

# Financing Healthcare With Earmarked Taxes

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Janice MacKinnon



Jack M. Mintz



Mukesh Khanal

Janice MacKinnon is an Executive Fellow, Jack M. Mintz is the President's Fellow, and Mukesh Khanal is a research associate at the School of Public Policy at the University of Calgary.

In this article, the authors review the successes and failures of earmarked taxes in improving healthcare systems.

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### Abstract

The focus of this paper is to determine whether earmarking health taxes or other revenue mobilizes greater public healthcare support as argued by the World Health Organization. We examine six case studies in which taxes or revenues have been earmarked to support public healthcare: Brazil, France, Germany, the

Philippines, South Africa, and South Korea. We find that earmarking does not lead to more revenue spent on healthcare on a sustained basis, except for experiences in the Philippines and for long-term care in Germany.

### Introduction

Healthcare is among many countries' largest expenditures, accounting for 10.9 percent of global GDP in 2020 (World Bank 2023a). Among high-income countries, over 12.5 percent of GDP was spent on healthcare in 2020, of which 65.8 percent was covered by government revenues (World Bank 2023b). On average, almost 60 percent of global health expenditures are covered by governments, with the remaining balance paid by the private sector through private health insurance or out-of-pocket expenditures (World Bank 2023a). Recently, the World Health Organization (2024) argued for greater use of earmarked health taxes to fund public healthcare:

Health taxes are levied on products that have a negative public health impact, for example tobacco, alcohol and sugar-sweetened beverages (SSBs). These taxes are considered win-win-win policies because they save lives and prevent disease while advancing health equity and mobilizing revenue for the general budget. They can also be used for specific priorities such as financing universal health coverage (UHC) or highly cost-effective yet underutilized population health measures.

Earmarking has its advantages and disadvantages. As we discuss later, economists argue that earmarking distorts budget allocation decisions because spending levels are linked to earmarked tax revenues rather than traded off with other governmental spending commitments.

Others argue that earmarking leads to better decision-making because budgets are allocated according to taxpayer preferences, resulting in earmarking generating more support for healthcare spending. As a middle ground, even if earmarking leads to inefficiency in budget allocation decisions, it constrains decision-makers from “wasting” revenues on pet projects (Brett and Keen 2000).

To the extent that health and other taxes are dedicated to fund healthcare, it is reasonable to ask whether countries that use earmarked taxes spend more on healthcare. It is not obvious earmarking would result in more healthcare spending. On the one hand, earmarking segregates revenues in a budget to be spent on healthcare, countering any desire by politicians to spend the money on their own priorities. Yet, if citizens are more aware of the price that they pay for public healthcare, whether through sin taxes or payroll taxes, for example, they may demand less spending. Even if earmarking provides resources to fund healthcare, the revenues may only be part of the overall healthcare budget. In other words, the marginal revenues come from non-earmarked taxes, so earmarking does not change funding priorities.

We first consider the main arguments for and against earmarking for healthcare. Then, we examine six countries that have used earmarking for healthcare: Brazil, France, Germany, the Philippines, South Africa, and South Korea. We find that earmarked taxes have helped sustain health spending in the Philippines and long-term care in Germany, but not in other countries. While there may be value in using certain taxes earmarked to fund public programs, such as health-related tax or payroll levies, we find little evidence that earmarked taxes increase public spending on healthcare.

### Arguments For and Against Earmarking

We begin our discussion by laying out the general theoretical arguments in favor of and against earmarking. This is followed by a discussion on the use of earmarking revenues for healthcare.

### Why Earmarking Is Good

The normative role of government is twofold:

- ensuring the provision of public services that the market is unable to provide at optimal levels because of market failures in the provision of private goods; and
- redistributing resources to support vulnerable populations.

A critical aspect underlying the use of earmarked taxes is the nature of funded public goods and services. Public goods, such as defense or policing, are distinguished by being nonrival in consumption (one’s consumption of a public good does not diminish consumption by others) and nonexcludable (one’s consumption of a public good does not limit others from consumption). Private goods are characterized by both rivalry and excludability. Mixed public goods are those for which either nonrivalry or nonexcludability fail. Club goods are provided by excluding nonmembers, but the consumption is nonrival among club members. Common goods are rival in consumption but cannot exclude others from provision (for example, spillovers).<sup>1</sup>

Healthcare is an example of both a private and mixed (common) public good that is rival in consumption but cannot exclude others. The benefits of healthcare services such as hip replacements and cancer surgery may only be enjoyed by the person receiving it. However, with some healthcare services, rival benefits and costs also accrue to others, such as vaccinations against communicable diseases.

### Preference Revelation and Earmarking

Pricing with user fees or earmarked benefit taxes to fund rival and excludable private goods and services can lead to efficient spending decisions. In the case of public goods, it is less obvious. Buchanan (1963) argues that earmarking allows taxpayers to reveal their preferences for public goods (leading to an optimal allocation of resources when public goods are fully funded by benefit taxes). The argument rests on pricing, in which each taxpayer voting for spending on a

<sup>1</sup> An example of a common property problem is fishing cod. As fishers take cod from the sea, less is available for others to find. This results in a negative spillover effect.

public good knows that the payment is a contribution to cover for a share of the costs.<sup>2</sup> Thus, earmarking is supportable as an approach leading to greater preference revelation for public services. It has also been argued that earmarking is democratic in that it enables taxpayers to have direct influence over budget decision-making. It can constrain politicians or bureaucracies from altering public budgets to increase their salary or prestige (Niskanen 1968).

Less clear are public decisions based on criteria other than economic efficiency. In particular, the provision of free public goods has a redistributive effect, supporting vulnerable parts of the population (those facing bankruptcy from illness or those unable to cover the cost of medical procedures charged by earmarked taxes). If earmarking is used, it may only cover a portion of public spending if the government subsidizes expenditure for redistributive purposes.

### The Benefit Principle

The strongest argument in favor of earmarking is that it can effectively implement the benefit principle of taxation: people should be taxed in proportion to the benefits they receive from goods and services provided by the government. As Richard Bird (1997) explained, the relationship between earmarking and the benefit principle:

solves in a fair and efficient way, the two most important problems in public finance: deciding how much of a public service to supply and who should pay for it.

However, how does this idea square with the argument that a Universal Healthcare (UHC) system requires “a financing system that collects revenue based on ability to pay and redistributes it across risk and income groups”? This shows that moving away from the benefit principle is “critical for equity and sustainability” (Bird 1997).

<sup>2</sup>This argument is also made by Lindahl (1958) to determine the optimal amount of a public good through consumer preference revelation. Pure public good provision is optimally determined at the point that the sum of contributions paid by households is equal to the cost incurred to provide the good. Consumers reveal their willingness to pay for a public good knowing that if they shirk, less will be provided.

### Double Dividend Argument

Imposing levies on alcohol, tobacco, fats, sugars, and even gasoline or diesel discourages consumption of these unhealthy products. The revenue raised can support expenditures on public health, providing a second dividend. In some cases, governments want to dedicate a specific revenue source to some form of healthcare spending to protect it “from competing political interests” and exempt it from “budgetary constraints” (Bird 1997; Brett and Keen 2000). For example, in low-income countries, earmarking can be used to help expand healthcare coverage, with the goal of laying the foundations for UHC (Hanson et al. 2022). Earmarking taxes that are deemed harmful to one’s health or the economy are sometimes used by countries with the goal of increasing compliance. Taxpayers are more amenable to paying a tax that is dedicated to what is considered a worthwhile purpose, rather than taxes that are used for a wide array of spending initiatives. In federations, some central governments use earmarking to ensure that subnational levels of government maintain a certain level of spending on public goods.

### Why Earmarking Should Be Avoided

Earmarking can distort budgetary spending decisions, leading to excessive or deficient spending. Initially, earmarked tax rates may be set so that spending and earmarked revenues are in balance. However, in later years, earmarked revenues might grow more (or less) quickly than spending, artificially leading to excessive (or deficient) spending. Thus, there are several issues that need to be considered in assessing the effectiveness of earmarking revenue. For example, whether the earmarking is for a specified time frame, with regular reviews of its effectiveness, and whether there is flexibility to change the tax or the time frame in which the funds are to be spent (Bird 1997, 14). In terms of outcomes, critical questions include “whether earmarking leads to an efficient or optimal allocation of public funds,” and whether it makes “any difference to expenditure patterns” (Bird 1997, 8; Cashin, Sparkes, and Bloom 2017, 12).

Earmarking with excise taxes on “sin” products also raises a conundrum for a government pursuing two objectives:

discouraging harmful consumption and raising revenues. High taxes on unhealthy products, if successful, will discourage consumption over time as well as potentially lead to more tax evasion (Gruber, Sen, and Stabile 2003), leading to a reduction in available revenue in future years. Governments needing to fund ongoing healthcare budgets, however, might avoid raising earmarked taxes too much if it leads to erosion of revenue.

Further, if a public program is funded by a mix of earmarked revenues and general revenues, the earmarked revenues may have little influence on total public health spending. After all, earmarked tax revenues are fungible — an increase in earmarked tax revenues enables the government to redirect non-earmarked revenues to other programs. In other words, taxpayers are deceived because earmarked taxes become virtue signaling without any discernible effect on budgetary decisions.

A study by the WHO found that earmarking tax revenue for healthcare led to an increase in funding for healthcare in the short term (Cashin, Sparkes, and Bloom 2017). However, it also found that “the findings are less clear on whether earmarking for health can bring a sustained increase in government revenues allocated to the health sector, particularly as a relative share of total government spending.” As the study points out, budgets are fungible, and earmarking funding for one revenue source is likely to be offset by cuts to other sources. The study also points out that “it is impossible to know the counterfactual scenario in which earmarking policies have not been pursued” (Cashin, Sparkes, and Bloom 2017, 27). That is, it is difficult to prove the link between earmarked funding for healthcare and an increase in funding for healthcare. Did healthcare funding increase because of the earmarking, or would it have increased anyway?

