Overview of Japanese Workplace Health Promotion for Obesity and Preliminary Evaluation of the Japanese National Project: Specialized Health Screenings and Health Guidance for Metabolic Syndrome

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Backgrounds
In Japan, a national project was set to begin in 2008 to target metabolic syndrome (MetS)
- To reduce medical costs
- Specialized Health Screenings (SHS)
- Specialized Health Guidance (SHG)
by GPs, OPs, PHNs, dieticians

Priority of health related problems in Japan

<table>
<thead>
<tr>
<th>Obesity</th>
<th>Suicide (Stress)</th>
<th>Smoking</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;32000/year</td>
<td>21.8% reported by MHLW</td>
<td></td>
</tr>
</tbody>
</table>

Is obesity epidemic in Japan?

- Male: 21.8% reported by MHLW
- Female: 23.1% reported by MHLW

Why increasing?

(lipid intake)
**History of WHP in Japan**

- 1972 Occupational Health & Safety Act
- 1979 Silver Health Plan
- 1988 Total Health Promotion Plan
- 2000 Healthy Japan 21 towards 2010
- 2003 Health Promotion Law
- 2008 Healthcare System Reformed Law

**Healthy Japan 21 is going to be failed!**

The government decided to switch from population approach to high risk approach:
- Healthcare System Reformed Law
- Target is prevention of MS
- Specialized health screenings for MS
- Specialized health guidance
- Duty for health insurance association

**Problems**

- Currently no evidence for effectiveness of these kinds of health education for this huge target population.
- Match the needs of busy workers?
- Limited manpower for education
- Effectiveness of health guidance
- Efficacy for reducing medical cost

**Prevalence of Diabetes in Japan**

- 1997
- 2002
- 2007

<table>
<thead>
<tr>
<th>Year</th>
<th>Suspected DM</th>
<th>DM</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>4500000</td>
<td>9000000</td>
<td>13500000</td>
</tr>
<tr>
<td>2002</td>
<td>1800000</td>
<td>9000000</td>
<td>22500000</td>
</tr>
<tr>
<td>2007</td>
<td>1900000</td>
<td>9000000</td>
<td>28000000</td>
</tr>
</tbody>
</table>

**Prevalence of metabolic syndrome in Japan**

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Total</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-29</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30-39</td>
<td></td>
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<tr>
<td>40-49</td>
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<td></td>
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<tr>
<td>50-59</td>
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<td></td>
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<tr>
<td>60-69</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>70-74</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**National medical Cost**

- 340 billion $ (2007)
- 9.1% of GDP
- Vs 261 billion $ (1997)
- 7.5% of GDP
Specialized health screening & guidance

Target: metabolic syndrome (MetS)

40-74y

Specialized health screenings (SHS) includes:
- waist size
- blood pressure
- blood glucose, HbA1c
- TG, HDL

Specialized health guidance (SHG) subject: suspected MetS, MetS

Duty for health insurance association

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Point system for standarized health guidance

6mo follow up programs must satisfy 180 points of contents.

Point system strictly determined by the government for quality control of health guidance.

- e.g. face-to-face guidance: 20 points / 5 min
- group session: 10 points / 10 min
- advice via telephone: 10-20 points / 5 min
- advice via e-mail: 40 points / 1 correspondence

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Discussion among health insurance association in Tokyo Aug, 2008

Discussion among health insurance association in Tokyo Aug, 2008

Specialized health guidance

There are 2 types of health guidance:

Specialized health screenings

40-74y

“Motivational (mild) support”

pre-MetS: Waist+1risk

minimum 20min health guidance

“Active (intensive) support”

MetS: Waist+2risks

minimum 20min health guidance

+6months followup program

Q. Have you already started the specialized health screenings for MetS?

Yes
No

Q. Have you already started the specialized health guidance for employee?

Yes
No
Q. Have you already started the specialized health guidance for family?

Yes □ No □

(Discussion among health insurance association in Tokyo Aug, 2008)

Q. Do you combine the population strategy with specialized health screenings & guidance for reducing MetS?

Yes □ No □

(Discussion among health insurance association in Tokyo Aug, 2008)

Q. Do You feel problems or confusing with this new national project?

Yes □ No □

(Discussion among health insurance association in Tokyo Aug, 2008)

Discussion among OH staffs in Tokyo

"Current issue about specialized health screenings and guidance for MetS" June, 2008
"A bright and a dark side of specialized health screenings and guidance" May, 2009

Occupational Health Staffs Society

http://sanpokai.umin.jp/

Fukuda H, Juntendo University General Medicine, the 30th ICOH conference, Macau, March 18-23 2012

Current problems of Specialized Health Screenings

- Nothing
- Refusal measuring waist
- Validity of SHS
- Lack of visiting rate of SHS
- Difficulty of cooperation between company
- Lack of manpower
- Clinical trouble
- Digitalization of HS data (CSV to XML)
- Dissatisfaction for this national project

n=135 MA

Current problems of Specialized Health Guidance

- Nothing
- Difficulty of stratification SHS subjects
- Complication (mental health, malignant disease)
- Participating rate of SHS
- Participating rate of SHS family
- Difficulty of choosing HS institution
- Difficulty of cooperation between company
- Lack of manpower
- Worry about health guidance skill
- Less motivation of SHS subjects
- Difficulty to continue six months program

n=135 MA

Fukuda et al, research in OH society (2008:6)
Methods:
-Epidemiological study through SHG experience in an outsourcing health guidance company in Tokyo metropolitan area. We showed medical status of 23,092 SHG subjects, assessed the relation between MetS risks and various lifestyle factors by cross-sectional design and evaluated preliminary efficacy for body weight and waist circumference reduction, behaviour change stage by pre-post design.

Results:

MetS cases who have very high risk for Hypertension

MetS cases who have very high risk for Dislipidemia
MetS cases who have very high risk for Diabetes

Discussion in health guidance staffs

PHNs, RNs, Dieticians who have experience more than 300 cases in specialized health guidance during 2008

“Last year, we met many kinds of MetS cases...”
- who has very high risk for HT, DM, HL
- who has mental health problem
- who has malignant diseases
- who has low eye-vision, hearing loss
- who can’t speak Japanese

lifestyle and metabolic syndrome

over-eating

lipid over-intake

lifestyle and metabolic syndrome

lack of vegetables

late dinner

lifestyle and metabolic syndrome

eating out

rapid eating
Discussion:
Though there were several limitations, we also found some positive impact in our large scale SHG subjects.

- Preliminary evaluation for weight reduction and behavior change were not bad, but to keep this follow-up rate we must make great effort such as many remainder phone call, we doubted "does this program match to busy business worker?"

- We also cleared that there were persons who weren’t suitable for the health guidance in the target of SHG because of very high risk of lifestyle-related diseases or another complication such as mental health disorder.

- We found inequality in visiting rate of SHS & SHG.
Why obesity in Japan?
- Prevalence
- Lifestyle
- Environment
- Gene

Good GP
- Access to GP
- Cooperation with SP
- Drug therapy

Company Cafeteria
- Healthy Lunch Box
- Exercise Facility
- Environment

National Project
- Individual Intervention
- Small group Intervention
- IT & Web Programs

Thank you for your attention!
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