

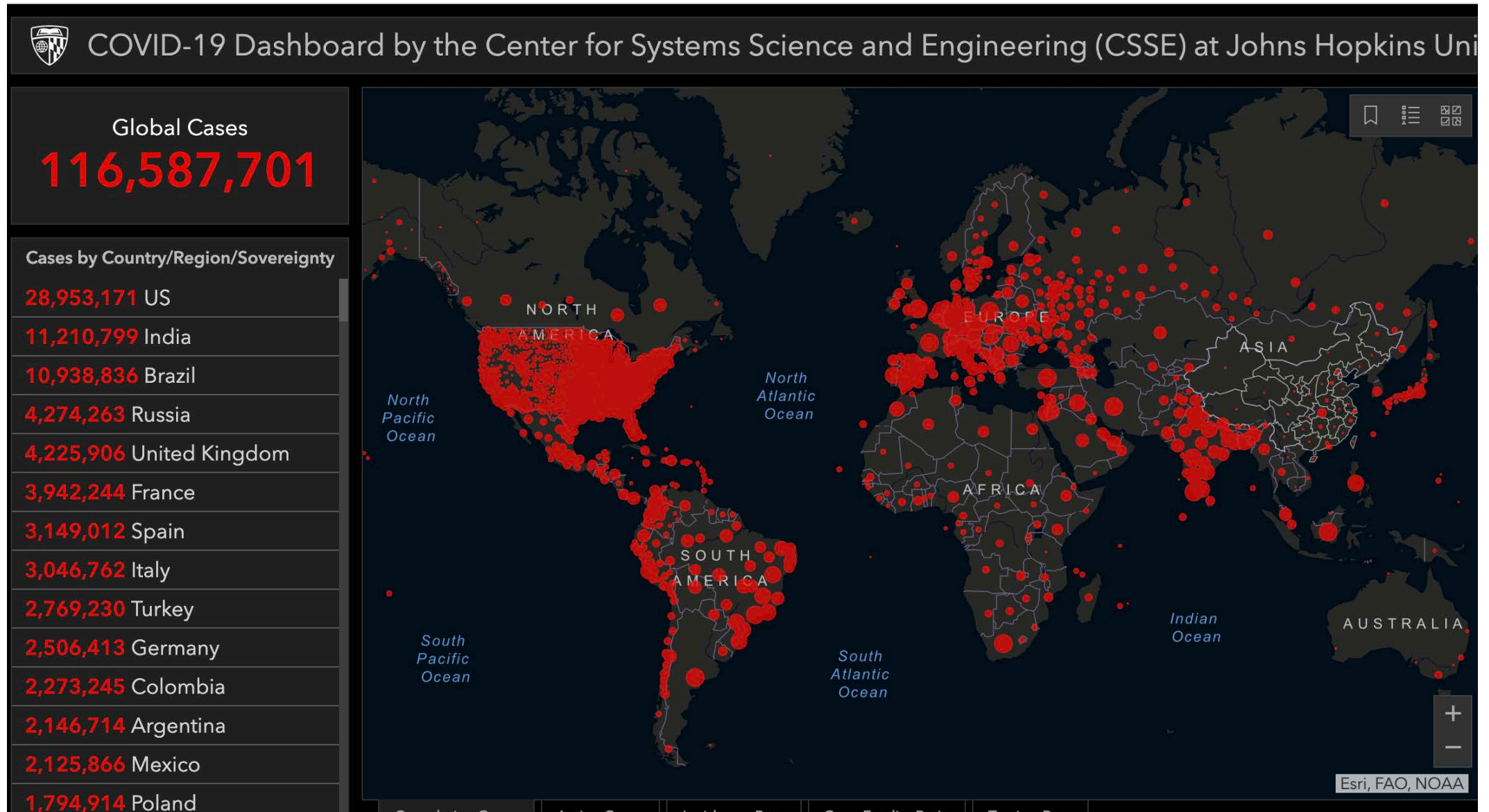
Environmental Hygiene during the time of COVID-19: the Clean Hospitals approach

