

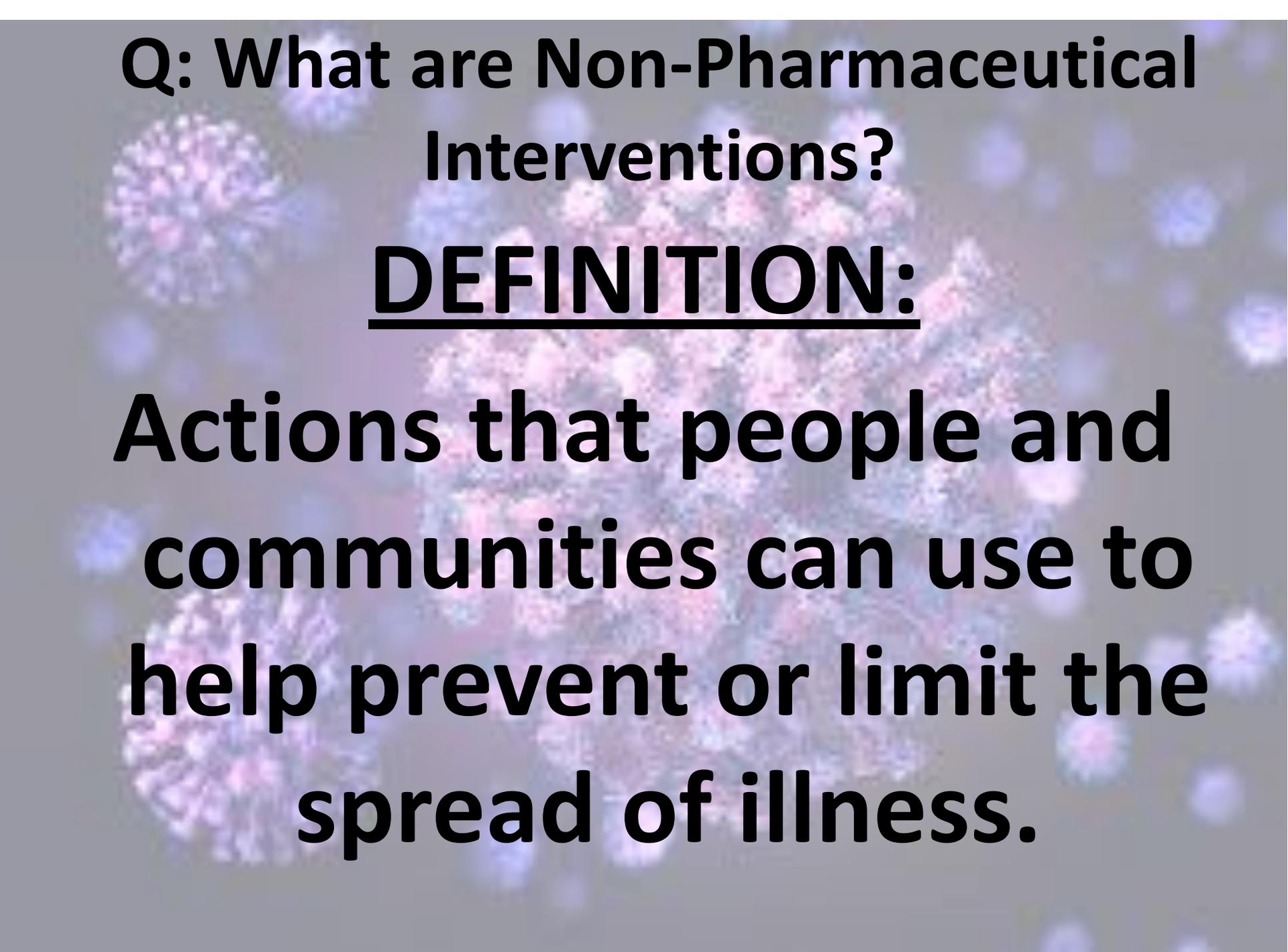
COVID-19 NON-PHARMACEUTICAL INTERVENTIONS

