

# Technical Forum

## Session 2. Looking beyond DRGs

# Controlling costs and quality by a regulated fee FFS system in Japan - Impact of introducing DRG type payment -

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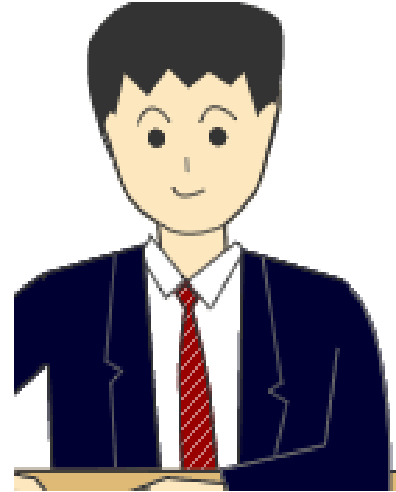
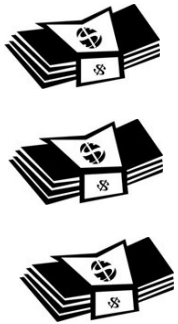
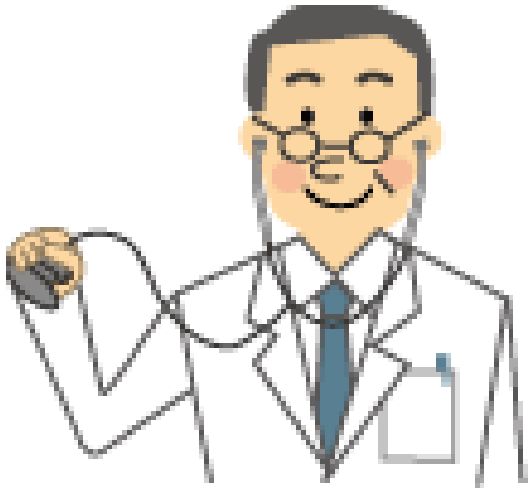
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# Why health policy is so difficult

- Nature of demand: Inelastic (all patients want best)
- Nature of healthcare: Egalitarian standards (poor have the same rights)
  - Rich must not only pay for the care of the poor, they must also be satisfied with the same level of quality
- Nature of supply: Flexible (physicians have professional autonomy) and no consensus on how much physicians should be paid
  - Costs on demand side = Revenue on provider side
  - Average income of physicians: Should it be twice or twenty times the average worker? Hospital's profit margin: 0% or 20%?

