Creating a More Efficient Health Insurance Market in the United States: Goals and Challenges

Pierre-André Chiappori — Columbia University and BFI¹
Maxim Pinkovskiy — Federal Reserve of New York²

¹ The views expressed in this article are those of the authors and not necessarily those of the Becker Friedman Institute.
² The views expressed in this article are those of the authors and not necessarily those of the Federal Reserve Bank of New York or of the Federal Reserve System.
Over the recent decades, the US health insurance system has not performed well. Its (per capita) costs largely exceed those in all developed countries, typically by more than 50% (see graph). Worse, Americans do not seem to get much for this inflated price; on most indicators, from life expectancy to child mortality to prevalence of chronic diseases, the US performance is worse, sometimes by a serious margin, than in Japan or Western Europe. It is no surprise, then, that reforming the US health system has topped the political agenda for decades. What is more surprising is the degree of disagreement (if not confusion) that these debates reveal. One possible reason is that the discussion about health care reforms is regularly plagued by a few basic misperceptions. For an assessment of the potential benefits and dangers of any reform, correcting these misperceptions is a crucial first step.

“The US health insurance system has not performed well. Its (per capita) costs largely exceed those in all developed countries, typically by more than 50.”
WHAT WAS WRONG WITH THE PRE-ACA SYSTEM?

In order to describe the system of health coverage that existed before the Affordable Care Act (ACA, sometimes called ‘Obamacare’), the standard narrative is in terms of number of people covered by some form of health insurance. According to the usual story, about fifty million Americans were not covered before the reform; the ACA reduced their number by half, in particular by extending the scope of Medicaid, and more generally by subsidizing health insurance for poorer people.

This vision, however, is doubly incomplete, if not outright misleading. First, the broad category of ‘non-covered individuals’ is widely heterogeneous. A significant fraction of the population gained coverage through the extension of Medicaid, the public system covering low-income people. Among the other non-covered individuals, many, mostly young and in excellent health, were actually choosing not to be covered, either because they estimated the risk of a serious health problem to be too small to justify the cost of coverage, or because they viewed Medicaid as a last resort solution, or for any other reason. Whatever one may think of such a choice – as we shall see below, there exist good economic justifications for imposing the purchase of health insurance – it is clear their situation has little in common with that of a person desperately seeking to purchase some health insurance, yet being systematically turned down, for instance because of pre-existing conditions. The welfare cost of the absence of coverage is likely to be widely different in these two cases.

More importantly, stating that fifty million Americans lacked health insurance coverage seems to imply, a contrario, that the remaining three hundred million were actually covered. Reality is much more complex. For one thing, many contracts came with serious restrictions. Deductibles or co-payments are a typical example. A co-payment of 10% may seem reasonable; still, in some extreme case, an insuree may, as a result, have faced a bill in the tens of thousands of dollars, which may well have exceeded the person’s income or net wealth. Other contracts involved a ceiling on yearly expenditures, which could be as low as $10,000 – meaning that, de facto, the coverage against serious shocks was non-existent; others yet explicitly excluded some type of diseases (e.g., AIDS) from the coverage. The quantitative importance of these situations is
difficult to assess, due to the lack of nation-wide data on health insurance contracts; but it is fair to argue that a contract exhibiting one of these restrictions (let alone all of them) can hardly be considered as providing ‘full coverage.’

An even more serious issue is related to contract renewability, as dramatically illustrated by the well-known case of *McGann v. H&H Music Company.* A man with group health insurance provided through his employer contracted AIDS. The corresponding expenditures were covered during the policy period. However, at expiration, the employer changed the terms of coverage, which previously had provided lifetime coverage of $1 million, by limiting lifetime coverage of AIDS-related claims to a maximum of $5000. The economic logic of this decision is clear, and in a sense rather compelling. The employer was providing health insurance to a small group of employees; when the expected level of future expenditures increased sharply, the employer's premium swelled in due proportion, which motivated a renegotiation and ultimately the shift to a new contract reducing future payments. The final outcome is equally clear: McGann reached the ceiling within weeks, and from that moment on had to pay for all AIDS-related medical expenditures (he died penniless and left a huge, unpaid bill to the hospital). For all practical purposes, he stopped being covered after one year.