An earmarked tax could also lead to the underfunding of a mixed public good if the earmarked tax is less than the cost of the public good’s provision. Taxpayers only internalize the benefits and the costs they incur, forgetting that a subsidy is needed to cover the public cost in providing the public good or service.

## Health Taxes

A common target for revenue earmarking is taxes on products deemed harmful to one’s health — for example tobacco, alcohol, or SSBs. The revenue is sometimes dedicated to treatment or prevention services for those using these products, or more often earmarked for other kinds of health spending. Sin taxes are intended to discourage the consumption of alcohol, tobacco, and SSBs.

Among earmarked taxes, healthcare taxes have received special attention (WHO 2024). According to Vigo et al. (2023, 499), the tax policy rationale for health taxes is that they are:

... fundamentally fiscal policies aimed at addressing the negative health spill-overs of people’s consumption choices, including spill-overs affecting other people (externalities), those affecting the same consumers or their households in the future (internalities), as well as future generations more widely (e.g. in terms of health system sustainability).

An example of the externalities is the cost that other insured individuals have to pay when a smoker gets ill. “Representing this cost directly in the price of cigarettes is one of the main functions of health taxes, although estimating the value of externalities is often very challenging” (Sassi et al. 2023, 16).

It has also been argued that health taxes involve behavioral benefits, like improving life expectancy. Health taxes can inform individuals of the health risks associated with using harmful products and “encourage people to avoid acting against their own self-interest” (Sassi et al. 2023, 3). Though consumption taxes are usually considered regressive because they are not related to income, it has been argued that health taxes are not regressive because they can help reduce medical expenses and extend the working life of citizens (Long et al. 2015, 4). Also, revenues from health taxes are earmarked for increasing health coverage and services, which primarily benefit lower-income people, especially in developing countries that do not have UHC. Thus, “the presumed progressivity of expanding health spending compensates at least to some extent for the regressivity of the taxes” (Bird 2015, 20).

Theoretically, it would be expected that these taxes discourage consumption, but the extent to which they do is debatable (Bernheim and Taubinsky 2018). In a U.K. study, increasing taxes on SSBs led to “a larger reduction in the probability of choosing SSBs when it is signaled as a tax and framed as health-related and earmarked policy” (Cornelsen et al. 2020). Another found that health benefits of the taxes include increasing life expectancy, reducing health expenditures, and serving “as a powerful social signal to reduce sugar consumption through additional individual behavioral and policy changes” (Long et al. 2015, 9). However, Rees-Jones and Rozema (2023) found that the estimated effect of a one-dollar increase in cigarette tax is halved after controlling for other policies such as smoking restrictions, advertising, and other policies that are introduced to curb smoking at the same time cigarette tax rates are increased.

Health taxes are especially important in developing countries because of the extensive use of cigarettes and other smoking tobacco products, especially in lower-income countries. The WHO estimates that 80 percent of global smokers live in low- and middle-income countries (Ahsan et al. 2022). Hence, taxes that discourage the use of tobacco can result in better health outcomes and reduced costs for treating tobacco-related diseases.

Lower-income countries have limited revenue options to fund the much-needed expansion of healthcare services and coverage. Many low- and middle-income countries lack UHC, resulting in preventable deaths and out-of-pocket health spending of over 40 percent of overall health expenditures (Ahsan et al. 2022, 3). Therefore, “increased expenditure on public health, especially for low-income persons, is also a generally good idea in developing countries in terms of both equity and increasing productivity” (Bird 2015, 20).

At the 2005 session of the World Health Assembly, member states passed a resolution urging countries to establish UHC and to find sustainable revenue sources to fund it. Establishing UHC requires a tax system that “collects revenue based on ability to pay and redistributes it across risk and income groups” (Cashin, Sparkes, and Bloom 2017, 12). However,

revenue sources are limited in low- and middle-income countries. General tax revenue is constrained by the limited revenue base for public spending. It has been estimated that tax rates above 15 percent of GDP are required for economic growth and funding programs like healthcare, but many lower-income countries are well below this level in their general taxation rates (Ozer et al. 2020, 1). Further, the formal labor force is not large enough to provide adequate funding for UHC in many low- and middle-income countries. In some countries, only a very small proportion of the labor force works in the formal labor sector. Also, many low-income countries have problems with tax compliance (Teja 1988, 12). On the other hand, social health insurance contributions are a major funding source for healthcare in many high-income countries.

### Earmarking for Healthcare: Six Case Studies

In the case studies below, we examine in detail the role of earmarking in the financing of healthcare. We begin with the Philippines, which has made extensive use of earmarked health taxes to mobilize revenues for public health spending. This is followed by South Africa (revenues earmarked for public health spending), Brazil, Germany, South Korea, and France.

#### The Philippines

The Philippines is an excellent example of a lower-middle-income country using excise taxes on products harmful to people’s health to broaden healthcare coverage with the goal of laying the foundations for UHC. As in many other Asian countries, smoking is prevalent in the Philippines.

Since 2005 the Philippines has had “time-bound” earmarking of alcohol and tobacco tax revenue for healthcare. (Kimwell et al. 2022; Ana, Vigo, and Paul 2023). In 2012 the Filipino government promised to expand healthcare coverage and move to UHC without raising taxes. At that time, healthcare coverage was very limited: Total expenditure on health was less than 5 percent of GDP, and out-of-pocket expenditure as a percentage of total private and public healthcare expenditure stood at 54 percent (Lagrada-Rombaua, Encluna, and Gloria 2021). In 2012 the government introduced the Sin Tax Reform Act, which made the existing excise taxes earmarked

for healthcare permanent; made the tax structure more efficient by progressively moving to a single tier by 2017 to generate higher revenue; and increased tax rates on alcohol and tobacco products, with 100 percent of the additional alcohol tax revenue and 85 percent of the additional tobacco revenue earmarked for health (Cashin, Sparkes, and Bloom 2017, 36; Ozer et al. 2020, 4). Twenty percent of the earmarked revenue went to the Department of Health for programs such as enhancing health awareness, and the other 80 percent went to the Philippine Health Insurance Corporation (PhilHealth), a separate agency within the health department responsible for national health insurance. PhilHealth used the revenue primarily to subsidize insurance coverage, mainly for the indigent population, and to provide mandatory coverage for all citizens over 60 (Cashin, Sparkes, and Bloom 2017, 22, 36).

Earmarking taxes on alcohol and tobacco for healthcare was a critical policy decision that garnered widespread acceptance of the new taxes. A sin tax coalition was formed to support the health taxes; the coalition had more than 100 organizations and members, including “health professionals, tobacco-control activists, women, youth, urban and rural poor, persons with disabilities, academics, economists and former senior government officials” (Ana, Vigo, and Paul 2023, 487-488). Public acceptance of the health taxes paved the way for future governments to expand their use to include SSBs, to increase earmarked revenue from incremental to total revenues, and to expand the sources of revenue earmarked for healthcare. By 2020 the revenue earmarked for public healthcare was derived from the national government’s share of Philippine Gaming Corporation profits (50 percent) and the Philippine Charity Sweepstakes Office (40 percent), which were earmarked for UHC, as well as 100 percent of alcohol revenue, 50 percent of tobacco revenue, 50 percent of SSB revenue, and 100 percent of the revenue from health-related tobacco and vaping products (Ozer et al. 2020, 5).

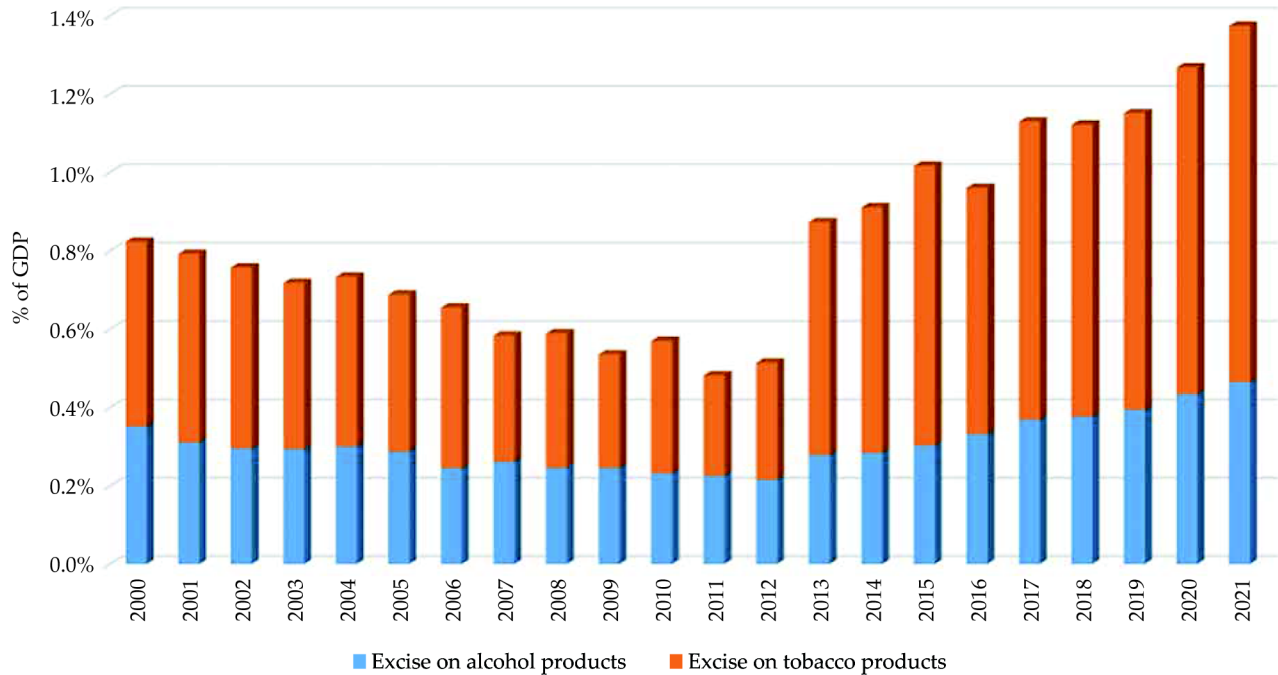
There are ways in which the Philippines health tax earmarking meets, at least to some extent, the criteria for effective earmarking. The WHO concluded that the problem of rigidity has been avoided in the Philippines by making “the expenditure purpose of the earmark” narrow

enough to be enforceable, and to “link funding clearly to activities and results,” but “not so narrow as to exacerbate rigidity;” health authorities have the flexibility to move funding from one health service to another (Cashin, Sparkes, and Bloom 2017, 23). Moreover, the Philippines’ earmarking has been called “soft,” in that the Department of Budget and Management reviews the healthcare budget annually, and the yearly healthcare budget is included “as part of the general budget appropriation, including allocation of earmarked revenues” (Cashin, Sparkes, and Bloom 2017, 23). There is also some accountability for outcomes because PhilHealth is required to report to the Department of Finance on the use of healthcare expenditures from earmarked funds and the resulting increase in coverage (Cashin, Sparkes, and Bloom 2017, 36).

