

The Pandemic that defines us

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Global Medical Director, HP

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Responding to the COVID-19 Crisis - Impact, Innovation and Prevention



About me



25 years experience as a physician, executive, entrepreneur and adviser, currently serving as the Global Medical Director for HP and Founder CEO of the non-profit AISquare, part of Open Growth foundation.

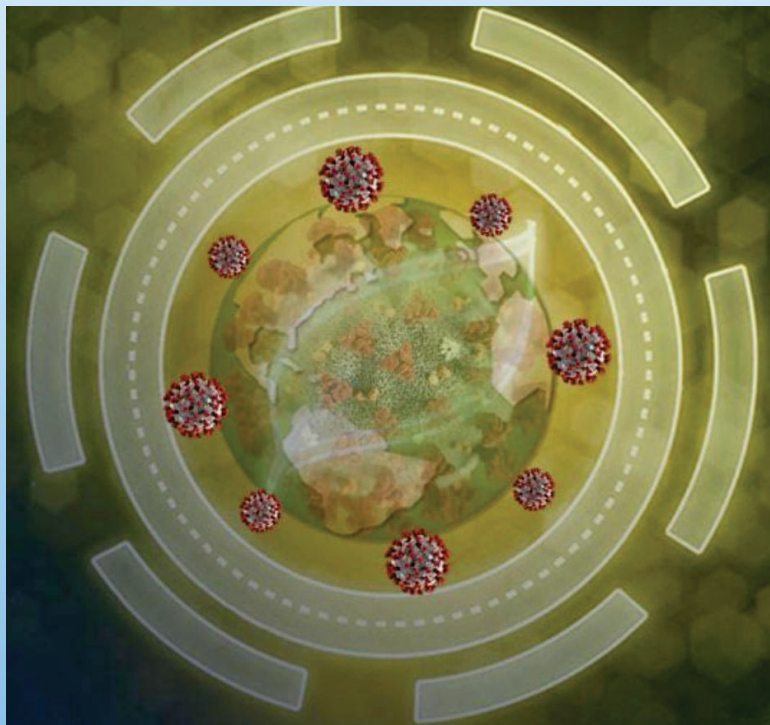
At HP as a population health strategist, I help design the health and wellness programs for the global HP population, and consult for HP's healthcare products. I also hold an academic role as Adj. Assistant Professor of Medicine at Stanford University, training the future physicians.

Trained in Internal Medicine and Family Medicine from Columbia University and USC respectively and AI/ML applications in Healthcare at Stanford University, I have practiced medicine at Stanford and UC Davis for the last 2 decades.

Entrepreneur at heart, I founded HealDeal, a digital health company, the first of its kind price transparency platform in 2007; Invent Health platform, an incubator for digital health solutions in 2017. In 2020 founded AISquare, a purpose built research hub, in collaborations with industry leaders, universities and research organizations, accelerating innovation and collaboration, thereby tackling global human problems like this Pandemic.

Vision & Mission

AI Square aspires to serve as a **launchpad and a source of truth** for the next human challenge, creating **Content and Connections** for Global communities and empowering them to collaborate and solve the real world problems at scale.



- AI Square is a purpose built research hub for researchers and students
- Our goal is to accelerate innovation for global issues, currently focused on the pandemic
- Through engaging the students as correspondents we aim to make all research accessible and understandable
- Through a network of researchers, we enable responding at scale to current and future, local and global human problems
- AI Square is a non profit initiative part of Open Growth organization

AlSquare Team Members



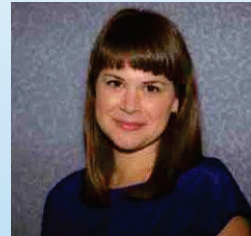
Gunjan Sinha



Dr. Archana Dubey



Steve Ferguson



Dr. Jessica Evert



Prakash Jain



Kaitlyn Ho



Jade Nester



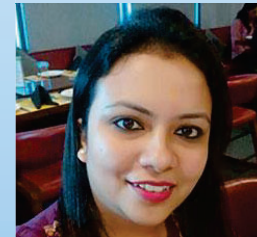
Vish Mishra



Negin Sheraghaei



Sai Sri Sathya



Akriti Verma



Riya Sinha



Dr. Ramesh Raskar



Shellye Archambeau



Bhatta



Alka Asthana



Shraddha Varma



Sohmi Dubey

Problem/Solution

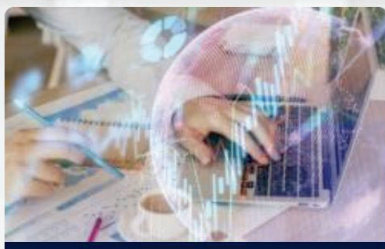
WHY NOW?

