The following is a comparison of four international health care systems: Australia, Canada, Germany, and Switzerland. These four examples provide perspective on the differences and similarities in the structures of national health care systems. This brief will look at how these countries handle the following policy considerations:

How basic health insurance is structured (all-payer or single-payer)
- Among industrialized countries, health care systems often fall into two broad categories: heavily regulated all-payer systems with multiple insurers or single-payer systems where the government directly provides basic insurance.

How provider rates are determined
- In all-payer systems, a mechanism is used to fix prices for all insurers; either the government does this directly, or an agreement is reached among all the insurers and providers. In single-payer systems, the government sets reimbursement rates or directly employs providers in government-run hospitals. Rate setting often entails regulating the salaries of physicians, level of administrative spending on the insurance side, and pharmaceutical costs.

How the system is financed
- National health care systems generally fall into either a social insurance model (where individuals pay a premium/payroll tax approximately equal to their health care costs) or a “pay as you go” model (where health care is funded by general tax revenue).

How cost-sharing is handled
- Cost-sharing ranges from minimal to significant deductibles/coinsurance paid by individuals.

What degree of duplicate, complementary and supplementary insurance is allowed/used
- Duplicate insurance is defined as insurance that covers procedures also covered by the basic insurance program but offers greater network size, faster access, or greater level of care.
- Complementary insurance refers to insurance that covers part or all the cost-sharing in the basic health system.

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1 Different countries use different definitions of these terms depending on the insurance structure. There is not always a clear distinction between these types of additional coverage. Complementary insurance can sometimes function like duplicate insurance by paying the difference for high-cost providers. Definitions for these terms come from OECD Health Statistics 2017 Definitions, Sources and Methods retrieved May 16, 2018.

http://stats.oecd.org/fileview2.aspx?IDFile=e11b92da-6cc5-4cea-afe9-1d4cce02e5a4
Supplementary insurance refers to insurance that covers procedures not covered by the basic program such as dental, vision, certain drugs, and orthodontics.

**Level of managed care/utilization management**
- Degree to which systems use health maintenance organizations (HMOs), limit choice, or require general practitioner (GP) gatekeeping.

**Hospital ownership**
- The percentage of hospitals that are public, not-for-profit, and for-profit.

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**DESIGN CHOICES AMONG INTERNATIONAL COUNTRIES**

Several fundamental design concepts exist among multiple international systems, including and beyond the four countries highlighted in this report.

**Standardized cost-sharing** – among countries with significant cost-sharing, the cost-sharing implementation is normally standardized. For example, governments set coinsurance rates, set copays, and/or set deductibles that are universal or near-universal. Many countries that use cost-sharing employ a variety of mechanisms to reduce out-of-pocket cost for the lowest-income individuals. Mechanisms include exempting low-income people from coinsurance, sending people to providers who aren’t required to charge cost-sharing fees, or providing public complementary insurance for low-income people.

**Gatekeeping** – countries that aim for an equalitarian system with a single-payer approach tend to have little to no cost-sharing but instead have robust gatekeeping policies to manage resources and utilization of services.

**Government price setting** – countries that set prices tend to use three basic models: a single universal price (Japan, Canada, United Kingdom, Norway); a ceiling to hold prices down with managed care arrangements that charge less (Switzerland, Medicare Advantage); or an expected floor, which providers are encouraged to accept as full payment, but providers can balance-bill for more (Australia & France). As a result, for several systems, the default is effectively a preferred provider organization (PPO) with higher cost-sharing, but an individual can reduce their out of pocket costs by opting for managed care. For others, the default is a managed-care arrangement, where an individual has the choice to pay additional costs to access a larger network of providers.

**Administrative costs** – single-payer systems tend to have lower administrative costs than all-payer systems as individual plan choice increases administrative costs. According to a 2017 report by the Organization for Economic Cooperation and Development (OECD), “Single-payer systems have lower [insurance] administrative costs than multi-payer systems.” This is particularly evident in countries where individuals choose between multiple plans (Germany, Switzerland) but less so in countries where plans are basically assigned by an individual’s job or location instead of selected (Japan). Systems financed by multiple payers have a more complex reimbursement scheme and also tend to have higher administrative costs. Giving individuals insurance choice often necessitates risk-

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3 Ibid.
adjusting, which adds administrative costs. Leaving aside the issue of consumer choice, a contributing factor to the overall administrative cost is the standardization of the pricing system within a country. In other words, the number of insurers has minimal impact if the price, payment, and dispute system is standardized.

