



# Universal Insurance for Pharmaceuticals

**in Switzerland and the Netherlands**

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2019

**FRASER**  
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## Executive summary

Calls for government-operated universal drug insurance programs, commonly referred to as Pharmacare, can regularly be found in the nation's media. These demands are often based on concerns about the affordability of prescription drugs, and typically call for limited or no patient payments. What is missing in the discussion around these proposals is perspective on the merits of such expansion, and whether government-run insurance with limited patient payments is the best approach to providing drug insurance coverage to all Canadians.

This essay examines how Switzerland and the Netherlands, two nations with high-performing, universal access health care systems, provide drug insurance coverage to their populations. Both nations have been found to provide more timely access to higher-quality health care services at a cost similar to or lower than Canada. Neither nation has opted to pursue a government-run insurance scheme. Both the Swiss and Dutch systems are highly regulated and involve a significant amount of government subsidies. Both provide universal pharmaceutical coverage as a fundamental component of universal health insurance coverage, which is provided through regulated, competing, private insurance companies. Further, the universal schemes in both nations require cost sharing (including for prescription drugs) through both per-service charges and insurance deductibles.

Access to care for individuals and families regardless of health or income is ensured in these nations through a range of policies including community-rated premium regulations, taxpayer-funded premium assistance, programs that equalize risk among insurers, annual caps on cost-sharing, and public safety nets for vulnerable people. There is a mandatory requirement to purchase health insurance, with meaningful penalties for not doing so. Importantly, rather than become an insurance provider, the government generally supports consumer choice for lower-income individuals by allowing them to choose their insurer and remain active players in the insurance market.

Modern medicines are essential for improving health outcomes, alleviating pain and suffering, increasing longevity, and reducing expenditures on other medical services. While there is merit to pursuing a policy that expands access to those in need, it should be recognized that several avenues exist between the current, decentralized approach in Canada, and the sort of government-run, universal program that proponents of the single-payer system propose.



## Introduction

Over the past decade, the calls for Canada to adopt a national, government-funded prescription pharmaceutical coverage plan have grown louder. Advocates frequently claim that Canada is the only industrialized country with universal health care that lacks universal drug coverage, a claim that is blatantly false. More accurately, Canada is the only country in the industrialized world with universal health care that does not have a second, private tier of health care, and the rare nation that does not require its citizens to pay some form of user fee for medical services. Calls for changes in Canada often cite the successes of other countries. Notably, several studies have alluded to the achievements of the universal health care insurance systems in Switzerland and the Netherlands (for example, see Barua 2015; Esmail, 2014; Rovere and Barua, 2012a, 2012b).

These countries depart significantly from Canada in the manner in which their health care systems function and are funded. Broadly speaking, instead of relying on a tax-funded, monopoly government insurer, they encourage private health insurers to compete in a regulated market to deliver universal coverage of core medical goods and services to their entire populations. They also rely (to varying degrees) on cost-sharing for medical services, private provision of acute hospital and surgical services, and activity-based funding for hospital care.<sup>1</sup> Moreover, they do not prohibit the purchase of private health care services.

Importantly, these systems have repeatedly shown that they provide high quality, timely access to care at a cost similar to or lower than Canada ([table 1](#)).

Consider, for example, the data showing that Canada's expenditure on health care (as a portion of GDP) is on par with the Netherlands, but the Netherlands has more medical graduates, higher immunization rates, longer life expectancy, and lower infant mortality rates. Patients also experienced significantly shorter wait times for appointments and surgeries, greater satisfaction with the system, and similar (if not superior) health care outcomes.

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1. Payment based on services provided, as opposed to budgetary models that pre-fund patient care in bulk

**Table 1: Health system performance, Canada, Netherlands, and Switzerland (US dollars)**

Indicator	Canada	Netherlands	Switzerland
Percentage of GDP Spent on Health Care (2015)	10.44	10.69	12.06
Health Care Spending per Capita (2014)	\$4,728	\$5,227	\$6,787
Out-of-Pocket Health Care Spending per Capita (2014)	\$644	\$649	\$1815
Spending on Pharmaceuticals per Capita (2014)	\$772	\$401	\$730
Pharmaceutical spending (% of total health spending, 2017)	17.8	n/a	13.6
Doctors (per 1,000 inhabitants, 2017)	2.7	n/a	4.3
Medical Graduates (per 100,000 inhabitants, 2017)	7.9	14.4	10.6
Nursing Graduates (per 100,000 inhabitants, 2017)	59	44	99
Child Vaccination Rates (Diphtheria, tetanus, pertussis, % of children, 2017)	91	94	97
Child Vaccination Rates (Measles, % of children, 2017)	89	93	95
Total Doctor's Consultations (per capita, 2017)	7.7	8.8	n/a
Influenza Vaccination Rate (% of population aged 65+, 2017)	59.8	66.8	n/a
Length of hospital stay (acute care, days, 2017)	7.5	5	5.6
Caesarean sections (per 1,000 live births, 2014)	260	162	n/a
Female Life Expectancy at birth (years, 2015)	83.2	83.9	85.1
Male Life Expectancy at birth (years, 2015)	79.8	79.9	80.8
Total Population Life Expectancy at birth (years, 2015)	81.9	81.6	83
Infant Mortality (deaths per 1,000 live births, 2014)	4.7	3.6	3.9
Maternal Mortality (deaths per 100,000 live births, 2013)	6.0	2.3	2.4
Number of Practicing Physicians per 1,000 population (2014)	2.5	n/a	4.1
Average Annual Number of Physician Visits per Capita (2014)	7.6	8.0	3.9
Total Curative (Acute) Care Beds, per 1,000 population (2014)	2.1	3.3	3.8
Hospital Spending per Discharge (2014)	\$16,451	\$14,181	\$14,624
Hospital Discharges per 1,000 population (2014)	84	115	150
Average Length of Stay for Curative (Acute) Care in Days (2014)	7.5	6.4	5.8
MRI Machines per million population (2014)	8.9	12.9	n/a
MRI Exams per 1,000 population (2014)	54.9	51.2	n/a
Primary Care Physicians' Use of Electronic Medical Records (2014)	73%	98%	54%
Able to Get Same-Day/Next-Day Appointment when Sick (2016)	43%	77%	57%
Very/Somewhat Easy to Get Care After Hours (2016)	63%	25%	58%
Waited Two Months or More for Specialist Appointment (2016)	30%	7%	9%
Waited Four Months or More for Elective Surgery (2016)	18%	4%	7%
Experienced Access Barrier Because of Cost in Past Year (2016)	16%	8%	22%
Diabetes-Related Lower Extremity Amputation Rates per 100,000 population (2013)	7.4	4.7	3.1
Breast Cancer Five-Year Survival Rate, 2008-2013 (or nearest period)	88%	85%	n/a
Mortality Amenable to Health Care (deaths per 100,000 population, 2013)	78	72	55
Percentage of Children with Measles Immunization (2014)	95%	96%	93%
Percentage of Population Age 65 and Older with Influenza Immunization (2014)	63%	72%	n/a
"The system works pretty well and only minor changes are necessary to make it work better" (2016)	35%	43%	58%
"There are some good things in our health care system, but fundamental changes are needed to make it work better" (2016)	55%	46%	37%
Preparedness to Manage the Care of Patients with Complex Needs (2016)*	70%	88%	80%
Primary Care Practice Capacity to Provide Enhanced Access and Care Management (2016)*	48%	94%	69%
Primary Care Practice Staff Frequently Make Home Visits (2016)*	19%	88%	43%
Regular Doctor Does Not Always or Often Spend Enough Time With You Or Explain Things So You Can Understand (2016)**	26%	9%	18%

Sources: OECD Health Statistics <[https://stats.oecd.org/index.aspx?DataSetCode=HEALTH\\_STAT](https://stats.oecd.org/index.aspx?DataSetCode=HEALTH_STAT)>; Commonwealth Fund (<https://international.commonwealthfund.org/stats/>); The World Bank <<https://data.worldbank.org/>>.

\* Survey of Primary Care Physicians \*\* Survey of Adults



Relative to Canada, Switzerland's expenditure on health care (as a portion of GDP) was 13 percent higher than Canada's in 2015. For this level of spending, Switzerland has more medical graduates, nursing graduates, acute care beds per capita, and strikingly greater satisfaction with the health care system.

Given the data presented in table 1, the combination of superior health care access and outcomes with fewer resources suggests that further examination of the health care systems in these countries may hold important lessons for Canadians.

One often overlooked aspect in such comparative analyses is that private insurers in these countries are also required to provide coverage for prescription pharmaceuticals as part of the mandated universal insurance package. This approach of private insurers providing universal coverage for pharmaceuticals is distinctly different from both the current decentralized approach in Canada and the national universal scheme being proposed by proponents of the single-payer system.

Regulations and policies in Switzerland and the Netherlands ensure that low-income individuals and those exposed to high drug costs have access to health insurance and health care services (including pharmaceuticals) through premium assistance, exemptions from cost sharing, and other forms of financial support. Importantly, individuals and families receiving such support generally still receive access to the same wide range of prescription pharmaceuticals as those not receiving support.

This paper aims to build upon existing knowledge and comprehensively describe how Switzerland and the Netherlands integrate pharmaceutical coverage into their broader universal systems, examining these systems with a particular focus on how competitive (but regulated) private insurers ensure universal coverage of prescription pharmaceuticals. The takeaway from this study is that the proposals currently being floated for a national, government-funded pharmaceutical coverage plan are not the only option available to Canadians. The success of the Dutch and Swiss plans demonstrate that it is worthwhile to explore other options and consider the myriad of ways in which prescription drug coverage may be expanded.

## The importance of access to modern medicine

Pharmaceuticals are a fundamental component of any well-functioning health care system. Research has consistently shown that the consumption of prescription drugs (and, in particular, newer prescription drugs) is related to better health outcomes and increased longevity (Miller and Frech, 2002; Lichtenberg, 2008, 2012, 2019). Consider the analysis of Lichtenberg (2019) that examines the role that the launch of new drugs has played in reducing the number of years of life lost (YLL) due to 66 diseases in 27 countries. The analysis suggests that, if no new drugs had been launched after 1981, YLL at age 85 in 2013 would have been 2.16 times as high as it actually was. Moreover, the study estimates that pharmaceutical expenditure per life-year saved before age 85 in 2013 by post-1981 drugs was \$2,837, approximately 8 percent of per-capita GDP. Overall, this indicates that post-1981 drugs launched were very cost-effective.

Drug consumption and vintage (the age of the drug) also play an important role in freeing up other medical and non-medical resources. For example, Lichtenberg (1996) found that increases in prescription drug use were linked to reductions in the number of hospital bed-days consumed. The Conference Board of Canada (Hermus et al., 2013) found that the \$1.22 billion spent on six<sup>2</sup> pharmaceutical treatments in Ontario generated offsetting health and societal benefits of \$2.44 billion. Importantly, newer drugs may generate considerable cost savings by reducing the need for other health care services such as hospital and physician care. A 2002 study by Lichtenberg found that using newer drugs<sup>3</sup> increased prescription costs by \$18 per patient in the US but reduced non-drug spending (primarily hospital and physician

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2. ACE inhibitors (for high blood pressure), statins (for high cholesterol), biguanides (for diabetes), biological response modifiers (for rheumatoid arthritis), inhaled steroids (for asthma), and prescription smoking cessation aids.

3. Specifically, a unit decrease in the log of the average age (years since FDA approval) of the drugs consumed for a condition, which would occur if, for example, one switched from 15-year-old drugs to 5.5-year-old drugs (Lichtenberg, 2002: 5, 6).

spending) by \$129 or about 7.2 times as much as the increase in drug spending. Further, Lichtenberg (2008) also estimated that per-capita hospital expenditures would have been 70 percent (\$89) higher in 2004 in the absence of improvements in drug vintage. In the most recent discussion of these gains, Lichtenberg (2016) notes that in a study of Switzerland using patient-level data, “cardiovascular drug innovation accounted for at least a quarter of the increase in longevity among elderly residents from 2003–2012, and that it increased their longevity by 3–6 months. Another study, this one using disease-level data for Canada, found that the cancer sites (breast, lung, colon, etc.) that experienced more pharmaceutical innovation had larger declines in the premature mortality rate.” Clearly, access to modern medicines is not only beneficial to health and well-being but may also generate additional reductions in health care costs for society.

## Potential limitations of public provision of universal pharmaceutical insurance

In response to the recognition that access to pharmaceuticals is important, and the cost of some advanced medicines is high, there have been a number of calls to either cover pharmaceuticals under provincial single-payer universal public health insurance systems, to create new universal schemes at the provincial level parallel to the existing scheme, or to create a national universal scheme for Canadians (for example, Lexchin, 2001; Gagnon and Hebert, 2010; Morgan et al., 2013; Morgan et al., 2015; Flood et al., 2018).

While these approaches may improve access to medicines to some extent, and while such expansion may be accompanied by the benefits cited above, public provision of such insurance coverage is not a necessary prerequisite to universal access or access for those with low incomes and may even be accompanied by undesirable consequences (Acri, 2018).

Public drug plans are often subject to restrictive government regulations that are focused on lowering costs. Such public plans often lead to rationing across drugs. While these approaches may (in some cases) successfully reduce direct costs, such regulations may also create a number of negative unintended consequences (Acri, 2018). “The fundamental problem with government rationing is that cost-effectiveness is subjective. Every individual has their own needs and priorities, and a one-size-fits-all approach is profoundly inhumane” (Roy, 2011).

For example, governments use two related, but distinct policies to manage the costs associated with drug insurance coverage: Therapeutic Reference Based Pricing (TRBP)<sup>4</sup> and Therapeutic Substitution. Under TRBP, therapeutically similar drugs are grouped together, and a reimbursement level is set (often equal to the cheapest drug in the category). Patients are usually still able to purchase their preferred drugs by paying the difference between its price and that of the reference drug. By contrast, under Therapeutic Substitution policies, in order to receive reimbursement, patients are forced to switch from a prescribed/preferred drug to the cheapest available alternative on

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4. This is different from External Reference Based Pricing where a maximum reimbursement price is determined based on pricing data from a basket of other countries.

the formulary within the therapeutic class. If patients believe the substitute drug is inferior and do not wish to consume it, they must pay the entire cost for their preferred alternative without being reimbursed for any portion of the cost. While such a policy may reduce expenditures on pharmaceuticals in the short term, research indicates that it may actually increase net health care costs due to adverse reactions and increased use of other medical services (Skinner et al., 2009; Acri, 2018). In addition, these policies generally limit patient (and physician) choice, restrict access, ration drugs and therapies, and reduce treatment effectiveness (Acri, 2018).

Governments may also purchase pharmaceuticals in large volumes in order to negotiate lower per unit costs—a policy called Bulk Purchasing. Bulk Purchasing agreements have been shown to consistently generate cost savings. Those savings are sometimes passed along to consumers, potentially encouraging adherence to prescribed drug regimens. However, these policies may also limit choice for patients and physicians whose preferred drug is left out of the agreement, may lead to monopolistic supply conditions, and may lead to increased prices for other drugs in exchange for the lower price on the negotiated drug (Lybecker, 2013; Acri, 2018).

