“Gridlock” is a term that has been applied to the state of health policy in Canada and the United States for the past decade and longer. Dr. Forest has made a compelling case for five advances in health research that will bring about a revolution in health policy (1), and I would not challenge any of them, although I would emphasize the importance of tackling socio-economic health inequalities, which Mackenbach et al. have estimated to have accounted for 20% of healthcare costs in the European Union in 2004 (2). Moreover, the Organization for Economic Cooperation and Development (OECD) has reported that income inequality increased more between 2007 and 2010 than it did in the previous 12 years, which suggests that this could be a major cost driver in the years ahead (3).

I would like to add, however, that over the past few decades we have arrived at two fundamental changes in the way that we approach health and healthcare that will also have significant implications for health policy. The first is the development of an outcome focus on healthcare that seeks to measure improvements in individual and population health status. A key contribution has been the development of relatively short indices that capture dimensions of health outcomes, health status, patient engagement, and population health status. A key contribution has been the development of relatively short indices that capture dimensions of health outcomes, health status, patient engagement, and population health status. An example is the Short-Form Health Survey, and the 15-item Euroqol 5-D, which have now been studied in many populations (7,8). While many of the original applications were in health economics, such as studies to establish cost-effectiveness measures, they are now being rebranded as Patient-Reported Outcome Measures (PROMs).

Since 2009, the English National Health Service (NHS) has mandated the pre- and post-operative collection of PROMs data for four procedures including hip and knee replacement, varicose vein surgery and groin hernia surgery, and the results are regularly reported (9). Research is underway to assess the applicability of PROMs to chronic conditions such as chronic obstructive pulmonary disease and diabetes (10). There has also been considerable research on the application of patient-reported outcomes to emergency care (11) and primary care (12). Although these considerations continue to apply almost 50 years later, great strides have been made in measuring individual and population health status. A key contribution has been the development of relatively short indices that capture dimensions of physician and emotional health, such as the 36-item Short-Form Health Survey, and the 15-item Euroqol 5-D, which have now been studied in many populations (7,8). While many of the original applications were in health economics, such as studies to establish cost-effectiveness measures, they are now being rebranded as Patient-Reported Outcome Measures (PROMs). Since 2009, the English National Health Service (NHS) has mandated the pre- and post-operative collection of PROMs data for four procedures including hip and knee replacement, varicose vein surgery and groin hernia surgery, and the results are regularly reported (9). Research is underway to assess the applicability of PROMs to chronic conditions such as chronic obstructive pulmonary disease and diabetes (10). There has also been considerable research on the application of patient-reported outcomes to emergency care (11) and primary care (12).
of such indicators for the development of composite measures of population health status, that has gained significant traction since the 1993 World Development Report, which popularized the concept of Disability Adjusted Life Years (11). Stine et al. have recently proposed how Health Adjusted Life Expectancy can be applied in clinical settings (12).

Where are these developments taking us? I am convinced that ultimately health systems will remunerate providers based on improvements in outcome and not so much on volumes or processes of care. Indeed, Kindig set out an ambitious proposal for such an approach in the 1990s, but I have not seen any uptake as yet (13). However there has been a huge proliferation of “Pay for Performance (P4P)” projects over the past decade that are linked to process of care and intermediate outcomes, such as blood pressure control, although there is also a large critical literature of P4P.

Second, I would contend that we are still in the early phase of a Copernican revolution in healthcare in which healthcare providers revolve around the patient rather than the reverse situation that has been the case since the advent of the modern hospital. I would argue that an early milestone of this revolution was the 1989 White Paper Working for Patients, issued by Prime Minister Margaret Thatcher’s government in the United Kingdom (UK). One of its two key objectives was “to give patients, wherever they live in the UK, better healthcare and greater choice of the services available” (14). Since that time, the English NHS has achieved a remarkable transformation, particularly in the area of wait times. Working for Patients led to the first UK Patient Charter in 1991 that included, among 10 rights “to be guaranteed hospital admission for treatment by a specific date within two years” (15). This was followed by a second iteration of the Charter and a series of clinical services frameworks, and then in 2004 the government made a further commitment that by 2008 no one would wait longer than 18 weeks from GP referral to hospital treatment (16). This commitment is now embodied in the NHS Constitution (17) which also includes the right to be seen by a cancer specialist within two weeks when a GP suspects cancer (18). The times over have time been striking. In March 1989, just after Working for Patients was issued, more than one in four (26.1%) of patients waiting for hospital admission was waiting for more than one year (19). As of December 2013 (and reporting data that current is a remarkable achievement itself) there were 109 patients waiting for hospital treatment longer than 1 year, representing 0.04% of the total. Since August 2008 with few exceptions, more than 90% of patients admitted for treatment begin within the 18 weeks guarantee and this exceeds 95% among those not requiring admission for treatment (20).

Looking ahead, another aspect of this revolution is the recognition that patients have a key role (and responsibility) to play in choices and decisions about their health and healthcare. The most recent example of this is the Choosing Wisely campaign of the American Board of Internal Medicine (ABIM) Foundation (21). The origin of this campaign was a 2010 challenge by Howard Brody to national specialty societies to develop “Top 5” lists of services that are both expensive and shown by evidence to be of no benefit to a large proportion of patients for whom they are commonly ordered (22). The influential U.S. publication Consumer Reports is a partner in the campaign and is developing materials to help patients discuss these services with their physicians. Other countries including Canada are planning to implement their own versions of Choosing Wisely.

In summary, I think if we continue to advance the study of health outcomes and their valuation by patients and if we facilitate patient engagement in decisions about their care, this will also contribute to answering the questions that Dr. Forest enumerates at the conclusion of his paper that focus on resource allocation and return on investment.

For me, however, there is an outstanding and vexing question, and that is, have governments succeeded in bending the cost curve? According to the OECD per capita health spending fell in 11 of 33 member countries between 2009 and 2011 (23). As Saltman and Cahn have pointed out, this climate will pose major challenges in healthcare governance and financing (24). On the horizon, the field of regenerative medicine aims to replace or repair organs and tissues through new therapies composed of living cells, although this is likely to take some time (25). Ultimately, I think the question we have to answer is; will cost-effectiveness analysis ever trump the rule of rescue?

Ethical issues
Not applicable.

Competing interests
The author declares that he has no competing interests.

Author’s contribution
OA is the single author of the manuscript.

References
21. See www.choosingwisely.org