The traditional economic perspective on how to govern the health sector is based on the rational choice paradigm. In a world of fully rational and self-centred individuals that make well-informed, forward-looking decisions, economic incentives are a powerful tool to steer choices. Questions of optimal institutional design then turn into exercises of establishing the right incentives for different market participants, i.e. those who demand or provide health services. In reality, however, it is humans—and not ultra-rational ‘Econs’ (Thaler and Sunstein 2008)—that make choices. And human decisions tend to be, well, human: influenced by limitations in attention, self-control, and willpower, i.e. ‘bounded’ in the degree of rationality, as well as by social norms, peer comparison, and conformity pressure.

By now more realistic, richer (but also more complex) models of decision-making have found their way into the mainstream of modern economics. The behavioural ‘revolution’ within economics (which was, in fact, a slow process that took several decades) produced a better, i.e. empirically more accurate, description of behaviour and—in the health sector—a better understanding of patients’ and health professionals’ choices. This, in turn, offered new views on health policy problems. Behavioural economics gave rise to novel policy approaches and instruments. The most prominent among these are ‘nudges’ (Thaler and Sunstein 2008), i.e. changes in the choice environment that aim at inducing behavioural change without resorting to economic incentives. However, there are many other ways beyond nudging in which behaviourally informed policy proposals differ from traditional economic approaches.

The idea of behaviourally informed policy-making quickly spread beyond the academic world. Already well before 2017, when Richard Thaler won the Nobel Prize in economics, many institutions were applying behavioural innovations. The front-runner and probably best known player in this industry is the United Kingdom’s Behavioural Insights Team (BIT). Their prolific health unit engages in many innovative projects with the National Health Service (NHS) and other important actors in the British health sector (see e.g. Hallsworth, Snijders et al. 2016).
In addition to relying on insights from the behavioural sciences, a key pillar of BIT’s work is the rigorous testing of behavioural innovations using randomised controlled trials (RCTs). The strong emphasis on trialling (recall BIT’s slogan ‘test, learn, and adapt’) is another—and, some might say, even more important—contribution of the behavioural turn: it arrived together with a stronger focus on evidence-based policy-making and relies on convincing impact evaluations. The motivation for this empirical focus is clear: if one proposes innovative and novel approaches to govern the health sector, one needs to properly test what works. While randomised evaluations are certainly not novel in some domains of health governance (where RCTs have been widespread for a long time), they provide credible new evidence in other domains.

There is now a vast number of institutions beyond BIT—academic and non-academic, governmental and private ones, national, international, but also local ones—which develop and test behavioural science innovations. The Organisation for Economic Co-Operation and Development (OECD) lists more than 200 institutions around the world that apply behavioural insights to policy-making.3 Some of these units consist mostly of interdisciplinary teams of behavioural scientists (typically beyond behavioural economics) and focus exclusively on health topics, such as the Center for Health Incentives and Behavioral Economics at the University of Pennsylvania in the United States. The remainder of this chapter introduces some of the work and results produced by these institutions.

The next section describes several cases ranging from problems in preventive health to health plan choices that highlight the use (and limits) of nudges and other behavioural policy approaches to induce behavioural change among individual patients. Turning from the demand to the supply side of health services, the following section summarises studies illustrating the scope for applying behavioural insights to steer the provision of health services, i.e. to nudge clinicians or medical staff. The chapter concludes with a critical discussion of various concerns regarding the role of behavioural policy-making in the health sector.4

Behavioral Insights Applied to Consumers/ Patients

The vast majority of behaviourally informed interventions focus on individual choices and decisions of those who demand services from or interact with the healthcare sector. This section reports lessons from different policy designs in this area.
Preventive health, check-ups, and screenings

One important insight from behavioural economics is that humans act in a present-biased manner: contemporary costs are systematically overemphasised relative to benefits that may be realised in the future (Ericson and Laibson 2019). This pattern has important implications in the domain of preventive healthcare, among many others. When present-biased individuals face the option to ‘invest’ in their future health, even small costs associated with (typically unpleasant) preventive care activities might cause them to delay such investments. This logic applies to a broad set of healthy behaviours, ranging from regularly exercising, avoiding fatty food, and the like, to utilising health services such as check-ups and early diagnosis screenings.

