

This week's question to consider:

What is the origin of the BMI? Why is it a standard by which people measure their health?

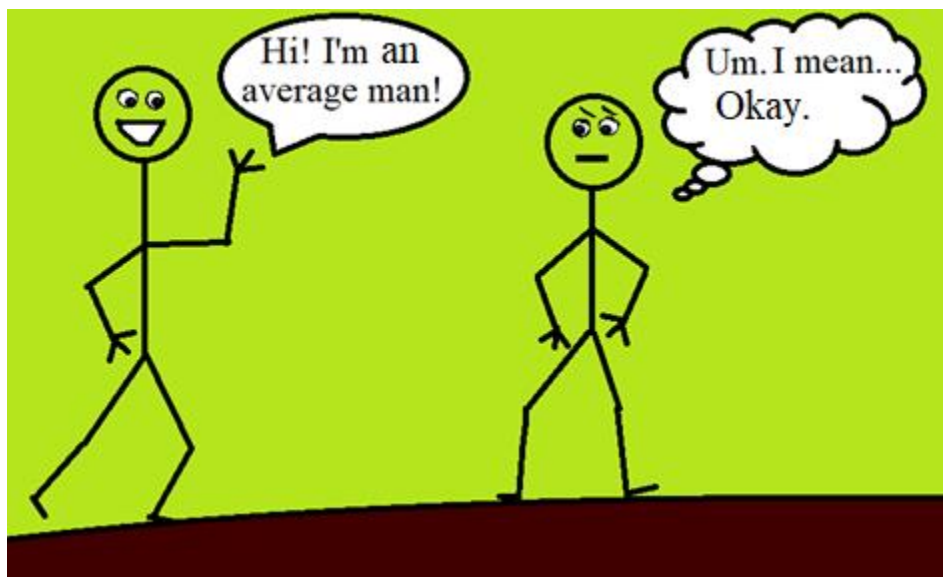
Pro tip: The BMI was created to contribute to measuring trends at a population level, not an individual's healthy weight range. It is based on biased, flawed research that has long since become obsolete despite its prevalence in fitness spaces, and some medical spaces.

The Body Mass Index. The infamous BMI. What it means, what it implies, and how it has shaped how we view our bodies. Whew! Let's get down to it. I will be interjecting some red flags (like this: 🚩) and numbering them. In this context, red flags are problematic statements or facts. As you read through, pause to think about why that might be. (Insight on each in the postscript the very end.)

In the 1800s, Belgian mathematician and statistician (🚩 #1) Adolphe Quetelet developed a formula. This formula took a person's total weight in kilograms and divided it by their total height in meters squared. This first data set, comprised of people who Quetelet had access to, was comprised entirely of Belgian men in the nineteenth century (🚩 #2). Quetelet used this data to create four categories of under, ideal, overweight, and obese. (🚩 #3).

In his most influential work, *Sur l'homme et le développement de ses facultés, ou Essai de physique sociale* (in English : *Treatise on Man*), published by Bachelier, Paris in 1835 (🚩 #4), Quetelet attempted to describe "The Average Man." The idea was to use mean values and a normal distribution (hello, statistics!) or bell curve to understand and characterize trends of crime rates, marriage rates or suicide rates, at a population level (🚩 #5).

In other words, Quetelet used this metric, among others, to examine population trends.



Behold: an illustration of how very little sense it makes to consider the notion of average as desirable on an individual basis.

Originally called the Quetelet Index, it was renamed the Body Mass Index in the 1970s by a researcher called Ancel Keys, who [published results](#) based on a data set again comprised of white European men (🚩 #6). In 1986, [Keys published again](#), looking at some of the same ideas that had fascinated Quetelet in the previous century, looking specifically at diet and death rate of a group of 40-year-old white men (🚩 #7).

Since then, the whole idea of BMI as a metric of health has been adopted by many in the medical industry (🚩 #8), and by insurance companies with the purpose of providing an easily measurable, if arbitrary, metric to determine health (🚩 #9).

This is problematic. Insurance companies are not unbiased when it comes to health. They have a vested interest directly tied to their potential financial gains and losses, reason to err on the side of health being rare. Rejection of a claim for pre-existing conditions, like a person's BMI being outside the deemed acceptable range, certainly affects the financial outcome in favour of the insurance company that doesn't have to provide coverage. They are not innocent bystanders here. From there, people internalizing that their health is not such that they can be insured helps to internalize that there is something wrong with them. (🚩 #10.)

Once adopted by the Insurance industry, the BMI obtained a direct line to the general population. Ultimately, it has crept into the public consciousness as a measure of individual health, and certain values are deemed achievable goals considering a person's height and weight, the end. There are no other considerations in the BMI. Bone density is unimportant, stress isn't a factor, diabetes doesn't matter, age isn't important... It's a simple calculation considering height and weight, the end. Dwayne "The Rock" Johnson's high BMI categorizes him in the "obese" category, after all.

Really, "BMI" is a better acronym for "Basically Meaningless Index." We might as well be counting the number of eyelashes on an ostrich and dividing that value by the number of times a hummingbird blinks in a minute (squared!) to determine the health of a domestic cat, based on average ranges of values of the weight of a group of 3-year-old Siamese cats who lived in Thailand in the 18th century. That would make just as much sense.

Recommended Resources:

Good Housekeeping Article (February 2021) | [The Racist & Problematic History of the BMI](#)
Elemental.com article by A. Gordon (Oct. 2019) | [The Bizarre and Racist History of the BMI](#)
A website that offers another approach with a medical lens | [Health at Every Size Website](#)

Tune in next week for a new lesson on antiracism or equity!

"BMI" schmeye,

Your friendly neighbourhood Anti-Racism & Equity Coach
Therese Trofimencoff (*she/her/they*)

Postscript

What made those problematic?

- #1 Did not originate in medical research, developed by a statistician and mathematician
- #2 Data from a small pool of humans in the 1800s. Is it still relevant?
- #3 Categories created based on original data set, and terminology is questionable and casts judgement. I mean... "ideal"? Why was that decided to be the ideal category? Why wouldn't the extreme on either end have been the so-called ideal? I dislike this term so much. Such othering of whole group of society. There is variation in skin tone and there is variation in body sizes and that is typical and normal, and I must now move on I am getting worked up.
- #4 Published in 1835. Is it still relevant?
- #5 Crime rates, marriage rates, suicide rates ... no mention of health. Correlation is not causation. Also, population level data does not translate to individuals.
- #6 Data is very restricted and contains no women, no people of varied nationality, but is applied to people in a blanket way.
- #7 Data is very restricted and unrepresentative, again, and still.
- #8 Some in the medical industry are using this value to determine health and whether or not to provide care. For a lot of people, a doctor's message has been "lose weight, then we'll talk."
- #9 Insurance companies are determining what health means. Which... what?
- #10 Insurance companies are not unbiased when it comes to measuring health.