Federalism and Tax-Financed Healthcare:

Economic Advantages, Dilemmas, and Solutions

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Abstract: This chapter analyzes the properties of decentralized systems for providing tax-financed healthcare services. It focuses for the most part on the informational advantages of decentralized provision and (marginal) financing of such systems, which allow best practices to be identified. It also reviews advantages and problems associated with patient mobility and the potential for decentralization to reduce losses from rent seeking.

1) Introduction: The Logic of the Subsidiarity Principle

The subsidiarity principle suggests that tax-financed services should be provided at the lowest level of government that is able to realize all or most economies of scale in production (Oates 1972). The standard argument focuses on the better match between local demand and local supply under decentralized forms of government policy making. In addition, decentralization provides a variety of informational and efficiency advantages. The results generated by the policy decisions of lower levels of government provide useful information—"yard-sticks"—that can be used to improve both voter and expert assessments of best practices. These, in turn, can be used to improve the policies in place (Salmon 1987, 2019). Moreover, citizen mobility puts pressures on governments to provide and finance services efficiently, which tends to improve the quality and extent of the services provided while reducing tax burdens (Tiebout 1956). In cases in which politically active interest groups have significant influence over the policies adopted, game theory suggests that rent-seeking losses from such activities tend to be lower under federalism than under unified governance (Warneryd 1998). All these lines of argument—and their supporting empirical work—imply that decentralized provision of most government services yields better outcomes for voters than those associated with centralized supply.

Healthcare could be an exception to that rule, however, because it has many special properties. Tax-financed healthcare is not a single service—as elementary education or roads arguably are—but a variety of services with both differences in economies of scale and in the nature

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of citizen demands for them. It is not uniformly provided to a citizenry but rather the services received vary with a citizen's state of health. Other demands for tax-financed services also tend to be conditional—as demands for highways and bicycle paths, for example, are largely conditional on the ownership of cars and bicycles—but their conditioning factors tend to be well understood constants rather than unforeseeable random events.

In addition, there is more informational asymmetry in markets for healthcare than for many other government services—although it is not unique in that respect. The demand for many kinds of healthcare tends to be driven by expert (doctor) opinion. The typical patient has only a vague idea about the best methods for addressing a heart problem or specific form of cancer. In this, healthcare demands are similar to others for which expert opinions are deferred to, as true of defense spending, higher education, and auto repair. In all such cases, the quality of expert advice is rarely obvious to the nonexperts who make use of their recommendations. Such informational asymmetry problems are increased by the fact that an immediate need for treatments for an unforeseen malady may eliminate opportunities to collect additional information after a health problem emerges. Experts often have different interests in healthcare than their recipients. For suppliers, healthcare is often a matter of personal income and convenience, whereas for patients, it may be a matter of life and death.

This chapter demonstrates that these and other properties of healthcare do not eliminate the case for the decentralized provision of tax-financed healthcare services but do require some of the arguments to be modified. For example, differences in the economies of scale involved in treating different maladies imply that different types of healthcare services may be most appropriately provided by different levels of government. Informational problems imply that both centralized and decentralized systems of provision are likely to work better for services that are well understood by patient/voters than for those for which deference to experts is necessary. However, in general, decentralized provision of healthcare services is superior to centralized provision, as true of many other government services, partly because it provides more useful information about the quality of expert services than centralized systems do.

For the purposes of this chapter, it is assumed that the aim of a tax-financed healthcare system is to provide broader access to healthcare than that associated with supply in private markets. The analysis focuses on single-payer systems that are financed with a tax on wage income. Other methods of provision and tax-finance tend to have more or less similar effects on the menu of

services provided and the efficiency with which they are provided when they are ultimately driven by electoral outcomes; thus, the overview developed herein also sheds light on other tax-financed healthcare systems than the one focused on. It is also assumed that all the states or counties making healthcare decisions are of sufficient size to realize all economies of scale in the provision of the relevant services and also sufficient in number that useful information is generated about the healthcare services provided.

The analysis focuses on a single type of healthcare and separately considers services that are well understood by patients/voters and those that are not. This approach implies that the menu of services and service levels, in effect, is selected one service at a time. Although this method ignores complementarities between healthcare services, it allows the main features of electorally driven healthcare systems to be characterized with just a few pages of straightforward analysis and prose.[1]

2) A Point of Departure: The Simple Economics of a Simple, Tax-Financed Single-Payer System for Single Well-Understood Types or Categories of Healthcare

We start with the easy cases—those in which healthcare services are well understood by both patients and healthcare providers. In such settings, well-informed choices can be made about the services demanded.

