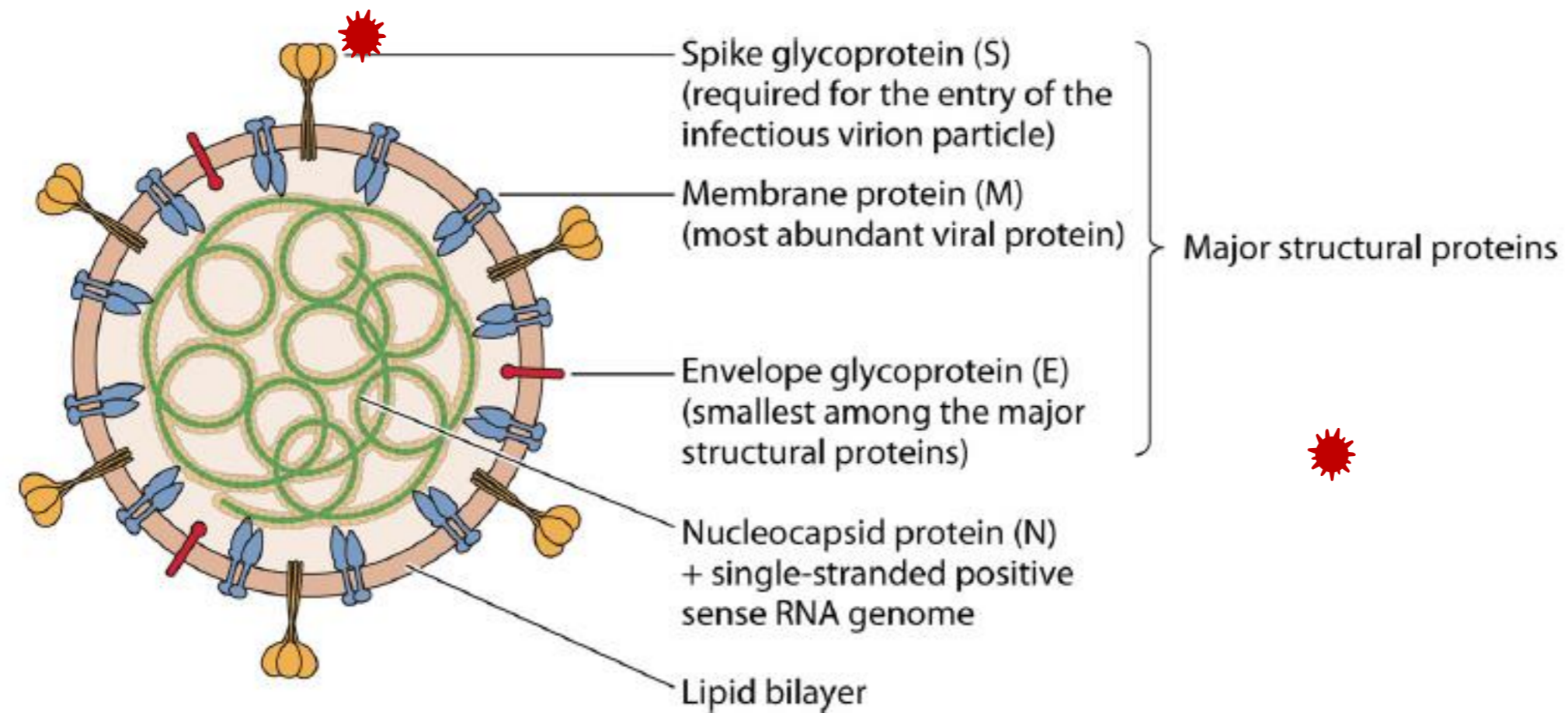


# ALLIED HEALTH – Myths & Preventing spread of


COVID-19

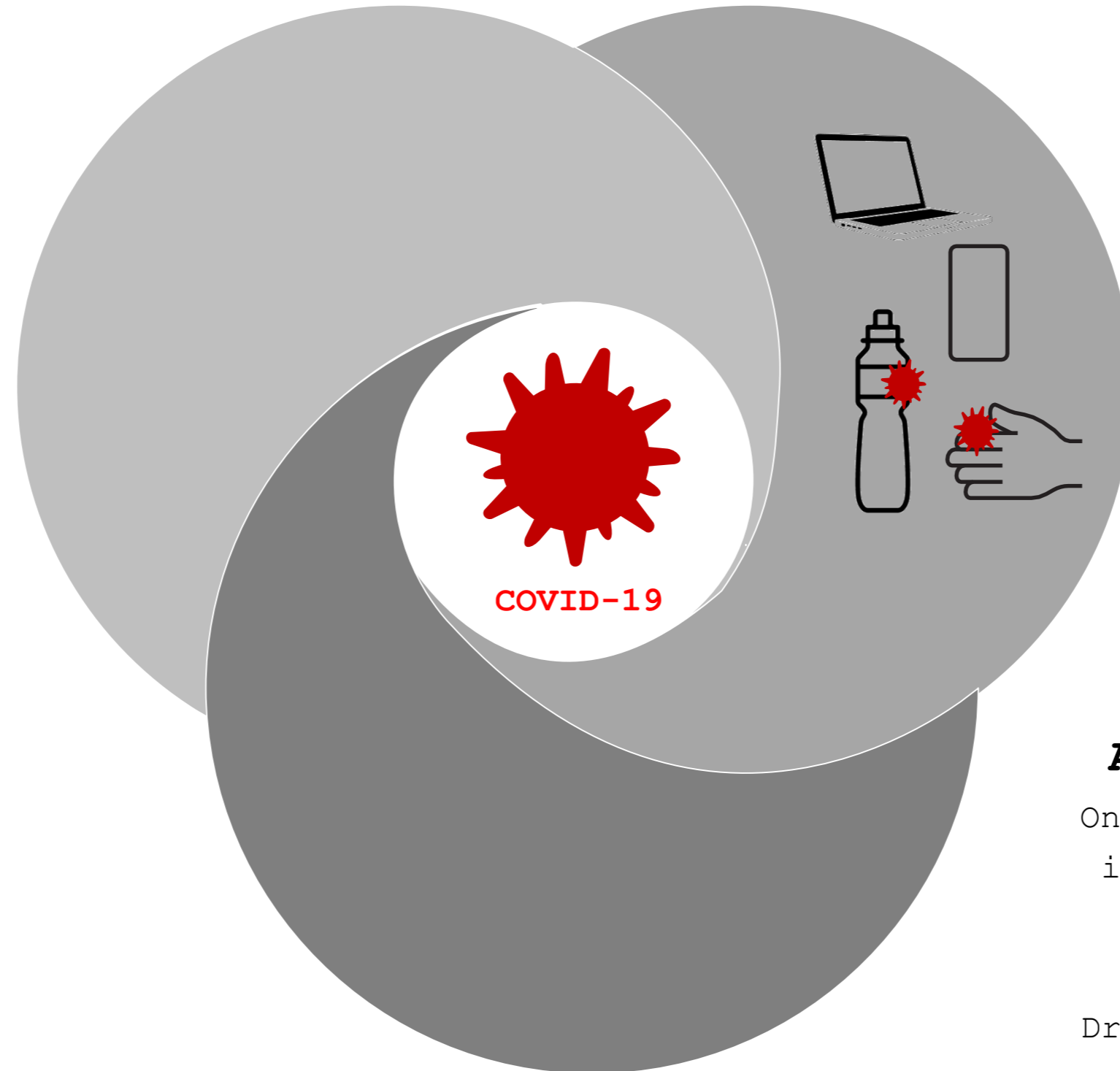


# COVID-19 TRANSMISSION

## DROPLET INFECTION

Infected individual sneezes, or coughs, and droplets travel to the eye, mouth or nose of an unaffected person


