

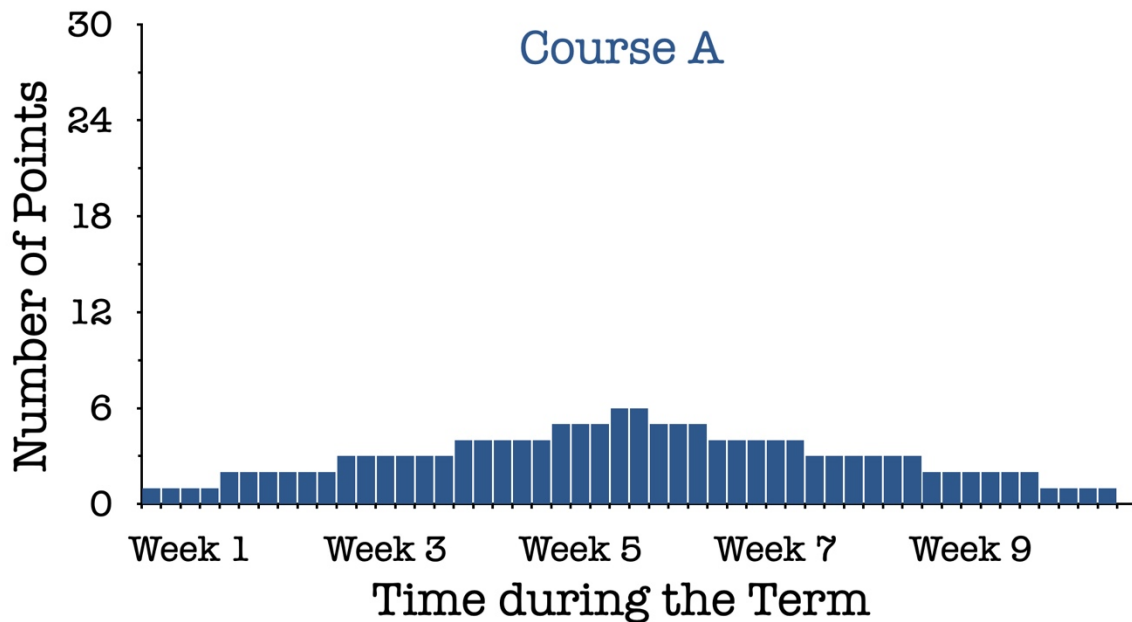
What Does It Mean to Flatten the Curve?

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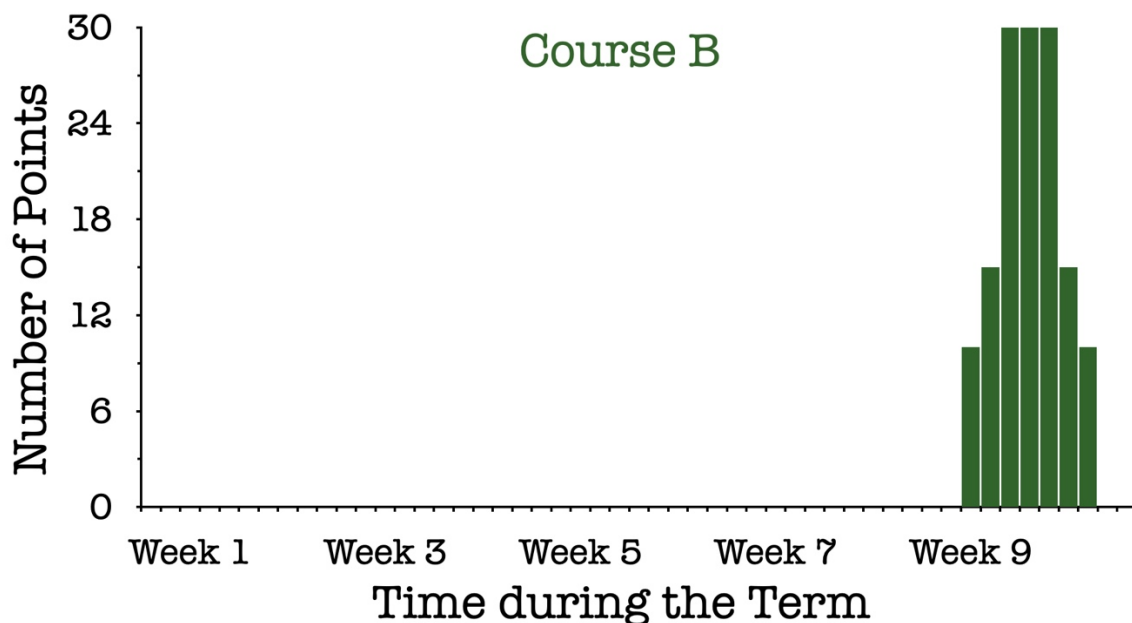
Let's imagine you have the option of enrolling in one of two different courses taught in two different departments. Both courses fulfill a degree requirement, but you can choose which course to take to fulfill the requirement.