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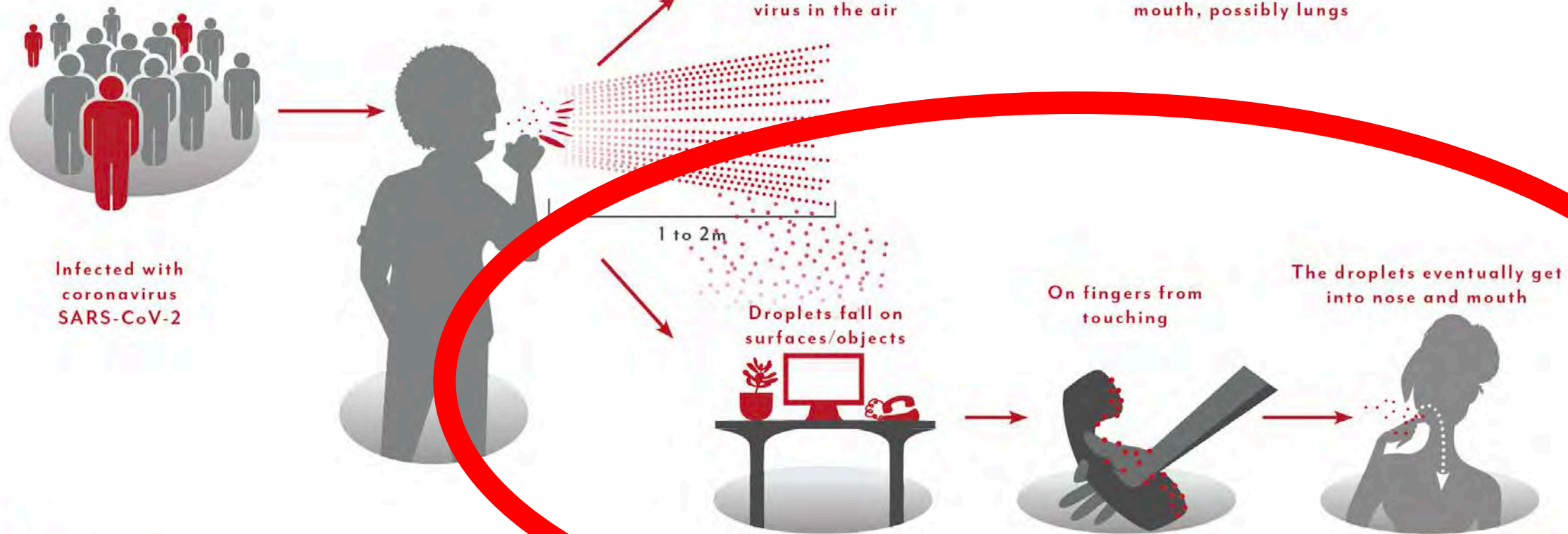


As of March 7th:



Coronavirus COVID-19

Transmission and infection



Do cleaner hospitals really mean safer hospitals?



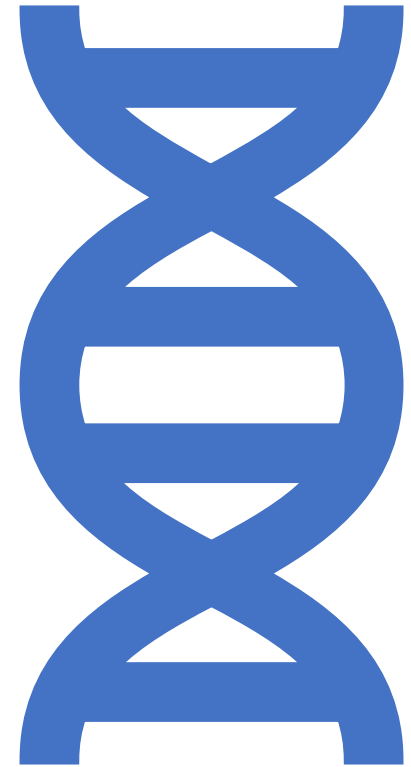


Healthcare Environmental Hygiene is Crucial for Fighting COVID-19



SARS Cov-2 in the environment

- Viral RNA is often on surfaces, and we know than it can stay there for quite some time
- It is possible to keep aerosolized SARS Cov-2 suspended in the air for a long time in controlled experimental conditions
- Disinfection procedures drastically lower the viral RNA recovered from the environment
- It is difficult to culture viable viruses from the environment

