



Mandated Health Checkup for Aged 40-74 in Japan

Michio Kimura, MD, PhD

Hamamatsu University,

School of Medicine

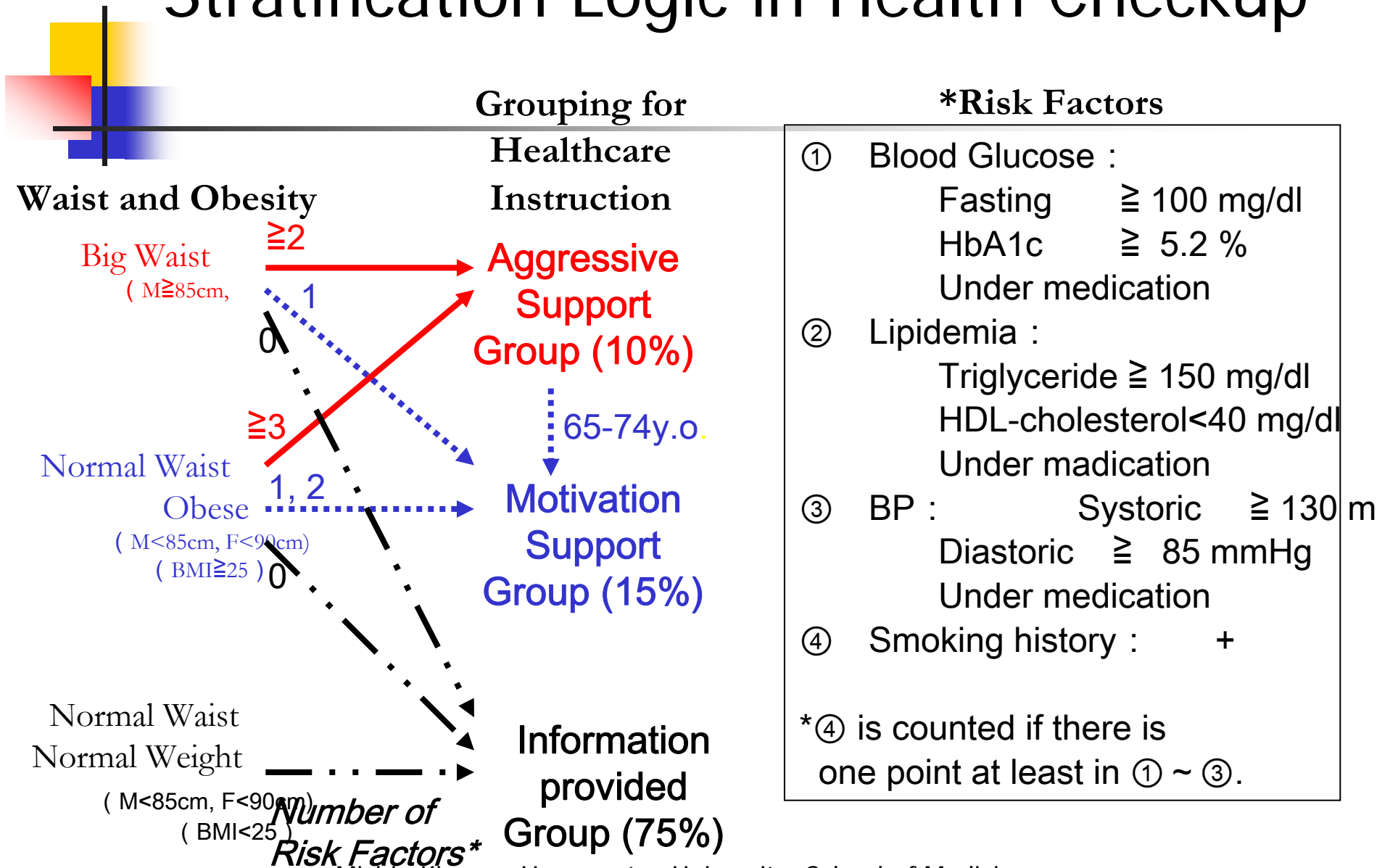
HL7 Japan Chair, IHE Int'l Board



Mandated health checkup from April 2008

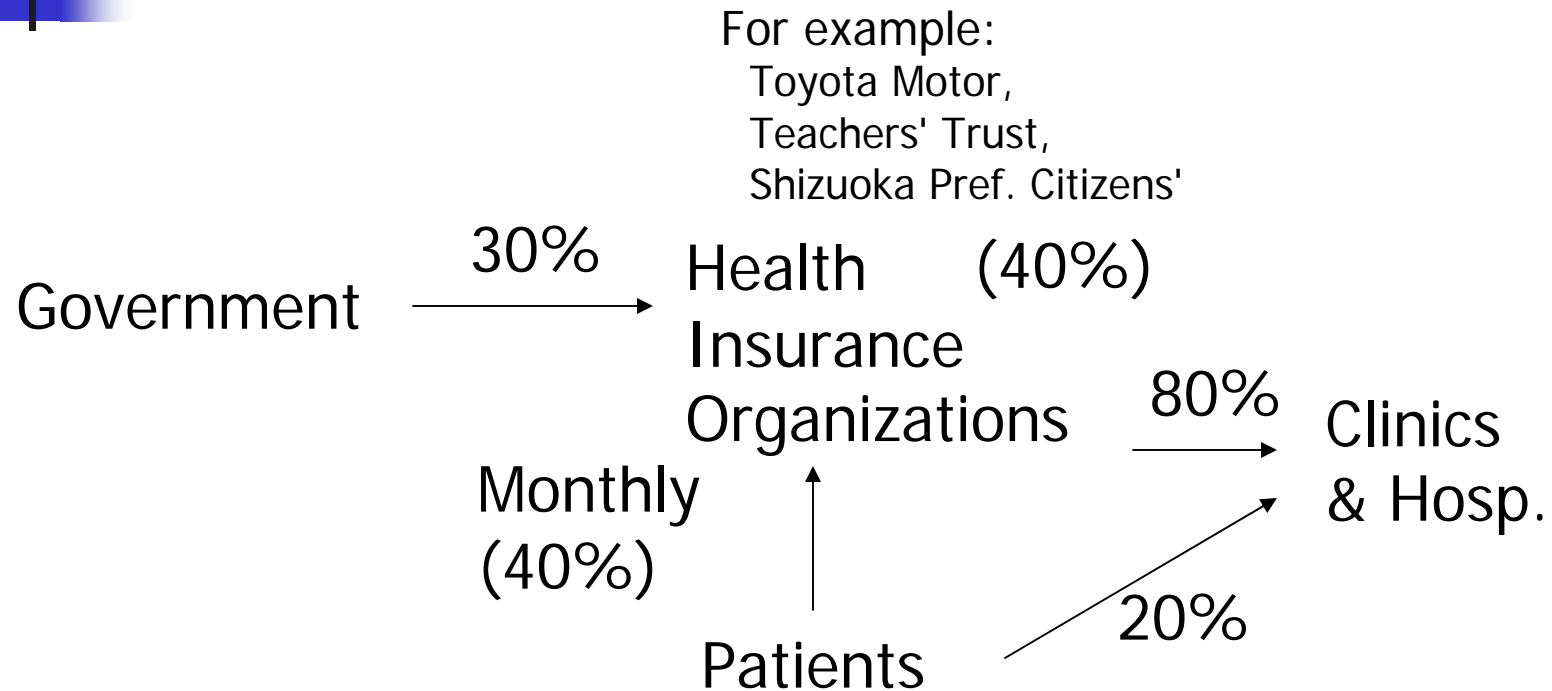
- All of 40 ~ 74yo Japanese citizen (56 million) have to receive basic health checkup
- List of basic examination
 - Questionnaire (weight change, smoking, exercise)
 - A physical examination
 - Height, Weight (BMI), Waist(85cm=34'(!)), Blood Pressure
 - Blood/Urine chemistry
 - TG, HDL-C, LDL-C, AST, ALT, γ -GTP, Fasting Blood glucose, HbA1c, Hemoglobin, glucosuria
- Moderate and high risk groups are required to attend class, or even being e-mailed some standard healthcare instruction

