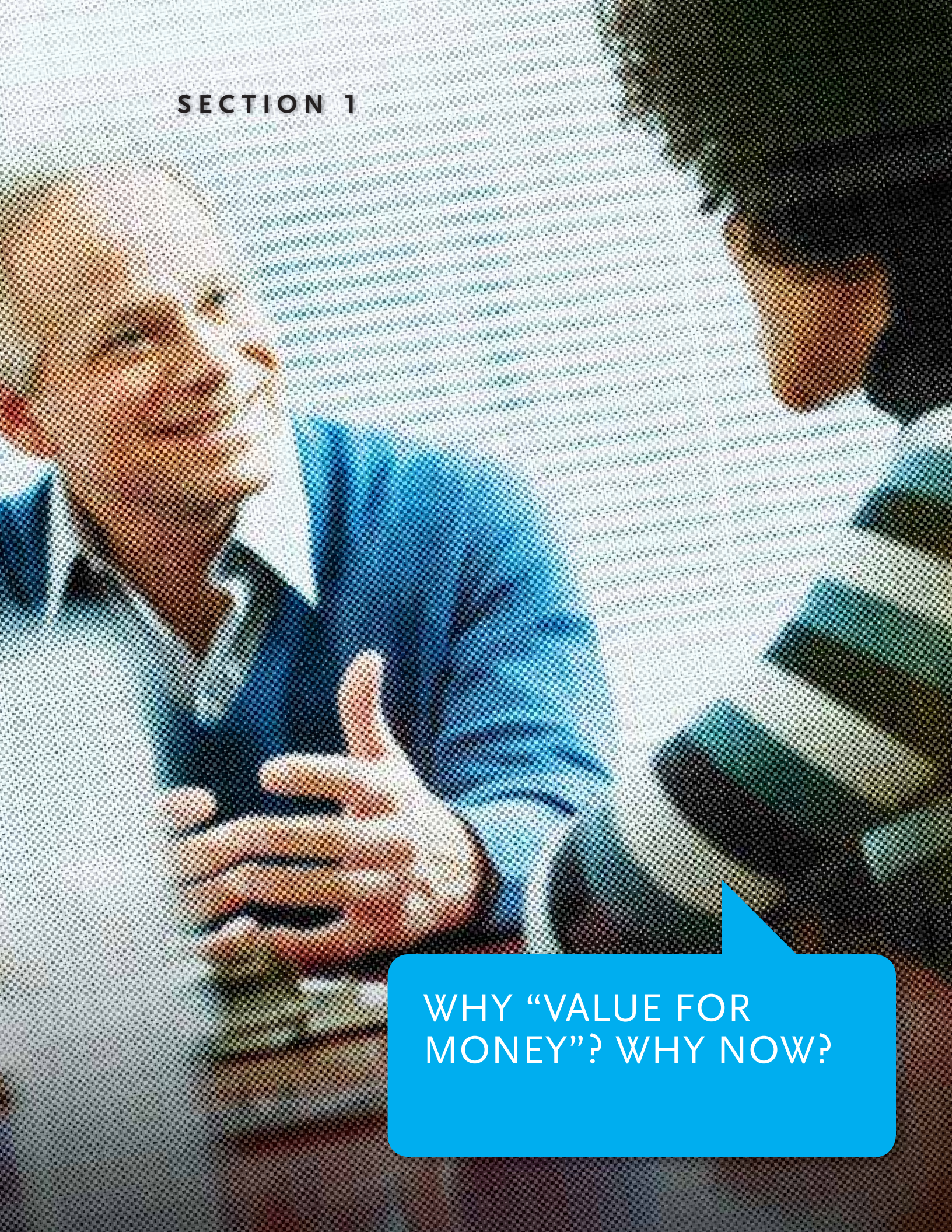
We hope that you enjoy this paper and the conversations that result.

Sincerely,

JEANNE BESNER, RN, PHD

CHAIR, HEALTH COUNCIL OF CANADA

SECTION 1



WHY "VALUE FOR MONEY"? WHY NOW?

Canada's universal, publicly funded health care system is widely viewed as an essential part of our social safety net and a reflection of Canadians' core values.

But the cost of the system is a constant concern, and many fear that public health care is unsustainable.

Public discussion about health care in Canada tends to focus on a persistent set of problems: access, wait times, and shortages of health care providers. This has been the case whether in times of government restraint or in times of largesse.

Why, despite huge increases in spending, do the challenges facing Canada's health care system seem to persist?

To find the answer, we must first look closely at the relationship between spending and results. Put simply, this is a discussion of *value for money*. Many reports on health care in Canada have ably described the system's problems and advocated sensible solutions. But none has focused exclusively and deeply on value for money. Addressing this issue is crucial to making lasting and affordable choices about how to improve and sustain our health care system.

WHY ARE WE DOING THIS?

This paper aims to begin a conversation about how to sustain our universal public health system so that it can meet Canadians' needs in the future. It is *not* a camouflaged case for budget cuts or shifting costs from the public to the private sector.

A focus on value for money is crucial to improve and sustain our health care system.

Our ambition is to inform the public, governments, and decision-makers about how a value-for-money perspective applies to health care. We want to make this perspective a focus for public discourse. We hope to persuade Canadians that the issue is important, and worth discussing. We want Canadians and their governments to approach the issue with open minds, to be prepared to celebrate the value-for-money triumphs of the system as well as take a hard look at some unsettling failures.

Great personal, professional, and political expectations are attached to the myriad of health care decisions made every day. But these expectations remain largely unspoken. A public conversation on value for money in health care could begin to make transparent what is now unclear. Such a conversation is important for several reasons.

FIRST, simply asking questions about value for money makes us think more thoughtfully and precisely about what we expect from health care. What defines successful health care spending? How much do we value an extra year of life or a year spent pain-free, and for whom? Social values about health and health care are fundamental in any value-for-money discussion.

SECOND, health care is by far the largest publicly financed program in the country. It currently commands nearly 40% of all provincial and territorial program spending.[1] Spending such vast amounts wisely is a public policy imperative. The choices that must be made are often hard ones: spending more of the budget on one group or technology may mean that less is available for others. So, diagnostic imaging equipment may trump drugs for late-stage cancers, or vice versa. Ethically, there is no room for waste.

THIRD, health care competes with other worthy causes such as education, the environment, and affordable housing – which can themselves be tools for better health. Decision-makers need to be able to compare the payoffs from each. Should the next billion dollars be invested in health care or in early childhood education?

FOURTH, can we reduce the need to make such tradeoffs? Many people believe that we can sustain a high-quality health care system without crowding out other vital social programs. Some suggest that this will require a willingness to move away from rigid beliefs and to adopt new ways of organizing health care.[2]

FIFTH, Canada's capacity to do a value-for-money audit on the health system is still very limited. We can account for how money is spent but not, in any precise way, what it achieves. We know a lot about how much health care Canadians receive. We are very good at counting visits, procedures, and days in hospital. We are just beginning to get a clearer picture of what type of care does a lot of good, what has little impact, and what does harm. These are some of the main value-for-money issues.

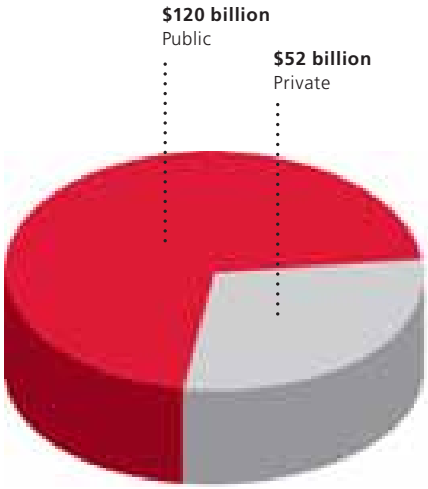
This paper recognizes that much of the information needed to do the job is not yet available. Evidence on the impact of health care is often lacking, highly contested, or limited in what it can tell us. We hope a public conversation about value for money will lead to more interest in generating more and better evidence to guide our health care decision-making.

WHERE TO BEGIN?

It is difficult to decide wisely how much to spend on health care without a much better understanding of what current spending achieves. We begin with no assumption about whether the money we spend is too much, too little, or about right. (See Figure 1.)

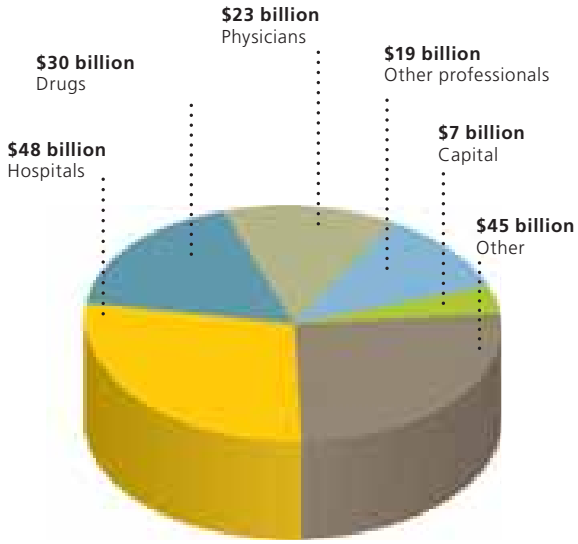
We should not expect the health care system to reveal all of its value-for-money information easily. The system has evolved and expanded over the years; spending patterns have become entrenched, and there are strong currents that favour the status quo. Health care has its own momentum, and it is very difficult to reallocate resources. That said, we should not assume that the knot is too complex to untangle.

FIGURE 1
$172 billion for health care in 2008



Where does the money come from?
70% of our health care spending comes from taxes.

"Private" includes out-of-pocket spending by individuals and services covered by private insurance plans.



Where does it go?
We spend most on hospitals, drugs, and doctors.

"Capital" includes construction, machinery, and equipment.
"Other" includes long-term care institutions, public health services, research and training, medical transport, home care, and administration.

Source: Canadian Institute for Health Information, *National Health Expenditure Trends 1975-2008,* 2008.

Historically and throughout the world, a good predictor of health care spending is the size and strength of the economy. Rich countries spend more, poor countries spend less. Health budgets grow faster when government coffers are full than when they are bare. In the public sector, decisions about "how much to spend" fall to governments on behalf of their citizens. Of course, such decisions consider fiscal capacity. Ideally, they are also informed by a clear understanding of what will be achieved by supplying the basic building blocks of care – things like personnel, facilities, equipment, training, and research.

WHAT'S INSIDE

We look at various ways to consider "value" in health care (section 2) and at the reasons why health care consumes more and more money (section 3). We then dive into the value-for-money waters, exploring what is involved in making such assessments in the real world of health care (section 4) and why doing or spending more is not necessarily better (section 5). The last section of this paper sums up the issues and challenges we've touched on, and outlines the work we've set for ourselves to broaden the conversation.

> We can account for how money is spent but not, in any precise way, what it achieves.