Altmann and Traxler (2014) explore the power of simple reminders in the context of dental check-ups. The study tests the effect of different reminders on patients’ propensity to actively arrange and later attend a check-up appointment. Their RCT reveals a strong and, most importantly, long-lasting effect of reminders resulting in a sizeable increase in check-ups. However, reminders that provide additional information (e.g. about the benefits of preventive dental care) do not increase the basic impact of a reminder that simply asks, ‘Please call to make an appointment’. In a follow-up project within the same institutional context, Altmann et al. (2017) examine the role of deadlines for contacting the dentist. Communicating relatively tight deadlines, i.e. imposing time pressure to respond to a reminder by calling the dentist, increases the frequency at which patients arrange check-up appointments in both the short and the long run. Interestingly, the deadline effect is observed both in a mere prompting treatment (‘please call by...’) as well as in combination with an economic incentive (‘if you call by...you will get...’). The authors conclude that setting relatively tight deadlines (and thus reducing the scope for procrastination) is a particularly useful strategy when patients’ attention is limited and a given task is only temporarily on top of mind (here: to arrange a check-up appointment).

A related set of studies explores strategies to bridge the gap between good intentions and actual actions. Results from this field point to the power of planning prompts, i.e. reminders that ask individuals very concretely about when, where, and how they will carry out a certain task. Milkman et al. (2011), for instance, investigate the effectiveness of using reminders to increase vaccination rates. Email reminders asking participants to note down the time and date of vaccination opportunities at on-site clinics significantly increase vaccination rates; however, asking participants to only note down the dates does not. In a related study, Milkman et al. (2013) examine whether intent-to-participate reminders increase colonoscopy screening rates among eligible adults. Email reminders that prompt individuals to plan their colonoscopy significantly increase completion rates for colonoscopies.5
While prompts seek to initiate active choices, another important theme in behavioural economics relates to individuals’ inertia and inactivity (Thaler and Sunstein 2008). In line with this idea, Chapman et al. (2010) compare the effectiveness of default designs in increasing influenza vaccination rates, specifically by comparing automatically scheduled appointments (an ‘opt-out’ design) to interventions informing individuals about free vaccination possibilities and vaccination benefits (an ‘opt-in’ design). The study finds that the opt-out design significantly increases vaccination rates, suggesting that defaults and automatisms are more powerful nudges than reminders or other opt-in measures.

Complementary to the work on increasing patients’ inclination to arrange a (new) check-up appointment discussed above, numerous studies examine means to increase attendance rates for scheduled appointments. Missed appointments constitute a major problem in modern health systems, as the underutilisation of new (expensive) technical equipment and medical teams is costly and implies an unnecessary delay for those on the waiting line. One study which tries to tackle this problem is Bos et al. (2005), who look at the effectiveness of reminders in this context by investigating attendance rates at a Dutch orthodontist. In an RCT, reminders do not significantly increase attendance rates, nor does the type of reminder being used. In more recent work on reminders, Hallsworth et al. (2015) test different SMS messages sent five days in advance of a hospital appointment on keeping this appointment in the UK. Relative to a default text that reminds patients about the date and time of the appointment, a social norms message (‘9 out of 10 people attend’) hardly lowers the number of missed appointments. However, an SMS that stresses the costs for the health sector (‘Not attending costs NHS £160 approx.’) proves effective and reduces the number of missed appointments by roughly 25 per cent.

Overall, these (and many similar) studies indicate that reminders, especially in combination with deadlines or planning prompts, can be a very cost-effective way (a) to stimulate the take-up of preventive health measures and (b) to reduce no-show rates. However, not every simple reminder achieves the objective, and it is crucial to trial what works before rolling out a policy or programme. While automated (digital) reminder systems have spread among many private and public actors from health sectors across countries, public sector regulators are slow in picking up on this trend. In many OECD countries, we still observe a vast array of regulatory approaches that aim at encouraging preventive health via (relatively weak) economic incentives rather than, for example, via enforcing mandatory reminder systems.

Medication adherence

Another hot-spot for behavioural health studies is problematically low
medication adherence. Non-adherence implies incredibly large costs, with estimates for annual costs ranging from US$1 billion (Europe) to US$300 billion (the US) (Cutler et al. 2018). While researchers have tested a rich set of behavioural interventions focusing on increasing medication compliance, the evidence is slightly convoluted (partially due to the widespread use of compound treatments that bundle multiple behavioural ideas in one intervention), and the results on what works are rather mixed.