A Short Digression on Private Markets for Well-Understood Forms of Healthcare

The logic of private markets implies that products produced without significant economies of scale or information problems tend to be produced at levels that equate long-run market demand with long-run market supply. At the equilibrium, the products sold are produced at their lowest average cost and the size of the organizations producing them are efficiently sized to do so. This minimizes costs for consumers while providing an adequate return on both human and physical capital for those investing in the production and distribution of the health related goods and services sold.

In cases in which no or few externalities are generated by the production or consumption of healthcare, the equilibrium also maximizes (expected) social net benefits (expected consumer surplus

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[1] The simplest possible tools from economics are used to illustrate the logic of the analysis. For those interested in a mathematical analysis of median voter demands for tax-financed healthcare service, see Congleton et al. (2017) or Batinti and Congleton (2018). Those papers analyze unitary, not federal systems; however, the results fully characterize median voter demands and provide the basis for the intuitive microeconomics-based arguments developed herein.

plus profits) and is Pareto efficient. An illustration of such an equilibrium is provided at point (P*, Q*) in Figure 1A. Healthcare services of this type are simply a subset of many services with these properties.

Figure 1A   Figure 1B

Price   Price

S_{SR} S_{LR} S_{LR}

P'   P'

P*   P*

D   D

Q*   Healthcare   Q*   Q'   Healthcare
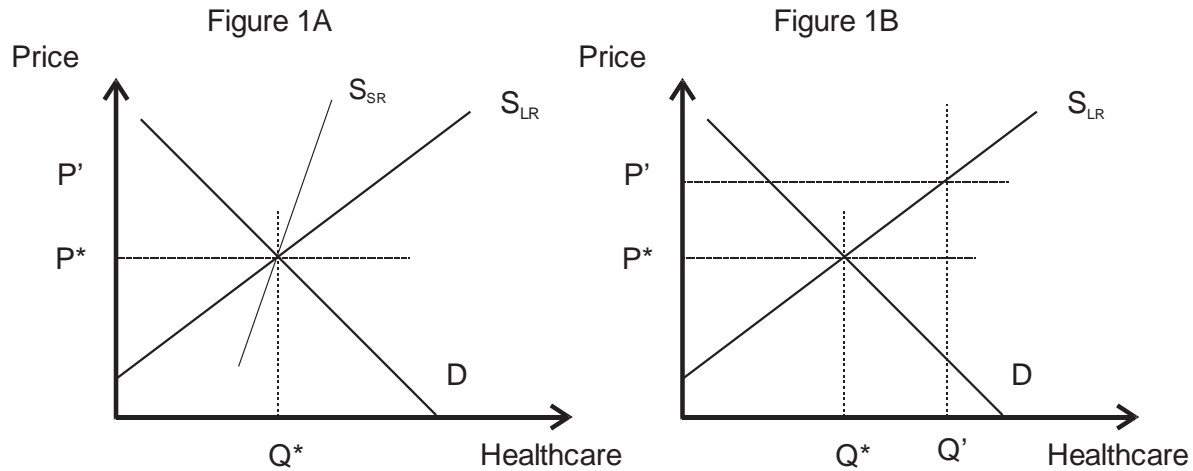
However, under other normative theories, such as utilitarianism, it can be argued that private markets undersupply healthcare services because of the effects of income on purchases of both critical and noncritical healthcare services. The "poor" purchase fewer services than maximizes aggregate utility or advance other similar normative theories, as with Rawls' difference principle.

Together, such normative theories and the tax systems used to finance government-provided healthcare can create voter demands to expand healthcare beyond private levels. A single-payer system has several advantages over other methods for doing so. For example, it can rely upon market competition and incentives to generate the lowest sustainable prices paid for healthcare services. In such cases, there is no reduction in the efficiency with which healthcare services are provided, although there is an effect on the magnitude of expenditures, as illustrated in Figure 1B. Expenditures increase from the area of rectangle P*Q* to that of P'Q'.

In competitive markets for well-understood healthcare services, a single-payer system can be adopted without undermining the efficiency with which healthcare was formerly provided; although, this requires government monitoring and other billing practices to be as efficient as those provided by private insurance companies. Long-run supply slopes upward because healthcare markets are relatively large and so attracting significantly additional labor and capital to those markets requires somewhat higher wage rates and rates of return. This implies that average costs tend to increase as one switches from private provision to tax-financed provision, although there is no reduction in efficiency. Long run average costs are still minimized for the service level provided as long as

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consumers continue to shop for the best values in healthcare or healthcare administrators do so for them.

