ARTISANAL GOLD COUNCIL

# AGC COVID-19 Training & Discussion


planetGOLD Perú

## Last updated: *2022*

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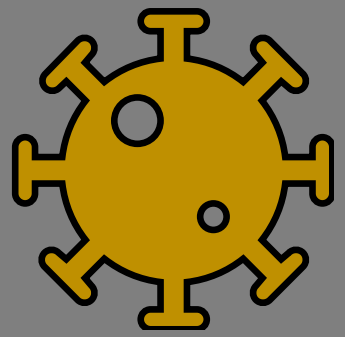


# Objectives & Content

**Objective: to get a better understanding**

- Of the public health risk posed by COVID-19,
- How to protect yourself and the team, esp. during field work, and
- How to avoid the spread into mining communities.

**Content**

- Current situation?
- Transmission risks
- Symptoms, severity and vulnerability
- How to protect yourself
- Safety recommendations for mining sites
- Current developments: vaccinations, treatment, and tests
- Discussion

# Situation in the country?

- Prevalence?
- COVID variances?
- Health regulations and implementation?
- Testing?
- Knowledge?
- Impacts on health and livelihoods?

# Situation in the Philippines?

- Prevalence? – National: 10 cases per 100,000 per day (last 7 day average), but around 50% of active cases in NCR (CAR: 3%; Bicol Region: 0.7%)
- Testing rates?
- COVID variances? – Detection of P.1 (1 case), B.1.1.7 (170 cases), B.1.351 (192)(April 10, 2021)
- Health regulations and implementation?
- Knowledge?
- Impacts on health and livelihoods?

Information from the MoH; https://doh.gov.ph/2019-nCoV

# Possible FAQs in the field ???

1. I am not sick and I am not scared of getting sick. Why should I wear a mask?
2. I am young, why should I be concerned?
3. How is Covid-19 different from the flu?
4. Why are you wearing a mask? Are you sick?
5. Why do you suggest to conduct the interview outdoors? Are you sick?
6. Is it dangerous to take a public bus?


https://encrypted-tbn0.gstatic.com/images?q=tbn:ANd9GcTLIcUNpa5M8TKrhFCP3fS-xLinVueoYFQcF_ZcatpDLQsCswxPmadadlKxpdatQEaszWY&usqp=CAU

# COVID-19 epidemiology

- Transmission
- Health outcomes
- Variants
- Testing
- Vaccines

# How is it spread

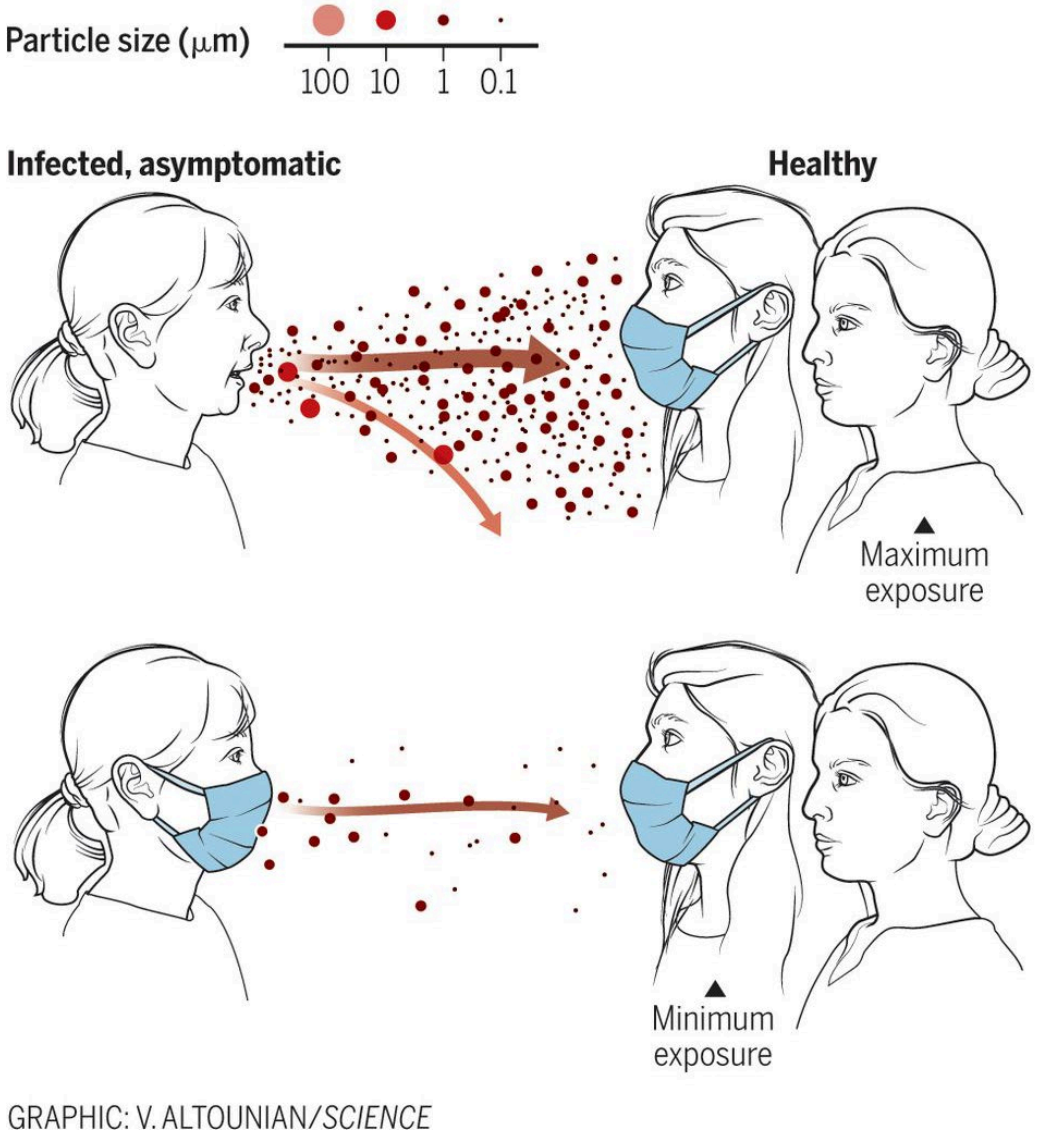
What is the most common transmission pathway?

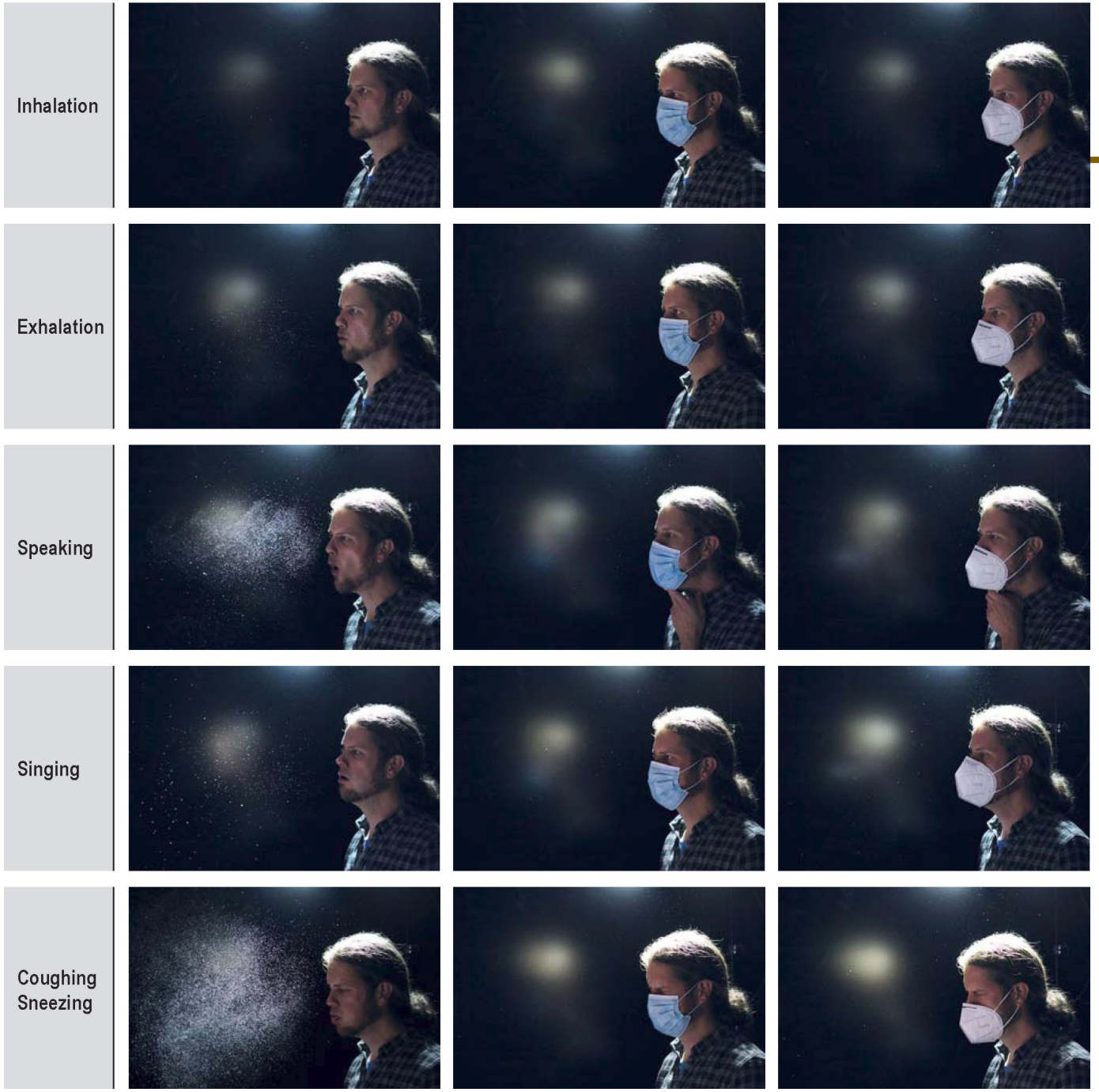
Why?