In one course, which we'll call Course A, your opportunities to earn points will occur at a relatively steady pace from the start of the term to the end of the term. Therefore, if you enroll in Course A, your workload will occur at a relatively steady pace throughout the term. Likewise, your stress and mental resources will be spent at a relatively steady pace throughout the term.

Knowing what we know about distributions, we can see that the distribution of the number of points available to earn in Course A is relatively spread out and dispersed. In fact, it's relatively flat.

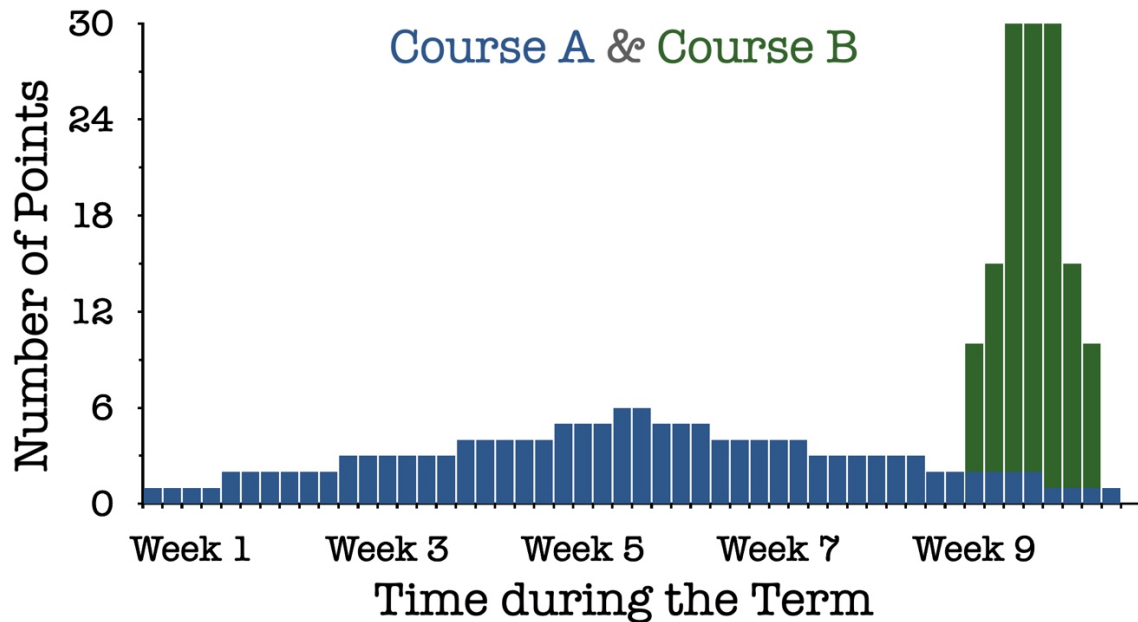


In contrast, in Course B, your opportunities to earn points will occur at clustered time – at the end of the semester. Although in both courses, you can earn a maximum of 150 points, in Course B, the points will be bunched together with a final project, a final presentation, a final paper, and a final exam.