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INTRODUCTION

- The COVID-19 pandemic remains a health challenge of humanitarian proportion
- Devastating effects of COVID-19 is evidenced globally across all sectors- particularly health and economic sectors
 - Globally as of 28 January 2021:
 - **100,455,529** COVID-19 confirmed cases reported and
 - **2,166,440** deaths reported (WHO, 2021)
- Measures to combat COVID-19:
 - Minor: Pharmaceutical interventions (diagnostics, therapeutics and vaccines)
 - Major: Non-pharmaceutical interventions



Q: What are Non-Pharmaceutical Interventions?

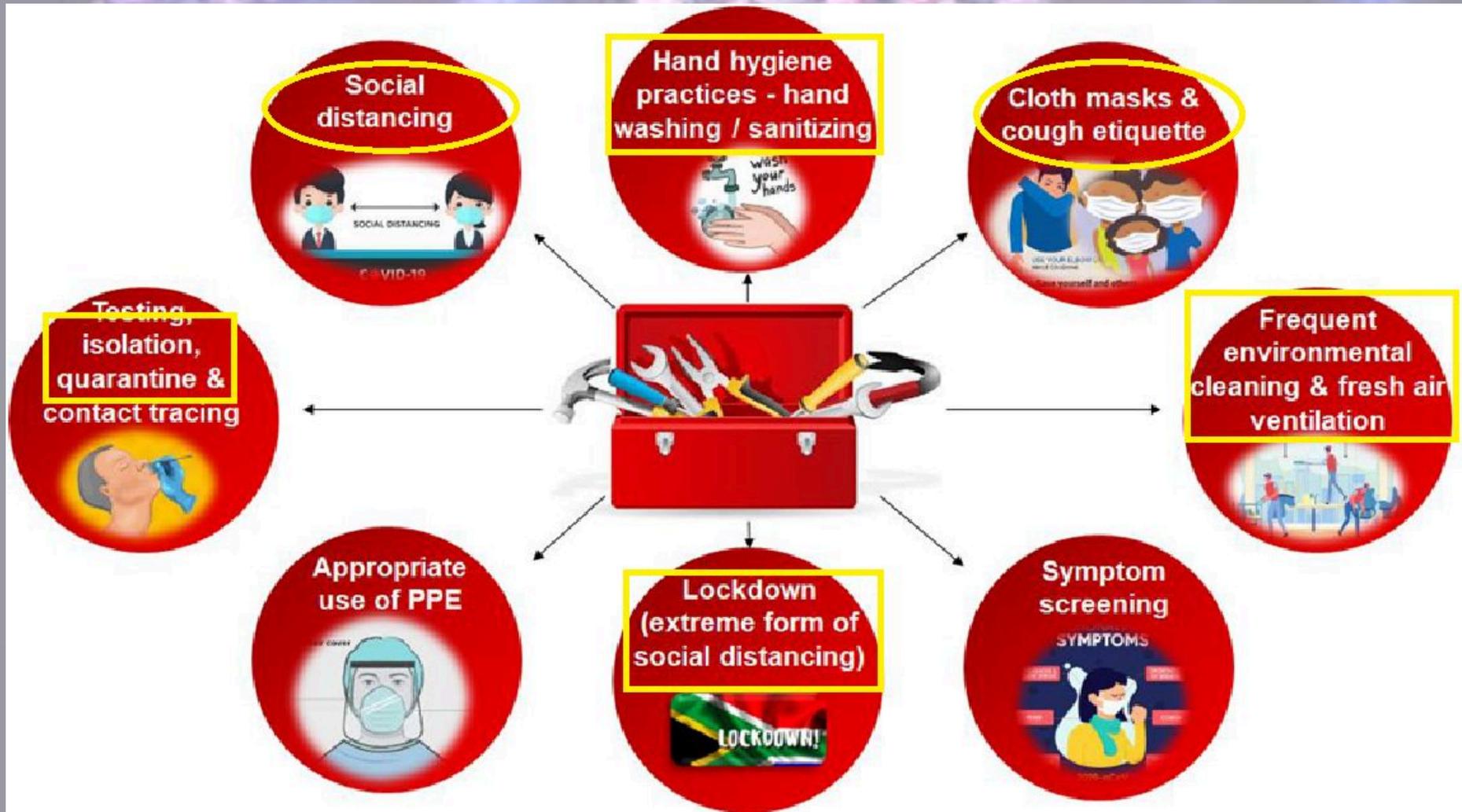
DEFINITION:

Actions that people and communities can use to help prevent or limit the spread of illness.

10 lessons from HIV for the Covid-19 response

1. Centrality of scientific evidence in the response
2. Leaders need to be consistent role models
3. Know your epidemic – Know your response
4. Testing - value of a rapid point-of-care diagnostic
5. Importance of mutual interdependence
6. Prevention toolbox essential
7. Challenge of behaviour change
8. Community engagement
9. Addressing gender inequity
10. Striving for Universal Health Care

Essential Prevention Toolbox



LOCKDOWN

- DEFINITION- enforced compulsory social distancing to break the chain of transmission in communities
 - **THE SOUTH AFRICAN CASE:**
 - Primary case/ Patient zero was an individual returning from Italy-diagnosed on 5 March 2020
- Within 18 days- 1 case had increased to 402 cases
- Lockdown Implementation- Doubling Time = 2 days
 - 1170 cases identified
 -**Time****Time**
 -**Time**
- By 30 April -Doubling Time was 15 days
 - 5647 cases and 103 deaths in total

LOCKDOWN ADVANTAGES

- The purpose of a lockdown to reduce the number of people each confirmed case infects (Sault, 2020)
 - Trying to decrease reproduction (R) to <1 i.e. each case infecting fewer than one other person, on average
- **Does evidence support their use? YES**
- China, Germany and Spain, noted a fall in infections after implementing lockdown
- China- study showed that doubling time increased from 2 to 4 days
- Italy-200,000 hospital admissions were prevented and virus transmission reduced by 45%

LOCKDOWN DISADVANTAGES

- Unable to eliminate COVID-19 completely – second wave happens due to restriction fatigue
- Economic downturn- hugely damaging to the economy with some countries going into recession
 - Businesses closing down, High unemployment and related poverty increasing
- Disruptions to the Education System
 - School time lost – particularly affecting the poor more
 - Long term effects-reduced schooling has been shown to decrease average earnings into mid-life by 1.9% for women and 3.2% for men
 - Major national exams postponed or cancelled

LOCKDOWN DISADVANTAGES

- Poorer Mental Health
 - Levels of depression and anxiety have reportedly risen linked to
 - Dealing with the physical threat of Covid-19
 - Feelings of isolation brought on by lockdown
 - Distance from support networks of family and friends
 - Uncertainty of future and further restrictions
- Sense of Freedom and Democracy Violation
 - Such government control can be scary and confusing
 - Freedom of movement restricted –travelling banned
 - Individuals may feel that their rights are being violated

PUBLIC MASK WEARING

- On 13 July 2020 in media briefing Minister of Justice and Correctional Services announced that it was a criminal offence not to wear a mask in a public space nationally
- Mask wearing was also mandatory
 - While using, operating or performing any service on public transport
 - Upon entering any building, place or premise