How typical the McGann case was is hard to tell, again due to the lack of adequate data. Clearly, a large proportion of American workers, including those employed by large companies or the public sector (not to mention people eligible for Medicaid or Medicare), are covered by contracts whose price is not related to the insuree’s health status (although this independence is often implicit and rarely contractual). And people buying coverage directly are typically offered a guaranteed renewal option, whereby the insurer commits not to raise premiums (or deny coverage) in response to changes in the buyer’s health situation. Still, the general lesson of the McGann case is that in the pre-ACA context, even if the health insurance contract at any given moment apparently provided relatively generous coverage, one could not always exclude that a

---

4 McGann sued for "discrimination" under the Employment Retirement Income Security Act of 1974 (ERISA, §510); the court held that there had been no discrimination in the sense prohibited under ERISA.
deterioration of the employee’s health status would lead to a drastic revision of the terms of the contract, and ultimately to de facto loss of coverage.\textsuperscript{5}

From this perspective, the main impact of the ACA has been a complete revision of the regulation of health insurance contracts. The reform, among other things, bans ceilings on expenditures, seriously restricts the size of deductibles, and prohibits the use of pre-existing conditions for underwriting or pricing the contracts. In a post-ACA world, McGann would have been able to purchase coverage at a reasonable cost, possibly on the exchange. It has in fact been argued that the welfare gains created by these regulations exceed, possibly by a large margin, those perceived by the newly covered.\textsuperscript{6}

These gains, however, come at a cost. Prohibiting the use of pre-existing conditions eliminates a serious weakness of the pre-ACA system, but simultaneously introduces a massive amount of adverse selection into the health insurance market, since agents are aware of their pre-existing condition – which is very likely to impact their demand for health insurance, at least in the worst cases – while insurance companies cannot use that information. Economic theory has, over the last decades, amply studied situations of asymmetric information of this type. These papers have shown that markets are highly vulnerable to adverse selection. Addressing these dangers is a crucially important part of the policy design process.

**ADVERSE SELECTION AND THE ACA?**

The dangers of adverse selection are twofold. The most widely perceived is the direct impact of adverse selection on the demand for health insurance. Prohibiting the use of pre-existing conditions for pricing creates a large network of cross-subsidies among agents. Health insurance is subsidized, possibly by a very large amount, for people in poor health (McGann would have been charged a premium ten or twentyfold less than his actual risk). On the contrary, agents in good health pay more than a fair amount. The danger, therefore, is that this de facto taxation discourages lower risk individuals from purchasing health insurance altogether. The worst case scenario leads to what is usually called a ‘death spiral’: implicit taxation repels the healthier part

\textsuperscript{5} In the language of theory, the classification risk was not covered. For a detailed discussion, see Abraham and Chiappori (2015)

\textsuperscript{6} See for instance Chiappori (2006)
of the population, who stop purchasing health insurance, leading to a deterioration of the average quality of the pool of insurees; higher expected costs then require upward price adjustments, which further discourage the healthier part of the remaining population; and so on, until the market collapses.

How likely is such a death spiral in practice? Surprisingly enough, not much is known on this question (despite its obvious importance). While the logic underlying the spiral is clear, several factors may mitigate it. The shape of the distribution of expected costs over the population is key: should only a tiny fraction of the population present very high risks, the aggregate size of the subsidies needed to cover them would remain small, and the resulting price hike too trivial to seriously affect demand. Risk aversion is equally important: if people are sufficiently risk averse, they may prefer expensive coverage to no coverage. In addition, income distribution, behavioral biases, the nature of competition on the relevant markets, and a host of other factors are likely to play a major role. Among the few empirical works documenting adverse-selection-driven dynamics is a paper by Cutler and Reber (1998), which studies a reform of health coverage at Harvard University, and show that one of the plans did collapse as a result of adverse selection; however, the spiral only affected one plan, in a competitive environment in which alternatives were readily available. Probably more directly relevant, if only because it analyzes Obamacare-like markets, is the Shepard (2016) study of the collapse of coverage of care in the top two hospitals in Commonwealth Care (or Com Care), a subsidized health insurance exchange in Massachusetts that is widely seen as a precursor to the ACA. While all plans covered these hospitals at the beginning, insurers quickly realized that dropping them was profitable, since their patients, who had above-average expenses, would then move to other plans. In the end, the only plan covering these hospitals was the one that was owned by them.

