A Joint Research For Nutrition Improvement of Women in the Work Place

SITUATIONAL ANALYSIS OF NUTRITION AND HEALTH STATUS AMONG WOMEN IN INDONESIA

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In Indonesia, working women are considered vulnerable to malnutrition (MOH, 2014).

Health problems related to under-nutrition were prevalent among female workers was ranging from 35% to 62.4% (Soetrisno et. al. 1998, Suyardi et. al. 2009, Aminah and Iriyanto 2008, Yosephin et. al. 2015).

Nutrition and Health problems includes:
• CED, Overweight, Obesity
• Anemia
• Vitamin D deficiency
• Metabolic Syndrome
Nutrient Supplementation vs Meal Provision + Nutrition Education
To propose feasible approaches through public-private partnership to tackle the identified issues

To collect and analyze data related to the current situation of working women in Indonesia in regard with their health and nutritional status
OBJECTIVES

1. Identify current health and nutritional status of working women in Indonesia

2. Analyze existing policies, programs, and initiatives related to working women

3. Formulate recommendations to improve meal provision for working women.
**METHODS**

- **Study**
  - Desk Review

- **Time**
  - Feb – March 2017

- **Source**
  - Basic Health Research (RISKESDAS 2013)
  - Total Diet Study (TDS) of Indonesia and DKI Jakarta (2014)
  - Book 2 of the National Socioeconomic Survey (SUSENAS): “Consumption of Calories and Protein in the Indonesian Provinces
  - Other related references, including those reported by Madanijah *et al.* (2016)
CURRENT HEALTH AND NUTRITIONAL STATUS OF WORKING WOMEN IN INDONESIA
Nutritional Status (BMIZ) of Adolescent 16-18 Years (%)
Nutritional Status (BMI) of Adult ≥18 Years (%)
Nutritional Status (BMI) of Adult Women ≥18 Years by Age Group (%)
CED Nutritional Status (MUAC) of WRA 15-49 Years (%)

- National
- DKI Jakarta
- West Java

- Pregnant
- Non pregnant
CED Nutritional Status (MUAC) of WRA 15-49 Years by Age Group (%)
Anemia among Women (%)

<table>
<thead>
<tr>
<th>Category</th>
<th>Prevalence of anemia (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Severe public health problem</td>
<td>≥40.0</td>
</tr>
<tr>
<td>Moderate public health problem</td>
<td>≥20.0-39.9</td>
</tr>
</tbody>
</table>

Women | Adolescent girls 13-18 yrs | WRA 15-49 years | Pregnant women
Total Energy Intake of Adolescent Girls and Women of Reproductive Age (WRA)
Macronutrient Intakes of Adolescent Girls

Protein, Fat, and Carbohydrate Intake of Adolescent Girls

<table>
<thead>
<tr>
<th>Macronutrient</th>
<th>National</th>
<th>DKI Jakarta</th>
<th>West Java</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protein</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fat</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carbohydrate</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Macronutrient Intakes of WRA

Protein, Fat, and Carbohydrate Intake of WRA

gram/day

Protein, Fat, and Carbohydrate Intake of WRA

National
DKI Jakarta
West Java
Vegetable and Fruit Consumptions of Adolescents and Adults

- Balance Diet Guidelines (2014) recommended to consume vegetables and fruits of 400-600 g per day for adolescents and adults.
- About two-thirds of the recommended consumption should be from vegetables.
Vegetable Consumption

National

DKI Jakarta

gram/day

Adolescent

Adult
Key foods which comprise 75% of energy and nutrient intake (1)

<table>
<thead>
<tr>
<th>Nutrient</th>
<th>National</th>
<th>DKI Jakarta</th>
<th>West Java</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy (kcal)</td>
<td>2,037</td>
<td>1,982</td>
<td>2,126</td>
</tr>
<tr>
<td>Key foods (kcal; %)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cereals (896.38; 44)</td>
<td>Cereals (692.00; 34.9)</td>
<td>Cereals (897.26; 42.2)</td>
</tr>
<tr>
<td></td>
<td>Prepared food and beverages (399.03; 19.6)</td>
<td>Prepared food and beverages (514.98; 26)</td>
<td>Prepared food and beverages (502.04; 23.6)</td>
</tr>
<tr>
<td></td>
<td>Oil and coconut (260.68; 12.8)</td>
<td>Oil and coconut (246.75; 12.4)</td>
<td>Oil and coconut (246.53; 11.6)</td>
</tr>
</tbody>
</table>
## Key foods which comprise 75% of energy and nutrient intake (2)

<table>
<thead>
<tr>
<th>Nutrient</th>
<th>National</th>
<th>DKI Jakarta</th>
<th>West Java</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protein (g)</td>
<td>56.67</td>
<td>60.30</td>
<td>60.43</td>
</tr>
</tbody>
</table>
| Key foods (g; %) | • Cereals (21.09; 37.2)  
• Prepared food and beverages (11.25; 19.9)  
• Fish/shrimp/common squid/shells (7.17; 12.7)  
• Legumes (4.97; 8.8) | • Prepared food and beverages (17.17; 28.5)  
• Cereals (16.28; 27)  
• Fish/shrimp/common squid/shells (6.17; 10.2)  
• Eggs and milk (5.89; 9.8) | Cereals (21.10; 34.9)  
Prepared food and beverages (14.86; 24.6)  
Fish/shrimp/common squid/shells (5.96; 9.9)  
Legumes (5.24; 8.7) |
Physical Activity

Distribution of physical activity among population age ≥ 10 years

- National
- National, women
- DKI Jakarta
- West Java

% Less active
EXISTING POLICIES, PROGRAMS, AND INITIATIVES RELATED TO WORKING WOMEN
Existing Policy Programs and Initiatives in Indonesia

There are 18 regulations related to working women, consisted of:

1. Nutrients and dietary recommendations or guidelines,
2. Regulations related to workplace meal provision,
3. Regulations related to nutritional improvement,
4. Regulations related to breastfeeding
5. Regulations related to chronic diseases.