A recent examination of the New Zealand experience documented that bulk purchasing in combination with approaches such as therapeutic substitution and preferred drug lists resulted in poorer care for some patients including increased prevalence of uncontrolled blood pressure, deteriorated lipid control, and worsened cardiovascular health. Ultimately, New Zealand's approach resulted in negatively impacting both the disability burden and health outcomes, generating higher patient costs, and shifting utilization to other more invasive, costlier treatments (Lybecker, 2013).

Research also indicates that public drug plans offer slower access to a smaller range of new drugs than private plans (Rovere and Skinner, 2012; Millison et al., 2016; Salek et al., 2019). For example, the Canadian Health Policy Institute “found that of the 464 new drugs approved for sale by Health Canada from the years 2004 to 2013, 89 percent (413) were covered by at least one private drug plan compared to 50 percent (231) that were covered by at least one public plan as of Jan. 31, 2015.” Data also indicate that public drug plans in Canada are slower at including new drugs on their formularies for reimbursement. The same CHPI study also found that “[t]he average number of days to insure these new drugs was 132 days for private plans compared to 468 days for public plans” (Skinner, 2017).

Such delays may have serious adverse consequences for patients waiting for newly discovered treatments for their illnesses. Consider also that Rawson (2013) estimated that approximately 3,472 patients may have been negatively affected by delayed provincial reimbursement approval for just five<sup>5</sup> new

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5. Avastin, Halaven, Jevtana, Tarceva, and Torisel.

oncology drugs approved in Canada between 2003 and 2011. More recently, Salek et al. (2019) calculate that Canadian public reimbursement delays have lengthened, with increases of 22 percent in time to list in Quebec, 38 percent to first provincial listing in any other jurisdiction, and 53 percent to country-wide listing.

A recent study by Innovative Medicines Canada (2016) confirms slower access to a smaller range of new drugs for Canadians. The study examined access to new medicines in the context of the health care systems across a group of countries that are most comparable to Canada in terms of economic development. Among the most significant findings:

- When only considering products that were reimbursable across provinces accounting for at least 80% of the eligible national public drug plan population, Canada ranked 18th of 20 countries with only 37% of new medicines receiving public reimbursement across the country.
- Canadian public drug plans placed reimbursement conditions on 90% of new medicines when measured across provinces comprising 80% of the eligible national public drug plan population, ranking Canada 17th of 20 countries.
- In Canada, 23% of new biologic medicines were reimbursed in public drug plans across provinces comprising at least 80% of the eligible national public drug plan population, ranking Canada 19th of 20 countries.

(Millison et al., 2016)

## **Universal insurance for pharmaceuticals done differently**

Switzerland and the Netherlands offer interesting approaches to universal insurance for pharmaceuticals that lie somewhere in between the current decentralized approach in Canada, and the sort of national public universal program being promoted by proponents of the single-payer system. The following sections describe how these countries integrate pharmaceutical coverage into the broader scheme of universal health care through competitive, but regulated, private insurers, as well as the extent of support systems in place for low income individuals and families.

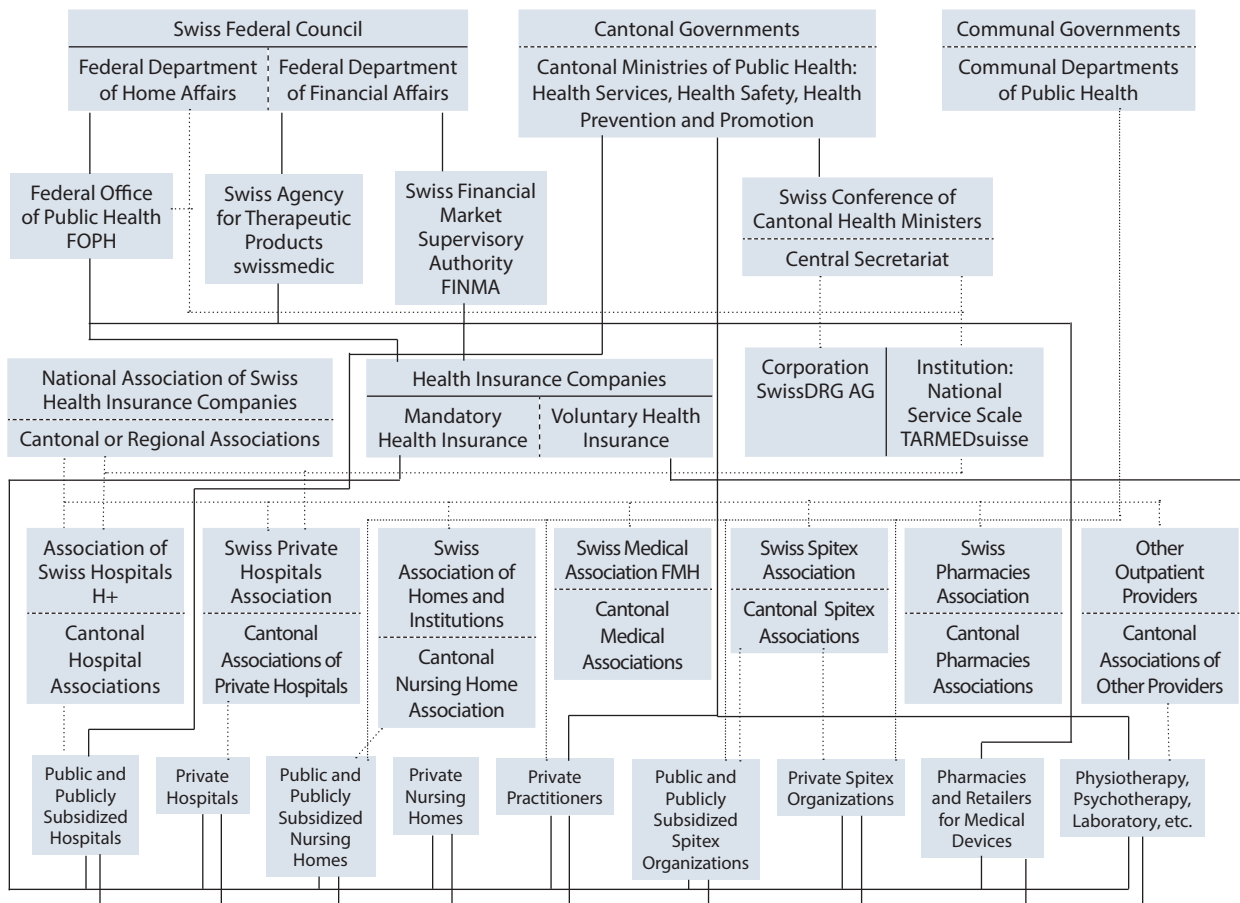
## Switzerland

Duties and responsibilities in the health care system in Switzerland are shared across the federal, cantonal (state), and municipal levels of government. Switzerland's health care system is based on a largely decentralized model, where the primary responsibility for the delivery of health care services lies with the country's 26 cantons (including six half-cantons). The municipalities are responsible mainly for long-term care (nursing homes and home care services) and other social support services for vulnerable groups. In this setting, the federal government is primarily concerned with ensuring universality (through legislation and supplementary funding) to its citizens in an environment of managed competition. Each canton has its own constitution and is responsible for licensing providers, coordinating hospital services, and subsidizing institutions and individual premiums. In contrast, the federal government plays an important role in:

- regulating the financing of the system, which is affected through mandatory health insurance and other social insurance;
  - ensuring the quality and safety of pharmaceuticals and medical devices;
  - overseeing public health initiatives;
  - and promoting research and training.
- (Sturny, 2019)

The system can be considered highly decentralized, as the cantons play a critical role. The organization of the Swiss Health System is described in **figure 1**.

The Swiss healthcare system combines social insurance with competitive elements. Basic health insurance is mandatory for all Swiss residents, providing comprehensive coverage of medical services and pharmaceutical products.

**Figure 1: Organization of the health system in Switzerland**

Source: Sturny, 2019.

Specifically, following the implementation of the 1994 Health Insurance Law (LAMal),<sup>6</sup> residents must<sup>7</sup> purchase (pay premiums for) basic insurance packages from one of a number of non-profit insurers (both public and private), who compete with each other in a regulated competitive market. The number of insurers differs across cantons, but individuals can, on average, select from among approximately 60 insurers (van Ginneken et al., 2013). Notably, “[t]he range of benefits provided under the compulsory health insurance program is the same everywhere; the only difference between the health insurance funds is the level of service they provide” (OFSP, 2014a).

6. The law came into effect in 1996.

7. If an individual does not take out insurance, the cantonal authority will automatically register the person with a health insurance fund. Diplomats, individuals working for international organizations, temporary students with equivalent health insurance coverage, and some individuals with health insurance in another EU member state may be exempt from compulsory coverage (OFSP, 2014a). It is estimated that 99.5 percent of citizens have health insurance.



All basic insurers<sup>8</sup> are required to provide coverage for a standard package of governmentally determined benefits to all applicants. This standard package covers the majority of treatments performed by a doctor and/or in a hospital including maternity, accidents, illness, and certain preventative measures.

Insurers are required to accept all applicants. The government prohibits profits<sup>9</sup> on basic health plans and insurers are obliged to accept all individuals who wish to enroll regardless of health status, age, or gender (Schmid and Beck, 2016). However, premiums for the same basic plans may vary greatly within cantons, an unexpected outcome in a competitive market. “The premium differences within cantons reflect the expected costs of each insurer’s enrollees in each plan, even though people are permitted to switch plans as often as twice a year” (van Ginneken et al., 2013). While premiums may differ between insurers on the basis of several factors, each can only vary premiums for the universal insurance product based on an applicant’s place of residence<sup>10</sup> (community rating based on 43 geographic premium regions) and a limited set of broad age groups (0–18, 19–25, and 25+). They cannot charge different premiums to patients with differing medical histories or pre-existing conditions. The government thus imposes a large degree of regulation on the arena within which the industry operates, although the provision of health insurance is executed by private organizations. Freedom and flexibility among insurers are, in this manner, regulated<sup>11</sup> in order to ensure universal coverage.

On the other hand, choice and financial responsibility for the individual are central to the Swiss approach. Patients are free to choose between insurers, free to change insurers, free to choose among select plan characteristics including managed care and higher deductibles and are usually subject to deductibles and cost-sharing for all medical services. Given that patients can choose between plans from close to 60 different private insurance companies, insurers must compete on price and service, helping to curb health care inflation. In addition, most beneficiaries have complete freedom to select their preferred doctor, and appointment waiting times are nearly as low as those in the US, the world leader (Roy, 2011). Interestingly, even with all these alternatives, it is notable that the rates at which people switch plans have been relatively low, at only three to five percent per year (through 2012) (van Ginneken et al., 2013).

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8. That is, those insurers who are not exclusively dealing in voluntary supplementary insurance services.

9. The insurer may, however, offer supplementary insurance packages on a for-profit basis (Barua and Esmail, 2015).

10. Health insurers can set a maximum of three regional premium levels within a canton (OFSP, 2014a).

11. Such regulations do not apply to voluntary supplemental insurance services.

Individuals are able to purchase complementary voluntary health insurance (7.2 percent of total expenditure) to cover services not included in the basic basket of mandatory health insurance, and supplementary coverage for free choice of hospital doctor or for a higher level of hospital accommodation. Data on the number of people covered by these plans are not available (Sturny, 2019).

## Universal insurance for pharmaceuticals through regulated private insurers

The provision of pharmaceutical coverage (regardless of age and income) through its universal social health insurance system is a fundamental feature of health care in Switzerland.

The mandatory standard health insurance package that must be offered by private insurers participating in the universal insurance marketplace covers all medicines that are “prescribed by a physician, employed in accordance with the approved indications/uses specified in the package insert, and included on the list of reimbursable pharmaceutical specialties (Specialties List/SL).”<sup>12</sup> It is estimated that patients using only the universally accessible insurance have access to about 2,500<sup>13</sup> medicines appearing on the specialty list (OFSP, 2014b).

The maintenance of this list of reimbursable medicines (a positive list) is in contrast to other core medical services, which are usually covered unless they are specifically excluded (a negative list). The government’s decision to include a drug on the list for reimbursement is generally based on the following conditions: the therapeutic product must be approved by Swissmedic and must be deemed to meet the criteria of effectiveness, functionality, and economic efficiency.<sup>14</sup> According to Kunzler, Conti, and Braun (2019), based on the criteria listed above, the Swiss Federal Office of Public Health (FOPH) determines the maximum allowable price for the drug in question. The approval process should then commence and not exceed 60 days from the date of marketing authorization.

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12. The list of medicines covered by the SL is available at <[www.listofpharmaceuticalspecialties.ch](http://www.listofpharmaceuticalspecialties.ch)>.

13. As of December 1st, 2012, 2,844 medicines (out of the 7,812 authorized medicines) were included on the Swiss positive list under 9,378 product names. About 92 percent of products on this list are for prescription medications while the remaining 8 percent are over-the-counter medications (Interpharma, 2013: 74-79).

14. Article 65 para. 1 and 3 of the Ordinance on Health Insurance; Verordnung über die Krankenversicherung (KVV).

The breadth and variety of drugs covered by the basic insurance package is, however, broadly regarded to be “quite comprehensive,” while a decision to not “list a drug that is a candidate for reimbursement is rare, with the main issue being ‘at what price’ to list rather than ‘whether to list’” (Paris and Docteur, 2007: 15). The Federal Office of Public Health<sup>15</sup> (Office Fédéral de la Santé Publique, OFSP) does, however, retain the “right to include or maintain a drug in the positive list against the manufacturer’s will, when the drug is particularly important” (Paris and Docteur, 2007: 15).<sup>16</sup>

In addition, compounded medicines (i.e., those mixed or created in a pharmacy) are reimbursed if the active substances and other ingredients are included in the *Arzneimittelliste mit Tarif ALT*<sup>17</sup> (OFSP, 2014b). Insurers may also offer coverage for drugs not included on the positive list.

A large number of vaccinations are also covered by the basic insurance plan, including vaccinations against diphtheria, tetanus, pertussis (whooping cough), poliomyelitis, type-B Haemophilus Influenzae and chickenpox, MMR (measles, mumps and rubella), hepatitis B and (for certain risk groups) hepatitis A, influenza (for seniors and those at increased risk), tick-borne encephalitis, and cervical cancer for school-age girls and young women up to the age of 26 (OFSP, 2013a).

In certain instances, medicines purchased abroad in accordance with treatment unavailable in Switzerland, or because a citizen may have succumbed to illness during their temporary stay abroad, may also be covered. However, travel vaccinations and preventive treatments are usually not covered.

The Swiss Federal Office of Public Health (FOPH) regularly informs interested parties, particularly licence holders of drugs on the specialities list (SL/LS), on important developments relating to the list. “The factors included in the FOPH’s assessment of the cost-effectiveness of drugs on the specialities list include the prices of drugs in nine reference countries in Europe (Denmark, Germany, the Netherlands, the UK, Austria, France, Sweden, Belgium and Finland). The FOPH converts foreign ex-factory prices into Swiss francs twice a year, on January 1 and July 1, at the exchange rates published here. These exchange rates are calculated on the basis of the average monthly exchange rates published by the Swiss National Bank for the previous twelve months” (Swiss Federal Office of Public Health, 2019).