MASK ADVANTAGES

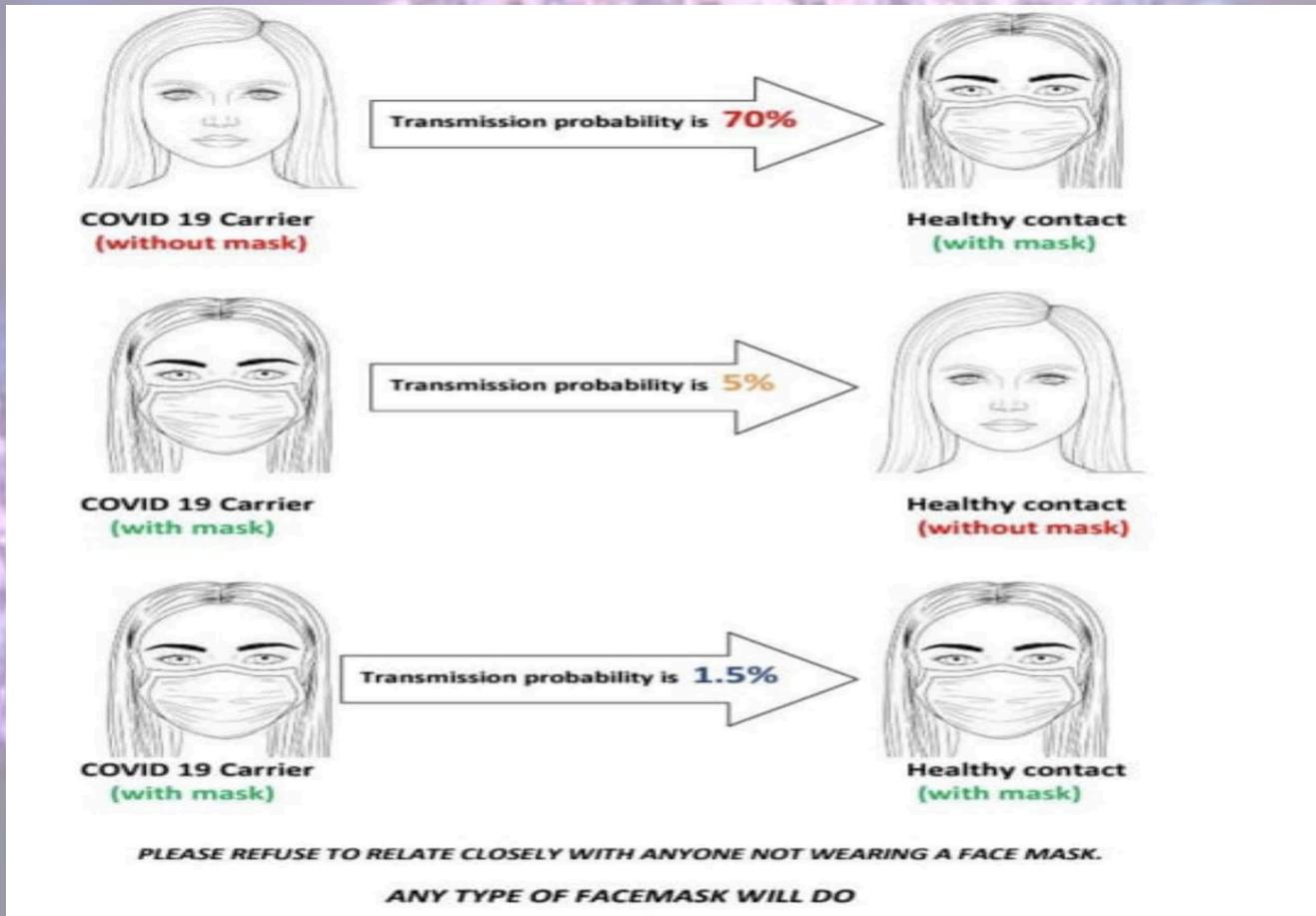
- Wearing a face mask helps prevent the spread of infection
 - When someone coughs, talks, sneezes they could release germs into the air that may infect others nearby. Face masks prevent individuals from contracting any airborne infectious germs.
 - Are part of an infection control strategy to eliminate cross-contamination.