- Current Global pandemic
- Misinformation is driving decisions
- Critical need for effective collaboration between Global researchers
- Exposure needed for relevant work for lesser known institutions

WHY US?

- We enable and accelerate scientific innovation and collaboration globally
- Research hub as source of truth and inventions
- Purpose built network addressing an unmet need, engaging researchers and student

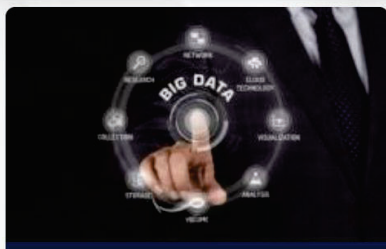
Interdisciplinary Problem Space



AI APPROACH FOR COVID 19



AI/TECH COMPANY & STARTUPS



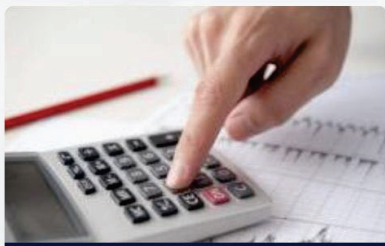
BIG DATA ANALYTICS



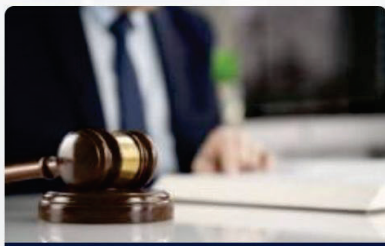
CLOUD INFRASTRUCTURE



DATA AGGREGATION



ECONOMY & ECONOMIST



FINANCIAL/LEGAL



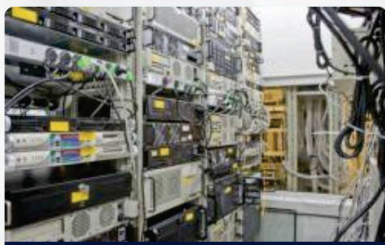
GOVERNMENT



HOSPITALS



MEDICINES & VACCINES



MOBILE OPERATOR/TELCO



PRIVACY



RISK



SECURITY



SMS INFRASTRUCTURE

Designed and built for research



CITYNEWS 1130: COVID-19 portable testing device approved for human use in Canada

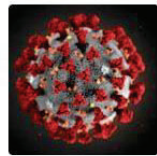
AWARDS



Peer reviewed Vaccine #health #covid-19



Posted by: mishal Posted on: 07 Oct, 2020 Research date: 07 Oct, 2020



UN NEWS: Why the world needs the WHO to fight the pandemic. 8th Oct'2020

AWARDS

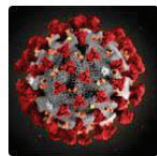


mishal adalberto alvin

Covid-19 Vaccine #Covid #florida



Posted by: harry Posted on: 07 Oct, 2020 Research date: 04 Oct, 2020



covid19

AWARDS



mishal

Covid-19 Vaccine #health #cases #coronavirus

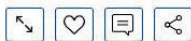


Posted by: mishal Posted on: 07 Oct, 2020 Research date: 06 Oct, 2020



covid

AWARDS



Posted by: Reena Mandwariya Posted on: 07 Oct, 2020

Opportunities for Innovation & Community Contribution

Innovation:

- Engaging the **students** as correspondents in scientific research, building a scientific appetite thereby generating research and entrepreneurship opportunities
- Engaging **researchers** to showcase their work, collaborate with labs and colleagues globally and raise funds for their research
- Engaging with **entrepreneurs** to engage with the researchers to build innovative solutions

Community Contributions:

- Creating a source of truth hub for **general public**, for easy to understand scientific discoveries and inventions
- Foster public, academic and private **partnerships** for access to inventions, tech and funding
- Enable **equity** of resources and information and timely access to solutions