Tax-financed expenditures may be deemed normatively attractive to voters that have internalized utilitarian, Rawlsian, or egalitarian ideals. Furthermore, tax-financing tends to be favored by voters for whom tax finance reduces their personal cost for healthcare. The latter tends to be true of voters with below average income or greater-than-average healthcare needs. Together, such voters may be sufficient to generate majority support for single-payer systems, even though average costs are increased by such systems.

Average costs, however, do not rise in every case. They are most likely to rise in cases in which all relevant markets are competitive, informational asymmetries are minimal, and healthcare demands for inputs are relatively large. In noncompetitive healthcare markets asymmetries, healthcare costs may be reduced through administered prices. Such cases are analyzed in Section 3.

### An Advantage of Decentralized Singler-Payer Systems over Unitary Systems

When the menu of healthcare services provided by the tax-financed system is determined by electoral pressures, the menu of healthcare services funded tends to reflect the median voter's demand for healthcare services, given the tax system adopted and his or her own expected future health. These vary, for example, with age, regional health risks, and personal income. As a consequence, regional governments (state, province, or city) tend to provide somewhat different menus of services (or insurance coverage), because of differences in health expectations among regional median voters. In cases in which voters are well informed about the risks and services of interest and the menu of services reflects electoral pressures, each region's services are optimal for the median voter of that region, and they are preferred by majorities both to those of other regions and any uniform menu of services different from that in their own region.[2]

This property was termed the decentralization theorem by Oates (1972). Figure 2 illustrates its essential logic. To make the illustration as clear as possible, the two median voters are assumed to face the same marginal cost for additional healthcare services that treat the malady of interest, as would be true of competitive markets for the same service. State median voters, however, have different marginal benefits from the service of interest because of differences in age, base health,

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[2] Perfect information is not required for this, although most voters must have representative samples of the relevant information. For more on this, see, for example, Congleton (2007).

population density, risk aversion, and so forth. The national median voter is likely to prefer a service level between those levels because he or she is roughly the median of state medians. Note, however, that an intermediate level between the two ideals of the median voters would impose losses on the median voter of state A equal to area I and loses on the median voter of state B equal to area II. This implies that majorities of voters in each state would prefer their own state's policies to that of the other state and also to any uniform national service levels between them.

Figure 2: The Geometry of the Decentralization Theorem
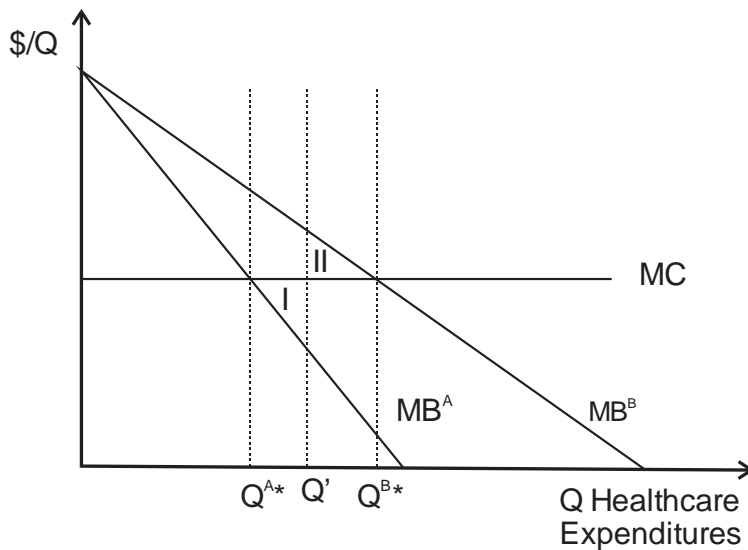
Federal and other decentralized methods of supply provide net benefits that are not available in unitary systems in which all citizens receive the same (conditional) healthcare services. This result does not hinge on mobility among states or superior local information, it simply requires sufficient voter information and electoral competition that tax-financed healthcare services converge toward the median voter's ideal in every state, province, or county.[3]

**3) Monopsony Power Under a Tax-Financed Single-Payer System**

Even better outcomes from single-payer systems are possible in cases in which significant monopoly power initially exists for a subset of healthcare services or inputs. In such cases, tax-financed systems can potentially reduce—rather than increase—the average costs of healthcare services through various kinds of price administration. Although authority to regulate service prices

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[3] Mathematical models that demonstrate why state demands for healthcare tend to vary with age, location, information, and ideology are found in Congleton (2021, forthcoming). Empirical evidence that federal systems respond better to health emergencies is found in Shvetsova et. al (2021).

can be abused, let us first consider cases in which it is not—that is to say, cases in which it is used to advance voter interests rather than to favor service and input providers.