Stratification Logic in Health Checkup

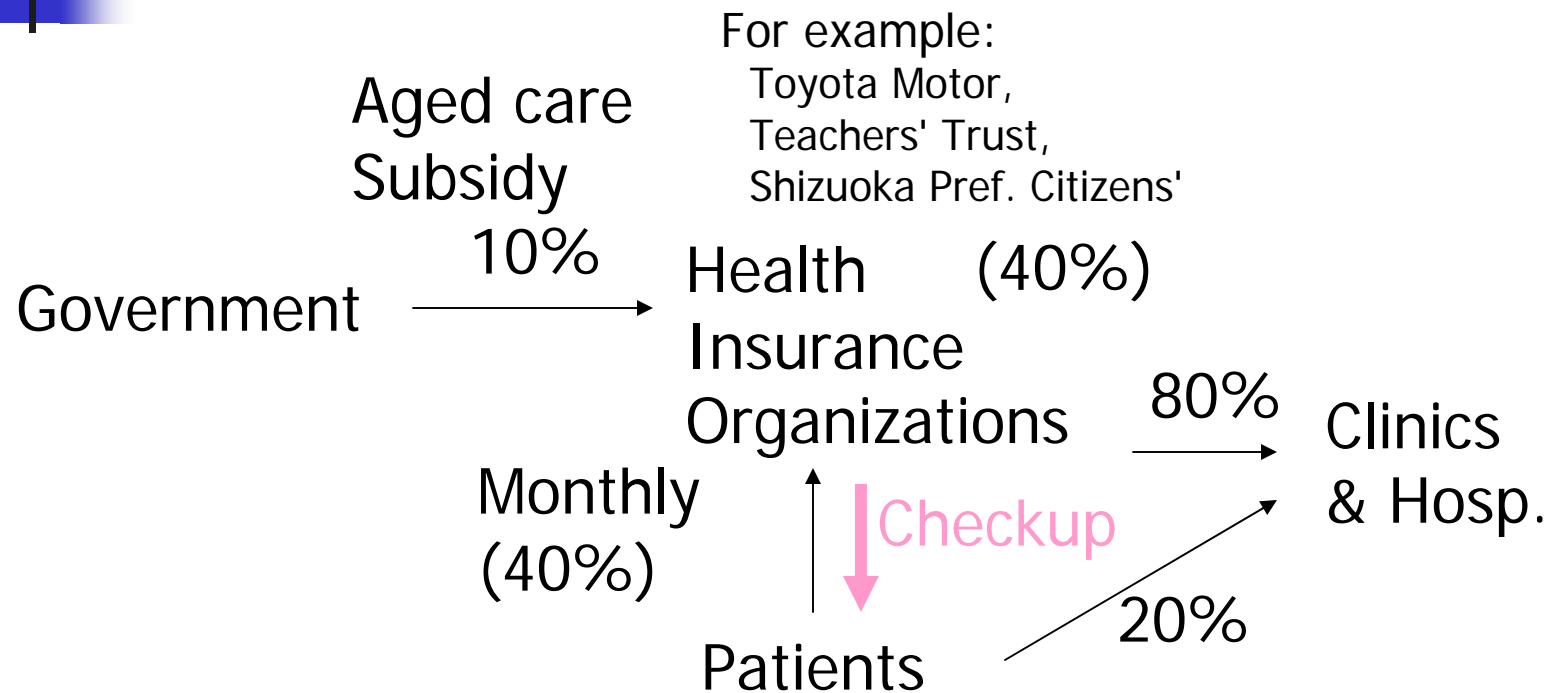


Healthcare Payment in Japan

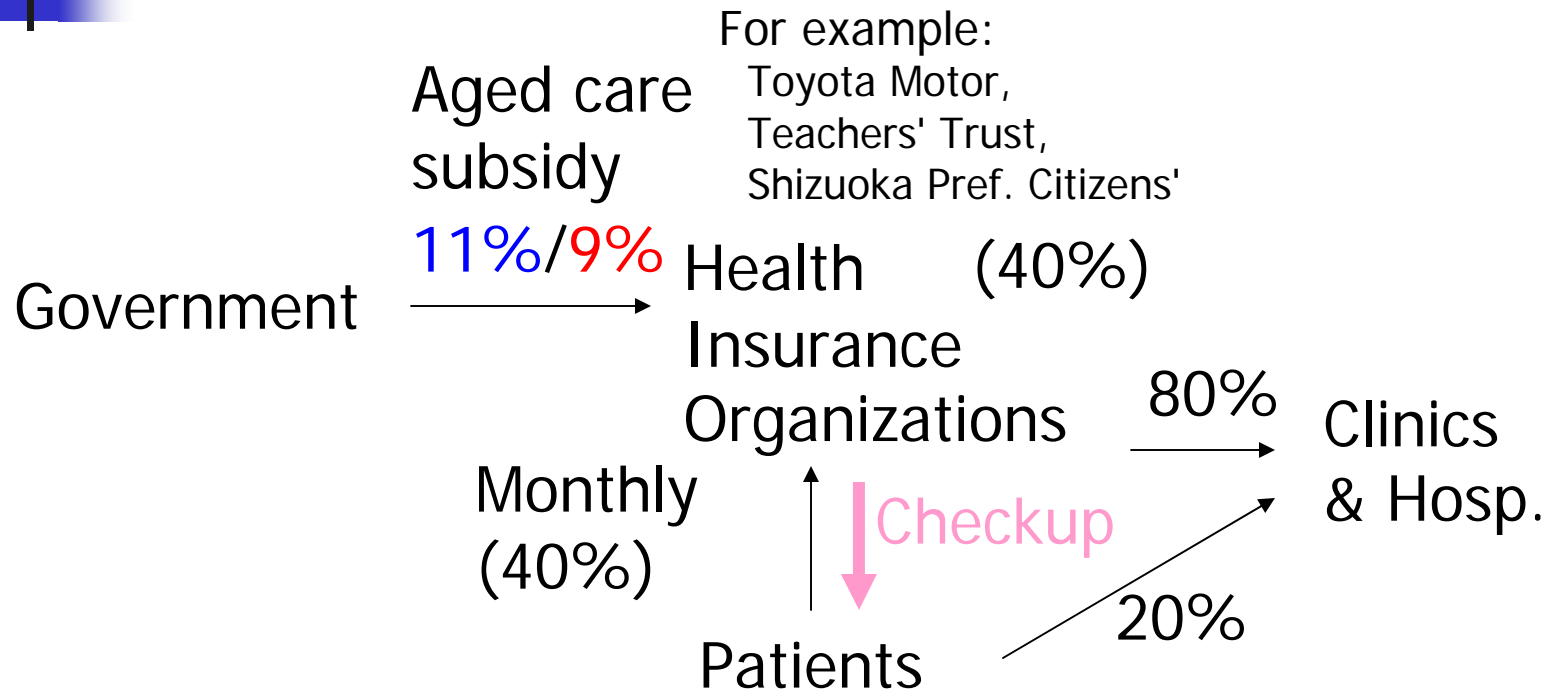
-Universal Coverage



If Checkup **high/low** rate and result in **improvement/no good**



If Checkup **high/low** rate and result in **improvement/no good**



For a big company of 200,000 workers,
1% means 2 Billion Yen(=20 Million USD)

Government paid no money for checkup!

Motivated Organization would do...

- Walk step counter w/USB, G-sensor
- Discrimination of promotion, job application?