**Source: WHO, 2020**:
https://www.who.int/images/default-source/health-topics/coronavirus/myth-busters/infographic-covid-19-transmission-and-protections-final2.jpg?Status=Temp&sfvrsn=7fc5264a_0

# How is it spread – droplets and aerosols

- Main transmission route!
- COVID-19 is mainly transmitted from person to person. An infected person releases respiratory droplets while sneezing, coughing, talking or just breathing.
- People in close contact (less than 1-2 meters) can catch the virus if droplets enter their mouth, nose or eyes.
- Transmission risk is higher in poorly ventilated indoor spaces! Aerosols are suspended in the air where they can linger and travel (up to 8 m) for longer periods of time.



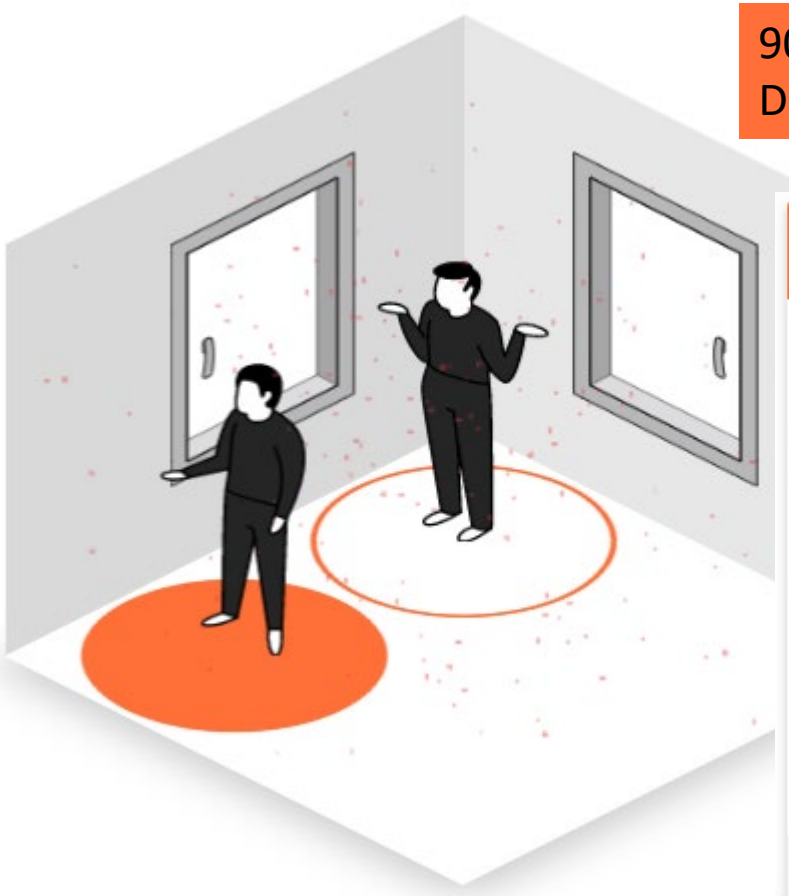


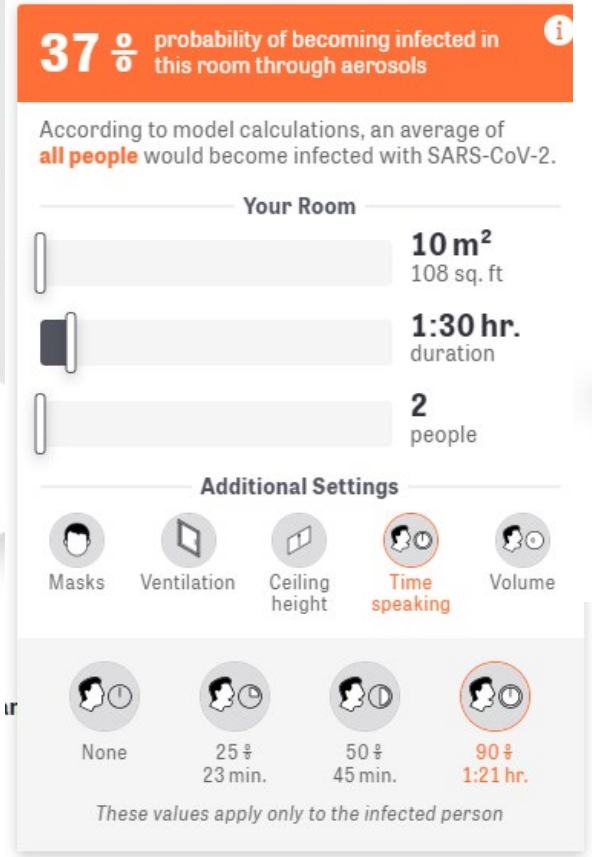

# Aerosol diffusion without mask, with a disposable medical mask, and a KN95

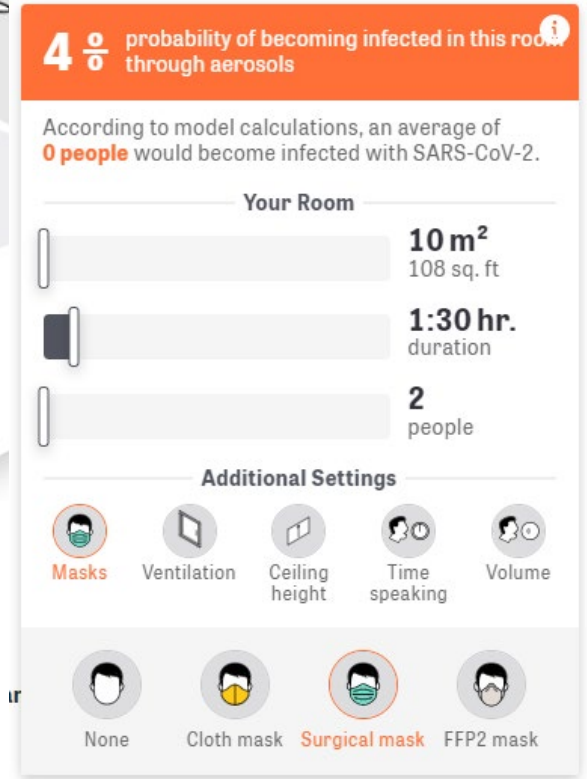
Source: Hemmer, C., Hufert, F., Siewert, S., Reisinger, E. (2021): Protection from COVID-19: The Efficacy of Masks. Dtsch Arztebl Int 2021; 118: 59-65. DOI: 10.3238/arztebl.m2021.0119. https://www.aerzteblatt.de/int/archive/article/217467