15. The website of the Federal Office of Public Health states that it “is part of the Federal Department of Home Affairs. Along with the cantons it is responsible for public health in Switzerland and for developing national health policy” (FOPH, 2014d).

16. Note that some manufacturers may prefer to stay off the list if they believe there is enough demand for their product even at higher prices. Further, the price at which drugs are offered in one country is often used as a reference for pricing in others countries. Manufacturers may opt to lose out on a small market in order to retain high drug prices in other markets. That being said, because of the expected benefits of being listed, this is not common, as will be discussed in a later section.

17. The list of medicines covered by the ALT is available at <[www.bag.admin.ch/themen/krankenversicherung/06492/06493/index.html?lang=de](http://www.bag.admin.ch/themen/krankenversicherung/06492/06493/index.html?lang=de)>.

## How pharmaceuticals are approved

Switzerland has its own regulatory framework for the approval of pharmaceuticals that is similar to, but distinct from, the rest of the European Union (Furst-Ladani, 2012).

Swissmedic is the regulatory authority responsible for approval of therapeutic products in Switzerland. It is a public institution, attached to the Federal Department of Home Affairs, whose service mandate is established by the Federal Council. However, it retains considerable organization and management independence and has its own budget, which is only partially funded through government payments. Swissmedic is mainly financed by means of fees and to a smaller extent by payments from the Confederation in return for providing services of public utility.

Companies that want to file a marketing authorization application (MAA) with Swissmedic must be either located in Switzerland or have a Swiss subsidiary. Reviews may be expedited for drugs that have already been approved in countries<sup>18</sup> with a “comparable control system” (Ladani, 2012). A fast track procedure is also available (at a higher price) for innovative or critical products. In 2017, 31 fast-track requests were completed, an increase over the 25 that were completed in both 2015 and 2016 (Swissmedic, 2017). Authorizations are only valid for five years at a time, and the holder must apply for an extension in order to renew authorization at each interval.

According to Swissmedic (2019), the process is as follows:

Companies must obtain Swissmedic's approval for the clinical trials that will be necessary in order to develop a medicinal product. In addition, a Swissmedic establishment licence is needed in order to manufacture medicinal products. Once the clinical trials are completed, the company may apply to Swissmedic for the product to be authorised. The documentation submitted is assessed by Swissmedic in accordance with the internationally recognised criteria of quality, safety and efficacy. The authorisation is only granted if the level of quality and safety are proved to be high and if the risk-benefit balance is positive. The company receives the approval of the information on the product intended for healthcare professionals and patients (the packaging insert) at the same time as the authorisation. The pharmaceutical firm may only place its medicinal product on the market once it has received the official authorisation decision. Switzerland continues to monitor the safety and the quality of the medicinal product even after it has been authorised. To do so, the agency evaluates reports on side effects that

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18. Australia, Canada, EEA member states, Japan, New Zealand, Singapore and the US, for example.

are received from Switzerland and also monitors international data. It then takes the necessary decisions in order to minimise possible risks for patients. Swissmedic also intervenes in the case of quality problems, ensuring that defective products are withdrawn from the market. (Swissmedic, 2019)

Switzerland is often the country of first launch for many pharmaceuticals. This may be a result of the flexibility manufacturers have in determining the price of their product in Switzerland in the absence of data from reference countries in the EU (Paris and Docteur, 2007). A comparison of the number of new therapeutic approvals in Switzerland, relative to Canada, is instructive. According to a 2017 study by Jain, Mollet, and Szucs, the number of new approvals in 2015/2016 by Swissmedic was 27/42, while the number approved by Health Canada was 20/27. The number of drugs submitted for approval in Canada was only 64 percent of the total for Switzerland.

## How pharmaceutical prices are regulated

While the prices of over-the-counter (OTC) and prescription drugs not included on the specialty list for reimbursable products are non-regulated,<sup>19</sup> there is a large degree of regulation for those that do appear on the list. Drug manufacturers are free to not seek reimbursement.<sup>20</sup> However, there are large expected benefits of having their drug listed. Consumers will generally tend to purchase drugs that are covered, at least partially, by their insurance plans, especially when similar options are available. Thus, choosing to be not listed may result in drug companies losing revenue due to decreased demand, even though they are able to charge a higher price for the unlisted drug. Therefore, the expected benefits of having their drug listed, combined with the regulation of listed drugs, leads to an environment of de facto price regulation (Paris and Docteur, 2007).

The ex-factory price (the price paid to manufacturers) and maximum<sup>21</sup> public price for listed pharmaceuticals are regulated by the Swiss Federal

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19. They may, however, still be “subject to surveillance by the Price Council” (Paris and Docteur, 2007: 12).

20. Some drugs, if deemed to be important for public health, may be included on the positive list even if the manufacturer does not seek reimbursement. Prices of non-listed drugs are also monitored in order to ensure that dominant market positions are not abused (Paris and Docteur, 2007).

21. Manufacturers, wholesalers, and pharmacists may offer discounts (Paris and Docteur, 2007).

Office of Public Health, as are the distribution margins<sup>22</sup> for wholesalers and pharmacists. While consideration is made for R&D costs and the relative effectiveness of drugs, the international price in comparable countries is also a factor when determining the permissible ex-factory price. Paris and Docteur note that “[p]rices in Germany, Denmark, the United Kingdom, and the Netherlands are first considered. France, Austria, and Italy can be considered as subsidiary countries, and other countries may be included in the comparison” (2007: 16). (Further details regarding pricing and distribution margins can be found in Paris and Docteur, 2007: sec. 1.4.)

The effectiveness of this system is, however, somewhat limited since, as mentioned above, Switzerland is often the country of first launch for many pharmaceuticals, and thus there is often no data available in other countries for comparison. Specifically, international price benchmarking does not provide a significant basis for regulating prices of reimbursed products at market entry. “While therapeutic referencing serves to furnish consistent relative price levels within classes, it does not offer assurance that prices across therapeutic classes are differentiated according to relative benefit” (Paris and Docteur, 2007). In addition, cost containment in Switzerland is facilitated by the relatively low level of pharmaceutical consumption. Studies suggest this reflects physician practice patterns or patient preferences, since little is done by government agencies or insurers to influence their use (Paris and Docteur, 2007).

In an effort to control pharmaceutical costs, coverage decisions on all new medicines are subject to evaluation of their effectiveness by Swissmedic, and of their cost by the Swiss Federal Office of Public Health (FOPH). Efforts to reassess the prices of one-third of existing drugs every year are underway. Generics must be sold for 20 percent to 50 percent less than the innovator brand, depending on national market volume.

## Individual contributions for health care and pharmaceuticals

In the context of publicly financed health insurance, there are three streams of public funding:

- Direct financing for health care providers enabled through tax-financed budgets for the Swiss Confederation, cantons, and municipalities. Cantonal subsidies to hospitals providing inpatient acute care comprise the largest portion of this spending.

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<sup>22</sup> These consist of a proportional and fixed component, which varies according to price brackets. A fee schedule determines remuneration for services rendered by pharmacists, although negotiation is possible

- Mandatory health insurance (MHI) premiums.
  - Social insurance contributions from health-related coverage of accident insurance, old-age insurance, disability insurance, and military insurance.
- (Sturny, 2019)

Notably, general taxation finances all government expenditures on health. “In 2014, direct spending by government accounted for 20.1 percent of total health expenditures (CHF71.2 billion, or USD55.8 billion), while income-based MHI subsidies accounted for an additional 5.6 percent. Including MHI premiums (31.0 percent of total health expenditure, excluding statutory subsidies), other social insurance schemes (6.3 percent), and old-age and disability benefits (4.4 percent), publicly financed health care accounted for 67.4 percent of all spending” (Sturny, 2019).

Individuals directly contribute toward the cost of basic/compulsory insurance in two notable ways: through insurance premiums and copayments. Since pharmaceuticals are covered<sup>23</sup> by the basic insurance package, regulations regarding the overall insurance package are largely relevant to, and responsible for, pharmaceutical coverage in Switzerland.

### Premiums

Mandatory health insurance is provided by competing nonprofit insurers, all of whom are supervised by the Federal Office of Public Health (FOPH). It is the FOPH which sets floors for premiums calculated to cover past, current, and estimated future costs for insured individuals in a given region. In 2016, cantonal average annual premiums “for adults with the minimum deductible (CHF300, or USD235), the standard insurance model, and accident coverage range from CHF3,920 (USD3,074), for Appenzell Innerrhoden, to CHF6,547 (USD5,134), for Basel-Stadt” (Sturny, 2019).

Insurers offer premiums for defined geographical “premium regions” limited to three per canton. Within every region, the criteria for variation in premiums are limited to age group, level of deductible, and alternative insurance plans (so-called managed care plans with the main characteristic of giving up free choice of first medical contact), but variations in premiums among insurers can be significant. In 2014, 63.0 percent of residents opted for basic coverage with a health maintenance organization, an independent practice association, or a fee-for-service plan with gatekeeping provisions. (Sturny, 2019)

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23. Social health insurance finances 67% of drug expenditures (Paris and Docteur, 2007).

Health insurance premiums are community-rated. That is, they are the same for every person enrolled with a particular company within a region, independent of gender or health status. Policy prescribes that different premiums apply to three different age classes: (1) from 0 to less than 19 years; (2) from 19 to less than 26 years; (3) 26 years and above. In 2012, 29 percent of the Swiss population paid only a reduced premium or no premium at all (Mantwill and Boes, 2019). Beyond this, approximately 108,000 people (1.3 percent of the population) default on paying their premiums. Health insurance premiums are collected by provider companies and are subsequently reallocated between insuring companies based on an increasingly refined risk-equalization mechanism, which is adjusted for canton, age, gender, and hospital or nursing home stays of more than three consecutive days in the previous year. Complementary and supplementary voluntary health insurance plays a rather small and declining role, financing about 7.2 percent of total health expenditures in 2012 (Mantwill and Boes, 2019).

### Cost sharing

Cost sharing is a fundamental characteristic of the Swiss health care system and is applied to all insured core medical goods and services in the benefits basket, including prescription medications. “Swiss citizens buy insurance for themselves; there are no employer-sponsored or government-run insurance programs. Hence, insurance prices are transparent to the beneficiary. The government defines the minimum benefit package that qualifies for the mandate. Critically, all packages require beneficiaries to pick up a portion of the costs of their care (deductibles and coinsurance) in order to incentivize their frugality” (Roy, 2011).

In addition to premium payments, individuals primarily contribute to the cost of prescription drugs in the basic benefit basket in two ways. The first way is through a standard deductible that applies to all insured medical services. The second way is through a 10 percent copayment (retention fee) to which patients are subject for the services they consume after reaching their chosen deductible. According to Globerman (2016), “insurers are required to offer statutory health insurance plans with a minimum annual deductible for adults of CHF300 (CA\$400), although insured individuals may opt for a higher deductible (up to CHF2500 or CA\$3,333) and a lower premium. Insured persons pay 10 percent coinsurance above deductibles for all services. For treatment in acute care hospitals, there is a CHF15 (CA\$20) co-payment per inpatient day. ... Maternity care and a few preventive services are exempt from deductibles, coinsurance and copayments. Minors do not have to pay deductibles or copayments for inpatient care” (Globerman, 2016). Cost sharing related to the 10 percent coinsurance is capped at CHF700 for adults and CHF350 for children and adolescents in a given year.



It is of note that the 10 percent copayment (retention fee) is also required for prescription medications, and a 20 percent copayment rate applies for prescription drugs if an equivalent lower-cost alternative is available (FOPH, 2019).

Generally speaking, Switzerland is known for having a health care system with relatively high out-of-pocket expenditures<sup>24</sup> compared to the rest of the OECD. The Swiss government's spending on health care is only 2.7 percent of GDP, by far the lowest in the developed world (Roy, 2011). In contrast to the Netherlands, private supplementary health insurance is not allowed to cover deductibles and cost-sharing for the basic benefit basket.

Resources are collected mostly through taxes (32.4 percent of total health expenditures in 2012) and mandatory health insurance premiums (30.0 percent of total health expenditures). Importantly, a considerable part of tax resources is subsequently allocated to the different social insurance schemes, in particular as subsidies to lower and lower-middle income households for the purchase of mandatory health insurance. Given this reallocation, insurers are the most important purchasers and payers in the system, mostly negotiating collective contracts with providers, and financing 35.8 percent of total health expenditures. Out-of-pocket payments follow this at 26.0 percent of total health expenditures, and government spending, primarily from cantons, covers 20.3 percent of total health expenditures (Mantwill and Boes, 2019).

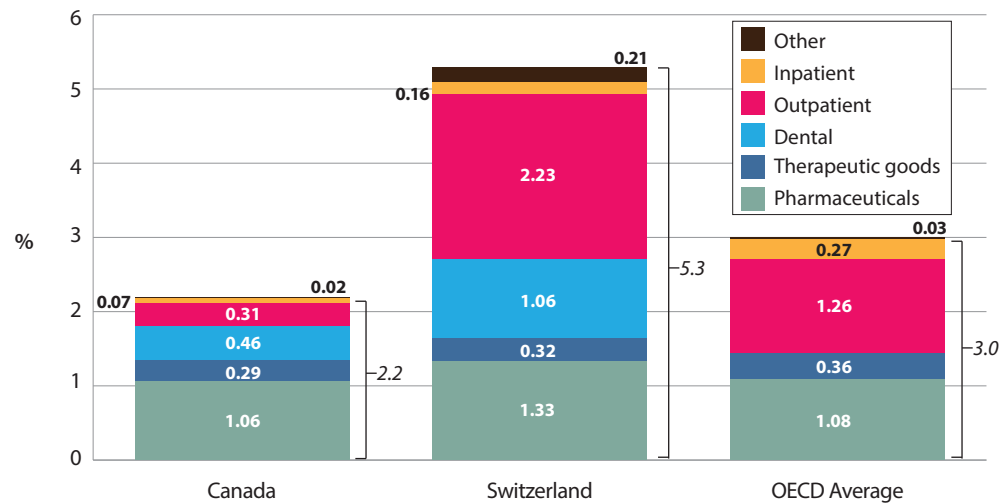
However, data suggest that the Swiss do not necessarily experience relatively high cost sharing for drugs. For example, in 2015, out-of-pocket expenditures on pharmaceuticals represented 1.33 percent of final household consumption in Switzerland. This is similar to Canada where it accounted for 1.06 percent (**figure 2**). Further, in 2015, pharmaceutical spending (as a percentage of total health spending) represented only 10 percent in Switzerland. This contrasts with Canada where it accounted for 15 percent.<sup>25</sup> In addition, the share of generics in the Swiss market is only 22 percent, compared to Canada's 70 percent (Sarnak et al., 2017).

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24. In 2016, average per-capita out-of-pocket payments totaled 2313 US PPP, whereas the OECD average amounted to 700 US PPP (OECD, 2013).

