Two Pandemics: Obesity and COVID-19

Dr John Juliard Go, WHO Philippines

goj@who.int
COVID-19 Global Situation As of 24 March 2021

Global Situation

123,902,242 confirmed cases

2,727,837 deaths

Source: World Health Organization
Data may be incomplete for the current day or week.
**Nationwide Cases Data**

**Total Cases**
- **684,311**
  - **+6,666 added on 03/24**

**Active Cases**
- **91,754**

**Recovered**
- **579,518**

**Died**
- **13,039**

Confirmed cases are those that tested RT-PCR positive by a DOH-RITM certified lab.

**Weekly Cases by Date of Onset of Illness**
For 66.6% or 455,505 of cases where date of onset of illness is unreported, date of specimen collection was used as proxy.

We urge caution when interpreting data during the highlighted period below, which may be incomplete because of delays in reporting.
Since the COVID-19 outbreak, people living with NCDs are more vulnerable to becoming severely ill or dying from COVID-19

- **Italy:** Among those dying of COVID-19 in hospitals, 68% had **hypertension** and 31% had type 2 **diabetes**.

- **India:** 30% fewer **acute cardiac emergencies** reached health facilities in rural areas in March 2020 compared to the previous year.

- **Netherlands:** The number of people newly diagnosed with **cancer** dropped by 25% as a result of the lockdown.

- **Spain:** Among patients with severe COVID-19 disease, 43% had existing **cardiovascular diseases**.
People living with NCDs are at increased risk for severe disease and death from COVID-19.

**Diabetes:** Some studies show that 20% of persons hospitalized as a result of COVID-19 have diabetes and 26% of individuals who die from COVID-19 have diabetes.

**Hypertension and cardiovascular diseases:** Some studies show that 10% of people with pre-existing cardiovascular disease who contract COVID-19 will die, compared with only 1% of patients who are otherwise healthy.

**Kidney disease:** Some studies show that people with chronic kidney disease are three times more likely to develop severe symptoms of COVID-19.

**Being overweight or obese** can increase the severity of COVID-19.
Potential adverse effects of the pandemic response for people with obesity

- Effects of ‘lockdowns’: isolation / stigma, reduced physical activity, comfort eating and snacking - risk of ‘COVID’ weight gain
- Economic effects: loss of income, food poverty (increased processed foods, snacking)
- Reduced access to healthcare: obesity treatments, other investigations and treatments – may disproportionately affect those with obesity
123 countries reported that NCD services are disrupted.

- Rehabilitation services: 60% partially disrupted, 5% completely disrupted
- Hypertension Management: 50% partially disrupted, 20% completely disrupted
- Diabetes and Diabetic Complications Management: 40% partially disrupted, 30% completely disrupted
- Asthma services: 30% partially disrupted, 20% completely disrupted
- Palliative care services: 20% partially disrupted, 10% completely disrupted
- Urgent dental care: 15% partially disrupted, 15% completely disrupted
- Cancer Treatment: 10% partially disrupted, 10% completely disrupted
- Cardiovascular emergencies: 5% partially disrupted, 5% completely disrupted
Worldwide obesity has nearly tripled since 1975

- More than 650 million adults were obese, or about 13% of all adults (2016)
- Prevalence of obesity for children more than doubled over the last two decades.
Trends of overweight and obesity in the Philippines

Prevalence of overweight among children 5-9 years old

- Male, 17.0%
- Female, 11.8%

Prevalence of overweight among children and adolescents 10-19 years old

- Male, 4.1%
- Female, 3.5%

Prevalence of overweight (BMI ≥25) among adults aged 18+, 1990-2016

- Male, 13.5%
- Female, 10.5%

Western Pacific Region, 31.7%

Philippines, 27.6%

Health Impacts of Obesity

The health impacts of obesity are wide-ranging, including diabetes, cardiovascular disease, cancer, depression, impotence, organ disease, birth complications and sleep disorders.

Children with obesity are more likely to experience anxiety, depression and bullying, which can lead to a vicious cycle.

