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Table 1

Myths related to COVID-19 infection (Compiled from various sources: WHO website, newspaper articles).

Serial no	Myths	Assumptions based on the myth	Truth/reality evidence	Remarks/message needs to be delivered to public
Related to the prevention of COVID-19 infection				
1	Eating garlic, turmeric, and/or lemon (and other foods commonly used as home remedies for flu and the common cold) can help prevent Covid-19 infection.	Garlic and turmeric have antimicrobial properties. Vitamin C is an essential vitamin that can support immune function.	No evidence in the form of a DB RCT from the current outbreak that garlic or lemon (or vitamin c rich foods) can protect someone from getting COVID-19 infection	Most of the Indians use garlic, turmeric, and lemon in their daily foods. No additional benefit is ensured if taken in excess amounts. The government and Ayush advisory mention these to be useful to improve immunity, not as preventive strategies.
2	Regularly rinsing with salt water or saline can help prevent COVID-19 infection.	The virus dies in salty water.	No evidence that regularly gargling has protected people from COVID-19 infection.	While this strategy may help soothe a sore throat due to any flu-like infection, however, this practice will not prevent anybody from developing

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				COVID-19 infection if exposed to the same.
3.	Drinking warm water and getting enough sunlight are effective in preventing COVID-19.	Heat or warm fluids kill the virus.	No evidence that the nCoV-SARS virus can be killed at higher temperatures.	Drinking warm water and getting enough sunlight may have other health benefits. Sunlight is good to get Vitamin D, which has a role in modulating the innate and adaptive immune responses. But too much exposure to sunlight may also lead to sunburn.
4.	Taking a hot bath can prevent COVID-19 disease.	Heat kills the virus.	Taking a hot bath will not prevent you from contracting COVID-19.	Taking a hot bath with extremely hot water can be harmful, as it can cause burns to the body.
5.	The COVID-19 infection cannot be transmitted in areas with hot and humid climates.	Heat kills the virus.	The COVID-19 virus can be transmitted in all areas, including areas with hot and humid weather.	Only infection control measures and adequate hand hygiene can prevent the infection

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6.	Hand dryers are effective in killing the novel coronavirus.	Heat kills the virus	No evidence	Only infection control measures and adequate hand hygiene can prevent the infection
7.	Spraying alcohol or chlorine all over your body can kill the COVID-19 virus.	Since alcohol is used in sanitizers and chlorine is used in hypochlorite solutions, it can be used to kill the virus from the body by applying it all over.	Spraying alcohol or chlorine all over your body will not kill viruses that have already entered the body.	Spraying such substances can be harmful to clothes or mucous membranes (i.e., eyes, mouth). Both are used to disinfect surfaces, but they need to be used in appropriate proportion/quantities under appropriate recommendations
8.	Sniffing/inhaling alcohol can protect from developing the COVID-19 infection.	Alcohol can kill any virus which has entered the respiratory tract.		No evidence for the protective effect of alcohol inhalation against COVID-19 infection
9.	Vaccines against pneumonia can protect you against the COVID-19 infection.		Vaccines against pneumonia, such as pneumococcal vaccine and Haemophilus influenza Type B	Researchers across the world are trying to develop a vaccine against COVID-19.

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vaccine, do not
protect against the
novel coronavirus.

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| 10. | Wearing a mask or N95 mask can only prevent the transmission of COVID-19. | Masks protect from inhaling the virus-laden air | There is evidence that masks can prevent an asymptomatic patient of COVID-19 from spreading the virus. | Only masks won't help, but proper and adequate infection control measures, social distancing, appropriate use of masks, and hand hygiene is the best possible solution to prevent getting infected. |
| 11. | Drinking alcohol can cure COVID-19. | Alcohol is present in alcohol sanitizers which kills the virus, therefore consuming alcohol can cure/prevent getting the infection. | No evidence to suggest that alcohol intake can protect from getting infected. In fact, alcohol use and subsequent intoxication can affect the social distancing norms, impair hand hygiene, and other infection control measures, and pose an imminent risk of contracting the infection. | Alcohol intake should be reduced or avoided to follow the infection control measures and social distancing |