# Probability of becoming infected through aerosols – interview

90% talk time
Difference: no mas vs. surgical mask





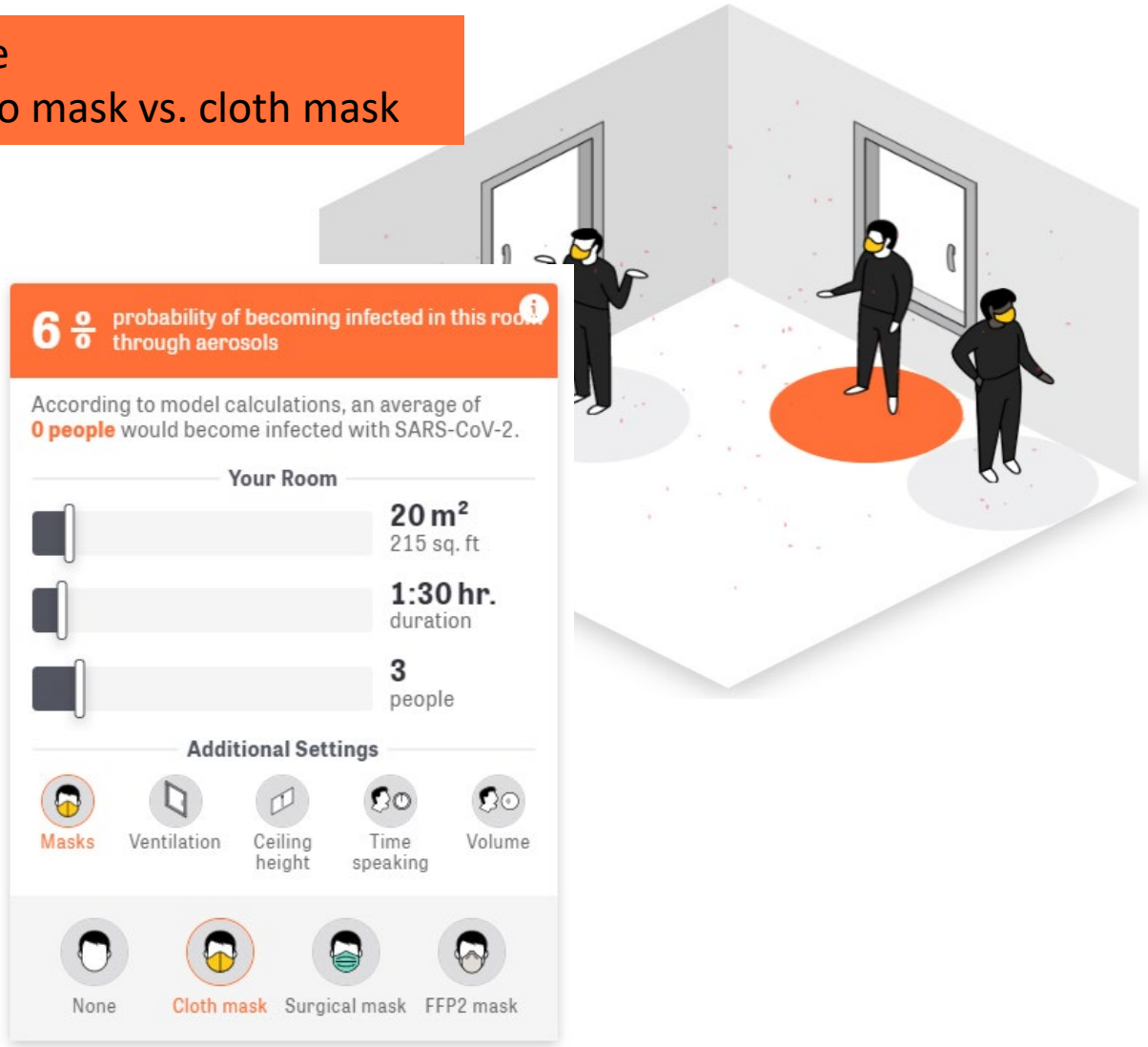




Limitation: Higher transmissibility (up to 50%) of some Covid-19 variants not considered in this mode!

Source: https://www.zeit.de/wissen/gesundheit/2020-11/coronavirus-aerosols-infection-risk-hotspot-interiors?utm_referrer=https%3A%2F%2Fwww.google.com%2F

# Probability of becoming infected through aerosols – board room

90% talk time
Difference: no mask vs. cloth mask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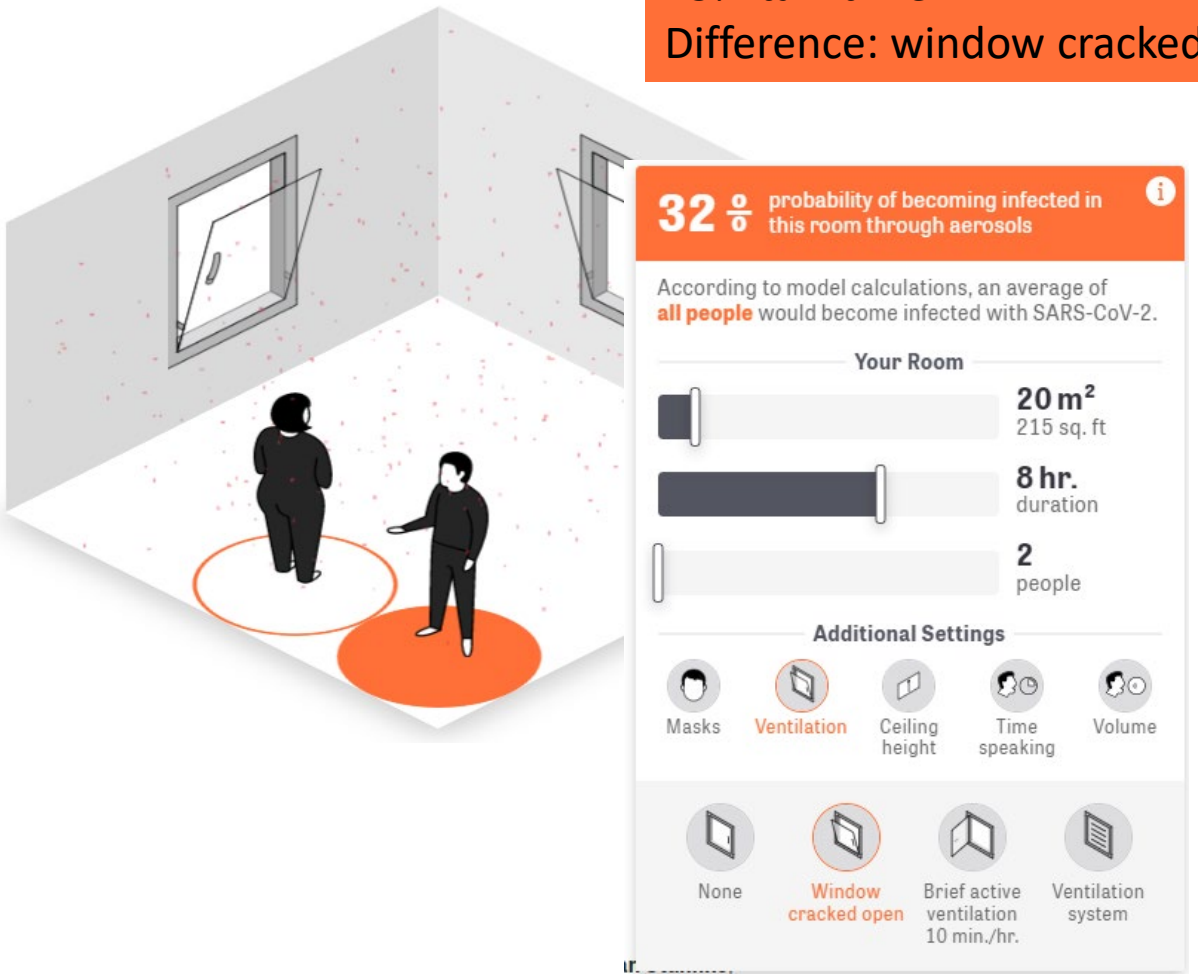
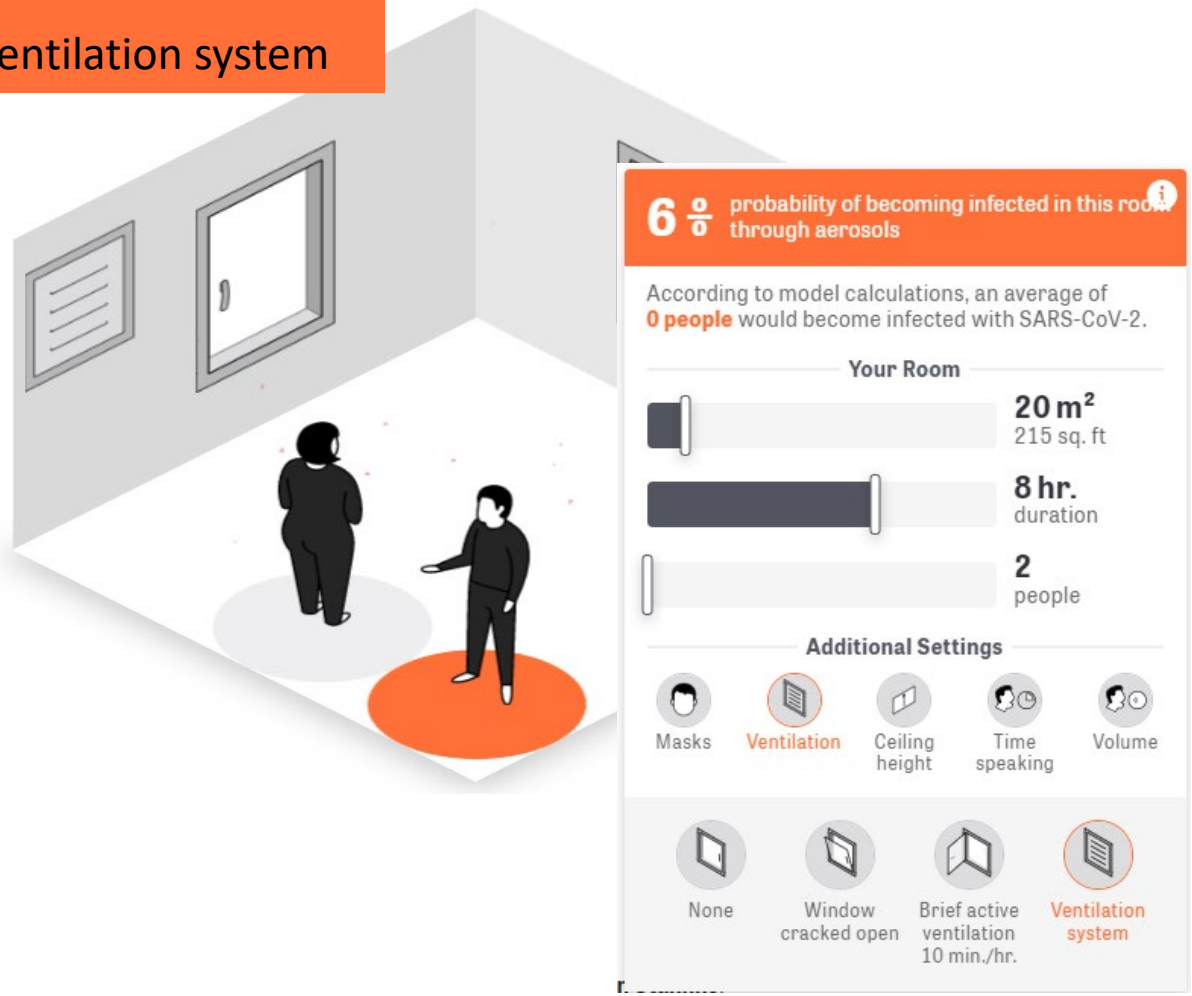
Source: https://www.zeit.de/wissen/gesundheit/2020-11/coronavirus-aerosols-infection-risk-hotspot-interiors?utm_referrer=https%3A%2F%2Fwww.google.com%2F