A first, relatively powerful approach to increase medical adherence builds on a trivial but important behavioural strategy: keep it simple! Patel et al. (2015) examine the effect of using fixed dose combinations of generic drugs (polypills) rather than separate medications (with different doses). Relying on self-reported medication adherence among Australian patients at high risk for cardiovascular disease, the authors find that the polypill simplification significantly increases adherence. (For a comprehensive survey on simplification effects, see Schedlbauer et al. 2010.)

Next, let us consider the scope for reminders. A promising result is reported in Dai, Mao, Volpp et al. (2017), who explore the impact of monthly reminder mailings on medication adherence during and after a three-month treatment period. In their RCT, interactive reminder messages (which for example prompted patients to commit to a self-determined adherence level) significantly increased adherence, measured as prescription refills, during as well as after the mailing period. Dai, Mao, Riis et al. (2017) further examine whether one could increase the impact of mailed reminders by sending them close to potential ‘fresh-start’ dates, in particular, birthdays or New Year’s Day. This idea is motivated by a vast body of research documenting that humans use such life and calendar events to restart with healthy activities (see e.g. Cherchye et al. 2017). The results of their trial indicate, however, that referencing these events and sending reminders close to a fresh-start date do not increase medication adherence (relative to a control group with differently timed, basic reminders that would encourage patients to take their cholesterol, diabetes, or blood pressure medications).

One study that documents an increased reminder efficacy is Reddy et al. (2017), who investigate how (daily) reminders paired with (weekly) adherence feedback reports affect medication adherence. The study finds a significantly positive effect during the three-month intervention period. Three months later, however, these effects vanished, indicating that no habituation occurred. Interaction effects of reminders and economic incentives are rather mixed. Kimmel et al. (2016) document that pairing reminders with lottery incentives improves measured adherence. In contrast, Volpp et al. (2017) obtain a null result from an intervention that combines reminders with financial incentives or social support (considering both adherence and hospital readmissions as outcomes).

Another strand of evaluations builds on the combination of reminders with newly available technologies (some of which are introduced in Gauld,
Chapter 10 of this Report). An earlier review that highlights the scope for automated, electronic interventions is Cutrona et al. (2010), who survey the effectiveness of different modes of delivering an intervention to improve adherence (to medications for cardiovascular disease or diabetes). One important recent development is wireless-enabled or smart pill bottles, which allow for real-time monitoring of medication adherence. Working with such pill bottles, Reese et al. (2017) test different reminder interventions to increase immuno-suppression medication among kidney-transplant recipients. They find a significantly positive effect. Chan et al. (2015) examine the effect of using inhalers with audiovisual reminders on medication adherence in children in Auckland, New Zealand. Audiovisual reminders significantly increased use of preventive medication, improved morbidity scores, and decreased the number of school days missed. Kessler et al. (2018) investigate the effect of automated alerts and social support (via an individually elected ‘medication adherence partner’) on medication adherence rates. Feedback alerts, such as text messages or automated phone calls to patients that failed to take medication during the last two days, significantly increased medication adherence. Adding social support to the alert reminders, however, had no additional effect.

Overall, the evidence suggests that simplification of dosage schedules, reminders as well as automated, technology-enhanced feedback systems increase medication adherence. However, one should note that several studies document null results, in particular, regarding reminder effects. Unfortunately, this mirrors null and mixed results obtained for other policy approaches in this domain. The policy conclusions here seem to be twofold. On the one hand, to improve our understanding of what works in which context and which population, one should support further systematic testing of electronic prompting systems. On the other hand, one should not omit old-fashioned economic ideas: Priebe et al. (2016), for instance, assess whether financial incentives improve adherence to anti-psychotic medication among adults. Financial incentives significantly increased long-term anti-psychotic injectable medication for the duration of treatment, but these effects ceased after interventions stopped. Choudhry et al. (2011), who investigate the cost side of medication adherence, find that eliminating medication co-payments significantly increases adherence. Traditional economic motives are clearly an important driver of behaviour in this domain, and the behavioural turn does not imply that health governance should neglect the role of basic economic incentives.