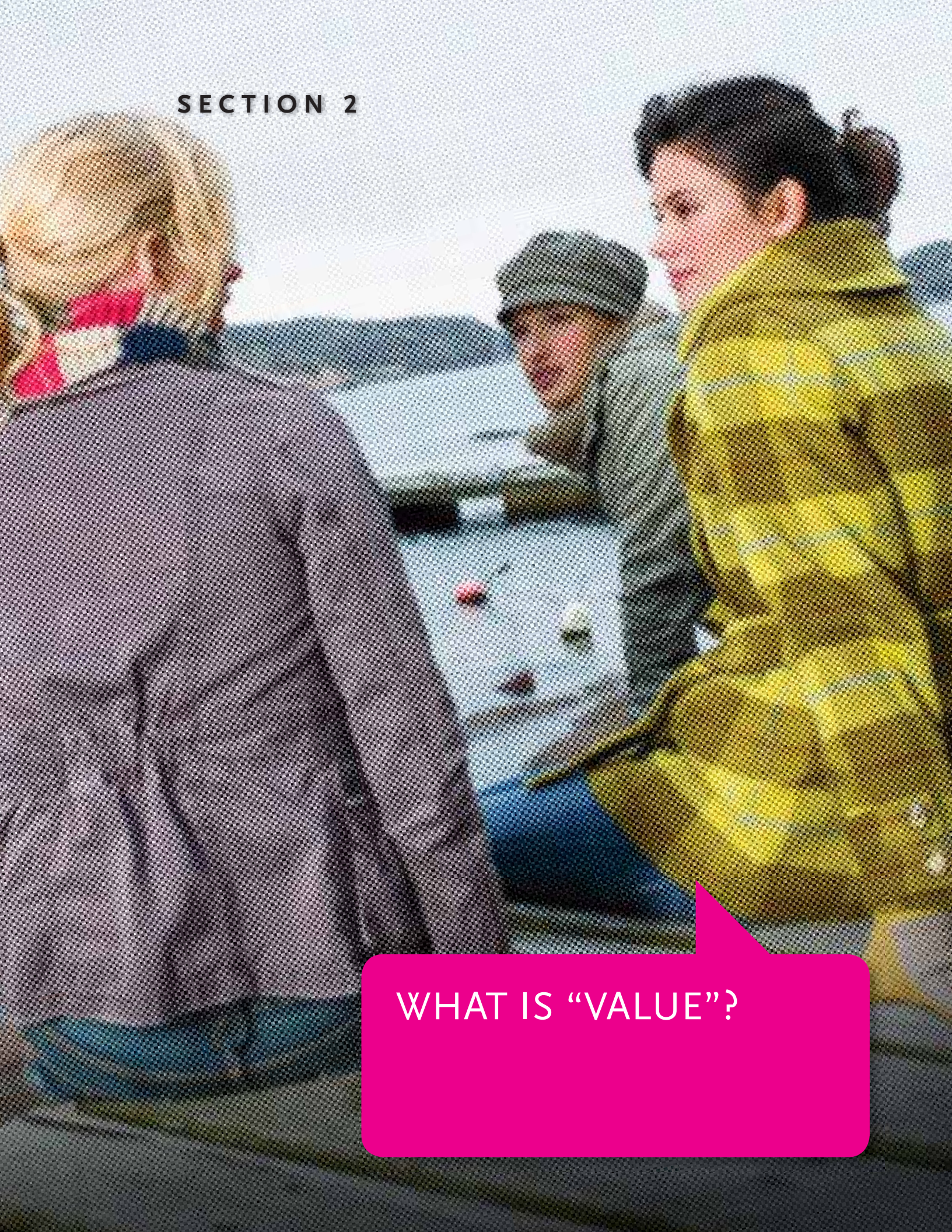
While value for money is an issue in both the public and private health care sectors, we focus mainly on public spending. This is the spending for which governments are accountable, and it needs to reflect the value-for-money preferences and expectations of the public.

STARTING THE CONVERSATION

We invite everyone to join the discussion. The public voice needs to be heard, for as citizens we all reap the benefits of good value-for-money decisions, just as we bear the cost of poor ones. Clinical experts, patient advocates, health care managers, politicians, and commercial interests all have a stake. We all need to be talking to one another about these vital questions: What do we as Canadians value about health care? What do we want to achieve? How can we best get there?

If this paper sheds light on the value we derive from what we now spend, we'll call it work well done. The best outcome, however, would be to inspire more people to ask new and different questions, and launch their own efforts to enlighten, reflect, and act.

SECTION 2



WHAT IS “VALUE”?

Many things have potential value, but their actual value depends on how you use them to achieve something you want.

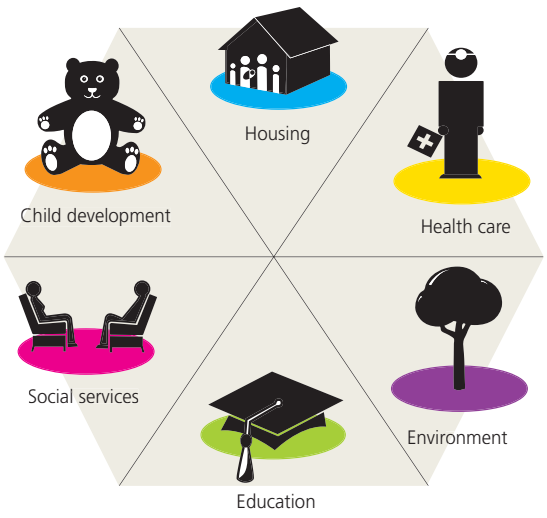
A fork is an indispensable utensil, but it is not a great choice for eating soup.

Here we come face to face with two different meanings of the word "value." One is the value we place on health itself and what we, as individuals or as a society, value about things that can contribute to health. These social and personal values drive our ideas about what our health care system might achieve. This brings us to the other meaning of value: the sense of getting what we set out to accomplish in return for the money we spend on health care. This section looks at value in its social sense. Section 3 addresses the financial perspective.

VALUING HEALTH

As a society, we may be willing to spend a lot on health care, and we may be happy to see spending rise as treatment possibilities expand. This is because we place a high value on health.

FIGURE 2
Choices in public spending – How else can we invest in the health of Canadians?



Equal-sized portions are for illustration only.

Health is sometimes called a "foundational good" whose presence or absence significantly affects our capacity to realize our individual potential.[3] It is a resource for daily living.[4] It is one of the basic things that enables us to set goals and then go about achieving them. Good health care is one ingredient for maintaining health. It reassures, restores well-being, and prevents conditions from getting worse.

RECOGNIZING THE MANY DETERMINANTS OF HEALTH

Here is a critical distinction: unlike health, we don't value health care for itself, but as a means to an end. It is only one of many ways to improve an individual's or population's health.[5,6] Education and health, for example, are strongly linked. People with more education generally have better health. So, if every extra dollar spent on health care meant one less spent on educating young Canadians, would we be making a good trade?

Since we consider this an extremely important piece of the value-for-money puzzle, we expect to return to this topic later in this series. Meanwhile, it is important to keep in mind that trade-offs don't occur just within the health care system itself. (See Figure 2.)

VALUING EQUITY

Underlying Canada's health care system is a set of core beliefs about equal access. We view equal access to health protection and services as a social good, an expression of a caring society, and a shared commitment.

In 2001, the Commission on the Future of Health Care in Canada (the Romanow Commission) conducted a series of 12 citizens' dialogues, the most extensive in-depth consultation with Canadians to date about collective objectives for health care. The conclusions reached then are consistent with trends in public opinion about health care now: the Canadian public is clear in its commitment to a health care system built on a principle of equity.[7]

Equity is generally understood to mean that who you are and how much money you have should not influence how the health care system treats you. In this respect, Canada does quite well. Geography is an inescapable reality in this country, so it is not possible to ensure that everyone, everywhere, will be within a certain distance from a hospital or a certain kind of specialist. But generally, care is provided based on need, not on personal characteristics such as the ability to pay.

However, achieving equity is not as simple as treating everyone equally. Equity can also mean that differences should be treated differently. If one of our goals is to reduce disparities in health status among different groups in Canada, it is important to ask whether we are doing enough to address the inequities that contribute to these differences. We are doing reasonably well on raising the average level of health of Canadians. But those improvements are not always shared equally.

For example, infant mortality rates are declining overall and across all income groups, and the gap between infant deaths in our highest and lowest income groups has narrowed.[8] At the same time, however, infant mortality in Canada remains higher than in other developed countries such as Japan and France.[9] (See Figure 3.)

Within Canada, diabetes rates differ by family income groups: Canadians with the lowest incomes are nearly three times more likely to have diabetes than those with the highest incomes.

Our Aboriginal populations also experience persistent inequities. They have seen some improvements in health, but as a group, they remain among the worst off in the country, and this gap is not closing.[10]

The public policy behind public funding for health care in Canada is based on the assumption that health care is an important pathway to health for all, and an important pathway to an equitable society. While most health care activities deal with people as individuals, it is

FIGURE 3
Elusive equity – Do all children have the same chance at life?

Rates of infant death in Canada

High-income Canadians
4 deaths/1,000 births

Low-income Canadians
6 deaths/1,000 births

First Nations (on reserve)
8 deaths/1,000 births

Inuit (Nunavut)
15 deaths/1,000 births

... and among countries

Japan
3 deaths/1,000 births

France
4 deaths/1,000 births

Canada
5 deaths/1,000 births

US
7 deaths/1,000 births

Mexico
20 deaths/1,000 births

Rates for high- and low-income Canadians are for 1996. Canada's overall rate in 1996 was 5.6. Source: Wilkens R, Berthelot J-M, Ng E. Trends in mortality by neighbourhood income in urban Canada from 1971 to 1996. Supplement to *Health Reports*, Vol. 13, 2002.

Rates for First Nations and Inuit are for 1999. The population of Nunavut is 85% Inuit. Source: Canadian Institute for Health Information, Canadian Population Health Initiative, *Improving the Health of Canadians*, 2004.

Rates for countries are 2004. Source: Organisation for Economic Co-operation and Development, OECD Health Data.

Per-person spending on health care: Canada spends more than some countries, less than others

Country	Per-person spending*
New Zealand	$2,343
Italy	$2,532
UK	$2,724
Sweden	$2,918
Canada	$3,326
US	$6,401

* Amounts are per-person spending on health care in 2005, all in US$ and adjusted to account for differences in the cost of living among the countries. As a result, the amount shown here for Canada ($3,326) is less than our actual per-person spending in 2005 ($4,373).

Source: Organisation for Economic Co-operation and Development, OECD Health Data.