Accelerate the cycle of invention > innovative product > commercialization

Now COVID updates

Global Cases

36,802,976

Cases by Country/Region/Sovereignty

7,663,293	US
6,906,151	India
5,055,888	Brazil
1,265,572	Russia
894,300	Colombia
871,468	Argentina
861,112	Spain
838,614	Peru
810,020	Mexico
732,434	France
688,352	South Africa
578,390	United Kingdom
492,378	Iran
477,769	Chile
397,780	Iraq

Admin0 Admin1 Admin2

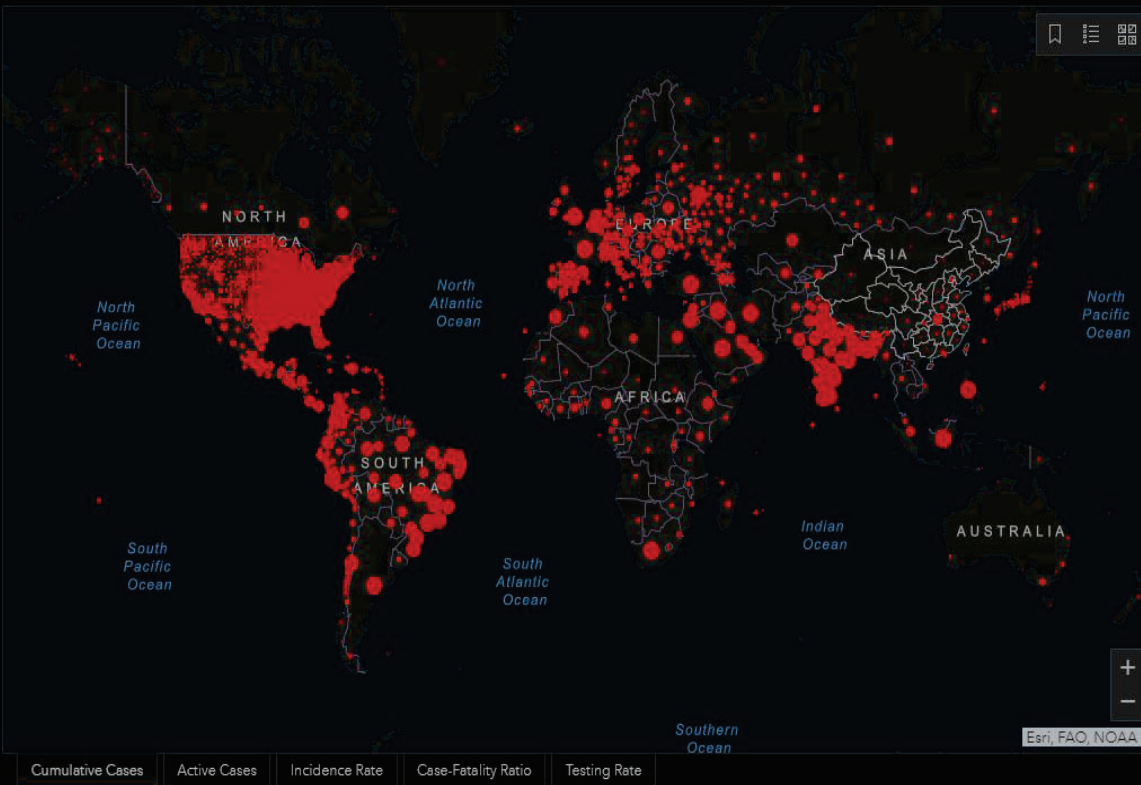
Last Updated at (M/D/YYYY)

10/9/2020, 9:23 PM

188

countries/regions

Lancet Inf Dis Article: [Here](#). Mobile Version: [Here](#). Data sources: [Full list](#). Downloadable database: [GitHub](#), [Feature Layer](#). Lead by [JHU CSSE](#). Technical Support: [Esri Living Atlas team](#) and [JHU APL](#). Financial Support: [JHU](#), [NSF](#), [Bloomberg Philanthropies](#) and [Stavros Niarchos Foundation](#). Resource support: [Slack](#), [Github](#) and [AWS](#). Click [here](#) to [donate](#) to the CSSE dashboard team, and other JHU COVID-19 Research Efforts. [FAQ](#). Read more in this [blog](#). [Contact US](#).



