

Maximizing the chances of success in medical decisions

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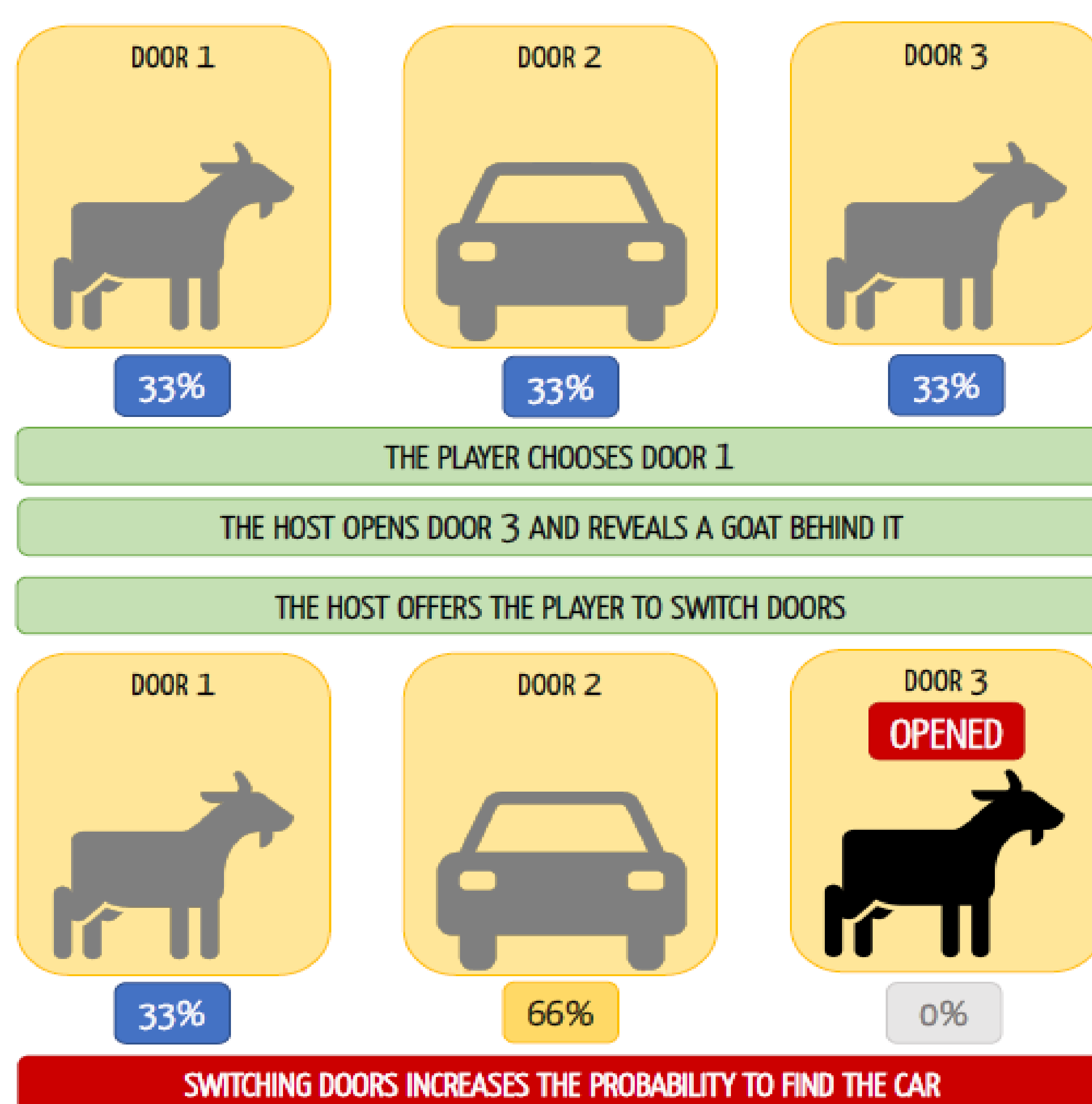
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For over 50 years, *Let's Make a Deal* has been an all-time classic of American television.

In the last game of the quiz show, the host Monty Hall gave to the contestant the choice of three doors: only behind one door was the real prize. Marilyn vos Savant, writing for Parade magazine introduced her readers to the Monty Hall problem in 1990: "Suppose you're on a game show, and you're given the choice of three doors: Behind one door is a car; behind the others, goats. You pick a door, and the host, who knows what's behind the doors, opens another door, which has a goat. He then asks you, "Do you want to pick the other door?" Is it to your advantage to switch your choice?". Marilyn published the answer and received thousands of objection. But she was right: the "stay" strategy only wins 1/3 of the times, switching lets you win in 2/3 of cases. Many explanations have been published and they all demonstrated that you double your chances of winning by switching doors.

In medical practice, we have to face choices every day. Clinical characteristics, signs and symptoms will guide the physician towards the correct answer. But in a few cases, we can only guess and hope.

If we are facing multiple options in the beginning, later other elements rule out all other options but two (including our initial choice), we should be brave and change our initial hypothesis. While this looks like just a statistical exercise, most clinical decisions we take every day are based on probability and statistics.



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