# Probability of becoming infected through aerosols – shared office

25% talk time
Difference: window cracked vs. ventilation system

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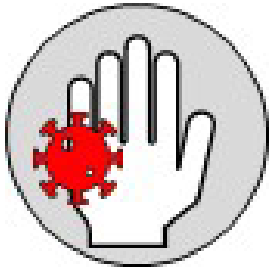
# How is it spread – fomite contamination

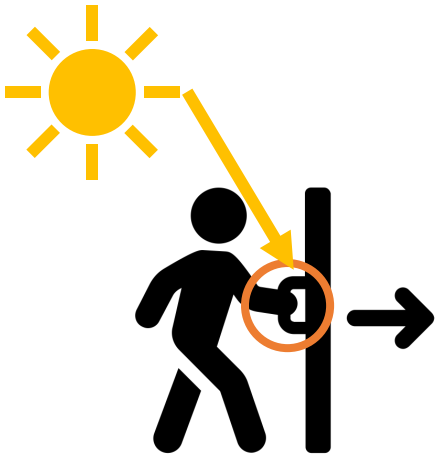


The virus can also be transmitted if a person touches a contaminated object (e.g., a hammer, a door handle an infected person has touched with unclean hands, or coughed or sneezed on), and then touches his face.

Current evidence suggests that this route of transmission is less likely; it is more likely in settings with high viral loads such as hospitals.

Direct sun light can inactivate the virus on surfaces.

Created by Adrien Coquet from Noun Project



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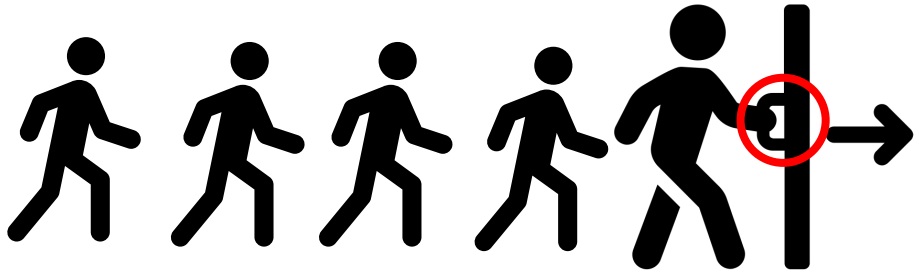


Created by Adrien Coquet from Noun Project

# How is it spread

Incubation period

*Transmission!*

**Incubation period**
5-6 days (max. 14)

Onset of symptoms

No symptoms

Duration of symptoms
Mild cases: ca. 2 weeks
Severe cases: ca. 4-6 weeks

- *The incubation period (time until a person develops symptoms) can be up to 14 days after exposure. Most people develop symptoms of 5-6 days after exposure.*
- *Some people do not develop any symptoms!*
- *The US CDC (1) estimates that around 50% of all cases are transmitted by asymptomatic and presymptomatic persons.*

Infectious period

*Transmission!*

**Infectious period**

**Start:** 2-3 days before onset of symptoms

**Peak:** 1 day before onset of symptoms and first 2-3 days

**End:** declining up to day 10 after onset of symptoms

- *Infected persons are most contagious (can infect others) 2-3 days before they notice any symptoms and in the first days of illness, for around 8-10 days after symptoms have started. Patients with severe cases can transmit the virus up to 20 days.*



(1) https://www.cdc.gov/coronavirus/2019-ncov/more/masking-science-sars-cov2.html

# Symptoms

**SERIOUS COVID-19 SYMPTOMS REQUIRING IMMEDIATE MEDICAL CARE**


Shortness of breath/ Difficulty breathing


Loss of speech or mobility or confusion


Chest pain

**MOST COMMON SYMPTOMS**


Fever


Cough


Tiredness


Loss of taste or smell

**LESS COMMON SYMPTOMS**


Sore throat


Headache


Aches and pains


Diarrhea


A rash on the skin **or discolouration** of fingers or toes


Red or irritated eyes

Other symptoms that are less common:

- nasal congestion,
- nausea or vomiting,
- Chills.

**Source: WHO, 2020**
https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public

# Severity of COVID-19 infection

- **Asymptomatic**: It is estimated that 2 in 10 people (20%) do not develop any symptoms (1)
- **Mild infection** (recovery without hospital treatment, usually within 2 weeks): ca. 80% of all symptomatic cases (2)
- **Severe infection** (e.g., shortness of breath, pneumonia requiring supplemental oxygen; recovery usually 3-6 weeks): ca. 15%
- **Critical condition** (e.g., shock, multiorgan dysfunction, respiratory failure): ca. 5%
  - Infection fatality rates: 2.3 % (3); between 0.25% in LMICs to 1.15% in HICs (4) → Accuracy impacted by testing rate; fatality rate also influenced by age structure


(1) https://journals.plos.org/plosmedicine/article/file?id=10.1371/journal.pmed.1003346&type=printable
(2) https://www.who.int/emergencies/diseases/novel-coronavirus-2019/question-and-answers-hub/q-a-detail/coronavirus-disease-covid-19
(3) https://www.uptodate.com/contents/coronavirus-disease-2019-covid-19-clinical-features?topicRef=126981&source=related_link#H4079606749
(4) https://www.imperial.ac.uk/mrc-global-infectious-disease-analysis/covid-19/report-34-ifr/

# COVID-19 and multiorgan system effects

- COVID-19 can impact various organs, incl. heart, lungs, kidneys, brain through inflammatory complications

- Multisystem inflammatory syndrome in children:
  - Different body parts can become inflamed, including the heart, lungs, kidneys, brain, skin, eyes, or gastrointestinal organs.
  - Children with MIS-C may have a fever and various symptoms, including abdominal (gut) pain, vomiting, diarrhea, neck pain, rash, bloodshot eyes, or feeling extra tired. (2)