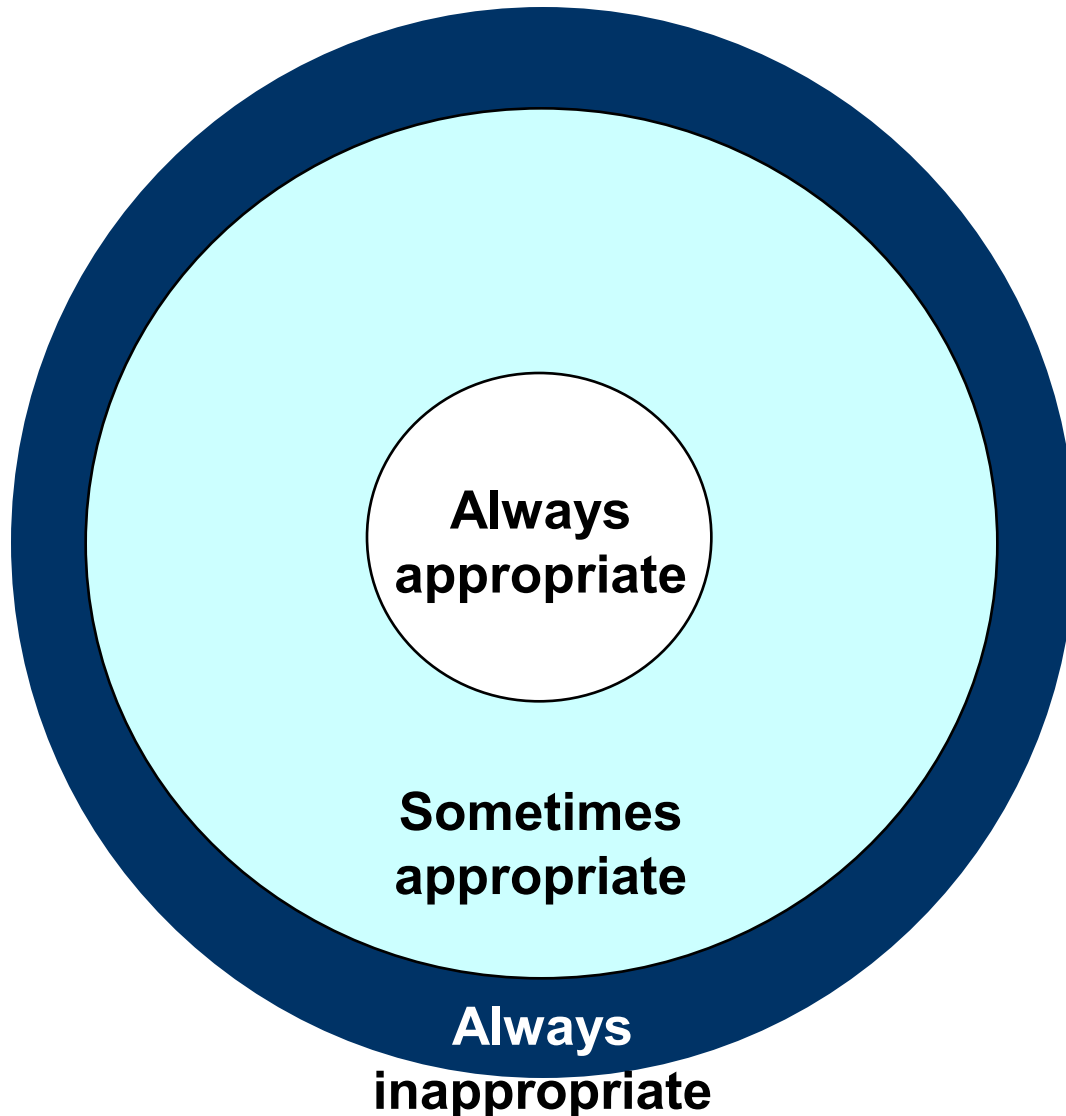
# How much should physicians earn?

No one knows → Negotiable



# What is appropriate treatment?

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“Appropriate” depends on:

- 1) Each physician’s training and experience etc.
- 2) Where the physician practices
- 3) How the physician is paid

Capitation: “appropriate” will decrease, nothing may be delivered

DRG: “appropriate” will decrease, up-code to a higher paid DRG group

FFS: “appropriate” will increase, but can be regulated → Japan’s case

# Controlling costs and quality in Japan

## Plans: Multiple

- Employment-based plans (1,500 plans)
- Local government based plans (1,800 plans)

Single payment

Fee schedule

Providers: Private sector dominated

- Hospitals (80%)
- Physician offices (95%)

Defines benefits

Sets price and conditions for billing

95%+ of providers' revenue comes from services with prices set by fee schedule

2,000+ pages  
Sets fees &  
conditions of  
payment



# Controlling volume & quality by setting the conditions of billing

- To bill for rehab therapy, must meet the following conditions:
  - Hospital employs 5+ PTs, rehab floor space > 160 m<sup>2</sup>
  - Patient has had stroke or injury within the last 180 days
- On-site audits by the Ministry's regional office to check whether items billed had met the conditions
  - If not met, then hospital must pay back the amount the items inappropriately billed in the past 6 to 12 months
  - If found to be systematic, hospital may lose HI license

# Prerequisite for control: Prohibit balance billing, regulate extra billing

- If a hospital is found to have balanced bill, or to have extra billed for service not allowed, it must pay back the **entire** amount that had been billed to the insurers and the patients
  - Hospitals must give patients a detailed breakdown of the services delivered and the copayment amount of each
- Extra billing is in principle restricted to the below:
  - Extra-charge beds with better amenity etc.
  - New procedures being tested for efficacy and safety
    - Hospital must be approved before it can test new procedure
    - Hospital must submit data
    - If proved effective, then listed in the fee schedule



# Revisions of the Fee Schedule

## Revised every two years: 3 Steps

### • 1<sup>st</sup> Step: Setting the macro revision rate

- Next year's expenditures = (Last year's expenditures) X (macro revision rate + increases due to non-price factor  $\alpha$ )
- $\alpha$ : Shifts to more expensive services due to advances in technology (CT→MRI), + increases in volume due to aging etc.
- $\alpha$ : Rate for past 3 years (2-3%/year) used
- Macro revision rate effectively sets the global budget

