

## Tackling obesity in Indonesia: current problems and future directions

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Overweight and obesity are a major health problem worldwide, including in Indonesia, as the 4th largest population in the world. It has been previously reported that around one third of adult Indonesian population had overweight and obesity.<sup>1</sup> A study in this journal edition revealed that the proportion of obesity among Indonesia's urban adult population was more than doubled from 23.0% in 2007 to 50.1% in 2018 for obesity and 28.0% to 57.2% for central obesity.<sup>2</sup> Being overweight and obese means having abnormal or excessive fat that could pose health risks.<sup>3</sup> Thus, the increasing prevalence of overweight and obesity would lead to many health problems, not only metabolic and cardiovascular health problems, such as diabetes, cardiovascular disease, hyperuricemia, and risk of thrombosis, but also mechanical, such as osteoarthritis, gastroesophageal reflux disease, and low back pain; and mental health problems.<sup>4</sup>

Various factors have been contributing to obesity development, ranging from genetic and epigenetic factors to behavioral and environmental factors.<sup>5-8</sup> Chronic low-grade inflammation and increased gut permeability have also been explaining the development of obesity-associated health problems.<sup>9</sup> Further studies on the relative contribution of each factor are important for the plan to overcome obesity in terms of personalized obesity care and preventive efforts for the community.

Improved awareness and early detection of obesity are essential at the community level. The Indonesian Society for the Study of Obesity has published a recommendation of a new proposed body mass index (BMI) criteria of 25 kg/m<sup>2</sup> to define obesity among Indonesian adults, challenging the higher BMI cut-off point currently used by the Ministry of Health Republic of Indonesia.<sup>10</sup> Applying this lower cut-off point will lead to earlier detection of obesity; thus, preventive efforts could be implemented earlier to

prevent the development of obesity-associated health problems. It is important to note that despite having the term metabolically healthy obesity, recent studies have revealed this notion still has a much higher risk of developing obesity-associated complications in the future compared to a healthy and lean person.<sup>11</sup> Thus, every person with overweight and obesity should be offered weight management.

Weight management is a complex issue as it requires a good collaboration between the person with obesity and healthcare professionals.<sup>4,12</sup> A recent survey revealed that most people with obesity in Indonesia thought weight management was their responsibility and that help from healthcare professionals seemed unnecessary. Moreover, healthcare professionals also rarely offer weight management in their routine care, despite knowing the issue that obesity can lead to many health problems.<sup>4,12,13</sup> An education program to increase awareness of obesity and the importance of weight management for both public and healthcare professionals in Indonesia is urgently needed.

Providing a standard of care for people with obesity in Indonesia is also an important issue, along with the prevention programs. Thus, a national guideline for obesity management in Indonesia is currently being prepared by the Ministry of Health of the Republic of Indonesia and healthcare professionals. This guideline consists of recommendations for diagnosis, complication screening, and treatment of obesity. The obesity treatment should also be a multidisciplinary approach, collaborating not only on dietary recommendations and exercise but also, if needed, medication, psychological support, and even bariatric intervention.

In summary, the obesity problem in Indonesia is rising and leading to a dramatic increased incidence of obesity-associated complications and health expenditure. Increasing obesity awareness for both community and healthcare professionals is needed.

Further studies on the pathogenesis of obesity and its related complications are also needed to provide a better preventive and treatment approach. A multidisciplinary approach is important to provide better personalized obesity care for people with obesity.

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pISSN: 0853-1773 • eISSN: 2252-8083

<https://doi.org/10.13181/mji.ed.247691>

**Med J Indones.** 2024;33:61–2

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