Obesity, and the illness and disability it causes, imposes a significant economic impact in terms of health costs, lost productivity and the associated drag on economic growth.
**Rapid systematic review: Obesity and COVID-19**

**Question:** Does obesity independently increase the risk for SARS-CoV2 infection and COVID-19 severity and death?

<table>
<thead>
<tr>
<th>Setting</th>
<th>Any setting in any country where cases of SARS-CoV2 infection have been found</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>Any person regardless of age, comorbidity, occupation, socio-economic status</td>
</tr>
<tr>
<td>Exposure</td>
<td>Obesity</td>
</tr>
<tr>
<td>Comparator</td>
<td>Non-obese people of any age</td>
</tr>
<tr>
<td>Outcomes</td>
<td>Mortality</td>
</tr>
<tr>
<td></td>
<td>Requiring hospitalization</td>
</tr>
<tr>
<td></td>
<td>Requiring high care or intensive care</td>
</tr>
<tr>
<td></td>
<td>Length of hospital stay</td>
</tr>
<tr>
<td></td>
<td>Length of high care/ICU stay</td>
</tr>
<tr>
<td></td>
<td>Requiring mechanical ventilation</td>
</tr>
<tr>
<td></td>
<td>SARS-CoV2 infection</td>
</tr>
</tbody>
</table>

| Study designs    | Cohort and case-control studies                                               |

Possible influencing factors (subgroups or adjust for)

- Classes of obesity: BMI ≥ 30 – 34.9 versus 35 – 39.9 versus ≥ 40
- Healthcare workers versus non-healthcare workers
- Age
- Co-morbidities
  - Vitamin D status
  - Socio-economic status
  - Prevalence of SARS-CoV2 infection: settings with high prevalence versus moderate versus low
Studies selected for systematic review

Records identified through database searching (n = 2914)

Records Screened (n = 2711)

Full Text Articles Assessed n = 125

Articles included in Review n = 43
Articles included in Meta-Analysis n = 39

Duplicates removed (n = 203)

Records excluded (n = 2589)

Records excluded
Wrong study design = 76
Wrong population = 2
Wrong outcomes = 4
Take away message from systematic review

• Obesity is an important, **independent prognostic factor** in COVID-19

• Obese patients are at **increased risk for all adverse outcomes**

• **Increasing BMI further increases the risk for adverse outcomes**
Evidence suggests that obesity may be a risk factor for severe outcomes and complications of COVID-19.

- A report by the CDC in the US suggests that 48% of people hospitalised with COVID-19 were also affected by obesity.
- A study in France found that people in critical care with COVID-19 were 1.89 times more likely to have obesity than the general public.
- In the UK, a report flags that out of 10,465 patients critically ill with confirmed COVID-19, 73.7% were living with overweight or obesity.
- A report from Italy suggests 99% of deaths have been in patients with pre-existing conditions, including those which are commonly seen in people with obesity such as hypertension, cancer, diabetes and heart diseases.

https://www.worldobesity.org/resources/policy-dossiers/obesity-covid-19/frequently-asked-questions
Overweight & Obesity

Obesity Worsens Outcomes from COVID-19

Adults with excess weight are at even greater risk during the COVID-19 pandemic:

- Having obesity increases the risk of severe illness from COVID-19. People who are overweight may also be at increased risk.
- Having obesity may triple the risk of hospitalization due to a COVID-19 infection.
- Obesity is linked to impaired immune function.\(^2\,^3\)
- Obesity decreases lung capacity and reserve and can make ventilation more difficult.\(^4\)
- A study of COVID-19 cases suggests that risks of hospitalization, intensive care unit admission, invasive mechanical ventilation, and death are higher with increasing BMI.\(^5\)
  - The increased risk for hospitalization or death was particularly pronounced in those under age 65.\(^5\)
- More than 900,000 adult COVID-19 hospitalizations occurred in the United States between the beginning of the pandemic and November 18, 2020. Models estimate that 271,800 (30.2%) of these hospitalizations were attributed to obesity.\(^6\)
Global Targets for Overweight and Obesity

Global NCD Voluntary Target 2025
2 Nutrition related target

- **Target 4**
  30% relative reduction in mean population intake of salt/sodium

- **Target 7**
  Halt the rise in diabetes and obesity

Global Nutrition Target 2025
Maternal, infant and young child nutrition targets

- **Target 1 – Stunting**
  40% reduction in the number of children under 5 who are stunted

- **Target 2 – Anemia**
  50% reduction of anemia in women of reproductive age

- **Target 3 – Low birth weight**
  30% reduction in low birth weight

- **Target 4 – Childhood overweight**
  No increase in childhood overweight

- **Target 5 – Breastfeeding**
  Increase the rate of exclusive breastfeeding in the first 6 months up to at least 50%

- **Target 6 – Wasting**
  Reduce and maintain childhood wasting to less than 5%
Actions to Reverse the Obesity Trend