 Droplets are large and can travel under 1m



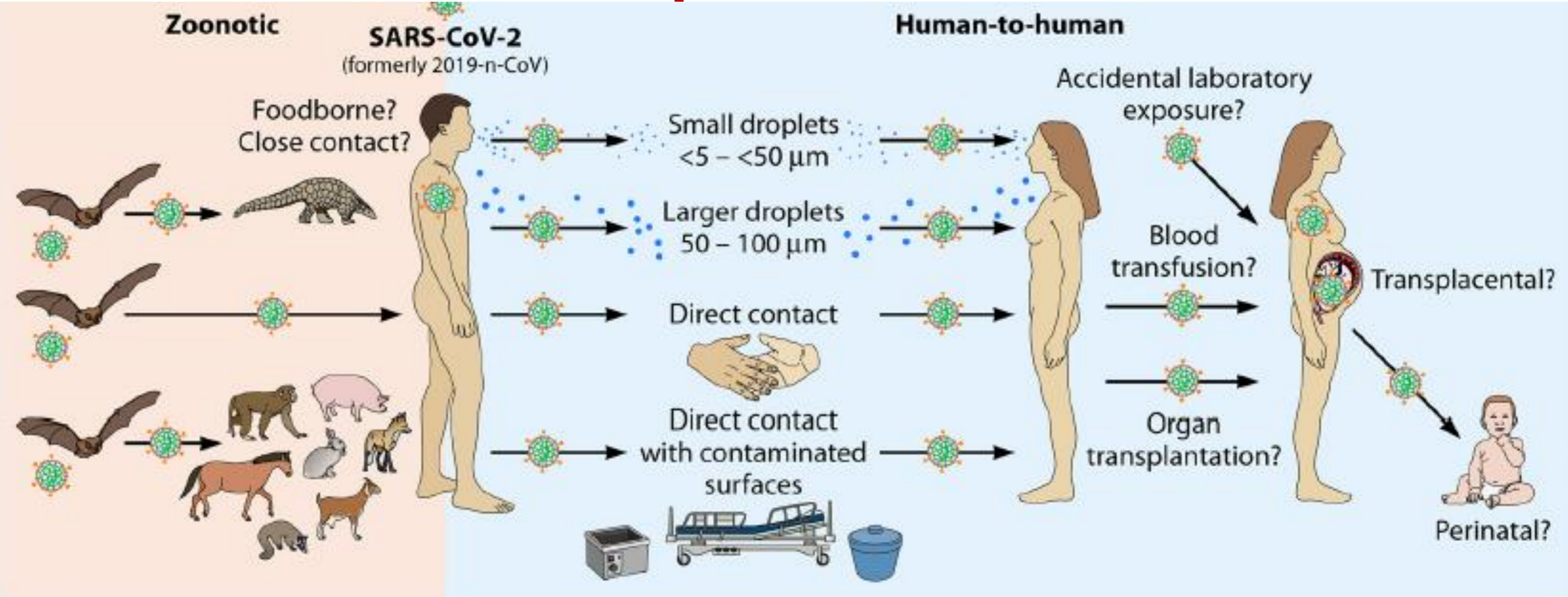
## Fomite TRANSMISSION

COVID-19 infected droplets can survive on items for several hours and there is a risk that an unaffected person may touch the item and then touch their face (eyes, nose, mouth)

