future, and financial incentives will have to follow suit, the physicians argue.

"We prevent many hospital admissions, we prevent hospital readmissions and we delay and prevent admissions to long-term care and all of those things are hugely expensive," says Nowaczynski, head of a provincially funded House Calls team that includes a nurse practitioner, an occupational therapist, social worker and team coordinator.

The team's annual budget is $480 000 and in 22 months of operation, they've assessed nearly 400 patients. The average hospital admission for a frail senior costs the Ontario government $7000 to $10 000, and a government subsidy for a bed in a long-term care facility is roughly $40 000, Nowaczynski says. So the province's investment is saved "many times on an annual basis."

If it keeps patients out of acute care facilities, it's to everyone's advantage, says Hugh MacLeod, chief executive officer of the Canadian Patient Safety Institute. "If we improve the game here, not only does the individual benefit, but the system benefits and you don't place that individual in a place of sickness called a hospital and that should be our goal. Reduce the amount of traffic that goes to a hospital."

Payment models, though, do little to encourage house calls.

In fact, in Ontario, funding of the health care system has even worked to disadvantage house calls, Nowaczynski says, explaining that during the 1990s, the government shifted three-quarters of the home and chronic care budget to acute care, so that hospitals could discharge patients quicker. "I saw a lot of my housebound patients lose services."

"There are not the right financial incentives for family physicians to make home visits so physicians do it as almost an afterthought or an add-on to a busy office-based practice and the incentives are far greater to practise medicine in an office-based setting," he adds.

British Columbia is the only province that has raised payments to physicians for house calls, to $108 per visit, Sloan notes. That's a reasonable fee "when consider that if you do this major, major part-time or full-time, you lose a big chunk of overhead" costs related to running an office, he says. "You make more money in British Columbia if you see more people at home."

Nowaczynski argues that 5% of hospital funding should be funnelled into home-based care. "We would decrease hospital utilization and hospitals wouldn't miss the decrease in their budgets."

Such a shift would "have to be mandated," he adds. "We need strong government leadership and policy to look at more effective ways of delivering care to frail seniors because our current system is rapidly getting into trouble."

But as Sloan notes, summoning the "political will" to make major changes in the funding of health care is "not easy to do."

Nowaczynski believes the answer might lie in something as simple as having everyone do their part. "I think the solution is to have a lot more family physicians doing a little bit of home-based care. That would have a greater system-wide impact."

That cause might be abetted by the findings of a $1 million, two-year Canadian Patient Safety Institute study that is examining the safety and efficacy of home care (www.patientsafetyinstitute.ca/English/news/newsReleases/Documents/1%20million%20dollars%20awarded%20to%20identify%20safety%20risks%20with%20care%20in%20homes.pdf). — Erin Walkinshaw, Ottawa, Ont.

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Mandatory vaccinations: No middle ground

Few issues generate such impassioned debate as mandatory vaccination policies. Advocates say vaccines are safe and exemptions should be minimal. Opponents counter that vaccines are hazardous to health and that any limitation on exemptions is a violation of constitutional rights.

"Immunizations are the safest, longest-lasting and most effective way to prevent communicable diseases," says Dr. Ian Gemmill, past chair of the Canadian Coalition of Immunization Awareness and Promotion, a non-governmental advocacy organization.

Vaccines were responsible for stopping meningococcal disease outbreaks in the 1990s and early 2000s, and more recently, helped end the influenza pandemic in 2009, Gemmill says. "You could argue it was going to end anyways, but I think that the immunization program certainly blunted the final effects of the pandemic."

The numbers speak for themselves, he adds. In the case of measles, prior to the development of a vaccine, there were about 300 000 cases per year among Canadian children under the age of 18. Of those, about 300 died annually, while about 300 were left with brain damage (http://gnb.ca/0053/public_health/pdf/2011/parent-guide-to-immunization_april2011-e.pdf). Now there are less than 50 cases per year and no deaths, Gemmill says. Similarly, the incidence of pertussis dropped from 30 000 to 50 000 cases, and 50 to 100 deaths, per year, to just 3000 and 1 to 5 deaths following the development of a vaccine.