On the other hand, health taxes are not consistent with some of the criteria for effective earmarking. On the benefit principle, it is true that smokers and consumers of alcohol and SSBs cover their health costs with the health taxes they pay, but so do many other citizens who do not consume these products. The efficiency argument that consumers paying the tax are sending a clear signal about the level of services they are willing to finance is also not valid because consumers of alcohol, tobacco, and SSBs consume these products for their own enjoyment, not to signal the level of health services they are willing to finance. Also, there has been, at times, an imbalance between the amount of revenue collected and the services that are delivered. Initially, the revenue from tobacco and alcohol taxes was greater than projections and PhilHealth had more premium payments for the indigent population than payouts in benefits. Although PhilHealth is required by law to maintain a reserve fund, the excess revenue exceeded the limit for the reserves (Cashin, Sparkes, and Bloom 2017, 24). Recently, however, PhilHealth has been in deficit.<sup>3</sup>

Another problem with health tax earmarking is fragmentation. The Department of Health provides supply-side financing, while PhilHealth provides demand-side financing. There is “no centralized resource allocation authority”

<sup>3</sup> See Rambo Talabong, “DOH Sees P30-B Deficit In Philhealth Funds In 2022 Budget,” *Rappler*, Aug. 24, 2021.

**Figure 1. Tobacco and Alcohol Excise Tax Revenue as Shares of GDP: 2000-2021**

Source: OECD (2024)

(Lagrada-Rombaua, Encluna, and Gloria 2021, 24). Revenues from earmarked health taxes can also be procyclical in the sense that the goal is to discourage the use of products harmful to one's health, but because the use of these products declines, so does the revenue used to fund health programs. This raises a key question: Do the savings to the healthcare system from reduced use of these harmful products compensate for the decline in revenue?

Tax evasion is also a significant issue in the Philippines. The Bureau of Internal Revenue estimates that the Philippines loses PHP 500 billion (about \$8.6 billion) annually through tax evasion, of which cigarette tax evasion accounts for 20 percent (Calderon and Ragasa 2023).

Nonetheless, evidence shows that tax reform in place as of 2013 led to an increase in revenue. Figure 1 shows that before the Sin Tax Reform Act was introduced, tobacco and alcohol excise tax revenues as a percentage of GDP were declining. However, after 2013, there was a steep increase in these excise tax revenues as shares of GDP. As

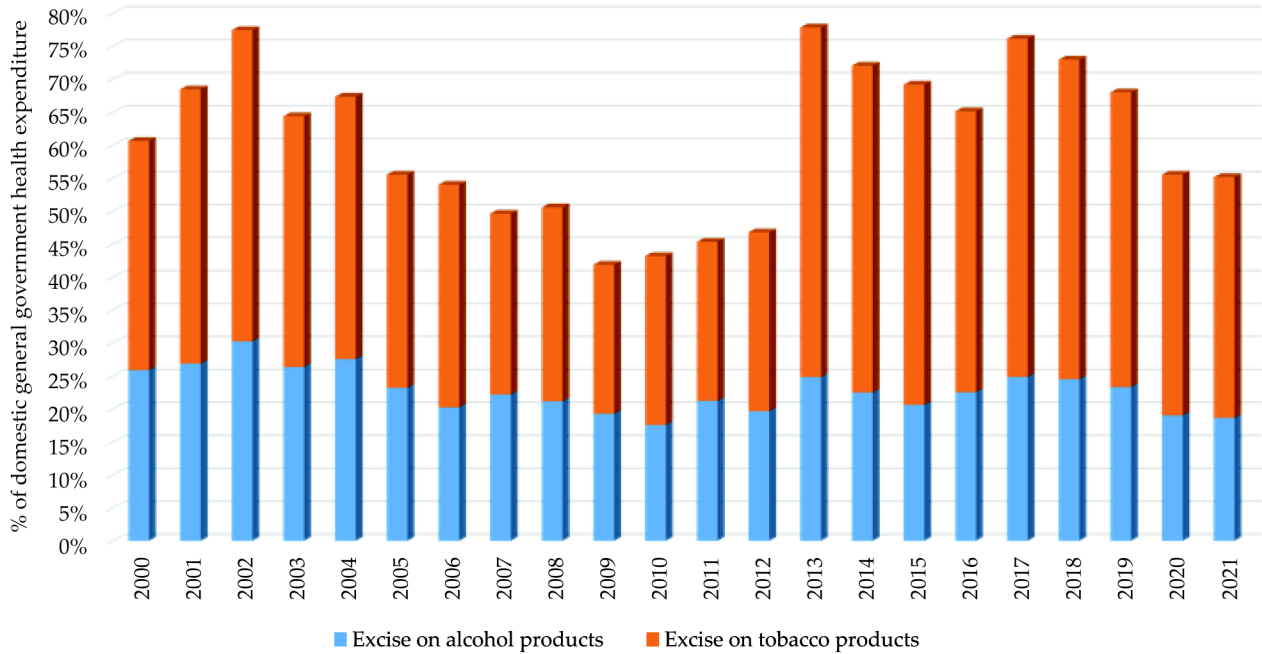
shares of public health spending these taxes also rose initially after 2013 but have recently fallen back, as shown in Figure 2.

Between 1998 and 2018, smoking rates for Filipinos 20 years old and above declined from 34.8 percent to 20.7 percent (Ana, Vigo, and Paul 2023, 492). This may be because of rising cigarette taxes, the only major tobacco-control intervention that occurred in this period, but it may also be from changes in consumer habits, including health concerns. Further research is needed to confirm the cause of the smoking rate decline.

There were also dramatic increases in healthcare coverage. Between 2012 and 2016, PhilHealth coverage increased from 75 percent of the population to 88 percent, with noteworthy increases in coverage for indigent families from 5.2 million in 2013 to 14.7 million in 2014. This coverage expansion was "largely driven by the increase in the number of families with coverage sponsored by the national government," with funding from earmarked health taxes (Cashin, Sparkes, and Bloom 2017, 37).



Figure 2. Alcohol and Tobacco Excise Taxes as Shares of Public Health Spending: 2000-2021



Source: OECD (2024) and The World Bank (2024)

What about the longer term? Does earmarking health taxes guarantee long-term increases in health spending and benefits? The WHO’s study on health earmarking concluded that “in most cases earmarking is unlikely to bring a significant and sustained increase in the priority placed on health in overall government spending” (Cashin, Sparkes, and Bloom 2017, 3). Because budgets are fungible, “earmarking one revenue source is likely to result in offsets through cuts in other sources” (Cashin, Sparkes, and Bloom 2017, 3). The risk of fungibility increases when the earmarked revenue is not the only source of revenue funding health and when the revenue is not segregated into a special fund. In the Philippines, as mentioned earlier, the earmarked revenue is not segregated into a special fund, and other revenue sources also fund healthcare (Lagrada-Rombaua, Encluna, and Gloria 2021, 21, 23). A 2022 report by the Philippine Institute for Development Studies found that soft earmarking means local authorities do not necessarily segregate revenue from earmarked taxes from other revenue, which “reduces the transparency and accountability for

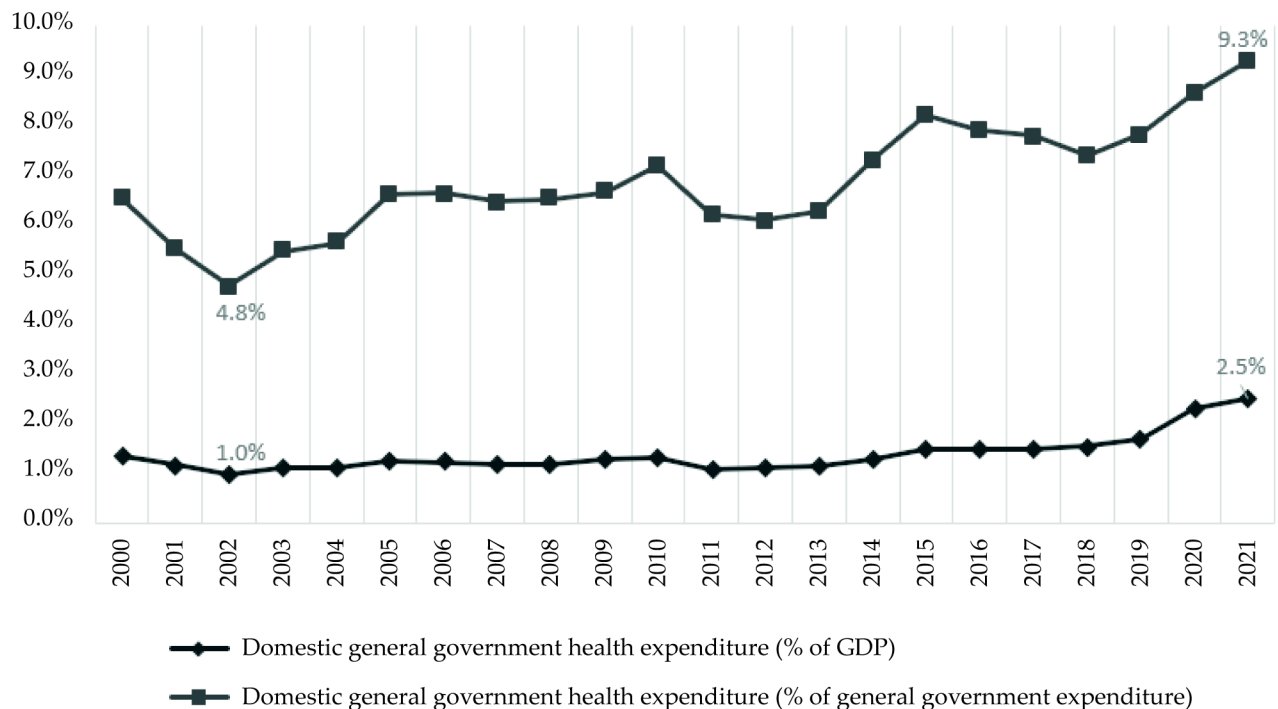
the utilization of sin tax revenues” and “does not allow traceability and auditing of resources” for specific purposes (Kimwell et al. 2022, 32-33).