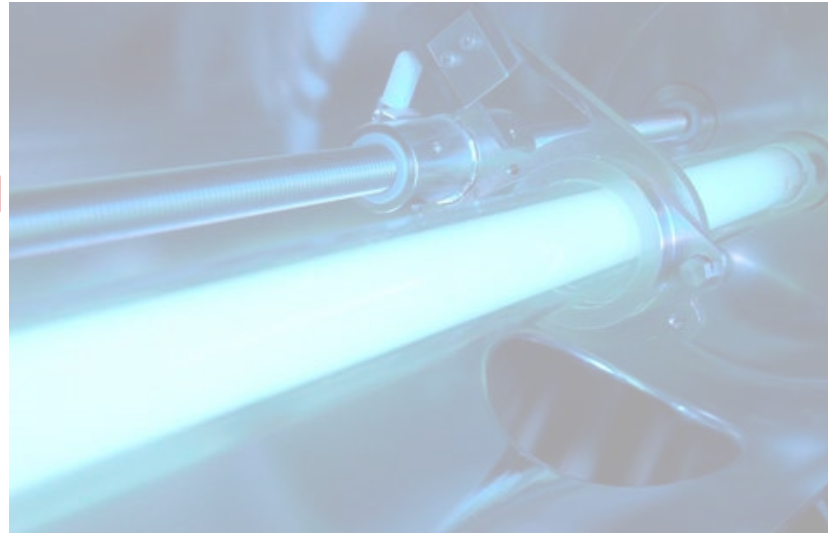




MANY types of products kill SARS CoV-2:



Heat/ Steam
Detergents
Alcohol








Sodium hypochlorite
Quaternary ammonium
UVGI
Others





**List N: Products with Emerging Viral Pathogens AND Human Coronavirus claim
for use against SARS-CoV-2**

EPA Registration Number	Active Ingredient(s)	Product Name	Follow the disinfection directions and preparation for the following virus	Contact Time (in minutes)
 1043-129	Quaternary ammonium; Isopropanol	Vesta-Syde SQ64 Ready- to-Use Disinfectant	Feline calicivirus	10
 71654-5	Glycolic acid	Glyclean Hard Surface Cleaner	Rhinovirus	10
 70271-34	Quaternary ammonium	KIK Antibacterial Multipurpose Cleaner I	Rhinovirus	10
 71355-2	Hydrogen peroxide; Peroxyacetic acid	Kickstart	Avian reovirus	10
 4822-530	Quaternary	Fantastik® All- Purpose	Rhinovirus	3

Enforcement Policy for Sterilizers, Disinfectant Devices, and Air Purifiers During the Coronavirus Disease 2019 (COVID-19) Public Health Emergency

Guidance for Industry and Food and Drug Administration Staff

March 2020



**FDA U.S. FOOD & DRUG
ADMINISTRATION**

U.S. Department of Health and Human Services
Food and Drug Administration
Center for Devices and Radiological Health

<https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2>

<https://www.fda.gov/media/136533/download>

<https://www.sciencedirect.com/science/article/pii/S0195670120300463>



EPA Tool:

Can browse
products


or

Can search by:


Ingredient
Registration #
Environment
type

(ex. healthcare)


Contact time

 **EPA** United States Environmental Protection Agency


List N Tool: COVID-19 Disinfectants


 **Feedback**


EPA Registration Number

 Active Ingredient

 Use Site

 **Contact Time**

 Browse All

 Keyword Search

☐ <= 1 (contact in minutes)

☐ <= 5 (contact in minutes)


☐ <= 10 (contact in minutes)

☐ <= 15 (contact in minutes)

☐ <= 20 (contact in minutes)

☐ <= 25 (contact in minutes)

☐ <= 30 (contact in minutes)



[Show results](#) [Clear results](#)

Search EPA's list of products for use against SARS-CoV-2, the virus that causes COVID-19, by selecting one or more of the corresponding criteria above. All products on this list meet EPA's criteria for use against SARS-CoV-2, the virus that causes COVID-19. These products are for use on surfaces, NOT humans. At any point, click the "Show Results" button to view your customized list of results. Select as many, or as few, criteria as you would like. Click the "Clear Results" button to remove all previous selections and start over. Click "Browse All" to display all products.