Needs are many, innovation flourishes, and expectations rise. Small wonder that spending rises too.

also true that health care systems can contribute to improving health for everyone. This suggests that there should be objectives and policies for the health care system that are aimed at the whole population. This is not an either/or dilemma. There is no evidence that you have to deny care to individuals to help the broader population. We do not have to choose between what patients need and what society is willing to provide. On the contrary, countries where average health is increasing have accomplished this by taking steps to improve health across the population as a whole, at the same time working to narrow the gap between the best and worst off.[11]

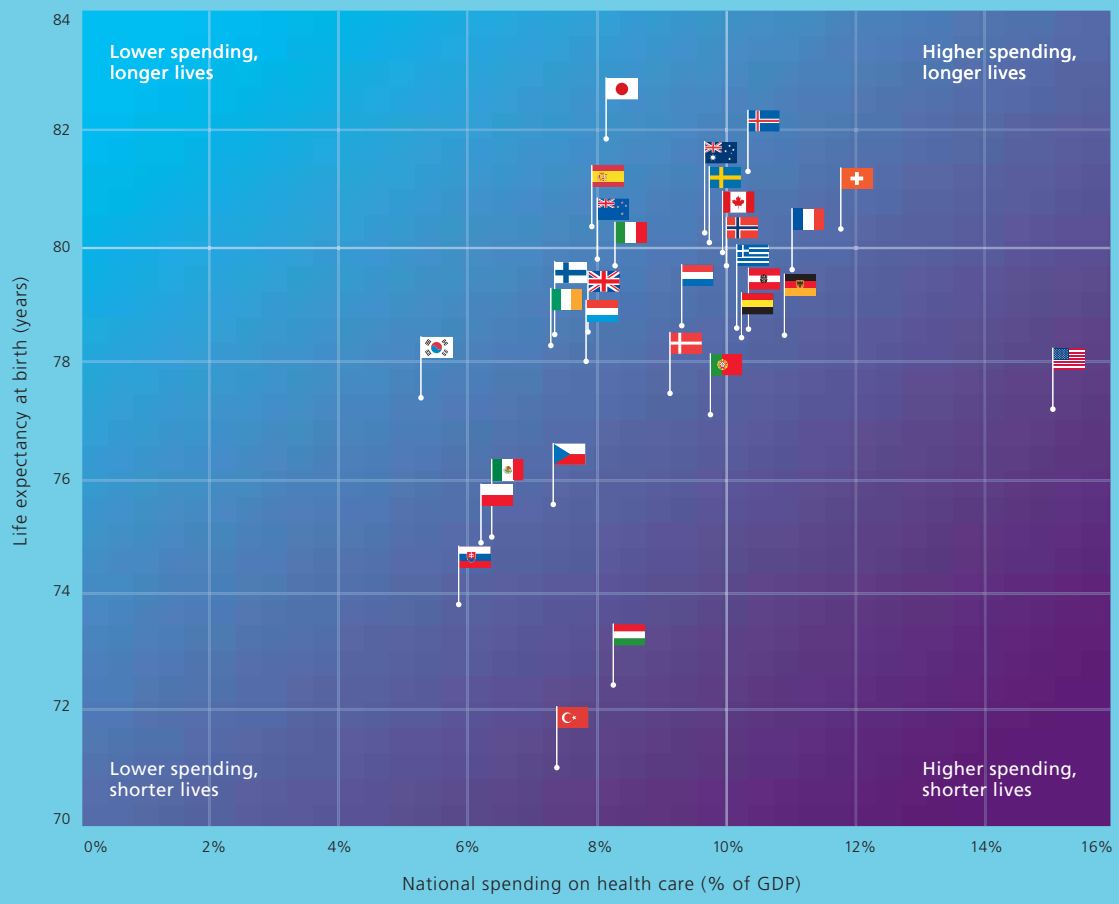
At the extremes of life, our collective sense of equity may be challenged by differences in belief and public preferences. We face ethical issues such as care for extremely small newborns or for people at the end of their lives. Understanding these values can help us grapple with tough questions about where the responsibility of the health care system lies, and who should make decisions about where to draw the line.

VALUING HEALTH CARE

Why do we spend $172 billion nationally, or any other specific amount, on health care? The obvious answer is to produce better health. But the obvious answer is not quite right, or at least not quite complete: better health is not always achievable. We spend a good deal on health care for the end of life, some of it to make people more comfortable when we cannot prolong their lives. Comfort is a tangible benefit; we value it. More controversial are futile attempts to treat conditions, beyond pain relief, when death is inevitable and near.

Health care spending covers a vast terrain. Just as we value the treatment of illness and injury for individuals, we also value the prevention of disease, disability, and premature death in the population as a whole. Public health spending covers a range of health-enhancing measures, from food inspection to water quality to immunizing children against once-prevalent and devastating diseases such as polio.

(continued on page 24)



Austria
Australia
Belgium
Canada
Czech Republic
Denmark
Finland
France
Germany
Greece
Hungary
Iceland
Ireland
Italy
Japan
Luxembourg
Mexico
Netherlands
New Zealand
Norway
Poland
Portugal
Slovak Republic
Spain
South Korea
Sweden
Switzerland
Turkey
UK
US

FIGURE 4

All over the map – Are we buying our way to longer life?

Even among developed countries, the percentage of the economy devoted to health care varies considerably, and higher spending does not translate neatly into longer lives. We spend about 10% of the national gross domestic product (GDP), and we live to be 80. Some countries spend more than Canada and do not achieve better results. France and Germany, for example, spend about 11% of GDP and have similar life expectancy. On the other hand, the US spends much more than Canada (15% of GDP) but Americans live several years less than we do, on average.

Six countries spend less than Canada but achieve the same or better outcomes. Spain and New Zealand, for example, spend 8% but people there live about as long as Canadians. Japan, on the other hand, also spends 8% of GDP on health care but has a higher life expectancy than Canada.

Source: Organisation for Economic Co-operation and Development, OECD Health Data. Data are for 2003.

Canada does well on international comparisons of overall population measures like mortality rates. But other countries spend a lot less for about the same or better results.

Over the years, we have seen tremendous successes: procedures that extend the lives of people with cancer, antibiotics that cure once-lethal infections, joint replacements that relieve suffering and restore function, and bypass grafts that repair the heart. Sophisticated diagnostic imaging magically illuminates the workings of the body. Diseases such as AIDS and some types of cancer, once invariably fatal, are now described as chronic.

But for every major victory there are new challenges. The rates of heart disease and stroke are lower today than a few decades ago, but looming on the horizon are the consequences of skyrocketing rates of obesity and diabetes. More people are living into very old age, a success that has created a much larger cohort of people at risk of debilitating dementias that medical advances have yet to master.

These realities help explain why health care spending exerts a strong and defensible claim on our resources. We spend more because we need more, and are able to deal more effectively with these needs. Needs are many, innovation flourishes, and expectations rise. Small wonder that spending rises too. On this account, increased spending is hardly a cause for concern; it is a testament to our ceaseless ingenuity in solving health problems and our laudable ambition to do better.

People value the presence of abundant and sophisticated health care, even as they hope never to have to use it. And since most health care spending in Canada is financed by taxes, continued support of high and growing levels of spending could be seen as a reflection of the democratic will. How well spending does, in fact, reflect public values is central to the value-for-money conversation.

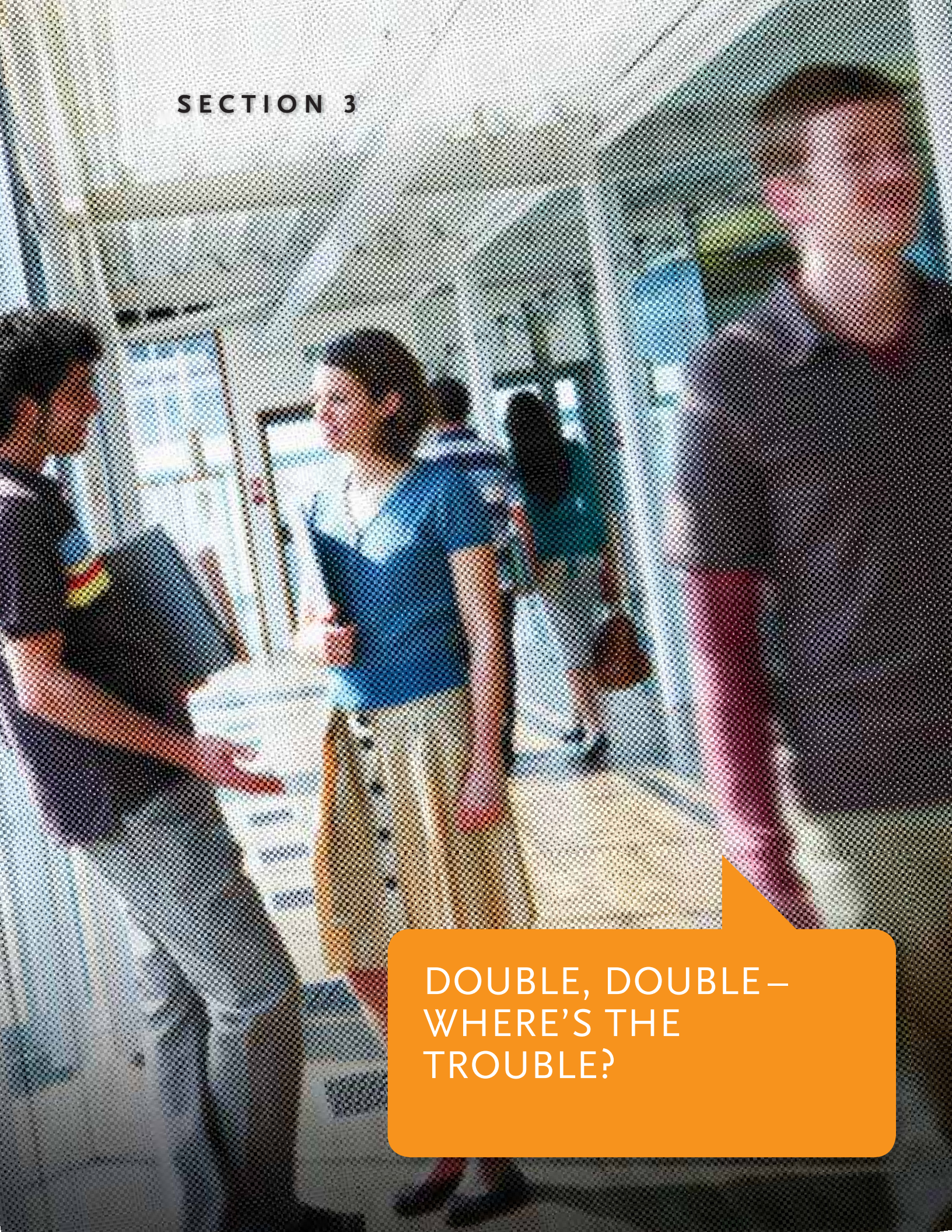
SQUARING VALUES AND SPENDING

Is there a "right" amount to spend on health care? Canadians' life expectancy is among the highest in the world. And Canada does well on international comparisons of overall population measures like mortality rates. But other countries spend a lot less for about the same or better results. Why? In part, this is because health care is only one among many factors contributing to the health of a country's population. What can we learn from the differences among countries? Who is getting the best value for their national investments in health care?

Canada currently spends 10% of gross domestic product (GDP) on health care. Other countries with similar life expectancy spend 8% to 12% of GDP. These differences translate into about $30 billion – more than the total amount we spend for physician services each year. We might possibly spend more money on health care and not do any better, or we might be able to spend less and not lose ground over time. (See Figure 4.)