As Table 1 shows, as a share of GDP, total expenditure on health had been slowly increasing, with a sudden surge in 2020 in response to the COVID-19 pandemic. Public health spending also began to rise after 2019 (see Figure 3). Out-of-pocket spending has been on a declining trend since 2010, with a commitment of greater public resources as well as an increase in the importance of private plans (see Table 1). The most striking trend is the rise in general government expenditure on health as a share of total general government expenditure from 7.2 percent in 2010 to 9.3 percent in 2021 (in part influenced by pandemic spending). Thus, the evidence suggests that the practice of earmarking health taxes in the Philippines has so far met one goal: a long-term increase in government spending on healthcare relative to overall government spending after 2013. Whether this is unique to the Philippines or similar to other countries is to be evaluated below.

**Table 1. Trends in Health Expenditures in the Philippines, 2000-2021**

Expenditure	2000	2005	2010	2015	2019	2020	2021
Current health expenditure (% of GDP)	3.1%	3.7%	4.1%	3.9%	4.2%	5.1%	5.6%
Domestic general government health expenditure (% of GDP)	1.4%	1.2%	1.3%	1.5%	1.7%	2.3%	2.5%
Domestic general government health expenditure (% of general government expenditure)	6.5%	6.6%	7.2%	8.2%	7.8%	8.7%	9.3%
Domestic general government health expenditure (% of current health expenditure)	44.4%	33.1%	31.9%	37.7%	40.6%	44.6%	44.4%
Out-of-pocket expenditure (% of current health expenditure)	41.2%	52.1%	54.8%	51.2%	48.8%	45.0%	41.5%
Voluntary Prepayments (% of current health expenditure)	5.9%	7.2%	8.5%	7.8%	8.6%	8.2%	9.2%

*Source: World Health Organization — Global Health Expenditure Database*

**Figure 3. Domestic General Government Health Expenditure in the Philippines, 2000-2021**

*Source: World Health Organization — Global Health Expenditure Database*

## South Africa

While the Philippines is a good example of tax revenue earmarking, South Africa and Brazil are examples of expenditure earmarking for healthcare. In South Africa, expenditure earmarking for healthcare services is an example of “institutionally . . . compartmentalizing fiscal decisions” as a way of guaranteeing a certain level of service or expenditure in a specific area (Buchanan 1963, 458). The South African health system is decentralized, with subnational governments having “significant autonomy in planning and budgeting,” and thus the national government uses expenditure earmarking for as much as 20 percent of health spending as a way to “advance national priorities and exercise central control” (Cashin, Sparkes, and Bloom 2017, 38).

In 2003 the South African government introduced the HIV/AIDS conditional grant “as a way to increase and protect funding for the HIV/AIDS program throughout the entire health system,” and almost 90 percent of the National Strategic Plan on HIV/AIDS, sexually transmitted infections, and tuberculosis is funded through a conditional grant for HIV/AIDS paid to provinces, with only 10 percent allocated directly from national and provincial discretionary funds (Cashin, Sparkes, and Bloom 2017, 38). The most important earmarking is for HIV/AIDS. Globally, South Africa has proportionally more HIV/AIDS cases than any other country. For example, South Africa accounted for 18 percent of people worldwide living with AIDS in 2013, and HIV accounted for nearly one-third of deaths in South Africa in 2014 (South Africa National AIDS Council 2016, 42).

The expenditure earmarking for HIV/AIDS was successful in several ways. First, subnational governments spent the conditional grants for HIV/AIDS through programs like the Financial Capacity Building for Provinces project, run in partnership by the Centre for Economic Governance and Accountability in Africa and the Health Economics and Epidemiology Research Office to provide “capacity building, technical support to provincial managers in charge of HIV STI and TB programs” (CEGAA 2018). Second, while one of the criticisms of earmarking is that it does not have the same level of scrutiny and accountability as in traditional budgeting,

earmarking for HIV/AIDS increased accountability and scrutiny of spending and program outcomes in South Africa. The South African National AIDS Council developed an investment case for AIDS involving “a systematic, data-driven, inclusive process to inform future investments in the national response, enhance the sustainability of the response, and enable forward looking strategic planning” (South Africa National AIDS Council 2016, 37). Moreover, regular reports by agencies such as this mean that there is accountability and transparency regarding how effectively funds are being spent. Expenditure earmarks are reviewed annually, and about 20 percent are revised (Cashin, Sparkes, and Bloom 2017, 38).

There also were significant increases in HIV/AIDS programs and services, and improvements in health outcomes. By 2016, more than 3.4 million South Africans were receiving antiretroviral therapy in the largest HIV/AIDS program in the world (South Africa National AIDS Council 2016, 258). In 2016 new HIV/AIDS infections dropped 41 percent from the previous year, and AIDS-related deaths declined by 40 percent (Simelane and Ndlovu 2018, 3). There was also a significant decline in mother-to-child HIV transmission and an increase in life expectancy (Simelane and Ndlovu 2018, 3).

On the other hand, there were problems with rigidity. When HIV/AIDS earmarked funding was introduced, the needs were greater than the resources. However, as HIV became “a chronic condition that is often accompanied by multiple other conditions (Co-morbidities),” the focus on funding HIV treatment was seen as too restrictive (Cashin, Sparkes, and Bloom 2017, 39). Provincial, district, and facility managers were concerned about “the inability to reallocate away from HIV-specific expenditures toward more broad-based health system strengthening activities” (Cashin, Sparkes, and Bloom 2017, 25).

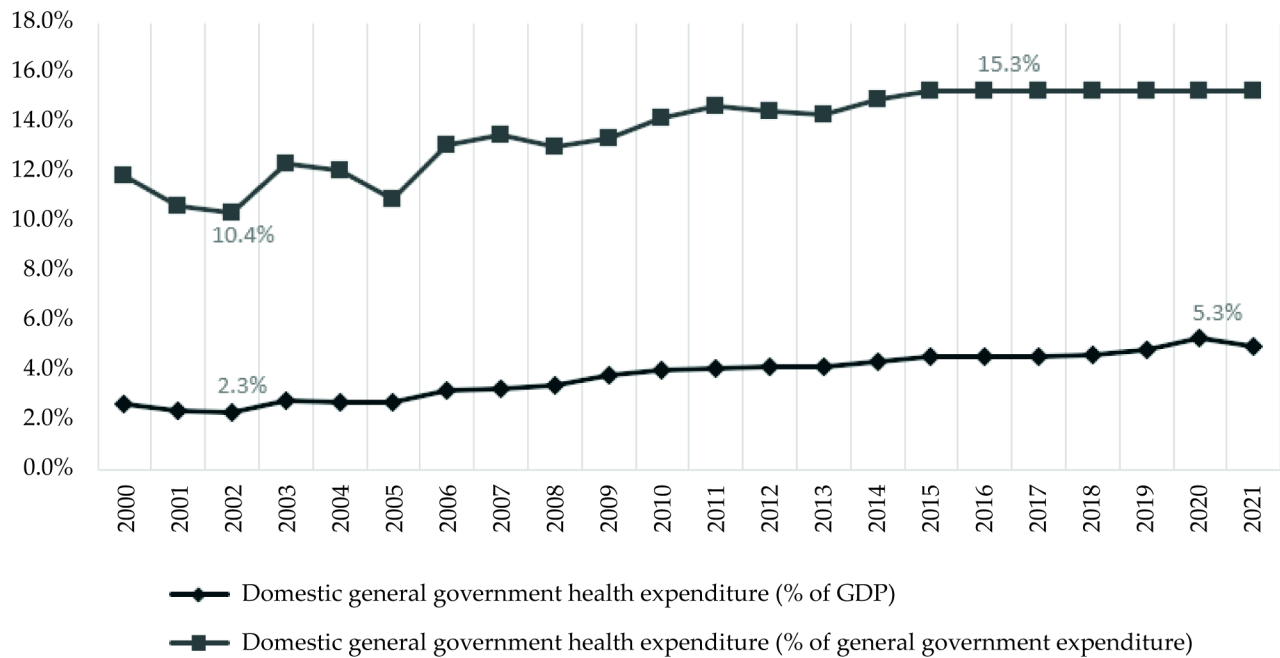
The other issue is the nature and extent of the increase in funding for HIV and other health services. Data shows that there was an increase in funding for HIV and TB. However, while South Africa earmarks spending, there was no revenue source earmarked for the increase in spending on HIV and TB. Thus, a key question is whether there is a commensurate increase in government

**Table 2. Trends in Health Expenditures in South Africa, 2000-2021**

Expenditure	2000	2005	2010	2015	2019	2020	2021
Current health expenditure (% of GDP)	7.3%	6.9%	7.8%	8.1%	8.2%	8.6%	8.3%
Domestic general government health expenditure (% of GDP)	2.7%	2.7%	4.0%	4.6%	4.8%	5.3%	5.0%
Domestic general government health expenditure (% of general government expenditure)	11.9%	10.9%	14.1%	15.2%	15.3%	15.3%	15.3%
Domestic general government health expenditure (% of current health expenditure)	36.6%	40.0%	51.3%	57.1%	58.3%	61.8%	60.4%
Out-of-pocket expenditure (% of current health expenditure)	14.5%	11.3%	8.0%	5.7%	5.7%	5.4%	5.5%
Voluntary Prepayments (% of current health expenditure)	47.4%	36.2%	32.5%	35.0%	34.3%	31.0%	32.2%

*Source: World Health Organization – Global Health Expenditure Database*

**Figure 4. Domestic General Government Health Expenditure in South Africa, 2000-2021**



*Source: World Health Organization – Global Health Expenditure Database*

spending on healthcare relative to overall government spending. The consolidated health, HIV, and TB budget allocations for 2013/14-

2020/21 shows spending on HIV and TB treatments increased by a 7 percent real annual rate over that period. Relative to consolidated

government allocations, the proportional share of HIV and TB spending increased from 1.05 percent to 1.24 percent in the 2013/14-2018/19 period and was projected to increase to 1.31 percent in 2020/21. Spending on HIV and TB treatments also increased relative to overall health spending from 8.25 percent to 10.08 percent in the 2013/14-2018/19 period and was projected to increase to 10.53 percent in 2020/21 (Ndlovu et al. 2019). Thus, a larger share of health spending is being dedicated to HIV and TB.