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| 12. | Using cow dung and cow's urine can cure the virus. | Cow's urine is the most sacred thing on Earth, and it can purify one's body from all types of infection. | No evidence | No evidence to suggest that of cow's urine in the treatment or prevention of COVID-19. |
| 13. | Religious chants can protect from the virus/
Clapping hands creates vibrations that destroy the coronavirus | Clapping hands creates sound waves, and the sound produced is sensed through the vibrations of our eardrums, which then creates oscillations in the fluid in our inner ear and increases our ability to fight with the virus. | No evidence regarding this. The vibration created by chanting would not even be sensed by something as small as a virus. | Chanting and religious discourses with clapping hands can be an effective coping skill to combat stress and anxiety related to COVID-19. It boosts up the mood and calms the mind. |

COVID-19 Infection Transmission

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1	The new coronavirus can be transmitted through mosquito bite.	—	No evidence that mosquitoes can transmit the COVID-19 infection.	No need to worry about the relationship between mosquito bites and developing the COVID-19 infection.
2	Pets at home can spread the COVID-19 virus.	Animals spread the COVID-19 as it was detected in the China meat market.	At present, there is no evidence that pets can transmit the COVID-19 infection.	No need to worry about the disease being transmitted by pets
3	Non-vegetarian food (meat/eggs/fish/chicken) consumption can lead to infection	Meat consumption had spread the COVID-19 as it was detected in the China meat market.	No evidence to suggest that the COVID-19 can be transmitted by eating properly cooked non-vegetarian foods	No need to worry. People can safely consume all types of properly cooked non-vegetarian products
4	Donating blood can result in acquiring COVID-19 infection.	Donating blood can reduce the immune system, and one gets more vulnerable	No evidence that COVID-19 can be transmitted by blood donation	COVID-19 period should not be a barrier to blood donation. Any healthy person can donate blood.

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		to contract the infection.		
5	You would be at risk if someone infected in housing complex/neighborhood	The virus spreads in the entire air, and all around the infected person can be infected.	The real fact is that one cannot get infected if he/she maintains a two-meter distance from the infected patient, wears a mask, and avoids touching contaminated things. Practicing adequate hand hygiene and infection control measures can prevent from getting infected.	The public should be empathetic towards the patients with COVID-19 or people suspected of having COVID-19 and under home isolation/ quarantine. Maintaining adequate distance and infection control measures can help them in reducing the risk of getting infected.
6	Ordering or buying products shipped from overseas will make a person sick.	Fomite transmission	As per the WHO, the likelihood of becoming infected with COVID-19 from a commercial package is low since it has likely traveled over several days and had been exposed to different temperatures	The potential risk of getting infected from overseas products is minimal /negligible.

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			and conditions during transit.	
7	Newspapers, milk packets, and vegetables can transmit the infection.	Virus remains on newspapers and milk packets for a long time	No evidence of newspapers being potential carriers of COVID-19 had been proved. There is no risk of contracting the illness through newspapers or any packages, and no current data/research suggests that the virus can survive on paper for long hours. Following the hand hygiene measures, while touching the milk packet, may be sufficient to avoid the development of COVID-19 infection.	No need to panic and avoid buying newspapers/milk products/vegetables. Practice hand hygiene measures to prevent from getting infected.
8	COVID-19 infection can be transmitted from the mother to the child/fetus	Pregnant females are at the highest risk of transmitting the infection to	To date, there is no data (as per WHO), to the effect that a pregnant female with COVID-19 can pass	The public needs to be reassured that pregnancy and childbirth are safe, and the same precautions are to be taken by pregnant