MASK ADVANTAGES

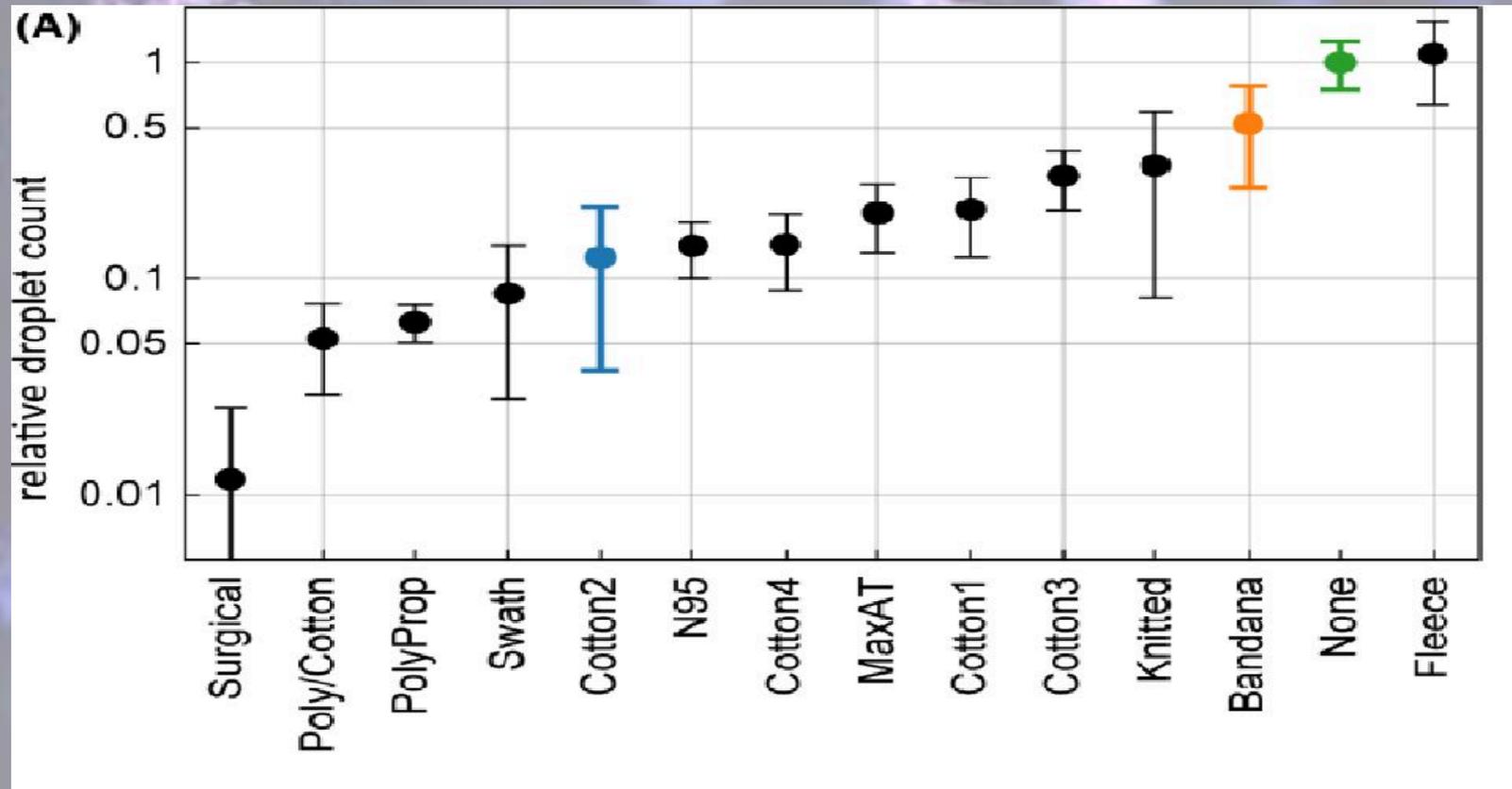
- **Does evidence support their use? YES**
- June 2020, 2 hairstylists in USA wearing double-layered cotton or surgical mask tested positive for COVID-19. Their HH contacts were infected, but all clients were spared
- At Black Lives Matter protests in the US, most attendees wore masks.
 - Events did not trigger spikes in infections,
 - BUT corona virus ran rampant at a Georgia summer camp, where children in attendance were not required to wear face coverings
- A study across 196 countries showed that- Weekly increases in mortality due to COVID-19 were four times lower in places where masks were the norm or recommended