If, as a country, we could stop and consider what we want to achieve from our spending, we would need to think about what we value about health and care, about the way health care gets delivered, and about the relationships between providers and patients. We would also need to ponder the limits to care, the ethical and practical implications of having finite resources and, in many cases, uncertain knowledge. What does health care look like through value-for-money glasses? That is the subject of the next three sections.

SECTION 3



DOUBLE, DOUBLE – WHERE'S THE TROUBLE?

Imagine this scenario. It is midsummer 2009.

Governments – federal, provincial, and territorial – hold a summit where they list their health care woes: wait times, shortages of health care workers, pressures to adopt new technologies, the obesity epidemic, the persistent health problems of disadvantaged Canadians. Total health spending in Canada amounts to over $170 billion, including $120 billion in public funds. Alarmed by waning public confidence and disturbing projections, governments make a pact: by 2019 they will increase public spending, to $240 billion. Assuming that the public share continues to account for about 70% of all of our health care spending, this will boost the country's actual *total* spending to $340 billion.

The figures are staggering, sure to startle the public and the media. One can predict the likely responses. Health care providers and administrators would rejoice (though some will say it's not enough). A large proportion of the public would approve, in the hope that at last the promised land of high-quality, accessible, and comprehensive care for all was on the horizon. Yet there would be some anxiety. How can we afford to double our spending in a mere decade? Can the system usefully absorb all that money that quickly? Exactly where should the increases go? Who should decide on the priorities?

There would also be skeptics. Surely it's far more than we need to fix the system's problems. It's not as though our system is bare-bones. We are a rich country, and we already use a lot of health care. Despite some inconvenience and hot spots, most Canadians express confidence in the system.[12] Advocates of smaller government and lower taxes will denounce the plan as public sector folly. Advocates of private, for-profit care will charge that it is just spending "good money after bad" all over again.

Our imagined scenario is not imagined. We've merely updated the numbers on exactly what did happen during the past decade. Here are the facts:[1]

- In 1997, Canada's total health care spending, public and private, was $79 billion. The system was just emerging from three or four years of restraint – essentially no growth in spending overall and a real (after adjusting for inflation) decline in average health care spending per person. The media were full of stories about wait times, inadequate technology, and a system unable to cope with ever-increasing demands and expectations.
- By 2007, spending had more than doubled, reaching $160 billion. Taking inflation into account, the average spent per Canadian was 46% higher than in 1997.
- Governments currently fund about 70% of all health care spending, which means that most of the increase over the past decade has come from our taxes. In addition, Canadians each spent an average of $400 more on health care, either out of pocket or through private health insurance, in 2007 than they did a decade earlier.

So for the past decade, our health care spending has been booming. What's behind this boom? Population growth and aging are often labelled as the culprits behind our escalation in spending. In fact, while these two trends have some impact, they are dwarfed by another factor: increases in the use of health care services. On average, we are having more things done for and to us today. (See Figure 5.)

More money alone will not solve our health care problems.

What has this boom accomplished? There have been some advances, but not all problems have disappeared. Some people still wait too long for care. Too many Canadians who want a family doctor cannot find one. Many health care workers are overwhelmed and burnt out. Every week a new, expensive drug to manage a debilitating condition is praised, accompanied by clamour for public funding. Canada spends more than many other countries on health care, yet persistently ranks low in timely access to care and adoption of information technology.[13] There is much room for improvement.

As many reports have said previously, more money alone will not solve our health care problems.[14,15,16] Past investigations have largely agreed on what needs to be done: pay more attention to disease prevention and the non-medical determinants of health. Reorganize care to ensure we use our resources more efficiently and appropriately. Get better data so we can know what is making a difference. In short, focus on getting the best value from our health care dollars.

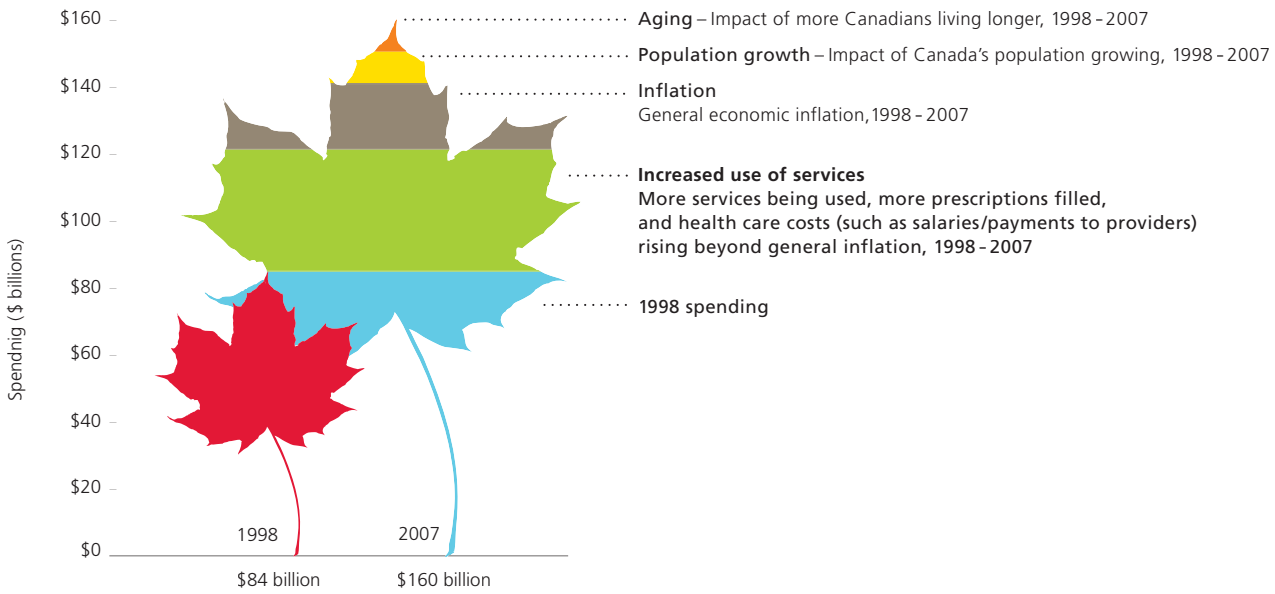
WHAT MADE HEALTH CARE SPENDING DOUBLE IN A DECADE?

Several factors explain why health care spending rises, including population growth, population aging, inflation, and increases in the use of health care services. Figure 5 shows how health care spending grew between 1998 and 2007, and how each of these factors contributed to the increase over the decade.

Contrary to popular belief, population growth and aging are not the biggest contributors to the growth in spending. Population growth accounts for about 14% of increased spending; the number of people who are living longer, about 11%. Inflation has a larger impact – 27%. *Increased use of health care services, the only one of these factors that health care policies can affect, accounts for the biggest share (48%) of the growth in health care spending.*

This means that an average Canadian received more health care in 2007 than in 1998, whether he or she was 40 or 65 years old. A value-for-money perspective asks: what greater value are we getting for those increased services?

FIGURE 5
What made health care spending double in a decade?



Note: This graph starts from 1998, rather than 1997, because 1998 is the first year data were available to describe the impact of our aging population on health care spending.

Source: Calculations based on data in Canadian Institute for Health Information, *National Health Expenditure Trends, 1975-2007*, 2007.

SECTION 4

UNDERSTANDING WHAT GOES IN AND WHAT WE GET

Let's assume we can agree on some broad goals for health care.

These goals might be: to maximize the health of Canadians as individuals, to raise the average level of health of the population overall, and to reduce inequities in health status among groups in our population. How, then, would we go about ensuring that we achieve value for money with our health care system? How would we tell when we are falling short?

To start, let's think of health care as a collection of *inputs*, *outputs*, and *outcomes*.

- Inputs are such things as technology, facilities, research, and the people who work in health care.
- Outputs include surgeries, prescriptions, and advice from health care providers, for example.
- Outcomes can be better health, relief of anxiety, or maintaining quality of life.

If we carefully define and measure all three, we could calculate or at least estimate value for money: how much output do we get for the inputs devoted to health care, and most importantly, what change in outcomes did these resources and activities produce?

Value for money depends on knowing what our *goals* are, since our goals represent what we value and require us to define specific objectives. Value for money also depends on being able to measure what resources went into achieving those objectives, and on being able to measure the outcomes of care. So a value-for-money perspective dictates that we ask at least two fundamental questions: "Are we using resources well to produce services?" and "Are we using services well to produce better health?" (See Figure 6.)

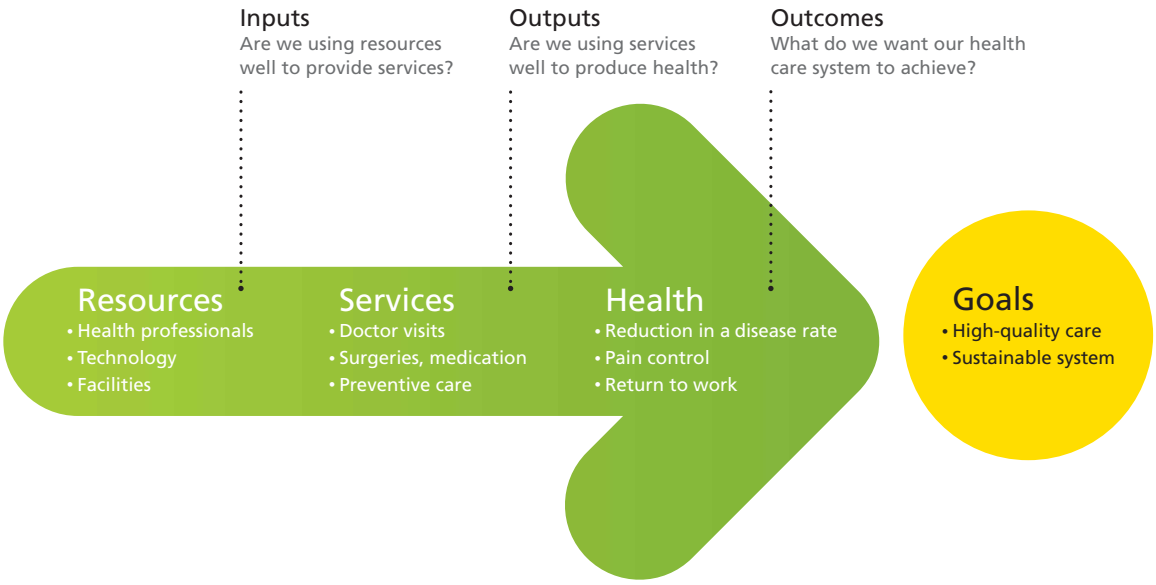
We'll look at the second question first.

ARE WE USING SERVICES WELL TO PRODUCE BETTER HEALTH?

Using our services effectively, that is, to produce better health, requires that we provide the right mix of services for the right mix of the population. There are many different pathways the health care system can take to improve people's health. Among other things, health care can:

- Identify risks to good health and deliver appropriate services and treatments.
- Provide comfort in the form of reassurance, information, pain control, and palliative care.

FIGURE 6
Should value-for-money questions drive the system?



CATARACT SURGERY – TOO MUCH OF A GOOD THING?