(1) UNICEF (2020): The Evolving Epidemiologic and Clinical Picture of SARS-CoV-2 and COVID-19 Disease in Children and Young People. Online: https://www.unicef-irc.org/publications/1107-the-evolving-epidemiologic-and-clinical-picture-of-sars-cov-2-and-covid-19-disease.html

(2) https://www.cdc.gov/mis-c/index.html

# Post COVID conditions

- Some people with COVID-19 infection (severe, mild, or no symptoms) continue to experience symptoms more than 4 weeks after onset of symptoms*(1, 2)* ;
- Possible symptoms:

  - Tiredness or fatigue
  - Difficulty thinking/concentrating (“brain fog”)
  - Headache
  - Loss of smell or taste
  - Dizziness on standing
  - Fast-beating or pounding heart
  - Chest pain
  - Difficulty breathing or shortness of breath
  - Cough
  - Joint or muscle pain
  - Depression or anxiety
  - Fever

- Symptoms can get worse after physical or mental activities
- Multiorgan effects can also prevail (heart, kidneys, lungs, neurological system)
- Reasons are unclear
- Prevalence is unknown

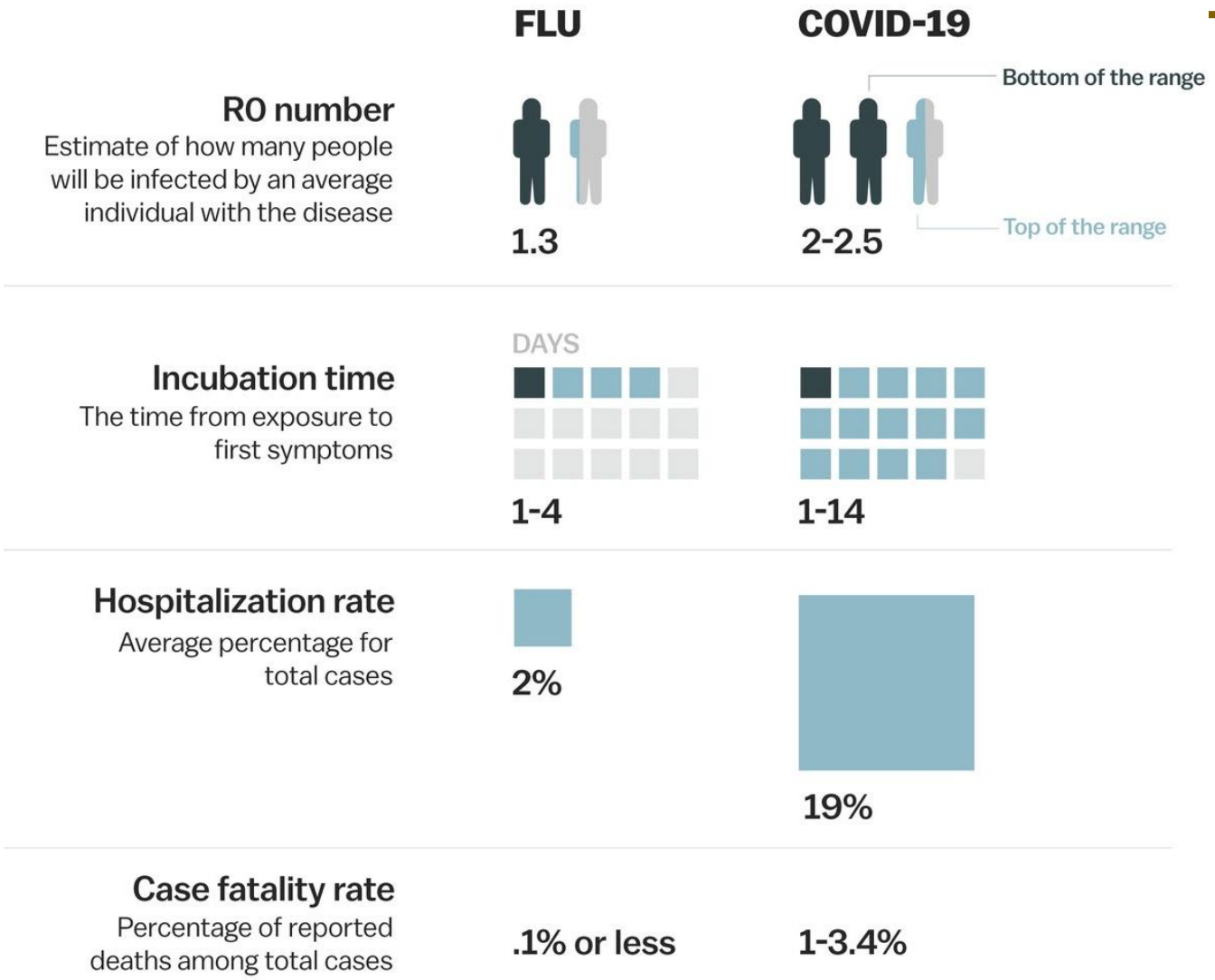
(1) https://www.who.int/emergencies/diseases/novel-coronavirus-2019/question-and-answers-hub/q-a-detail/coronavirus-disease-covid-19
(2) https://www.cdc.gov/coronavirus/2019-ncov/long-term-effects.html

# Vulnerability

People who are at higher risk to develop a severe infection with complications:

- Older adults (over 60 years)
- Adults and children with compromised immune system and/or serious underlying medical conditions, e.g.
  - Respiratory problems: asthma, silicosis (dust exposure!), COPD (smoking!)
  - NCDs: Diabetes, kidney disease, cardiovascular diseases
  - Communicable diseases: HIV/AIDS, Tuberculosis, malaria
  - Other conditions: malnutrition, obesity, chronic mercury exposure(affects central organs such as kidneys, heart!)
- But people of any age can develop a mild or severe infection, including children!

# How seasonal flu and Covid-19 compare




Plus possible long-term effects from COVID-19

https://www.vox.com/science-and-health/2020/3/18/21184992/coronavirus-covid-19-flu-comparison-chart

# Covid-19 variants

*All viruses mutate. Why does it matter?*

The variants of concern may:

- spread more quickly (e.g., higher viral load, extended contagious period)
- evade natural or vaccine-related immunity (increases risk of reinfection)
- evade detection by available tests
- cause more severe disease
- are less responsive to treatment (resistance to one or more class of therapies)

https://ncceh.ca/documents/evidence-review/basics-sars-cov-2-transmission

# Most common variances – what we know

| | B 1.1.7 (UK) | B 1.351 (South Africa) | P 1 (Brazil) |
|---|---|---|---|
| Transmissibility | Ca. 50% higher | Ca. 50% higher | Likely higher |
| Severity | Likely; recent evidence suggests higher hospitalization and case fatality rates | ? | ? |
| Vaccine induced protection | Less likely/minimal impact (unless further mutations) | Moderate impact | Moderate impact |

https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/variant-surveillance/variant-info.html

# Approved COVID-19 vaccinations and treatment

- Vaccines: several vaccines of different types are under development, some in stage 3, but not yet approved or available (1, 3)
  - Level and duration of protection not yet clear (different data sets!)
    - Level: protection against infection, symptomatic infection and/or severe infection
    - Duration:
  - Additional challenges: national approval, production and distribution, costs

(1) https://www.uptodate.com/contents/coronavirus-disease-2019-covid-19-vaccines-to-prevent-sars-cov-2?topicRef=126981&source=related_link
(2) https://www.who.int/emergencies/diseases/novel-coronavirus-2019/question-and-answers-hub/q-a-detail/coronavirus-disease-covid-19-dexamethasone
(3) New York Times Coronavirus Vaccine Tracker: https://www.nytimes.com/interactive/2020/science/coronavirus-vaccine-tracker.html?auth=login-google