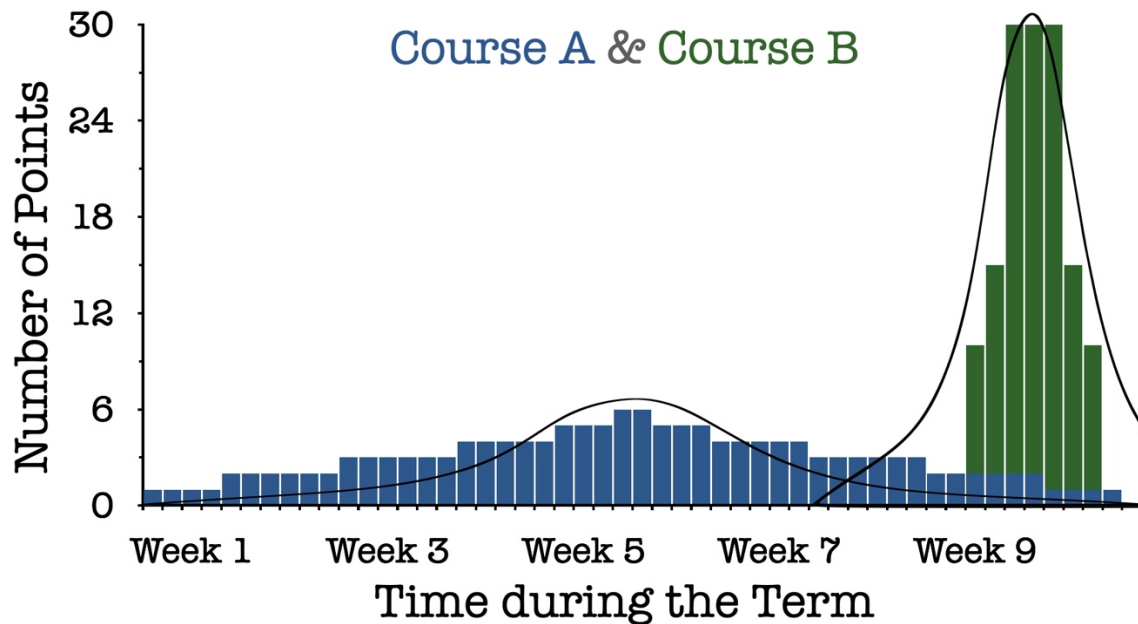


Therefore, in Course B, your workload will occur at a clustered time during the term. Likewise, your stress and mental resources will be taxed at a clustered – indeed, peaked – time.

Both courses will require the same amount of effort because both courses offer the same number of points. But in Course A, the points and your resources will be spread out over the term, whereas in Course B, the points and your resources will be clustered.



We can overlay a normal curve over each of the two course's distributions. When we do, we see even more clearly how distributed and almost flat the distribution of points is in Course A and how peaked and tightly clustered the distribution of points is in Course B.



Now, let's talk about a phrase you might be familiar with: "flatten the curve." You've probably heard the expression "flatten the curve" on the news:

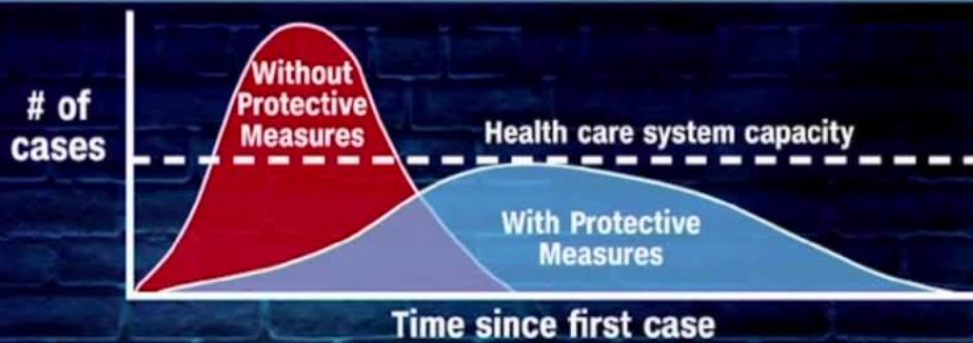
FLATTEN THE CURVE EXPLANATION



FOX40 NEWS THAT MATTERS

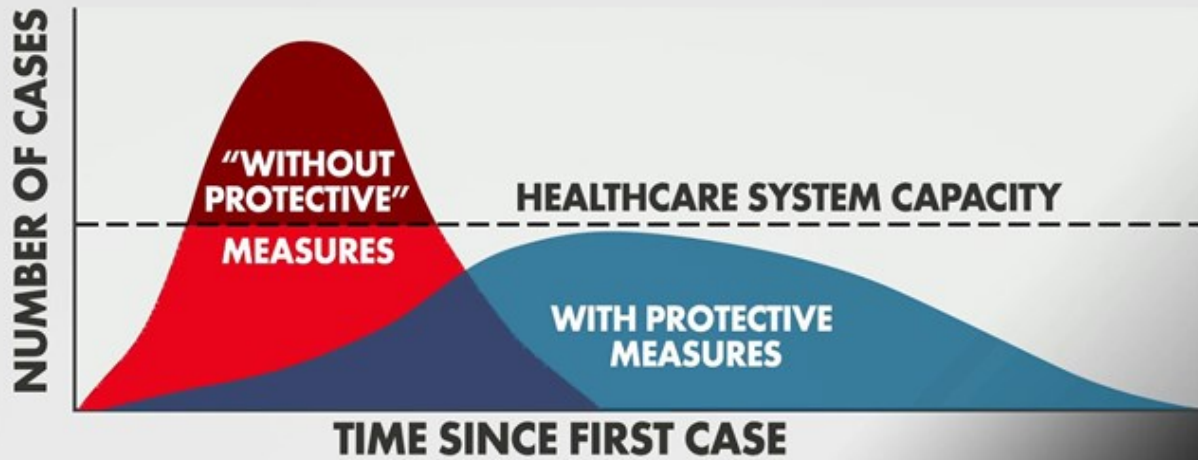
#FLATTENTHECURVE

FLATTENING THE CORONAVIRUS CURVE



Source: New York Times/CDC/The Economist

FLATTENING THE CURVE