Global Deaths

1,067,114

213,752 deaths
US

149,639 deaths
Brazil

106,490 deaths
India

83,497 deaths
Mexico

42,769 deaths
United Kingdom

36,111 deaths
Italy

33,098 deaths
Peru

Global Deaths Global Recovered

US State Level

Deaths, Recovered

33,290 deaths, 77,432 recovered
New York US

16,871 deaths, 698,481 recovered
Texas US

16,486 deaths, recovered
California US

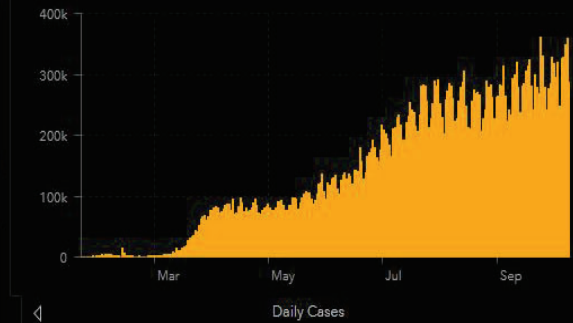
16,164 deaths, 35,247 recovered
New Jersey US

15,186 deaths, recovered
Florida US

9,577 deaths, 116,364 recovered
Massachusetts US

9,191 deaths, recovered
Illinois US

US Deaths, Recovered



HP response

HP's COVID-19 Response: There Should Be an Award for This

By Rob Enderle

Apr 27, 2020 11:16 AM PT



▼ advertisement

HP's Execution

HP is a multinational with a substantial presence in China. Internally it generally knew what was going on when the virus outbreak was just starting, and didn't have to depend on the unreliable messages the rest of us were seeing. HP took the threat seriously early and moved to acquire personal protective equipment (PPE) and protect employees in a timely way. It has been able to shift its PPE reserves from country to country, ensuring that employees who do have to come to work are protected.

Employees working in hot spot areas were housed close to their factories to help protect their families. Anticipating the outbreak, HP brought an epidemiologist on board and set up several HP medical clinics to help ensure that executives were getting accurate information and that COVID-related decisions were well informed.

The company's geographic spread gave it real-time information both on how to manage the shift to working from home and how to prepare to bring some people back to the office. For instance, HP already is working on employee testing plans so it can quarantine aggressively during the next virus wave.

They also recognizes that this COVID event isn't a one-time thing, and it already has prepared for a new world in which many employees, if not most, will continue to work from home. This already has changed its hiring priorities. People who can't relocate now are attractive candidates since they won't be coming into the office anyway.

Vaccine updates



Source: WHO. Last updated 30 Sep

How are vaccines tested?

In the **pre-clinical stage** of testing, researchers give the vaccine to animals to see if it triggers an immune response.

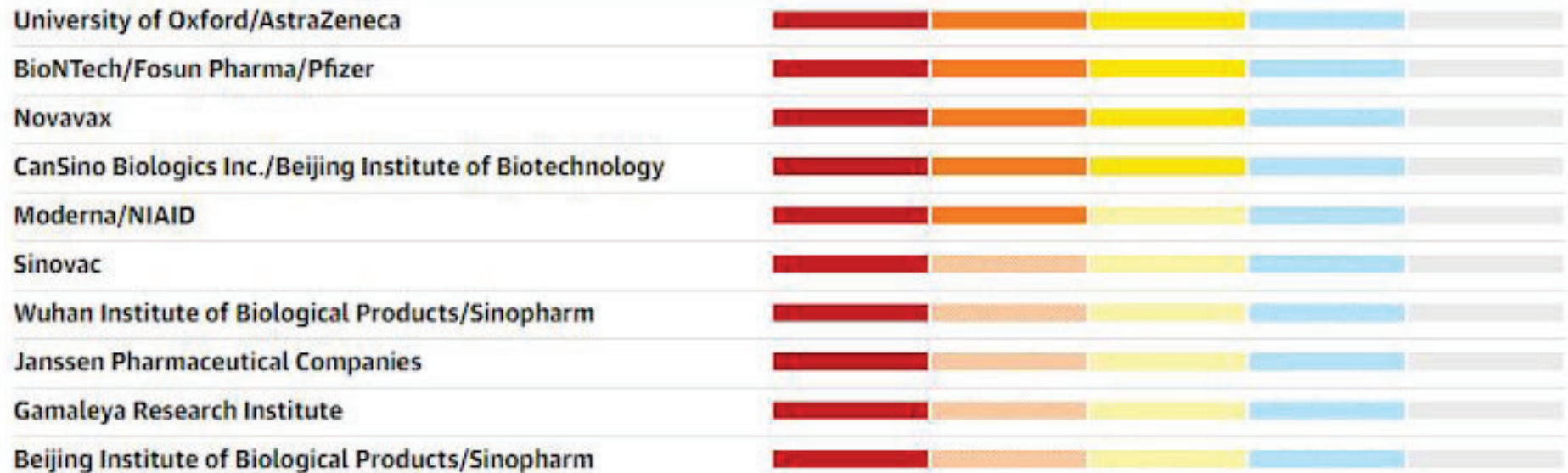
In **phase 1** of clinical testing, the vaccine is given to a small group of people to determine whether it is safe and to learn more about the immune response it provokes.