The regulations mainly derive from the Ministry of Health (MoH), Ministry of Manpower and Transmigration (MoMT), and Ministry of Women Empowerment and Children Protection.
Nutritional service for nutritional improvement, prioritize on nutrition vulnerable groups which include
• infant and under five children,
• school children and adolescent girls,
• pregnant, post-partum and lactating women,
• women workers, and
• elderly.

Nutritional services are delivered through
• Nutrition education, supplementation, treatment and surveillance.
• Supplementation is aimed to fulfill nutrition adequacy and is given to children 0-59 months, school children, pregnant women, post-partum women, adolescent girls and women workers.
• Nutritional service outside health care facility includes nutrition service in the work place.
• Nutritional assessment is prioritized to under five children, school children and female workers. The assessment is determined by anthropometry, biochemical, clinical, and food consumption.
Consists of the following activities:

- Fulfillment of nutrition adequacy of female workers, suggesting them to assess their weight routinely, once a month
- Health Check for Female Workers is suggested to be conducted in the beginning, during, and after working
- Reproductive health services before pregnancy, during pregnancy, during labor, and after labor
- Support breastfeeding during working hours in the workplace
Republic of Indonesia. Law Number 13 Year 2003 on Manpower

- Employers are prohibited from employing workers / labor of pregnant women if based on doctors suggestion that it is harmful to the health and safety of its contents as well as to herself when working between 23.00 to 07.00.
- Employers who employ female workers / labor between 23.00 to 07.00 shall provide nutritious foods and beverages; and maintain decency and safety while at work.
Meal Provision in the Workplace

MoMT Decree No. KEP.102/MEN/VI/2004 on Overtime Work Hour and Wages and MoMT Decree No. KEP.224/MEN/2003 on the obligation of employers who employ women between 11 p.m. and 7 a.m

• A company is obliged to provide diversified food and beverages containing at least 1,400 kcal for each overtime work of more than 3 hours.
• The provision of food and beverage should not be replaced with financial compensation.
• The company should also provide tools and a dining room which fulfill hygiene and sanitation requirements.
• Food and beverage given to worker should be varied.
Regulation Number 5 Year 2015 on Provision of Gender Responsive and Child Friendly Work Facility in the Workplace.

- Same opportunity for every women and men to conduct task, function, rights and responsibility at work. This same opportunity is also given to married women who are still in reproductive age, women in lactation period, women with under five years children. This same opportunity includes providing time to express breastmilk and or exclusive breastfeeding to infant during working hour.
RECOMMENDATIONS TO IMPROVE MEAL PROVISION FOR WORKING WOMEN
RECOMMENDATIONS

- The situational analysis and policy analysis were insufficient to meet our objective to formulate recommendations for improving meal provision for women in the workplace.
- That was because we mainly relied on secondary data available for our analysis which could not fully be aggregated into specific target group (working women).
- A future analysis should include more inputs from relevant stakeholders through Focus Group Discussions or stakeholder workshops.
High Blood Pressure among Adult ≥18 Years (%)
Diabetes Mellitus (DM), Impaired Fasting Glucose (IFG) and Impaired Glucose Tolerance (IGT) among Population Aged >15 Years (%)

DM, IFG and IGT among Population Aged >15 Years by Age Group (%)
## Population Aged ≥15 Years

### TOTAL CHOLESTEROL

<table>
<thead>
<tr>
<th></th>
<th>Borderline</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td>25.8</td>
<td>10.1</td>
</tr>
<tr>
<td>Women</td>
<td>27.8</td>
<td>11.8</td>
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</table>

### LDL

<table>
<thead>
<tr>
<th></th>
<th>Near optimal</th>
<th>High Borderline</th>
<th>High</th>
<th>Very high</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td>34.3</td>
<td>26.0</td>
<td>11.1</td>
<td>4.8</td>
</tr>
<tr>
<td>Women</td>
<td>34.0</td>
<td>26.9</td>
<td>11.9</td>
<td>5.7</td>
</tr>
</tbody>
</table>

### HDL

<table>
<thead>
<tr>
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<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td>22.9</td>
</tr>
<tr>
<td>Women</td>
<td>15.3</td>
</tr>
</tbody>
</table>

### TRIGLYCERIDES

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<thead>
<tr>
<th></th>
<th>High Borderline</th>
<th>High</th>
<th>Very High</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td>13.0</td>
<td>11.4</td>
<td>0.5</td>
</tr>
<tr>
<td>Women</td>
<td>11.7</td>
<td>9.8</td>
<td>0.4</td>
</tr>
</tbody>
</table>
CHD, Heart Failure and Stroke among Adult ≥15 years (%)