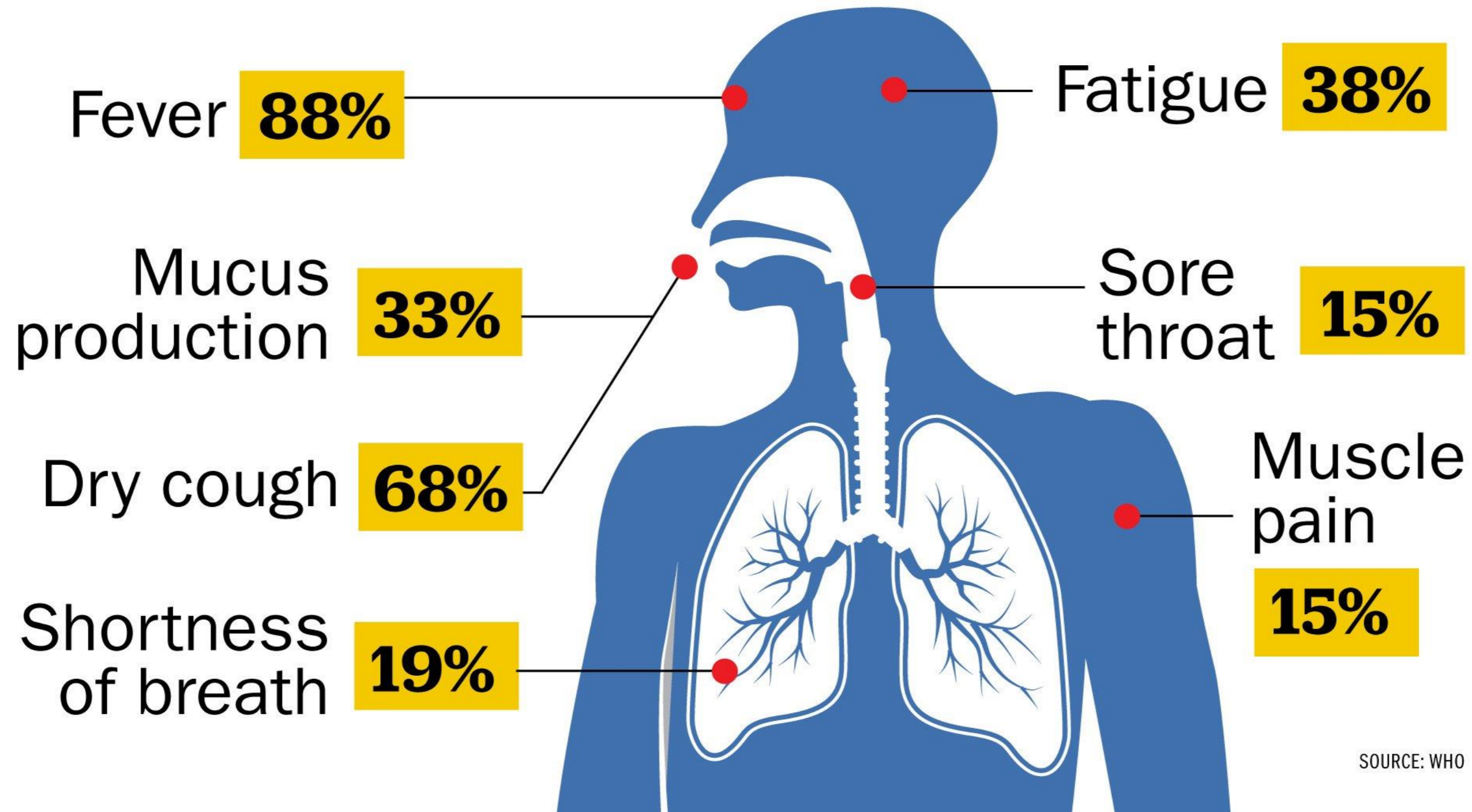
## AIRBORNE TRANSMISSION

Only under specific conditions, including poor ventilation and during aerosol generating procedures. . 

Droplets are very small and can travel more than 1m



# COVID-19 signs and symptoms



SOURCE: WHO

# Differential diagnosis

- » Any viruses that causes pneumonia must be included in the differential diagnosis of COVID-19 (e.g. influenza, parainfluenza, adenovirus, RSV, rhinovirus, HMPV)
- » Coinfection is a possibility; The most common pathogens in coinfection were Influenza virus (H1N1, H3N2), Rhinovirus & RSV (A/B)
- » Similar bacterial aetiology with clinical & radiological similarities to COVID-19 are mycoplasma and chlamydia
- » Other aetiology are autoimmune diseases with lung involvement such as vasculitis, dermatomyositis another pneumonitis.

# COVID-19 Modelling

## Modelling

- Predictive mathematical models for epidemics are fundamental elements to understand the course of the epidemic and to plan effective control strategies. Forecasting models are statistical in nature:
  - » Better understand present state of the epidemic
  - » Model forecasts can be projected to estimate the next fortnight
  - » Assist to review effectiveness of current measures & better prepared to define future response strategies