1. Fight obesity with public health tools, by scaling up actions to prevent, control and manage it.

2. Fight obesity with financial and regulatory tools, to make healthy diets more accessible and affordable.

3. Fight obesity with clinical tools, by providing quality care for children and adults who live with obesity.
Fight obesity with public health tools
Fight obesity with financial and regulatory tools

Fiscal Policies

- Appropriately designed fiscal policies have considerable potential for promoting healthier diets and improving weight outcomes.
- Taxes that raise the prices of sugar sweetened beverages by 20% or more could lead to more than proportional reductions in SSB consumption and net reductions in caloric intake.
- Subsidies for fresh fruits and vegetables that reduce their prices by 10 to 30% are effective in increasing fruit and vegetable consumption. The combination of such subsidies and taxation has greater effect.
- Taxation of other unhealthy foods and non-alcoholic beverages, appears promising.

Regulating Food Marketing to children

Meta analyses of published, peer-reviewed studies:
- Marketing plays a major role in the popularity and increased consumption of breast-milk substitutes (BMS) and food high in saturated fats, trans-fatty acids, free sugars or salt.
- Strong evidence that food marketing to children affects their preferences, purchase behaviors, and consumption habits, and is associated with obesity in children and adolescence (2–19 y).
- Current marketing practice predominantly promotes low nutrient foods and beverages.

Required policy to regulate marketing food and beverage to children.
Healthy Food Environment in School

- **Standards** for meals provided and sold.
- **Eliminate** provision and sale of “unhealthy foods and drinks” including SSB.
- **Potable water** in school and sports facilities.
- **Nutrition and health education** in core curriculum.
Assessing and managing overweight and obese children at Primary Health Care

- Identify and manage children who are overweight or obese at Primary Health Care.
- Measurement of weight and height to determine their nutritional status according to WHO child growth standards.
  - Counselling to parents and caregivers on nutrition.
  - An appropriate management plan.

20 March:
During this difficult time, it’s important to continue looking after your physical and mental health. This will not only help you in the long-term, it will also help you fight COVID-19 if you get it. First, eat a healthy and nutritious diet, which helps your immune system to function properly. Second, limit your alcohol consumption, and avoid sugary drinks. Third, don’t smoke. Smoking can increase your risk of developing severe disease if you become infected with COVID-19. Fourth, exercise. WHO recommends 30 minutes of physical activity a day for adults, and one hour a day for children. If your local or national guidelines allow it, go outside for a walk, a run or a ride, and keep a safe distance from others. If you can’t leave the house, find an exercise video online, dance to music, do some yoga, or walk up and down the stairs.
#HealthyAtHome

Staying physically active

Healthy diet

Healthy parenting

Quitting tobacco

Mental health
Social media tiles

Be active at home during #COVID19 outbreak
1. Try exercise classes online
2. Dance to music
3. Play active video games
4. Try skipping rope
5. Do some muscle strength & balance training

Be active at home during #COVID19 outbreak
1. Regularly check your sitting posture while working from home
2. Break up your sitting & stand up while working, on the phone, or watching TV

Tips to stay active at home during #COVID19 outbreak
1. Walk up and down the stairs
2. Do some stretching exercises
3. Dance to music for a few minutes
4. Seek more ideas & resources online

If you are at home during #COVID19 outbreak
WHO recommends that all healthy adults do 30 minutes/day of physical activity, and children should be physically active for 1 hour/day.

BE ACTIVE & STAY HEALTHY AT HOME!

BE ACTIVE & STAY HEALTHY AT HOME!

Keeping active every day is good for your body, mind and spirit especially during these stressful times. And more physical activities you do can improve your sleep which is also important for good health.
#HealthyAtHome: Healthy Diet

- **Nutrition Tips**
  - **Stay Hydrated**: Drink plenty of water
  - **Cut Back on Salt**: Limit salt intake to less than 5 grams (a teaspoon) a day
  - **Reduce Sugars Consumption**: Limit intake of sweets and sugary drinks
  - **Avoid Drinking Alcohol**: or keep it to the minimum if you drink
  - **Eat a Variety of Food**: including plenty of fruits and vegetables
  - **Eat Moderate Amounts of Fats and Oils**: Avoid trans fats
Fighting the Two Pandemics

COVID-19
No single intervention can halt the rise of Obesity, we need:

- Comprehensive and Coherent Policies.
- Leadership and Commitments.
- Advocacy, Communications and Public Education.
- Joint Action - Multisectoral.
- Monitoring and Evaluation.
THANK YOU

Maraming Salamat