In **phase 2**, the vaccine is given to hundreds of people so scientists can learn more about its safety and correct dosage.

In **phase 3**, the vaccine is given to thousands of people to confirm its safety - including rare side effects - and effectiveness. These trials involve a control group which is given a placebo.

Vaccines in clinical trials

Phase in progress



Protect yourself

Generic Preventive Measures



Physical distancing of at least 6 feet to be followed



Mandatory use of face covers/masks



Practice frequent hand washing with soap & use of alcohol-based hand sanitizers

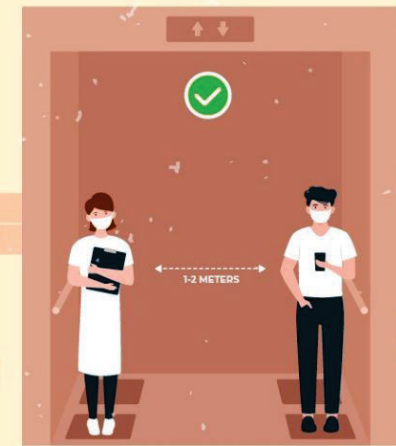


Respiratory etiquette to be strictly followed



Self-monitoring of health by all & reporting any illness at the earliest

DO NOT STAND CLOSE TO THE OTHER PERSON EVEN IN AN ELEVATOR



COVID infection



SYMPTOMS



**DRY
COUGH**



**HIGH
FEVER**



**SORE
THROAT**



**DIFFICULTY IN
BREATHING**

- Chills
- Repeated shaking/ chills
- Muscle pain

- Headache
- Sore throat
- Loss of taste or smell

Breaking the Chain of Transmission

When to Seek Medical Attention



**Difficulty in
breathing**



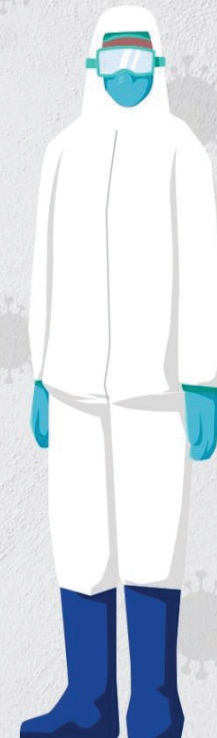
**Mental confusion
or mental
instability/depression**