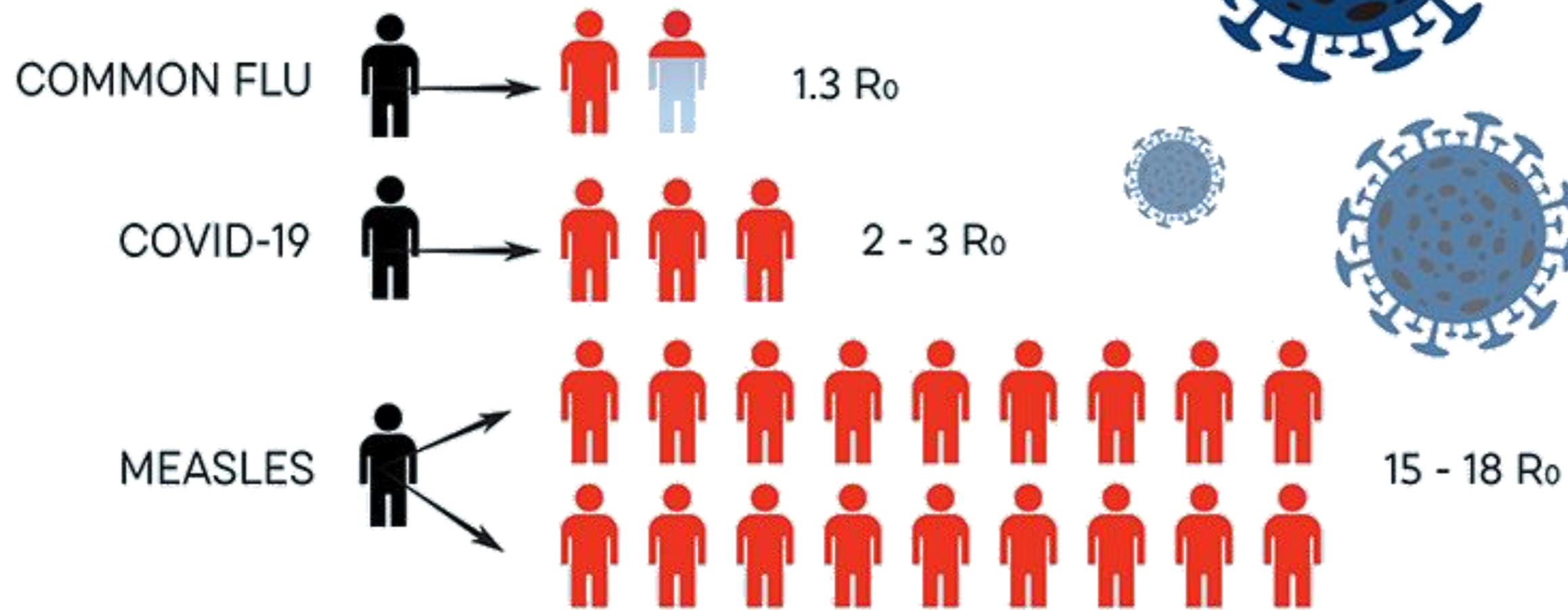
**Some basic terms to understand are as follows:**

### Case fatality Rate (CFR)

- » Proportion of people who die from a specified disease among all individuals with the disease over a certain period of time
- » COVID-19 estimated in China 5.3% (range of (3.5–7.5%))
- » Outside China estimates 0.3% to 1.4%

**R0 (basic reproductive number)** the number of people a single case infects on average (assuming whole population is susceptible and no strategies in place), estimated about 2.5 (Australia).

## HOW CONTAGIOUS IS COVID-19?



# Lunchrooms strategies

- » Remove excess chairs/block seats, distance tables 2 metres apart with 0.5m being the buffer. Apply 4 m<sup>2</sup> rule physical distancing and reinforce messaging passively by use of infographics at tearoom entry and inside
- » Ensure lunchrooms are well ventilated
- » Provide hand sanitiser at tearoom entrance and exit. Ensure signage is available
- » Provide TGA approved disinfectant wipes to wipe down frequently touched lunchroom surfaces for example: fridge door handle, microwave buttons, table top surfaces, chairs, jars etc
- » Stagger tea/lunch breaks to reduce staff numbers at any given time. If facility has one lunch room facility;- those caring for confirmed cases should have their lunch breaks last and room cleaned and disinfected. Otherwise allocate lunchrooms for staff working in respective green zone, amber zone and red zone.
- » Ensure a system to monitor who goes into lunchroom is in place. Utilise QR codes, or paper based register bearing date, name, time in & time out and staff contact number
- » Doff of all PPE and perform hand hygiene before accessing lunchrooms. Don new mask after breaks



## Staff activities

- » Avoid sharing home cooked meals, uncovered food such as lollies, biscuits unless individually packed.
- » Utilise single packed condiments for example barbecue sauce, ketchup, sugar, honey, jam, salt, etc
- » Where shared cutlery is available, utilise a well maintained dishwasher with a hot cycle. Preferably utilise single disposable cutlery
- » Birthdays, staff events, training or gatherings; limit to less than 2 hrs and avoid direct face-to-face contact (1.5metre distance) and limit to less than 15 mins. Apply 4 m2. Preferably outdoor gatherings are ideal. In confined spaces, ensure adequate ventilation is maintained observing the above requirements.
- » Aerosol generating behaviours such as singing, shouting and not practising respiratory hygiene and cough etiquette may predispose staff to COVID-19 risks. Such activities should be avoid
- » Wear surgical masks at all times as it is a mandatory requirement
- » Practice regular hand hygiene

# Fomite Transmission

- » Fomites are inanimate objects that become colonized with microbes and serve as potential intermediaries for transmission to/from humans.