In cases in which monopoly power exists for a subset of healthcare providers or services, it is possible to "force" prices down without significantly reducing the supply of services. The reason is that some providers are realizing "rents" from the services they sell, that is, they are realizing prices or rates of return above those required to attract them to the healthcare sector. Reducing prices for services provided by competitive markets will tend to induce resources to leave the healthcare sector for others that realize better prices and rates of return. This will either diminish the healthcare services available or diminish their average quality. However, where monopoly (or other rents) are being realized, the average cost of tax-financed medical services can be reduced by imposing administered prices on the monopolized or "protected" subset of the inputs or final services.

Figure 3 illustrates how an idealized form of price administration works. A healthcare regulator replaces monopoly price W* with administered price W', which can increase supply of a formerly monopolized type of labor (from L* to L') while lowering its average cost to patients (from W* to W'). Opportunities to use such powers include services previously provided by cartels, machines and drugs protected by excessively long patents, payments for immobile resources such as land, and services where licensing reduces the ability of practitioners to provide medical services in different states or countries.

Figure 3
Monopoly and Price Admnistratior

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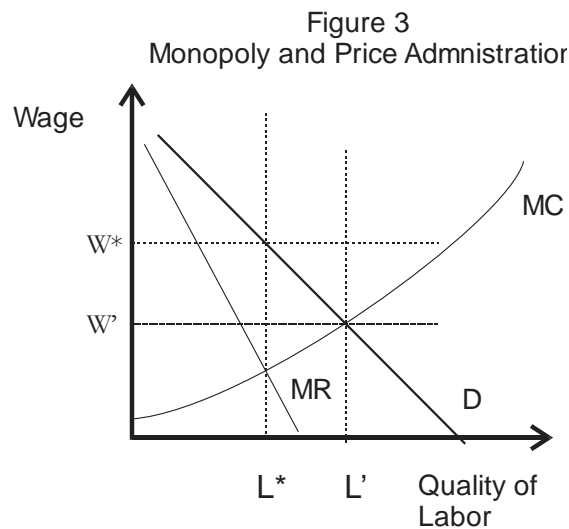
National governments can use this method of reducing the cost of medical services somewhat more effectively than states can, because national borders tend to be less porous (more regulated) than state boarders, although states can also engage in such practices.

Administered prices reduce average costs without affecting the quality of services only in cases where suppliers were previously receiving monopoly profits or rents. Variety of pricing policies adopted within federal systems, thus, provides useful information about the extent to which prices for various inputs can be reduced without affecting quality. (There is often more competition in a given market than is obvious to nonexperts.)
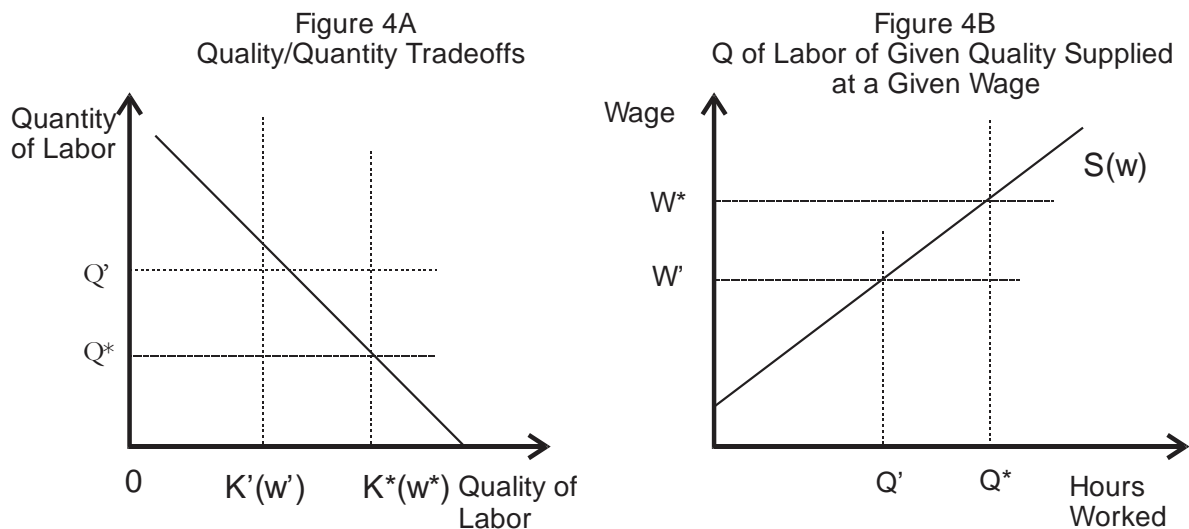
4) The Consequences of Regulating Prices in Competitive Markets