The technology used for cataract surgery has changed dramatically in the past 20 years. In the 1980s, this sight-saving surgery was a complex procedure that required relatively large incisions, general anesthesia, and several days in hospital. With time needed to prepare and clean the operating room, less than a handful of patients could be served by a single operating room each day. Today, virtually all cataract surgeries are done on an outpatient basis, with a local anesthetic, and far more quickly than they used to be. Many surgeons can now extract a cataract and replace the lens in someone's eye in literally a few minutes.

As a result of these changes, the number of patients receiving cataract surgery has grown. The surgery is less risky, which means it is offered to more patients, some of whom would not have had it in the past because they had other health conditions. But do these hopeful changes mean better value for money? One study in British Columbia suggests that some patients are getting the surgery too soon. One in four patients (26%) reported that their sight was worse after the surgery, and many had the operation even though their vision was not very impaired.[22]

Findings from studies like this can help health care providers and managers see where they can improve patient care, and, as a result, improve value for money.

- Provide programs and services that enable people to maintain and improve their own health, and to help them to participate fully in society.

This brief list helps to illustrate that health care does more than fix illness. It also can and often does address quality of life. At the same time, this perspective challenges us to consider more deeply what the right mix of services is, for whom, and with what goals in mind. As we move down the list, we move away from health as simply the absence of illness and more towards health as a state of general well-being. If a service does not lead to cure or comfort, can we say that the service provides value for money? Is it possible that we've been conditioned to think that some things are valuable when in fact they aren't, or vice versa? Do we over-value health care and under-value other health-enhancing policies and services?

And what about costs? As a society, our ability to improve health or well-being may seem almost limitless, which can lead us to expect more and more of our health care system. But incremental gains often come with greater and greater resource requirements.

Still, decisions are made every day, by a variety of people and organizations, as to which services and programs will claim a piece of our health care resources, and which will not. And sometimes decisions are made without the careful weighing of these value-for-money questions.

A value-for-money perspective should be able to tell us that we should focus on providing care that is effective, because only effective care can actually have a positive impact on health. But effective care is neither good nor bad value for money in itself. We also need to consider who is getting it, what other services might be available, and what that person prefers.

Apart from a few straightforward examples, much of health care falls into a "shades of grey" zone, where things are neither clearly beneficial nor obviously ineffective.

In the diagram (Figure 7), even "effective care" is shaded. This reflects how, with very few exceptions, the service itself does not fit neatly into one slot on the continuum, but rather into something we might call "service-patient combinations." A service is effective and appropriate, or not, depending on a specific situation.

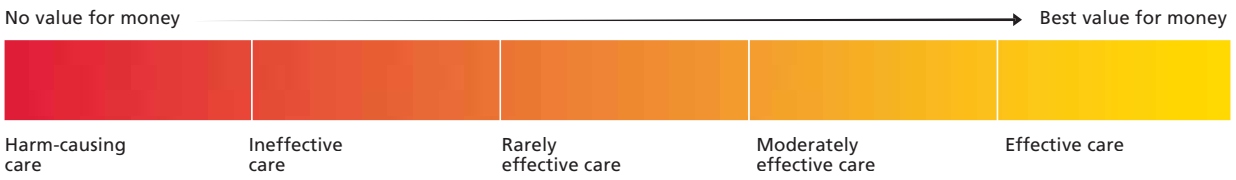
Immunizations are effective and good for nearly all young children, but this is one of the exceptions. Even here we have to qualify "all," because some vaccines are unsuitable for children with specific medical conditions. And, for a variety of reasons, not all children who can safely be vaccinated are.

Examples of effective services that at times provide poor value for money are common. Cataract surgery is, overall, a superb procedure. It is relatively simple and can improve quality of life tremendously, helping people maintain their independence. But if cataract surgeries are performed on people who have experienced only a slight loss of vision, the surgery may not help, and in fact may do some harm. (See "Cataract surgery: too much of a good thing?") Likewise, back surgery can be effective in some cases, but for many patients with an initial episode of back pain, therapeutic exercises and watchful waiting may provide far more value for money than surgery.[17]

As a society, our ability to improve health or well-being may seem almost limitless, which can lead us to expect more and more of our health care system. But incremental gains often come with greater and greater resource requirements.

Finally, not all services are effective. Sometimes health care services have no effect, and sometimes they are harmful. One in six hospital admissions of older adults is related to reactions to prescribed drugs, and the vast majority of these admissions are preventable through more appropriate prescribing.[18,19] (See "Take with caution – prescription drugs and the elderly.") In Canada, errors of all kinds affect an estimated 185,000 hospitalized patients each year, contributing to longer stays and slower recovery times. More than a third of these errors are considered avoidable. Though most of these patients recover, some are permanently disabled and between 9,000 and 24,000 die.[20]

FIGURE 7
Not all care is good value for money



TAKE WITH CAUTION – PRESCRIPTION DRUGS AND THE ELDERLY

Older adults often have multiple chronic health conditions that can be treated with prescription drugs. People aged 65 and older are more at risk for side-effects from medication; and some drugs, generally considered dangerous for this age group, are to be used sparingly, if at all. These medications are identified in the internationally recognized "Beers list," named for the physician who first compiled it in hopes of stemming the harmful use of otherwise effective drugs.

A study by the Canadian Institute for Health Information shows that high-risk drugs from the Beers list are still often prescribed for seniors. The study looked at public drug claims in four provinces between 2000 and 2006. The use of Beers list drugs declined slightly, but at least one in 12 seniors (8%) had a long-term prescription for one or more of the high-risk medications.[21]

In some cases, we can improve value for money by doing less, not more.

ARE WE USING RESOURCES WELL TO PRODUCE SERVICES?

Now we return to the first of the two questions we asked on page 29.

Effectiveness is just one dimension of value for money. Effective only means that something has the potential to work. It tells you little about the relative value of the service or treatment, either in the sense of how much health you produce for what you spend, or how the service compares to other possible treatments or courses of action. Effective interventions can have a range of costs, from those that actually save money to those that cost hundreds of thousands of dollars for each year of life gained. (See "Prevention versus treatment – value can vary.")

In some cases, we can improve value for money by doing less, not more.

At the level of individual services, this can be done through improvements such as more judicious use of surgery and more careful prescribing of drugs.

At the system-wide level, it can be done by changing the way health care is organized and delivered. For example, Canada would benefit from having a more widespread system of comprehensive primary health care services – that is, services provided by family doctors working closely with other professionals such as nurses, pharmacists, and dietitians. This kind of team-based care is especially good for patients with chronic health conditions.[23] (See "The importance of effective primary health care," page 34.)

If we can provide the right services to the right people, we can maximize the health of individuals and our population as a whole. If we can deliver those appropriate services efficiently, we can maximize the health care we get for our resources. Both are easier said than done. Maximizing value for money requires knowing what is effective, for whom, under what circumstances, and how to deliver that effective care most efficiently – no simple task.

SOME SYSTEMATIC APPROACHES, AND THEIR CHALLENGES

In Canada and elsewhere, government-sponsored agencies are now responsible for evaluating the safety and effectiveness of health technologies, such as drugs, equipment, and procedures, before they are introduced into the health care system. Worldwide, health care policy-makers, decision-makers, and researchers are creating tools to help tackle real-world assessments of value for money. They're working to evaluate health care interventions and to develop transparent processes and protocols to help in deciding which services will be made available and whether they will be covered by public funding. In addition to national agencies in Canada, some provinces and many health care facilities run their own agencies to assess health care technologies.

The objective is to make decisions that are defensible because they are based on solid information and analysis. A great deal of thought has gone into developing these processes, with the goal of ensuring they are fair and reflect public values.

These agencies and their research efforts help provide a systematic way of introducing new or evolving health care services. Despite the care taken, wrinkles can appear *after* new drugs and technologies get approved. And we don't have many public policy tools, such as agreements or regulations, to make sure that they are used only in the ways that are deemed cost-effective.

"Off-label" use of drugs is one example of this situation. A drug might be approved for a certain medical condition, where it will provide excellent value for money. Once it is on the market, however, doctors may sometimes prescribe it for an entirely different condition, even though there may be no information about whether the new use is medically useful or cost-effective.

Value for money can be undermined by another situation, known as "wayward use." This occurs, for example, when a new and expensive drug is widely prescribed, although a cheaper and equally effective alternative is available.

(continued on page 35)

PREVENTION OR TREATMENT: VALUE CAN VARY

The idea of preventing health problems makes sense, but not all approaches to prevention are highly cost-effective. Treatment, on the other hand, is not always expensive.

In 2008, the *New England Journal of Medicine* published an article that reviewed hundreds of top-quality studies on the cost-effectiveness of various medical procedures and programs designed to prevent disease and to treat existing conditions.[24]

For each intervention, the authors determined how much it would cost to add one year of good health to someone's life. They used a measure known as the "quality-adjusted life-year" or QALY, which takes into account both the quantity and quality of life resulting from health care.

They found that the "cost per QALY" of prevention efforts and treatments ranged widely. For example:

Preventive measures	Cost-effectiveness
Haemophilus influenzae type b (Hib) vaccination of toddlers	Saves money
Intensive tobacco-prevention program for Grade 7 and 8 students	$23,000/QALY
Diabetes screening of all 65-year-olds, versus screening only 65-year-olds with high blood pressure (a risk factor for diabetes)	$590,000/QALY
Treatments for existing conditions	
Family therapy (cognitive-behavioural) for patients with Alzheimer's disease	Saves money
Combined drug therapy (antiretroviral) for patients with HIV	$29,000/QALY
Mechanical heart pump implant (left ventricular assist device), versus optimal medical management, in patients with heart failure who are not candidates for a heart transplant	$900,000/QALY
Surgery in 70-year-old men newly diagnosed with prostate cancer, versus watchful waiting	Uses more money and worsens health

THE IMPORTANCE OF EFFECTIVE PRIMARY CARE

Primary health care refers to the community-based professionals and programs that are a patient's first point of contact for care. Traditionally in Canada, family doctors and general practitioners have provided most of our primary care, but increasingly other health professionals are involved.