**Persistent
pain/pressure
in the chest**

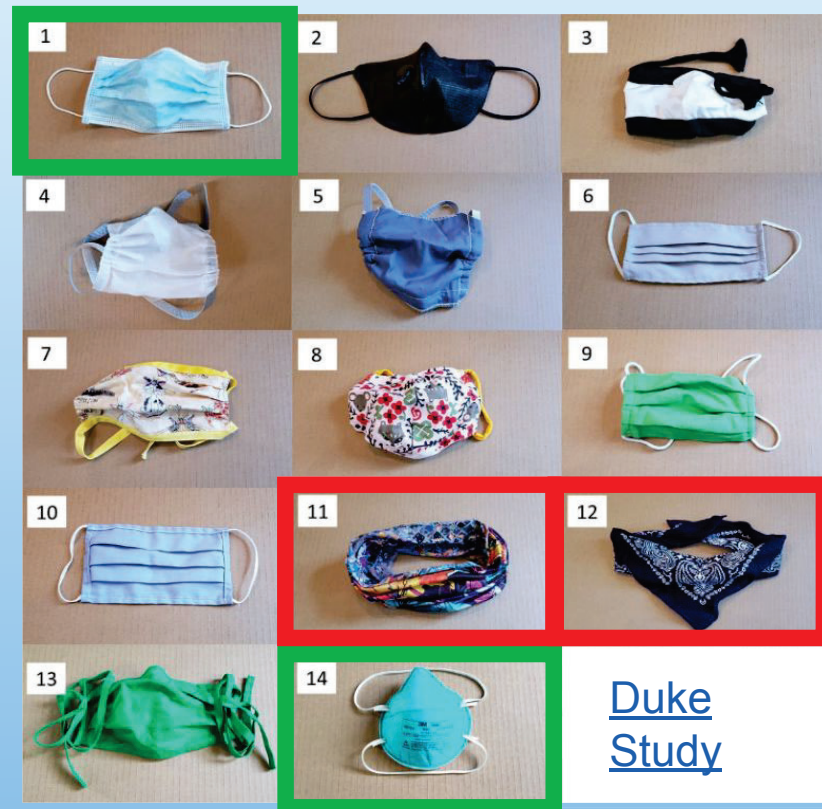
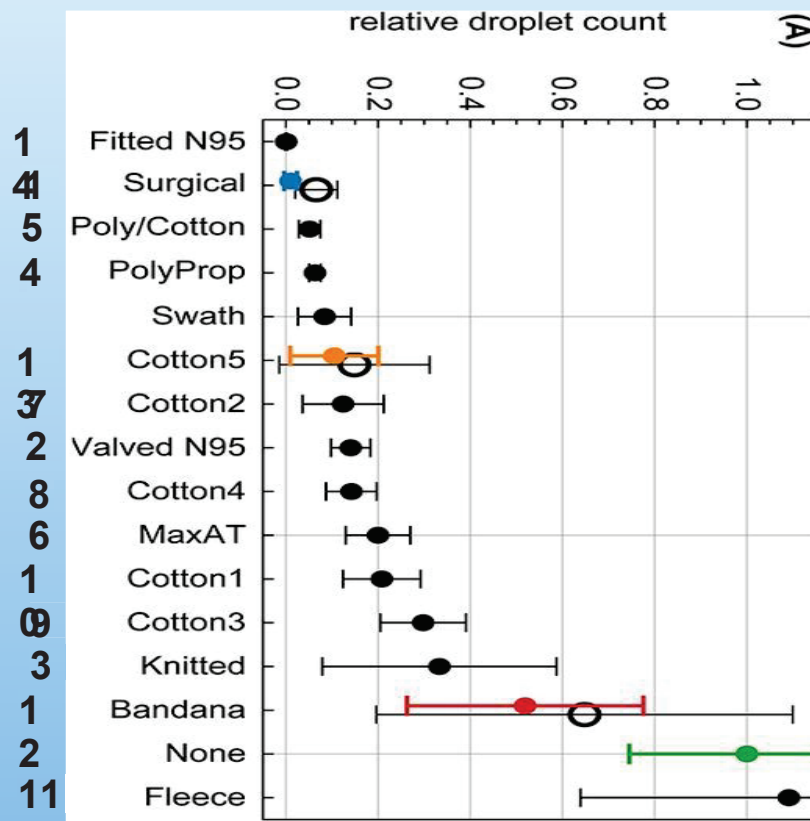


**Developing bluish
discolorations of
lips/face**



Date: 29 April, 2020

What type of face coverings are effective?



How long COVID-19 can live on various surfaces



**Notebook paper,
tissues**
3 hours**



**Copper, such
as a penny**
4 hours*



Cardboard
24 hours*



Wood
2 days**



**Cloth towels,
clothing**
2 days**



**Stainless
steel**
2 to 3 days*



Plastic
3 days*



Glass
4 days**



Paper money
4 days**



**Outside of
surgical mask**
7 days**

Commercial services precautions and reminders



Eating at a restaurant

- Leverage take out
- Sit with a distance
- Server masked, you wear it until eating
- Prefer outdoor setting



Shopping

- Grocery and pharmacy shopping has been open
- For other shops, use personal precautions, and turn back if crowded
- Leverage curbside pick up