The numbers suggest that mandatory immunization policies are appropriate in certain environments, says Gemmill. "There are some circumstances, like schoolchildren [and] for sure, health care workers, where there are compelling arguments that can be made and should be respected around requiring people to be immunized. But it's not true for every single vaccine and every single circumstance."

Anyone who works in a health care facility should be required to be vaccinated on the grounds that they are in a position to put vulnerable people at risk and could be "knocked out" during a pandemic, he adds. "If you have enough people out then you're actually jeopardizing your health system just when people need it the most."

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As well, in a school setting, an outbreak of a highly contagious disease such as measles can lead to hospitalizations and lifelong brain impairment for the unimmunized, he says. “In those kind of situations, where there is a true rationale to control outbreaks and protect individuals, it makes sense that this be made mandatory.”

Yet, while other nations such as Slovenia have implemented comprehensive mandatory vaccination laws (www.cmaj.ca/lookup/doi/10.1503/cmaj.109-3993), there appears little appetite for such a notion within Canada. Even those who would support such a proposition, such as Gemmill, say it would have to include ample room for exemptions.

While medical reasons are justification for exemptions, religious and philosophical arguments don’t carry as much cachet, he says. “I have more trouble with those but I think we have to respect the whole issue of religious beliefs.”

Legislated vaccination policies are acceptable as long as the exemptions are broad enough to ensure people still have a right to choose, argues Trueman Tuck, managing director of the Canadian Coalition for Health Freedom.

Others object to even a mandatory program with exemptions. The problem with that approach is that parents generally are unaware that they have the option to request an exemption, says Edda West, coordinator for the Vaccination Risk Awareness Network. “Invasive medical procedures of any kind that carry a risk of injury and death must always be left to the discretion of the patient, or the patient’s parents in terms of a minor,” she says, charging that the Ontario health ministry fails to notify parents that they have the option of declining vaccinations. “Public health care officials are coercing parents by not informing them of their choice.”

Moreover, vaccinations should never be made mandatory because they carry the risk of injury and death and are essentially “experimental,” she adds.

Citing a study that found a correlation between the number of vaccines administered and national infant mortality rates (http://het.sagepub.com/content/early/2011/05/04/0960327111407644.full.pdf+html), West argues that full disclosure of risks, rather than vaccinations, should be made mandatory.

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Advocates for immunization policies say they are appropriate in certain environments, such as health care facilities, where unvaccinated staff put vulnerable patients at risk.

Tuck contends that mandatory vaccination would be illegal. Neither the federal nor provincial governments “have the legislative jurisdictional authorities to compel people to take forced medications, particularly one as controversial as vaccines.”

Given such opposition, mandatory vaccinations probably wouldn’t be politically saleable in Canada, says Dr. Robert Bortolussi, a pediatrician in Halifax, Nova Scotia and the immediate past chair of the Canadian Paediatrics Society Infectious Diseases and Immunization Committee. The public would have a very negative reaction and there’s very little to be gained, he says. “Most children do get immunized. … The amount gained by perhaps a few people getting immunized would be very small and the risk is that you would alienate the public from some important public health endeavours.”

Opponents also argue that more parents would object to vaccinations if they knew the frequency of adverse reactions. But Canadians have no way of knowing how often those occur because governments don’t make those numbers public, West says. By contrast, the United States Vaccine Adverse Event Reporting System reports regularly on incidence as well as on amounts paid in no-fault compensation (now over US$2 billion) to those injured by vaccines.

Gemmill counters that governments and health care professionals must do more to “counter the untruths being circulated on the Internet by some irresponsible people.”

Some parents only hear about the risks of vaccination and assume that because incidence rates of some diseases have dropped that the threat posed by those diseases isn’t real, Bortolussi says.

It’s a shame people don’t remember the damage diseases such as whopping cough and measles did in the past, Gemmill says. “If they remembered that I think they would be like our grandparents. They would have no second thought. It would be obvious that a vaccine is not only desirable but essential as part of a child’s health.” — Erin Walkinshaw, Ottawa, Ont.

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Editor’s note: Third of a three-part series on mandatory vaccination

Part I: The Canadian picture (www.cmaj.ca/lookup/doi/10.1503/cmaj.109-3992)

Part II: The international landscape (www.cmaj.ca/lookup/doi/10.1503/cmaj.109-3993)

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