Lots of research shows that a good primary health care system is one of the best ways to deliver effective, efficient, and equitable health care. In studies from a number of countries, having more or better primary care is consistently linked with having a healthier population.[25]

We still have a long way to go towards developing good systems of primary health care, and even in understanding what all of the right ingredients are. There is growing interest in the concept of a "medical home," where people have not only a primary doctor, but a place they can receive care from a team that, depending on their needs, might include nurses, pharmacists, midwives, social workers, doctors, nutritionists, and physical therapists.[26]

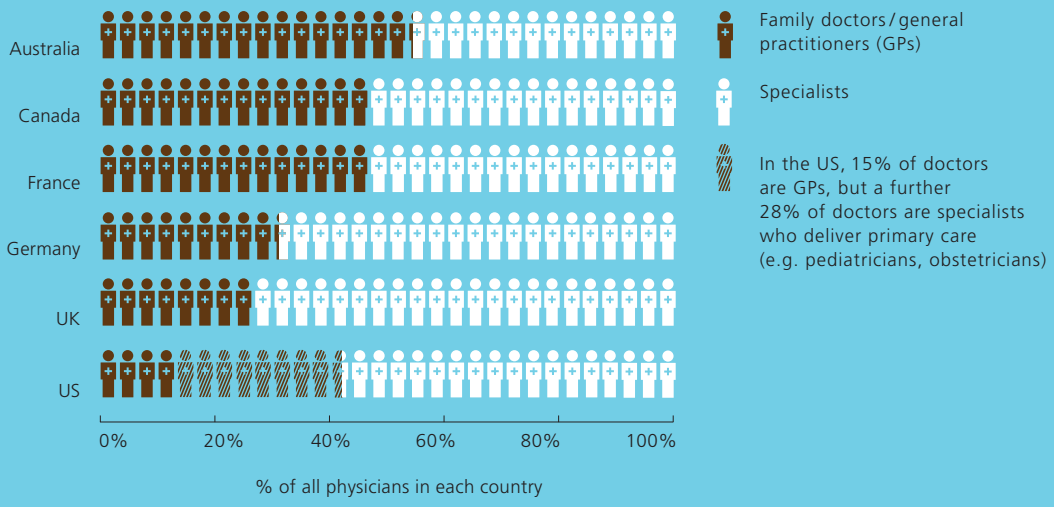
Good primary health care looks like good value for money. Its advantages include:

- **It can catch emerging problems early and help people maintain their health through preventive care.**
- **It can address the underlying reasons people get sick instead of patching up the immediate problem.**
- **It can reduce some of the need for patients to see specialists, thereby using these more expensive resources more efficiently. Routine care for babies, for example, can be provided by family doctors or nurse practitioners, rather than pediatricians.**

Among countries in the developed world, Canada has one of the best ratios of primary care (family doctors or general practitioners) to specialist physicians. Half of Canada's physicians are in general practice, compared to about one-third in the UK. (See Figure 8.) However, fewer medical students in Canada have been choosing careers in primary care, a trend that is contributing to the difficulty many Canadians experience in finding a family doctor.

FIGURE 8

What's the right mix of family doctors and specialists?



Sources: Organisation for Economic Co-operation and Development, OECD Health Data. Data are for 2002. For US – US Dept of Health and Human Services, Health Resources and Services Administration, *Physician Supply and Demand Projections to 2020*, 2006.

SOME VALUE-FOR-MONEY AGENCIES

In the UK, the National Institute for Health and Clinical Excellence (NICE) estimates the potential benefits of new drugs and technologies, combining technical evidence with input from patients, health care providers, and the general public. This guidance helps the UK National Health Service make decisions about public coverage. (*www.nice.org.uk*)

The Canadian Agency for Drugs and Technologies in Health (CADTH) produces information about the clinical and cost-effectiveness of drugs and other technologies, such as new methods for less invasive surgery to replace hip joints. CADTH is funded by Health Canada. (*www.cadth.ca*)

CADTH coordinates COMPUS, the Canadian Optimal Medication Prescribing and Utilization Service. This program provides educational resources for clinicians and consumers to help them make informed choices about drug use. (*http://cadth.ca/index.php/en/compus*)

Many health care services now in regular use have not been studied, so we don't know scientifically how effective they are, much less whether they are cost-effective.

For these and other reasons, a movement towards evidence-based medicine has emerged in recent decades. The idea is to give health care providers easy-to-use information based on research, so that health care is more consistently guided by evidence. Without these tools, patterns of services tend to vary according to the preferences of local health care providers or the availability of resources, such as the number of specialists or hospital beds.

The hope is that more evidence-based medicine will reduce variations in practice and outcomes, that it will lead to better protocols and better standards of care. But for health care practice guidelines to be effective, providers have to use them. In day-to-day health care, guidelines are often ignored (for example, in prescribing drugs for elderly patients, see page 32), and we have been slow to adopt some developments that might stimulate more evidenced-based care (such as electronic health records).[27] So while progress has been made with evidence-based medicine, it has yet to take hold. It's an important approach, but it is far from being the answer to all our value-for-money challenges.

THE HEALTH CARE ONION: LAYERS OF DECISION-MAKING

As we try to get a grip on value for money, we find that decisions about spending in health care get made at many levels. There isn't just one point where someone decides where money will go; there are many layers, like an onion.

You might look at the outer layer as the political decisions about how much money goes to health care and not to early childhood education programs, highway construction, or the environment. The next layer includes governments and/or regional health authorities, which decide how to divide up those health care resources to provide services to the different geographic areas

VOICE OF THE PEOPLE

Patients and the general public are involved in developing official policy on health care and public health in the UK. One significant example is the National Institute for Health and Clinical Excellence (NICE), which provides guidelines on health care practice and cost-effectiveness assessments of health technology.

Because the development of guidelines involves value judgments as well as assessments of the evidence, NICE has created a standing panel of representative citizens to advise it on issues of value. This is the Citizens' Council.

The Citizens' Council brings together 30 people, from all walks of life in England and Wales, to give their views on social values related to health care policy. For example, in 2008, the Citizens' Council met to discuss whether NICE should consider the severity of a disease, along with the cost and clinical effectiveness of treatments, in developing its advice about health care services.

In addition, every NICE advisory committee has at least two members from the general public, and anyone can comment on draft advice through the organization's website.

NICE also hears diverse views through the Partners' Council, which engages a wide range of people involved in health care: representatives from the health professions, research, industry, trade unions, management, and patient groups.

Ensuring that public participation is meaningful and effective presents many challenges, as NICE and others have acknowledged.[28,29] To support these efforts, NICE runs a Patient and Public Involvement Programme, which advises the organization on how to best involve people, helps to locate participants, and trains participants about the processes that NICE uses in its work.

NICE's approach to public involvement is considered a model to follow. Ontario's Ministry of Health and Long-Term Care is creating a Citizens' Council on prescription drug funding policy, the first of its kind in Canada.

For more information: *www.nice.org.uk* and *www.Ontario.ca/citizencouncil*.

in their jurisdictions, and how to allocate the funding to pay for all the various kinds of services and health care providers. The innermost layers consist of health care providers who decide which services to recommend for their patients and clients – whether this person needs a CT scan, or that one should consider surgery. And finally, each person decides for him or herself which option to pursue.

Our health care takes place in a complex, highly decentralized decision-making environment based on clinical autonomy, deeply embedded in the culture of health care professions. At the same time, we want our system to pay only for effective and valuable services, efficiently and appropriately provided to patients who need them. Can we envision a process that reconciles these different values, and successfully applies a value-for-money filter to all the layers of decision-making?

THE GRANDFATHER QUESTION: WHAT TO DO ABOUT OLDER SERVICES AND LONG-STANDING PATTERNS OF CARE?

In today's health care, innovations have to pass a test to prove they are effective, safe, and cost-effective. They have to show that they provide good value for money. But what about all the services, drugs, and ways of providing care that are already in the system? Can they be corralled into the value-for-money fold?

Many health care services now in regular use have not been studied, so we don't know scientifically how effective they are, much less whether they are cost-effective. In other cases, we may know that a drug or practice is cost-effective, but its use may have gotten out of control – think of the overuse of antibiotics, for example. (See "Ways to save on the common cold.")

Researchers have identified several possible ways of dealing with existing services. One is to "grandfather" all existing services. That is, exempt them entirely from value-for-money evaluations. A second approach is to turn off funding for any service for which the cost-effectiveness is unknown, unless there is an explicit rationale for why it should be publicly covered. A third approach takes the middle road: stop funding current services that are clearly ineffective, but grandfather the rest.[30] Something close to this middle-of-the-road approach is used by some agencies. They selectively evaluate older services that are potential candidates for being considered obsolete.

IT'S NOT AS SIMPLE AS "IN OR OUT"

In Canada, we always seem to be grappling with "in or out" decisions, in the hopes that if we could simply decide which service falls under medicare and which should be paid for privately, we would solve our perpetual crises of funding and sustainability.

But the "in or out" approach is a blunt instrument for a nuanced issue. Categorically de-insuring or withholding approval for public funding of a service may mean that a small group of patients is denied access to an entirely cost-effective and appropriate service. A service that is overly expensive or inappropriate for one condition or group of patients may greatly and cost-effectively improve another group's quality of life.

Shades of grey again: few interventions have high or low value for money in and of themselves. Often it depends on a specific application for a specific person. A value-for-money lens forces us to accept this puzzle, and accept that we don't yet have tools in place to deal with it. (See "Voice of the people.")

WAYS TO SAVE ON THE COMMON COLD

It is hard, though not impossible, to change patterns of practice once they have developed. People often want evidence about the benefits and cost savings of the change. For example, the UK organization NICE recently issued new guidelines aimed at reducing the overuse of antibiotics. Despite evidence that the drugs are not effective for common respiratory infections, these illnesses account for 60% of all antibiotic prescribing in the UK.[31] The new guidelines advise general practitioners not to prescribe antibiotics for most colds, coughs, earaches, and sore throats – or at least to delay their use.

In its value-for-money calculations, NICE estimates that this change in practice would save at least £3.7 million a year (about C$7 million), a 15% reduction in spending on antibiotics. Additional health benefits and cost savings would result from implementing this change, such as reductions in life-threatening infections in hospitals like *C. difficile*; fewer complications and less risk of antibiotic resistance; and lower malpractice costs for physicians and the National Health Service.[32]

We have some well-developed methods for assessing value for money, but the shortage of relevant data, information, and skilled people hampers our ability to use them to the fullest.

YOU CAN'T EVALUATE WHAT YOU DON'T MEASURE

Finally, we face a major hurdle in our need for better data and better analysis of the data we collect. We keep a lot of useful data about Canadians' health and our use of health care services, yet our ability to understand the relationship between the two is limited. For instance, we pay woefully little attention to the outcomes of care, beyond whether people live or die. And we don't always know what criteria doctors use to recommend services such as surgeries or drugs as those technologies become available in the system.

For our health care system to be able to report routinely on value for money and sustainability, we need to create better information about the outcomes of care. This is fundamental to implementing value-for-money decision-making in the health care system. Some aspects of assessing outcomes can be done relatively inexpensively, and other aspects are more costly. But given the billions we spend on health care delivery, and the potential savings we can reap from applying value-for-money knowledge to our decision-making, we should ask whether we can afford *not* to make these investments. (See "The limits and possibilities of health care information.")

> We pay woefully little attention to the outcomes of care, beyond whether people live or die.

THE LIMITS AND POSSIBILITIES OF HEALTH CARE INFORMATION

Across Canada, a great deal of basic data on health care are collected routinely, but the data that are available do not tell us very much about whether we are using resources well to provide services, and tells us almost nothing about the outcomes of care, particularly for the nation as a whole. We can count the number of times people are admitted to hospital, what health conditions they have, and how many days they spend there. We can tally the amount of money going to different parts of the health care system. But we collect practically no data about patients as a group before and after they receive health care services.

If we want to understand value for money with respect to specific services, we need a different kind of information than is currently available. Let's look at hip replacement surgery as an example.