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	during the process of birth/delivery or pregnancy	baby/fetus during pregnancy or during childbirth.	the virus to her fetus or baby during pregnancy or process of childbirth. The active virus has not yet been found in samples of amniotic fluid.	women as the general population.
9	Pregnant women with suspected or confirmed COVID-19 need to give birth by cesarean section (CS) only.	Virus can spread through normal vaginal delivery.	The WHO clearly advises that CS should only be performed when medically indicated/justified. The mode of birth should be individualized and based on a woman's preferences alongside obstetric indications.	CS should not be asked unless indicated by the treating obstetrician.
10	If pregnancy occurs, there is a high risk of miscarriage, abortion, or congenital malformations due to COVID-19.	Pregnancy is risky during COVID times.	There is currently no evidence to support that acquiring COVID-19 predisposes to a heightened risk of miscarriage. There is also no reported	No need to worry if one gets pregnant during COVID-19 pandemic.

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evidence to suggest that the virus will cause any problem with fetal development. Although some reports of preterm delivery and neonatal pneumonia have been reported, however currently the adverse pregnancy outcomes in few reports cannot be attributed to COVID-19 only.

11	COVID-19 infection can be transmitted through breast milk to the newborn/breastfeeding.	Breast milk can carry the virus to the baby.	Till date (as per WHO), the virus has not been detected in the breast milk of any mother with confirmed or suspected COVID-19 infection. Researchers are continuing to test breast milk from COVID-19 mothers.	It is very unlikely that breastfeeding can spread the virus. Breast milk in all settings improves survival and provides lifelong advantages to newborns. Following delivery, the WHO recommends that the baby needs to be provided with skin-to-skin care, including kangaroo care with adequate respiratory hygiene and hand hygiene
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				measures and breastfeeding the baby.
12	All health care workers (HCWs) are a potential source of COVID-19 infection.	HCWs are exposed to patients with COVID-19 infection.	HCWs are regarded as the front line warriors for tackling with COVID-19 infection. They are well-equipped with personal protective equipments (PPEs), which protect them against contracting COVID-19 infection.	There is an urgent need to create awareness in the general public that HCWs take all safety measures to protect themselves from getting infected. There is no need to worry or to panic when they come near any HCWs.
13	Someone without symptoms cannot spread the infection.	Respiratory symptoms are mandatory to be present to spread the virus.	About 90 % of the patients with confirmed COVID - 19 infection are asymptomatic and hence are potential carriers of virus.	Most of the patients are asymptomatic and can spread the disease, so adequate social distancing and hand hygiene measures to be taken when dealing with a suspected COVID-19 person.
14	All those who been quarantined because of travel history had	Foreigners or Indians who had recently returned from abroad had	The COVID-19 infection gradually spread across the World since its	Quarantine means under observation. Therefore, those who had returned from abroad are kept under

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	developed the COVID-19 infection.	spread the COVID-19 infection.	outbreak in China to almost all countries. However, it is not true that anyone who has a positive travel history to abroad is harboring COVID-19 infection.	quarantine to check for any development of symptoms to detect for COVID-19. This does not mean that they are already infected with COVID-19.
15	Someone who has recovered from COVID-19 infection can still spread the infection.	Once a COVID-19 patient always a patient, i.e., a patient carries the virus even if recovered.	Once recovered or tested negative as per WHO (RT-PCR) viral testing, the person is declared recovered i.e., he/she is immune to the infection and has developed immunity or antibodies against the COVID-19 and therefore, they are absolutely safe, and they cannot transmit the infection.	The public should be made aware that those recovered do not carry the virus potential for infection and must be accepted back in the community with due respect.
16	Unprotected sexual intercourse can lead to	Sexual intercourse can spread the virus.	Unprotected sexual intercourse with a steady partner with no contact history who is	Sexual intercourse with a steady partner with no contact history does not pose any risk of infection.

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spreading of COVID-19
infection.

not known to be
infected with
COVID-19 poses no
risk of transmission
of COVID-19. To
date, the virus had
been detected in only
a few cases in the
seminal fluid of
infected persons.

