Pharmaceutical Prices, Quantities and 
Innovation 
Comparing Japan with the US

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Summary

Per capita expenditure on pharmaceuticals is higher in Japan than in the US, despite a series of drug price reductions instigated by the Japanese Ministry of Health and Welfare that began in 1981. For some individual products, these price reductions cumulatively totalled more than 50%. This article argues that although the price of individual drugs is lower in Japan than in the US, aggregate expenditure is higher because of the greater use of newly-introduced original drugs and lower use of generics. Providers and consumers also tend to use drugs in larger quantities in Japan, because of polypharmacy and greater use of vitamins and nutrients, antihypertensives, cerebral metabolic activators (e.g. idebenone) and milder-acting drugs (i.e. drugs with low toxicity but unproven clinical efficacy). The level of expenditure is unlikely to decline, despite changes to pricing policy and ongoing efforts to improve the pharmaceutical distribution system and to discourage physician dispensing activities.
1. Background

Although overall healthcare expenditure is much lower in Japan than in the US, pharmaceuticals are a striking exception. According to the Organisation of Economic Cooperation and Development (OECD), \(^1\) Japanese per capita pharmaceutical goods expenditure in 1989 amounted to US$189 (US$1 = ¥199) and constituted 17.3% of total health expenditure. In contrast, the corresponding amounts for the US were US$203 and 8.4%. \(^1\) Using a different exchange rate, Tanaka\(^2\) estimated per capita drug spending in Japan to be US$166, compared with US$109 in the US. Overall, Japan accounts for a larger per capita share of the world pharmaceutical market than the US. According to the Scrip yearbook, \(^3\) the Japanese market represented 18.7% of the world market in 1990, while the US represented 27.4%. Other estimates place the Japanese share even higher, at 20%. \(^2\) Thus, Japan, which has only half the population of the US, reaches two-thirds the pharmaceutical market size of the US. The purpose of this article is to discuss some of the reasons why drug expenditure remains high in Japan, despite the ongoing series of price reductions implemented during the past decade.

2. Pharmaceutical Payment Mechanisms in Japan

2.1 Payment Mechanisms for Providers

Under Japan’s fee-for-service system, the price paid by insurance is set uniformly by the government for every itemised service or material. \(^1\) In turn, the price paid by the individual provider for each service or material is decided by the market. In general, the price paid by insurance does not usually cover the costs of wages and other services. However, insurance often overpays for materials such as equipment, supplies and pharmaceuticals. This overpayment for materials occurs at least partly because of the competitiveness of the supply markets and consequent price discounting by manufacturers and wholesalers.

The high levels of insurance repayment for materials has crucial implications for drug expenditure in Japan. In 1990, 85.4% of hospitals and 80.4% of physician’s offices dispensed pharmaceuticals. \(^4\) Providers derive a profit from drugs which is estimated to be 25.7% of the total sum paid by insurance for drugs. \(^5\) This profit amounts to 6.7% of the total revenue for hospitals and 11.6% for physician’s offices. \(^5\) Physician’s offices realise higher revenue shares because drugs constitute a higher proportion of revenue in ambulatory care compared with inpatient care, and because the drugs used in physician’s offices tend to have more alternatives available and thus can be purchased at greater discounts. Providers argue that these profits are justified because hospitals and physician’s offices need to pay for the administrative costs associated with the purchase and stock control of drugs. In addition, providers must make up the deficit arising from the low reimbursement allowed for services.

In the US, the cost of drugs is often part of inclusive payment mechanisms for inpatient care, such as the Diagnosis Related Groups of Medicare’s Prospective Payment System. For ambulatory care, drug payment is sometimes not covered by a patient’s insurance policy or, if covered under managed care, drug usage tends to be more closely monitored, and generics may be substituted for proprietary products.

2.2 Payment Mechanisms for Consumers

In Japan, payments made by patients out of their own pockets are low because drugs are fully covered by insurance, and the same copayment rates apply for both services and drugs. Moreover, patients would have to ask their physicians for lower priced drugs because dispensing is usually performed by the physician. Such a request would be very difficult because of the deference usually