A different picture emerges for consolidated general health allocations, which as a share of general government expenditure increased gradually from 2000 to 2015, but then remained stagnant at around 15 percent (see Figure 4). Between 2000 and 2021, total health expenditure as a share of GDP increased from 7.3 percent to 8.3 percent, but public health spending increased faster, almost doubling from 2.7 percent to 5 percent (see Table 2).

Thus, expenditure earmarking for HIV and TB led to a significant increase in government spending in absolute terms and relative to overall government spending and spending on healthcare. However, there was not a commensurate long-term increase in government spending on healthcare relative to overall government spending after 2015, which suggests that increasing government spending on HIV and TB was offset by a reduction in government spending on other healthcare programs and services.

## Brazil

Like South Africa, Brazil uses expenditure earmarking to preserve and increase healthcare spending in a decentralized political system. The foundations for the Brazilian healthcare system were established in the 1988 constitution. As well as guaranteeing universal healthcare (Unified Health System), the constitution established the principles of decentralization and community participation. Decentralization means the Ministry of Health is responsible for central management of the system and policy development, while the state governments provide regional governance, coordination, and delivery of specialized services. The 5,570 municipalities cofinance the system and deliver

most of the programs and services. Community participation means federal, state, and municipal health councils participate in “formulating and monitoring the implementation of health policies” (OECD 2021a, 23).

All three levels of government contribute to the financing of the public healthcare system. The challenge is to ensure adequate funding for the lofty goal of providing universal healthcare. Since 1988 the federal, state, and municipal governments have all played roles in the healthcare system. Despite being small and having “limited financial and technical capacity,” municipalities have expanded their scope over time, while state governments and the federal government have reduced their scopes (Gragnotati, Lindelow, and Couttolenc 2013, 37).

At the same time, previous policies that earmarked revenue for healthcare were either ended or the funds diverted. Healthcare and other spending on social programs were originally funded by a social security system funded by contributions by employers and employees. When payroll taxes were earmarked for social insurance (pensions) in the early 1990s, it reduced the funds available for healthcare. When the Emergency Social Fund was established, the government directed up to 20 percent of revenue to debt repayment, which further reduced the funds available for healthcare. While the federal government introduced a tax on financial transactions in 1996 and earmarked the revenue for health spending, only about a third of that revenue was actually used for healthcare spending, and the tax was abolished in 2007 (Muzaka 2017, 3).

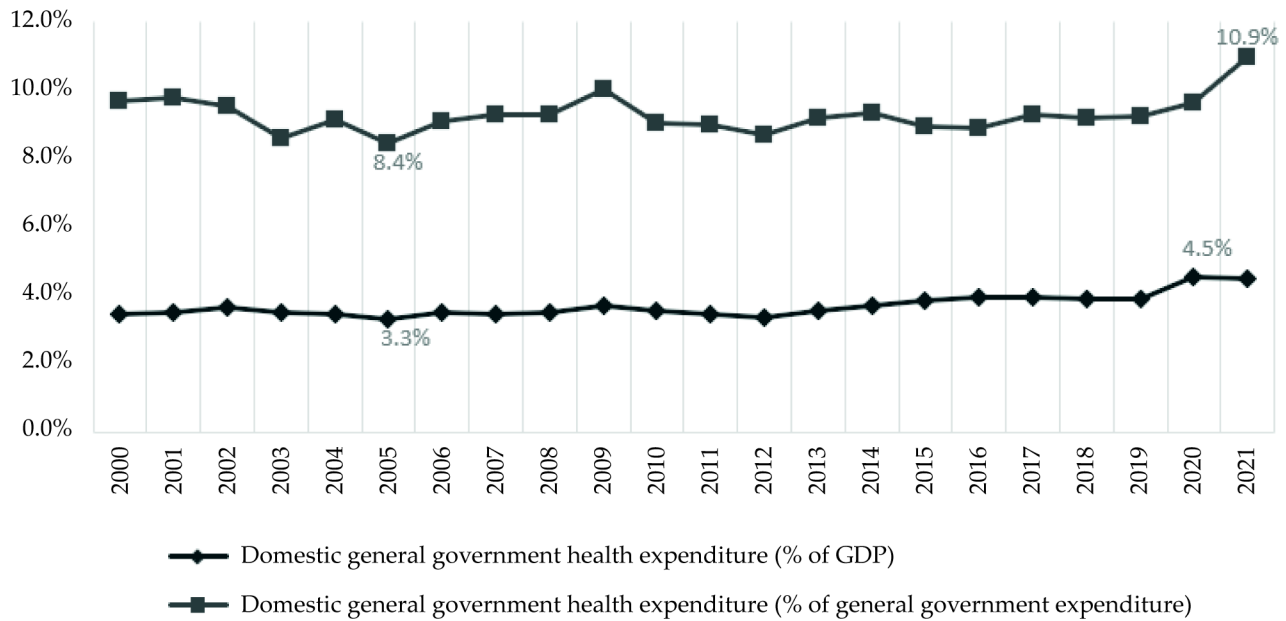
Protecting healthcare funding in Brazil’s decentralized health system was formalized in 1996, when healthcare delivery was officially delegated to state and municipal governments and earmarked funding thresholds for healthcare at every level of government were established. The federal government was required to “maintain its current level of funding and adjust it according to the nominal change in gross domestic product”; at least 12 percent of the total budgets of states was to be spent on healthcare, and 15 percent of municipal governments’ spending was to be dedicated to healthcare (Massuda et al. 2020).

**Table 3. Trends in Health Expenditures in Brazil, 2000-2021**

Expenditure	2000	2005	2010	2015	2019	2020	2021
Current health expenditure (% of GDP)	8.3%	8.0%	7.9%	8.9%	9.6%	10.2%	9.9%
Domestic general government health expenditure (% of GDP)	3.5%	3.3%	3.6%	3.9%	3.9%	4.5%	4.5%
Domestic general government health expenditure (% of general government expenditure)	9.7%	8.4%	9.0%	8.9%	9.2%	9.6%	10.9%
Domestic general government health expenditure (% of current health expenditure)	41.6%	41.6%	45.0%	43.3%	40.7%	44.5%	45.5%
Out-of-pocket expenditure (% of current health expenditure)	36.6%	35.9%	29.4%	24.7%	24.9%	22.8%	22.7%
Voluntary Prepayments (% of current health expenditure)	20.5%	21.4%	24.1%	27.7%	29.8%	28.6%	27.6%

*Source: World Health Organization — Global Health Expenditure Database*

**Figure 5. Domestic General Government Health Expenditure in Brazil, 2000-2021**



*Source: World Health Organization — Global Health Expenditure Database*

The municipal governments, which deliver most health programs and services, exceeded their designated spending levels, while the federal government and state governments failed

to meet their targets. Although the federal government made sporadic attempts to penalize states for not meeting targets, the underlying problem was the decline in the share of federal

funding while municipalities were spending on average about 24 percent (Massuda et al. 2020). Part of the problem was fungibility: State governments interpreted health spending very broadly, which “reduced the available resources for the Unified Health System” (Cashin, Sparkes, and Bloom 2017, 16). Also, there was no established mechanism to enforce the spending thresholds. Thus, earmarking expenditures for health, without identifying a new source of revenue and with no mechanisms to enforce spending thresholds, meant that Brazilian earmarking was more symbolic than substantive.

A final issue: Did earmarking expenditures for healthcare lead to increased spending on health? Government health spending relative to GDP increased from 2.5 percent in the early 1980s to 4 percent by 1989. Spending stagnated thereafter, and “the initial effort to expand public spending in the late 1980s was not sustained” (Gragnotati, Lindelow, and Couttolenc 2013, 38-40). Since 2000 government health spending as a share of GDP has been around 4 percent, with a slight increase after 2020 because of the COVID-19 pandemic (see Figure 5). As a share of total government spending, healthcare spending has remained around 9 percent, until the bump in 2020 from COVID-19. The data suggests that earmarking did not mobilize more public spending on health relative to other expenditures in later years.

## Germany

The most common form of revenue earmarking for healthcare, used in 62 countries, is the use of payroll taxes for health and social insurance contributions (Bloom 2022, 5). In 1883 Germany became the first country to create a national system of social and health insurance, setting the pattern for other countries to follow. The main principles of the German healthcare system include:

- solidarity (payment of premiums based on income and entitlement to benefits according to need);
- mandatory membership;
- shared payment of contributions between employers and employees; and
- a strong reliance on self-government (Blumel et al. 2020, 14; Busse et al. 2017).

In 1885 public health insurance covered only blue-collar workers and 10 percent of the population. It gradually expanded until mandatory universal coverage was established in 2009.