When administrative pricing is applied to inputs that are provided through competitive markets, the average quality of healthcare services tends to decline. Figures 4A and 4B help to illustrate why this tends to be the case. Figure 4A characterizes the upper bound, K(w), of the quality of the labor inputs available for a specific service at wage *w*. Normally, medical suppliers attempt to hire the best persons willing to work at a given wage. This tends to produce medical staff for various positions from a relatively narrow band of quality near the upper bound of the quality of applicants attracted by an advertised wage rate. As wage rates decrease, the upper bound decreases. For example, in Figure 4, a decrease in the wage on offer from w* to w' reduces the upper bound of the quality of applicants from K(w*) to K(w').

When monopsony power depresses wages for persons not earning rents, the upper end of the distribution of the quality of applicants declines because such policies do not depress wages in other fields for which the same talents are valuable. Moreover, as indicated by figure 4B, lower wages tends to reduce the extent to which the persons employed are willing to work, which implies that more employees are required to produce the services previously provided (e.g., before wages were lowered by healthcare administrators).

When such administrative price strategies are used at the same time that the production of healthcare services is being increased, the quality effects tend to be larger because the upper bound of the pool of persons willing to work at the administered wage (w') has diminished because of lower wages, whereas, an increase in services requires more persons to be hired from that pool. The reduction in wages decreases the upper bound of the pool of applicants, and the necessity of hiring additional medical staff lowers the lower bound of the pool of "acceptable" applicants. Both of

these effects reduce average quality of those employed and the services produced, other things (such as technology) being equal.

Figure 4A
Quality/Quantity Tradeoffs

Figure 4B
Q of Labor of Given Quality Supplied at a Given Wage

What federalism does when pricing authority is applied to previously competitive markets is to provide evidence of how the quality of services is affected by differences in pricing policies. The effects of different state price reductions on the quality of staff or other inputs and thereby on final services will be observed, and those data can be used to determine optimal tradeoffs. Whether the costs savings in formerly competitive markets are sufficient to offset the lower quality of healthcare services is likely to vary by service. If higher wages had previously attracted higher-quality inputs into the healthcare sector without materially improving the quality of final services (e.g., without increasing the longevity or base health of the average person of a given age in the community), voters may prefer somewhat reduced quality at a significantly lower tax cost.

The relative shares of GDP spent on healthcare services in Scandinavia (10%–11%) and in the United States (17.8%) according to OECD statistics suggest that monopoly rents are commonplace in the United States and/or that reductions in the average quality of healthcare personnel have only minor effects on the quality of healthcare services. Longevity in Scandinavian countries is somewhat higher than that in the United States, both for life as a whole and at age 60. World Health Organization (WHO) data (for 2020) provide the following average longevities at age 60: Norway, 25.1, Sweden, 24.5, Finland, 24.2, Denmark, 23.6, and United States, 23.1.[4]

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[4] A useful table of WHO data on longevity is available at: https://en.wikipedia.org/wiki/List_of_countries_by_life_expectancy.

5) Under-Contracting for Services and Two-Part Pricing for Healthcare Services

Another somewhat related method of reducing the tax price of single-payer systems is to contract with fewer or smaller health providers than sufficient to provide timely healthcare for all persons eligible for the tax-financed services. Under-contracting generates congestion of healthcare facilities and relatively long waiting times for many of the services provided. The latter is a common feature for the most resource-intensive services funded by national healthcare systems, whether single-payer or government provided. This reduces the annual flow of healthcare services provided, but also reduces the taxes necessary to fund them.

In effect, such a strategy creates two-part pricing of healthcare services: the tax part discussed in the previous sections and waiting time for healthcare services. Such two-part pricing may be in the interest of voters who are willing to bear longer waiting times for services in exchange for lower taxes, as might be the case for low-income voters when single-payer systems are financed with a proportional tax on labor income. In such cases, electoral pressures would generate the mix of waiting times and higher taxes that is approximately ideal for the median or pivotal voter in the relevant electorate, although other voters would prefer different combinations of waiting time and price. Poorer and less busy voters, for example, might prefer a lower tax price and even longer waiting time. Those with a higher opportunity cost for waiting would prefer a higher tax price and shorter queues.