25. Canadians also rely heavily on private supplementary insurance for drugs, which finances about 35.5 percent of all prescription pharmaceutical expenditures, whereas it only finances 3.9 percent of pharmaceutical expenditures in Switzerland (OECD, 2014; calculations by authors).

**Figure 2: Shares of out-of-pocket medical spending by services and goods in Canada, Switzerland, and the OECD, 2015**



Source: OECD, 2019.

## Regulations and support for low income individuals

The Swiss health care system provides numerous avenues of assistance to ensure that low income individuals are able to receive quality health care. This outcome is achieved with a combination of premium regulations and subsidies, the operation of a prospective risk-based financial redistribution scheme among insurers, and support for cost-sharing.

Sturny (2019) describes the details of Swiss safety nets. Specifically, maternity care as well as some preventive services are fully covered and thus exempt from any deductibles, coinsurance, and copayments. In addition, there are no copayments for inpatient care for children or young adults in school, up to the age of 25. Income-based subsidies to individuals or households to cover mandatory health insurance premiums are provided by the federal government and cantons, though income thresholds vary widely by canton. In 2014, 26.9 percent of residents benefited from individual premium subsidies. Finally, municipalities or cantons cover the health insurance expenses of social assistance beneficiaries and recipients of supplementary old age and disability benefits (Sturny, 2019).

### Premium regulations and subsidies

Individuals and families who cannot afford to purchase the basic insurance package receive government subsidies to help with their basic health insurance premiums. These subsidies are means-tested, generally based on consumer income and assets, and financed by both the cantons and federal transfers.

In 2001, the Council of States recommended that cantons provide subsidies to ensure that premiums do not exceed 8 percent of household income. However, the criteria for receiving subsidies, and the amount, are established individually by each canton and may vary considerably. While most cantons establish maximum limits on the percentage that households contribute towards premiums (and subsidize the remaining amount), eight cantons set fixed absolute amounts (by income bracket), and two use a combination of these approaches (OECD, 2011). Cantons also dictate whether consumers are subsidized directly, or the payment is made to the insurer (Herzlinger and Parsa-Parsi, 2004). One study (Gerritzen et al., 2014) suggests that differences in the financial ability of each canton to provide subsidies has led to considerable cross-canton variations in the load premiums place on households.

According to Sturny (2019), approximately 27 percent of the insured population received an income-related premium subsidy.<sup>26</sup> Thus, rather than become an insurance provider, the government supports consumer choice for low income individuals by offering them the option of choosing their insurer and remaining an active player in the insurance market.

### Support for cost-sharing

As mentioned earlier, there are annual caps on copayments to ensure that the related costs are not prohibitive. As described by Rice et al. (2018), “[t] here have been some changes to cost-sharing requirements in Switzerland since the early 2000’s. In 2004, the minimum deductible increased from CHF230 (€210) to CHF300 (€275) and the maximum deductible increased in 2005 from CHF1500 (€1,373) to CHF2500 (€2,288). In 2006, coinsurance increased to 20% for brand drugs if a cheaper generic is available. Direct payments were affected by the exclusion of eyeglasses from coverage in 2011, and the inclusion of complementary and alternative medicine into the benefits package in 2012. In fact, direct payments account for about 80% of all OOPs [out-of-pocket expenses].” The share of the population selecting insurance plans characterized by higher deductibles (in exchange for lower premiums) has increased considerably over time. Consider that the proportion with a deductible of more than CHF2000 (€1,830), increased from less than 15 percent to almost 23 percent between 2009 and 2014. In the same years, the proportion of the population selecting insurance plans with limited choice of providers increased from about 35 percent to about 62 percent. This is believed to be as a result of similar attempts to exert downward pressures on premiums through benefit design (Rice et al., 2018).

For example, if total copayments made by a consumer surpass the annual ceiling, subsequent copayments are fully subsidized. Children under the age of 18 are not required to be subject to a deductible (though optional ones are

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26. These subsidies may also be used for copayments.

available) and annual copayments are capped. As of March 1, 2014, pregnant women will not have to contribute to the cost of medical services after the 13th week of pregnancy until eight weeks after the birth. Children under 18 years of age, young adults up to age 25 in training, and pregnant women are not required to pay daily hospital contributions (OFSP, 2014e). National old age, survivor, and disability/invalidity insurance programs “provide pensions to qualified individuals that they can use to purchase health insurance and pay cost-sharing amounts” (Kaiser, 2013: 18). Further, “Swiss cantons provide means-tested supplementary benefits to those with old age, survivors, or invalidity insurance that consists of monthly benefit payments and non-contributory reimbursement of costs due to sickness and disability” (Kaiser, 2013: 18).

As described by Paris and Docteur (2007), “thanks to an extensive positive list and reasonable cost-sharing requirements, pharmaceuticals are also affordable for patients. In principle, failure to exclude low-income persons from cost-sharing requirements could result in problems with affordability or accessibility, although no evidence of this has been found. Neither hospitals nor patient associations report problems with access to new and costly medicines.”

## A note on risk equalization

Swiss cantons operate a risk-adjustment scheme that redistributes premium revenue among insurers to account for the potential adverse effects of community rating. The primary reason for such payments is to balance financial capacity between insurers mandated to provide universal coverage to populations with disparate health in order to discourage risk selection.

The risk formula used for these payments was previously based primarily on age and gender categories. However, significant differences in premiums for the basic benefits package still existed in Switzerland both within and between cantons. For example, in 2005 there existed an 89 percent difference between the highest and lowest premiums available in Zurich for a CHF 300 plan. While such differences may be attributable to differences in quality and efficiency, it was generally suspected that the risk formula resulted in inadequate risk equalization among insurers (Leu et al., 2009). There was also a 95 percent difference between the canton with the lowest average premium (Appenzell Innerrhoden), and the highest (Basel-Stadt) in 2012 (OFSP, 2013b; calculations by authors). However, this is not surprising because equalization is performed separately for each canton.

In 1993, Switzerland introduced risk equalization based on 30 age-gender groups to mitigate risk selection. The risk equalization payments are calculated separately by canton, such that differences across cantons are not equalized. As established by Schmid and Beck (2016), risk selection remained an important issue as demographic risk adjustment does not sufficiently

reduce the incentives to practice risk selection. Accordingly, as of 2017, a binary indicator for drug expenditures above CHF 5000 in the previous year was introduced. Around 2019, this indicator is expected to be replaced by pharmaceutical cost groups. Both changes should improve risk equalization and reduce incentives for risk selection, in particular because these indicators capture high outpatient costs relatively well (Schmid & Beck, 2016).

The risk equalization mechanisms utilized by Switzerland are evaluated by Schmid and Beck (2016). Dating back to the seminal work of Arrow (1963), economists recognized that information asymmetries lead to market failures in health insurance markets. Accordingly, strong regulations are frequently utilized: including mandatory health insurance to eliminate adverse selection; defined copayments to reduce moral hazard; and—in case risk-rated premiums are not allowed—risk equalization schemes to counteract insurers' incentives for risk selection.<sup>27</sup> Schmid and Beck note that on the one hand, risk equalization mechanisms mitigate insurers' incentives to practice risk selection. Alternatively, the potential exists for incentives to limit healthcare spending to be distorted by risk equalization. This is a particular issue when risk equalization payments depend on realized costs instead of expected costs. The authors also consider whether cost-based risk equalization mechanisms incentivize health insurers to distort the allocation of resources among different services. The study's results suggest that the Swiss risk equalization mechanism performs very well in terms of power but rather poorly in terms of fit, indicating that risk selection might be a severe problem. Finally, the study provides evidence that the Swiss risk equalization mechanism does not lead to imbalances across different services (Schmid and Beck, 2016).

## Summary

Switzerland features universally mandated private insurance that covers acute care and partly covers long-term care. It is available to all residents with a standardized benefit package. Community rated premiums vary by deductible level, age, and region. Subsidies through government funding are available for institutional providers, prevention, public health, and administration charges. There is a central fund through which premiums are pooled and then allocated to insurers after simple risk adjustment. Supplemental insurance is allowed, features risk-rated premiums, and covers approximately 90 percent of the population. The Swiss have a risk-adjustment system in order to reduce inequities. Risk adjustment is performed separately in each canton and is budget neutral. Adjusters include age, sex, and prior hospitalization.

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27. Risk selection describes the insurers' incentives to attract a population of consumers that are relatively healthy with below-average risk in order to increase profits.

## The Netherlands

The Netherlands has a single compulsory insurance scheme. The Dutch Government “partly finances social health insurance (a comprehensive system with universal coverage) for the basic benefit package (through subsidies from general taxation and reallocation of payroll levies among insurers via a risk adjustment system)<sup>28</sup> and the compulsory social health insurance system for long-term care” (Wammes et al., 2019). Under that umbrella, private health insurers compete in a regulated environment.<sup>29</sup> In this setting, the role of the Dutch government is simply to ensure a properly functioning health care insurance market. **Figure 3** depicts the organization of the health system of the Netherlands.

Since the implementation of the 2006 Health Insurance Act, everyone living in the Netherlands must<sup>30</sup> purchase a standard insurance package from one of a number of private insurers, who may choose to operate on a for-profit basis, in a regulated but competitive market. The purchase of statutory health insurance from private insurers is mandated for all residents, as well as non-residents who pay Dutch income tax. This results in expansive coverage. As of December 2014, 30,000 people, or fewer than 0.2 percent of the population, were uninsured and lacked coverage (Wammes et al., 2019).

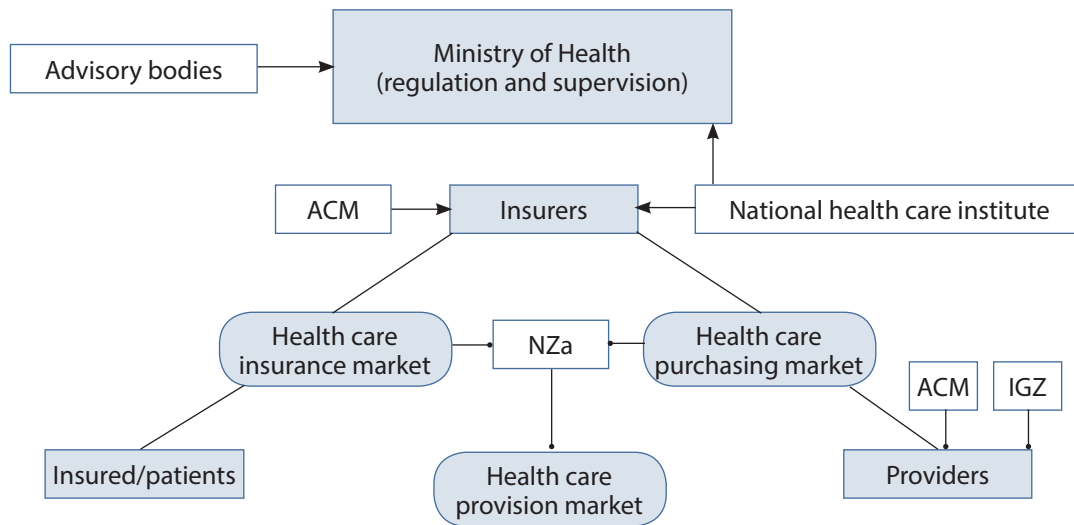
The Health Insurance Act finances statutory health insurance through a nationally defined, income-related contribution. While premiums can vary across insurers, all residents with the same insurer pay the same premium, regardless of age, gender, or health status. Insurers are, however, free to choose

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28. Zorgtoeslag (healthcare allowance) is a money allowance that the government pays to the individual prior to their health insurance being paid out.

29. Insurers may be either for-profit or nonprofit.

30. If an individual does not take out insurance, they first receive a warning letter from the College voor Zorgverzekeringen (CVZ), after which they are charged with a penalty equivalent to three times the standard premium. If, following a second penalty (charged three months after the first) they still do not comply, the CVZ will take out insurance on their behalf and require the individual to “pay an administrative premium for 12 months equal to 100%, which amount, where possible, will be withheld at source” (VWS, 2012: 34). Conscientious objectors and soldiers on active service may be exempt from compulsory coverage. All other uninsured individuals are required to pay a fine, as well as the cost for all medical services consumed during the period of non-insurance (CVZ, 2014).

**Figure 3: Organization of the health system in the Netherlands**

Source: Wammes et al., 2019.

where and by whom the care is delivered, resulting in a system of insurers competing on price and quality of services offered. Contributions are centrally collected and distributed to insurers in accordance with a risk-adjusted capitation formula that considers age, gender, labor force status, region, and health risk, primarily based on past drug and hospital utilization (Wammes et al., 2019). Insurers are required to accept all applicants, and are “obliged to offer a core universal insurance package at a fixed price for all” (Netherlands, 2014a: Health Issues). This universal insurance coverage must include core services covered by general practitioners, medical specialists and obstetricians, and hospital treatment. The definition of covered services is extremely broad and only a small negative list of excluded services is maintained.

Insurers compete on both quality and cost and are expected to engage in strategic purchasing. In 2019, the insurance market is dominated by the four largest insurance conglomerates, which account for 90 percent of all enrollees (Wammes et al., 2019).

Individuals are free to choose the insurer and health plan of their choice and can switch insurers from year to year without fear of financial penalty. Adult patients are usually subject to a small deductible, after which they are not expected to make any copayments for received medical treatment.<sup>31</sup> Individuals must, however, pay an additional income-dependent contribution (with a maximum limit for annual contributions) either through their employer, or

**31.** According to Wammes et al. (2019), in 2016, every insured person over age 18 must pay an annual deductible of €385 (US\$465) for health care costs, including costs of hospital admission and prescription drugs but excluding some services, such as GP visits.

directly to the relevant tax authority. It is estimated that “[t]ogether with the public funding,<sup>32</sup> the income-related contribution covers 50 percent of the total macro premium burden,” with nominal premium charges covering the other half (VWS, 2012).<sup>33</sup>

Patients are also required to share some of the costs of selected services, such as medical transportation or medical devices, via copayments, coinsurance, or direct payments for goods or services that are reimbursed up to a limit, such as drugs in equivalent-drug groups. The out-of-pocket expenses as a share of health care spending was 14.7 percent in 2014 (Wammes et al., 2019).

The Netherlands also has a separate, publicly funded national insurance program that specifically covers long-term care for the elderly, chronically ill, and disabled. This program, *Wet langdurige zorg (Wlz)*<sup>34</sup> (“General Law on Long-term Healthcare”) covers long-term nursing and care, essentially acts as a universal safety net and protects residents against catastrophic bills and certain chronic conditions. In 2013, this insurance covered 29.2 percent of all health care expenses (Statline, 2019). As of 2015, the Health Insurance Act finances home care as the shared responsibility of the national government, municipalities (day care, household services), and insurers (nursing care at home). The Long-Term Care Act finances hospice care.