All in all, although the evidence regarding the likelihood of a death spiral or its possible severity is not overwhelming (yet), most specialists consider that the danger should be taken extremely seriously. There are essentially two ways of addressing this issue, which should most probably be considered as complementary rather than alternative. One is to break the link between the favorable treatment of high risk individuals and the implicit taxation of low risk ones by
injecting public subsidies into the system. A particular form could be the creation of ‘high risk pools’, whereby individuals with severe pre-existing conditions would be covered through specific (and highly subsidized) contracts. The second response is to make the purchase of health insurance mandatory, in order to prevent lower risk individuals from leaving the market. In practice, however, the design of such a ‘mandate’ is tricky. Typically, its implementation relies on a system of fines punishing the absence of coverage, even though the optimal design of such fines is far from obvious. Public subsidies, on the other hand, make perfect economic sense (particularly for conditions involving no moral hazard – think, for instance, of genetic predispositions to some diseases), but the corresponding budgetary costs may make them politically hard to implement. Indeed, the ACA relies on a combination of the two approaches.

A second problem is raised by the notion of self-selection (Rothschild and Stiglitz 1976). In an adverse selection context, competitive pressures typically lead firms to offer menus of contracts, each of which is designed to attract a specific segment of the population. Even if health insurance is mandatory, lower risk individuals may be willing to purchase a contract offering much less coverage (through high deductibles or co-payments, caps, specific exclusions or other clauses) at a much lower price, while the same limitations may be unacceptable for individuals suffering from severe pre-existing conditions. While there is no general consensus on the final outcome, the welfare consequences may be dire; in the worst case scenario, high risk people may end up facing pretty much the same premium they would be charged without regulation, whereas healthy individuals will be forced to choose between sky-high premiums and severely limited coverage – definitely worse that no regulation at all.

A possible response, here, is a further layer of regulation that strongly restricts the set of contracts that any insurer could offer. Indeed, the ACA imposes full coverage of major risks, and sets a ceiling on deductibles; in addition, it establishes a complex ranking of plans (from ‘bronze’ to ‘platinum’) based mostly on their coverage. Again, welcome as these regulations may be, there is little reason to believe that the thresholds chosen are optimal in any sense. A recent

---

7 The ACA has introduced a two-part system; it charges the higher of a fixed amount ($695) and a percentage (about 2.5%) of income. To the best of our knowledge, no strong empirical evidence exists regarding the optimality (or even the adequacy) of the chosen amounts.
8 Even the adequate equilibrium notion is unclear; see for instance Chiappori (2006)
empirical research by Handel, Hendel and Whinston (2015) concluded that the construct might actually partly unravel, with most agents flocking on the least expensive (‘bronze’) plans and other plans becoming too expensive for all but a minority of high risk individuals. Even if this conclusion should be taken with some precaution (again, the data that would be needed for a comprehensive investigation are not available), it certainly puts the issue in a different perspective. Moreover, limiting the variety of plans that can be offered is, by itself, costly. Even within a homogenous risk group, individuals have different tastes (e.g., risk aversion), and would typically opt for different contracts; restricting that freedom of choice does have a negative welfare impact.

**REFORMING THE ACA**

This very brief overview suggests several conclusions. First, the design of an alternative to the ACA will have to rely on a small number of key choices. One of the most important issues is whether one would maintain the ban on using pre-existing conditions in the underwriting/pricing process, or revert to a pre-ACA system where insurance premiums are directly correlated with individual risks. Economic analysis mostly favors the first option; and there is some evidence that public opinion does too. In any case, any attempt at designing a new health insurance system cannot avoid taking a clear stand on that question.