## **Fomite-mediated pathways:**

- » Humans deposit their own microbial signatures frequently touched surfaces such as: indoor surfaces, door handles, rails, etc. Microbials will remain inactive or dormant until being transferred to other host (person) locations.
- » Microbes can physically transfer between fomite surfaces and humans via touching, but the transmission efficiency depends on the surface material, hand coverings, material hydrophobicity, and moisture content of contact surfaces.
- » It is important all shared equipment is cleaned and disinfected. Examples include; gym equipment, portable oxygen cylinder bottles, shared whiteboard markers, pens, workstations, cooking equipment, elastic bands,
- » Practice frequent hand hygiene and routinely cleaning of shared equipment after every contact

# Creating Zoning During Outbreak

- » Dedicated patient zones direct flow of patients/residents/clients: follows the principles of demarcated 4 zones and buffer zones/transition zones
- » Cohorting refers to the grouping of individuals with the same condition in the same location or confirmed laboratory pathogen (that is, room, section or building)
- » The zoning is designed for use in settings where residents/patients/clients reside overnight
- » Places of application include but not limited to RACFs, COVID-19 accommodation response (hotel quarantine) program, acute care facilities, ED, and ICU departments

# Creating Zoning During Outbreak –zones definition

- » **Blue zone:** buffer areas between potentially contaminated and non-contaminated zones. These can be transmission zones. Examples drug room, staff lunch rooms etc.
- » **Green zone:** individuals who have no COVID-19 risk factors or cleared . In RACF only cleared cases will be considered to be in the green zone.
- » **Amber zone:** individuals who have met the definition of a close contact and are in quarantine or have suspected COVID-19 and are in isolation. In a RACF in the initial stages of an outbreak, all residents are considered close contacts
- » **Red zone:** individuals with confirmed COVID-19 who have not met clearance criteria. This may be a single individual or several individuals

# Creating Zoning During Outbreak – PPE Way finding

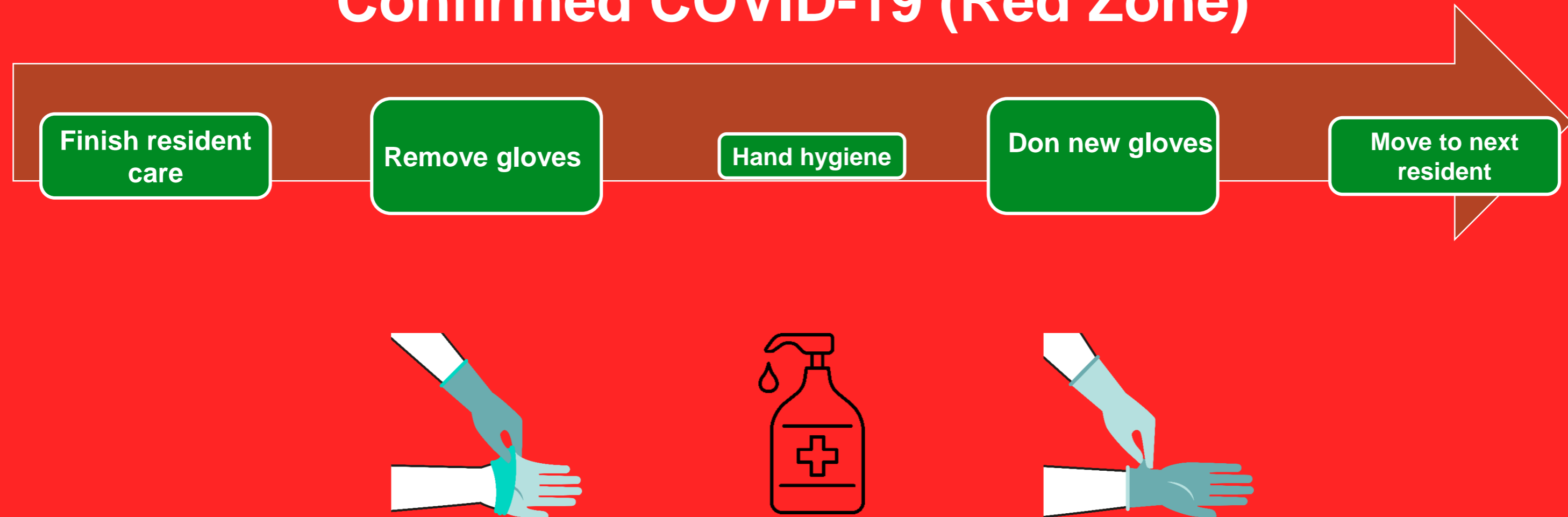
- » **Blue zone:** Surgical mask. Eye protection during increased community transmission and likelihood of facing patient/residents/clients to be considered.
- » **Green zone:** gloves, gowns, eye protection and respirator should be changed, and hand hygiene performed between each individuals. Surgical masks and eye protection can be worn for up to 4hrs
- » **Amber zone:** gloves, gowns, eye protection and respirator should be changed, and hand hygiene performed between each individual. If over 25% of cases within a facility are suspected or in quarantine; consider continual use of eye protection and respirators.
- » **Red zone:** gloves must be changed and hand hygiene performed between each individual. P2/N95 respirator, eye protection and gown can be worn up to 4hrs unless soiled, likely contaminated, damp or damaged, in outbreak situation where confirmed cases are cohorted and zoned.

# RACFs Outbreak; changing PPE between residents: Suspected COVID-19 or close contacts (Amber Zone)



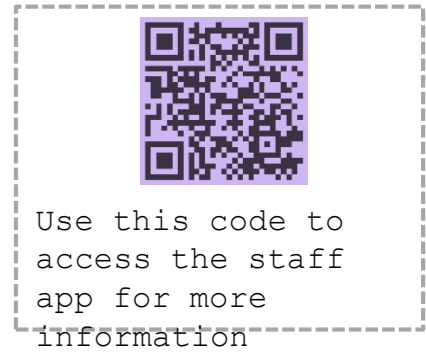
<sup>1</sup> Respirator and eye protection can be worn for up to 4 hours unless visibly soiled, likely contaminated, wet or damaged if going between residents in a dedicated zone with suspected COVID-19 cases or close contacts (Amber Zone). If you need to replace your eye protection or respirator you should do so at a safe distance from a resident >1.5 meters.