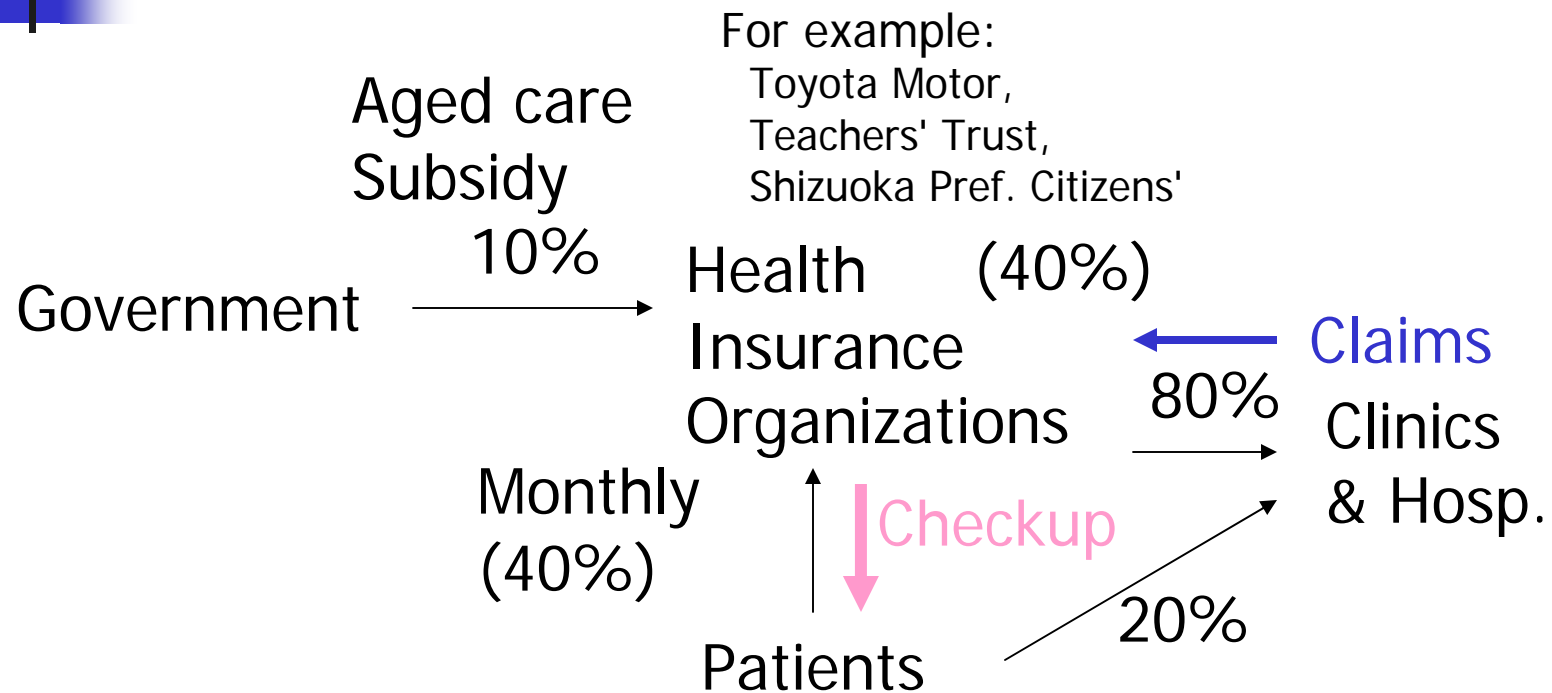


Sample DTD of HL7 CDA-R2 L3 in PHCS



```
- <component>
  - <component>
    - <section>
      <code code="01010" displayName="検査結果セクション" />
      <title>検査結果セクション</title>
    - <text>
      - <list>
        <item>身長 176.6 cm</item>
        <item>体重 77.5 kg</item>
        <item>BMI 25.5 kg/m2</item>
        <item>腹囲 85cm</item>
        <item>理学的検査(身体診察) 特になし</item>
        <item>血圧(収縮期) 90mmHg</item>
        <item>血圧(拡張期) 130 mmHg</item>
        <item>中性脂肪 100 mg/dl</item>
        <item>HDL コレステロール 50 mg/dl</item>
        <item>LDL コレステロール 80 mg/dl</item>
        <item>AST(GOT) 15 IU/L(37C)</item>
        <item>ALT(GPT) 12 IU/L(37C)</item>
        <item>γ-GTP 30 IU/L(37C)</item>
        <item>空腹時血糖 90 mg/dl</item>
        <item>HbA1c 5.0 %</item>
        <item>血清尿酸 4.0 mg/dl</item>
        <item>血清クレアチニン 1.0 mg/dl</item>
        <item>ヘマトクリット値 48.0 %</item>
        <item>血色素(ヘモグロビン) 15.0 g/dl</item>
        <item>赤血球数 500 万/mm3</item>
        <item>尿糖 マイナス</item>
        <item>尿蛋白 マイナス</item>
        <item>尿潜血 マイナス</item>
        <item>心電図 所見なし</item>
        <item>眼底検査 所見なし</item>
      </list>
    </text>
  - <author>
    <time value="20060727" />
  - <assignedAuthor>
    <id nullFlavor="NI" />
  - <representedOrganization>
    <id extension="1234567890123456"
      root="1.2.392.200119.6.102" />
```

If Checkup **high/low** rate and result in **improvement/no good**





My handicapping to this project is....

- Does this reduce healthcare costs?
 - People would die later by more complex diseases
 - Warned people go straight for exercise? or claim for drugs?
- Revolution?
 - by discriminated people?
 - by less-than-zero-sum race between organizations?