In addition to national statutory coverage, 84 percent of the population purchases a mixture of complementary voluntary insurance covering benefits including dental care, alternative medicine, physiotherapy, eyeglasses and lenses, contraceptives, and the full cost of copayments for medicines<sup>35</sup> (Wammes et al., 2019). In contrast to the compulsory insurance scheme, the premiums for voluntary insurance are not regulated and insurance providers are allowed to screen applicants based on risk factors. Virtually all residents purchase their voluntary benefits from the same insurer that provides their statutory health insurance coverage. In 2014, voluntary insurance accounted for 7.9 percent of total health spending (Wammes et al., 2019).

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32. Estimated at about 5 percent (Kleef, 2012).

33. The total macro premium burden is comprised of the income-related contributions, premiums/nominal premiums, personal contributions, government grant for children who are under 18 years of age, and a number of other smaller technical items.

34. Formerly known as *Algemene Wet Bijzondere Ziektekosten (AWBZ)*.

35. According to Wammes et al. (2019), individuals with voluntary coverage do not receive faster access to any type of care, nor do they have increased choice of specialists or hospitals.



## Universal pharmacare through regulated private insurers

The provision of pharmaceutical coverage regardless of age and income is a fundamental feature of health care in the Netherlands. Standard insurance packages offered by private insurers (discussed above) must provide reimbursement for medicines included on a positive list. As part of the basic insurance plan, the drugs included on this list are decided upon by the Ministry of Health, Welfare and Sport (VWS) with advice from the Dutch Health Care Insurance Board (CVZ). Insurance companies may also offer plans with preferred drug policies that only reimburse a narrow range of drugs in each group of therapeutically interchangeable products.

The National Health Care Institute (Zorginstituut Nederland) (ZIN) is the agency responsible for conducting health technology assessments of drugs and making reimbursement recommendations to the Ministry of Health. The ZIN seeks advice and recommendations from the Scientific Advisory Committee, a committee of external experts, on issues of cost and effectiveness (Morgan, 2016).

Drugs on the positive list are generally categorized into three groups: annex 1A (for therapeutically interchangeable products), annex 1B (for unique products for which clustering is not possible), and annex 2 (for medicines that are only reimbursed under specific circumstances).

Health insurers only provide coverage for registered drugs that are included in the Medicines Reimbursement System. In addition, most health insurers only provide coverage for the least expensive version of a medicine. Insurers may agree to reimburse the more expensive medicine if the patient's doctor has prescribed it for a medical reason. For instance, given an allergy to certain ingredients in the cheaper drug, the doctor must write "medically necessary" on the prescription. Health insurers do not provide coverage for medicines that are not registered, except in the following exceptional circumstances:

- the non-registered drug is a last resort, as no further treatment options are available for your condition in the Netherlands;
- you have a very rare disease that affects no more than 1 in 150,000 people in the Netherlands;
- no equivalent medicine is registered for treating your condition. (Government of the Netherlands, 2019)

## How pharmaceuticals are approved

Before a drug is marketed in the Netherlands, the manufacturer must get the drug approved and registered by the Dutch Medicines Evaluation Board (MEB, College ter Beoordeling van Geneesmiddelen, CBG). A pharmaceutical manufacturer must submit a dossier to the CBG containing all the chemopharmaceutical, pharmacological, toxicological, clinical, and other research data. Following approval of the medicine, it will be included in the MEB Medicines Information Bank and given a registration number. The manufacturer is then responsible for the quality, effect, and safety of the medicines produced (Netherlands Enterprise Agency, 2019).

Since the Netherlands is a member of the European Union, manufacturers have a variety of options for seeking market authorization. Through the centralized procedure overseen by the European Medicines Agency (the Pan-European regulator of new medicines), manufacturers can, by virtue of a single application, receive authorization to market a medicine to patients and health care professionals throughout the European Economic Area (EMA, 2015).<sup>36</sup> Manufacturers may also follow a mutual recognition procedure where authorization is sought from national regulators in a country on the basis of previous authorization in another reference country. Manufacturers may also apply for marketing approval directly from the Dutch government through the national authorization procedure.

## How pharmaceutical prices are regulated

Since 1996, the price of prescription drugs has been regulated in accordance with the Prices of Medicines Act (Wet Geneesmiddelprijzen, WGP). Importantly this includes generics, which comprised 74.1 percent of all dispersed medicines in 2016 (SFK, 2017). The maximum wholesale price for each drug is determined by the Ministry of Health (VWS) through a process of external reference pricing based on the average of prices for the same or similar drug in Belgium, Germany, France, and the United Kingdom. External reference pricing is applied only when a product is approved for reimbursement and when a comparable product is marketed in at least half of the reference countries (Morgan, 2016). These prices are reviewed and revised twice a year to account for changes in market conditions and the Euro-Pound

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<sup>36</sup>. Some drugs are specifically required to use the centralized procedure. These include “biologic agents or other products made using high-technology procedures ... products for HIV/AIDS, cancer, diabetes, neurodegenerative diseases, auto-immune and other immune dysfunctions and viral diseases, [and] products for orphan conditions” (MaRS, 2010: 1).

exchange rate. Manufacturers have the right to lodge legal complaints and appeal against the maximum price decisions (Zuidberg, 2010; Netherlands, 2014d; Government of the Netherlands, 2019).

To manufacture medicines in the Netherlands, firms must comply with the Maximum Prices for Medicines Regulation (Regeling maximumprijzen geneesmiddelen). This regulation contains the maximum prices which manufacturers are allowed to charge for medicines. Farmatec, part of the Ministry of Health, is responsible for setting these prices. Farmatec provides permits, approvals, and registrations for medicinal products and medical devices (Netherlands Enterprise Agency, 2019).

Price regulations may be a contributing factor to the increasing number of drug shortages. In the five years leading up to 2016, the shortages quadrupled (Pieters, 2016). “Pharmaceutical companies sometimes do not find it attractive to produce cheap drugs for the small Dutch market. ‘The Netherlands is, partly due to the small population and the low drug consumption, a relatively uninteresting market’” (Pieters, 2016).

There has been some deregulation of pharmaceutical prices since 2012. For example, in previous years, pharmacists’ dispensing fees were also centrally determined by the Dutch Health care Authority (NZa). However, in 2012, a new treatment-related remuneration system was set up that provided more flexibility (SFK, 2012). Under this system, pharmacists and insurers can now negotiate prices between each other, although the government still sets the maximum price for which pharmacists purchase the drug (Netherlands, 2014c).

These recent policy changes, in addition to the health insurers’ move toward preferred drug policies (i.e., limiting the choice of medicine)<sup>37</sup> have been cited as reasons that contributed to the reining-in of drug prices in recent years (Wammes et al., 2019; Schut, 2013; SFK 2012). According to Wammes et al. (2019), the most recent figures indicate that health care expenditure growth fell significantly, to 0.8 percent as of 2015. “The pharmaceutical sector is generally considered to have contributed significantly to the decrease in spending growth. Average prices for prescription drugs declined in 2014, although less than in previous years, with reimbursement caps for the lowest-price generic contributing to the decrease in average price. Reimbursement for expensive drugs has to be negotiated between hospital and insurer; there is some concern, however, that this and other factors may limit access to expensive drugs in the near future.” Notably, the net effect that such policies have had on other health care costs and outcomes are yet to be assessed.

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37. Insurance companies may offer plans with preferred drug policies that only reimburse a narrow range of drugs in each group of therapeutically interchangeable products.

## Individual contributions for health care and pharmaceuticals

Individuals are primarily required to contribute for basic health insurance services in two ways: through a flat-rate community-rated premium and through income-related contributions. Since pharmaceuticals are covered by the basic insurance package, regulations regarding the overall insurance package are largely relevant to pharmaceutical coverage in the Netherlands.

### Premiums and income-dependent contributions

Under the Health Insurance Act, all insured persons aged 18 and over pay a “nominal” premium to their health insurer. “These premiums average around €1,200 a year. In addition, all individuals aged 18 and over also pay a mandatory policy excess of €385 (amount for 2016), one of the objectives of which is to increase cost awareness among the general public” (Ministry of Health, Welfare and Sport, 2016). As mentioned previously, insurers must determine a flat-rate premium for adults that applies uniformly across the country, and which cannot be adjusted for individual factors like age, gender, or illness.

In addition, the Long-Term Care Act is a statutory social insurance for which people pay an income-dependent premium through their payroll tax. The premium is based on a fixed percentage (9.65 percent) of the income tax, on a maximum amount of €33,589 (Ministry of Health, Welfare and Sport, 2019).

### Cost sharing

The Dutch health care system generally imposes very little cost-sharing on individuals, with very low per capital out-of-pocket spending. This spending is primarily the result of direct payments due to changes in the benefit basket and various cost sharing requirements. Unfortunately, as described by Rice et al. (2018), out-of-pocket spending data cannot be separated into cost sharing vs. direct payments due to the health care accounting practices in the Netherlands. A €150 deductible was established in 2008, and this charge has increased more than 2.5-fold, to €385, in 2016. Direct payments are required for some drugs, among other things (Rice et al., 2018).

Beyond the deductible, the Dutch health care system imposes cost-sharing for pharmaceuticals in the form of copayments. Drugs included on the positive list are subject to slightly different rules and may require a larger degree of copayment depending on patient choice. As mentioned previously, for the purposes of reimbursement, drugs are categorized into three groups (Zuidberg, 2010; KEI, 2019):

**1. Annex 1A (WTG-producten):**<sup>38</sup> Therapeutically interchangeable products. This is a positive annex. Medicines are first clustered into groups of therapeutically interchangeable products (including generics).<sup>39</sup> The clusters are based on the following criteria: “Range of indications; Route of administration; Absence of clinically relevant differences in efficacy and side effects to whole patient group or different patient age groups” (KEI, 2019). Under the standard drug coverage, the average price of the cluster of interchangeable products is determined and if the price of a drug is above this amount, the patient is required to pay the difference (Zuidberg, 2010). In this way, patients are not solely constrained to consuming those pharmaceuticals fully covered by their insurer, as they have the choice to opt for a more expensive medicine from the same category while only paying for the difference instead of the entire cost (Schäfer et al., 2010; WHO, 2011a; KEI, 2019). Insurers must fully reimburse at least one medicine in each group under a preferred drug program. Further, if the prescribing physician decides that a more expensive medicine is necessary to treat the patient, the patient will not have to pay the excess (Schäfer et al., 2010).

**2. Annex 1B (WTG-producten):** Unique products for which clustering is not possible but are reimbursed. No intra-group “reference” price exists, and as such, there is no limit on the rate of reimbursement. These products are reimbursed at the manufacturers recommended price and are only included on the list on the basis of demonstrated therapeutic value and cost efficiency (Garattini et al., 2007; KEI, 2019).

Conditions for placement on annex 1B are: Therapeutic value: the new product is compared with the present standard therapy for that indication with respect to: Effectiveness and/or efficacy; Side effects; Less important items are: Applicability; User-convenience Experience; Quality of Life. A lower therapeutic value leads to a negative reimbursement decision. (Cost) efficiency: At this moment only direct medical costs of the new product are compared to present standard therapy for that indication. At this moment the system is in transition to include pharmaco-economic data into the comparison. If costs are lower or comparable a positive decision is taken. If costs are higher in combination with a higher therapeutic value, the Minister of Health will decide based on the interest of public health. (KEI, 2019)

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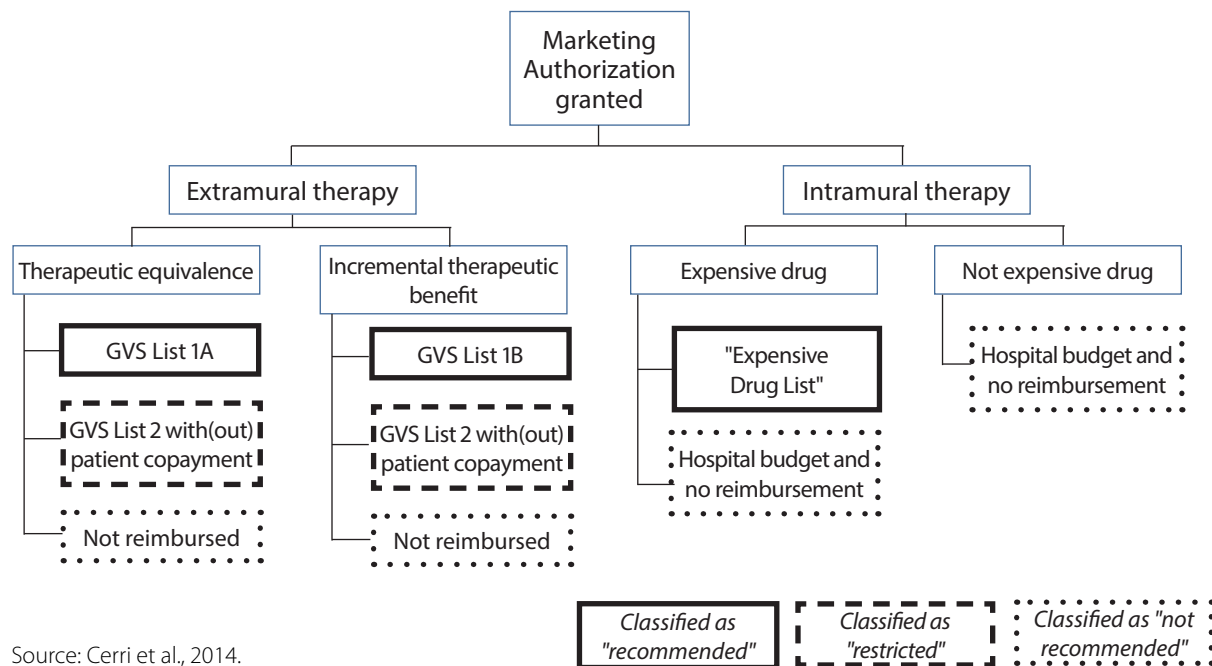
**38.** According to KEI (2019), 96 percent of prescriptions are totally reimbursed.

**39.** Since 2002, the criteria used to determine interchangeability include whether the medicines are used for the same indications, have the same form, and are used for patients in the same age category. Clinical characteristics are also involved in the determination process (Zuidberg, 2010).

**3. Annex 2:** Medicines reimbursed under specific circumstances. Patients generally have to fulfill specific criteria in order to be eligible for Annex 2 medicines. “Examples of conditions are: Limitation in patient population; Strict treatment protocol; Prior authorisation by health care insurer; Limited prescriber groups” (KEI, 2019).

**Figure 4** depicts the pharmaceutical reimbursement system in the Netherlands and the classification CVZ coverage decisions utilized in the analysis.

**Figure 4: The Dutch pharmaceutical reimbursement system**



Source: Cerri et al., 2014.