Over 80 percent of German citizens are enrolled in public statutory health insurance (SHI). Those earning over a fixed threshold or who are part of a specific professional group, like the self-employed, can opt out of SHI and use private insurance. About 11 percent of German citizens take advantage of this option. The health system is funded primarily by general wage contributions shared by employers and employees, with general wage contributions of 14.6 percent and a cap of €54,450 as of 2019, and a dedicated supplementary contribution that averages about 1 percent of wages (Blumel et al. 2020, 70; Blumel and Busse 2020, 85).

As well as private insurance (which is not subsidized), there are copayments for some services and some government investment in specific health costs, such as hospitals. Self-government means the German healthcare system is complex and decentralized. SHI is administered by 105 sickness funds that are competing, not-for-profit nongovernmental insurance plans (Blumel and Busse 2020, 69-70). The federal government establishes the “overall legal framework,” and state governments control hospital planning and public health services, but most of the decision-making is delegated to various corporatist bodies (Blumel and Busse 2020, 13).

In 1994 Germany expanded coverage to include mandatory long-term care health insurance, which is “based on the same organizational principles” as SHI, although the “financing pools and management” are strictly separated within the sickness funds (Busse et al. 2017, 891). In 1995 contributions were set at 1 percent of gross wages; 3.05 percent in 2020. Taxpayers 23 or older have to pay an additional 0.25 percent contribution (Blumel and Busse 2020, 88). Those seeking long-term care must apply and meet certain criteria, and benefits only cover about 50 percent of institutional care costs, which means supplemental long-term care insurance is required (Blumel and Busse 2020, 88). In 2013 the government started to subsidize the purchase of long-term care insurance with the goal of

incentivizing private companies to provide “top up” insurance. The government also sets aside 0.1 percent of contributions annually in a fund that cannot be accessed until 2035, when the aging of baby boomers is projected to increase costs (Blumel et al. 2020, 182).

Germany’s spending on healthcare relative to GDP is the highest in the EU. The outcome in terms of life expectancy, access to care, and overall performance are very good. A recent OECD study stated that the German health system “offers a generous benefits package, high levels of service provision and universal access to relatively high-quality and effective care” (OECD 2021c, 3). Despite the high quality and effectiveness of Germany’s healthcare system, its model has problems with equity and efficiency.

On equity, funding healthcare by relying on employer-employee contributions means payments are not “based on the total economy but only on employment-based income of insured persons up to the threshold” (Blumel et al. 2020, 85). Those with higher incomes do not pay taxes on income beyond the threshold, and other forms of income, such as investment income, are not taxed. As well, higher income earners and those in self-employment professions do not contribute to the system. While this reduces SHI’s revenue, a government tax-based subsidy mitigates the inequity to some extent (Blumel et al. 2020, 85).

On efficiency, the problem stems from the complex and decentralized structure of the system, but it is also characteristic of healthcare systems that rely on employer-employee contributions for funding. In tax-funded healthcare systems, governments are the “sole payer” and have the power to coordinate services and control costs. On the other hand, “the greatest challenge in SHI-based health systems . . . is that governments in those countries lack central power and have difficulties with cost control in health expenditure” (Schmitt and Haarmann 2023, 96). The other problem in a pay-as-you-go healthcare system like Germany’s is matching expenditures on healthcare with revenues from contributions. Since the 1970s the “main political goal in health policy” in Germany has been to “limit expenditure growth to the rate of growth of contributory income in order to keep contribution rates stable” (Blumel et al. 2020, 88). Cost

containment measures, like spending caps, have been introduced to control spending to align with revenue.

Another issue is whether an employer-employee-funded healthcare system reflects the benefit principle. It is true that those paying the costs are the ones who benefit from the health programs and services, but it is not true that the amount of benefit received is “related in some clear way to the taxes paid” (Bird 1997, 16). Rather, the income collected by the sickness funds from employer and employee contributions is pooled into a national health fund (Gesundheitsfonds) and supplemented by tax-funded federal payments (Grosser and Greiner 2021, 9). Thus, the revenue from employer-employee contributions is mixed with other government revenue. Moreover, the pooled revenue is distributed based on various formulae, including a capitation formula risk-adjusted by accounting for other factors such as age and morbidity (Blumel and Busse 2020, 85).

Finally, did the German social insurance funding model for health produce a long-term increase in health spending? Table 4 shows there were gradual increases in health spending per capita, government health spending relative to general government spending, and public expenditure on health relative to total expenditure on health. Noteworthy is the fact that government health spending rose roughly in line with total health spending, with the public share deviating little from 77 percent. As a share of total government spending, health spending has increased, but only a little since 2015 (see Figure 6), suggesting there is little evidence that the German healthcare funding model led to increases in health spending. In fact, it is more likely that other factors such as the aging German population, general inflation in healthcare costs, and the recent COVID-19-related surge in spending explain the increases.

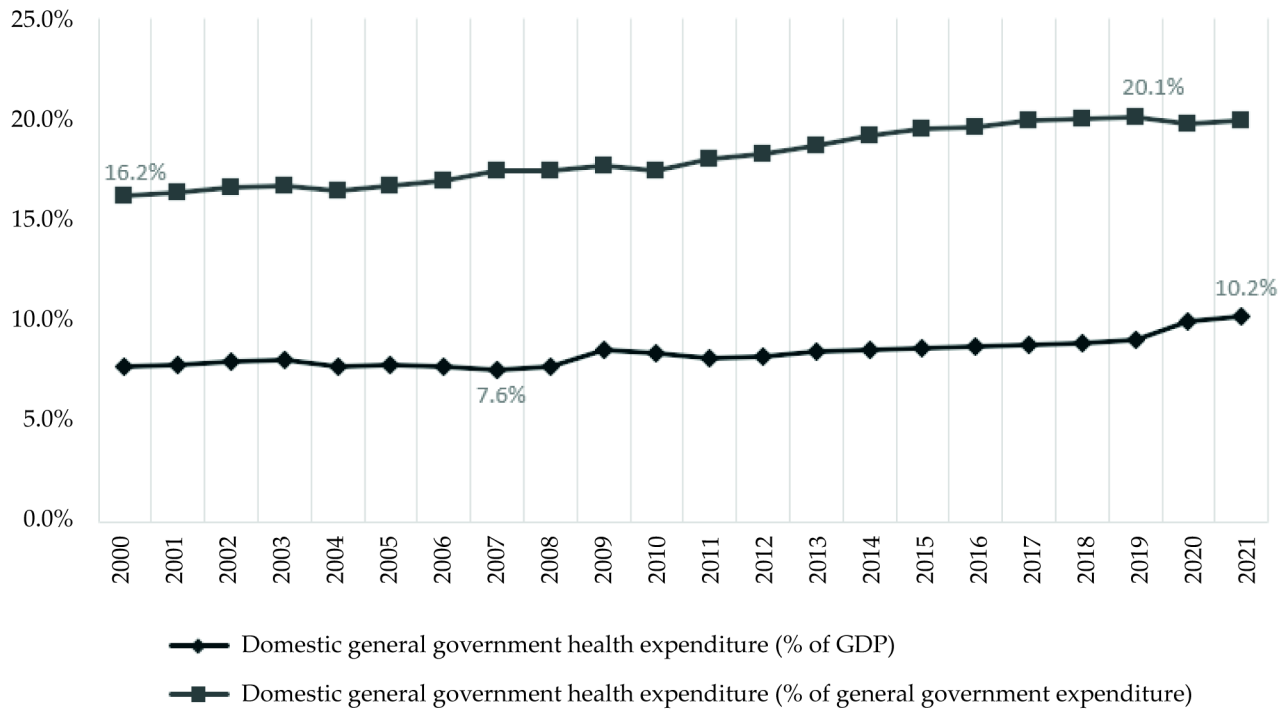


**Table 4. Trends in Health Expenditures in Germany, 2000-2021**

Expenditure	2000	2005	2010	2015	2019	2020	2021
Current health expenditure (% of GDP)	9.9%	10.3%	11.1%	11.2%	11.7%	12.7%	12.9%
Domestic general government health expenditure (% of GDP)	7.7%	7.8%	8.4%	8.6%	9.0%	10.0%	10.2%
Domestic general government health expenditure (% of general government expenditure)	16.2%	16.7%	17.4%	19.5%	20.1%	19.8%	19.9%
Domestic general government health expenditure (% of current health expenditure)	78.2%	75.7%	75.7%	77.0%	77.2%	78.5%	79.0%
Out-of-pocket expenditure (% of current health expenditure)	12.3%	14.1%	14.0%	13.1%	13.4%	12.4%	12.2%
Voluntary Prepayments (% of current health expenditure)	7.9%	8.8%	1.4%	1.5%	1.4%	1.3%	1.3%

*Source: World Health Organization – Global Health Expenditure Database*

**Figure 6. Domestic General Government Health Expenditure in Germany, 2000-2021**



*Source: World Health Organization – Global Health Expenditure Database*

Using payroll taxes to fund healthcare has problems, mainly because of the incidence of the taxes falling on the working population.

However, there are positive results from the introduction of mandatory long-term care insurance in 1994. Although the payment scheme

for long-term care insurance was the same as for healthcare, there was a dramatic and sustained increase in funding for long-term care (Federal Ministry of Health 2024). Hence, economic efficiency is enhanced because the earmarked revenue funds exploited the “otherwise unexploited opportunities to expand the public sector in areas in which marginal benefits exceed marginal costs” (Bird 1997, 13).

Moreover, funds for long-term care were managed separately from other healthcare funds so they could be tracked and were used exclusively for various forms of long-term care. Also, it can be argued that the benefit principle applies because the people paying the long-term care insurance were also the beneficiaries. Finally, with the availability of subsidized supplementary long-term care insurance, purchasers of supplemental insurance are sending a clear signal about the level of demand for long-term care insurance that should be supplied.

### South Korea

The healthcare system in South Korea is especially interesting because it is highly ranked in international comparisons. South Korea has among the highest life expectancies in the world while still having some of the lowest levels of health expenditure among OECD countries. It relies heavily on hospital and specialist care, rather than the preventative primary care needed as the population ages and chronic diseases increase. It also has relatively high levels of hazardous drinking, tobacco use, and suicide (OECD 2016, 2020).