However, sexual
intercourse with unknown
people should be avoided
as their COVID-19 status
cannot be confirmed

COVID-19 infection-related myths

1	COVID-19 affects only older people.	More deaths reported in elderly worldwide	The new coronavirus can infect people of all ages. Older people and people with pre- existing medical conditions (such as asthma, diabetes, and cardiovascular diseases) are more vulnerable to acquiring infection due to poor immunity.	WHO advises people of all ages to take all adequate steps to protect themselves from the virus (good hand hygiene and good respiratory hygiene)
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2.	People who get the coronavirus/COVID-19 will die.	Nature is trying to revive, and COVID-19 is Nature's or God's way to reduce population.	About 80–90% of persons infected with COVID-19 are asymptomatic or have milder flu symptoms, and the death rate is below 2%.	Not to panic or get afraid if you are infected with COVID-19. In most of instances, it will be a milder form of flu-like illness. The HCWs will take appropriate measures if the condition worsens (which is seen in 8–10% cases), mostly in those with pre-existing chronic medical illnesses.
3.	The Indian Immune system is better than the West, and thus, Indians will survive Covid-19 infection better.	Indians have a good diet and more robust and hard-working so COVID-19 can't affect us.	No such comparative data on the immune system of Indians Vs. West is available.	Need to consider that people of all ages, of all races and ethnicity, are equally prone to contract the COVID-19 infection
4.	COVID-19 can be treated by colloidal silver, vitamins, teas, and essential oils.	These materials have anti-bactericidal and anti-viral properties.	No evidence for any special role for colloidal silver, vitamins, teas, and essential oils in dealing with COVID-19.	Not to follow/believe any such procedures or unless approved by the National and International Health authorities.

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5.	Having had 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. If this was true, then considering India to be the Malaria capital of the World should have low case load, which is untrue.	People should take adequate measures to remain protected from getting infected by malaria as well as COVID-19.
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6.	Anti-bacterial drugs are effective for therapy of COVID-19	–	COVID-19 is a viral infection; therefore anti-bacterial agents are not effective for treating COVID-19 but are useful for treating secondary bacterial infections.	No need to stock/ pile antibiotics and always use antibiotics rationally and only when advised by a medical practitioner.
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Miscellaneous

1.	Hand sanitizers are better than soap and water.	Alcohol-based sanitizers are the most potent disinfectants.	Hand hygiene measures by either alcohol sanitizers or soap and water are equally effective in	No need to buy hand sanitizers or hoard sanitizers. Simple soap and water is an equally effective strategy that can be followed.
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			protecting one from getting infected.	
2.	Thermal scanners can detect COVID-19	–	Thermal scanners can only detect fever, which is one of the usual symptoms of COVID-19, but a person infected with COVID-19 may take 2–10 days after infection to develop fever.	Not 100 % effective screening method.
3.	If the public water supply is contaminated with COVID-19, the entire community will be infected.	--	No evidence that the virus can spread through the water supply. In fact, the treatment in water facilities/ having a good shower can protect from getting infected.	No need to believe in this myth.
4.	Those immunized with BCG are more likely not to get COVID-19 infection	BCG vaccine improves	There is no evidence that the BCG vaccine protects people against infection with	BCG Vaccination prevents severe forms of Tuberculosis. In the absence of evidence

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		immunity against all infections.	COVID-19. WHO to date has not recommended BCG vaccination for prevention of COVID-19, few trials are underway though.	regarding any efficacy of BCG in COVID-19, people should refrain from believing the BCG vaccine is protective against COVID-19. It can lead to a false sense of security and hence should not be believed unless proved.
5.	No vaccine can be developed against COVID-19 infection.	God has sent COVID-19 as a declaration suggesting the end of the human race.	Researchers are actively engaged in developing a vaccine against COVID-19. However, clinical trials on a vaccine for COVID-19 may take a long time (months) to reach definite results.	The public needs to keep patience and to wait until any news about the vaccine is published by trustworthy websites/news or declared by the WHO. Refrain from believing on any random news about the vaccine being discovered

DB RCT – Double blind Randomised controlled trial.