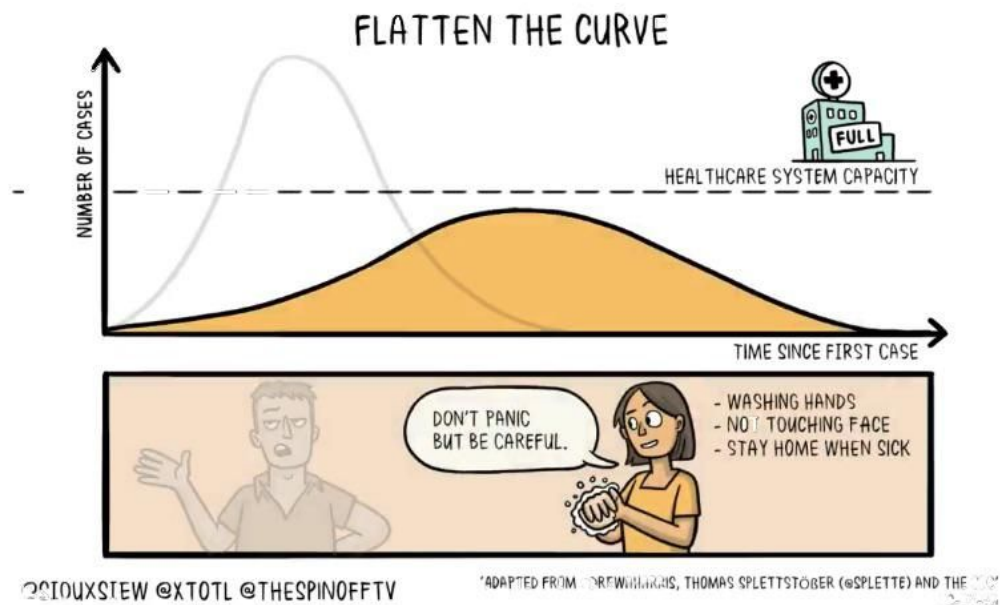
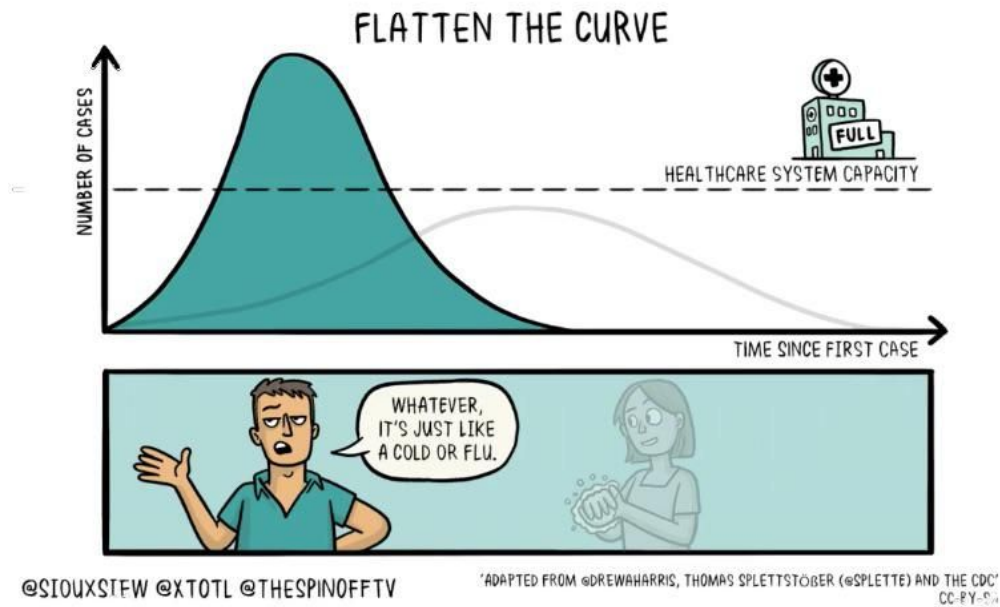
SOURCE: CDC, THE ECONOMIST, @CT_BERGSTROM



FLATTENING THE COVID-19 CURVE



in social media:

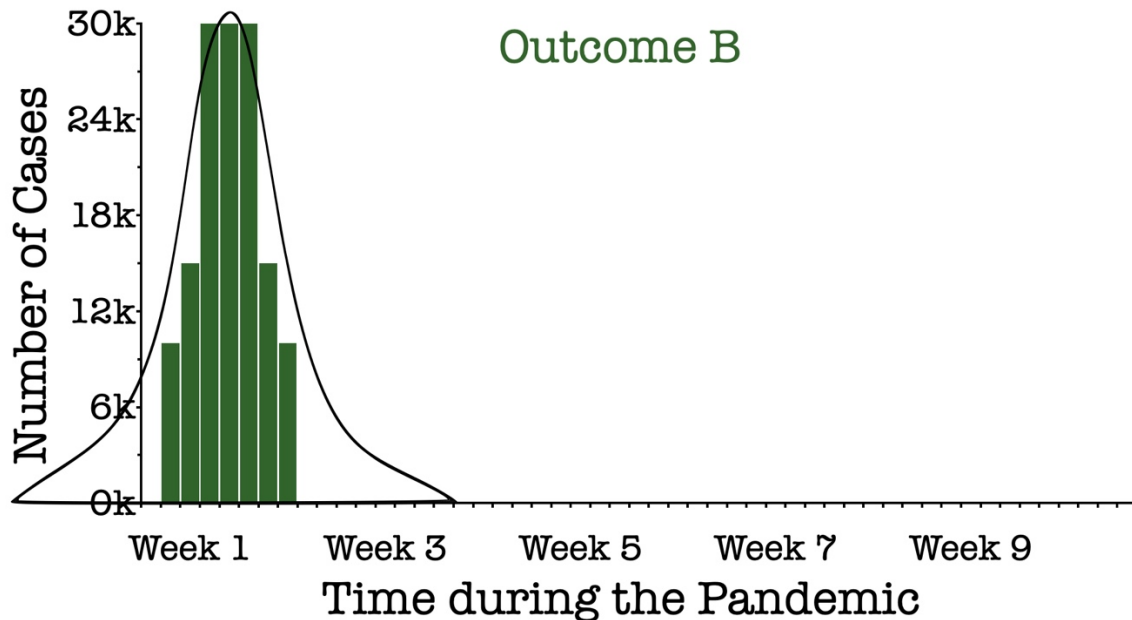


and maybe even on t-shirts:

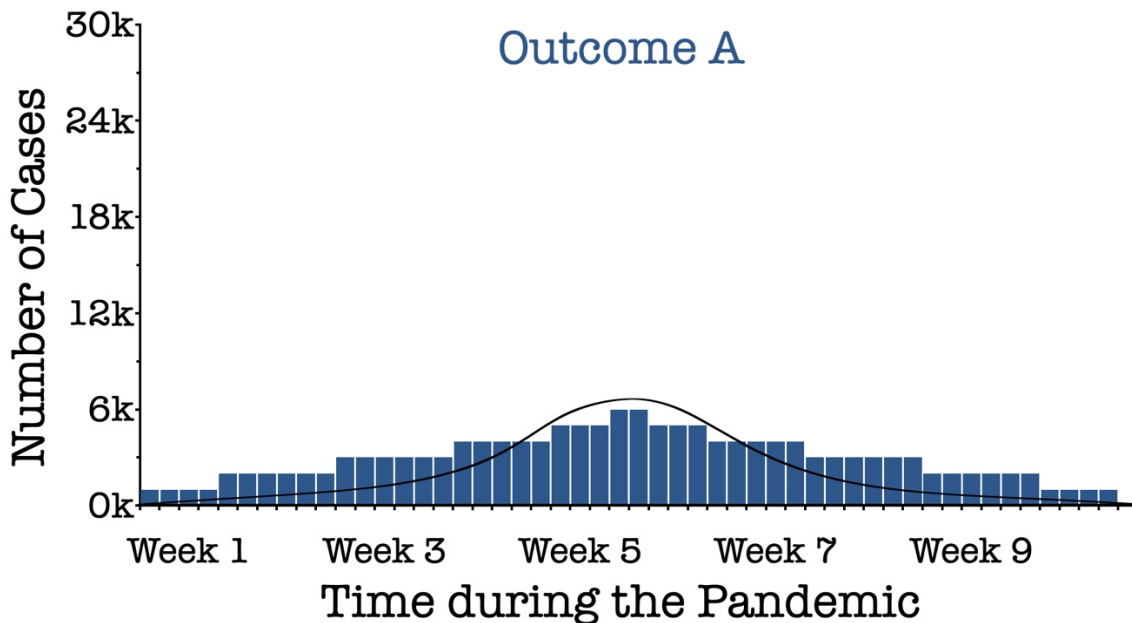


What does “flatten the curve” mean? Flatten the curve is a term in epidemiology that refers to two potential outcomes, much like the two potential courses we’ve been talking about.

In one outcome, which we can call Outcome B, all the cases of a disease, such as the COVID-19 virus, occur clustered together, much like all the points available to earn in Course B occur clustered together. However, in the pandemic outcome, all the cases occur clustered together at the beginning of the pandemic, rather than at the end of the course.