**Health insurance plans**

The choice of health insurance plans has become one of the core areas of behavioural economic analysis informing health policy design. Empirical
research documents a vast gap between rational and human choices in these markets, where consumers have to choose among complex insurance schemes. Many patients make errors in active choices (i.e. they pick financially dominated insurance plans) and remain overly passive (i.e. they do not respond when changes in market and/or their own health conditions should lead them to switch insurance plans). In contrast to a rich body of evidence documenting these patterns, there is relatively little evidence on policy interventions that would improve outcomes (see e.g. Abaluck and Gruber 2016b; Bhargava et al. 2017).

Ericson and Starc (2016) study a health plan standardisation that was paired with improved, web-based information provision for consumers on the Massachusetts Health Insurance Exchange in the US. The reform has had a positive impact on patients’ health insurance plan choices. A further case that highlights the stark contrast between behaviourally informed and traditional economic policy approaches is the work by Abaluck and Gruber (2016a), who investigate nudges that help patients to choose ‘better’ health insurance plans. Their results show that limiting choice sets (in particular, excluding the most disadvantageous health insurance plans) increases the quality of consumer choice. Hence, having fewer choices might be beneficial to consumers.

While these are prominent cases of behaviourally informed interventions on the US private health insurance market, it is important to stress that the welfare implications from nudges that aim at reducing frictions and consumer inertia may not necessarily be positive. Market responses, in particular, adverse section effects, might make a well-intended nudge backfire (Handel 2013; Handel et al. 2019).

Behavourial Insights Applied to Healthcare/Service Providers

Turning from the demand for health services to its supply, one encounters a smaller and slightly more segmented field of work. Recently, however, this area gained momentum, and many exciting new projects are on the way. Here only published studies are considered.

Default nudges and behavioural change of medical staff

Default rules constitute the most forceful nudge (in terms of steering behaviour). Within the health sector, the power of defaults is best known (and controversially discussed) in the context of organ donations (Johnson
and Goldstein 2003). However, there seems to be plenty of scope to apply defaults to clinicians or medical staff. A neat illustration is provided by a study by Lehmann et al. (2016), who test an automatic enrolment design to increase vaccination rates among healthcare personnel. The control group faced an opt-in situation: they received a message prompting them to make an appointment for vaccination. The treatment group received a very similar message, but in an opt-out framing: healthcare workers had to cancel (or change) an automatically scheduled appointment. Among the latter group, appointments and thus vaccination rates almost doubled.

Patel, Day et al. (2016) assess the effect of nudging physicians towards prescribing generic alternatives for brand medications by offering brand medication as an option, not as the default. Exploring a health system-wide reform of prescription defaults in Pennsylvania, they document a massive impact of the default settings on the prescription rates for generic drugs. Unsurprisingly, prescription rates of generics remained persistently higher, even 2.5 years after the implementation of the new default (Olshan et al. 2019).12 Default supply amounts on prescriptions, however, had mixed effects on prescribed quantities. Delgado et al. (2018) find that, although the total number of opioids prescribed did not decline during the experiment period, a higher proportion of prescriptions used the default supply amount. Their findings suggest that medical professionals tend to use defaults and that, when setting default quantities, the lowest amount should be the baseline.

**Active choices and preventive health offers**

Another strand of work tests behaviour strategies that target medical staff and clinicians to alter the way different health services are offered. Kim et al. (2018) examine a so-called active choice intervention. Rather than focusing on default settings, the idea behind such approaches is to ‘force’ individuals (in this case, physicians and medical assistants) to actively make a decision. More specifically, the intervention they examine prompts medical assistants to ask patients during check-in about influenza vaccination, while clinicians that subsequently see the patients receive vaccination order templates to apply during visits. The RCT results indicate that the intervention significantly increased vaccination rates. This finding is also consistent with observational studies (e.g. Patel et al. 2017). Patel, Volpp et al. (2016) test similar active choice interventions that aim at increasing orders for colonoscopy and mammography screenings among eligible patients. The prompt for medical professionals to accept or decline an order significantly increases orders and leads to higher completion rates for colonoscopies but not for mammography screenings.
Social norms messages and antibiotic prescriptions

One focus of behavioural interventions that gained a lot of attention concerns the question how to change high rates of antibiotic prescriptions, which contribute to the growing threat of antimicrobial resistance (see Besnier and Eikemo, Chapter 2, and Kickbusch and Liu, Chapter 5, in this Report for more on this challenge). In a high-profile study conducted by BIT, Hallsworth, Chadborn et al. (2016) test a mailing intervention among 1,581 British general practitioners (GPs) with high antibiotics prescribing rates (the top 20 per cent of their respective NHS Local Area Team). The mailing included, in addition to three simple, actionable steps to reduce antibiotics prescription, a social norms message: ‘The great majority (80%) of practices in London prescribe fewer antibiotics per head than yours.’ In contrast to a patient-focused intervention, the social norm mailings sent to GPs induced a significant drop in the rate of antibiotic items dispensed.13

