

You Aren't Using Enough Hand Sanitizer



By Alex Berezow — January 10, 2017

New research shows that the instructions on those little bottles – indicating that dime-sized drop is sufficient – are wrong. To properly coat your hands, you need to apply about 3 mL of sanitizer, or more than half a teaspoon. Here's why.



Credit: Shutterstock [1]

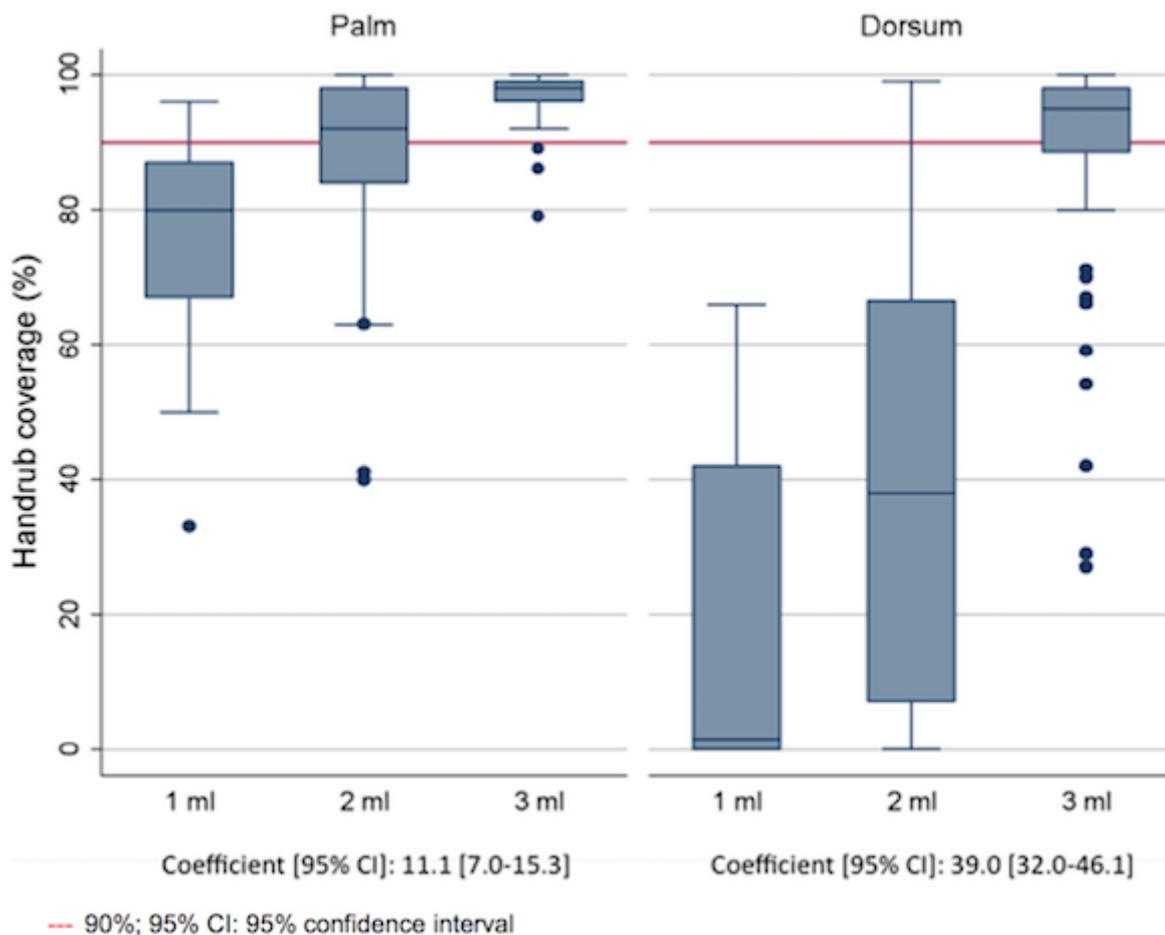
Everybody carries them around these days. Those tiny little hand sanitizers certainly come in handy after a ride on the subway or a trip through the airport, and they fit conveniently into my European man-bag. (Okay fine, it's a purse. [I carry a purse](#) [2].)

The instructions on the bottle I am carrying (which, as it so happens, comes from Bath & Body Works and beautifully matches my ~~European man-bag~~ purse) say: "Rub a dime sized drop into hands." Most people hardly do even that. At most, people stingily squeeze the tiniest of drops onto their hands in order to make their travel-sized antiseptic last as long as possible.

But new research shows this is hardly sufficient. Even the dime-sized drop is inadequate. To properly coat your hands, you need to apply about 3 mL of sanitizer (more than half a teaspoon).

A team of European researchers asked volunteers to rub on their hands 1, 2, or 3 mL of alcohol-based sanitizer that contained a UV tracer. Then, they shined UV light on their hands, which allowed the researchers to estimate percent coverage. The team considered 90% hand coverage to be adequate.

They found that, in order to sufficiently cover both the palms and backs of the hands, people should use 3 mL of sanitizer. (When the data was stratified by hand size, they found that people with medium- and large-sized hands did not reach 90% coverage on the backs of their hands, even when using 3 mL of sanitizer.)



Thus, the team's findings align with the World Health Organization's recommendation to use a "palmful" of sanitizer, not merely a dime-sized drop. Additionally, the authors note that sanitizer needs to be in contact with the hands for at least 10-15 seconds to be effective.

Hand sanitizer bottles come in a variety of volumes, but many are commonly [2 fluid ounces \(59 mL\)](#) [3]. If people used 3 mL each time, then the bottle would run out on the 20th application. If you are getting more than 20 uses out of these bottles, then it's likely that your hands are not as clean as you thought.

[Source](#) [4]: Walter Zingg, Tamas Haidegger, Didier Pittet. "Hand coverage by alcohol-based handrub varies: Volume and hand size matter." *Am J Infect Control* 44 (12): 1689-1691. Published: 1-Dec-2016. DOI: 10.1016/j.ajic.2016.07.006

[1] <http://www.shutterstock.com/pic-39903223/stock-photo-woman-squeezing-green-hand-sanitizer-lotion-onto-her-hands.html>

[2] <https://www.youtube.com/watch?v=YgQDAKsOh-M>

[3] http://c.shld.net/rpx/i/s/i/spin/image/spin_prod_ec_803018601

[4] [http://www.ajicjournal.org/article/S0196-6553\(16\)30690-3/](http://www.ajicjournal.org/article/S0196-6553(16)30690-3/)