**INDIVIDUAL COUNTRY PROFILES**

**Australia: Health care spending 9.4 percent of GDP**

**How basic insurance is structured** – Australia’s system is largely single-payer with all-payer elements. All citizens, legal permanent residents, and visitors from reciprocal health care agreement countries are automatically covered by Medicare.⁴ For some temporary visa holders, like overseas students, the purchase of private health insurance is required.⁵ Medicare is a universal public health insurance program, but individuals are encouraged to purchase additional private health insurance. Private insurance effectively allows greater choice in hospitals and providers. It also can provide additional benefits such as dental coverage.

**How provider rates are determined in the system** – independent physicians and specialists are paid on a fee-for-service basis with the basic rate, which includes drug prices, set by government.⁶ Public hospitals are run by local governments and are free to use for individuals covered by Medicare. Physicians are a mix of salaried employees and fee-for-service. Physicians can charge prices above the government-set fee; however, patients are then required to pay the difference between the government rate and provider rates. In Australia, approximately 85.6 percent of general practitioners engage in “bulk-billing,” meaning they accept the government-set fee as payment in full, as providers receive financial incentives to bulk-bill.⁷

*Level of administrative spending (insurance side)* – three percent of total expenditures


*Physician salaries and ratio of remuneration to mean wages* – Generalist: $108,564 (2.1), Specialist: $202,291 (3.8)⁸ (2017 US dollar equivalents)

**System financing** – system is mainly financed via general government revenue with some dedicated social insurance taxes. There is a 2 percent Medicare levy on taxable income and a Medicare levy

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surcharge if an individual makes over $90,000 Australian ($67,375 USD) and doesn’t buy private insurance. The majority of financing comes from general government revenue.

**Cost-sharing** – there is almost no cost-sharing for covered benefits from physicians who accept the government fee schedule or public hospitals. Out-of-pocket spending for pharmaceuticals is capped. If an individual chooses to use a private hospital as a private patient, then Medicare pays 75 percent of the schedule fee with the balance paid by the individual or their private insurance.

**Duplicate, complementary and supplementary insurance** – highly regulated private insurance is encouraged by Australia’s tax code for both duplicate and supplementary coverage with multiple tiers of coverage. Approximately 57 percent of Australian adults have some form of private insurance. Private insurers can be for-profit. Private insurance allows individuals choice of providers, private hospitals, and shorter wait times. Until recently the largest “private” insurer, Medibank, was run by the government but has now been privatized.

**Managed care/utilization management** – primary care physicians act as gatekeepers in Medicare. There is limited to no utilization management for individuals with the most comprehensive private insurance.

**Hospital ownership** – 65 percent public, 35 percent private.

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**CANADA: Health care spending 10.4 percent of GDP**

**How basic insurance is structured** – system is single-payer and all legal residents are automatically covered by their province’s Medicare.\(^{11}\)

**How provider rates are determined in the basic system** – independent physicians are paid according to fee-for-service, with rates set by local government. Hospitals operate under global budgets, and some physicians at hospitals are salaried employees.

- *Level of administrative spending (insurance side)* – 3 percent of total expenditures
- *Physician salaries and ratio of remuneration to mean wages* – Generalist: $146,286 (3.0), Specialist: $188,260 (3.9)\(^{12}\) (2017 US dollar equivalents)

**System financing** – direct tax revenue is the main source of funding. While the federal government provides some funds, health care spending mainly comes from province-level general tax revenue. Approximately half of Canada’s provinces have a premium or dedicated payroll tax while the other half of provinces do not.\(^{13}\)

**Cost-sharing** – there is almost no cost-sharing for covered public benefits and drug are mostly not covered.

**Duplicate, complementary, and supplementary insurance allowed/used** – duplicate insurance is prohibited, although private clinics exist that allow individuals to avoid wait times by paying an “annual fee.” The price (several thousand a year) and structure are similar to duplicate insurance.\(^{14}\) Supplementary insurance for things like dental, vision, drugs, and private rooms is common and normally offered by employers. Such insurance can be for-profit or not-for-profit.

**Managed care/utilization management** – primary care physicians oversee and are responsible for utilization management.

**Hospital ownership** – public, mostly not-for-profit, with some limited for-profit hospitals.

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**GERMANY:** Health care spending 11.3 percent of GDP

**How basic insurance is structured** – an all-payer system. Basic health insurance is mandated from one of 118 not-for-profit sickness funds (German name for these traditional non-profit insurers). Individuals do have the option to choose substitutive private health insurance that is for-profit. 85 percent of residents are covered by the sickness funds, 11 percent by private insurance, and 4 percent by various other mechanisms (i.e. military, asylum seekers).