# KNOW YOUR COVID-19 VACCINES

Data as of March 31, 2021

| | Pfizer BioNTech | Oxford AstraZeneca | Sinovac CoronaVac | Gamaleya Sputnik V | Bharat BioTech | Moderna | Novavax | Janssen |
|---|---|---|---|---|---|---|---|---|
| **Technology Platform** | mRNA | Viral Vector (non-replicating) | Inactivated Virus | Viral Vector (non-replicating) | Inactivated Virus | mRNA | Protein Subunit | Viral Vector (non-replicating) |
| **Philippine FDA EUA Approval** [A] | January 14, 2021 | January 28, 2021 | February 22, 2021 | March 19, 2021 | Applied for EUA to Philippine FDA (January 22, 2021) | - | - | Applied for EUA to Philippine FDA (March 31, 2021) |
| **Dose and Frequency** | 2 doses, 21 days apart [A] | 2 doses, 4-12 weeks apart [A] | 2 doses, 28 days apart [A] | 2 doses, 3 weeks apart [A] | 2 doses, 14 days apart [C] | 2 doses, 28 days apart [B] | 2 doses, 21 days apart [C] | 1 dose [F] |
| **Storage Requirements** | -80 to -60°C [A] | 2 to 8°C [A] | 2 to 8°C [A] | -18°C and below (frozen solution) [A] | 2 to 8°C [E] | -25 to -15°C<br>2 to 8°C (30 days) [G] | 2 to 8°C [H] | -20°C (2 years)<br>2 to 8°C (3 months) [D] |
| **Vaccine Efficacy Based on Phase III Clinical Trial (CT)** | 95% against symptomatic COVID-19 [A] [B] | 70.4% against symptomatic COVID-19 [A] [B]<br><br>100% against severe COVID-19 [B] | 65-91% (based on Brazil, Indonesia, and Turkey Trials) [A] | 91.6% against symptomatic COVID-19 [B]<br><br>100% against moderate or severe cases [B] | 80.6% against PCR-confirmed symptomatic COVID-19 [E] | 94.1% against symptomatic COVID-19 [B]<br><br>100% against severe COVID-19 [B] | awaiting official Phase III Interim Journal Publication | 66.1-66.9% against confirmed moderate to severe/critical COVID-19 [J] |
| **Common Adverse Events Reported Observed in Phase III CT** | • short-term, mild-to-moderate pain at the injection site,<br><br>• fatigue, headache [B] | • injection site pain and tenderness<br><br>• fatigue, headache, feverishness, myalgia [B] | • local lymphadenopathy at the injection site,<br><br>• allergic reaction that may be caused by any component of the vaccine (hives, allergic rashes and purpura, anaphylactic shock)<br><br>• convulsion (with or without fever) [J] | • pain on injection site, hyperthermia, swelling [B]<br><br>• headache, asthenia, muscle/joint pain, malaise, sore throat, diarrhea, rhinorrhea, loss of appetite, pain in the oropharynx, nasal congestion, colds, sneezing, cough [B] | • headache<br>• fatigue<br>• fever<br>• body ache<br>• abdominal pain<br>• nausea<br>• vomiting [E] | • pain/ erythema/swelling on injection site, axillary lymphadenopathy [B]<br><br>• fever, headache, fatigue, myalgia, arthralgia, nausea, vomiting, chills [B] | awaiting official Phase III Interim Journal Publication | • injection site pain, redness, swelling<br><br>• tiredness, headache, muscle pain, chills, fever, nausea [G] |

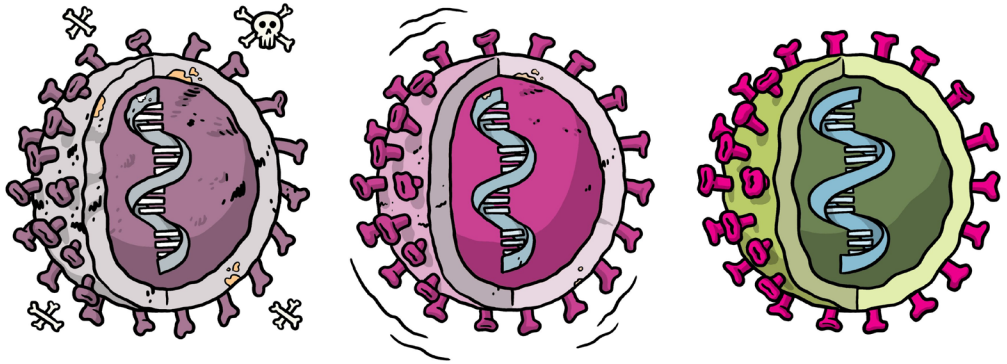
References: [A] FDA Philippines EUA Approval [B] Publication in Journals for Phase III Interim Results [C] WHO Landscape and Tracker of COVID-19 Candidate Vaccines [D] WHO Interim recommendations for EUL [E] Submission to FDA EUA Application [F] Clinicaltrials.gov [G] Center for Disease Control and Prevention [H] Publication in Journals for Phase 1 and/or Phase 2 CT results [I] FDA Published Product Information Materials [J] US FDA Published Vaccine Fact Sheets

RESBAKUNA KASANGGA NG BIDA

https://twitter.com/dohgovph/status/1372351894044086276

# Vaccines – how do they work

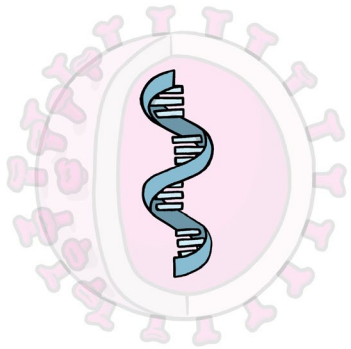
The whole-microbe approach



Inactivated vaccine | Live-attenuated vaccine | Viral vector vaccine

- Inactivated vaccine: Virus is inactivated, e.g. through heat (e.g, Polio vaccine)
- Live attenuated vaccine: Uses a weakened version of the virus
- Viral vector vaccine: Uses a different, safe virus to deliver sub-parts (i.e., proteins) of the COVID-19 to trigger an immune reaction

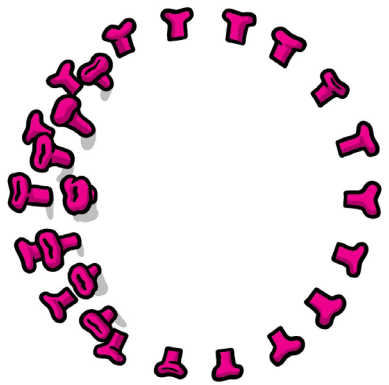
The genetic approach (nucleic acid vaccine)



Uses the genetic material for specific proteins - the DNA or RNA.

A nuclei acid vaccine provides a set of instructions to our cells through messenger RNA to build a specific spike protein.
New approach!

The subunit approach



Only uses the very specific parts (the subunits) of a virus or bacterium that the immune system needs to recognize.

Using for example proteins; similar approach to tetanus or diphtheria vaccine

https://www.who.int/news-room/feature-stories/detail/the-race-for-a-covid-19-vaccine-explained

# Approaches for COVID-19 testing

| | MOLECULAR TEST | ANTIGEN TEST | ANTIBODY TEST |
|---|---|---|---|
| **Also known as...** | Diagnostic test, viral test, molecular test, nucleic acid amplification test (NAAT), RT-PCR test, LAMP test | Diagnostic test | Serological test, serology blood test, serology test |
| **How the sample is taken...** | Nasopharyngeal (the part of the throat behind the nose), nasal or throat swab (most tests)<br>Saliva (a few tests) | Nasal or nasopharyngeal swab (most tests) | Finger stick or blood draw |
| **How long it takes to get results...** | Same day (some locations)<br>or up to a week (longer in some locations with many tests) | Some may be very fast (15 – 30 minutes), depending on the test | Same day (many locations)<br>or 1-3 days |
| **Is another test needed...** | This test is typically highly accurate and usually does not need to be repeated. | Positive results are usually highly accurate, but false positives can happen, especially in areas where very few people have the virus. Negative results may need to be confirmed with a molecular test. | Sometimes a second antibody test is needed for accurate results. |
| **What it shows...** | Diagnoses active coronavirus infection | Diagnoses active coronavirus infection | Shows if you've been infected by coronavirus in the past |
| **What it can't do...** | Show if you ever had COVID-19 or were infected with the virus that causes COVID-19 in the past | Antigen tests are more likely to miss an active COVID-19 infection compared to molecular tests. Your health care provider may order a molecular test if your antigen test shows a negative result but you have symptoms of COVID-19. | Diagnose COVID-19 at the time of the test or show that you do not have COVID-19. |