What we can show: **Number of hip replacements; what proportion are due to hip fractures; time from diagnosis to surgery; how long a hospital stay; how many patients are readmitted to hospital after their surgery.**

What we can suggest: **Demographic factors (age, sex) and disease factors (drug use, chronic conditions) associated with greater likelihood of falls, a cause of hip fractures; prevalence of arthritis and osteoarthritis, which may lead to the need for hip replacement.**

What we know very little about: **What characteristics best predict which patients are most likely to benefit from surgery, and which are not? How much better off in terms of pain and mobility are people after surgery, compared to before?**

What we could know, and how: **The UK is experimenting with collecting *patient-reported outcome measures,* or PROMs. These are simple surveys that collect self-reported information from patients both before and after surgery, as a way of helping evaluate the impact of care. They use general questions, such as asking patients to rate their health; or specific questions related to certain types of surgery, such as asking patients how well they see before and after cataract surgery, or about their pain and mobility before and after joint replacement. According to estimates in the UK, using PROMs costs about £10 (about C$20) a patient–a relatively small investment to get enormously useful additional information on effectiveness of care.**[33]

SECTION 5

The road to assessing value for money is full of potholes – and we're travelling without a map.

But there are places we can begin to look for guidance.

Dr. Donald Berwick, dean of the international health care quality improvement movement, estimates that 30% of all health care spending in the US is waste. Berwick's point is that health care systems don't necessarily have to spend more to improve the quality of care. According to his estimate, the US could get about one-third more value for money if it focused on finding out where spending was not contributing to better health or quality of life. (See "Waste not, want not.")

VARIATIONS AND VALUE

Where rates of service or the number of health care providers vary, we often assume that the higher rate or number is better. Sometimes it is, but sometimes it isn't.

Earlier we talked about life expectancy and health care spending (page 23). On average, people in Spain and New Zealand live as long as Canadians, yet those countries spend about 8% - 9% of their GDP on health care, compared to the 10% we spend.

A glimpse at some other international comparisons, as well as regional differences within Canada, reveals more reasons to ponder this aspect of value for money. For instance:

- A shortage of doctors and nurses is often identified as one of Canada's pressing health care problems. Yet Italy has twice as many doctors per capita as Canada, and Italians live no longer lives on average than Canadians.[34] In countries with well-developed health care systems, we can't assume that having more doctors or spending more will automatically lead to better health outcomes.
- *Avoidable mortality* is a measure of deaths that could have been prevented by high-quality care. Canada does well on this measure compared to other countries,[35] even though we have a relatively low number of doctors and a slightly higher-than-average number of nurses for the size of our population. In contrast, the UK has about the same number of doctors and nurses for its population as Canada does, but the UK experiences many more deaths that could be prevented through timely and effective health care.[36] (See Figure 9.)
- In Ontario, the rate of total knee replacements is twice as high in some parts of the province as in others, taking into account differences in age and gender ratios of populations in various parts of the province.[37]
- The Canadian Cardiovascular Outcomes Research Team (CCORT) reports many regional differences in cardiac care over the three-year period of 1997 - 2000. Heart attack patients in Vancouver, for example, were far more likely to be treated with angioplasty (a procedure to widen clogged arteries) than were patients in Manitoba or western Ontario.[38]

What accounts for these differences? Internationally they may reflect different social values, or simply different social and economic pasts. There is no single "right" way to finance, organize, and deliver health care services. Health care systems are inevitably a product of history.[39]

Differences within a single country may provide more helpful clues. For more examples, see

(continued on page 42)

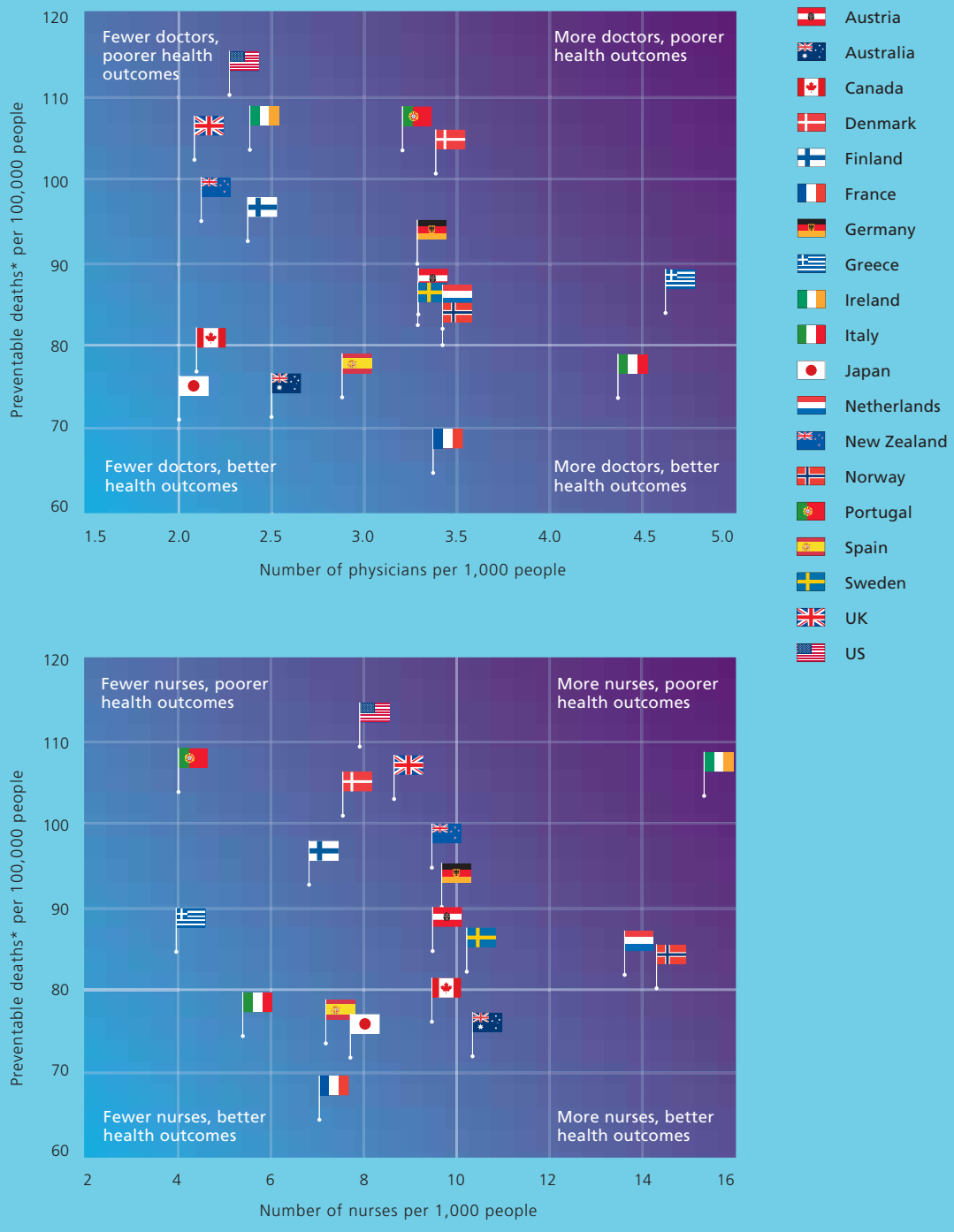
WASTE NOT, WANT NOT

Dr. Donald Berwick heads the independent, non-profit Institute for Healthcare Improvement (IHI), which he founded in 1991. Based in Cambridge, Massachusetts, IHI works to improve health care throughout the world. Berwick believes that waste permeates every part of health care systems from administration to the delivery of care – wasted time, wasted space, and wasted supplies. Some industries have done a good job of reducing waste in their production systems to make the best use of their resources. IHI encourages health care systems to do the same.

For more information: *www.ihi.org.*

FIGURE 9

Does having more doctors and nurses produce higher-quality care?



*Avoidable mortality, a measure of deaths that could be prevented by high-quality health care.

Data are for 2002/03.

Sources: For physicians and nurses – Organisation of Economic Co-operation and Development, OECD Health Data. For avoidable mortality – Nolte E and McKee CM, Measuring the health of nations: updating an earlier analysis, *Health Affairs* Vol. 13, No. 1, 2008.

Adapted with permission of Diane Watson and Kimberlyn McGrail.

the recent "Myth Buster: In healthcare, more is always better" from the Canadian Health Services Research Foundation (*www.chsrf.ca*). If variations can't be explained by differences in people's health care needs, they signal possible places to look to improve value for money.

DIGGING DEEPER: LESSONS FROM US RESEARCH

For the past three decades, a group of researchers in the United States has been comparing health care practices in different parts of that country. Looking at value for money through the lens of regional variations, they ask: if there are high- and low-spending areas, how would you know which region is spending the right amount?

This work has revealed important insights that could be applied in Canada.[40,41,42] First, there are no large variations in regional spending for services that are considered effective, such as hip replacement following a hip fracture, or for services that are rightly left to patients to decide according to their values and preferences, such as lumpectomy versus mastectomy for breast cancer.

Where variations do show up is in services that researchers describe as "supply-sensitive." Their use tends to vary depending on the discretion of health care providers.

For example, there is no agreement in the medical profession about how many times people with chronic obstructive pulmonary disease (COPD) should see a doctor each year, and this leads to great variations in practice. Similarly, there are few clear guidelines about the right level of end-of-life care, with the result that in some US regions three times as many health professionals care for people in the two years before they die as in other regions. These variations exist even among academic medical centres, all of which are considered to provide high-quality care.

The second important finding from this work is that higher spending is not associated with better outcomes. At best, there is no difference in outcomes, and for some outcomes, including patient satisfaction and mortality, higher spending is actually associated with *worse* outcomes. For example, both one and five years after a heart attack, patients in higher-spending regions were slightly more likely to have died than those in the lowest-spending regions, even though patients in higher-spending regions received 60% more care.

These studies are from the United States, and they may not play out the same way in Canada. But there is no question that patterns of health care services vary across the regions of this country, both among and within provinces and territories. Greater use of services in one region over another, without increased numbers of healthier or more satisfied patients, flags the possibility that value for money could be improved.

MORE IS NOT ALWAYS WORSE

Earlier we described the reasons why health care spending has grown over the last decade. (See Figure 5, page 27.) The major factor behind the increase in spending is an increase in our use of health care services. On average, we are all getting more care, undergoing more tests, and receiving more prescriptions. This ballooning use of services is the only factor that could potentially be influenced by changes in health care policy. In probing why we're using more services, policy-makers need to ask: are more services buying better health?

Chronic disease provides a good illustration. Chronic health conditions have a large and growing impact on Canadians' use of health care services. We are living longer, and more people are being diagnosed with various chronic diseases.[43] The persistent belief that our aging population will overwhelm the health care system is a myth.[44,45] But it is true that many older Canadians have multiple chronic health conditions, and that a relatively small number of medically frail people with multiple long-term health problems use a very large share of health care services. (See Figure 10.)

The fact that people who are sicker use more health care services seems like good news, since it suggests that people who need the most services are receiving them. But taking a value-for-money perspective, we can ask if these patients are receiving the most *appropriate* services.