Wickström Östervall (2017) investigates how reminders sent to thirty-one primary care facilities in Stockholm influence antibiotics prescribing during the flu season. Reminder nudges significantly decreased antibiotics use. Elango et al. (2018) document that clinicians’ readiness to change affects the implementation of an intervention aimed at reducing unnecessary antibiotics prescribing. While these results are fairly promising, the persistence of the effects from this type of interventions remains unclear (e.g. Linder et al. 2017).

Hygiene behaviour

One objective of behavioural interventions concerns hygiene behaviour, in particular, washing one’s hands, a key strategy to prevent healthcare-associated infections, which is often neglected in the context of a highly demanding and stressful workplace. Dai et al. (2015), for instance, document that compliance with hygiene protocols drops significantly during a typical twelve-hour working shift. This pattern is exacerbated by increased work load and mitigated by prolonged breaks.

While behavioural studies have explored interventions ranging from simple reminder messages (Grant and Hofmann 2011) to subtle ‘olfactory priming’ (for example, via a clean, citrus smell; see King et al. 2016), convincing evidence on successful nudge interventions is still scarce (Caris et al. 2018).14 Neither the World Health Organization guidelines on hand hygiene in healthcare (see Section 18 in WHO 2009) nor a recent review (Gould et al. 2017) provide a clear picture of what works. There seems to be plenty of scope for more testing to identify how context matters for the success of an intervention. Policy-makers would be well advised to encourage more systematic trialling in this domain.
Intrinsic motivation and work norms

Another important theme from behavioural economics—the role of non-monetary incentives—naturally links up with the norms and values governing physicians’ treatment decisions. Kesternich et al. (2015) conduct a controlled experiment with prospective physicians and document how norms in the Hippocratic tradition shape behaviour. It thus seems natural to explore non-monetary policy tools that rely on these norms, or intrinsic motives more generally, to motivate physicians. An excellent example along these lines is studied by Kolstad (2013), who shows that information provided on quality ‘report cards’ exerts positive effects on the overall performance of cardiac surgeons in Pennsylvania. The report cards allow the disentangling of whether mortality rates are related to a surgeon’s quality or to the underlying risks among the relevant patient population. The author exploits the fact that quality reports trigger changes in both extrinsic and intrinsic motivation, while patients’ demand remained constant. The findings suggest that extrinsic financial incentives have only small positive effects. Kolstad argues that quality improvements are mainly due to social comparison effects, linked to changes in perceptions about one’s own quality relative to the quality of a surgeon’s peers.

Behaviourally Informed Health Governance

The previous sections have highlighted several cases of behaviourally informed applications to health problems. Table 8.1 offers an overview of ‘what works’ based on this brief glimpse at selected (but representative) work from a dynamically growing field, which constantly explores new areas and ideas for interventions. While not every nudge achieves the desired effect, the evidence discussed above makes clear that behavioural insights have significant potential for designing cost-effective policy interventions. In particular in combination with modern digital innovations, such as those introduced by Gauld in Chapter 10 of this Report, there is plenty of scope for using behaviourally smart tools to steer behaviour, on both the supply and the demand side of healthcare. Nudges and other behavioural policy approaches, however, are rarely uncontested and often polarise. In fact, there is a long list of concerns and potential pitfalls to consider.

The most obvious concern relates to the potential abuse of (not-that-libertarian) paternalistic policy instruments. If nudges aim at ‘improving decisions about health’ (Thaler and Sunstein 2008), who decides what an improvement actually consists of? This concern is particularly relevant due to the less intrusive nature of nudges (as opposed to traditional policy tools), which renders opposition to hidden manipulation of choice more difficult.
These concerns are well taken and make clear that any large-scale roll-out of nudging in the health sector must be accompanied by high ethical standards and transparency requirements.17

Expanding this line of reasoning, the paternalistic and technocratic thrust of many behavioural interventions should be accompanied by policy measures that strengthen individual capabilities. Boosting health literacy via education, information, and deliberation should be seen as a complement rather than a substitute to behavioural policy approaches. Even if these instruments will not mitigate, for example, patients’ limitations in cognition, memory, or self-control (for that, one can think about a guiding choice archi-