### • 2<sup>nd</sup> Step: Revise drug prices

- Based on market survey (explained later) and volume of new drugs sold

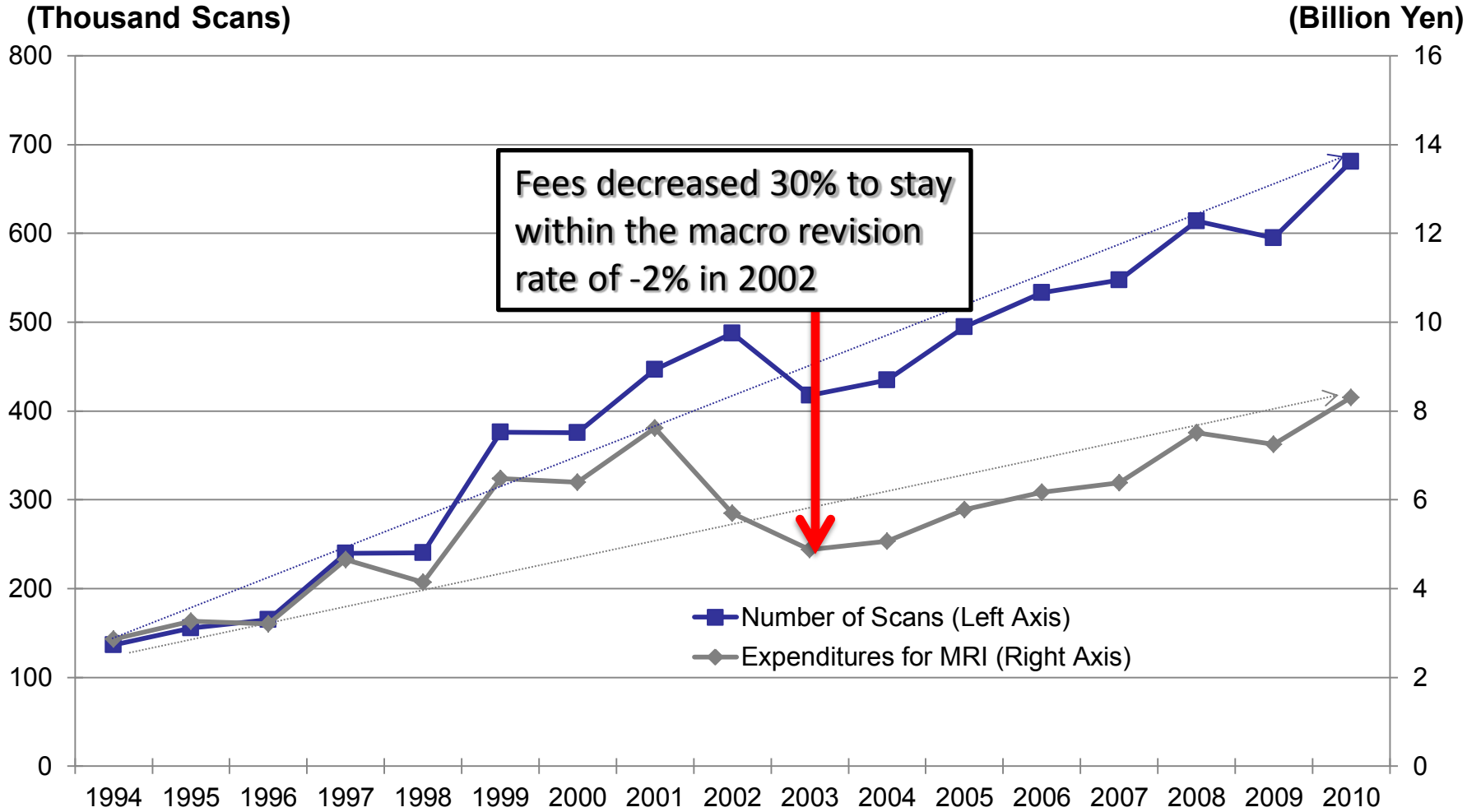
### • 3<sup>rd</sup> Step: Revise the fee & billing conditions of each item

- $\Sigma$  (fee adjusted $\uparrow\downarrow$ ) x (conditions tightened or loosened) = Global budget (as set by the macro revision rate)