Haircut

- Avoid if you can
- Both you and hairdresser wear a mask
- Avoid blow drying the hair



Dentist

- Emergencies or urgent needs only
- Avoid routine visits

Travel and recreation precautions and reminders



Public transportation

- Use only if last resort
- Use mask and use hand sanitizer after disembarking



Travel

- Car travel is slightly safer than flying if lesser than 12 hours (public exposure)
- Use mask when flying, using hand sanitizers frequently



Festivities

- Must distancing, especially near the restrooms or food
- Hand washing after use of common surfaces like knobs, etc.
- Avoid children playgrounds



Movie theaters and events

- Stay home
- Sitting with a distance is a must in closed theatre with masks
- Avoid enclosed concerts, open air events preferred with distancing

What is the latest on detection and testing?

Testing criteria


- Patients with symptoms
- High risk individuals with exposure to COVID-19
- Patients in hospitals and long-term care facilities with symptoms
- Healthcare workers and first responders with symptoms or exposure
- Special situations: travel, back to school, pre-procedure testing


Test types

- Antigen (virus detection) test and PCR test look for active infection
- Antibody test—blood test for immunity: IgM (acute) and IgG (long term)
- Advances in testing:
 - Self-administered nasal swab
 - At-home testing with saliva
 - test results within 15 minutes
 - Low cost alternatives

10 things you can do to manage your COVID-19 symptoms at home

Instructions for Care-Givers on Exposure to Patient's Environment (2/2)

 Use triple layer medical mask & disposable gloves while cleaning or handling surfaces, clothing or linen used by the patient

 Perform hand hygiene before and after removing gloves

 Waste like masks, food packets etc. should be disposed off as per CPCB guidelines (http://www.cpcbenvs.nic.in/pdf/BMW-GUIDELINES-COVID_1.pdf)



[Link to CDC chart](#)

1. **Stay home** from work and school. And stay away from other public places. If you must go out, avoid using any kind of public transportation, ridesharing, or taxis.



6. **Cover your cough and sneezes** with a tissue or use the inside of your elbow.



2. **Monitor your symptoms** carefully. If your symptoms get worse, call your healthcare provider immediately.



7. **Wash your hands often** with soap and water for at least 20 seconds or clean your hands with an alcohol-based hand sanitizer that contains at least 60% alcohol.



3. **Get rest and stay hydrated.**



8. As much as possible, **stay** in a specific room and **away from other people** in your home. Also, you should use a separate bathroom, if available. If you need to be around other people in or outside of the home, wear a mask.



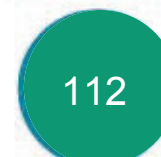
4. If you have a medical appointment, **call the healthcare provider** ahead of time and tell them that you have or may have COVID-19.



9. **Avoid sharing personal items** with other people in your household, like dishes, towels, and bedding.