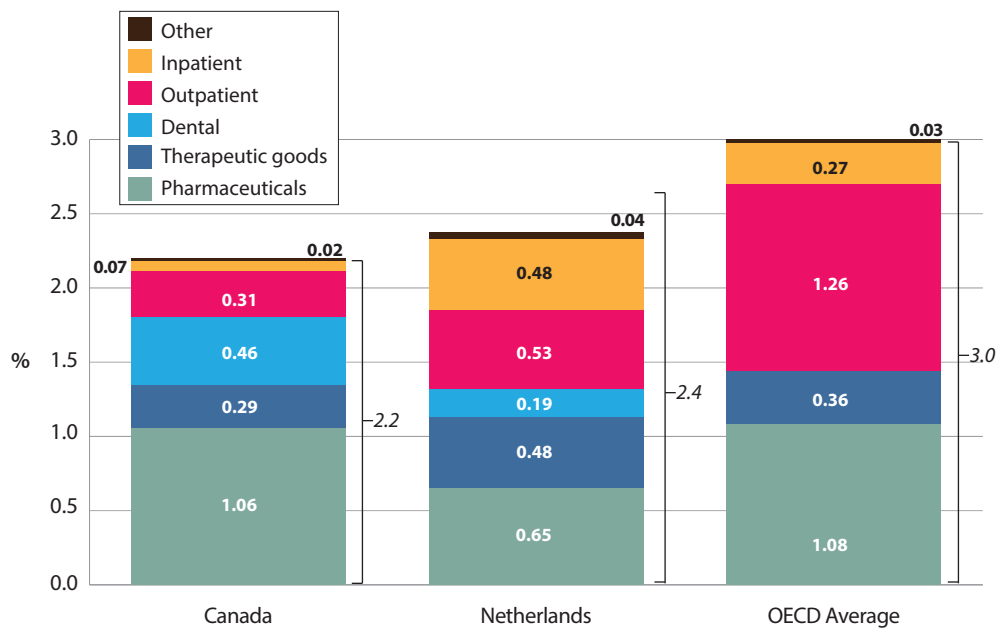
In contrast to Switzerland, where insurance cannot cover mandatory copayments for drugs, in the Netherlands private health insurance companies can offer supplementary plans that reimburse patients above the limits set by the government (Zuidberg, 2010). In some cases, there is evidence to suggest that the manufacturers themselves pay the difference (SFK, 2012).<sup>40</sup> In addition, since 2009, health insurers may also choose to waive the deductible when patients use preferred pharmaceuticals (Schäfer et al., 2010).

<sup>40</sup> The manufacturers may, for strategic reasons, “prefer not to price the concerned products below the reimbursement limit,” but still not “want the users of their medicines to have to pay the patient contributions” (SFK, 2012: 28).

**Figure 5** clearly shows the low level of cost sharing for pharmaceuticals in the Netherlands. Specifically, out-of-pocket expenditures on pharmaceuticals only represented 0.65 percent of final household consumption in the Netherlands in 2015. This contrasts with Canada where it accounted for 1.06 percent.

Further, in 2017, pharmaceutical spending (as a percentage of total health spending) represented only 7.6 percent in the Netherlands. This contrasts with Canada where it accounted for 17.8 percent<sup>41</sup> (OECD, 2018; calculations by authors).

**Figure 5: Shares of out-of-pocket medical spending by services and goods in Canada, the Netherlands, and the OECD, 2015**



Source: OECD, 2019.

### Regulations and support for low-income individuals

There are several ways in which the Netherlands ensures that individuals receive universal health care and coverage for prescription drugs, irrespective of their financial condition. This is achieved through a combination of premium regulations and subsidies, the operation of a risk equalization scheme for insurers, a low level of cost sharing (with exemptions for certain groups), and

<sup>41</sup> Canadians also rely heavily on private supplementary insurance for drugs, which finances about 35.5 percent of all prescription pharmaceutical expenditures, whereas it only finances 3.9 percent of pharmaceutical expenditures in Switzerland (OECD, 2014; calculations by authors).

a separate, publicly funded national insurance program (the WLZ) that specifically covers long-term care for the elderly, chronically ill, and disabled. The public health system also provides medicines free of charge for certain conditions, including tuberculosis, STDs, and HIV/AIDS, and operates an expanded program on immunization (EPI) vaccines for children (WHO, 2011a).

### Premium regulations and subsidies

As mentioned previously, insurers are required to accept all applicants and must determine a flat community-rated premium for adults. This premium can vary between insurers, but must apply uniformly across the country, and cannot be adjusted for individual factors like age, gender, or illness. In order to ensure that premiums do not pose a significant impediment to care for low income individuals, the Health Care Allowance Act (Wet op de Zorgtoeslag (WZT)) provides for a health insurance nominal premium allowance for those for whom the premium constitutes an excessive burden relative to their income. Under the WZT, people are entitled to financial support from the government depending on the ability to pay. Accordingly, the health care allowance is an income-based facility subject to the General Income-Linked Regulations Act (Algemene wet inkomensafhankelijke regelingen (Awir)). (Ministry of Health, Welfare and Sport, 2012) This allowance is based on the income of the individual and their partner, and the average price of the standard premium.

In 2013, 57 percent of Dutch households received a health care allowance. On average, 41 percent of the premium was compensated. Between 2006 and 2013, the total expenditure on the health care allowance doubled to €5.1 billion. At the same time, the number of households eligible for the allowance decreased because of stricter eligibility rules. Notably, the growth in expenditure is primarily due to the increase in health care allowance for the lowest income groups as compensation for the increase in the mandatory deductible. The maximum monthly health care allowance was €78 for singles and €149 for families in 2015. (Kroneman, 2018) The health care allowance is paid in monthly instalments and “because the allowance is independent of the choice of insurers, consumers are fully price sensitive at the margin” (van de Ven and Schut, 2008: 774).

### Support for cost sharing

Chronically ill individuals are eligible to receive partial compensation for the deductible. Individuals who incur structural care expenses over time, for example due to chronic illness or disability, receive financial compensation. In addition to the compulsory deductible, insurers can offer their clients a voluntary deductible in return for a discount on their premium. In addition, those on low incomes may qualify for a ‘health care allowance’, funded from income-related contributions (Elissen et al., 2015).



### Long-Term Healthcare Act (WLZ)

As mentioned earlier, the Netherlands also has a separate, publicly funded national insurance program that specifically covers long-term care for the elderly, chronically ill, and disabled individuals. This program, *Wet langdurige zorg (WLZ)*<sup>42</sup> (“General Law on Long-term Healthcare”) covers long-term nursing and care, essentially acts as a universal safety net and protects residents against catastrophic bills and certain chronic conditions. In 2013, this insurance covered 29.2 percent of all health care expenses (Statline, 2019). As of 2015, the Health Insurance Act finances home care as the shared responsibility of the national government, municipalities (day care, household services), and insurers (nursing care at home). The Long-Term Care Act finances hospice care. This program essentially acts as a universal safety net and protects residents against catastrophic bills and certain chronic conditions.

The Long-Term Care Act is a statutory social insurance for which people pay an income-dependent premium through their payroll tax. The premium is based on a fixed percentage (9.65 percent) of the income tax, on a maximum amount of €33,589 (Ministry of Health, Welfare and Sport, 2019).

The historic lack of cost containment incentives that regional agencies face led the government in 2015 to attempt significant reform in order to maintain financial sustainability. Effectively, the *Algemene Wet Bijzondere Ziektekosten (AWBZ)* was replaced by the new Long-Term Care Act (WLZ), aimed specifically at “people who need constant supervision,” while the *New Social Support Act (WMO)* encourages decentralized support from the municipal government, and the *Health Insurance Act (Zvw)* will regulate nurses to provide more home nursing care (Netherlands, 2014e; Shut, 2013).

### A note on risk equalization

The Netherlands operates a risk equalization fund to minimize risk selection and compensate insurers for the adverse effects of the mandated community rating. The operation of a risk pool is generally intended to ensure that differences in premiums are a reflection of efficiency and service, rather than reflective of underlying health risks or due to risk selection on the part of insurers (Leu et al., 2009; Withagen-Koster et al., 2018). Currently, the nation relies on the sophisticated Dutch risk equalization model of 2016.<sup>43</sup>

42. Formerly known as *Algemene Wet Bijzondere Ziektekosten (AWBZ)*.

43. As described by Withagen-Koster et al. (2018), “[t]he risk equalization model predicts medical spending using individual risk characteristics like age and gender, region, socioeconomic status, source of income and health indicators. The latter include seven classifications related to morbidity ... The first classification comprises the pharmacy-based cost groups, consisting of 33 classes based on people’s use of medication in the previous

The ex-ante adjustment criteria include age, gender, nature of income, region, pharmaceutical cost groups, diagnostic cost groups, and socio-economic status (VWS, 2012). There is also an ex-post adjustment based on a retrospective calculation at the end of the year to adjust for unexpected differences. In total, governmental funding only accounted for five percent of financing, with the remainder of financing coming from individual income-dependent contributions and a redistribution of collected community-rated premiums.

Although the Netherlands health care system features a complex risk equalization system, insurers may still be engaging in risk selection. One study suggested that insures may choose not to contract with well-regarded physicians who have expertise in treating those illnesses for which insurers take a predictable net loss. Further, insurers may choose to advertise to specific segments of the population only, and may be extremely selective about which patients receive supplemental insurance (Kleef, 2012).<sup>44</sup>

## Summary

The Netherlands maintains universally mandated private insurance which covers acute care, while long-term care is covered by separate insurance. The country has a national exchange and coverage is available to all residents and those who pay Dutch payroll taxes. The system is funded through community rated premiums as well as income-related contributions, with the government funding the remaining (approximately five percent) of the system. Supplemental insurance is allowed, with risk-rated premiums, and it is estimated that more than 80 percent of the insured population has supplemental coverage.

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year ... A second morbidity classification comprises the diagnoses-based cost groups, i.e., 15 classes based on specific inpatient and outpatient hospital diagnoses from the previous year... A third classification consists of the multiple-year high cost groups comprising 7 classes based on the level of spending for curative somatic care in the previous 3 years ... Another classification comprises the durable medical equipment cost groups. This risk adjuster classifies individuals on the basis of their use of specific durable medical equipment in the previous year, related to chronic conditions and consists of 10 classes ... The last three classifications are all based on prior-year spending for specific types of health care, i.e., physiotherapy, geriatric rehabilitation care and home care. The classifications based on physiotherapy and geriatric rehabilitation care spending both include 2 classes: yes/no spending in the previous year. The classification based on home care spending includes 7 classes; individuals are categorized in one class only, which is the class with the highest spending.”

**44.** Since patients often buy basic and supplemental insurance from the same company, this may also reduce the number of “undesirable” patients applying for the basic package (Kleef, 2012).

The system includes a central fund which allocates pooled income-related contributions and government contributions to insurers based on the risk profile of the insurers' enrollees. This risk is adjusted for age, gender, employment status, region, pharmacy cost groups, diagnostic cost groups, and socioeconomic status. Cost sharing is in place through copayments which are required for some pharmaceuticals, though at least one drug is always available without a copayment.

## Conclusion

Modern medicines play an essential role in improving health outcomes, alleviating pain and suffering, increasing longevity, and reducing expenditures on other medical services. While there is merit to pursuing policies that expand access to those in need, it should be recognized that several avenues exist in between the current decentralized approach in Canada, and the sort of national public universal program being proposed by proponents of the single-payer system.

Switzerland and the Netherlands provide two interesting examples of countries where pharmaceutical coverage is a fundamental component of the universal health insurance coverage provided by regulated private insurers. Both of these countries also ensure that this access is available to individuals and families regardless of income through premium assistance, risk equalization schemes, annual caps on cost sharing, and public safety nets for vulnerable populations. Importantly, rather than becoming an insurance provider, the government generally supports consumer choice for low income individuals by offering them the option of still being able to choose their insurer and be active players in the insurance market.

Critics frequently point out that Canada is the only industrialized country with universal medicare that does not provide universal coverage for prescription medications. They portray the policy choice as an all-or-nothing issue, with Canadians suffering due to the absence of coverage. In reality, there are a variety of alternatives and it doesn't amount to an all-or-nothing choice. As Canada considers opportunities to adopt universal, single-payer pharmacare, it is essential that our policymakers consider other systems and the alternatives that exist rather than immediately conclude a single-payer pharmacare system is the right choice going forward. Switzerland and the Netherlands are excellent examples of high performing universal access health care systems that provide drug insurance coverage to their populations without a government-run insurance scheme. Before making such a monumental change to health coverage in Canada, we owe it to ourselves to view the full menu of choices and select the option that best serves all Canadians.

## References

Acri née Lybecker, Kristina M. L. (2018). *The Unintended Consequences of National Pharmacare Programs: The Experiences of Australia, New Zealand, and the UK*. Fraser Institute. <<https://www.fraserinstitute.org/studies/unintended-consequences-of-national-pharmacare-programs>>

Arrow, K. J. (1963). Uncertainty and the Welfare Economics of Medical Care. *American Economic Review* 27, 1: 197–222.

Barua, Bacchus (2015). *Universal Insurance for Pharmaceuticals in Switzerland and the Netherlands*. Fraser Institute.

Barua, Bacchus, and Nadeem Esmail (2013). *The Case for Mutual Recognition of Drug Approvals*. Fraser Institute.

Barua, Bacchus, and Nadeem Esmail (2015). *For-Profit Hospitals and Insurers in Universal Health Care Countries*. Fraser Institute.

Belastingdienst (2014). *Maximum Amounts and Velocity Limits*. <[http://www.belastingdienst.nl/wps/wcm/connect/bldcontentnl/belastingdienst/prive/werk\\_en\\_inkomen/zorgverzekeringswet/bijdrage\\_zorgverzekeringswet/hoewordt\\_de\\_inkomensafhankelijke\\_bijdrage\\_zvw\\_betaald/hoewordt\\_de\\_bijdrage\\_zvw\\_berekend/maximumbedragen\\_en\\_aanslaggrenzen/maximumbedragen\\_en\\_aanslaggrenzen&usg=ALkJrhDUeRMmOJeHSiHCU\\_EZk7Zs6owWQ](http://www.belastingdienst.nl/wps/wcm/connect/bldcontentnl/belastingdienst/prive/werk_en_inkomen/zorgverzekeringswet/bijdrage_zorgverzekeringswet/hoewordt_de_inkomensafhankelijke_bijdrage_zvw_betaald/hoewordt_de_bijdrage_zvw_berekend/maximumbedragen_en_aanslaggrenzen/maximumbedragen_en_aanslaggrenzen&usg=ALkJrhDUeRMmOJeHSiHCU_EZk7Zs6owWQ)>

Cerri, Karin H., Martin Knapp, and Jose-Luis Fernandez (2014). Public Funding of Pharmaceuticals in the Netherlands: Investigating the Effect of Evidence, Process and Context on CVZ Decision-Making. *European Journal of Health Economics* 15, 7: 681–95. <[https://www.jstor.org/stable/24033354?seq=1#metadata\\_info\\_tab\\_contents](https://www.jstor.org/stable/24033354?seq=1#metadata_info_tab_contents)>

College voor zorgverzekeringen [CVZ] (2014). *Conscientious*. <<http://www.zorginstituutnederland.nl/&prev=/search%3Fq%3DCollege%2Bvoor%2Bzorgverzekeringen%26rls%3Dcom.microsoft:en-US:IE-Address>>

Colombo, Francesca (2001). *Towards More Choice in Social Protection? Individual Choice of Insurer in Basic Mandatory Health Insurance in Switzerland*. Labour Market and Social Policy Occasional Papers 53. OECD.