# Examples of item-by item revisions

- Volume of each item from the national claims data
- Item-by-item revisions negotiated for 2010 revision
  - Repeat consultation fee in clinics: 710 Yen → 690 Yen
    - Impact: Volume 63,478,641 @  $\Delta$  20 Yen =  $\Delta$  126,957,282 Yen
  - Arthroplasty fee: 265,000 Yen → 398,500 Yen
    - Impact: Volume 486 @  $\Delta$  135,500 Yen =  $\Delta$  64,881,000 Yen
- Cumulative effect made equal to the macro revision rate, as has been set by the prime minister
  - Heated negotiations between the Ministry and provider organizations in revising each fee and condition
  - Cost increases must be balanced with cost decreases

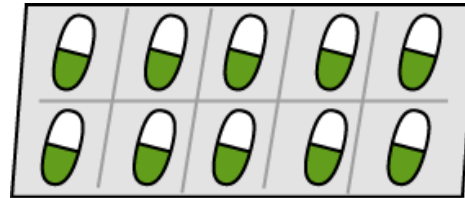
# Impact of MRI scan fee reductions on costs



Source: Ministry of Health, Labour and Welfare (MHLW) "Survey of Medical Care Activities in Public Health Insurance"

# How drug prices are decreased ⇒ Drug price survey and competition

Fee schedule sets the price of a product at \$10 per tablet



Health Ministry survey of wholesalers shows the volume & price of product X as:

10,000 tablets sold @ \$9:50 (\$0.5 profit to providers)

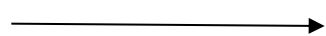
10,000 tablets sold @ \$9:00 (\$1.0 profit to providers)

10,000 tablets sold @ \$8:50 (\$1.5 profit to providers)

Volume weighted average market price for one tablet was \$9.00

2% margin allowed

Revised fee schedule price for one tablet is \$9.18



Starting price for the next round of negotiations by providers and wholesalers on the purchasing price

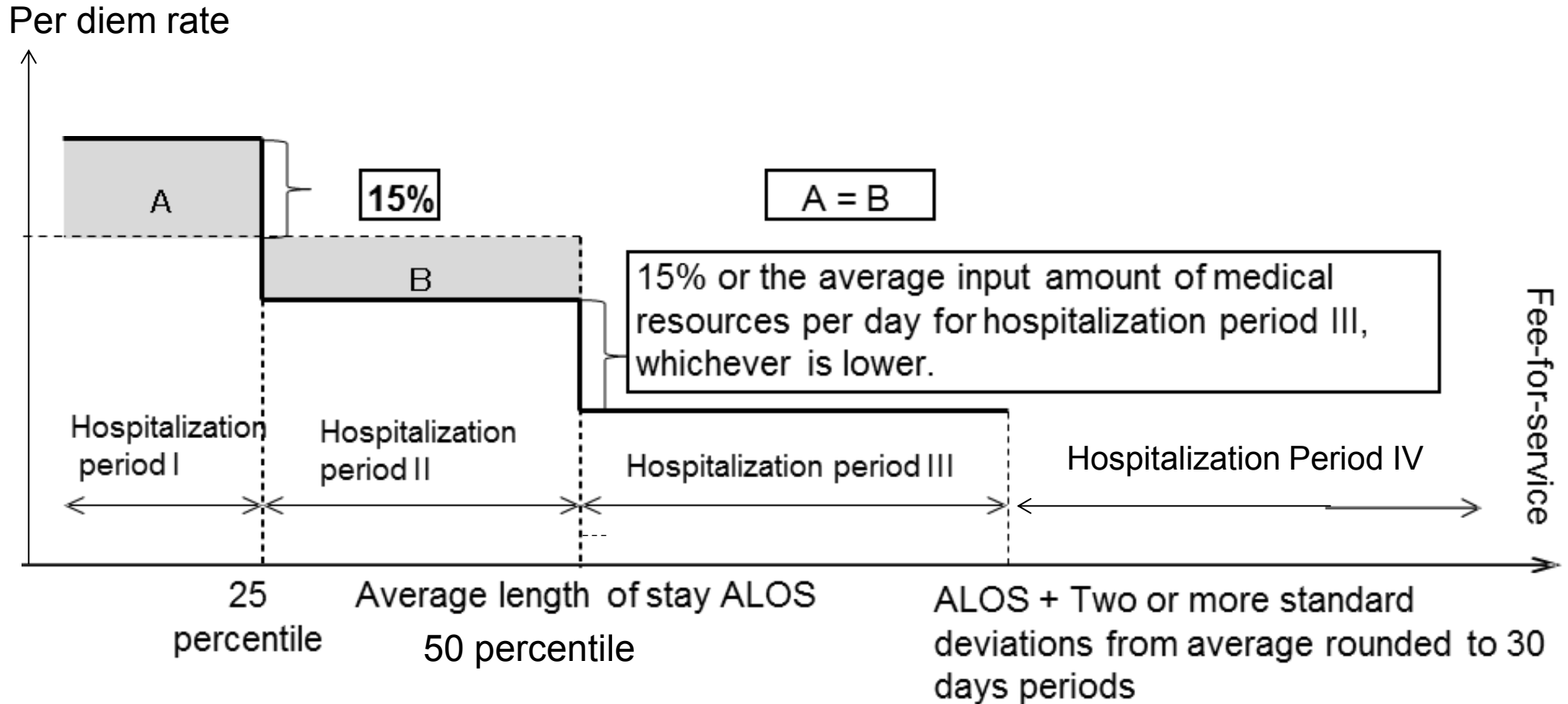
# Health Ministry Council meeting: Composed of members from payers, providers and academia