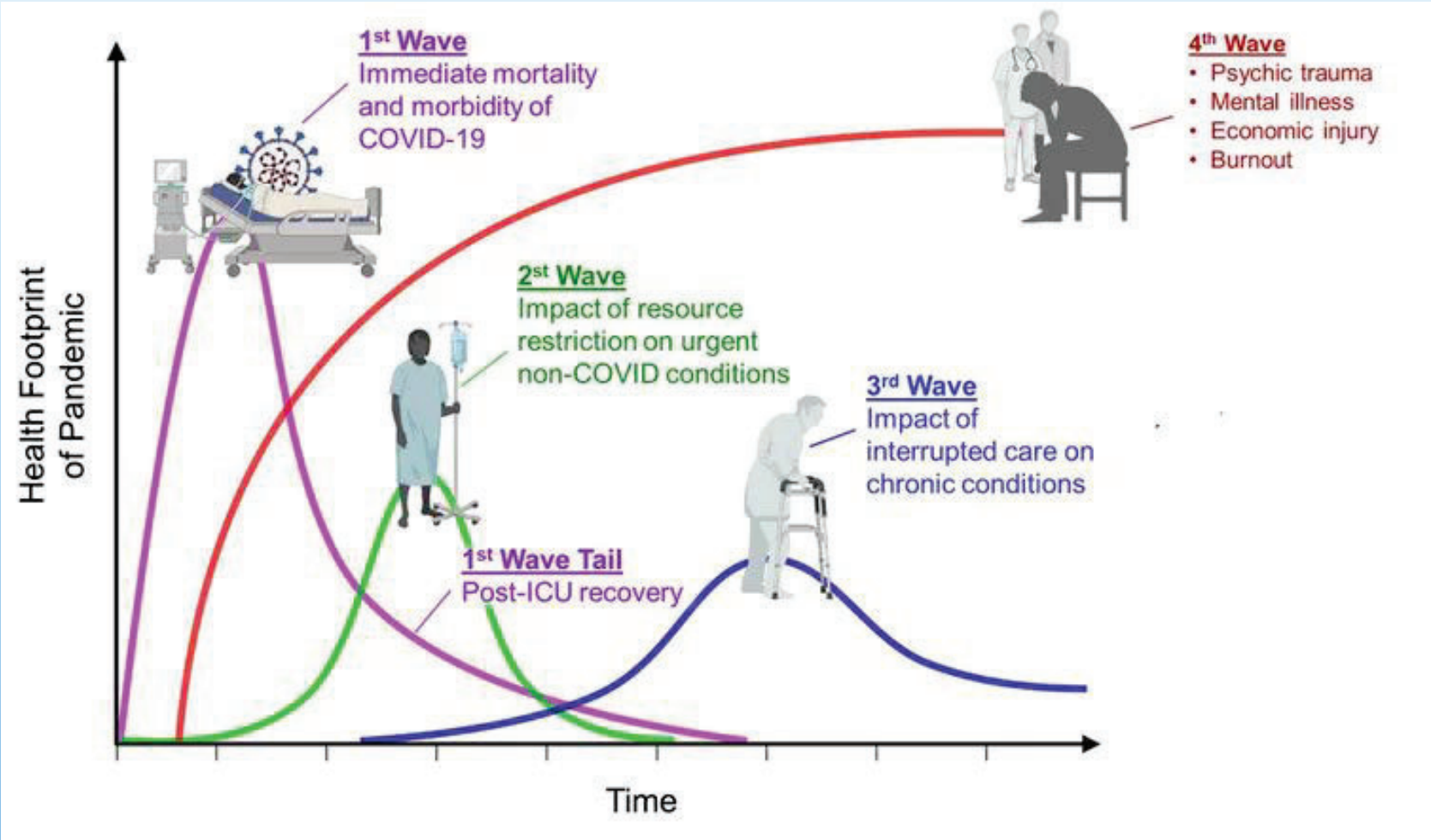
5. For medical emergencies, call 911 and **notify the dispatch personnel** that you have or may have COVID-19.



10. **Clean all surfaces** that are touched often, like counters, tabletops, and doorknobs. Use household cleaning sprays or wipes according to the label instructions.



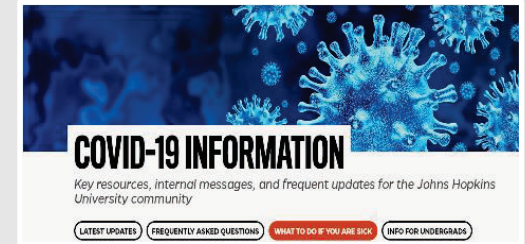
Health Footprint of the Pandemic



Where can I find reliable information on COVID-19?



<https://hub.jhu.edu/novel-coronavirus-information/>



<https://www.cdc.gov/coronavirus/2019-ncov/index.html>

LATEST UPDATES

May 23	Interim Guidance for Communities of Faith
May 22	CDC Releases Recommendations for Communities of Faith
May 22	Coronavirus and Travel in the United States
May 22	COVIDView Weekly Summary
May 22	Cases in U.S.



<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/events-as-they-happen>



Where can I find reliable information on COVID-19?



<https://covidindia.org/>



European Centre for Disease Prevention and Control
An agency of the European Union

<https://www.ecdc.europa.eu/en/covid-19-pandemic>



Coronavirus Infection Trajectories
Which countries are seeing the most new cases?

<https://informationisbeautiful.net/visualizations/covid-19-coronavirus-infographic-datapack/>

Unlock 4.0

Lockdown extended in containment zones till September 30. MHA issued guidelines for the phased re-opening (Unlock 4.0) of more activities outside containment zones. To view the full guidelines, click the button below.

[View Guidelines](#)

Questions/Answers

Thank You