Such variation in assessments of waiting times provides another possible rationale for federal supply. Because the price/waiting tradeoffs of moderate voters varies among regions, the overall pattern of pricing and waiting times would tend to generate net benefits for individual state median voters, similar to those shown in Figure 2. Congestion also reduces healthcare costs somewhat by discouraging the use of healthcare facilities by persons with less than clear health needs. (In effect, waiting is a copayment.) Information about relevant tradeoffs might also affect the resource allocations of hospital administrators.

6) The Dilemma of Experts in Tax-Financed Single-Payer Systems

Unfortunately, relatively few areas of healthcare are well understood by persons without medical training. Markets for the commonplace treatments of colds, minor physical injuries, and inoculations are well understood by most patients and voters, but other more technical areas of service—the ones that tend to be most expensive partly for reasons discussed in this section—tend to be ones in which providers have significant expertise and have to be trusted by their patients to

provide reliable advice about the best treatments. In settings in which a good deal of informational asymmetry exists, one cannot simply assume that competitive markets are efficient in the sense that economists use that term. Nor, can it be assumed that the expert administrators of a single-price system will adopt the best compensation system for every service. Unfortunately, expert service providers rarely have strong reasons to provide their services at least cost because of the manner in which services are paid for. Self-serving advice and errors will be commonplace in many choice settings. Medical experts often overprescribe their services (Green 2014, Makary et al. 2017).

In service areas in which significant informational asymmetries exist, single-payer systems that rely upon market forces to control costs tend to reinforce problems already present in market-based healthcare systems. When bills in a single payer system are simply sent to the government, this replaces patient budget constraints with the far larger and more elastic budget constraints of government(s). Because the "sky" would otherwise be the limit, given the lack of well-functioning markets in such areas, single-payer systems have to limit payments for expert services provided in order to keep healthcare costs at or below those of private markets.[5]

In a unitary government, there is just one administered price schedule instead of the multiplicity typical in insurance markets. This reduces transactions costs but may distort medical practices because medical providers will attempt to find the most profitable niches in those administrative prices schedules. Within unitary systems, those prices cannot be taken to be signals of need, as would be the case in competitive markets when consumers are themselves experts on what they need. Federalism allows fee-for-service schedules to generate information about how different pricing and compensation schedules affect outcomes (such as longevity and waiting times), which allows more finely grained schedules to be worked out that better advance voter interests.

If patients and circumstances were identical in all states, such adjustments would gradually induce convergence to a single ideal pricing system. When voters and circumstances are not the

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[5] Evidence of the effects of informational asymmetries on healthcare costs are, perhaps, most clearly demonstrated by the premiums that specialized doctors receive over general practitioners, whose training is similar to that of specialists but whose services are less understood by laypersons and more likely to be matters life or death, both of which tend to increase the bargaining power of specialized service providers. The OECD's recent study of the remuneration of and migration of doctors clearly show the premiums received by specialists. See https://www.oecd-ilibrary.org/sites/0acc1895-en/index.html?itemId=/content/component/0acc1895-en.

same (and elections are open and competitive), state administrative price schedules tend to converge toward schedules that best advance each state's moderate voter health and economic interests.

7) Advantages and Disadvantages of Voter/Patient Mobility

To this point, it has been assumed that voter/patients are all immobile, in which case the advantages of federalism emerge from its ability to take account of differences in healthcare demands among regional voters and from useful information generated by differences in regional healthcare policies. This subsection drops the assumption of voter immobility and considers the effects of what of both permanent and temporary medical migration, given all the above.

Tiebout's (1956) strong normative case for a federal system is grounded on citizen mobility. His classic paper demonstrates that, if there is enough competition among local governments for residents (who bring their tax payments and taxable assets with them) and if residents chose among locations based on the fiscal packages (taxes and services) provided, the result is an equilibrium in which each community's demand for services is homogeneous (because of migration); each community's services is produced at lowest cost (because competition for residents among governments) and each community's fiscal package is ideal for its residents (because of in and out migration). Possible externalities among governments are ignored in Tiebout's analysis (as they usually are with respect to competition in private markets). In this limiting case of inter-governmental competition, the governmental supply of local public goods and other services is Pareto efficient and resembles that of perfectly competitive markets.

However, problems arise from mobility when persons can obtain healthcare services in communities other than those in which they pay taxes. Suppose, for example, that person A lives in community L, which provides relatively low services and commutes to community H, which provides relatively high services. A pays taxes for healthcare services in community L, where healthcare services are adequate on his or her relatively healthy days, but he or she prefers the services in community H on those days and weeks when he or she is in ill health.