Davis, Karen, Kristof Stremikis, David Squires, and Cathy Schoen (2014). *2014 Update: Mirror, Mirror on the Wall, How the Performance of the U.S. Health Care System Compares Internationally*. The Commonwealth Fund. <[https://www.commonwealthfund.org/sites/default/files/documents/\\_\\_\\_media\\_files\\_publications\\_fund\\_report\\_2014\\_jun\\_1755\\_davis\\_mirror\\_mirror\\_2014.pdf](https://www.commonwealthfund.org/sites/default/files/documents/___media_files_publications_fund_report_2014_jun_1755_davis_mirror_mirror_2014.pdf)>

Dutch Health Care Authority [NZa] 2013. *Annual Statement of the Dutch Health Care System 2013*. NZa.

Elissen, Arianne, M. J. Inge, G. P. Duimel-Peeters, Cor Spreeuwenberg, Hubertus J. M. Vrijhoef, and Ellen Nolte (2015). The Netherlands. Chapter 12 in *Assessing Chronic Disease Management in European Health Systems: Country Reports*. Observatory Studies Series, no. 39. European Observatory on health Systems and Policies. <[https://www.ncbi.nlm.nih.gov/books/NBK458742/pdf/Bookshelf\\_NBK458742.pdf](https://www.ncbi.nlm.nih.gov/books/NBK458742/pdf/Bookshelf_NBK458742.pdf)>

Esmail, Nadeem (2014). *Health Care Lessons from the Netherlands*. Fraser Institute.

European Medicines Agency [EMA] (2015). *Applying for EU Marketing Authorization: For Medicinal Products for Human Use*. EMA. <[http://www.ema.europa.eu/docs/en\\_GB/document\\_library/Brochure/2011/03/WC500104233.pdf](http://www.ema.europa.eu/docs/en_GB/document_library/Brochure/2011/03/WC500104233.pdf)>

Expatica (2019). *Healthcare in Switzerland*. Expatica. <<https://www.expatica.com/ch/healthcare/healthcare-basics/healthcare-in-switzerland-103130/>>

Federal Office of Public Health [OFSP] (2012). *Statistik der obligatorischen Krankenversicherung 2010* (Tabellen-XLS-vollständig: 133/133 T.-laufende Aufdatierung ab 8/2011). Government of Switzerland. <<http://www.bag.admin.ch/themen/krankenversicherung/01156/02446/>>

Federal Office of Public Health [OFSP] (2013a). *Frequently Asked Questions (FAQ) about Benefits*. Government of Switzerland. <[http://www.bag.admin.ch/themen/krankenversicherung/06492/06493/index.html?lang=en&download=NHzLpZeg7t,Inp6l0NTU042l2Z6ln1ad1lZn4Z2qZpnO2Yuq2Z6gpJCJeYB\\_fWym162epYbg2c\\_JjKbNoKSn6A-](http://www.bag.admin.ch/themen/krankenversicherung/06492/06493/index.html?lang=en&download=NHzLpZeg7t,Inp6l0NTU042l2Z6ln1ad1lZn4Z2qZpnO2Yuq2Z6gpJCJeYB_fWym162epYbg2c_JjKbNoKSn6A-)>

Federal Office of Public Health [OFSP] (2013b). *Statistical Data on Health and Accident Insurance: 2013 Edition*. Government of Switzerland. <[http://www.bag.admin.ch/themen/krankenversicherung/01156/index.html?lang=en&download=NHzLpZeg7t,Inp6l0NTU042l2Z6ln1ad1lZn4Z2qZpnO2Yuq2Z6gpJCLeoN8f2ym162epYbg2c\\_JjKbNoKSn6A--](http://www.bag.admin.ch/themen/krankenversicherung/01156/index.html?lang=en&download=NHzLpZeg7t,Inp6l0NTU042l2Z6ln1ad1lZn4Z2qZpnO2Yuq2Z6gpJCLeoN8f2ym162epYbg2c_JjKbNoKSn6A--)>

Federal Office of Public Health [OFSP] (2014a). *The Compulsory Health Insurance in Switzerland: Your Questions, Our Answers*. Government of Switzerland. <[http://www.bag.admin.ch/themen/krankenversicherung/index.html?lang=en&download=NHzLpZeg7t,Inp6l0NTU042l2Z6ln1ad1lZn4Z2qZpnO2Yuq2Z6gpJCLe3x9fWym162epYbg2c\\_JjKbNoKSn6A](http://www.bag.admin.ch/themen/krankenversicherung/index.html?lang=en&download=NHzLpZeg7t,Inp6l0NTU042l2Z6ln1ad1lZn4Z2qZpnO2Yuq2Z6gpJCLe3x9fWym162epYbg2c_JjKbNoKSn6A)>

Federal Office of Public Health [OFSP] (2014b). *Medicines*. Government of Switzerland. <<http://www.bag.admin.ch/themen/krankenversicherung/00263/00264/06700/index.html?lang=en>>

Federal Office of Public Health [OFSP] (2014c). *Answers to Frequently Asked Questions about the Compulsory Insurance*. Government of Switzerland. <<http://www.bag.admin.ch/themen/krankenversicherung/index.html%26rls%3Dcom.microsoft:en-US:IE-Address%26biw%3D1280%26bih%3D929>>

Federal Office of Public Health [OFSP] (2014d). *The OFSP*. Government of Switzerland. <<http://www.bag.admin.ch/org/index.html?lang=en>>

Federal Office of Public Health [OFSP] (2014e). *FAQ about Cost Sharing*. Government of Switzerland. <<http://www.bag.admin.ch/themen/krankenversicherung/04114/04285/index.html?lang=en>>

Federal Office of Public Health [OFSP] (2019a). *Compulsory Health Insurance in a Nutshell*. Government of Switzerland. <<https://www.bag.admin.ch/dam/bag/en/dokumente/kuv-aufsicht/krankenversicherung/sie-fragen-wir-antworten-oblig-kv.pdf.download.pdf/broschuere-sie-fragen-wir-antworten-e.pdf>>

Federal Office of Public Health (OFSP) (2019b). *Information Related to the Specialties List*. Government of Switzerland. <<http://www.bag.admin.ch/bag/en/home/versicherungen/krankenversicherung/krankenversicherung-leistungen-tarife/Arzneimittel/Mitteilungen-zur-Spezialtaetenliste.html>>

Federal Statistics Office (2014). *Financing*. Costs, financing—Data, indicators. Government of Switzerland. <[http://www.bfs.admin.ch/bfs/portal/en/index/themen/14/05/blank/key/perspektive\\_der\\_direktzahler.html](http://www.bfs.admin.ch/bfs/portal/en/index/themen/14/05/blank/key/perspektive_der_direktzahler.html)>

Flood, Colleen M., Bryan Thomas, Asad Ali Moten, and Patrick Fafard (2018). *Universal Pharmacare and Federalism: Policy Options for Canada*. IRPP Study, no. 68. <<http://irpp.org/wp-content/uploads/2018/09/Universal-Pharmacare-and-Federalism-Policy-Options-for-Canada.pdf>>

Foundation for Pharmaceutical Statistics [SFK] (2012). *Facts and Figures 2012: On Pharmaceutical Care in the Netherlands*. SFK. <<http://www.sfk.nl/english/f-f-2012>>

Fürst-Ladani, Shayesteh (2012). *Succeeding in Switzerland's Regulatory Environment for Pharma—Similarities and Differences Compared with the EU*. SCRIP Regulatory Affairs.

Gagnon, Marc-André (2017). The Role and Impact of Cost-Sharing Mechanisms for Prescription Drug Coverage. *Canadian Medical Association Journal* 189, 19: E680–81. <<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5433868/>>

Gagnon, Marc-André, and Guillaume Hébert (2010). *The Economic Case for Universal Pharmacare: Costs and Benefits of Publicly Funded Drug Coverage for all Canadians*. Canadian Centre for Policy Alternatives. <[https://s3.amazonaws.com/policyalternatives.ca/sites/default/files/uploads/publications/National%20Office/2010/09/Universal\\_Pharmacare.pdf](https://s3.amazonaws.com/policyalternatives.ca/sites/default/files/uploads/publications/National%20Office/2010/09/Universal_Pharmacare.pdf)>

Garattini, Livio, Dante Cornago, and Paola De Compadri (2007). Pricing and Reimbursement of In-patent Drugs in Seven European Countries: A Comparative Analysis. *Health Policy* 82: 330–39.

Gerritzen, Berit C., Isabel Martínez, and Alma Ramsden (2014). *Cantonal Differences in Health Care Premium Subsidies in Switzerland*. Unpublished MS.



Globerman, Steven (2016). Select Cost Sharing in Universal Health Care Countries. *Fraser Research Bulletin*. <<https://www.fraserinstitute.org/sites/default/files/select-cost-sharing-in-universal-health-care-countries.pdf>>

Government of the Netherlands (2019). *What Medicines are Covered by Insurance? Government of the Netherlands*. <<https://www.government.nl/topics/medicines/question-and-answer/what-medicines-are-covered-by-insurance>>

Hermus, Greg, Carole Stonebridge, Thy Dinh, Selma Didic, and Louis Thériault (2013). *Reducing the Health Care and Societal Costs of Disease: The Role of Pharmaceuticals*. Conference Board of Canada.

Herzlinger, Regina E., and Ramin Parsa-Parsi (2004). Consumer-Driven Health Care: Lessons From Switzerland. *JAMA* 292: 1213–20.

Interpharma (2013). *Le marché du médicament en Suisse, Edition 2013*. Interpharma. <[http://www.suchtmonitoring.ch/docs/library/augsburger\\_r266paikp6s.pdf](http://www.suchtmonitoring.ch/docs/library/augsburger_r266paikp6s.pdf)>

Jain, Anand B., Annette Mollet, and Thomas D. Szucs (2017). Structural and Procedural Characteristics of International Regulatory Authorities. *Nature Drug Discover* 15: 594–95.

Knowledge Economy International (KEI) (2019). *Reimbursement Categories of Medicines in European Union Member Countries*. KEI. <<https://www.keionline.org/book/european-union/reimbursement-categories-of-medicines-in-european-union-member-countries>>

Kroneman, Madelon (2019). *Health Systems in Transition: Profile of the Netherlands*. *Health Systems and Policy Monitor*. European Observatory on Health Systems and Policies. <<https://www.hspm.org/countries/netherlands25062012/livinghit.aspx?Section=3.4%20Pooling%20of%20funds&Type=Chapter>>

Kunzler, Oliver, Carlo Conti, and Martina Braun (2019). *Pricing and Reimbursement 2018|Switzerland*. Global Legal Insights. <<https://www.globallegalinsights.com/practice-areas/pricing-and-reimbursement-laws-and-regulations/switzerland>>

Law, Michael R., Lucy Cheng, Irfan A. Dhalla, Deborah Heard, and Steven G. Morgan (2012). The Effect of Cost on Adherence to Prescription Medications in Canada. *CMAJ* 184, 3 (Feb): 297–302.

Leu, Robert E., Frans F. H. Rutten, Werner Brouwer, Pius Matter, and Christian Rüttschi (2009). *The Swiss and Dutch Health Insurance Systems: Universal Coverage and Regulated Competitive Insurance Markets*. Commonwealth Fund.

Lexchin, Joel (2001). *A National Pharmacare Plan: Combining Efficiency and Equity*. Canadian Centre for Policy Alternatives.

Lichtenberg, Frank R. (2008). *Have Newer Cardiovascular Drugs Reduced Hospitalization? Evidence from Longitudinal Country-level Data on 20 OECD Countries, 1995-2003*. NBER Working Paper, No. 14008. National Bureau of Economic Research.

Lichtenberg, Frank R. (2012). *Pharmaceutical Innovation and Longevity Growth in 30 Developing and High-income Countries, 2000-2009*. NBER Working Paper, No. 18235. National Bureau of Economic Research.

Lichtenberg, Frank R. (2016, June 20) Pharma Innovation Worth the Cost. *Toronto Sun*. <<https://torontosun.com/2016/06/20/pharma-innovation-worth-the-cost/wcm/be0adf8f-7f16-45ec-beed-e80460d6c045>>

Lichtenberg, Frank R. (2019). *How Many Life-Years Have New Drugs Saved? A 3-Way Fixed-Effects Analysis of 66 Diseases in 27 Countries, 2000-2013*. NBER Working Paper No. 25483. National Bureau of Economic Research.

Lundy, Janet, and Benjamin D. Finder (2009). *Cost Sharing for Health Care: France, Germany, and Switzerland*. Kaiser Family Foundation.

Lybecker, Kristina M. (2013). *The Bulk Purchase of Pharmaceuticals: The Experiences of the United States, Europe, and New Zealand*. Fraser Institute.

Mantwill, Sarah, and Stefan Boes (2019). *Health Systems in Transition: Profile of Switzerland*. *Health Systems and Policy Monitor*. European Observatory on Health Systems and Policies. <<https://www.hspm.org/countries/switzerland25062016/livinghit.aspx?Section=3.1%20Health%20expenditure&Type=Section>>

MaRS (2010). *How New Drugs are approved in the EU*. MaRS. <<http://www.marsdd.com>>

Matthiessen, Peter F., and Gudrun Bornhöft (2011). *Homeopath in Health Care—Effectiveness, Appropriateness, Safety, Costs*. SpringerMedizin.

Medicines Evaluation Board [MEB] (2014a). *Marketing Authorisation via National Procedure*. MEB (Netherlands). <<http://www.cbg-meb.nl/CBG/en/human-medicines/regulatory-affairs/national-procedure/default.htm>>

Medicines Evaluation Board [MEB] (2014b). *Marketing Authorisation via Decentralised and Mutual Recognition Procedures*. MEB (Netherlands). <<http://www.cbg-meb.nl/CBG/en/human-medicines/regulatory-affairs/decentralised-and-mutual-recognition-procedures/default.htm>>

Mediq (2011). *System of Fees and Reimbursements*. Annual Report 2011. Mediq. <[http://annualreport2011.mediq.com/uk/annual\\_report\\_2011/system\\_of\\_fees\\_and\\_reimbursements/](http://annualreport2011.mediq.com/uk/annual_report_2011/system_of_fees_and_reimbursements/)>

Miller, Richard D., Jr., and Ted Frech (2002). *The Productivity of Health Care and Pharmaceuticals: Quality of Life, Cause of Death and the Role of Obesity*. Departmental Working Papers. Department of Economics, UC Santa Barbara.