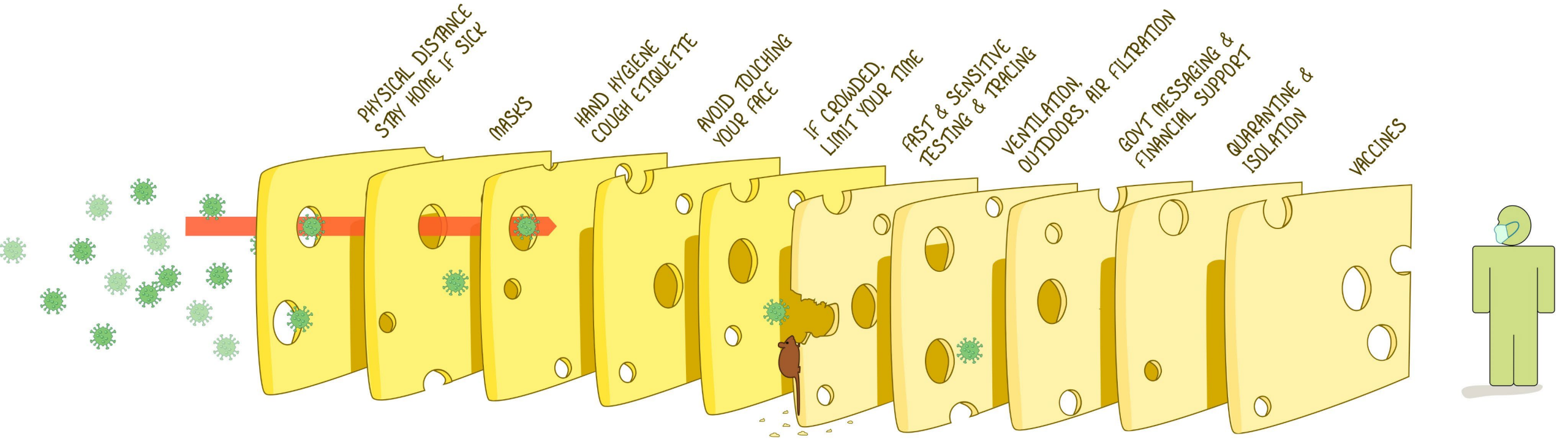
FDA, 2020:

https://www.fda.gov/media/140161/download

# Protective measures

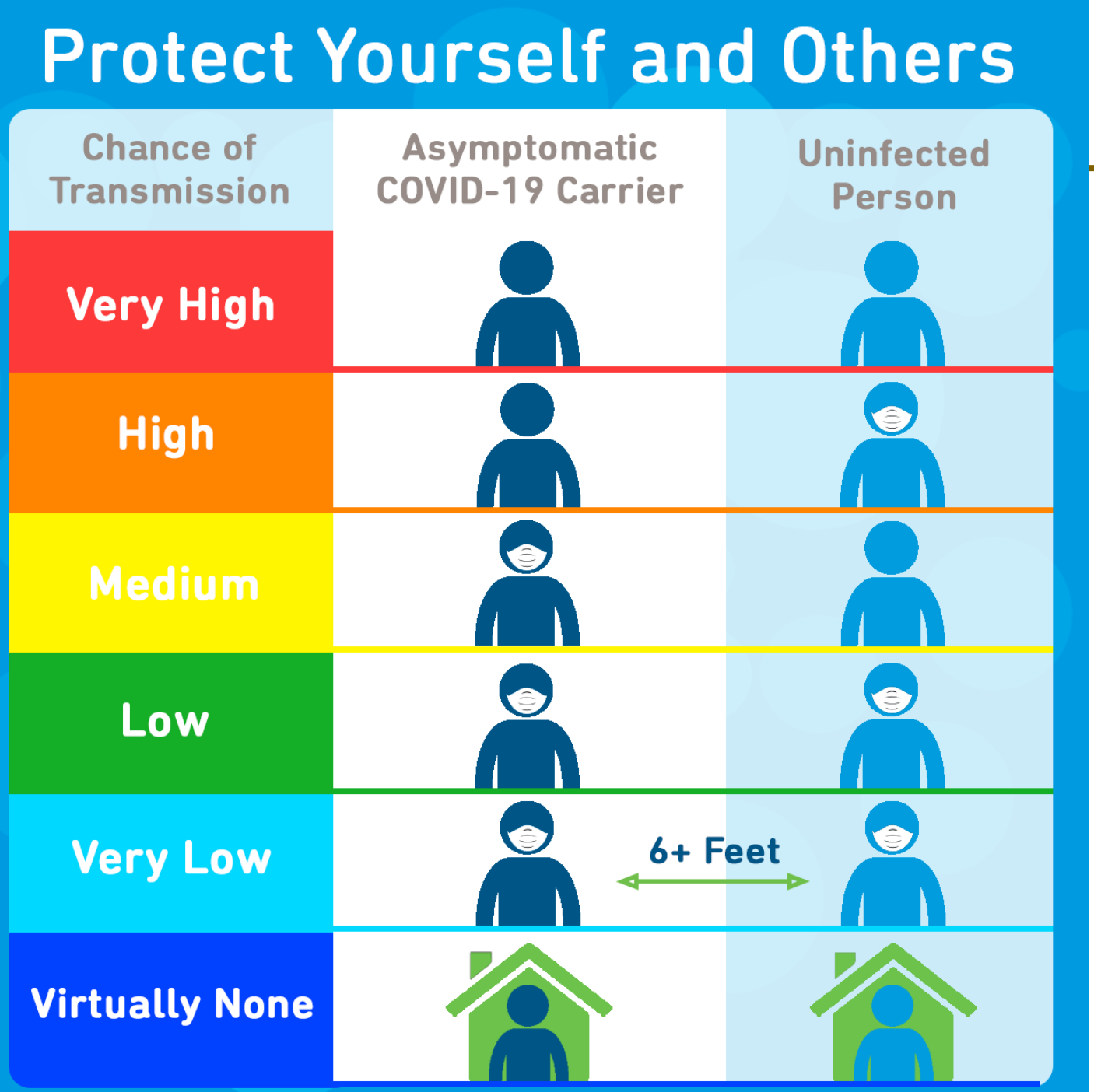
# The Swiss Cheese Respiratory Virus Pandemic Defence

## Recognising that no single intervention is perfect at preventing spread




Each intervention (layer) has imperfections (holes).
Multiple layers improve success.

Ian M Mackay
virologydownunder.com
With thanks to Jody Lanard, Katherine Arden & the Uni of Qld
Based on the Swiss cheese model of accident causation, by James T Reason, 1990
version 3.0
update: 24oct2020

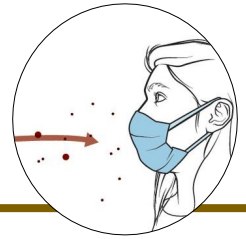



# How to protect yourself

Other factors:

- Duration of interaction
- Ventilation (indoors vs. outdoors)

Source: Burke Neurological Institute, 2020
https://burke.weill.cornell.edu/impact/news-articles/let%E2%80%99s-face-covid-19-together?utm_content=bufferdb3d6&utm_medium=social&utm_source=facebook.com&utm_campaign=buffer

# PPE: preventing spread  & exposure 

## Cotton mask/cloth mask:

- Reduce exhalation of droplets and fine particles (multi layered face masks can block up to 50-70% of fine droplets and particles) and can filter out infectious droplets before inhalation (1)
- Effectiveness of protection depends on design and appropriate use: Increases with high thread count, tightly woven cotton, 3 layers incl. polypropylene layer, snug fit
- For everybody when physical distancing is not possible
- Reusable, washable

## Surgical mask/medical mask:

- Better filtering capacity than most cloth masks
- For health workers, vulnerable persons, and persons with COVID-19 diagnosis
- Disposable, single use


## Face shield:

- Protects eyes, nose, mouth
- Only recommended in combination with mask (no tight fit!)


## N95 (respirator):

- Offers better protection (filters 95% of very small particles) & prevents spread
- For health workers during high exposure procedures
- Disposable, single use

## Gloves:

- If hand washing or disinfection not possible and high exposure to contaminated objects
- Not necessary, might increase risk of cross-contamination!



(1) https://www.cdc.gov/coronavirus/2019-ncov/more/masking-science-sars-cov2.html

# Importance of masks!


Source: https://www.cdc.gov/mmwr/volumes/69/wr/mm6928e2.htm?s_cid=mm6928e2_w

# New evidence on masks

- Many different guidelines and recommendations !
- Some countries have started to ban self-made and 2 layer masks
- Recommendations: 3 layer, snug fitting mask or double mask (2-layer mask plus medical mask)
- Research studies on efficiency:
  - US CDC: Ttransmission can be reduced by up to 96.5% if both an infected person and an uninfected person wear tightly fitted surgical masks or a cloth mask together with a surgical mask
  - US study: Protection against fine particles:
    - fabric face masks: 62.6% - 87.1%
    - surgical masks: 78.2%
    - N95 masks 99.6%

Mahase, E. 2021. Vcovid-19. Are cloth masks still effective? And other questions answered. *BMJ* 2021;372:n432 https://www.bmj.com/content/372/bmj.n432

# How to wear a mask


# Hand hygiene



**Wash your hands:**

- When arriving at work
- Before & after going on a break
- Before & after handling shared tools and other shared objects
- After using washroom
- Before & after using mask and other PPE


Source: BC CDC (http://www.bccdc.ca/Health-Professionals-Site/Documents/COVID19_Handwashing%20Poster_MD%20offices.pdf)

# DIY hand washing station

Photo: AGC Indonesia team

What is missing?