MASK ADVANTAGES

- Optimal protection is ensured when all individuals in public are wearing masks, but benefits even present in partial compliance



EFFECTIVENESS OF CLOTH MASKS



Source: Fischer et al, 2020

- Droplet transmission through masks- Study showed that this differed according to what the mask is made of with surgical being most effective and fleece masks being even less effective than not wearing any mask at all

MASK DISADVANTAGES

- If there is a limited supply of (N95, surgical) masks, they should be reserved for health care workers
- Can lead to Maskne = A skin condition brought on by prolonged wear of facial personal protective equipment.
 - Masks impose heat, friction and occlusion on the skin and when combined with a moist environment from breathing, talking or sweating, this is a recipe for breakouts. Pores get clogged and can become pimples or acne cysts.
 - Prevention entails choosing a breathable mask, washing masks regularly with perfume-free detergent, using less make-up, cleansing skin morning and night, using light moisturiser

WASHING & SANITISING HANDS

- The Centre of Disease Control recommends washing hands with soap and water whenever possible because it reduces the amount of many types of germs and chemicals on hands.
- If soap and water are not readily available, using a hand sanitizer with at least 60% alcohol can help you avoid getting sick and spreading germs , including COVID-19, to others.

HAND HYGIENE ADVANTAGES

- **Does evidence support its use? YES**
- Research shows that hand washing is not just effective in preventing transmission of coronavirus
- MIT study found that if 60% of travelers moving through airports worldwide had clean hands, global disease spread could be curbed by almost 70%
 - They further showed that if this rate could be maintained in only 10 of the busiest airports internationally, an astounding 37% of infections could be prevented.
- Research has also shown that hand washing can prevent about 20% of [respiratory infections](#). and 30% of diarrhoea-related sicknesses and about

DISADVANTAGES

- Repeated hand washing and sanitising
 - Skin loses moisture, and the protective layer is stripped away- can dry out the skin
 - Higher likelihood of cases of irritant contact dermatitis (ICD) among hospital clinicians
- Sanitizers- are flammable so have a fire hazard
 - Do not leave in closed cars on hot sunny days
- Frequent use of hand sanitizer
 - Alcohol-based **hand sanitizers** can wash away your skin's natural oils, which can cause drying and cracking
 - Can weaken bond between artificial nail overlays and nail bed thus removing gel/acrylic/silk overlays

SOCIAL DISTANCING, SELF-ISOLATION AND QUARANTINE

- Social distancing = the practice of maintaining a greater than usual physical distance (of 1m to 2m) from other people and avoiding direct contact with people
- Why? COVID-19 spreads when an infected person coughs, sneezes, or talks, and droplets from their mouth or nose are launched into the air and land in the mouths or noses of people nearby. Therefore, social distancing prevents this.

SELF-ISOLATION

- Self Isolation= voluntary act of home-based quarantine by any person who might or might not have been exposed to COVID-19 to contain the possible spread of COVID-19
- People with no COVID-19 symptoms , but who tested positive must remain in self-isolation for 10 days after they get their test results.
- People who have a mild case of COVID-19 need to isolate for 10 days from the day their symptoms start. (The recommendation was initially self-isolation for 14 days).
- People who have a severe COVID-19 infection should they end their self-isolation 10 days after they have been declared clinically stable (and not 10 days after symptoms started as in with mild cases of COVID-19). In other words, 10 days after they are no longer on any oxygen supplementation.
- SCIENTIFIC BASIS- The COVID 19 infection continue to shed the virus from their upper airways for approximately 7 to 12 days

QUARANTINE

- Quarantine= the separation and restriction of movement or activities of persons who are not ill but who are believed to have been exposed to infection, for the purpose of preventing transmission of diseases. Persons are usually quarantined in their homes, but they may also be quarantined in community-based facilities.
- Self- Quarantine- People who have had close contact with a COVID-19 positive person but not yet developed symptoms or tested positive, should self-quarantine for 14 days