The main source of funding for South Korean healthcare is payroll taxes, which evolved from mandatory coverage for large businesses, to smaller businesses, to the self-employed, to mandatory universal coverage in 1989. South Korea also introduced mandatory long-term care insurance in 2008, with the contribution rates set at a fixed percentage of the health premium; copayments for accessing the services are 20 percent for institutional care and 15 percent for home care, with subsidies for the poor (Kwon, Lee, and Kim 2015, 45). Insurance contributions for healthcare and long-term care insurance are split evenly between employers and employees whose contributions are proportional to wage

income with a cap on contribution rates. Contributions are tax deductible.

The self-employed are part of the national insurance scheme, and their contributions are determined by a broad interpretation of income — for example, the value of property is included (Kwon, Lee, and Kim 2015, 32). In this sense, the South Korean system is more equitable than the German system, in which the self-employed are not required to join the national healthcare system. Although payroll taxes are the major source of funding, resources also come from government subsidies and tobacco surcharges.

South Korea made a critical decision in 2000 when it merged all insurance schemes into “a single payer with a uniform contribution schedule and benefits coverage” under the National Health Insurance Service (Kwon, Lee, and Kim 2015, 90). Revenue collection, pooling, and purchasing functions were also integrated into the single health insurance agency (Kwon, Lee, and Kim 2015, 39). Thus, in contrast to the decentralized and complex governance structure in Germany, the South Korean model is more efficient and has low administrative costs. Also, unlike Germany, the South Korean government emphasizes the “sustainability of the health system as an objective,” and focuses on efficiency (Kwon, Lee, and Kim 2015, 82). Although various levels of government are involved in delivering healthcare services, there is a good balance between “autonomy and oversight,” in which there is a “collaborative approach” and an emphasis on “coordination across horizontal levels of government” (OECD 2020, 20). Hence, relative to the German system, the South Korean system is more efficient, which helps explain its lower costs.

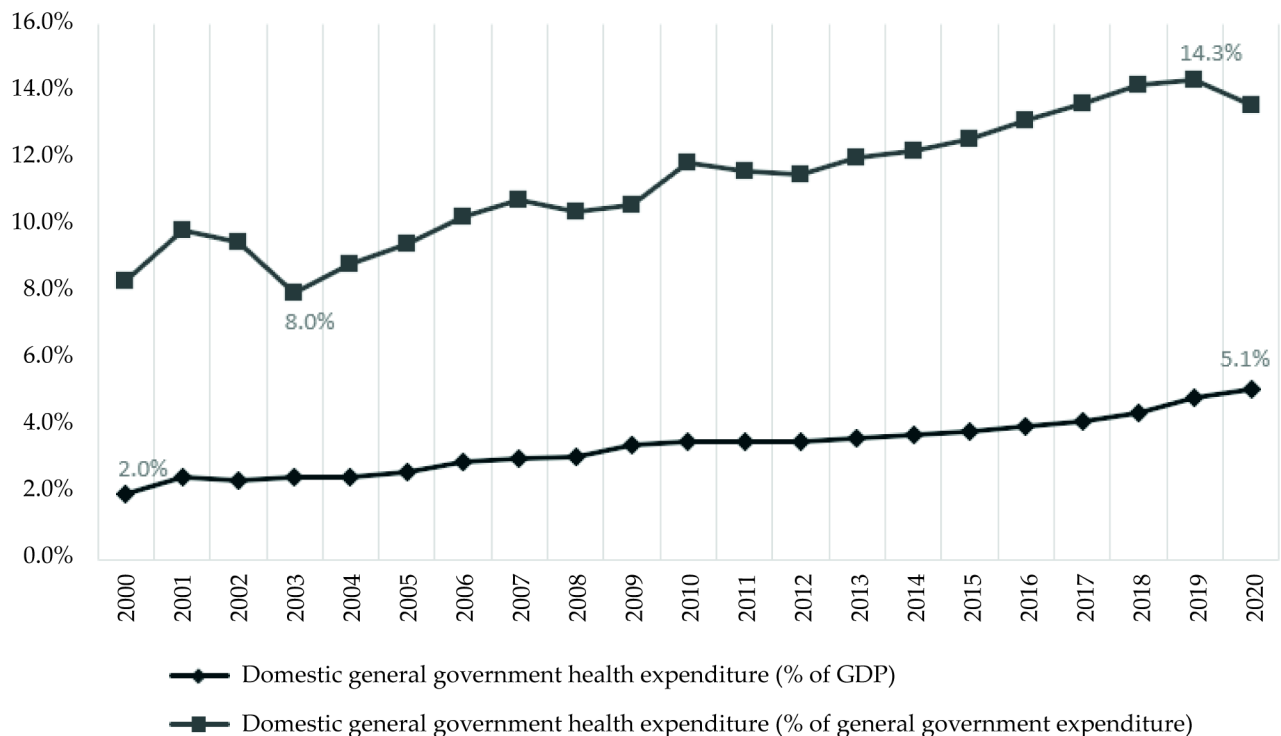
Since 1989 there has been a dramatic increase in spending on healthcare. Between 1990 and 2011, government spending increased from 8.6 percent of total health expenditure to 11.7 percent; social insurance contributions increased from 30.9 percent to 43.6 percent; and voluntary health insurance spending increased from 1.2 percent of total health spending to 5.5 percent (Kwon, Lee, and Kim 2015, 36). As shown in Table 5 and Figure 7, both total and public health spending as a share of GDP rose by over 200 percent between 2000 and 2020, and governments have devoted more

**Table 5. Trends in Health Expenditures in South Korea, 2000-2021**

Expenditure	2000	2005	2010	2015	2019	2020	2021
Current health expenditure (% of GDP)	3.9%	4.5%	5.8%	6.6%	8.2%	8.4%	9.3%
Domestic general government health expenditure (% of GDP)	2.0%	2.6%	3.5%	3.8%	4.8%	5.1%	
Domestic general government health expenditure (% of general government expenditure)	8.3%	9.4%	11.9%	12.6%	14.3%	13.6%	
Domestic general government health expenditure (% of current health expenditure)	50.3%	57.0%	59.3%	57.4%	59.5%	61.0%	63.1%
Out-of-pocket expenditure (% of current health expenditure)	43.3%	38.8%	34.8%	34.5%	31.6%	29.0%	29.1%
Voluntary Prepayments (% of current health expenditure)	1.5%	2.0%	4.4%	6.5%	7.9%	8.5%	7.6%

*Source: World Health Organization – Global Health Expenditure Database*

**Figure 7. Domestic General Government Health Expenditure in South Korea, 2000-2020**



*Source: World Health Organization – Global Health Expenditure Database*

resources to healthcare relative to other public expenditures.

While efficiency is one of the strengths of the South Korean healthcare system, equity is its

biggest weakness. In addition to the inequities associated with healthcare premiums based only on wage income, there are other ways in which the system is inequitable. Private insurance usage is widespread because public healthcare services have high copayments, which can range from 20 percent to 60 percent, depending on the provider (Kwon, Lee, and Kim 2015, 42). A 2017 survey by the National Health Insurance found that 86.9 percent of South Korean households had private insurance, some of it for what might be considered essential services like cancer or accident insurance. Although the country's Medical Aid Program pays the insurance premiums and copayments for low-income people, only 3 percent of the population benefits from this coverage (Kwon, Lee, and Kim 2015, 14). Although out-of-pocket expenses declined significantly from 55.7 percent in 1990 to 35.2 percent in 2011 to 32 percent in 2019, they remained well above the OECD average of around 20 percent in 2019 (Kwon, Lee, and Kim 2015, 35). A 2022 study found that South Korea's "household financial health care burden is regressive to income," and although public health insurance "alleviates the financial burden of health care for low-income families," it is "insufficient to create an income-progressive financial burden" (Lee 2022, 7-8). The inequity also appears to be entrenched: The proportion of South Koreans "using more than 10% of their income for the financial burden of health care has been maintained at nearly 30% from 2009 to 2019" (Lee 2022, 7-8).

As well as the problem of inequity, South Korea's lower costs and higher longevity outcomes may be related to factors beyond the structure of its healthcare system funding. A key statistic is that South Korea has "one of the lowest obesity rates of the OECD" (OECD 2020, 18). Obesity is linked to many acute and chronic health conditions, such as heart disease and diabetes, which add to the costs of healthcare systems and reduce life expectancy. For example, a study in the United Kingdom revealed that healthcare costs associated with obesity accounted for 2.3 percent to 2.6 percent of all public health spending, and another study in the United States found that death rates were linked to body mass index, a measure of body weight

(Lang et al. 2005; Ali 2023). South Korea's low obesity rate is related to several factors beyond the healthcare system, including diet, lifestyle, and culture. Relative to the North American diet, the South Korean diet consists of less saturated fat and more fruits and vegetables, and portions are smaller (Choi et al. 2017). Countries like South Korea and Japan are small and densely populated, so walking and bicycling are common, and being fit and trim are highly valued culturally (Sakamaki et al. 2005).

South Korea is a cautionary tale regarding the extent to which health status is related to the structure and funding of healthcare systems. A Conference Board of Canada study estimates that the health status of a population is determined 15 percent by biology and genetic endowment, 10 percent by physical endowment, 25 percent by the healthcare system, and 50 percent by social and economic environment (Conference Board of Canada 2004). Thus, the case of South Korea shows diet, lifestyle, and culture helps to explain its low level of obesity, which in turn is a major factor in reducing healthcare costs and increasing longevity.

## France

France has a statutory health insurance system, with public and private compulsory insurance schemes funding 83.7 percent of all health spending as of 2019 (the EU average was 79.7 percent) (McVay 2022; Durand-Zaleski 2020). France's healthcare system is highly ranked among EU countries, and it has good health outcomes (for example, its life expectancy is among the highest in the EU), but its costs are also above the EU average (OECD 2021b).

France's healthcare system was funded almost exclusively by earmarked payroll taxes until 1998, after which funding was expanded to include:

- a more general earmarked income tax (the General Social Contribution) which is levied not only on wage income but also capital income from financial assets and investments, pensions, unemployment benefits, disability benefits and gambling (Cashin, Sparkes, and Bloom 2017, 19).