Millison, Brad, Sherri Thiele, Yvonne Zhang, Wendy Dobson-Belaire, and Brett Skinner (2016). *Access to New Medicines in Public Drug Plans: Canada and Comparable Countries, 2016 Annual Report*. <[http://innovativemedicines.ca/wp-content/uploads/2016/05/20160524\\_Access\\_to\\_Medicines\\_Report\\_EN\\_Web.pdf](http://innovativemedicines.ca/wp-content/uploads/2016/05/20160524_Access_to_Medicines_Report_EN_Web.pdf)>

Ministry of Health, Welfare and Sport [VWS] (2012). *Health Insurance in the Netherlands*. Government of the Netherlands. <<http://www.government.nl/issues/health-issues/documents-and-publications/leaflets/2012/09/26/health-insurance-in-the-netherlands.html>>

Ministry of Health, Welfare and Sport [VWS] (2016). *Healthcare in the Netherlands*. Government of the Netherlands. <[https://www.eiseverywhere.com/file\\_uploads/0f57b7c2d0d94ff45769269d50876905\\_P4-HealthcareintheNetherlands.pdf](https://www.eiseverywhere.com/file_uploads/0f57b7c2d0d94ff45769269d50876905_P4-HealthcareintheNetherlands.pdf)>

Morgan, Steven G. (2016) *Summaries of National Drug Coverage and Pharmaceutical Pricing Policies in 10 Countries: Australia, Canada, France, Germany, the Netherlands, New Zealand, Norway, Sweden, Switzerland and the U.K.* Working Papers prepared for the 2016 meeting of the Vancouver Group, New York. <[https://www.commonwealthfund.org/sites/default/files/2018-09/Steven%20Morgan%2C%20PhD\\_Ten%20Country%20Pharma%20Policy%20Summaries\\_2016%20Vancouver%20Group%20Meeting.pdf](https://www.commonwealthfund.org/sites/default/files/2018-09/Steven%20Morgan%2C%20PhD_Ten%20Country%20Pharma%20Policy%20Summaries_2016%20Vancouver%20Group%20Meeting.pdf)>

Morgan, Steven G., Jamie R. Daw, and Michael R. Law (2013). *Rethinking Pharmacare in Canada*. Commentary No. 384. C. D. Howe Institute.

Morgan, Steven G., Danielle Martin, Marc-Andre Gagnon, Barbara Mintzes, Jamie R. Daw, and Joel Lexchin (2015). *Pharmacare2020: The Future of Drug Coverage in Canada*. Pharmaceutical Policy Research Collaboration, University of British Columbia. <[http://pharmacare2020.ca/assets/pdf/The\\_Future\\_of\\_Drug\\_Coverage\\_in\\_Canada.pdf](http://pharmacare2020.ca/assets/pdf/The_Future_of_Drug_Coverage_in_Canada.pdf)>

Netherlands (2014a). *Health Issues: Health Insurance*. Government of the Netherlands. <<http://www.government.nl/issues/health-issues/health-insurance>>

Netherlands (2014b). *Insurance Decree: Article 2.8*. Government of the Netherlands. <[http://wetten.overheid.nl/BWBR0018492/geldigheidsdatum\\_06-05-2014&usg=ALkJrhijiaFj-d0rxXmt6OXo0NdobJIQww#Hoofdstuk2\\_1\\_Artikel28](http://wetten.overheid.nl/BWBR0018492/geldigheidsdatum_06-05-2014&usg=ALkJrhijiaFj-d0rxXmt6OXo0NdobJIQww#Hoofdstuk2_1_Artikel28)>

Netherlands (2014c). *Pharmaceuticals: Affordability of Medicines*. Government of the Netherlands. <<http://www.rijksoverheid.nl/onderwerpen/geneesmiddelen/betaalbaar-houden-van-geneesmiddelen>>

Netherlands (2014d). *Law: Medicine Prices*. Government of the Netherlands. <<http://wetten.overheid.nl/BWBR0007867>>

Netherlands (2014e). *Exceptional Medical Expenses Act (EMEA)*. Government of the Netherlands. <<http://www.rijksoverheid.nl/onderwerpen/algemene-wet-bijzondere-ziektekosten-awbz/veranderingen-in-de-awbz>>

Netherlands Enterprise Agency (2019). *Putting New Medicines on the Market*. NEA. <<https://business.gov.nl/regulation/trading-permit-medicines/>>

Organisation for Economic Cooperation and Development and World Health Organization [OECD/WHO] (2011). *OECD Reviews of Health Systems: Switzerland 2011*. OECD.

Organisation for Economic Cooperation and Development [OECD] (2013). *OECD Health Statistics 2013—Frequently Requested Data*. OECD.

Organisation for Economic Cooperation and Development [OECD] (2017). *OECD Health Statistics 2017*. OECD. <<https://data.oecd.org/>>

Organisation for Economic Cooperation and Development [OECD] (2019). *Health at a Glance, OECD 2017 Indicators*. OECD. <[https://read.oecd-ilibrary.org/social-issues-migration-health/health-at-a-glance-2017/out-of-pocket-medical-spending-as-a-share-of-final-household-consumption-2015-or-nearest-year\\_health\\_glance-2017-graph58-en#page1](https://read.oecd-ilibrary.org/social-issues-migration-health/health-at-a-glance-2017/out-of-pocket-medical-spending-as-a-share-of-final-household-consumption-2015-or-nearest-year_health_glance-2017-graph58-en#page1)>

Paris, Valérie, and Elizabeth Docteur (2007). *Pharmaceutical Pricing and Reimbursement Policies in Switzerland*. OECD Health Working Papers No.27. OECD. <<https://www.oecd.org/switzerland/38868953.pdf>>

Pieters, Janene (2016). *Prescription Drug Shortages Plaguing Netherlands*. NL Times. <<https://nltimes.nl/2016/01/19/prescription-drug-shortages-plaguing-netherlands>>

Rawson, Nigel S. B. (2013). *Potential Impact of Delayed Access to Five Oncology Drugs in Canada*. Fraser Institute. <[https://www.fraserinstitute.org/sites/default/files/potential-impact-of-delayed-access-to-five-oncology-drugs-in-canada\\_1.pdf](https://www.fraserinstitute.org/sites/default/files/potential-impact-of-delayed-access-to-five-oncology-drugs-in-canada_1.pdf)>

Rawson, Nigel S. B. (2019). Comparison of Numbers and Timing of New Medication Regulatory Approvals in Canada and New Zealand. *Regulatory Toxicology and Pharmacology* 101: 24–28. <[https://www.researchgate.net/publication/328677938\\_Comparison\\_of\\_numbers\\_and\\_timing\\_of\\_new\\_medication\\_regulatory\\_approvals\\_in\\_Canada\\_and\\_New\\_Zealand](https://www.researchgate.net/publication/328677938_Comparison_of_numbers_and_timing_of_new_medication_regulatory_approvals_in_Canada_and_New_Zealand)>

Rice, Thomas, Wilm Quentin, Anders Annel, Andrew J. Barnes, Pauline Rosenau, Lynn Y. Unruh, and Ewout van Ginneken (2018). *Revisiting Out-of-Pocket Requirements: Trends in Spending, Financial Access Barriers and Policy in Ten High-Income Countries*. BMC Health Services Research 18: 371. <[https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5960112/pdf/12913\\_2018\\_Article\\_3185.pdf](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5960112/pdf/12913_2018_Article_3185.pdf)>

Rovere, Mark, and Bacchus Barua (2012a). Opportunity for Health Reform: Lessons from Switzerland. *Fraser Forum* (July/August).

Rovere, Mark, and Bacchus Barua (2012b). Opportunity for Health Reform: Lessons from the Netherlands. *Fraser Forum* (September/October).

Rovere, Mark, and Brett J. Skinner (2012). *Access Delayed, Access Denied 2012: Waiting for New Medicines in Canada*. Fraser Institute.

Roy, Avik (2011). Why Switzerland has the World's Best Health Care System. *Forbes*. <<https://www.forbes.com/sites/theapothecary/2011/04/29/why-switzerland-has-the-worlds-best-health-care-system/#d6cc3bc7d743>>

Salek, Sam M., Sarah Lussier Hoskyn, Jeffrey Johns, Nichola Allen, and Chander Sehgal (2019). *Pan-Canadian Pharmaceutical Alliance (pCPA): Timelines Analysis and Policy Implications*. *Frontiers in Pharmacology*. <<https://www.frontiersin.org/articles/10.3389/fphar.2018.01578/full>>

Sarnak, Dana O., David Squires, Greg Kuzmak, and Shawn Bishop (2017). *Paying for Prescription Drugs Around the World: Why Is the U.S. an Outlier?* Issue Brief, Commonwealth Fund. <[https://www.commonwealthfund.org/sites/default/files/documents/\\_\\_\\_media\\_files\\_publications\\_issue\\_brief\\_2017\\_oct\\_sarnak\\_paying\\_for\\_rx\\_ib\\_v2.pdf](https://www.commonwealthfund.org/sites/default/files/documents/___media_files_publications_issue_brief_2017_oct_sarnak_paying_for_rx_ib_v2.pdf)>

Schäfer, Willemijn, Madelon Kroneman, Wienke Boerma, Michael van den Berg, Gert Westert, Walter Devillé, and Ewout van Ginneken (2010). The Netherlands: Health System Review. *Health Systems in Transition* 12, 1: 1–229.

Schmid, C. P. and K. Beck (2016). Re-insurance in the Swiss Health Insurance Market: Fit, Power and Balance. *Health Policy* 120, 7: 848–855. <<https://www.sciencedirect.com/journal/health-policy>>

Schut, Erik, Stéphane Sorbe, and Jens Høj (2013). *Health Care Reform and Long-Term Care in the Netherlands*. OECD Economics Department Working Paper No. 1010. OECD.

SFK (2017). Facts and Figures 2017: *On Pharmaceutical Care in the Netherlands in 2016*. SEK. <<https://www.sfk.nl/english/facts-and-figures-2017>>

Skinner, B. J., J. R. Gray, and G. P. Attara (2009). Increased Health Costs from Mandated Therapeutic Substitution of Proton Pump Inhibitors in British Columbia. *Alimentary Pharmacology and Therapeutics* 29, 8: 882–91.

Skinner, Brett J. (2017) Ottawa's New Pharmacare Plan Will Deny You Important Medicines and Cost You More. *Calgary Herald*. <<https://calgaryherald.com/opinion/ottawas-new-pharmacare-plan-will-deny-you-important-medicines-and-cost-you-more/wcm/d50d881a-2f00-4714-80ac-e23131041102>>

Statline (2019). *Zorgrekeningen; uitgaven (in lopende en constante prijzen) en financiering*. (In Dutch). Centraal Bureau voor de Statistiek: StatLine. <<https://statline.cbs.nl/StatWeb/publication/?DM=SLNL&PA=71914ned&D1=37-43&D2=a&HDR=G1&STB=T&VW=T>>

Sturny, Isabelle (2019). *The Swiss Health Care System. International Health System Profiles*. The Commonwealth Fund. <<https://international.commonwealthfund.org/countries/switzerland/>>

Swissmedic (2019). *The Tasks*. Swissmedic. <<https://www.swissmedic.ch/swissmedic/en/home/about-us/swissmedic--swiss-agency-for-therapeutic-products/patients-and-users.html>>

Swissmedic (2017). *Annual Report 2017*. Swissmedic. <<https://www.swissmedic.ch/swissmedic/en/home/about-us/publications/current-annual-report/swissmedic-geschaeftsbericht-2017.html>>

Swissmedic (2013). *Annual Report 2013*. Swissmedic.

Taylor, Lynne (2013, April 17). *Swiss Drug Prices to Fall as Govt/Industry Agree Deal*. PharmaTimes. <[http://www.pharmatimes.com/article/13-04-17/Swiss\\_drug\\_prices\\_to\\_fall\\_as\\_govt\\_industry\\_agree\\_deal.aspx](http://www.pharmatimes.com/article/13-04-17/Swiss_drug_prices_to_fall_as_govt_industry_agree_deal.aspx)>

van de Ven, Wynand P. M. M., and Frederik T. Schut (2008). Universal Mandatory Health Insurance in the Netherlands: A Model for the United States? *Health Affairs* 27, 3: 771–81.

van Ginneken, Ewout, Katherine Swartz, and Philip Van der Wees (2013). Health Insurance Exchanges in Switzerland and the Netherlands Offer Five Key Lessons for the Operations of US Exchanges. *Health Affairs* 32, 4: 744–52. <<https://www.healthaffairs.org/doi/full/10.1377/hlthaff.2012.0948>>

Van Kleef, Richard C. (2012). Managed Competition in the Dutch Health Care System: Preconditions and Experiences So Far. *Public Policy Review* 8, 2 (July): 171–90.

Wammes, Joost, Patrick Jeurissen, Gert Westert, and Marit Tanke (2019). *The Dutch Health Care System. International Health System Profiles*. The Commonwealth Fund. <<https://international.commonwealthfund.org/countries/netherlands/>>

Westert, Gert, and Joost Wammes (2013). The Dutch Health Care System, 2013. In Sarah Thomson, Robin Osborn, David Squires, and Miraya Jun (eds.), *International Profiles of Health Care Systems, 2013* (Commonwealth Fund): 85–94.

World Health Organization [WHO] (2001). *Legal Status of Traditional Medicine and Complementary/Alternative Medicine: A Worldwide Review*. WHO. <<http://apps.who.int/medicinedocs/pdf/h2943e/h2943e.pdf>>

World Health Organization [WHO] (2011a). *Netherlands Pharmaceutical Country Profile*. Ministry of Health, Welfare and Sports in collaboration with the World Health Organization. <[http://www.who.int/medicines/areas/coordination/netherlands\\_pharmaceutical\\_profile.pdf](http://www.who.int/medicines/areas/coordination/netherlands_pharmaceutical_profile.pdf)>

World Health Organization [WHO] (2011b). *Switzerland Pharmaceutical Country Profile*. Swiss Federal Office of Public Health in collaboration with the World Health Organization. <[http://www.who.int/medicines/areas/coordination/Switzerland\\_PSCPNarrativeQuestionnaire\\_07092011.pdf](http://www.who.int/medicines/areas/coordination/Switzerland_PSCPNarrativeQuestionnaire_07092011.pdf)>

Withagen-Koster, A. A., R. C. van Kleef, and F. Eijkenaar (2018) Examining Unpriced Risk Heterogeneity in the Dutch Health Insurance Market. *European Journal of Health Economics* 19: 1351–63. <<https://link.springer.com/content/pdf/10.1007%2Fs10198-018-0979-x.pdf>>

Zuidberg, Christel (2010). *The Pharmaceutical System of the Netherlands*. University of Utrecht. <[http://whocc.goeg.at/Literaturliste/Dokumente/BooksReports/The%20pharmaceutical%20system%20of%20the%20Netherlands\\_FINAL.pdf](http://whocc.goeg.at/Literaturliste/Dokumente/BooksReports/The%20pharmaceutical%20system%20of%20the%20Netherlands_FINAL.pdf)>



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## Acknowledgments

The authors wish to thank the Lotte and John Hecht Memorial Foundation for generously supporting this project. They also thank the anonymous reviewers for their helpful comments. Any errors and omissions are the sole responsibility of the authors. As the researchers have worked independently, the views and conclusions expressed in this paper do not necessarily reflect those of the Board of Directors of the Fraser Institute, the staff, or supporters.

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### ISBN

978-0-88975-559-8

### Date of issue

July 2019

### Citation

Acri, Kristina M. L., and Bacchus Barua (2019). *Universal Insurance for Pharmaceuticals in Switzerland and the Netherlands*. Fraser Institute. <http://www.fraserinstitute.org>.

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