ADVANTAGES OF ALL TYPES OF PHYSICAL DISTANCING

- **Does evidence support their use? YES & NO**
- Chu (2020) showed that social distancing was associated with a large reduction in infection with coronaviruses at distances of at least 1 metre, and may be more effective at 2 metres
- Jefferson et al (2020) found that there was insufficient evidence to support social distancing measures to prevent transmission of respiratory viruses
- Fong (2018) found limited evidence that social distancing measures reduced transmission in influenza pandemics
- **SOCIAL DISTANCING IS EFFECTIVE WHEN USED IN CONJUNCTION WITH OTHER NPI MEASURES**

THE ROLE OF INEQUALITY IN THE SUCCESS OF NPIs DURING THE PANDEMIC

- Effectiveness of NPIs is dependent on how effectively individuals are able to correctly adhere to them
- Socio-economic inequality dynamics:
 - Lockdown enforced BUT many poor South Africans live in homes with high HH numbers
 - Individuals were returning to work even during lockdown in order to continue earning an income to survive
 - Many areas in South Africa have not had a steady supply of water for decades (hand washing compromised)
 - Many South Africans live in crowded areas where social distancing is impossible

THE ROLE OF INEQUALITY IN THE SUCCESS OF NPIs DURING THE PANDEMIC

- Gender inequality dynamics:
 - Although the coronavirus occurred higher among men initially this quickly changed
 - Women in South Africa make up a significant proportion of the essential working force
 - Not going to work (thus being exposed) is not an option
 - Women are also primary care givers in the home
 - Would be exposed to anyone who contracts coronavirus and brings it in the home
 - Impossible to maintain physical distancing if they need to care for and feed the sick
 - Thus levels of infection are higher among women currently in South Africa

BEHAVIOURAL CHANGE CHALLENGES

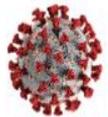
- There is always a challenge in sustaining behaviour change
- Covid-19 fatigue eventually causes non-compliance
- This would lead to a second wave
- Same thing happened during the Spanish flu outbreak in the 1800s
- Additionally, many NPIs require us to behave in ways that we are not traditionally used to as people in Africa
 - As Africans we are incredibly social beings- lockdown restricted this heavily
 - We do not shy away from physical contact –social distancing and recommendations against hand shaking and hugging hamper this
 - Masks limit our ability to communicate and converse freely
 - A national hand hygiene behaviour strategy estimated that only 20% of South Africans washed their hands with soap at critical times such as before, during and after preparing food, after going to the toilet, after sneezing or coughing, after touching animals, after changing nappies of babies, and after caring for an ill person.

CONCLUSION

- Going forward- It is important for advisory teams to consist of the health experts AS WELL AS the social science experts –who understand human behaviour
- An approach that is people-centred is required
- Where individuals are equipped and motivated to support each other in safe practices collectively
- Such practices should be emphasised using concepts and values that local communities already understand e.g. Umuntu ngumuntu ngabantu

CONCLUSION

Importance of mutual interdependence in Covid-19



*Initial -
government
action*



Anxiety

**Institutional
power
over people**
Stay-at-home
orders /
Lockdown

*Pivot –
prevention
approach*



Agency

**Individuals
power within
people**
Public health
interventions

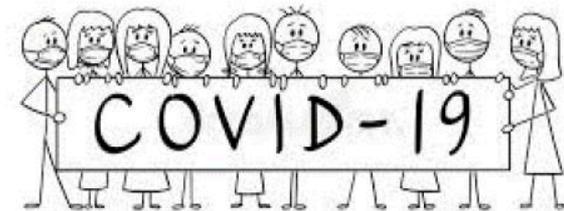
*Subsequent -
Individual
action*



Self-efficacy

**Motivated
individuals
power to
act for
prevention**

*To reach –
collective
community action*



Collectivism

**Motivated communities
power for collective action**

Ubuntu
“I am, because you are”

COVAX

THANK YOU

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