<table>
<thead>
<tr>
<th>Target group</th>
<th>Field of application</th>
<th>Type of intervention</th>
<th>Evidence supporting effectiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumers/Patients</td>
<td>Preventive health</td>
<td>Reminder/ prompt</td>
<td>Strong</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Default</td>
<td>Weak</td>
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<td></td>
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<td>Financial incentive</td>
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<td>Social norms message</td>
<td>Weak</td>
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<td></td>
<td></td>
<td>Information provision</td>
<td>Mixed</td>
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<td></td>
<td>Medication adherence</td>
<td>Automated reminder</td>
<td>Strong</td>
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<td>Financial incentive</td>
<td>Weak</td>
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<td>Simplification</td>
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<td></td>
<td></td>
<td>Social support</td>
<td>Weak</td>
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<tr>
<td></td>
<td></td>
<td>Reminder</td>
<td>Mixed</td>
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<tr>
<td></td>
<td>Health insurance plans</td>
<td>Simplification</td>
<td>Weak</td>
</tr>
<tr>
<td>Healthcare/Service providers</td>
<td>Behavioural change in medical staff</td>
<td>Default</td>
<td>Strong</td>
</tr>
<tr>
<td></td>
<td>Antibiotics prescribing</td>
<td>Social norms message (peer comparison)</td>
<td>Strong</td>
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<tr>
<td></td>
<td>Surgeons’ performance</td>
<td>Information provision (peer comparison)</td>
<td>Weak</td>
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<tr>
<td></td>
<td>Preventive health offers</td>
<td>Active choice</td>
<td>Mixed</td>
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<tr>
<td></td>
<td>Hygiene behaviour</td>
<td>Monitoring</td>
<td>Mixed</td>
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</tbody>
</table>

Note: ‘Weak’ means that there is (so far) only little or limited experimental evidence in support of an effect of this type of intervention.

These concerns are well taken and make clear that any large-scale roll-out of nudging in the health sector must be accompanied by high ethical standards and transparency requirements.17

Expanding this line of reasoning, the paternalistic and technocratic thrust of many behavioural interventions should be accompanied by policy measures that strengthen individual capabilities. Boosting health literacy via education, information, and deliberation should be seen as a complement rather than a substitute to behavioural policy approaches. Even if these instruments will not mitigate, for example, patients’ limitations in cognition, memory, or self-control (for that, one can think about a guiding choice archi-
A less obvious concern relates to what is typically considered a major advantage of nudging: its low cost. Obviously, this feature contributed to the popularity of this approach among policy-makers. However, if politicians and health sector managers become too optimistic about what can be achieved by low-cost interventions, this might result in unwise budgeting decisions. It is thus important to account for political economy pitfalls related to cost-cutting pressure. While a behaviourally smart policy can certainly contribute to lowering public and private health expenditures, expectations should be kept realistic.

There is a further political economy concern related to policy-makers’ appetite for nudging: many behavioural innovations seem totally convincing (at least, when judged by the colourful presentations given by many nudging practitioners). So why not implement the idea straight away? As pointed out in the previous sections, not every good idea works in every context. The issue here is external validity, i.e. which context-specific features are important to render an intervention successful in a given set-up. For many domains and applications, the host answer is that we just do not (yet) know. This has a straightforward implication: strengthening the role of behavioural sciences in health governance is not simply achieved by a quick and naive adaptation of things that worked elsewhere. On the contrary, it is imperative to maintain a reasonable balance between testing (and replicating results!) and scaling.

Translated into the language of public policy-makers: while there are plenty of low-hanging fruits related to applying behavioural innovations in the health sector, harvesting these will take some time and requires patience. This also relates to a point rarely discussed in the academic community: dissemination and implementation support. Even if there is high-level policy support to ‘test, learn, adapt’ and even if there is ample evidence that a tested innovation achieves the desired effect, roll-out and widespread adaptation might nevertheless fail. Resistance to change and opposition to innovation are widespread phenomena, not least in the health sector. Turning innovations into large-scale policy change thus requires further policy support. The successful application of behavioural insights in health governance thus also depends on policy-makers’ ability to generate structures of openness and support among the target points of innovation. Creating a culture of innovation requires support for (and also some pressure on) key actors—not only to trial, learn, and innovate, but also to implement new, unconventional instruments that have been tested successfully. This point, however, applies beyond behavioural innovations.
Endnotes

1 It should be stressed that this is, by no means, a trivial exercise. Many parts of the health sector are characterised by features that imply what economists refer to as ‘market failure’. The outcome in such markets with, for example, asymmetric information or externalities is in general not efficient, and setting the ‘right incentives’ is a complicated task. Behavioural considerations further complicate this task (see Chandra et al. 2019).