If community H pays the medical expenses of A, taxpayers in H are subsidizing A's healthcare, and their taxes for healthcare services necessarily increase. This tends to induce residents of H to migrate to communities like L. As a consequence, the tax base of H decreases and its ability to provide high service levels declines. In the limit, communities of type H disappear. In such cases, there is, in effect, a race to the bottom that eliminates type-H communities and their associated high service levels. The opposite is also possible. Suppose instead that community L is required to

reimburse community H for A's expenses. In this case, taxes rise for community L. This reduces the attractiveness of community L for those not taking advantage of the services in community H, which weakens interest in living in low-cost, low-service towns like L. In the limit, out migration may cause communities of type L to disappear. Similar issues are associated with emergency treatments when a person travels to location other than those in which he or she pays taxes and has the misfortune to suffer a medical emergency. Such payment and eligibility systems undermine the Tiebout-type of equilibrium because they create a mismatch between tax rates and services received.

Medical free-riding problems are less likely in unitary systems than in federal systems because medical migration and other travel is more likely to be intra-national than international. Both temporary medical migrations and the need for emergency treatments during travel, thus, undermine the normative case for federalism unless some reasonable solution for such problems can be found—or it turns out that such problems occur very infrequently.

Note that simply "forcing" A to pay taxes in community H would solve this problem, because H's service level is actually A's true demand. This would effectively make A a resident of community H rather than of community L and eliminate the free-riding problem. Unfortunately, this requires knowing everyone's true long run demand for healthcare services—which is beyond the ability of medicine and economics at this point.

Alternatively, person A might be eligible for services in community H only if he or she purchases a supplemental insurance policy that covers the extra cost of services in high-service communities. Community L would reimburse other locales for demands by its residents according to its own price and service schedules. Supplementary insurance solves the free-riding problem without requiring as much information about A's long-term health risks, because estimating aggregate or average risks tends to be easier than estimating individual risks.

8) Medical Rent Seeking

To this point, it has been assumed that both local and national tax-financed healthcare services are determined by electoral pressures. However, this is not always the case. The design and management of healthcare systems requires significant expertise. As a consequence, the task of choosing the details of a healthcare system is normally delegated to specialists and their advisers, much as highway construction is. Such delegation has advantages, but it also weakens the link between elections and healthcare systems. This potentially allows special interest groups to influence the extent of healthcare provided or the administrated fees received by input owners. Olson's (1965)

analysis suggests that well-organized groups with relatively large interests (stakes) in healthcare policy decisions are the most likely to be able influence the decisions of policy makers and the advice given to them by their advisors. In Olson's terminology, healthcare providers are "privileged" relative to other larger "latent" groups that fail to organize.

Not all such efforts conflict with the interests of patients/voters. Just as advertising in private markets is sometimes informative and useful, so too is the lobbying that takes place within a legislature and bureaucracy. However, there are clearly cases in which the interests of organized interest groups run counter to the interests of patients/voters, and where the information provided tends to be biased to advance the group's narrow interests.

For example, all input providers would like higher prices for their services and products, whereas all patients/voters would prefer lower prices—other things, including quality, being equal. Efforts to increase reimbursement rates might be justified by a politically active interest group, for example, be justified by providing production cost data that are higher on average than actual costs are. If persuasive, such lobbying efforts would produce economic rents for the persons benefiting from increased reimbursement rates. It would also raise the average cost of healthcare services and the associated taxes necessary to finance a single-payer system.

In addition to such direct costs of higher prices for particular healthcare services, resources are consumed by the process of seeking such rents. Insofar as the costs of lobbying are paid for out of revenues generated by selling inputs to healthcare systems, this tends to further increase the average costs of single-payer and other tax-financed healthcare services.

The stakes are larger in unitary systems than decentralized ones because pricing and other policy decisions affect much larger markets and therefore have larger impacts on the wage levels and profits of practitioners and input suppliers. This "prize effect" tends to increase investment in rent seeking in centralized systems relative to that of decentralized systems. Models of rent-seeking effort developed by Wärneryd (1998) suggest that such costs tend to be lower in federal and other decentralized policymaking systems than in unitary ones, which implies that average costs tend to be lower for this reason as well as others developed above.

9) Conclusions: Federalism and Tax-Financed Healthcare Services

The term "federal" has been used throughout this chapter to describe systems in which policy making is independently undertaken by several levels of government and local taxpayers pay

for the "last" dollar of the healthcare services provided, as for example was true of tax-financed healthcare services in the United States and Scandinavia during the second half of the 20th century. In this respect, the term federal is used somewhat differently than it is by political scientists, who tend to focus on the constitutional structure of a government. No "state" or "regional" chamber of a legislature is required for a healthcare system to be federal in the economic sense used here. What is required is that state or provincial governments or agencies are able to organize, finance, and regulate the provision of healthcare services and that local taxes fund the "last dollar" spent in those systems. The latter reduces a state or provincial authority to free ride on the taxes paid by persons living outside the state or province of interest.