**How provider rates are determined in the basic system** – independent physicians are fee-for-service. Hospitals are paid using diagnosis-related groups while most physicians at hospitals are salaried. Rates are established by agreements between sickness funds, doctors, hospitals, and the government. The federal government plays a role in setting private insurance rates.

- **Level of administrative spending (insurance side)** – 5 percent of total expenditures
- **Physician salaries and ratio of remuneration to mean wages** – Generalist: $154,126 (3.3), Specialist: $181,243 (3.9)

**System financing** – system is mainly financed by social insurance premiums and limited government general funds. Adults pay a premium/payroll tax of roughly 15 percent of gross wages up to 50,850 Euros for their sickness fund. Individuals with higher wages can opt instead to fully pay for private insurance. There are different mandatory social insurance schemes that cover most health care spending, which is augmented by general government funds.

**Cost-sharing** – covered benefits such as medical devices, prescriptions, and hospital stays, copays range on average from 5-10 Euros. Annual cost-sharing for an individual is capped at two percent of their household income.

**Duplicate, complementary and supplementary insurance allowed/used** – approximately 11 percent of individuals opt to buy substantive private insurance; however, individuals are not required to. Once a person decides to opt into the private insurance market, they are limited in their ability to transition back into the sickness fund system. For those individuals with private coverage, insurance premiums vary based on age and health; however, private insurers must offer a standard basic insurance policy for least the maximum price of sickness fund contribution. Private insurance tends to offer additional benefits like short wait times and private hospital rooms. Additional complementary and supplementary insurance exists for sickness funds to cover co-pays for dental work, hospital stays, ambulances, etc.

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18 Institute for Quality and Efficiency in Health Care (IQWiG) (February 8, 2018) Health care in Germany: Health insurance in Germany PMHID: PMH0078017
Managed care/utilization management – utilization management is relatively limited. Sickness funds offer a choice of providers, but individuals can choose the “family physician care model” with gatekeeping. Physicians referrals are often needed for specific hospital and mental health services.

Hospital ownership – (beds) 48 percent public, 35 percent non-profit, 17 percent private.19

<table>
<thead>
<tr>
<th>SWITZERLAND</th>
<th>Health care spending 11.7 percent of GDP</th>
</tr>
</thead>
</table>

How basic insurance is structured – all-payer system in which every resident is mandated to purchase mandatory health insurance (MHI) from one of several competing non-profit companies. All basic health insurance must be not-for-profit and sold at the same price for all adults (referred to as pure community rating). The basic insurance plans only vary in network design and set deductible levels.

How provider rates are determined in the basic system – federal government sets prices for pharmaceuticals. For outpatient services, maximum prices are set on a fee-for-service basis and negotiated at the canton level (Swiss equivalent of states in the U.S.) between all insurers and providers. If an agreement cannot be reached, the canton government steps in. For inpatient services, diagnosis related group (DRG) rates are set by the national nonprofit corporation, Swiss DRG, which is made up of hospitals, doctors, governments, and insurers. Physicians working at hospitals are normally salaried employees.

  
  
  Level of administrative spending (insurance side) – four percent of total expenditures
  Doctor Salaries and ratio of remuneration to mean wages – Generalist: $122,000*21 (NA), Specialist: (NA)

System financing – financed via mixed social insurance premiums and general government revenue. Individuals are required to pay insurance up to 8-10 percent of income for mandatory health insurance and premiums subsidized if they exceed this amount, which vary by canton.22 General government revenue is used to both subsidize premiums for low-income individuals (roughly 39 percent of population) and to subsidize hospital care to keep premiums low overall.23

Cost-sharing – maternity and preventive care is fully covered. For covered MHI benefits, individuals can choose plans with deductibles between 300 Swiss francs ($315) and 2,500 Swiss francs ($2,628),

19 See Busse, et. al. (2014).)
with an additional 10 percent for coinsurance up to an 700 CHF ($736).\textsuperscript{24} Effectively, the highest cost sharing option in Switzerland has an out-of-pocket limit equal to $3,364 a year. By comparison, a platinum plan in California has an out-of-pocket limit of $3,350.

**Duplicate, complementary and supplementary insurance allowed/used** – complementary insurance is prohibited. Switzerland allows significant supplementary insurance to be sold on a for-profit basis. For-profit insurers can have a not-for-profit MHI branch. These services are directly negotiated between insurers and providers. Individuals can also choose MHI with broader networks which results in higher individual premiums.

**Managed care/utilization management** – standard insurance is the equivalent of a PPO. Individuals can choose more tightly managed HMO, family doctor, or telemedicine plans to reduce their premiums by around 20 percent.\textsuperscript{25} In 2012 roughly 20 percent of individuals opted for such plans.