2 Other influential behavioural science teams include the former Social and Behavioral Sciences Team in the US and BETA, the Behavioural Economics Team of the Australian Government.

3 See the updated references on this webpage: http://www.oecd.org/gov/behavioural-insights.htm (last accessed 3 April 2019).

4 Neither the set of cases nor the set of topics covered in these sections is exhaustive. For example, the section on patients omits, among others, a vast body of behavioural economics work on healthy lifestyles, dieting, exercising, smoking cessation, and the like.

5 Another study on colonoscopy screening rates by Mehta et al. (2017) assessed the effectiveness of prompting designs and monetary incentives in increasing colonoscopy uptake. The results from this RCT show that (high) financial incentives might be more effective than prompts, but also much more costly to implement. This points to a more general issue: while the nudging literature mainly focuses on ‘what works’ and, at best, discusses cost-effectiveness (how much ‘bang for the buck’), it hardly discusses welfare optimal behavioural interventions.

6 The findings in Volpp et al. (2017) are supported by A.E. Levy et al. (2018), who reviewed recent developments in fostering medication adherence among adults with coronary artery disease. Neither financial incentives nor social pressure significantly increased medication adherence rates in two large RCTs.

7 The authors categorise interventions into person-independent interventions (PII, i.e. mailed, faxed or hand-distributed) or delivered via electronic interface and person-dependent (PDI) interventions (non-automated phone calls, in-person interventions, etc.). Among PII studies, electronic interventions prove most effective; phone-based interventions are least effective. Among PDI studies, pharmacist interventions are the most effective. For further findings compare the more recent survey by Palmer et al. (2018), who review the effectiveness of mobile phone-based feedback interventions.

8 See, for instance, Kenyon et al. (2019), who examine the effectiveness of daily text message reminders on adherence to prescribed asthma medication among children. The intervention did not increase adherence.

9 One body of studies considers, for instance, different types of feedback processes (without explicitly focusing on reminder elements). One promising way to induce behavioural change seems to be providing information to physicians regarding their patients’ adherence to prescribed medication. However, the review by Zaugg et al. (2018) finds no evidence that this type of feedback process increases adherence.

10 For a more comprehensive and more formal treatment, see Chandra et al. (2019).
11 Adverse selection refers to situations where demand and supply sides (here: of the insurance market) have different information. Specifically, if individuals choose between different health insurance plans and sort in a cost/risk-based manner across plans, adverse selection can then result in efficiency losses related to (i) individuals choosing the ‘wrong’ plans, (ii) risk-sharing losses when premium variability rises, and (iii) losses from insurers distorting their policies to improve their mix of insureds. Interventions that target the choices (the sorting) into different plans will, at least potentially, also trigger responses on the supply side, as insurance providers respond, anticipating the impact on the sorting process.

12 Note that these interventions are related to electronic health records (EHR), discussed in Gauld, Chapter 10 in this Report.

13 A successful patient-focused intervention is examined in Gerber et al. (2014). The authors run an RCT at eighteen community-based paediatric primary care practices. Clinicians’ education and feedback on prescribing rates significantly reduce broad-spectrum antibiotics prescribing to children, but the effect does not persist.

14 Staats et al. (2017) document the effect from a more traditional monitoring and enforcement intervention that increased compliance with hand hygiene procedures among clinicians. However, this study also points out the risks of monitoring interventions.

15 An excellent survey on the use of economic experiments in behavioural health studies—a strand of work that is underrepresented in this chapter—is provided by Galizzi and Wiesen (2018).

16 It should be noted, however, that public opinion polls often document massive support for nudges. A lot of the polarisation in media and public discourse appears related to conflicting views on policy objectives rather than the instruments of policy (see e.g. Tannenbaum et al. 2017).

17 On this point, see, among many others, the contributions in Cohen et al. (2016).