It has also been presumed that either all services can be economically provided by the relevant states or provinces or that responsibilities for funding and managing particular healthcare services have been delegated to particular levels of government in accord with economies and diseconomies in production. This assumption may seem far-fetched to some readers, but it should be kept in mind that some of the best-run tax-financed healthcare systems are found in Scandinavian countries with relatively small populations and that their healthcare services are often controlled by subunits of governments (what might be termed counties in Great Britain or the United States). The populations of Norway and Finland are approximately 5 million each, that of Denmark is approximately 6 million, and that of Sweden is approximately 10 million. Many states and cities in larger countries exceed national populations in Scandinavia and, therefore, should be able to realize all the economies of scale in healthcare realized in those countries.

Given these assumptions and their supporting facts, this chapter has argued that decentralized systems of tax-financed healthcare tend to achieve better results than unitary ones. They do so for several reasons. First, services are better matched to local demands. Variation in the extent of services and their manner of production tends to reflect the interests of moderate voters in the healthcare-providing districts when electoral pressures are decisive. Second, variations in the extent and production of healthcare services provide data through which both voters and experts can better assess the efficiency of local healthcare services and directions for improvements. In contrast, within a unitary state, only a single mode of finance and production is typically observed, so it is impossible to determine the relative merits of alternative methods of reimbursement, delivery, or combinations of services. Third, there are reasons to expect less rent seeking in

decentralized systems than in centralized ones. The potential rents that might be realized are lower because relevant markets are smaller.

The analysis provided in this chapter does not rely on the idealized competition used in Tiebout's (1956) classic article. Although mobility can provide additional economic and political pressures to increase the efficiency with which healthcare services are provided, it also causes problems for decentralized financing and provision of healthcare. Healthcare demands for most voters are infrequent and unpredictable; so it is relatively easy for most persons to live in a low healthcare service community and travel to a high service community during periods of illness. This weakens the linkage between tax payments and services provided, which distorts voter demands for both. Such problems can be solved with various forms of supplemental insurance, but the need for such insurance is less associated with unitary systems because they are funded by national rather than local taxes.

Overall, the political economy of tax-financed healthcare implies that decentralized systems tend to produce healthcare more efficiently with less rent seeking and more opportunities for useful innovation than unitary systems. They are not perfect, but they have political and economic properties that make them superior to unitary systems.

References

Batinti, A., & Congleton, R. D. (2018). On the codetermination of tax-financed medical R&D and healthcare expenditures: Models and evidence. *European Journal of Political Economy*, *54*, 175–188.

Congleton, R. D. (2007). Informational limits to democratic public policy: The jury theorem, yardstick competition, and ignorance. *Public Choice*, *132*(3-4), 333–352.

Congleton, R. D., Batinti, A., & Pietratonio, R. (2017). The electoral politics and the evolution of complex healthcare systems. *Kyklos*, *70*(4), 483–510.

Green, E. P. (2014). Payment systems in the healthcare industry: An experimental study of physician incentives. *Journal of Economic Behavior & Organization*, *106*, 367–378.

Makary, M. A., Overton, H. N., & Wang, P. (2017). Overprescribing is major contributor to opioid crisis. *BMJ* 359: j4792.

Oates, W. E. (1972). *Fiscal federalism*. New York, NY: Harcourt Brace Jovanovich.

Salmon, P. (1987). Decentralization as an incentive scheme. *Oxford Review of Economic Policy*, *3*(2), 24–43.

Salmon, P. (2019). *Yardstick Competition among Governments: Accountability and Policymaking when Citizens Look Across Borders*. Oxford University Press.

Shvetsova O., Van Dusky-Allen J., Zhirnov A., Adeel A. B., Catalano M., Catalano O., Giannelli F., Muftuoglu E., Rosenberg D., Sezgin M. H., Zhao T. (2021) Federal Institutions and Strategic Policy Responses to COVID-19 Pandemic. *Frontiers in Political Science, 3:* https://www.frontiersin.org/article/10.3389/fpos.2021.631363

Tiebout, C. M. (1956). A pure theory of local expenditures. *Journal of political economy*, *64*(5), 416-424.

Wärneryd, K. (1998). Distributional conflict and jurisdictional organization. *Journal of Public Economics*, *69*(3), 435-450.