# DRG type payment introduced in 2003

- Why: Payers **believed** that FFS was inflationary, despite relative success in containing costs
- Providers opposed and so the following was decided:
  - Develop Japanese form of inclusive payment for acute inpatient care: Diagnosis Procedure Combination (DPC)
  - Payment is per day (diem), not for each admission
    - Rate declines as hospital stay extends (four hospitalization periods)
  - Only drugs, lab tests, imaging included; surgeries, anesthesia, rehab, devices (artificial joints) etc. are fee for service (FFS)
  - Hospital specific adjustment factor to make up the differences in payment between FFS and DRG
  - Initially, only for the 82 university main hospitals

# Declining per diem rate as length of stay increases: 4 periods



# Payment to the hospital

- Hospital revenue: ( $\sum$  Per diem rate X No. of days in each period) X adjustment factor X conversion factor
- Adjustment factor: Guarantees the same amount of revenue as under FFS
  - Under FFS \$1 million, DPC \$0.8 million, factor: 1.25
  - Gradually phased out from 2012 (cease in April, 2018)
- Conversion factors: Based on policy goals
  - Shorter average lengths of stay adjusted for case-mix
  - Compensate emergency care (not able to conduct diagnostic tests before admission) etc.



# What happened after DPC introduction

- Hospitals opting for DPC increased dramatically: from 82 (2003) to 1,667 (2016): nearly all acute hospitals
- In addition to guaranteeing the same amount of revenue for inpatient care with the adjustment factor, revenue was increased by transferring procedures to outpatient care
  - CT, MRI performed before discharge → after discharge
- Services and length of stays became more standardized
  - No more antibiotic drip infusion every day while hospitalized
  - Clinical pathways became popular
- Database of hospital's DPC composition, length of stay etc.
  - Can be used for regional planning, marketing by hospitals

# Summary

- Japan has contained healthcare costs despite fee-for-service payment by imposing a global budget, and regulating not only the fees, but also the volume by setting the conditions of payment
- Maintained equity and quality by paying the same amount for the same service, and by restricting extra-billing and prohibiting balance billing
- Forced public sector hospitals to compare their performance with the private sector
- No magic bullet solutions in healthcare: Develop infrastructure and maintain constant vigilance

# Data overview of Japan (OECD, 2015)

|                                     |                   |
|-------------------------------------|-------------------|
| Population                          | 127.3 million     |
| GDP                                 | 5.16 trillion USD |
| Total health expenditure per GDP    | 10.9%             |
| Total health expenditure per capita | 4,436 USD         |
| Public expenditure of THE           | 84%               |
| Life expectancy at birth            | 83.9 years        |
| Physicians per capita (1,000)       | 2.4               |
| Nurses per capita (1,000)           | 11.0              |
| Hospital beds (1,000)               | 13.2              |

# For more information

- See freely downloadable report:  
<http://documents.worldbank.org/curated/en/2014/09/20278271/universal-health-coverage-inclusive-sustainable-development-lessons-japan>