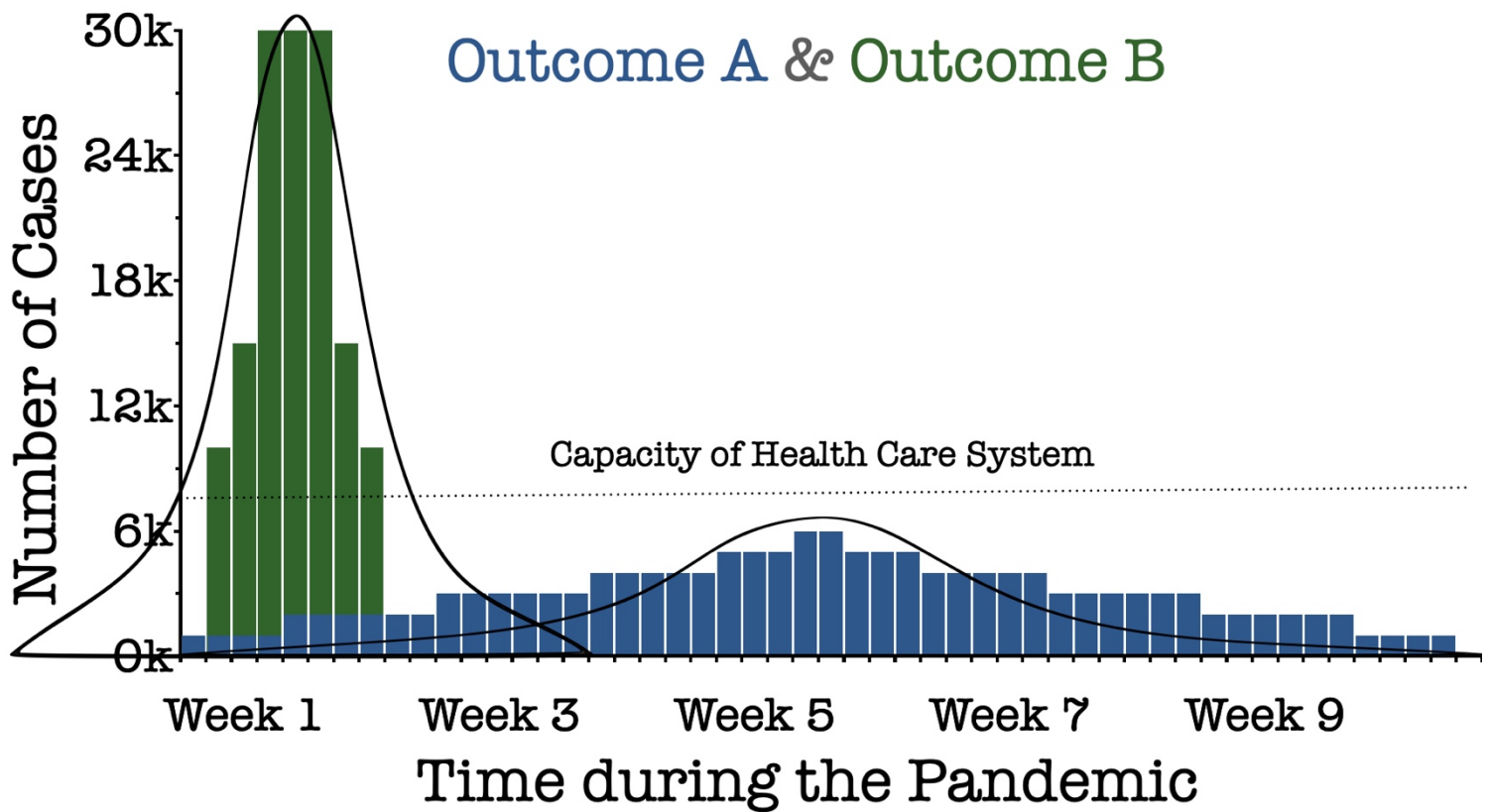
In the other outcome, which we can call Outcome A, the cases of COVID-19 virus occur at a relatively steady pace, just like the points available to earn in Course A occur at a relatively steady pace.



Just like having all the points clustered in Course B together stresses you and taxes your capacity to succeed in the course, having all the COVID-19 cases clustered together stresses and taxes the capacity of our health care system to treat all the patients. Physicians, nurses, and other medical personal, as well as hospitals and clinics, just don’t have the resources to treat that many cases at one time.

In contrast, if we can flatten the curve, by spreading out the number of cases over time, our health care system can better treat all patients. The same number of cases of the disease might happen, just like the same number of points will be available to earn in our two courses.

But if we flatten the curve, by washing our hands, not touching our face, and staying home when we're sick, we won't overburden the capacity of our healthcare system.



That's what the flatten the curve means!

If flattening the curve is too hard of a concept to remember, think instead of "cattening the curve."