**Hospital ownership** – 21 percent public, 25 percent non-profit, and 54 percent private. Approximately, 65 percent of all hospital beds in the country are provided by public and non-profit hospitals.


KEY DESIGN CONSIDERATIONS AND ELEMENTS OF ALL-PAYER MODELS

To understand countries’ health care systems, it is important to understand the core components that comprise all-payer systems among the four countries described in this paper. There are five key components:

1. **Subsidies to make insurance affordable to everyone** – there are individuals who are unable to afford to pay their full health care costs, so to make the system universal, governments subsidize at least part of the population to ensure no one pays over a set percentage of income. This is achieved through direct subsidies to individuals or indirect subsidies to providers or insurers to hold premiums down.

2. **A single rate-setting mechanism** – a core component of all-payer systems is an entity that sets providers rates, either as a single price, a ceiling, or a widely accepted base with a fee schedule.

3. **Strong risk adjusting mechanisms** – theoretically the reason to have multiple competing insurers is they compete over quality. The challenge is that it is easier to compete by excluding sick members of the public. One solution to this problem is complex risk adjustment payments between insurers. For example, the Dutch acknowledge that risk adjusting is considered the Achilles’ heel of a competitive health care system. Approximately half of a Dutch insurer’s total revenue comes from their risk adjustment system.26

4. **Regulation to modify behaviors by insurers and providers** – even an advanced and well-financed risk adjustment mechanism is imperfect. Thus, a robust health system may benefit from a strong regulatory mechanism to limit gaming by certain parties. For example, most all-payer countries require mandatory health insurance to be not-for-profit, outlawed risk selection, and allow only one universal benefit package to be sold to simplify comparisons across plans. Even with risk selection mechanisms in place, this continues to be a problem in Switzerland.27

5. **Mechanism to reduce free riders** – this can be an individual mandate, an automatic deduction from all employer payroll, employment assigned coverage, loss of coverage, asset seizure, or requirement to pay months/years of delinquent premiums to regain coverage. In some cases, the mechanism is very aggressive, while in others, it is weak. Even with these mechanisms is it not possible to get all individuals to sign up and pay premiums. For example, in the Netherlands two percent of the population have failed to pay their premiums in the least six months.28

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CONCLUSION

There are varied ways industrialized countries finance universal health care, provide basic health insurance, define basic insurance, manage individuals’ total health care use, deploy cost-sharing to reduce spending, and allow individuals to pay more for higher quality and more accessible care. A country can have an all-payer system with high-cost sharing or virtually no cost-sharing. A country can offer individuals a wide choice of insurers in an all-payer system or no choice. A country can have a robust private supplementary insurance market or no supplementary insurance with either an all-payer or single payer model. “Private” insurance markets can even be dominated by government-run companies.

The most significant difference which causes United States health care spending to be so far outside the international norms is how provider rates are determined. The U.S. uses more cost-sharing and often more care management than other industrialized countries. Several countries are more dependent on fee-for-service and have more insurance plans per capita. The ratio of primary care to specialist physicians and level of health utilization is the same as other developed countries. A major difference is other countries have mechanisms to limit or standardize prices to reduce administrative costs.
SUPPLEMENTAL TABLE

Included here is a table offering a comparison of the United States to the health care systems in Australia, Canada, Germany, France, Japan, UK, Switzerland, Sweden. Eight countries were included in this table to provide further indication of what patterns do and do not exist across multiple industrialized nations. These eight countries include a broad range of insurance structures and health system designs.

The dollar amounts and data are derived from the sources listed below.