As an example, people with diabetes need regular tests and check-ups, along with good self-care at home, to keep the condition in check and minimize the risk of health problems down the road. However, we know that few diabetes patients in either Canada or the US receive the full range of care as recommended in expert guidelines to best manage their health problems.[46,47] This can lead to greater use of specialists and more time in hospitals to treat complications that arise from poor management of their condition. These services may do a good job of dealing with the complications quite efficiently, so in isolation this looks like good value for money. But since many complications are avoidable, we may end up with poor value for money overall.

Better quality care for people with chronic conditions may mean providing more health care services, not less. For diabetes, these would include more preventive services such as regular blood-sugar tests, foot exams, and eye exams. In the long run, this increase should mean better individual health, fewer complications, and ultimately a better distribution of the overall cost of caring for people who develop diabetes.

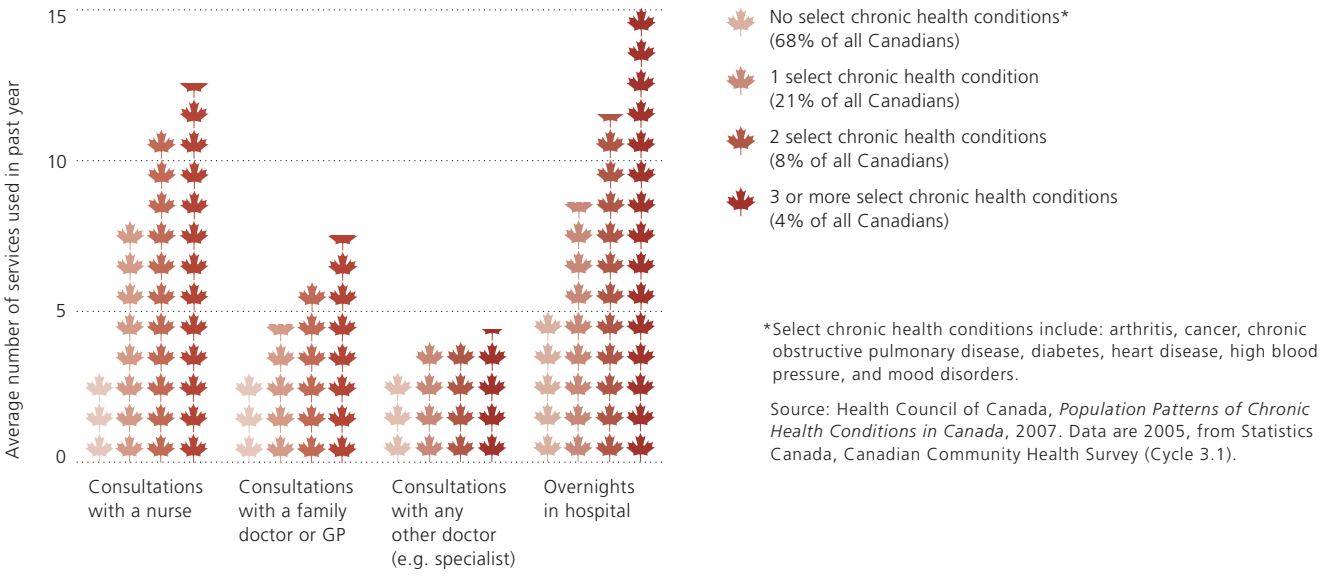
NEED: A SLIPPERY CONCEPT

In the world of health care, "need" is a slippery concept. Technologies are always changing, and there is always more that can be done. Basic research leads to new understandings of the biological causes and consequences of disease, and to new ways of responding to those diseases. Clinical research leads to new drugs and devices, new surgical procedures, and new ways of doing things. Health services research leads to changes in how hospitals are organized, how health care systems are financed, and what services are funded.

There is constant pressure on health care systems to do more. Pressure to implement new ways of doing things comes from patients, from providers, and from industry. We want them to use the latest technologies, or to use the most recent drug.

Underlying our sense of need runs the tendency to believe that the newest and latest is always the best, that more is better. A value-for-money perspective can make us think differently about our expectations, about how we form our personal and collective judgments on the value of health and the value of care and the value of the money we spend for our care.

FIGURE 10
Big opportunities to improve value for money?
Small numbers of Canadians with multiple chronic health conditions use most health care services.



*Select chronic health conditions include: arthritis, cancer, chronic obstructive pulmonary disease, diabetes, heart disease, high blood pressure, and mood disorders.

Source: Health Council of Canada, *Population Patterns of Chronic Health Conditions in Canada*, 2007. Data are 2005, from Statistics Canada, Canadian Community Health Survey (Cycle 3.1).

As we have discovered, describing and assessing value for money in health care is harder than you might think. The picture is usually painted in shades of grey rather than in black and white. With the right data and tools, meaningful assessments and judgments can be made, yet assessments of value for money will inevitably be mixed. And decisions about care still have to be made, whether the science of care has advanced far enough or medical certainty is available.

What at first might look like a technical question for medical and economic experts turns out to be much more than that. Technical evidence is essential, but on its own it is not enough. Even when people agree on the facts of spending and outcomes, they may disagree about priorities and what constitutes value. One person might think that providing an expensive drug to prolong the life of a cancer patient in considerable pain by three months is poor value for money. But another person might think it well worth the money. Whether Canadian health care delivers good value for money will often be answered conditionally, and will vary by service, sector, individual program, geographic area, and, in many instances, personal beliefs.

How do we decide what is good value for money? First we have to define the various types of value we expect from health care. Next we have to evaluate the effectiveness of our health care investments, and the return on our expectations. This sounds straightforward, but here too there are complications. Estimating value for money requires quantifying value

received and money spent. As we saw in section 4, accurately measuring either one is a challenge in Canada. At present, decision-makers have few value-for-money criteria or templates to guide investments and evaluate expenditures. Drug formularies and health technology assessment protocols are the exceptions. How much health improvement can be attributed to a particular intervention, and how long the improvement might last, are controversial questions, and the answers are controversial too.

The goal is to partner our values with technical evidence in order to craft well-informed, socially supported judgments about using health care resources. Does more care necessarily produce better health? (Section 5 put this assumption to the test.) The answer will vary across the health care spectrum because while some problems can be dealt with cheaply and definitively, others, such as dialysis and complicated cases of diabetes, require intensive resources over long periods of time. It would be unreasonable to expect all parts of the system to produce an added unit of health for the same cost. Likewise, it would be unjust to deny care to people who happen to have conditions for which there are no inexpensive treatments.

We know that when someone needs health care, a proper diagnosis has to be made before sound advice on treatment can be given. If the diagnosis is wrong, the treatment will be ineffective or might even make things worse. The same can be said for improving our health care system. The changes we make and the new ways we want to do things have to be based on a solid understanding of the system's needs or there will be little chance they will have the desired effect. If we want to improve value for money in our health care, we need to identify and address the challenges in the system that impede progress.

Value for money might look like a technical question for experts, but it is much more than that.

We lack some of the knowledge and information that would help us make better value-for-money decisions. And given the complexity of the Canadian health care system and the sheer number of largely independent decision-makers, it may sometimes appear as if no one's in charge. Despite our system's many strengths, it is fragmented. More rational and explicit processes for decision-making will help us get to better value for money, but we still need follow-through in the form of policies and incentives that will get us what we want and ensure that we avoid what we don't want. Without these, health care managers who are responsible for budgets in health care regions and provincial systems across the country have very little leverage to make effective decisions.

There are lessons to be learned about achieving value for money from other countries, but ultimately we in Canada will have to find our own way. Of course, once we get there, we'll also have to find a way to sustain it.

Upcoming Health Council of Canada initiatives will look at these and other issues, with the goal of stimulating a fundamental change in the discussions about what our health care spending can achieve.

In the meantime, we know for certain that this conversation should involve everyone, whether they need health care today or not. Providers of health care, administrators, and policy-makers; patients, clients, their families, and the general public – we all care deeply about the system's sustainability and we all want it to be well stewarded into the future.

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FIGURES

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The project was led by the Council's Value for Money Steering Committee, including these Councillors and external members:

Councillors
Dr. Nuala Kenny
Chair, Value for Money Steering Committee

Mr. Steven Lewis
Inaugural committee chair (retired from Council, May 2008)

Mr. Albert Fogarty

Ms. Verda Petry

External Members
Dr. Anthony Culyer, Ontario Chair in Health Policy and System Design, University of Toronto; Professor of Economics, University of York, England

Ms. Louise Jones, Interim President and Chief Executive Officer, Eastern Health

Dr. Heather Manson, Vice President, Population Continuums, Vancouver Coastal Health

Dr. Nancy Ross, Associate Professor, Department of Geography Associate, Department of Epidemiology and Biostatistics, McGill University

Mr. Wayne Strelioff, MSc, FCA

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Dr. Mita Giacomini, Professor, Department of Clinical Epidemiology and Biostatistics, and Centre for Health Economics and Policy Analysis, McMaster University

Dr. Jeremiah Hurley, Professor, Department of Economics, and Centre for Health Economics and Policy Analysis, McMaster University

Dr. Greg Stoddart, Professor Emeritus, Department of Clinical Epidemiology and Biostatistics, and Centre for Health Economics and Policy Analysis, McMaster University

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Canada's First Ministers established the Health Council of Canada in the 2003 Accord on Health Care Renewal and enhanced our role in the 2004 10-Year Plan to Strengthen Health Care. We report on the progress of health care renewal, on the health status of Canadians, and on the health outcomes of our system. Our goal is to provide a system-wide perspective on health care reform for the Canadian public, with particular attention to accountability and transparency.

The participating jurisdictions have named Councillors representing each of their governments and also Councillors with expertise and broad experience in areas such as community care, Aboriginal health, nursing, health education and administration, finance, medicine and pharmacy. Participating jurisdictions include British Columbia, Saskatchewan, Manitoba, Ontario, Prince Edward Island, Nova Scotia, New Brunswick, Newfoundland and Labrador, Yukon, the Northwest Territories, Nunavut and the federal government. Funded by Health Canada, the Health Council operates as an independent non-profit agency, with members of the corporation being the ministers of health of the participating jurisdictions.

The Council's vision

An informed and healthy Canadian public, confident in the effectiveness, sustainability and capacity of the Canadian health care system to promote their health and meet their health care needs.

The Council's mission

The Health Council of Canada fosters accountability and transparency by assessing progress in improving the quality, effectiveness and sustainability of the health care system. Through insightful monitoring, public reporting and facilitating informed discussion, the Council shines a light on what helps or hinders health care renewal and the well-being of Canadians.

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To reach the Health Council of Canada:
Suite 900, 90 Eglinton Avenue East
Toronto, ON M4P 2Y3
Telephone: 416.481.7397
Fax: 416.481.1381
information@healthcouncilcanada.ca
www.healthcouncilcanada.ca

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To reach the Health Council of Canada:
Telephone: 416.481.7397
Facsimile: 416.481.1381
Suite 900, 90 Eglinton Avenue East
Toronto, ON M4P 2Y3
www.healthcouncilcanada.ca

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