Control of Prominent NCD Risk Factors: Strategy & Action

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Outline

1. NCDs & Risk Factors in Indonesia
2. Determinants & Action Strategy
3. Acceleration & Scale up
Disability Adjusted Life Years: DALYs

\[ \text{YLDs} \quad + \quad \text{YLLs} = \quad \text{DALYs} \]

\[ \text{YLD} = \text{years lived w disability} \]
The number of years of life spent unwell, weighted according to the severity of illness or injury

\[ \text{YLL} = \text{years of life lost} \]
The number of years of life expectancy remaining at time of death

DALYs = Disability adjusted
The number of years of healthy life lost due to premature death, disabling illness, or injury

Sumber: IHME
Criteria to attribute Risk ➔ Outcome
Example: Smoking ➔ lung cancer

Criteria for each “pair”
risk ➔ disease/ injury

1. Clear causal effect
2. Evidence showing generalization of impact to broader population
3. Significant potential of specific risk factor to have impact on disease burden, policy and/or program
4. Enough data & methodologies to estimate impact and distribution of exposure to the risk factor
<table>
<thead>
<tr>
<th>Disease</th>
<th>2017 Ranking</th>
<th>% of change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke</td>
<td>1</td>
<td>122.8% ↑</td>
</tr>
<tr>
<td>Tuberculosis</td>
<td>2</td>
<td>155.6% ↑</td>
</tr>
<tr>
<td>Ischemic HD</td>
<td>3</td>
<td>162.6% ↑</td>
</tr>
<tr>
<td>Diarrhoeal Dis</td>
<td>4</td>
<td>-29.6% ↓</td>
</tr>
<tr>
<td>Ischemic HD</td>
<td>5</td>
<td>39.6% ↑</td>
</tr>
<tr>
<td>Diarrhoeal diseases</td>
<td>6</td>
<td>-35.3% ↓</td>
</tr>
<tr>
<td>COPD</td>
<td>7</td>
<td>85.5% ↑</td>
</tr>
<tr>
<td>Alzheimer’s</td>
<td>8</td>
<td>237.1% ↑</td>
</tr>
<tr>
<td>Lower Resp Inf</td>
<td>9</td>
<td>-60.7% ↓</td>
</tr>
<tr>
<td>COPD</td>
<td>10</td>
<td>-58.5% ↓</td>
</tr>
<tr>
<td>Chronic Kidney disease</td>
<td>11</td>
<td>136.5% ↑</td>
</tr>
<tr>
<td>Lung Cancer</td>
<td>12</td>
<td>-27.9% ↓</td>
</tr>
<tr>
<td>Chron. Kidney disease</td>
<td>13</td>
<td>56.6% ↑</td>
</tr>
</tbody>
</table>

Source: MoH & IHME
DALYs (Per 100,000)  Three Groups of Diseases
RI & 34 Provinces 2017

Source: MoH & IHME
Total DALYs : NCDs by cause & sex
Indonesia  1990 & 2017

Source : MoH & IHME
<table>
<thead>
<tr>
<th>1990 Ranking</th>
<th>2017 Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child &amp; Mat malnutrit 29.01%</td>
<td>14.39% Dietary risks</td>
</tr>
<tr>
<td>Unsafe H2O sani, hand 7.74%</td>
<td>14.07% High Sistolic BP</td>
</tr>
<tr>
<td>Dietary risks 7.02%</td>
<td>13.75% High fast plas glu</td>
</tr>
<tr>
<td>Air pollution 6.89%</td>
<td>10.89% Tobacco</td>
</tr>
<tr>
<td>Tobacco 6.89%</td>
<td>9.52% Child &amp; Mat malnutrit</td>
</tr>
<tr>
<td>High Systolic BP 5.98%</td>
<td>7.67% High Body-Mass Ind</td>
</tr>
<tr>
<td>High fasting plas glu 4.93%</td>
<td>5.38% Air pollution</td>
</tr>
<tr>
<td>Occupational risks 3.24%</td>
<td>4.31% High LDL Cholest.</td>
</tr>
<tr>
<td>Impaired kidney funct 1.86%</td>
<td>3.76% Occupational risks</td>
</tr>
<tr>
<td>High Body-Mass Index 1.80%</td>
<td>3.41% Impaired kidney funct</td>
</tr>
<tr>
<td>High LDL Cholesterol 1.30%</td>
<td></td>
</tr>
</tbody>
</table>

Source: IHME & MoH

Metabolic

Behavioral

Environmental & Occupational
Total DALYs by Risk Factor & Sex - RI 2017

- Tobacco: 6,575,904
- High Fasting Plasma glucose: 5,517,021
- High Systolic BP: 5,806,538
- Dietary Risks: 6,179,328
- Male: 10,257,637
- Female: 10,488,195
- Both: 8,121,794

Source: MoH & IHME
Smoking prevalence & Tobacco use in Indonesia

- 68 million *smokers* (M & F) in Indonesia (2017)
- Smoking *prevalence* in RI:
  - Men: 52.0% ↑↑ 58.0%
  - Child (10 – 18 yrs): 7.0% ↑↑ 9.0%
  - Women: 1.3% ↑↑ 4.8%

- **Tobacco use** (smoking, secondhand smoke, smokeless tobacco):
  - 4th leading risk factor for death in Indonesia
  - 2nd leading risk factor for men
  - *Tobacco use* caused 64% of deaths from lung cancer
  - 24% of deaths from ischemic heart dis.

Source: MoH & IHME
Determinants Of NCDs

Social Determinants of Health
- Globalization
- Urbanization
- Pop. ageing

Tobacco use
- Unhealthy diet
- Physical inactivity
- Harmful use of alcohol

Metabolic Physiological risk factors
- Obesity
- High Blood Pr
- Bld glucose
- Lipids

Underlying drivers

Source: WHO
Strategic Action Areas: prevention & control of NCDs

AREA 1
Advocacy partnership & leadership

AREA 2
Health Prom Risk

AREA 3
Health Syst Strengthen – early detect & manage NCDs

AREA 4
Surveillance M & E Research

Source: WHO
Strategic Action Area I

**ACTION**
- Advocacy
- Partnership
- Effective leadership to accelerate scale up

**OUTCOME**
- Political commitment
- Sustainable resources
- Mechanism for multi-sectoral responsibility
- Effective coord. MoH & *local leadership*
Strategic Action Area II

**ACTION**

- Health promotion
- Risk reduction
- Population wide intervention

**OUTCOME**

- Tobacco use
- Fat, salt, sugar
- Household pollution
- Road injury
- Physical activity
- Workplace safety
Strategic Action Area III

**ACTION**

- Health System Strengthening
  ESPECIALLY (PHC)
  Primary Health Care !!

**OUTCOME**

- **Access** to Health Care services - NCDs
- **Quality** of care
- **Competence** : HC workers
- **Empowerment** of individual & communities for self-care
Strategic Action Area IV

**ACTION**
- Surveillance
- M & E
- Research

**OUTCOME**
- Data for
  - evidence-based policy & program development
  - Program & financial auditing
1. **Innovative Health Promotion methods & messages** → make healthy life style **cool**! Positive use of social media.

2. **Leadership awards** (Gov & Comm.) for innovative & sustainable financing esp for health.

3. **Digitalization** of surveillance, M & E, sharing of results → contributing to effectiveness & scale up.

4. **Action research**: what can be done better **Now**
Thank you - Remember
We are racing against time !!