Soap!

# Disinfection

- Agents killing the coronavirus:
  - Bleach: sodium hypochlorite (5.25%): 1: 100 (10 ml bleach to 990 ml water)
  - Hydrogen peroxide (0.5%)
  - Quaternary Ammonium Compounds (QUATs): Alkyl dimethyl ammonium chlorides
- Ensure that disinfectant has a Drug Identification Number (DIN) on its label
- If objects are dirty, first clean it (remove dirt), then disinfect (kills viruses & bacteria)
- General cleaning and disinfecting of surfaces should occur at least once a day.
- Clean and disinfect highly touched surfaces at least twice a day and when visibly dirty (e.g., door knobs, light switches, cupboard handles, grab bars, hand rails, tables, phones, bathrooms, keyboards).
- Remove items that cannot be easily cleaned (e.g., newspapers, magazines, books, toys).

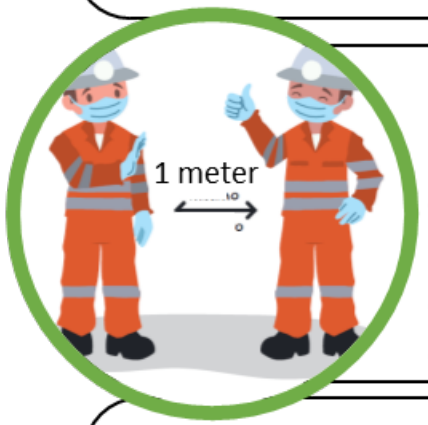
Source: BC Centre for Disease Control

# Recommendations for mining sites

## If you do not feel well, stay at home!

Stay home and avoid close contact with others if you do not feel well. If you have typical COVID-19 symptoms and contact cannot be avoided, wear a medical mask. See a doctor, esp. if you have fever or difficulty breathing.

Ask people arriving at the center, show awareness posters & explain preventive measures




## Protect yourself - Keep your distance!

Stay at least 1 meter (2 arms length) apart. Organize work conditions to avoid close contact with other miners. Outdoor settings are considered lower risk compared to indoor settings with limited ventilation.

Markers & one-way system


## Protect others - Wear a mask!

If physical distancing is not possible, wear a cloth mask at the mining and in public to protect others. Cover your face when you have to sneeze or cough (e.g., with your bent elbow). Do not spit!


Mandatory!

# Recommendations for mining sites

## Avoid touching your face!

Do not touch your mouth, nose or eyes with your unclean hands. Your hands might be contaminated with the corona-virus after touching a contaminated object. Avoid touching frequently handled objects. Do not share personal items.

## Wash your hands!

Wash your hands frequently with soap and water for 20 seconds, especially before touching your face and putting on a mask and after touching shared objects or sneezing. Alternatively, use hand sanitizer with a minimum of 60% alcohol

Have hand washing stations/disinfectants

## Keep it clean!

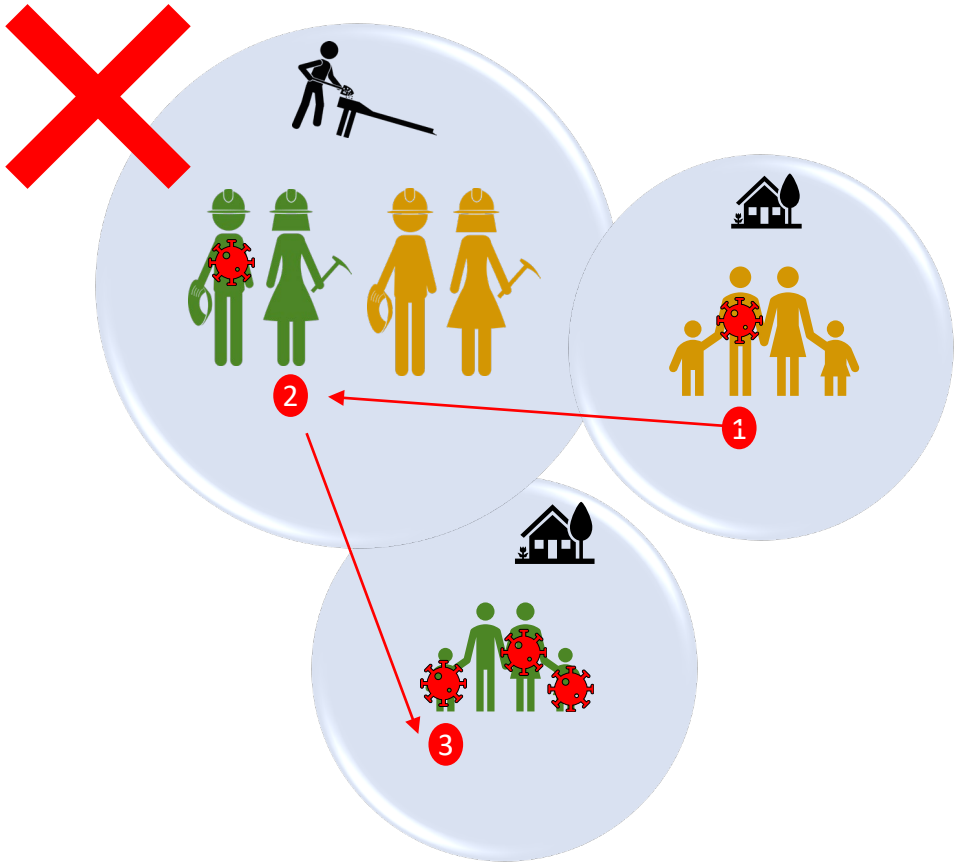
Disinfect frequently touched surfaces such as digging tools or generator switches. The virus can survive on objects for several days, esp. indoors and underground. Direct sunlight seems to be able to inactivate the coronavirus on objects.

Develop cleaning protocol for the facility

# Recommendations for mining sites

**Create safe bubbles**

Same people sharing a household should also work together at a mine site to minimize contact to others.




# During field work or visits…

- Protective measures can keep you and others safe and safe yourself the worries later about a possible expoure!
- Wear a mask (clean, 3 layered, snug fit or medical mask) and - if possible – encourage your respondent to wear a mask, too (bring a spear, unused mask?)
- If you do not feel safe in a situation (e.g., crowd of people), double mask for the period of time
- Keep 1-2 m distance to other people
- Meet people outside, if possible, or make sure that a room is well ventilated (open windows)
- If respondent is worried about COVID or does not keep distance/wear a mask, explain the importance of protective measures so that respondent feels safe/feels encouraged to adhere to protective measures
- Do not touch your face with your hands and wash your hands before touching food or your face! Bring hand sanitizer.
- Bring a spare masks if your mask gets dirty or wet (reduces protection)

# Possible FAQs in the field ???

1. I am not sick and I am not scared of getting sick. Why should I wear a mask?
2. I am young, why should I be concerned?
3. How is Covid-19 different from the flu?
4. Why are you wearing a mask? Are you sick?
5. Why do you suggest to conduct the interview outdoors? Are you sick?
6. Is it dangerous to take a public bus?


https://encrypted-tbn0.gstatic.com/images?q=tbn:ANd9GcTLIcUNpa5M8TKrhFCP3fS-xLinVueoYFQcF_ZcatpDLQsCswxPmadadlKxpdatQEaszWY&usqp=CAU

# Questions?

- Practicality of suggested measures?
- Common myths and misconceptions among miners?
- Fears?
- Covid-19 impacts?




# Vaccines

| | Pfizer BioNTech | Moderna | Johnson & Johnson | Oxford Astra Zeneca | Sinovac |
|---|---|---|---|---|---|
| No of shots | 2 shots, 21 days apart | 2 shots, one month (28 days) apart | 1 shot | 2 shots, 4 -12 12 weeks apart | |
| Safety / side effects | Common, but mostly mild to moderate | Common, but mostly mild to moderate | Common, but mostly mild to moderate | | |
| Effectiveness at preventing illness | 95% | 94.1% | 66.3% | 70.4% | |
| Effectiveness at preventing disease | | | Possible | | |

https://www.cdc.gov/coronavirus/2019-ncov/vaccines/different-vaccines/Pfizer-BioNTech.html
https://www.cdc.gov/coronavirus/2019-ncov/vaccines/different-vaccines/Moderna.html
https://www.cdc.gov/coronavirus/2019-ncov/vaccines/different-vaccines/janssen.html
https://www.uptodate.com/contents/covid-19-vaccines-to-prevent-sars-cov-2-infection?topicRef=126981&source=related_link