# RACFs Outbreak; changing PPE between residents: Confirmed COVID-19 (Red Zone)



<sup>1</sup> Respirator, eye protection and gown can be worn for up to 4 hours unless visibly soiled, likely contaminated, wet or damaged if going between residents in a dedicated zone with confirmed COVID-19 cases (Red zone). If you need to replace your eye protection or respirator you should do so at a safe distance from a resident >1.5 meters.

# Allied Health - preventing the spread of COVID-19



## Travel safely to work



If you share transport, only two people in the car, set air-con to external airflow or open windows.

## Check temperature & symptom before shift



Always have your temperature taken and answer the COVID symptom questions before entering your workplace

## Clean electronic devices



Clean and disinfect according to guidelines, using the right products

## Manage waste as per protocols



Dispose of waste according to guidelines including PPE in clinical waste bins.

## All questions are worth asking



If you have a question, other will have too. Its always best to ask as COVID is complex and the evidence and research is changing.

## Make sure you complete mandatory training



Complete your training and stay up to date with COVID -19 changes that effect you.

## Bring minimal items into work



Limiting the items you bring to work reduces the risk of transmission.

## Regular hand hygiene



Regular hand hygiene is the best protection against COVID-19.

## Practice cough etiquette



Cover coughs and sneezes with a tissue or use your inner elbow.

## Speak up about safety



Creating a safe culture keeps everyone safe - speak with your manager about PPE breaches.

## Monitor for symptoms at home



Always err on the side of caution, if you have even the mildest symptoms get tested.

## Use correct PPE & know how to don and doff



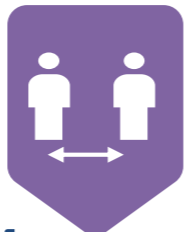
Follow the guidelines on PPE use including the correct way of donning and doffing PPE, always doff with a co-worker watching you so they can help guide you

## Understand Zones



Zones are used in the workplace to help guide you on PPE use and for you to understand levels of risk.

## Physical distance at work



Always keep 1.5 metres apart from your co-workers.

## Avoid touching face



Avoid touching face, eyes, nose or mouth during your shift.

## Good practices after the shift



Wash uniforms and washable aprons in a separate hot washing load if done at home. Shower after your shift and wipe down your mobile phone and ID after every shift.



SAFETY NOTICE

# Caring for your skin when wearing a face mask



Face masks must be worn correctly to fit

Check the mask is the correct size and fit on your face and over your ears



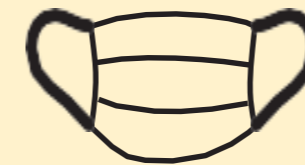
Perform hand hygiene between steps



Consider moisturising skin 30 mins before wearing face mask & allow to fully dry.



Have regular drink breaks



Remove mask every 2-4 hours for up to 15 mins



Check skin for redness/irritation and report to line supervisor



Perform hand hygiene

**Note:**

- \*Face masks are single use only.
- \*Replace when soiled, damp or after 4 hours
- \*DO NOT touch the front of the mask

SAFETY NOTICE

# Protecting facial skin under a P2/N95 respirator & eye protection



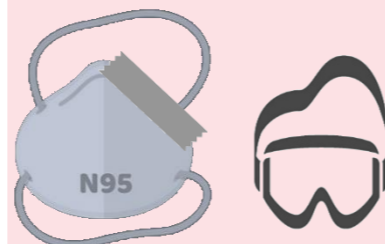
Check respirator is the correct size and fit on your face and over your ears



Perform hand hygiene between steps



Cleanse with pH balanced cleanser and moisturise skin 30 mins before shift



<sup>1</sup> Consider applying thin unwrinkled dressings to sensitive areas and recheck seal



<sup>2</sup> Remove respirator at least every 4 hours for up to 15 mins if possible. Respirator must be discarded after removal



<sup>3</sup> Recheck skin for further redness / irritation each shift and report to supervisor



Perform hand hygiene

**Note:**

P2/N95 respirators are for single use for up to 4 hrs. Replace when soiled, or damp.

DO NOT touch the front of the respirator

<sup>1</sup> Apply to nasal bridge, forehead, cheek bones & behind ears. Do not stack multiple dressings

<sup>2</sup> Do so safely outside patient areas aligning with break times. Fit-check each new respirator

<sup>3</sup> Consider referral to GP or dermatologist if severe irritation continues

# Common myths - misinformation is like a virus

## Masks with vents/ports are dangerous

- » These respirators are designed for people working with fumes/industrial chemicals/dust. The forced out air (exhaled) propels further and forcefully and is not filtered. These masks should not be used in healthcare settings. Similarly N95 with filter exhaled air is not filtered, however not expelled forcefully. Therefore maintain physical 1.5 metre distance. Wearing a surgical mask/respirator does not substitute physical distancing.