[EPA Home](#) | [Privacy and Security Notice](#) | [Accessibility](#)

<https://cfpub.epa.gov/giwiz/disinfectants/index.cfm>



Going further: automation





Is HEH cost-efficient?
The real question is:
What is the cost of NOT cleaning?



Investing in quality is
worth it, both in economic
and human terms!



In Covid-19 times, ideally we need:

- Transparent masks with equal or better efficacy
- Disinfectants that work with very little contact time and are safe for surfaces, humans and the environment
- Real time quality control that is cheap and accurate for environmental contamination
- Novel strategies to reduce human error
- Optimization of allocation of resources to where they are needed most
- Others.... To develop and to come



The aerosolization debate:

R_0 for SARS CoV-2 vs. other airborne viruses

The technical vs. the clinically urgent

The WHO and the CDC perspectives

THE JOURNAL OF HOSPITAL INFECTION

Elsevier

[J Hosp Infect.](#) 2020 Apr 30

PMCID: PMC7190524

doi: [10.1016/j.jhin.2020.04.040](https://doi.org/10.1016/j.jhin.2020.04.040) [Epub ahead of print]

PMID: [32360356](https://pubmed.ncbi.nlm.nih.gov/32360356/)

Putting some context to the aerosolization debate around SARS-CoV-2

[Alexandra Peters](#),¹ [Pierre Parneix](#),² [Jon Otter](#),³ and [Didier Pittet](#)^{1,*}

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Didier Pittet works with WHO in the context of the WHO initiative ‘Private Organizations for Patient Safety – Hand Hygiene’. The aim of this WHO initiative is to harness industry strengths to align and improve implementation of WHO recommendations for hand hygiene in health care indifferent parts of the world, including in least developed countries. In this instance, companies/industry with a focus on hand hygiene and infection control related advancement have the specific aim of improving access to affordable hand hygiene products as well as through education and research. All listed authors declare no financial support, grants, financial interests or consultancy that could lead to conflicts of interest.

The authors alone are responsible for the views expressed in this article and they do not necessarily represent the views, decisions or policies of the institutions with which they are affiliated. WHO takes no responsibility for the information provided or the views expressed in this paper.

A letter to the editor entitled “Aerosol and Surface Stability of SARS-CoV-2 as Compared with SARS

The COVID infodemic: from masks to microchips to disinfecting roads





Our goals for healthcare environmental hygiene



- Good education
- Clear protocols
- Direct communication
- Quality control
- Constructive feedback
- A humanistic approach

Clean Hospitals: an integrative approach

HEALTHCARE ENVIRONMENTAL HYGIENE NETWORK

- ✓ Connecting stakeholders & leading experts from around the world
- ✓ Making hospitals safer through improved environmental hygiene
- ✓ Benefiting public health by lowering rates of healthcare-associated infections, reducing antimicrobial resistance, and protecting hospital staff as well as the larger environment

www.CleanHospitals.com



The network : time for collaboration



CLEAN HOSPITALS is:

a coalition of international stakeholders
who work explicitly to promote and support
healthcare environmental hygiene

Activities:

- ☐ Education and training
- ☐ Specialized working groups
- ☐ Research
- ☐ Publications
- ☐ Participation in conferences and events



Focus areas

- Surfaces & Environment
- Medical waste
- Air
- Textiles & non-wovens
- Water
- Sterilization & device reprocessing



Will the world adapt and work together towards more preventive measures to reduce the spread of pathogens and outbreaks?



- Need for a change in attitude towards infection prevention & control
- How to address cost & value issues
- Improving cleaning processes and maximizing productivity
- Taking a closer look at new methods and innovations
- Develop evidence-based training and educational programmes

Cleaner Hospitals mean safer hospitals

Healthcare environmental hygiene is a key component to ensuring safety in pandemics

We need to focus on the real dangers and evidence-based best practices

We need to make sure that our interventions are safe and based in science