As of 2017, 53 percent of healthcare funding came from payroll taxes, with employers paying

80 percent and employees the rest with a cap on income of €3,311 per month. Thirty-four percent came from earmarked income taxes of various kinds; 12 percent came from taxes on tobacco, alcohol, the pharmaceutical industry, and voluntary health insurance (VHI); and 1 percent came from state subsidies (Durand-Zaleski 2020, 72-73).

There is cost sharing by patients in the form of coinsurance, copayments, and balanced billing (allowing doctors to extra-bill patients beyond the national fee schedule) (Durand-Zaleski 2020, 74). VHI covers 95 percent of the population and provides coverage not covered by public health insurance. Also, there are subsidies for low-income people, paid for by taxes on VHI. Finally, employers sponsor VHI, with “employees paying at least 50 [percent] of the costs and funding for VHI is also provided by means tested vouchers” (Durand-Zaleski 2020, 73).

The French government has traditionally established the national health strategy and allocated spending to regional health agencies that deliver the services. However, the power of the national government has been increased because of the need to control ongoing healthcare deficits. One of the major issues in France is matching earmarked funding with spending levels. Earmarked taxes trail the growth of health spending and fall below the amounts needed. For example, deficits (the difference between public health spending and earmarked taxes) were roughly 5 percent of health spending during the 2005-2013 period (Directorate of Social Security 2015).

The French government has treated deficits as a spending problem and has used various policy tools to try to control healthcare spending. Finance, health, and social affairs officials are required to work together so that spending on health and other social programs aligns with the government’s overall fiscal objectives. The government sets spending targets for healthcare and outlines policy measures that must be taken to meet the targets (Kumar et al. 2015, 208, 210, 214; Chevreul et al. 2015, 80). Thus, the need to align spending with earmarked revenue has led to an increase in the power of the central government.

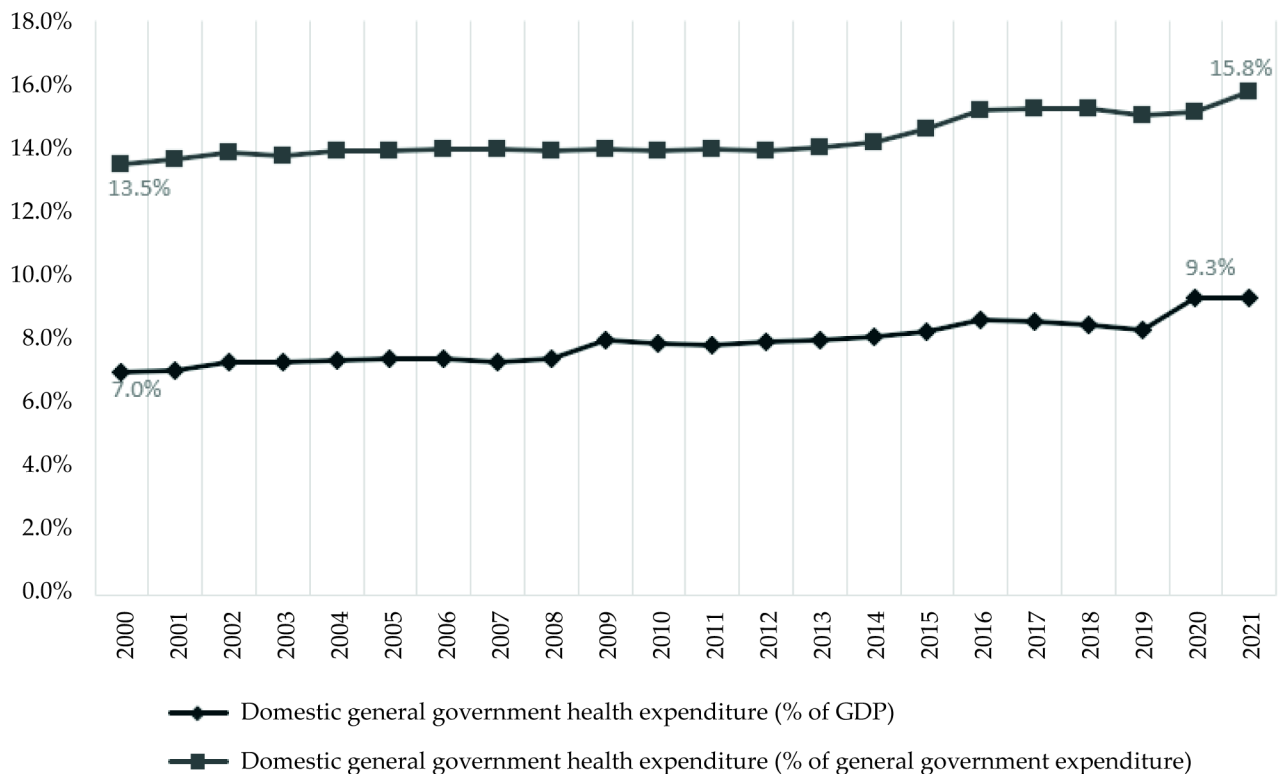
The deficits, however, can also be seen as a revenue problem. An OECD study argued that “the debate over the sustainability of the French healthcare system, while often focusing on expenditure control, is also highly dependent on the extent to which a government can raise an appropriate amount of revenue” (Kumar et al. 2015, 202). A major problem with relying on an earmarked source of revenue for healthcare is that revenue declines during economic downturns, but healthcare expenses do not. The more reliant a government is on one source of revenue, the greater the risk of volatility. France “has proactively sought to expand the base of its sources of financing for health care to lessen the reliance — and therefore the volatility — on simply one key form of revenue” (Kumar et al. 2015, 219).

Table 6 shows that public health spending grew faster than GDP, with its share rising from 7 percent in 2000 to 9.3 percent in 2021. Public health spending as a share of total public spending was relatively stable at around 14 percent until 2015, after which it rose to 15.8 percent by 2021 (see Figure 8). While earmarking has sustained public health funding, the French government has had to rely on other resources to fund rising public health spending. Thus, the French government’s twin goals of diversifying and expanding the sources of revenue available to fund healthcare and asserting its national power to control spending suggest that the country is moving away from a “social insurance model” to a model more characteristic of countries like the United Kingdom, “where the government finances healthcare from its budget and is generally the major owner and operator of healthcare services” (Kumar et al. 2015, 204).

**Table 6. Trends in Health Expenditures in France, 2000-2021**

Expenditure	2000	2005	2010	2015	2019	2020	2021
Current health expenditure (% of GDP)	9.6%	10.2%	11.2%	11.4%	11.1%	12.1%	12.3%
Domestic general government health expenditure (% of GDP)	7.0%	7.4%	7.9%	8.3%	8.3%	9.3%	9.3%
Domestic general government health expenditure (% of general government expenditure)	13.5%	13.9%	13.9%	14.6%	15.1%	15.1%	15.8%
Domestic general government health expenditure (% of current health expenditure)	72.7%	72.5%	70.4%	72.3%	75.2%	76.8%	75.6%
Out-of-pocket expenditure (% of current health expenditure)	7.3%	7.4%	10.2%	9.7%	9.5%	8.8%	8.9%
Voluntary Prepayments (% of current health expenditure)	13.1%	13.2%	12.8%	13.1%	6.4%	5.8%	5.7%

*Source: World Health Organization — Global Health Expenditure Database*

**Figure 8. Domestic General Government Health Expenditure in France, 2000-2021**

## Conclusion

The case of France highlights some of the shortcomings of earmarked funding generally, and of the social insurance model specifically. Earmarking a specific form of revenue to fund healthcare leaves countries vulnerable to procyclicality — the source of revenue can decline during economic downturns while healthcare costs do not. Matching healthcare expenditures to earmarked revenue streams is also a problem. France and Germany use various policy tools to restrain or reduce spending so that it aligns with revenue, but what does not occur is a regular review of healthcare's basic organization and funding. The German, Brazilian, and South African healthcare systems are complex with key decision-making powers resting with local authorities, while the healthcare system in the Philippines is fragmented. Earmarking funding for healthcare also means governments do not regularly assess whether revenue is at an appropriate level and whether it is being spent efficiently.

The social insurance funding model has problems with efficiency, in that controlling spending is difficult. Equity is compromised because contributions are based on wages (self-employed earnings are often not included) and not the ability to pay (because capital income is exempt). Payroll taxes fall on the working population, as retirees are not taxed unless their earlier contributions are put into a fund to cover future healthcare needs. Health taxes can be effective in reducing the use of harmful products, providing some revenue to expand healthcare coverage and persuading taxpayers to pay more taxes, but they are not a long-term solution to funding a national healthcare system because they are not elastic enough to cover growing health spending.

Examples of effective earmarking are limited. Most revenue earmarked for healthcare is not placed in a separate fund and is not the sole or even primary source of healthcare funding. Most examples of healthcare earmarking are not consistent with the benefit principle and are missing a direct link between healthcare supply and demand. One of the few examples of effective earmarking for healthcare is Germany's mandatory long-term care insurance. In that case,

revenue is placed in a separate fund, the benefit principle applies because those contributing to the program benefit from it, and the option to purchase supplementary insurance is a way for consumers to signal the amount of healthcare that they are willing to purchase.

The case studies of earmarking for healthcare also point to some of the basic principles that should underpin efficient and equitable healthcare funding. Revenue should come from a general revenue fund with both revenue and expenditures subject to regular review. The principle of funding based on ability to pay, and benefits according to need, should be the foundation for core medical services like acute care. However, some other healthcare services and programs should be funded by means of cost sharing by patients in the form of copayments or deductibles. Cost sharing would reflect the benefit principle and allow some signaling about how much healthcare patients are willing to purchase. Equity can be achieved by linking the level of payment to income and by providing exemptions for those with very low incomes and chronic health conditions. Finally, the German model of mandatory basic long-term care insurance with options to purchase supplemental insurance is one that should be used by more countries, especially by those with aging populations.

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