## Surviving COVID-19 does not make you immune

- » Limited studies have shown immunity after infection may last for few months. Current studies are underway to explore further

## Those immunised against TB ( BCG) are more likely not to get COVID-19

There is no evidence that the BCG vaccine protects people against infection with COVID-19. Few trials are underway

# Common myths - misinformation is like a virus

## Suction units may transmit COVID-19 via exhaust

- » Suction units can be used for suctioning patients with COVID-19 or bacterial infection
- » Canisters have mechanisms that are designed to safely contain patient fluids and units are fitted with bacterial filters.
- » Exhaust from the suction units is not an aerosol unless the canister is contaminated with fluids (causes of contamination- overfilling the canister, improper positioning, or damage). Change canister liners/or dispose after each patient or follow manufacturers instructions.
- » COVID-19 viral size is between 0.06um and 0.14 um in diameter. COVID-19 is predominately transmitted via droplets of between 5-10um in size. P2 & N95 masks filter over 94% & 95% respectively

# Common myths - misinformation is like a virus

## Why can't we let herd immunity take control

- » Many studies are in progress to try and understand the pathogenesis of COVID-19. At present the aim is to control epidemics by implementing infection control strategies to drive the  $R_0$  (basic reproductive number) to less than 1, until a suitable and approved vaccine is developed. (Herd immunity concept-Sweden)
- » **Surviving COVID-19 does not make you immune**
- » Limited studies have shown immunity after infection may last for few months. Current studies are underway to explore further
- » **Once a COVID patient always a patient**
- » Once cleared or tested negative as per DHHS clearance guidelines, the person is declared recovered. The person develops immunity or antibodies against COVID-19 and they cannot transmit the disease

## Common myths - misinformation is like a virus

- » **Having malaria makes one immune**
- » Chloroquine or Hydroxy Chloroquine is being used to treat COVID-19, which is an anti-malarial drug. No evidence yet in this regard to support this treatment plan.
- » **If water supply is contaminated with COVID-19 the entire community will be infected**
- » No evidence that the virus can spread through the water supply. All water supply is treated with chlorine based chemicals that kills all virus and bacteria

# Common myths - misinformation is like a virus

## Is Nurofen associated with increased severity to COVID-19 infection?

- » World Health Organisation (WHO) once published direct link between Nurofen and COVID-19 and has since retracted that claim. Australian TGA have stated; “*there is no published peer-reviewed scientific evidence to support a direct link between use of ibuprofen and more severe infection with COVID-19*”

# Common myths - misinformation is like a virus

## **Having COVID-19 could trigger a heart attack and cause permanent damage to the heart.**

Common cardiac complications we are know are arrhythmias. COVIDI-19 may damage heart muscles or worsen pre-existing heart disease and may complicate to cause heart attack., though this has not been directly linked. A few studies are testing this theory. The virus causes inflammation resulting in coronary plaques to rupture and blot block clots.



# Common myths - misinformation is like a virus

## **People with diabetes are at greater risk of catching COVID-19.**

Hyperglycaemia may affect immune system

Hyperglycaemia may affect and cause slow wound healing affecting flow of blood. Hyperglycaemia cause inflammation and body reacts to the inflammation and affect response to SARS-Cov-2 immune response

# Common myths - misinformation is like a virus

**The virus attaches to hair and clothes, and can remain in the air for hours, but it can be deactivated with sunlight.**

COVID-19 is spread via droplets. A study found virus may survive on surfaces for up to 72hours on average.

Staff are recommended to practice good self hygiene. There is a common reasoning that SARS-CoV-2 is killed by UV light however no data on this research ; therefore wash your uniform in warm to cycle after every shift.

# Common myths - misinformation is like a virus

## Is COVID-19 a bioweapon

- » Coronavirus epidemics have occurred 3 times in the past 20 yrs, 2003 (SARS), 2012 (Mers-Cov) and COVID-19. COVID-19 existed in animals and is always a risk when people come in close contact with them, and worse - those who hunt animals for meat
- » **Are people taking ACE inhibitors more at risk of COVID-19?**
- » e.g. Perindopril, Captopril Lisinopril. Current studies are underway to explore the relationship between ACE-2 receptors in humans and COVID-19 infection. Older person with HTN appear to be more at risk of COVID-19, however this area of study is not yet fully understood.

# Common myths - misinformation is like a virus

**Coronavirus remains in the throat for 2–3 days, so drinking hot liquids will wash the virus into your stomach before it reaches your lungs.**