<table>
<thead>
<tr>
<th>Health Insurance Structure</th>
<th>Switzerland</th>
<th>Germany</th>
<th>Japan</th>
<th>France</th>
<th>Australia</th>
<th>Canada</th>
<th>UK</th>
<th>Sweden</th>
<th>US Overall</th>
<th>US Medicare</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All-payer (insurer choice)</td>
<td>All-payer (insurer choice)</td>
<td>All-payer (assigned insurers)</td>
<td>All-payer (assigned insurers)</td>
<td>Single payer</td>
<td>Single payer</td>
<td>Single payer</td>
<td>Single payer</td>
<td>Multiple payer</td>
<td>Single payer, all-payer mix</td>
</tr>
<tr>
<td>Degree government sets provider rates (1 total govt 10 no govt)</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Administrative on insurance side % of total spending</td>
<td>4%</td>
<td>5%</td>
<td>1%</td>
<td>1%</td>
<td>3%</td>
<td>3%</td>
<td>2%</td>
<td>2%</td>
<td>8%</td>
<td>2%*</td>
</tr>
<tr>
<td>Generalist pay (Ration of remuneration to mean wages)</td>
<td>$122,000* (NA)</td>
<td>$154,126 (3.3)</td>
<td>$124,558 (NA)</td>
<td>$111,769 (2.6)</td>
<td>$108,564 (2.1)</td>
<td>$146,286 (3.0)</td>
<td>$134,671 (3.1)</td>
<td>$86,607 (2.0)</td>
<td>$218,173 (3.6)</td>
<td>NR</td>
</tr>
<tr>
<td>Specialist pay (Ration of remuneration to mean wages)</td>
<td>NA</td>
<td>$181,243 (3.9)</td>
<td>NA</td>
<td>$153,180 (3.6)</td>
<td>$202,291 (3.8)</td>
<td>$488,260 (3.9)</td>
<td>$171,987 (3.4)</td>
<td>$98,452 (2.3)</td>
<td>$316,000 (5.3)</td>
<td>NR</td>
</tr>
<tr>
<td>Drug spending per capita</td>
<td>$939</td>
<td>$667</td>
<td>$837</td>
<td>$697</td>
<td>$560</td>
<td>$613</td>
<td>$779</td>
<td>$566</td>
<td>$1,443</td>
<td>NR</td>
</tr>
<tr>
<td>How the system is financed</td>
<td>Premiums and general funds</td>
<td>Mostly a payroll tax premium</td>
<td>Premiums or payroll taxes and general funds</td>
<td>Payroll tax, dedicated income tax, and excise taxes</td>
<td>General funds and a payroll tax</td>
<td>Mainly general funds, some payroll tax</td>
<td>General funds</td>
<td>General funds (mainly local income taxes)</td>
<td>premiums, payroll taxes, general funds</td>
<td></td>
</tr>
<tr>
<td>Level of cost sharing</td>
<td>high</td>
<td>very low</td>
<td>high</td>
<td>moderately low</td>
<td>zero/very low</td>
<td>zero</td>
<td>zero</td>
<td>low</td>
<td>very high</td>
<td>high</td>
</tr>
<tr>
<td>Had medical problem but skipped treatment</td>
<td>22%</td>
<td>7%</td>
<td>NA</td>
<td>17%</td>
<td>14%</td>
<td>16%</td>
<td>7%</td>
<td>8%</td>
<td>33%</td>
<td>NR</td>
</tr>
<tr>
<td>Duplicate, complementary, or supplementary insurance</td>
<td>Supplementary common</td>
<td>Duplicate 11% of population, Some supplementary and complementary</td>
<td>Complementary and supplementary common</td>
<td>Complementary 95%</td>
<td>Supplementary and/or duplicate 57%</td>
<td>Supplementary common</td>
<td>Complementary and supplementary</td>
<td>Duplicate 10% of population</td>
<td>Duplicate roughly 10% of population</td>
<td>Varied (undefinable)</td>
</tr>
<tr>
<td>Level of managed care/gatekeeping</td>
<td>Moderate varied</td>
<td>low</td>
<td>low</td>
<td>moderate varied</td>
<td>moderate varied</td>
<td>high</td>
<td>high</td>
<td>low</td>
<td>Moderate varied</td>
<td>Moderate varied</td>
</tr>
<tr>
<td>Who owns the hospitals</td>
<td>21% public, 25% non-profit, 54% private</td>
<td>48% public, 35% non-profit, 17% private (beds)</td>
<td>15% public, 85% not for profit</td>
<td>67% public, 8% not for profit, 25% for profit (beds)</td>
<td>65% public, 35% private</td>
<td>Mainly public and non-profit</td>
<td>Almost all public, some private</td>
<td>Almost all public, some private</td>
<td>15% public, 70% non-profit, 15% for-profit</td>
<td>NR</td>
</tr>
<tr>
<td>Level of care utilization</td>
<td>Moderately high</td>
<td>High</td>
<td>Very high</td>
<td>Moderate</td>
<td>Moderately high</td>
<td>Moderate</td>
<td>low</td>
<td>Moderately low</td>
<td>Moderate</td>
<td>Moderate</td>
</tr>
<tr>
<td>Health care spending % GDP</td>
<td>12.4%</td>
<td>11.3%</td>
<td>10.9%</td>
<td>11%</td>
<td>9.6%</td>
<td>10.3%</td>
<td>9.7%</td>
<td>11.9%</td>
<td>17.8%</td>
<td>NR</td>
</tr>
</tbody>
</table>
ACKNOWLEDGEMENTS

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