Second, should the ban be maintained, the risk of adverse selection causing a global collapse of some (and possibly many) of the markets is simply too serious to be ignored. Here, foreign examples could usefully be considered. While most European countries have adopted a single-payer system that markedly differs from the US tradition, some (notably Switzerland and the Netherlands) opted instead for a market-based approach quite similar to the ACA. The striking feature of these solutions, beyond their effectiveness, is how much regulation they require. Both countries limit the set of contracts that can be offered in terms of coverage and prices; both introduced, in addition, a complex system of compensating cross-subsidies between insurers. All in all, should the decision be made to ban any discrimination based on pre-existing conditions,
the system simply cannot avoid the heavy and complex regulation that the resulting adverse selection requires.

Third, in all Western countries – including those which adopted a market-based system - government plays a major role not only in the regulation of health insurance, but also in its provision. Even in the Netherlands, some components of health care - e.g. long-term hospitalization - are covered by a public insurance scheme. Moreover, public subsidies are always needed to cover the cost of health coverage for the poorer part of the population. Note, incidentally, that the US system itself is already a mix between public and private provision. After all, Medicare, Medicaid or health insurance for veterans are public mechanisms, and cover together many more people than the entire Dutch system (or the British one for that matter); which makes the vehement opposition that met the idea of introducing a public option in the ACA (sometimes described as a switch to ‘socialized medicine’) somewhat difficult to understand.

HEALTH INSURANCE AND EMPLOYMENT

Finally, and from a broader perspective, it is worth discussing a basic question, even though its short-term political relevance is probably nil: why should the provision of health insurance be mostly linked to an employment contract? This relationship, which exists, for various historical reasons, in basically all developed countries, can be helpful to mitigate adverse selection: assuming most people choose where to work for reasons that are unrelated to health, it creates groups of initially healthy people who presumably pool for exogenous reasons (although this argument is mostly valid for large employers only, as demonstrated by the McGann example). But the link between employment and health coverage has obvious drawbacks. In single-payer systems, where the premium is usually levied through a payroll tax, it amplifies the wedge between the income received by the worker and the cost paid by the employer. The resulting increase in labor costs may negatively impact the demand for unskilled labor, leading to high levels of unemployment, particularly in countries where the minimum wage is high. Another concern is the potentially negative effect of a single payer system on the system’s incentives to invest and innovate. If, as several authors have argued (see for instance Acemoglu, Robinson and
Verdier 2017), the US health system is de facto subsidizing global medical innovation, such possible consequences should certainly be taken into account, although the magnitude of the impact is far from clear (see however Clemens 2013).

On the other hand, the linkage between labor contracts and health coverage may limit the efficiency gains that could be expected from the introduction of market-based systems. To take only one example, the commitment problems discussed earlier (in particular in the McGann case) can be given a market solution, although the latter does involve some minimum level of government intervention. A general mechanism has been described by Cochrane (1995, following a general insight of Harris and Holmstrom 1982) more than 20 years ago. The main idea is that an insurance company accepting to cover a high risk individual at a price well below the fair amount should receive a compensation reflecting the difference in expected costs. For newly covered agents, the compensation may come from a public fund financed by the insurance business, and possibly supported by public contributions. For individuals switching from one company to another, the initial insurer should pay the new one (or contribute the common fund) a transfer equal to the amount it saves, i.e. to the difference between the present expected value of expenditures and future premiums. These risk-equalizing compensations guarantee that the cost, for any given insurer, of a deterioration of the quality of its pool of customers does not become excessive. In all cases, these transfers would be mediated by a public agency.

The practical implementation of this system of compensating transfers is probably tricky, but by no means unfeasible; the Swiss system actually relies on a mechanism of this type. The direct relationship between insurer and insuree is however crucial. Linking coverage to the employment relationship, however, makes it much harder – if only because employers cannot commit not to fire workers (or not to go bankrupt). Reconsidering the relevance of this link is probably an extremely promising direction for future reflection.

---

9 In the absence of such compensations, insurers would have strong incentives to discourage high risk insurees from remaining in their pool, a phenomenon that has been documented.
REFERENCES


Affordable Care Act, the "Patient Protection and Affordable Care Act," 124 Stat. 119.


ERISA, 42 USC. §1001 et seq.