**Your thought?**

# Common myths - misinformation is like a virus

**You can catch the virus through urine and faeces**

**Your thought?**

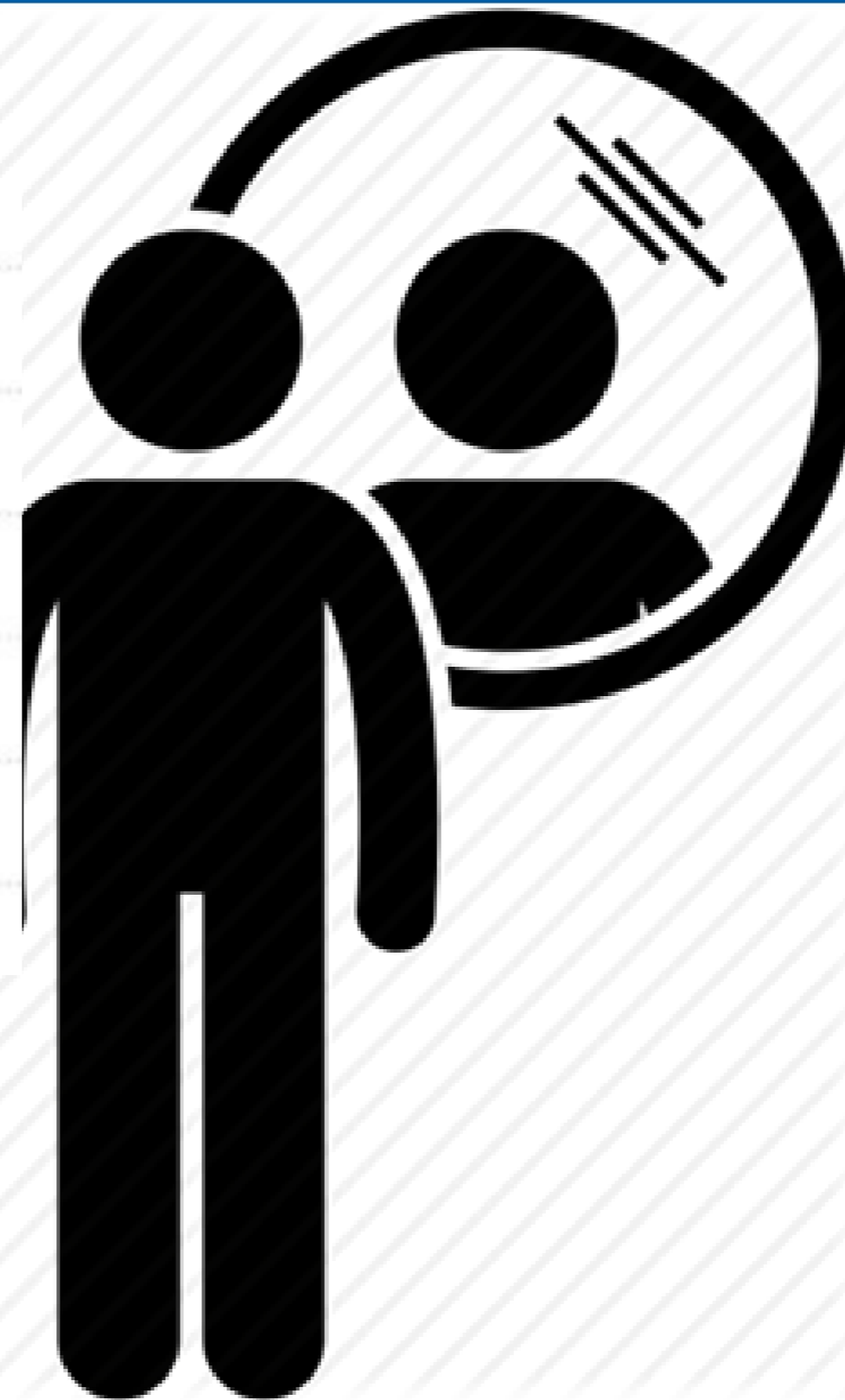
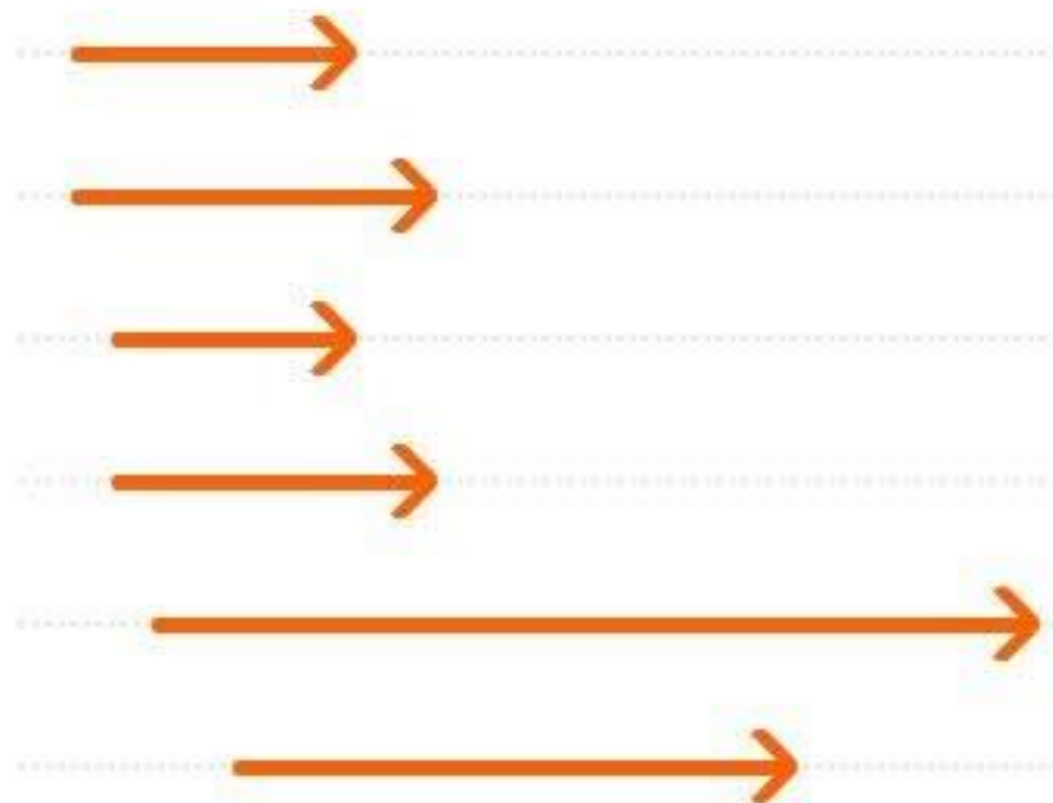
# Common myths - misinformation is like a virus

**Home remedies for boosting the immune system will protect against COVID-19**

**Your thought?**



Despair  
Confusion  
Fear  
Anger  
Boredom  
Loneliness



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